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Liikennevirasto

FTA's Transport Infrastructure Data

3/2017

# Finnish Railway Network Statement 2019



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Finnish Transport Agency 3/2017

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Helsinki 2017

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Finnish Transport Agency  
P.O. Box 33  
FI-00521 Helsinki, Finland  
Tel. +358 (0)29 534 3000

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## Foreword

In compliance with the Rail Transport Act (1302/2018), the Finnish Transport Infrastructure Agency (FTIA), as the manager of the state-owned railway network, publishes the Finnish Railway Network Statement (hereinafter the Network Statement) for the timetable period 2019. The Network Statement describes the access conditions, the state-owned railway network, the rail capacity allocation process, the services supplied to railway undertakings and the principles for determining the infrastructure charge. The Network Statement is published for applicants requesting capacity for each timetable period. This Network Statement is intended for the timetable period 9 December 2018-14 December 2019.

The Network Statement 2019 has been prepared based on the previous Network Statement taking into account the feedback received from users and the Network Statements of other European Infrastructure Managers. The Network Statement 2019 is published as a PDF publication. The Finnish Transport Infrastructure Agency will update the Network Statement and will provide information about it to rail capacity allocatees and the known applicants for rail capacity in the Finnish railway network. RINF data and the Finnish Transport Infrastructure Agency's register information have been used to create a map interface including information about the characteristic features of the Finnish railway network.

The structure of the Network Statement 2019 follows the common European structure, with some exceptions to the structure of previous Network Statements, and comprises the following chapters:

1. General
2. Access conditions
3. Railway network
4. Capacity allocation
5. Services
6. Charges

The Finnish Transport Infrastructure Agency is in charge of the Network Statement. Several specialists both within and outside of the Finnish Transport Infrastructure Agency have been involved in the drafting process.

The road and rail traffic management functions and vessel traffic services were corporatised as a state-owned limited company on 1.1.2019. In future, the Finnish Transport Infrastructure Agency will procure traffic control services from the traffic control company Traffic Management Finland Ltd.

Helsinki, 9 December 2017

Finnish Transport Infrastructure Agency  
Route Operations and Information Services

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## Glossary

**Ad hoc capacity** refers to rail capacity requested for temporary, short-term and varying train paths. Example: trains operating on individual days; machinery and trains with deviating routes or stopping behaviour.

**Applicant** refers to a railway operator, a competent authority referred to in Part IV, chapter 1, section 4 of the Act on Transport Services (320/2017) and shippers, forwarders, integrated transport operators and a railway sector training institute that request rail capacity for reasons related to the provision of a public service or for commercial reasons.

**Capacity for operating regular train services** refers to rail capacity requested for regular, long-term and identical train services. Example: services required year round from Monday to Saturday or on every Tuesday and Thursday for three months.

**ENNE** is a railway traffic prediction and optimisation system.

**Infrastructure management** refers to construction, maintenance and development of tracks, structures, equipment and systems connected with them, as well as the immovable property needed for infrastructure management.

**Infrastructure Manager** refers to the Finnish Transport Infrastructure Agency or a railway infrastructure manager of a private siding, on which the Rail Transport Act (1302/2018)<sup>1</sup> is applied.

**JETI** is a system for advance information on train traffic, where the advance reports of and information on changes affecting traffic are drafted, shared and maintained. Advance plans and trackworks to be performed in the railway network are drafted and approved in this system. JETI is also used to reserve capacity on railway yards and main lines for storage of rolling stock, trials or other special needs.

**JKV** is a class B system "ATP-VR/RHK - Junankulunvalvonta (JKV)" according to appendix B to the technical specification for interoperability relating to the control-command and signalling subsystem of the trans-European conventional rail system of 28 March 2006.

**KUPLA** is an application for transmitting essential information required for driving a unit to the train driver.

**LIIKE** is the data system for rail capacity management used in Finland.

**Line with section block** is a line divided into block sections. The traffic control system ensures that a train can safely enter a block section. Only one train may occupy a block section at a time. The system of block sections allows successive trains to move between traffic operating points.

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<sup>1</sup> <https://www.finlex.fi/fi/laki/alkup/2018/20181302>

**Museum train traffic** refers to traffic operated on a small scale of the railway network by a non-profit association of museum trains. Museum train refers to rolling stock registered as a museum train on the Finnish Transport and Communications Agency Traficom's stock register.

**Museum track** refers to a track designated as a museum track by the infrastructure manager of the Finnish railway network. Before designating a museum track, the infrastructure manager shall consult the Finnish Transport and Communications Agency Traficom and the railway operators using the track in question. Only museum traffic may be operated on a museum track; no other passenger or freight traffic.

**Operating rail services** refers to the services operated by a railway undertaking, operations related to railway maintenance, traffic conducted by a museum train operator, a company or other association under private law whose main activity is some other than operating railway traffic, or the railway Infrastructure manager in the railway network.

**OSS** (One Stop Shop), through OSS customers can manage all matters concerning international railway traffic, such as access to the railway network, requesting international rail capacity or reporting on operations. Each RNE member state has its own OSS. In Finland, the OSS also functions as a point of contact in matters concerning domestic operations. The email address of the point of contact is [oss@vayla.fi](mailto:oss@vayla.fi).

**Private siding** refers to a track not managed by the Finnish Transport Infrastructure Agency.

**Rail capacity** refers to, in accordance with the Rail Transport Act (1302/2018), the potential to schedule train paths requested for an element of infrastructure for a certain period depending on the characteristic features of the railway network.

**RAILI** is an integrated railway communication service, which can be accessed with VIRVE phones and smart phones. In order to use the RAILI service on a public network smart phone, the RAPI application must be downloaded.

**Rail Traffic Management Centre** is a national rail traffic control and management service that will be made part of the traffic control company as of 1 January 2019.

**Railway network** refers to the state-owned railway network managed by the Finnish Transport Infrastructure Agency.

**Railway operator** refers to railway undertakings, railway maintenance providers, infrastructure managers operating in the railway network, and museum train operators. Other companies or associations operating in the railway network, and whose operations in the railway network are not part of their core activities, are also referred to as railway operators.

**Railway undertaking** refers to a company or other association, either public or under private law, whose main activity is to operate rail passenger or freight traffic. The company shall have an appropriate operating licence issued in the European Economic Area and it is obliged to provide traction services. Undertakings providing only traction services are also regarded as railway undertakings.

**RAPLI** is an application through which the RAILI service can be accessed with login information on smartphones in the general network.

**RATO** refers to the technical instructions for railway tracks, which include basic information on development, inspection and maintenance of a track and its equipment. RATO is based on the provisions issued by the Finnish Transport and Communications Agency Traficom. RATO is published by the Finnish Transport Infrastructure Agency<sup>2</sup>.

**RINF** is the Register of Infrastructure (RINF), which refers to the European Register of Infrastructure of the features of the European railway infrastructure. In practice, RINF is made up of national registers (NRE's). The Finnish Railway Register, NREFI RINF is made up of collected data, which, when simplified, can be divided into data on the following topics: a) railway network; b) detailed railway network, c) railway line, d) section of line, e) operational point, f) running track, g) siding

**RNE** (RailNetEurope)<sup>3</sup> is a non-profit organisation of European railway infrastructure managers and bodies allocating rail capacity. Its purpose is to promote international traffic in the European railway infrastructure. The Finnish Transport Infrastructure Agency resigned from RNE in 2014.

**RUMA** or the mobile platform for track work contractors, is an application providing and ensuring track work location data. The RUMA application is also used for messages concerning applications of permit to work and for confirming completed track work operations.

**Track work** is work carried out in the railway network that requires interruption of railway operations (in class 1 traffic control areas) or prevents a safety installation from operating at interlocking level or at the level of centralised traffic control. In class 1 traffic control areas, a permit granted by the traffic control is required for track work. The work carried out in class 2 traffic control areas is track work when the track work manager protects the track work site. In class 2 traffic control areas, the track work manager is responsible the track work and for protecting it.

**Traffic control** protects and secures operations and track works. Traffic control grants permits for track works and operations and gives notifications concerning these.

**Traffic control company** refers to the Traffic Management Finland Group, which began operations on 1 January 2019. The tasks of the traffic control company mentioned in this Network Statement primarily comprise the tasks of the Group subsidiary Finrail Ltd.

**TURI** is a data system for safety-related anomalies and risk management. Railway operators and the Finnish Transport Infrastructure Agency's service providers are expected to use this system for reporting safety-related anomalies to the Finnish Transport Infrastructure Agency.

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<sup>2</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

<sup>3</sup> <http://www.rne.eu/>

**TURO** refers to safety instructions in track maintenance. The Finnish Transport Infrastructure Agency publishes the instructions on its website <sup>4</sup>.

**VIRVE** is a network based on TETRA technology. The VIRVE network is used to produce radio communication services, which function at a level of raised security safety and preparedness, for joint use by the authorities and operators working with critical infrastructure who have been granted permission to use the network.

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<sup>4</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

# 1 General information

## 1.1 Introduction

The Finnish Transport Infrastructure Agency is a central government agency operating in the administrative branch of the Ministry of Transport and Communications. It is responsible for maintaining and developing the service level of the transport infrastructure administered by the State of Finland. The agency promotes the smooth functioning of the Finnish transport system, traffic safety, balanced regional development and sustainable development. The Finnish Transport Infrastructure Agency is the Finnish railway infrastructure management authority and the infrastructure manager of the railway network under its management.

The Network Statement is published in accordance with the Rail Transport Act (1302/2018)<sup>5</sup> and Directive 2012/34/EU<sup>6</sup> of the European Parliament and of the Council establishing a single European railway area. The Network Statement is published each timetable period.

## 1.2 Objective

The Network Statement is published for applicants requesting rail capacity. The Network Statement describes the access conditions, the state-owned railway network and its characteristic features, capacity allocation, services supplied to railway operators, and the charging principles concerning access to the railway network.

Applicants may request rail capacity for domestic freight transport, international transport within the European Economic Area, as well as for transit traffic between Finland and Russia. VR Group Ltd may operate domestic rail passenger services on the line sections specified in the monopoly agreement between the Ministry of Transport and Communications and VR Group Ltd. Any railway operator can operate passenger transport on the line sections which are not included in the agreement.

## 1.3 Legal Framework

### Current legislation

In accordance with Section 131 of the Rail Transport Act (in Finnish), the infrastructure manager publishes information on the provisions of the Rail Transport Act, as well as on the provisions and regulations issued under this Act and other provisions, concerning:

1. the right of access to the railway network;
2. the principles of determining the infrastructure charge;
3. applying for rail capacity and the related deadlines;

<sup>5</sup> <https://www.finlex.fi/fi/laki/alkup/2018/20181302>

<sup>6</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:343:0032:0077:FI:PDF>

4. the requirements for and approval of railway rolling stock; as well as
5. other conditions concerning operating and starting the operation of railway traffic.

The infrastructure manager publishes information on the characteristic features and extent of the railway network in the Network Statement for each timetable period. This information is contained in Chapter 3. Also published in the Network Statement are the following provisions issued by the infrastructure manager under the Rail Transport Act:

1. specialised infrastructure capacity (Section 3.4.1)
2. the priority order to be applied to congested infrastructure (Section 4.4.3)
3. the threshold quota for the minimum use of railway infrastructure on each train path (Section 4.6).

## 1.4 Legal Status

### 1.4.1 General Remarks

The Network Statement is a legally binding document in so far as it is subject to the provisions laid down in the Rail Transport Act (Section 131). Railway operators also pledge to comply with the Network Statement when signing access agreements.

### 1.4.2 Liability

The information published in the Network Statement does not affect the regulations issued by the Finnish Transport and Communications Agency Traficom or instructions issued by the infrastructure manager. The information on the third parties mentioned in the Network Statement may also change during the timetable period. The infrastructure manager reserves the right to transfer or change maintenance and development projects in the railway network as a result of political decisions.

### 1.4.3 Appeals Procedure

The appeals procedure concerning the infrastructure manager's decisions, in its capacity as infrastructure management, has been described on the Regulatory Body's website<sup>7</sup>. A claim for rectification may be filed with the Regulatory Body within 30 days of receipt of the infrastructure manager's decision notice. Send the claim for rectification to the registry office of the Finnish Transport and Communications Agency Traficom: Rail Regulatory Body, PO Box 467, 00101 Helsinki or by email: kirjaamo@traficom.fi.

A claim for rectification may be filed with the Regulatory Body, if the infrastructure manager's decision concerns:

- 1) congested railway routes or parts of routes, or priority criteria as referred to in section 120;
- 2) capacity allocation as referred to in section 122;

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<sup>7</sup> <https://www.saantelyelin.fi/asiointi/oikaisuvaatimukset>

- 3) allocation of ad hoc capacity as referred to in section 123;
- 4) cancelled or withdrawn capacity as referred to in section 125;
- 5) infrastructure charges as referred to in section 139;
- 6) reductions and hikes of the basic infrastructure charges as referred to in section 140 a; or
- 7) additional charges as referred to in section 141 of the Rail Transport Act<sup>8</sup>.

## 1.5 Structure of the Network Statement

This Network Statement follows the common structure set for Network Statements by RailNetEurope (RNE). This means that applicants requesting rail capacity may get access to the same information at the same place in the Network Statements published by infrastructure managers in other countries. The structure of the Network Statement 2019 has been changed so that it is now more in line with the RNE's updated instruction.

The Network Statement consists of five more chapters in addition to this one as well as appendices. The second chapter deals with the access conditions, the third handles the infrastructure, the fourth covers issues related to capacity allocation, the fifth chapter is about services supplied to railway undertakings, and the sixth chapter deals with charges and charging principles. The Network Statement includes appendices that provide a more detailed description of the railway network features and other issues related to railway traffic operations, as well as a separate map interface describing the characteristic features of the railway network<sup>9</sup>.

## 1.6 Validity and Updating Process

### 1.6.1 Validity Period

The Network Statement is valid for one timetable period. It is published no later than four months ahead of the expiry of the deadline for submission of capacity requests, i.e. 12 months before the change of the timetable period. This Network Statement is intended for the timetable period 2019, that is, from 9 December 2018 to 14 December 2019.

### 1.6.2 Updating Process

If information contained in Section 1.3 changes, the Finnish Transport Infrastructure Agency will publish the changes on its website<sup>10</sup>. The infrastructure manager aims at keeping the Network Statement up-to-date. The aim is to concentrate the most significant changes to be made during the year to two preliminary adjustment dates, at the beginning of January and June. The infrastructure manager applies a consultation procedure for the updates at the aforementioned adjustment dates. The updates are published on the Finnish Transport Infrastructure Agency's website.

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<sup>8</sup> <https://www.finlex.fi/fi/laki/alkup/2018/20181302>

<sup>9</sup> <http://www.vayla.fi/ammattiliikenne-raiteilla/rautateiden-verkkoselostus>

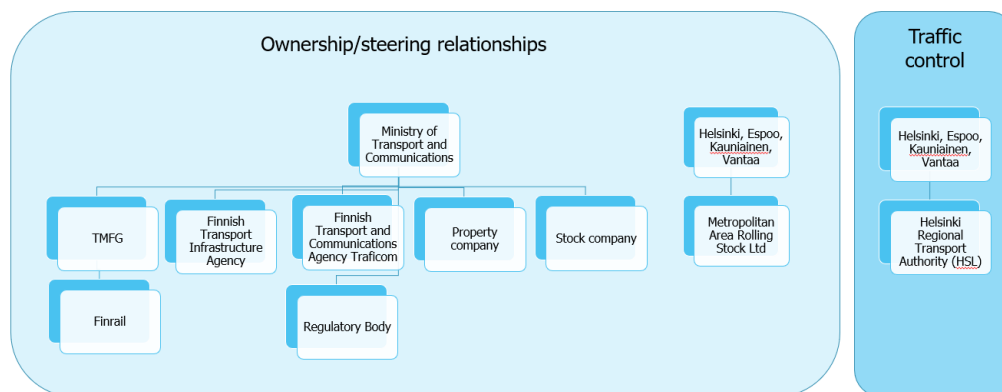
<sup>10</sup> <http://www.vayla.fi/ammattiliikenne-raiteilla/rautateiden-verkkoselostus>

This Network Statement includes references to infrastructure manager's instructions, which, if necessary, will be updated during the timetable period. If any discrepancies are found between the instructions and the Network Statement, the valid instructions shall prevail.

## 1.7 Publishing

The Network Statement is published into two languages: Finnish and English. If any discrepancies are found between the different language versions, the Finnish language version will prevail. The language versions in electronic format are available free of charge on the Finnish Transport Infrastructure Agency's website

## 1.8 Railway Sector Operators and Contact Information



### Finnish Transport Infrastructure Agency

The Finnish Transport Infrastructure Agency is responsible for the maintenance and development of state-owned transport infrastructure, and it acts as the manager of the state-owned railway network. The Finnish Transport Infrastructure Agency and Traffic Management Finland Group have concluded a service agreement on the provision of traffic management and control services. With respect to railway transport, the agreement contains, for example, the control service, passenger information service, rail capacity management service, catenary system use service, monitoring service for the railway network's technical systems, monitoring service for the railway network's safety systems and railway network development and life cycle management. In addition, the Finnish Transport Infrastructure Agency purchases construction and maintenance work related to the infrastructure property as well as regional property management services from private sector service providers.



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PO Box 33 (Street address: Opastinsilta 12 A)  
00521 HELSINKI  
FINLAND  
Email: kirjaamo(at)vayla.fi  
Internet: [www.vayla.fi](http://www.vayla.fi)<sup>11</sup>

In all matters concerning this Network Statement, market entry and railway traffic, you can contact the OSS in the Finnish Transport Infrastructure Agency at [oss\(at\)vayla.fi](mailto:oss(at)vayla.fi).

Other contact information can be found on the Finnish Transport Infrastructure Agency's website [www.vayla.fi](http://www.vayla.fi)<sup>12</sup>

### **Ministry of Transport and Communications**

The Ministry of Transport and Communications prepares the legislation and budget of its administrative branch in collaboration with the agencies and institutions that fall within the branch. These are the Finnish Transport Infrastructure Agency, the Finnish Transport and Communications Agency Traficom and the Finnish Meteorological Institute. In addition, the Ministry of Transport and Communications governs Traffic Management Finland Group, a stock company and a property company.

PO Box 31 (street address: Eteläesplanadi 16-18)  
FI-00023 VALTIONEUVOSTO  
FINLAND  
Email: kirjaamo(at)lvm.fi  
Internet: [www.lvm.fi](http://www.lvm.fi)

### **Finnish Transport and Communications Agency Traficom**

The Finnish Transport and Communications Agency Traficom is a central government agency that operates under the administrative branch of the Ministry of Transport and Communications. It is responsible for the regulatory and authoritative duties and permission matters in the field of transport and communications.

P.O. Box 320 (Street Address: Kumpulantie 9)  
FI-00101 HELSINKI  
FINLAND  
Email: kirjaamo(at)traficom.fi  
Internet: [www.traficom.fi](http://www.traficom.fi)

### **Rail Regulatory Body**

The rail regulatory body monitors the competitive situation of the rail market. The rail regulatory body ensures the fair and non-discriminatory treatment of all operators in the railway sector.

P.O. Box 320 (Street Address: Kumpulantie 9)  
FI-00101 HELSINKI  
FINLAND

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<sup>11</sup> <https://vayla.fi/web/en/home>

<sup>12</sup> <https://vayla.fi/web/en/contact-information>

Email: kirjaamo(at)traficom.fi and railregulator(at)traficom.fi  
Internet: Internet: www.saantelyelin.fi

### **Transport purchasers**

At the time of the Network Statement's publication, transport purchasers include the Ministry of Transport and Communications and Helsinki Regional Transport (HSL). The HSL joint local authority acts as a competent authority as referred to in Regulation (EC) No 1370/2007 of the European Parliament and of the Council as well as in the Public Transport Act (869/2009). The joint local authority is responsible for planning and providing public transport in its area and for drawing up the transport system plan in the Helsinki region.

P.O. Box 5 (Street address: Siltasaarenkatu 12 A)  
FI-00531 HELSINKI  
FINLAND  
Email: kirjaamo(at)kkv.fi  
Internet: <http://www.kkv.fi/en/>

### **Finnish Competition and Consumer Authority**

The responsibilities of the Finnish Competition and Consumer Authority relate to implementing competition and consumer policy, ensuring good market performance, implementing competition legislation and EU competition rules, and securing the financial and legal position of the consumer. The agency also handles the supervision responsibilities of the Consumer Ombudsman.

P.O. Box 5 (Street address: Siltasaarenkatu 12 A)  
FI-00531 HELSINKI  
FINLAND  
Email: kirjaamo(at)kkv.fi  
Internet: <http://www.kkv.fi/en/>

### **Traffic Management Finland Group**

A group whose subsidiary, Finrail Ltd, is responsible for the management and traffic control of railway transport in compliance with the service agreement between the group and the Finnish Transport Infrastructure Agency.

### **MaaS (Mobility as a Service) operators**

In accordance with the Act on Transport Services (320/2017), providers of road and rail passenger transport services, providers of brokering and dispatch services, or actors managing a ticket or payment system on behalf of these shall give mobility service providers and providers of integrated mobility services access to the sales interface of their ticket and payment systems, through which it is possible to: 1) purchase a ticket product at a basic price that, at minimum, entitles the passenger to a single trip; the travel right based on this ticket shall be easily verifiable using generally applied technology; or 2) reserve a single trip or a transportation, the exact price of which is unknown when the service begins or which for some other reason will be paid by mutual agreement after the service has been provided.

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### Railway companies

At the time of the Network Statement's publication, railway companies operating in Finland comprise VR, Fenniarail and Aurora Rail. The railway companies are responsible for the planning, marketing and sales, operation and real-time traffic control of the services they provide. In matters related to operating licences and registering rolling stock in Finland, a new railway company can contact the Finnish Transport and Communications Agency Traficom. In matters related to the use of the railway network, companies can contact the Finnish Transport Infrastructure Agency.

### Stock companies

Metropolitan Area Rolling Stock Ltd is the owner of the rolling stock required in the transport of the Helsinki region, or the HSL region. The company is also responsible for arranging funding for new rolling stock to be procured. In addition, the company's objectives include establishing an urban transport stock company. All Sm2 and Sm4 trains used in the urban transport of Southern Finland, rolling stock spare parts and separately defined special tools will be transferred to the ownership of said stock company. The stock company will also begin preparations for the procurement of new rolling stock for urban transport.

### Rolling stock maintenance companies

VR will corporatise its entire rolling stock maintenance function to a separate maintenance company within the VR Group. The required maintenance personnel as well as the spare parts, machinery and equipment required for the maintenance of rolling stock will be transferred to the maintenance company. VR will develop the maintenance company into an operationally independent company and will renounce its ownership of the company on market terms before the company begins its transport operations in sectors subject to competition.

### Property company

Properties that are necessary for the urban transport of Southern Finland will be transferred to the ownership of the property company. These properties include: Helsinki depot buildings and the related fixed equipment which are currently in VR's ownership, station buildings owned by the VR-Group Ltd within the traffic area of Southern Finland's urban transport.

### Infrastructure managers of private sidings

On the Finnish Transport Infrastructure Agency's website<sup>13</sup>, there are links to Network Statements published by infrastructure managers of private sidings. Private sidings connect to the state-owned railway network in, for example, harbours and in the vicinity of industrial establishments.

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<sup>13</sup> <https://vayla.fi/ammattiliikenne-raiteilla/rautateiden-verkkoselostus/yksityisraiteiden-haltijoiden-verkkoselostukset>

#### Station area development company Senaatin Asema-alueet Oy<sup>14</sup>

The company that began its operations at the start of 2019 will start planning collaboratively with cities and municipalities how each station area within the company's responsibility can best serve sustainable urban development in the area's operational environment. The company develops the station areas' purposes of use by means of zoning and facilitates the areas' versatile utilisation for residential building construction, business operations and as transport hubs.

## 1.9 Rail Freight Corridors in Finland

The Finnish railway network is not connected to the European Rail Freight Corridors network.

## 1.10 International cooperation between Infrastructure Managers

RailNetEurope (RNE)<sup>15</sup> is a non-profit organisation of European railway infrastructure managers and bodies allocating rail capacity. Its purpose is to promote international traffic in the European railway infrastructure.

The railway network statements of infrastructure managers in other countries are available at RailNetEurope's (RNE) website<sup>16</sup>.

European Rail Infrastructure Managers (EIM)<sup>17</sup> is a Brussels-based, international, non-profit association, which represents the common interests of European Rail Infrastructure Managers. The members of EIM also include multi-modal organisations, such as the Finnish Transport Infrastructure Agency. Its members manage 53% of the European Union's railway lines. Accordingly, EIM is the EU institutions' first port of call for questions concerning infrastructure management. Through EIM, the Finnish Transport Infrastructure Agency can exercise direct influence on the European railway legislation, both at the political and the technical level. The Finnish Transport Infrastructure Agency can influence the contents of, for example, the Fourth Railway Package, the technical specifications for interoperability and the common safety methods through both EIM and the national channels.

The Finnish Transport Infrastructure Agency participates in PRIME meetings (Platform for Rail Infrastructure Managers in Europe) through EIM. PRIME is an open forum of European rail infrastructure managers and of the European Commission for preliminary discussions on the Commission's emerging legislative proposals. At the meetings, the members also discuss the practical implications of the current legislation.

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<sup>14</sup> <https://www.senaatti.fi/asema-alueet/>

<sup>15</sup> <http://www.rne.eu/>

<sup>16</sup> <http://www.rne.eu/organisation/network-statements/>

<sup>17</sup> <http://www.eimrail.org>

EIM is part of the working group implementing the technical pillar of the Fourth Railway Package. The working group includes the Finnish Transport Infrastructure Agency's mandated representative and the President of EIM.

#### **1.10.1 One Stop Shop (OSS)**

Each member state has an RNE OSS contact point or contact person that constitute a single point of contact for the entire international route of a rail service, from the initial questions related to network access to international path requests and performance reviews after a train run.

In Finland, the OSS also functions as a point of contact in matters concerning domestic operations. The email address of the point of contact is [oss@vayla.fi](mailto:oss@vayla.fi).

The contact information to the infrastructure managers' OSS contact persons can be found on RailNetEurope's website [www.rne.eu](http://www.rne.eu)<sup>18</sup>. The Finnish Transport Infrastructure Agency resigned from RNE in 2014.

#### **1.10.2 RNE IT Tools**

RNE IT Tools are not used in Finland.

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<sup>18</sup> <http://www.rne.eu/organisation/oss-c-oss/>

## 2 Access conditions

### 2.1 Introduction

Chapter 2 describes the conditions for access to the railway network and for operating rail services. The conditions for operating rail services are an operating licence, the railway operator's safety certificate, allocated capacity and an access agreement. For example, the rolling stock acceptance process and staff acceptance process are described in this chapter.

Finnish is the only language of communications used in Finland's state-owned railway network.

### 2.2 General Access Requirements

The legal framework of access to infrastructure is described in the Rail Transport Act (1302/2018)<sup>19</sup>. The regulations and instructions issued by the Finnish Transport and Communications Agency Traficom and the infrastructure manager shall be observed in the state-owned railway network. Information on the regulations issued by the Finnish Transport and Communications Agency Traficom currently in force is available at the Finlex website<sup>20</sup> and at the Finnish Transport and Communications Agency Traficom's website<sup>21</sup>. The instructions of the infrastructure manager are available on the Finnish Transport Infrastructure Agency's website<sup>22</sup>.

The Government Decree on the interoperability of the rail system (284/2019)<sup>23</sup> lays down, for example, the essential requirements on the rail system.

Locomotives operating in the state-owned railway network shall be fitted with a functioning ATP onboard-unit. This does not apply to units for which the Finnish Transport and Communications Agency Traficom has granted an exemption to operate without the equipment in question, or units to which the ATP system requirement of installing ATP equipment in rolling stock does not apply.

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<sup>19</sup> <https://www.finlex.fi/fi/laki/alkup/2018/20181302>

<sup>20</sup> <http://www.finlex.fi/fi/viranomaiset/normi/499001/>

<sup>21</sup> <https://www.traficom.fi/fi/saadokset>

<sup>22</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

<sup>23</sup> <https://www.finlex.fi/fi/laki/alkup/2019/20190284>

### 2.2.1 Conditions for Applying for Capacity

The conditions for operating rail services in the state-owned railway network are that the railway undertaking or international grouping of railway undertakings meet the following conditions:

1. A railway undertaking or an international grouping of railway undertakings must have an operating licence meeting the requirements laid down in the Rail Transport Act and granted by the Finnish Transport and Communications Agency Traficom or a corresponding operating licence issued in the European Economic Area.
2. The railway operator shall have a safety certificate in accordance with the Rail Transport Act, issued or approved by the Finnish Transport and Communications Agency Traficom, which covers all the train paths on which traffic will be operated.
3. Rail capacity has been allocated to the railway operator for its planned traffic.
4. The railway operator has concluded an access agreement with the infrastructure manager.
5. Other conditions for operating rail traffic, laid down in or under the Rail Transport Act are in all respects fulfilled.

### Museum train traffic

The same requirements described in this Network Statement are applied to museum train traffic as to other rail traffic, except with regard to the operating licence. The law provides that a museum train traffic operator shall have a safety certificate granted by the Finnish Transport and Communications Agency Traficom. The safety certificate will be granted upon application for a maximum of five years at a time. The infrastructure manager also requires that museum train traffic operators enter into access agreements for each timetable period. Museum train traffic operators may only request ad hoc rail capacity.

### 2.2.2 Conditions for Access to the Railway Infrastructure

The following railway undertakings or international groupings of railway undertakings may access the state-owned railway network to operate rail services.

1. Railway undertakings and international groupings of railway undertakings as referred to in the Rail Transport Act providing domestic freight services and international railway traffic services between states belonging to the European Economic Area
2. In the Finnish railway network, VR Group Ltd may operate domestic passenger rail services on the line sections referred to in the agreement on exclusive rights between VR Group Ltd and the Ministry of Transport and Communications. Any railway undertaking can operate passenger transport on the line sections that are not included in the agreement.

These railway undertakings and international groupings of railway undertakings may access the railway network in accordance with the Rail Transport Act and the traffic operating points in the state-owned railway network for their operated services according to the access agreement. Other railway operators may also use the state-owned railway network, provided that the infrastructure manager has given its consent.

### 2.2.3 Licences

A railway undertaking may only operate rail services if it has an operating licence issued by the competent authority<sup>24</sup>. The Finnish Transport and Communications Agency Traficom<sup>25</sup> issues operating licences to railway undertakings established in Finland for operating railway traffic. Operating licences issued for operating rail services in another EEA member state are also accepted and these licences shall be submitted to the Finnish Transport and Communications Agency Traficom.

### 2.2.4 Safety Certificate

In Finland, the safety certificate is issued by the Finnish Transport and Communications Agency Traficom.

If a railway undertaking has been issued part A of the safety certificate in another country belonging to the European Economic Area, it shall apply for part B of the safety certificate from the Finnish Transport and Communications Agency Traficom before it can commence train operations or infrastructure management in Finland.

The safety certificate will be issued or approved for a maximum of five years at a time. The railway undertaking shall apply for a new safety certificate as soon as its old certificate has expired.

The safety certificate comprises two parts. Part A approves the safety management system, while part B accepts the documents and arrangements that the holder of the safety certificate has issued and put in place that indicates that the set requirements are fulfilled. The purpose of the safety certificate is to ensure that the applicant fulfils the safety requirements for its operations and that the undertaking has the necessary qualifications to operate safely in the railway network. These requirements are presented in the Rail Transport Act. It is also possible to include other requirements in the safety certificate regarding railway safety. The purpose of these requirements is to ensure railway safety while taking into consideration the nature and scope of the railway traffic of the applicant. The aforementioned requirements are presented in more detail and explained in the Finnish Transport and Communications Agency Traficom's instructions on how to apply for a safety certificate.<sup>26</sup>

### 2.2.5 Cover of Liabilities

The railway operator shall have a sufficient liability insurance or another corresponding arrangement in case of damage to another party caused when using a railway vehicle and for which the railway operator is responsible by law or agreement. The nature and scope of operations and risks related to the operations shall be taken into account in evaluating the sufficiency of the insurance or similar arrangement. The insurance or other corresponding arrangement shall be in force for the duration of the entire period during which rail services are operated. More

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<sup>24</sup> <https://www.finlex.fi/fi/laki/ajantasa/2017/20170320#L5P1>

<sup>25</sup> <https://www.traficom.fi/fi/asioi-kanssamme/rautatietyrytyksen-toimilupa>

<sup>26</sup> <https://www.traficom.fi/fi/asioi-kanssamme/rautatie liikenteen-harjoittajan-turvallisuustodistus>



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information can be found in the Finnish Transport and Communications Agency Traficom 's guideline on liability.<sup>27</sup>

## 2.3 Network Access Agreements

### Network Access Agreement

Railway undertakings and museum train traffic operators shall enter into an access agreement with the infrastructure manager on the access to the services required for railway traffic operations. These services include, for example, access to tracks at traffic operating points and access to traffic control services. It is also possible to agree on other practical arrangements concerning railway operations.

The railway operator shall contact the infrastructure manager to prepare the access agreement and contractual negotiations as early as possible, preferably before applying for capacity. Each timetable period has a separate access agreement, which can be changed due to decisions made during the timetable period, e.g. concerning capacity allocation or the condition of the railway network. The access agreement can only be concluded after all conditions stipulated in the Rail Transport Act for operating railway traffic have been fulfilled. Traffic may commence once the agreement has been concluded and rail capacity granted.

### Agreement on Access to Individual Traffic Operating Points

Railway operators, whose operations in the railway network are not part of their core activities, only have access to the state-owned railway network or individual traffic operating points in the network, if they have concluded an access agreement with the infrastructure manager before commencing operation. The agreement is renewed every timetable period. In order to enter into an agreement, the railway operator shall send an application in free form to the infrastructure manager at the address: kirjaamo(at)vayla.fi.

### Railway Yard Agreement

At traffic operating points where many railway operators operate rail services, the parties negotiate a railway yard agreement, if necessary. The agreement relates to the common rules, the access to and operation of tracks in the railway yard in question, or parts of it. The railway yard agreement is an appendix to the railway network access agreement. The railway yard agreement is renewed every timetable period. The infrastructure manager summons the parties to negotiate the railway yard agreement. As more advanced data systems are developed, the aim will be to change over from railway yard agreements to railway yard capacity management.

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<sup>27</sup> [https://www.traficom.fi/sites/default/files/media/file/9079-OHJE\\_RAUTATIELIIKENTEEN\\_HARJOITAJAN\\_vastuuvakuutuksesta.pdf](https://www.traficom.fi/sites/default/files/media/file/9079-OHJE_RAUTATIELIIKENTEEN_HARJOITAJAN_vastuuvakuutuksesta.pdf)

**Maintenance contractors' network access agreement**

Maintenance contractors, who have a valid maintenance agreement with the infrastructure manager (or the subcontractor of the maintenance provider of the infrastructure manager), do not need a separate network access agreement, since access to the railway network is already included in the maintenance agreement. Contractors who do not have an agreement with the infrastructure manager or a link through a subcontractor must contact the infrastructure manager for an assessment of the need for a network access agreement. The application can be made by means of an JETI advance plan or by contacting the traffic control company's capacity management service.

**Agreement on Track Access to the State-owned Railway Network for Storage of Rolling Stock**

The need and right to access tracks in railway yards are discussed and agreed upon in the network access agreement. In a multi-operator environment, railway yard agreements may, if necessary, be concluded with all operators at the traffic operating point or in the railway yard in question. Moreover, the JETI system may be used to apply for track reservations from the traffic control company, for temporary storage of rolling stock. Longer-term storages are examined separately and are granted based on the need. Storage is temporary, and it must not disturb other operators' activities at the traffic operating point or in the railway yard. If the situation so requires, the rolling stock must be moved to a storage location assigned by the infrastructure manager within a reasonable timeframe.

If museum train operators need to store rolling stock in the state-owned railway network, they shall enter into an agreement about this with the infrastructure manager. The entry of such an agreement is always decided on a case-by-case basis and the infrastructure manager may reject the agreement on reasonable grounds. Applications to draw up an agreement shall be addressed to kirjaamo(at)vayla.fi.

**Agreement between Infrastructure Managers**

The agreement includes e.g. operating services between railway networks, traffic control, the dividing line between railway networks, its ownership and maintenance, as well as the cooperation between infrastructure managers. In order to enter into an agreement, the private infrastructure manager shall submit a request in free form to the Finnish Transport Infrastructure Agency at the address kirjaamo(at)vayla.fi.

**Agreement on the Operation of Track Cars**

Track cars shall not be operated on line sections with commercial traffic in the stateowned railway network. However, an agreement can be reached on operation of track cars on certain line sections which are closed to traffic, provided that the track conditions are satisfactory and the safety requirements met. The entry of such an agreement is always decided on a case-by-case basis and the infrastructure manager may reject an agreement. Requests concerning this matter shall be addressed to kirjaamo(at)vayla.fi.

### 2.3.1 Framework Agreement

The infrastructure manager may enter into a framework agreement with the applicant on access to rail capacity. The purpose of such an agreement is to specify the characteristics of the capacity requested by the applicant. The framework agreement does not, however, entitle the applicant to obtain such capacity as is specified in the agreement.

Railway undertakings shall request the capacity specified in the framework agreement for each timetable period separately. If requested, the infrastructure manager allocates the capacity specified in the framework agreement following the procedure laid down in the Rail Transport Act. Correspondingly, the access agreement shall be concluded for each timetable period separately regardless of the framework agreement. The framework agreement does not, however, impede the application of the provisions of the Rail Transport Act to other applicants.

The framework agreement shall remain in effect for a maximum of five years. For special reasons, the infrastructure manager may, however, also conclude framework agreements for a longer period. Conclusion of an agreement for more than five years can, however, be justified only by agreements, special investments or special business risks connected with the transport business of the party with which the agreement is concluded, as well as by the large-scale and long-term investments of the party with which the agreement is concluded or the contractual obligations connected with such activities.

At present, the Finnish Transport Infrastructure Agency does not enter into framework agreements.

## 2.4 Operational Rules

The operational rules can be viewed in the Finlex service<sup>28</sup> and on the Finnish Transport and Communications Agency Traficom's website<sup>29</sup>. Operational instructions can be found on the Finnish Transport and Communications Agency Traficom's and the Finnish Transport Infrastructure Agency's websites<sup>30</sup>. The infrastructure manager aims at providing the operators with the final version of the instructions at least two months before they enter into effect.

## 2.5 Exceptional Transports

Traffic restrictions on exceptional transport are dealt with in Section 3.4. Regulations concerning railway traffic and rolling stock can be viewed in the Finlex service<sup>31</sup> and on the Finnish Transport and Communications Agency Traficom's website<sup>32</sup>. Other

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<sup>28</sup> <http://www.finlex.fi/fi/viranomaiset/normi/499001/>

<sup>29</sup> <https://www.traficom.fi/fi/liikenne/raideliikenne>

<sup>30</sup> [https://julkaisut.vayla.fi/pdf7/rautatietohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatietohjeet_web.pdf)

<sup>31</sup> <http://www.finlex.fi/fi/viranomaiset/normi/499001/>

<sup>32</sup> <https://www.traficom.fi/fi/liikenne/raideliikenne>

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instructions can be viewed on the Finnish Transport Infrastructure Agency's website<sup>33</sup>.

Permits for exceptional transports are issued by the Finnish Transport Infrastructure Agency's Railway Technology Unit.

## 2.6 Dangerous Goods

Carriage of dangerous goods is dealt with in Section 3.4.3. Regulations concerning railway traffic and rolling stock can be viewed in the Finlex service<sup>34</sup> and on the Finnish Transport and Communications Agency Traficom's website<sup>35</sup>.

## 2.7 Railway Rolling Stock

An authorisation issued by the Finnish Transport and Communications Agency Traficom<sup>36</sup> is required for placing rolling stock in service. This authorisation can be issued for rolling stock that meets the requirements valid in Finland, which is laid down in legislation.

The requirements are based on the interoperability requirements for the rail system in accordance with Community law and the Finnish Transport and Communications Agency Traficom has issued complementary and more detailed regulations. Conformity can be proved by the EC Declaration of Conformity or a corresponding declaration issued within the European Economic Area. Before issuing the authorisation, the Finnish Transport and Communications Agency Traficom will ask for the infrastructure manager's statement on the compatibility of the rolling stock type or unit with the railway network, in order to impose possible restrictions.

The Finnish Transport and Communications Agency Traficom maintains a register monitoring the validity and traffic safety of rolling stock. The purpose is to promote rail system safety and identify rolling stock. The rolling stock is recorded in a register maintained by the Finnish Transport and Communications Agency Traficom, if the rolling stock permit has been issued in Finland. Rolling stock that will be used in the state-owned railway network and the permit for which has been issued elsewhere within the European Economic Area or in a country outside the EEA shall also be recorded in the register. Any rolling stock used on private sidings will also be recorded in the register.

The Finnish Transport and Communications Agency Traficom may also register rolling stock for a limited time upon request. A fixed-period registration is also possible for any rolling stock, the permit for which has been issued in another country, if a permit has been issued in Finland and the rolling stock is only used for a limited time in the state-owned railway network.

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<sup>33</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

<sup>34</sup> <http://www.finlex.fi/fi/viranomaiset/normi/499001/>

<sup>35</sup> <https://www.traficom.fi/fi/liikenne/raideliikenne>

<sup>36</sup> <https://www.traficom.fi/fi/liikenne/raideliikenne>

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The rolling stock register shall include information on the owner, holder and renter of the rolling stock. The more detailed regulations on related information about other rolling stock to be recorded in the register will be set forth in a Government decree.

With regard to any rolling stock used for railway traffic between Finland and Russia, the register shall include information on the vehicle owner or renter, any possible limitations on the vehicle use and information on the vehicle's maintenance plan in so far as is essential to vehicle safety.

The infrastructure manager shall approve any rolling stock that is used solely for track work, not rolling stock used for other operations. If the rolling stock at any point is used as a train or for shunting, it must be approved by the Finnish Transport and Communications Agency Traficom.

The line sections Toijala–Valkeakoski, Olli-Porvoo and Lahti–Heinola, have been equipped with level crossing warning devices. The traction units of rolling stock and track construction/maintenance machines on these line sections shall use a portable appliance in order to activate the warning devices. These appliances are available at Toijala station or at a railway yard on the line section. Instructions for this can be found on the Finnish Transport Infrastructure Agency's website<sup>37</sup>.

RFID tags used to identify the unit shall be attached to all registered rolling stock. The interoperability conditions have been specified in the Finnish Transport Infrastructure Agency's publication RATO 21 Rolling stock (in Finnish)<sup>38</sup>.

## 2.8 Tasks with a Significant Impact on Railway Safety

Under the EU railway safety directive (EU 2016/798), railway undertakings and infrastructure managers are responsible for the level of training and qualifications of their staff performing safety-critical work. In its capacity as the infrastructure manager of Finland's state-owned railway network, the Finnish Transport Infrastructure Agency is responsible for setting qualification requirements for persons working in the railway network on behalf of the infrastructure manager and in joint projects involving the infrastructure manager and for ensuring that these persons are provided with adequate training. It is also required under section 11 of the Occupational Safety and Health Act (738/2002) that employers must ensure the qualifications of their personnel, especially in tasks involving a particular risk of injury or illness.

The Act on Transport Services only contains provisions on the qualifications of train drivers in the railway system. The train driver's licence demonstrates that the person in question possesses the general qualifications for driving a train. The licence proves that in respect of their health and psychological qualities, the person in question meets the minimum requirements laid down in the act and is suitable for working as a

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<sup>37</sup> [https://julkaisut.vayla.fi/pdf4/paatos\\_2014\\_huomiolaitteiden\\_kayttoonotto\\_web.pdf](https://julkaisut.vayla.fi/pdf4/paatos_2014_huomiolaitteiden_kayttoonotto_web.pdf)

<sup>38</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

train driver. The train driver must always carry the licence with them when performing their task in the state-owned railway network.

### **Qualification requirements set by the infrastructure manager of the state-owned railway network**

In its instructions "Valtion rataverkon haltijan osaamis- ja pätevyysvaatimukset"<sup>39</sup> the infrastructure manager has set minimum qualification requirements for railway operators and infrastructure managers of private sidings operating in the state-owned railway network. A railway undertaking must describe the management of the qualifications for the tasks that have a critical impact on railway safety and that are laid out in its safety management system. The infrastructure manager requires that shunting personnel possess specific qualifications and that railway operators ensure that these requirements are met. The qualification requirements are set out in the qualifications instructions.

The infrastructure manager has issued safety instructions for track maintenance regarding the specific technical qualifications (other than traffic safety qualifications) required in track work <sup>40</sup>.

### **Small-scale train driver operations**

Provisions on small-scale train driver operations<sup>41</sup> are laid out in the network access agreements between the infrastructure manager and the railway operators. Small-scale train driver operations are in small scale and limited in terms of their geographic area.

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<sup>39</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

<sup>40</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

<sup>41</sup> [https://www.traficom.fi/sites/default/files/media/regulation/Pienimuotoinen\\_kuljettajatoiminta.pdf](https://www.traficom.fi/sites/default/files/media/regulation/Pienimuotoinen_kuljettajatoiminta.pdf)

## 3 Infrastructure

### 3.1 Introduction

The infrastructure refers to the state-owned railway network managed by the Finnish Transport Infrastructure Agency. The Finnish Transport Infrastructure Agency's infrastructure management comprises the construction and maintenance of tracks, structures and equipment connected with them, as well as of the immoveable property needed for infrastructure management and planning.

### 3.2 Extent of Network

#### 3.2.1 Limits

The Network Statement describes the state-owned railway network in Finland. The railway network is presented in the map interface and in Appendix 3A.

#### 3.2.2 Connected Railway Networks

There is a rail connection from Finland to Sweden via Tornio. The main outlines of traffic operating on the Tornio–Haaparanta line section are presented in Appendix 3C. The Swedish Infrastructure Manager is Trafikverket.

There is a rail connection from Finland to Russia via Vainikkala, Imatrankoski, Niirala and Vartius. Provisions on the direct international railway traffic between Finland and Russia are laid out in the Rail Traffic Agreement between Finland and Russia. Railway traffic between Finland and Russia is not international transport within the European Economic Area.

According to the Commission Decision of December 2014, the Finnish local railway infrastructures of strategic importance, as referred to in Directive 2012/34/EU 2(4)<sup>42</sup> are private sidings in the areas owned by all ports with international seaborne trade and private sidings owned by VR<sup>43</sup>.

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<sup>42</sup> [https://eur-lex.europa.eu/legal-content/FI/TXT/?uri=uriserv:OJ.L\\_.2012.343.01.0032.01.FIN](https://eur-lex.europa.eu/legal-content/FI/TXT/?uri=uriserv:OJ.L_.2012.343.01.0032.01.FIN)

<sup>43</sup> <http://www.vayla.fi/ammattiliikenne-raiteilla/rautateiden-verkkoselostus/yksityisraiteiden-haltijoiden-verkkoselostukset>

## 3.3 Network Description

### 3.3.1 Geographic Identification

#### 3.3.1.1 *Track Typologies*

The length of the Finnish state-owned railway network in operable condition is 5,926 km, of which 5,244 km are single-track and 682 km are double or multi-track line sections.

The double-track line sections are:

- Leppävaara–Kirkkonummi
- Huopalahti–Havukoski
- Kytömaa–Ainola
- Purola–Riihimäki–Sääksjärvi
- Kouvola–Juurikorpi
- Pohjois-Louko–Seinäjoki station (Lapua)
- Kytömaa–Hakosilta
- Riihimäki station–Luumäki
- Tampere freight–Lielähti
- Tampere Järvensivu–Orivesi
- Kokkola–Ylivieska

The three-track line sections are:

- Sääksjärvi–Tampere freight

The four-track line sections are:

- Ainola–Purola
- Helsinki station–Leppävaara
- Helsinki station–Kytömaa

#### 3.3.1.2 *Track Gauges*

The nominal track gauge in the railway network is 1,524 mm. The speed-dependent limit values for the track gauge are indicated in the Finnish Transport and Communications Agency Traficom's provision called "Rautatiejärjestelmän infrastruktuuriasajärjestelmä" (Trafi/18116/ 03.04.02.00/2012). The provision is available in the Finlex service<sup>44</sup>.

#### 3.3.1.3 *Traffic Operating Points*

The traffic operating points in the state-owned railway network are described in Appendix 3B and the map interface.

<sup>44</sup> [https://www.finlex.fi/data/normit/35207/TRAFI\\_8591\\_03.04.02.00\\_2014\\_Fi.pdf](https://www.finlex.fi/data/normit/35207/TRAFI_8591_03.04.02.00_2014_Fi.pdf)



### 3.3.2 Capabilities

#### 3.3.2.1 *Loading Gauge and Structure Gauge*

The loading gauge (KU) (Appendix 3D) and the structure gauge (ATU) (Appendix 3E) are used throughout the railway network. On private sidings, there may be both loading and structure gauge limitations, which railway operators shall clarify separately before carrying out transportation.

Further information on the structure gauge and the vehicle gauge (LKU) can be found on the Finnish Transport and Communications Agency Traficom's website<sup>45</sup> and in part 2 "Radan geometria" (Track geometry) of the Finnish Transport Infrastructure Agency's 'Ratatekniset ohjeet' (RATO) publication. Further information on the track work gauge can be found in TURO (safety instructions in track maintenance)<sup>46</sup>.

#### 3.3.2.2 *Weight Limits*

##### **Axle loads**

225 kN axle loads are permitted on most of the railway network. The maximum permitted axle loads per line section are indicated in Appendix 3F. Appendices 3M and 3N specify the axle loads and restrictions in connection with overweight loads and the wagons used in the eastern transit traffic

##### **Metre loads**

The permitted metre load of rolling stock throughout the state-owned railway network is 80 kN/m.

#### 3.3.2.3 *Line Gradients*

On the main lines, the maximum dominant gradient is 20 mm/m. There are some occasional larger gradients. On secondary lines, the maximum gradient is 22.5 mm/m. The maximum gradient of line sections measured over a distance of 1,200 metres is presented in Appendix 3A.

The gradient between the traffic operating points Leinelä and Kivistö on the Ring Rail Line is 40 mm/m.

#### 3.3.2.4 *Line Speeds*

The maximum speed is 220 km/h for passenger trains and 120 km/h for freight trains. The maximum speed on tracks without ATP is 80 km/h. The speeds permitted for passenger and freight trains in the railway network are indicated in Appendix 3F. The maximum allowable speeds depending on the rolling stock are presented in Appendix 3L.

#### 3.3.2.5 *Maximum Train Lengths*

The maximum train length permitted on a line section shall be such that trains can also use sidings at the traffic operating points. Exceptional transport shall be agreed

<sup>45</sup> <https://www.traficom.fi/fi/liikenne/raideliikenne/raideliikenteen-saadokset>

<sup>46</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

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upon separately. Trains need not, however, be capable of using all sidings at all traffic operating points. 1,100 metres long trains are allowed on the line section Vainikkala-Kotka/Hamina. The train lengths used for dimensioning line sections are 700, 750, 925 and 1100 metres. The maximum length of the sidings at each traffic operating point are indicated in Appendix 3B and in the map service.

### 3.3.2.6 Power Supply

The nominal voltage of the electrification is 25 kV/50 Hz AC. On all electrified lines, power is taken from the contact line above the track. One or both of the running rails and return conductors form a return circuit. The neutral sections are adjacent to the feeding sections of the contact line feeder stations. Rolling stock cannot collect current from the neutral sections. The main switch of the electric locomotive or electric train unit shall be opened at the neutral sections. The electric traction unit of the train is not allowed to stop at a neutral section.

The maximum current supply capacity of the overhead line for electrically hauled stock is 350-800 A. The available current is affected by the number and position of stock using electric power at the same time in the power supply area.

For fixed installations, electrification is described in part 5 "Sähköistetty rata" (Electrified railway) of the 'Ratatekniset ohjeet' (RATO) publication<sup>47</sup>.

Provisions on the electrification of electrical appliances in rolling stock have been laid down in Finnish in the Finnish Transport and Communications Agency Traficom's regulation Rautatiekaluston sähköjärjestelmä (RVI/376/411/2008). The provision is available in the Finlex service<sup>48</sup> and in Section 21 'Rolling Stock' of the Finnish Transport Infrastructure Agency's publication 'Ratatekniset ohjeet' (RATO).<sup>49</sup>

All new electric traction stock shall be equipped with an energy measurement system compliant with the requirements for billing according to standard EN 50463 (2017). Data transmission to the Finnish Transport Infrastructure Agency's measurement and balance management system shall comply with part 4 in Standard EN 50463. Data can also be transmitted in a UTILTS message.

### 3.3.3 Traffic Control and Communication Systems

Within the scope of the partnership agreement between the Finnish Transport Infrastructure Agency and Traffic Management Finland, the traffic control company provides data system services and interfaces free of charge to railway operators in accordance with the instructions drafted by the Finnish Transport Infrastructure Agency and the traffic control company.

Agreements on separate operator-specific interfaces or services may also be entered and in such cases the charges are billed according to the actual costs. The traffic control company provides the data and instructions required to use the data system

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<sup>47</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

<sup>48</sup> <http://www.finlex.fi/fi/viranomaiset/normi/499001/35169>

<sup>49</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

services. Railway operators are responsible for the competence of their own staff and shall arrange or procure the training required to ensure competence.

A description of the data system interfaces, application services and required technology components that are relevant to railway operators are maintained on the Finnish Transport Infrastructure Agency's website<sup>50</sup>. An important data system for operating rail services in Finland is the rail capacity management system (for the time being LIIKE). The use of, among other things, the passenger information system and the train driver's data terminal application (KUPLA) are based on the data in the LIIKE system.

### 3.3.3.1 *Traffic Control Systems*

The signalling systems in use are described in Appendices 3A and 3G, in the map interface and in part 6 (Turvalaitteet) of the publication 'Ratatekniset ohjeet' (RATO)<sup>51</sup>.

Line sections equipped with centralised traffic control are listed in Appendix 3G. However, on sidings and loading and storage sidings, units may have to secure routes locally.

The Finnish Transport and Communications Agency Traficom's regulation "Määräys ohjaus-, hallinta- ja merkinanto-osajärjestelmästä" is applied in the state-owned railway network<sup>52</sup>

### 3.3.3.2 *Communication systems*

#### **RAILI service**

The RAILI service is only used for communication concerning traffic safety.

The integrated railway communications system, RAILI, can be used on VIRVE phones and smart phones. In order to use the RAILI service on a smart phone, the application RAPLI has to be installed. The VIRVE network is used for communication between trains and traffic control. Railway operators shall apply for a VIRVE **licence** from the Finnish Transport and Communications Agency Traficom to use the VIRVE phones to be installed in the rolling stock in accordance with railway traffic rules. More information about this can be found in Appendix 3P.

Railway operators shall apply for a **permit to use** the RAILI service from the Finnish Transport Infrastructure Agency and familiarise themselves with the permit conditions<sup>53</sup>. In addition to the VIRVE network, other commercial networks can be used for communication between assistant shunters and traffic control, and between track work managers and traffic control, for example, by using the RAPLI application.

<sup>50</sup> <http://www.vayla.fi/ammattiliikenne-raiteilla/rautateiden-verkkoselostus/liikenteenharjoittajan-tekniiset-rajapinnat>

<sup>51</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

<sup>52</sup> [https://www.finlex.fi/data/normit/42588/TRAFI\\_14975\\_03\\_04\\_02\\_00\\_2016\\_FI\\_ohjaus-,\\_hallinta-\\_ja\\_merkinanto-\\_osajarjestelma.pdf](https://www.finlex.fi/data/normit/42588/TRAFI_14975_03_04_02_00_2016_FI_ohjaus-,_hallinta-_ja_merkinanto-_osajarjestelma.pdf)

<sup>53</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

Further information can be found in Finnish on the Finnish Transport Infrastructure Agency's website<sup>54</sup>.

The Finnish Transport and Communications Agency Traficom sets regulations on, for example, traffic operation, track work and communications. The valid regulations can be found in the Finlex service<sup>55</sup>.

The Finnish Transport Infrastructure Agency provides instructions that deal with traffic control, traffic operation, track work and communications, and complement the regulations. The valid instructions can be found on the Finnish Transport Infrastructure Agency's website<sup>56</sup>. Contact information for traffic control can be found on the Finnish Transport Infrastructure Agency Extranet site<sup>57</sup>.

Information of anomalies will be provided via the Advance Information System (JETI), maintained by the traffic control company, and through notifications given by the traffic control. Drivers and persons responsible for the track work shall have knowledge of the advance plans that are valid for the duration of the work/journey and in the working area/track sections of the journey. They shall also have the contact information for the traffic control.

#### **Train drivers' data terminal application (KUPLA)**

The infrastructure manager requires that the train drivers' terminal application, KUPLA, is used in all units operated in train traffic as well as in units used for shunting operations between traffic operating points.

More detailed descriptions of the technical requirements, as well as the principles for procurement and use of the train drivers' terminal application (KUPLA), can be found on the traffic control company's website<sup>58</sup>.

#### **Location data of shunting units**

The infrastructure manager and the railway operators are cooperating to find the best practice from a comprehensive perspective.

#### **Railway contractors' mobile platform (RUMA)**

In the infrastructure manager's class 1 traffic control area, the RUMA application shall be used for track works performed with the permission of traffic control. RUMA is used to locate track work managers, track work teams and track construction/maintenance machines. RUMA is also used to submit track work notices and report traffic restrictions. The data in the RUMA application is integrated in the LIIKE system by adding a link to the planning graphics in the RUMA application map.

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<sup>54</sup> <http://www.vayla.fi/ammattiliikenne-raiteilla/rautateiden-puheviestinta>

<sup>55</sup> [http://www.finlex.fi/fi/viranomaiset/normi/499001/?\\_offset=0&\\_max=49](http://www.finlex.fi/fi/viranomaiset/normi/499001/?_offset=0&_max=49)

<sup>56</sup> [https://julkaisut.vayla.fi/pdf7/rautateiohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautateiohjeet_web.pdf)

<sup>57</sup> <http://www.vayla.fi/palveluntuottajat/aineistot/ratatieidon-extranet>

<sup>58</sup> <https://tmfg.fi/fi/finrail/tietojarjestelmat>

## TURI

Railway operators and the infrastructure manager's service providers use the TURI system to report safety-related anomalies to the infrastructure manager.

### Railway traffic prediction - data requirements (ENNE system)

In order to produce more accurate railway traffic predictions, improve the effectiveness of the multi-actor environment, achieve smoother flow of traffic and better handling of disruptions, and to increase energy efficiency, railway undertakings shall submit the following updated data in a manner to be agreed upon, preferably via interfaces. This data is handed over to the operational traffic control, unless otherwise agreed. Based on this data, it is also possible to produce predictions of train services, which can be handed over as such to passengers and open interfaces.

- The predicted train preparation time for departure from the initial station or for a transfer to the initial station, when the transfer has been scheduled.
- Requests for track changes at traffic operating points that are relevant for railway undertakings. There is a tool for requesting track changes in the Helsinki and Ilmala areas. This tool will gradually be introduced in other areas from the end of 2019
- Reservations for storage sidings and needs in railway yards: advance message submitted in the JETI system or otherwise agreed upon with traffic planning.
- Inter-train dependencies (rolling stock, staff, passengers changing trains), shunting operations from Ilmala to Helsinki and from Helsinki to Ilmala, as well as shunting operations at other stations, if they have a different number than the train. Shunting operations between Ilmala and Helsinki are requested as capacity; in other places the aim is to include shunting operations in the capacity.
- Changes to the inter-train dependencies in an operational situation (see previous item).
- Temporary train-specific speed limits due to partial malfunctions in the rolling stock or in the replacing rolling stock are imposed, if it is not possible to request new capacity, or if traffic control is not aware of these.
- Changeover of freight train crews, when there is no other need to stop.
- Changes in commercial stops (increased or reduced number of stops, including crew changeovers).
- Train drivers' estimated repair of malfunctions, in situations where the train, after giving the notification that it is ready to depart, is not able to proceed or the rolling stock breaks down on the line.
- The predicted travel times entered by the driver(s) into the energy efficiency system, in case these are significantly longer than scheduled or targeted.

### 3.3.3.3 *Train Control Systems*

Automatic train protection (ATP) is a system that supervises compliance with speed restrictions and signalling.

Locomotives operating in the state-owned railway network shall be fitted with an automatic train protection equipment (ATP) according to class B in the Finnish system (ATP-VR/RHK), or equipped with the European Train Control System in

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conjunction with legacy ATPs through a specific transmission module (ETCS + STM). Information about the availability and terms of delivery of ATP equipment is given by Bombardier Transportation Finland Oy<sup>59</sup>. Information regarding the conjunction ETCS+STM is provided by both Bombardier Transportation Finland Oy and Ansaldo STS Finland Oy.<sup>60</sup>

ATP locomotive equipment shall be used for train services or, if operating without ATP locomotive equipment, with a special permit as referred to in Section 41 of the Rail Transport Act (1302/2018)<sup>61</sup>. The Finnish Transport and Communications Agency Traficom may issue a special permit provided that it does not endanger the safety of the rail system. In cases concerning the use of ATP locomotive equipment, a fixed-term special permit may be issued if the case involves a need for exceptional and temporary train services or if ATP locomotive equipment or spare parts are not available. A special permit may not be issued for a train unit or locomotive which is used in passenger or commercial freight traffic, when it is not directly connected with infrastructure management. ATP locomotive equipment is not required in stock that is used for shunting only.

The Finnish Transport and Communications Agency Traficom provides more information about ATP systems and operations and instructions on museum traffic. The Finnish Transport and Communications Agency Traficom's regulations can be found on the website<sup>62</sup>.

## 3.4 Traffic Restrictions

### 3.4.1 Specialised Infrastructure

The infrastructure manager may designate a train path, or a part of it, as specialised infrastructure if there are sufficient alternative train paths for other traffic. Specialised infrastructure refers to a train path, or a part of it, on which priority is given to the type of traffic for which the infrastructure is specialised. The Finnish train paths with specialised lines are: Helsinki–Kerava (easternmost track and eastern middle track), Helsinki–Leppävaara (southernmost track and southern middle track) Huopalahti-Havukoski (both tracks). These urban tracks are reserved primarily for Helsinki Area commuter traffic. It is not allowed to operate passenger trains between Kerava and Vuosaari or freight trains between Havukoski and Huopalahti. In addition to these line sections, platform tracks 1-4 and 13-19 at the Helsinki Central Railway Station, are designated as specialised infrastructure reserved for the commuter transport of Helsinki Region Transport. Access to tracks 4 and 13-16 especially requires coordination between applicants.

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<sup>59</sup> <http://www.bombardier.com/>

<sup>60</sup> <http://www.ansaldo-sts.com/en/about-us/ansaldo-around-world/our-companies/ansaldo-sts-finland>

<sup>61</sup> <https://www.finlex.fi/fi/laki/alkup/2018/20181302>

<sup>62</sup> <https://www.finlex.fi/fi/laki/alkup/2018/20181302>

### 3.4.2 Environmental Restrictions

When registering rolling stock, the Finnish Transport and Communications Agency Traficom's regulations and instructions are applied. The regulations set out general and special requirements for rolling stock concerning noise, vibration, electromagnetic interferences, emissions, substances hazardous to the environment and the use of recycled construction materials. For more information, go to the Finnish Transport and Communications Agency Traficom's website<sup>63</sup>.

Vibration-related speed restrictions are imposed throughout Finland. The restrictions mainly apply to over 3,000-ton gross weight heavy trains. More information can be found in Appendix 3H.

### 3.4.3 Dangerous Goods

#### Provisions, regulations and supervision

In domestic rail transport, the following statutes and regulation are observed: the Act on the Transport of Dangerous Goods (719/1994), applicable to all transport modes, the Government Decree on the Transport of Dangerous Goods by Rail (195/2002) and the Finnish Transport and Communications Agency Traficom's regulation on the carriage of dangerous goods by rail<sup>64</sup>.

In the appendix to the Finnish Transport and Communications Agency Traficom's regulation, there are detailed provisions on, for example, the classification of dangerous goods, packaging, required documentation and equipment, excepted quantities, marking in the bill of lading and on the packages, placarding and marking of vehicles/wagons.

Finland's national regulations on transport by rail are based on the international RID regulations.

The Finnish Transport and Communications Agency Traficom supervises the carriage of dangerous goods by rail and the related temporary storage. Dangerous goods by rail arriving to and departing from Finland and the related temporary storage is also supervised by Finnish Customs and the Finnish Border Guard in their respective areas of responsibility. In these cases, The Finnish Transport and Communications Agency Traficom still carries the primary responsibility. Under the regulations issued by the Finnish Transport Infrastructure Agency, wagons loaded with dangerous goods may only be temporarily stored in national railway yards handling dangerous goods specified by the Finnish Transport and Communications Agency Traficom. This restriction will remain in effect until the infrastructure manager has determined whether wagons loaded with dangerous goods can also be temporarily stored in other railway yards. These railway yards will be listed in the Network Statement. Wagons loaded with dangerous goods should primarily be stored in railway yards handling dangerous goods. In case of congestion of dangerous goods transports, or if there are other needs for storing dangerous goods, the infrastructure manager may request that other rolling stock is moved. Transport undertakings are responsible for notifying

<sup>63</sup> <https://www.traficom.fi/fi/liikenne/raideliikenne/raideliikenteen-saadokset>

<sup>64</sup> <https://www.traficom.fi/fi/liikenne/vak/vaarallisten-aineiden-kuljetusta-koskevia-saadoksia-ja-maarayksia>

the traffic control, the Rail Traffic Management Centre and local rescue authorities, for handling the cargo and for ensuring that the wagons remain stationary. More information about the notification responsibility is included in the rules "Junaliikenteen ja vaihtotyön turvallisuussäännöt (JT)"<sup>65</sup>. All types of cleaning the rolling stock, for example, cleaning of leakages, must be separately agreed upon with the rescue authorities, the local environmental authorities and the infrastructure manager.

### Special Agreements

RID special agreements<sup>66</sup> can also be applied when signed by the states involved in the transport operation.

An RID special agreement, signed by Finland, may also be applied to domestic rail transports of dangerous goods. At present, there are no valid RID special agreements signed by Finland.

### Safety Advisor

Companies transporting or loading dangerous goods or whose operations impact on the safe transport of these goods on roads or railways shall appoint a certified Safety Advisor.

The person appointed Safety Advisor shall pass an examination, where The Finnish Transport and Communications Agency Traficom serves as the examiner.

Provisions on the Safety Advisor have been laid down in the Government Decree on the Safety Advisor for the land transport of dangerous goods (274/2002)<sup>67</sup>.

### Conventions on international carriage of dangerous goods by rail

Updated information about international carriage of dangerous goods by rail can be found on the Finnish Transport and Communications Agency Traficom's website<sup>68</sup>.

### Railway yards handling dangerous goods

The Finnish Transport and Communications Agency Traficom has specified the following railway yards as national railway yards handling dangerous goods in the rules 'Junaliikenteen ja vaihtotyön turvallisuussäännöt' (JT)<sup>69</sup>: Hamina, Joensuu (Joensuu Sulkulahti and Joensuu Peltola), Kokkola, Kotka (Kotka Mussalo, Kotolahti), Kouvola (Kouvola Tavara, Kouvola Lajittelu), Niirala, Oulu (Oulu Tavara and Oulu Nokela), Riihimäki (Riihimäki Tavara and Riihimäki lajittelu), Sköldvik, Tampere (Tampere Viinikka and Tampere Tavara), Turku (Turku Asema), Vainikkala and Ykspihlaja. Those operating in the railway yards shall be able to take action in compliance with the legislation on carriage of dangerous goods by rail. The Finnish Transport and Communications Agency Traficom inspects the designated railway yards handling dangerous goods at least every three years. If necessary, the parties

<sup>65</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

<sup>66</sup> <http://www.otif.org/en/dangerous-goods/rid-references-on-the-otif-website/1511.html>

<sup>67</sup> <https://www.finlex.fi/fi/laki/smur/2017/20170489>

<sup>68</sup> <https://www.traficom.fi/fi/liikenne/raideliikenne/raideliikenteen-saadokset>

<sup>69</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)



shall participate in joint exercises organised in the area, the time and length of which shall be agreed upon separately.

The use of steam locomotives is prohibited in Sköldvik railway yard. The JT includes more information about operations on railway yards handling dangerous goods.

#### **3.4.4 Tunnel Restrictions**

The tunnel restrictions on the Helsinki–Turku and Orivesi–Jyväskylä line sections are indicated in Appendix 3H.

Only freight trains and track work machinery are allowed to operate in tunnels on the Vuosaari line. It is forbidden to take passengers through the tunnels on the Vuosaari line. All traction units operating in Vuosaari tunnel shall be equipped with a sufficient number of pneumatic appliances, which enable evacuation in case of fire or formation of smoke. In evacuation situations, the pneumatic appliance shall guarantee an at least 15-minute transition to the closest emergency exit.

Only passenger trains and track work machinery are allowed to operate in the tunnel of the Ring Rail Line. Passenger transport between the traffic operating points Leinelä and Kivistö is only allowed when electric traction units are used. Individual diesel locomotive transfers are permitted.

#### **3.4.5 Bridge Restrictions**

Bridge restrictions are described in Appendix 3H.

#### **3.4.6 Other**

Details concerning the axle loads and restrictions applicable to the carriage of overweight loads and wagons used in the eastern transit traffic can be found in Appendices 3M and 3N.

The substations of the electrified line sections have a limited capacity for supplying power to the contact line. The power supply will shut down automatically in overload situations, which will cause a temporary power failure in the contact line. The nominal power of each feeder station is available for electric train operations in the feeding section. If the maximum power taken by electric trains in the feeding section exceeds the normal demand, the protection built into the electrified railway network will minimise the damage caused by the overload.

In the Helsinki commuter area, the maximum input power of the electric trains substantially exceeds the maximum power supply available in the line sections. Thus, to ensure the safety of the electrified railway network and to prevent malfunctions, the protection built into the feeder stations may cause feeder station switches to be momentarily disconnected. As a rule, the switches are disconnected because of excessive power demand by the electric rolling stock units running in the railway network.

## 3.5 Availability of the Infrastructure

The restrictions affecting traffic are presented in Appendices 3H and 3J and in the JETI system (the system for advance information on train traffic). Track work causing traffic restrictions is presented in Appendix 3K.

The lines with little traffic described in the Network Statement are only in operable condition thanks to intensified maintenance. The technical condition of a line section at the end of its lifecycle may deteriorate rapidly and the maintenance contractor may have to impose significant traffic restrictions on the line section. Applicants shall be prepared for traffic restrictions and even service interruptions on the following line sections:

- Heinävaara–Ilomantsi
- Kontiomäki–Pesiökylä–Ämmänsaari
- Saarijärvi–Haapajärvi
- Mynttilä–Ristiina
- Lieksa–Pankakoski
- Niinisalo–Parkano
- (Lahti)–Loviisa, especially the section Orimattila, 150+407 – Lapinjärvi, 185+432
- (Raisio)–Naantali
- (Ihala)–Viheriäinen

The following line sections are closed to traffic:

- Aittaluoto–Niinisalo
- Parkano–Haapamäki
- Pesiökylä–Taivalkoski
- Kolari–Äkäsjoki
- Niesa–Rautuvaara
- Kiukainen–Säkylä
- Isokylä–Kellosekä
- Lautiosaari–Elijärvi
- Lohja–Lohjanjärvi
- Otava–Otavan satama
- Yläkoski–Iisvesi
- Rantasalmi–Savonlinna

The infrastructure manager will provide information on changes introduced during the timetable period by separate decisions, which will be listed on the Finnish Transport Infrastructure Agency's website (The address will be added after the site has been established).

## 3.6 Service Facilities

### 3.6.1 Passenger Stations

The lengths of passenger platforms (shortest/longest) are indicated in Appendix 3B. Platforms not maintained by the infrastructure manager are indicated in brackets. The passenger stations have been added to the map interface and they are described in

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Appendices 3Q and 3R. These appendices include information about the facilities owned by the infrastructure manager and other owners that may be rented for railway traffic purposes as well as their contact information.

### 3.6.2 Freight Terminals

Freight terminals in the state-owned railway network are marked with “K” in the table in Appendix 3B. Most of the loading facilities in the state-owned railway network are used for loading timber. Private loading areas are marked with “Y”.

The timber loading facilities in the railway network are used for storing and/or loading timber. The timber loading facilities in the railway network available to the infrastructure manager of the state-owned railway network are listed in Appendices 3B and 3T, and in the map interface of the Network Statement. There may also be loading facilities owned by private operators in the private sidings connected to the state-owned railway network. For more details of the timber loading facilities in the state-owned railway network, see Section 5.3.2.1.

A connection to a private siding provided at a traffic operating point in the state-owned railway network is indicated in the tables in Appendices 3B and 3T.

### 3.6.3 Train Formation Yards

Train formation yards are railway yards in which the layout and size of the track system make it possible to form trains. The train formation yards are marked with “Shunting” in Appendix 3B”. More information about train formation yards can be found in Section 5.3.1.3.

At the traffic operating points in Kouvola and Tampere the railway companies have access to inclines for the recomposing of train wagons. Further information about inclines and access to them can be found in Section 5.3.1.3.

### 3.6.4 Storage Sidings

Storage sidings are yard tracks primarily intended for the parking of wagons and coaches waiting for a transport task. Wagons can only be stored temporarily on these tracks. More information about storage sidings can be found in Section 5.3.1.4.

### 3.6.5 Maintenance and Facilities

Access to maintenance and facilities requires an agreement with their maintenance provider. The infrastructure manager does not provide maintenance services for the technical maintenance of rolling stock. The services provided by the infrastructure manager include the maintenance platforms at the Ilmala depot and the use of these platforms are described in Section 5.3.1.5. Appendix 3S describes the infrastructure manager's maintenance services provided at Ilmala depot.

### 3.6.6 Other Technical Services

#### Rolling stock surveillance devices

Hot box detectors have been placed in the railway network at approx. 50 km intervals. The distance can be greater on line sections on which the maximum speed is less than 160 km/h. The devices are installed on the track and to ensure that they function as

intended, rolling stock and the infrastructure must be interoperable as laid down in the acceptance requirements. The alarms given by the system are forwarded to the traffic control of the railway line section in question as well as to the Technical Control Centre.

The wheel force measuring stations are so closely spaced that the rolling stock will cross a measuring station at least once on its normal route. The devices measure the static and dynamic load impact of the wheelset on the rail. Based on these measurement results, defects in the wheel tread (such as wheel flats) and incorrect loading can be detected. The devices are installed in the track. Device alarms caused by critical wheel defects will be forwarded via traffic control to the Rail Traffic Management Centre.

Traffic control will notify the train driver of hot box and wheel force alarms and provide them with the necessary instructions.

The camera systems for monitoring the condition of contact strips in pantographs on electric traction units have mainly been installed on road bridges overpassing the track. The monitoring points are placed so that they photograph the active pantographs approaching the measuring station. Traffic control informs and instructs the driver of the unit if immediate action has to be taken due to the condition of the contact strip in order to avoid damages to the catenary system or rolling stock.

Rolling stock equipped with radio frequency identifiers (RFID), which are interoperable with the infrastructure manager's system, enables prompt allocation of the information to the correct rolling stock unit and its maintenance manager.

A map showing the location of rolling stock surveillance devices can be found in Appendix 3O and on Ratatiedon extranet (the Railway Information Extranet) in Finnish. Registration is required to access the extranet <sup>70</sup>.

The Technical Control Centre monitors and maintains the network of control devices. The control centre uses the VALTSU system to collect all measuring data produced by the control devices, combining it with the available RFID reading and forwarding this information to all concerned parties.

### **Camera surveillance**

Many of the larger stations have camera surveillance. The system allows traffic controllers to monitor the movement of trains and the Information Centre in Southern Finland to observe the movement of passengers on platforms as well as the technical functioning of the information equipment. The Security Control Centre is able to monitor passenger safety and control vandalism. The Technical Control Centre and property maintenance can use the system to check on the tidiness of platform areas and spot any need for technical maintenance work.

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<sup>70</sup> <https://www.vayla.fi/palveluntuottajat/aineistot/ratatiedon-extranet>

### 3.6.7 Port Facilities

Most of the tracks in ports are private sidings and the services available are described in port network statements.<sup>71</sup>

### 3.6.8 Relief Facilities

The infrastructure manager is responsible for the clearing operations concerning the tracks and the rolling stock in the state-owned railway network and for assisting the rescue authorities in rescue operations. The operating procedure is described in more detail in Section 4.8.4.

### 3.6.9 Refuelling Facilities

Appendix 3B shows the refuelling facilities on traffic operating points. More information can be found in Section 5.3.1.7. The refuelling facilities have been indicated in the Network Statement's map interface.

### 3.6.10 Technical Equipment

Appendix 3B shows the cranes located at traffic operating points. More information can be found in Section 5.3.1.6.

## 3.7 Service Facilities not Managed by the infrastructure manager

The service provider shall submit information about the provided service facilities, access to them and the charges levied for the service as well as necessary agreements to the infrastructure manager.

Access to service facilities and rail-related services is governed under the Commission Implementing Regulation (EU) 2017/2177. The infrastructure manager publishes a form for this purpose on its website<sup>72</sup> - RNE Common Template for Service Facilities. The regulation will take effect in June 2019.

Appendices 3B and 3S include information about the service facilities situated in the state-owned railway network and access to them. The service facilities are also described in the map interface.

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<sup>71</sup><https://www.vayla.fi/ammattiliikenne-raiteilla/rautateiden-verkkoselostus/yksityisraiteiden-haltijoiden-verkkoselostukset>

<sup>72</sup> <https://www.vayla.fi/ammattiliikenne-raiteilla/rautateiden-verkkoselostus/rataverkon-palvelun-tarjonta>

## 3.8 Infrastructure Development

The infrastructure manager has published several web-based reports on, for example, the development strategy of railway network capacity 2035, further electrification of the railway network and the future of passenger rail services. The infrastructure manager has also ordered railway plans on a project basis.

In 2019, five development projects will be underway in the railway network:

- Western track in Central Pasila: will be built at the same time as the first new block to be built in Central Pasila. The track will be opened to traffic by 2020.
- Added capacity on the Helsinki–Riihimäki line section, 2015–2020
- Improvement of the efficiency of Helsinki railway yard, 2016–2020
- Luumäki–Imatra–Russian border, 2017–2021
- Repair backlog reduction in the railway network

In 2019, the following projects will be continued:

- Rail network renovations (lines, turnouts, bridges, safety devices)
- Repairs of areas with ground frost damage and soft soils in the main railway network

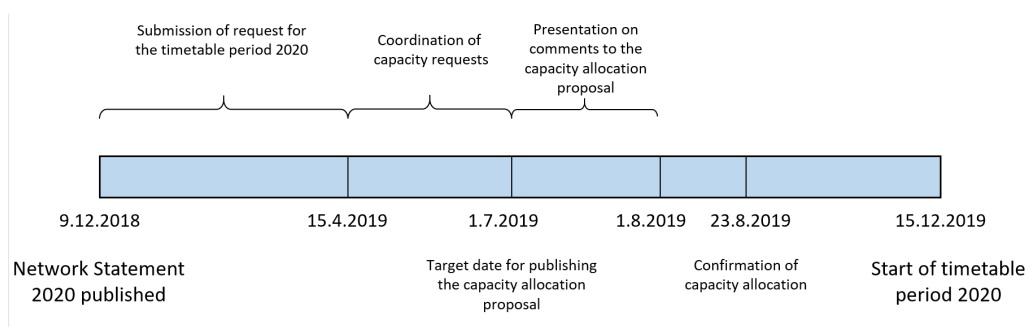
## 4 Capacity allocation

### 4.1 Introduction

The legal framework for requesting and allocating rail capacity is described in Directive 2012/34/EU<sup>73</sup> of the European Parliament and of the Council establishing a single European railway, in the Rail Transport Act (1302/2018)<sup>74</sup> and in the Government Decree on the Timetable Period in Railway Traffic and Requesting Infrastructure Capacity (1308/2018)<sup>75</sup>.

### 4.2 Description of Process

Capacity for operating regular train services on the state-owned railway network shall be requested from the Finnish Transport Infrastructure Agency for each timetable period within the time defined. The schedule for capacity requests and allocation is shown in the figure. It is also possible to make *ad hoc* requests for capacity for other than regular traffic.



#### 4.2.1 Requesting Rail Capacity

The principles of capacity requests are described in the abovementioned Act and Decree. In order to specify them, the infrastructure manager has drawn up an instruction for requesting rail capacity<sup>76</sup>.

Requests for rail capacity for regular services, alterations to the regular services and for *ad hoc* capacity shall be submitted in the LIIKE software<sup>77</sup> or using the interface specified by the infrastructure manager (further information in the instructions for requesting rail capacity). For the coordination of requests, applicants must be prepared to report the train priority group, as referred to in Section 4.4.3.

<sup>73</sup> <http://eur-lex.europa.eu/legal-content/FI/TXT/PDF/?uri=CELEX:32012L0034&from=EN>

<sup>74</sup> <https://www.finlex.fi/fi/laki/alkup/2018/20181302>

<sup>75</sup> <https://www.finlex.fi/fi/laki/alkup/2018/20181308>

<sup>76</sup> <https://www.vayla.fi/ammattiliikenne-raiteilla/liikennesuunnittelu/ohjeet>

<sup>77</sup> <https://tmfg.fi/fi/finrail/tietojarjestelmat>

If the LIIKE system is inoperative due to a widespread malfunction, the Rail Traffic Management Centre can approve requests for ad hoc capacity changes by phone. If the JETI system is inoperative due to malfunctions, the Rail Traffic Management Centre instructs users to use the backup systems containing driver timetables and advance report information.

Further information about requesting rail capacity and the background information regarding timetable planning is found in the instruction for requesting rail capacity.

#### **4.2.2 Requesting Rail Capacity for Shunting Operations**

Rail capacity for shunting operations between traffic operating points and between parts of divided traffic operating points is requested in the LIIKE system. The above mentioned lines between traffic operating points and the sections of the railway yards are specified in the instructions for requesting and allocating rail capacity (in Finnish)<sup>78</sup>. Rail capacity which has been requested and allocated, as well rail capacity allocated for track work in the LIIKE system is prioritised on all line sections.

Capacity for transfers in regular services between Ilmala railway yard and Helsinki Central Railway Station is requested on the adjustment dates for regular services. Capacity for other transfers is requested as ad hoc capacity.

#### **4.2.3 Requesting railway yard capacity**

Applicants and railway operators shall contact the infrastructure manager regarding needs for long-term storage of rolling stock that have arisen during the timetable period. Railway operators operating at an individual traffic operating point shall report their need for access to the railway yard when drawing up the network access agreement. Temporary and quick access may be requested with an advance plan in the JETI system, whereby traffic planning checks the suitability of the storage siding.

In exceptional situations, rolling stock can be temporarily stored on separately specified storage sidings, reserved for train traffic, as described in Section 5.3.1.4.

Decisions on meeting urgent storage needs are made by the traffic planning in the traffic control area, the traffic operator of the specific track, or if necessary, by the Rail Traffic Management Centre, based on current situation. It is possible to enquire about access to a storage siding by submitting an advance plan in the JETI system. In this case, the traffic control company's capacity management service processes the plan and, on approval, converts the advance plan to a capacity reservation. As a rule, it is not allowed to store rolling stock on line tracks intended for train services or on route tracks of a meeting point on a single-track railway line.

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<sup>78</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)



#### 4.2.4 Developing the Process of Rail Capacity Management

##### Line capacity

The infrastructure manager is developing the management of line capacity in accordance with the needs of a multi-operator environment. The aim is to develop an operating model in which

- the capacity planning and acceptance processes are guided by uniform planning principles
- the planning is based on principles and methods that allow the formation of a detailed description of the utilisation rate and use of the planned capacity
- the workability of the capacity arrangements for the year is ensured by simulating them at least on the most important routes during capacity coordination before the capacity plan is approved
- the infrastructure manager prepares preliminary capacity plans for the passenger transport routes in southern Finland so that a workable basis can be established for a standard timetable structure

The methods are developed in cooperation with stakeholders. The new methods are expected to be introduced in the timetable period 2022.

##### Railway yard capacity

The infrastructure manager continues its work to define a more detailed level of capacity management in railway yards (such as the level of detail and purpose of track reservations, from the annual level to daily operations). The aim of this work is fair allocation of capacity in a multi-operator environment and sufficient dissemination of situational awareness to different operators. This development work is carried out in collaboration with railway operators, other infrastructure managers, the traffic control company and railway maintenance. The implementation of the new operating models resulting from this development work is planned in collaboration with the operators. Information about the changes are included as required in the infrastructure manager's instruction process.

## 4.3 Schedule for Path Requests and Allocation Process

### 4.3.1 Schedule for Working timetable

The timetable period in railway traffic starts annually at the second weekend of December, at 00.00 hrs on the night between Saturday and Sunday, and ends at the corresponding time the following year. The timetable period 2020 begins on 15 December 2019 and ends on 12 December 2020. Applicants shall request capacity no earlier than 12 and no later than 8 months ahead of the timetable period. One request may include all the changes in traffic to be made during the timetable period.

Decisions on the allocation of capacity for regular services may be adjusted for the remaining timetable period during the timetable period concerned at specified adjustment dates, provided that these adjustments do not affect the capacity allocated to other applicants or international traffic within the European Economic

Area; or that the adjustments have been approved by all parties. The adjustment dates take place at the beginning of the timetable period on the night between Saturday and Sunday at 00:00 hours and on the second weekend after the end of the school year on the night between Sunday and Monday at 00:00, i.e. between weeks 24 and 25. In addition to the above dates, the infrastructure manager may for special reasons decide on other adjustment dates.

The adjustment dates for the timetable period 2019 are:

	<b>Request submission date</b>	<b>Allocation decision</b>	<b>Entry into force</b>
1.	Wed 24.10.2018	Fri 2.11.2018	Sun 9.12.2018
2.	Wed 12.12.2018	Fri 21.12.2018	Mon 28.1.2019
3.	Wed 13.2.2019	Fri 22.2.2019	Sun 31.3.2019
4.	Thu 2.5.2019	Fri 10.5.2019	Mon 17.6.2019
5.	Wed 26.6.2019	Fri 5.7.2019	Mon 12.8.2019
5.	Wed 11.9.2019	Fri 20.9.2019	Sun 27.10.2019

The infrastructure manager shall inform all clients, the Ministry of Transport and Communications, the Regulatory Body and all other parties concerned about the new adjustment dates for regular services. The decision on the adjustment dates will be published on the infrastructure manager's website<sup>79</sup>.

#### 4.3.2 Schedule for Ad-Hoc Requests

Information about requesting ad hoc capacity can be found in the instruction for requesting rail capacity<sup>80</sup>.

#### 4.3.3 Applying for Railway yard Capacity

The infrastructure manager allocates railway yard capacity to railway operators in access agreements and, if necessary, in railway yard agreements included in the access agreement. Railway operators shall report and specify their need to use railway yards in the access agreement.

## 4.4 Allocation Process

#### 4.4.1 Coordination Process

Based on the applications, the Finnish Transport Infrastructure Agency's unit Infrastructure Access draws up the rail capacity allocation proposal (called "draft working timetable" in the legislation) for the next timetable period no later than four months after the deadline for the submission of requests for capacity. It has, however, been agreed by European railway infrastructure managers that no more than 2.5 months shall be used for the coordination of requests.

<sup>79</sup> <http://www.vayla.fi/ammattiliikenne-raiteilla/liikennesuunnittelu/saannollisen-liikenteen-muutokset>

<sup>80</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

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In cases of conflicting train path requests, the infrastructure manager will attempt to ensure the best possible matching of the conflicting requests. In the coordination procedure, the infrastructure manager is entitled to provide alternative train paths, which differ from the original request. In the coordination procedure, the infrastructure manager observes the coordination principles and priority criteria described in Section 4.4.3.

The infrastructure manager will resolve possible conflicting applications for train paths through negotiations with applicants. The negotiations are based on the following information to be provided by the infrastructure manager within a reasonable timeframe, free of charge and in written form:

- 1) the train paths requested by relevant applicants on the same route section;
- 2) train paths that have preliminarily been assigned to several applicants on the same route section;
- 3) provision of alternative rail capacity on relevant train paths;
- 4) information about the criteria for capacity allocation.

The infrastructure manager will send the capacity allocation proposal for the information of applicants and other interested parties within the prescribed period of time. The consultation period (at least one month) begins when the infrastructure manager announces the completion of the capacity allocation proposal on its website<sup>81</sup>. In addition to the allocation suggestions, there is more detailed information about the comment procedure on the website

Based on the rail capacity allocation proposal and the comments presented by the parties involved, the infrastructure manager shall decide on the allocation of rail capacity on a fair and non-discriminatory basis. The infrastructure manager shall take into account the needs of passengers, the freight sector as well as track maintenance and optimum use of the railway network. The priority criteria set for specialised and congested infrastructure shall also be taken into account.

The infrastructure manager shall inform applicants about how the rail capacity has been allocated between applicants. If the infrastructure manager has decided to reserve part of the capacity to be allocated later, all applicants shall be informed of this. More information about requesting, allocating and cancelling rail capacity can be found in the instruction for requesting rail capacity.

#### **4.4.2 Dispute Resolution Process**

Railway undertakings may appeal against a capacity allocation decision by the infrastructure manager by filing a claim for rectification with the Rail Regulatory Body. For further information, see Section 1.4.3.

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<sup>81</sup> <http://www.vayla.fi/ammattiliikenne-raiteilla/liikennesuunnittelu/saannollinen-ratakapasiteetti>

#### 4.4.3 Congested Infrastructure and Priority Criteria

Where conflicting requests for train paths during the scheduling procedure cannot be satisfied, despite negotiations and compromises (see instruction for requesting rail capacity), the infrastructure manager will declare the element of infrastructure in question to be congested. This also applies to infrastructure that obviously will be congested during the timetable period. For an element of congested infrastructure, the infrastructure manager may introduce an increased basic infrastructure charge. If an increased charge has not been introduced, or an introduced charge has not had effect on reducing the congestion, the infrastructure manager may apply priority criteria according to which a specific traffic type may be given priority when allocating capacity on an element of congested infrastructure. The priority criteria shall take into account the societal impact in relation to other traffic services. When establishing the priority criteria, the service providers shall be treated in a fair and non-discriminatory manner.

Non-disclosure provisions notwithstanding, the infrastructure manager is entitled to obtain the necessary confidential information, and the information grounds, from the capacity applicants in order to establish the priority criteria. The infrastructure manager shall have established the priority criteria no later than ten days after the conclusion of the negotiations on the element of the congested infrastructure.

When infrastructure has been declared to be congested, the infrastructure manager will carry out a capacity analysis, as referred to in the Rail Transport Act. This analysis will especially focus on steering the railway traffic to other line sections, drawing up a new timetable plan, amendments to speed limits and improving the condition of the railway network. The infrastructure manager will compile a capacity enhancement plan within six months of the completion of the capacity analysis.

#### Priority criteria and coordination principles applied in Finland

In the coordination phase of allocating rail capacity, conflicting capacity requests may be put in order of priority, as presented in Table 1. The application of this priority order is based on the assumption that each train can be defined during its whole journey by one of the priority groups listed in the table.

The priority group may, however, change during the journey. For example, a passenger train may belong to the Synergic transport category for only part of the journey and otherwise fall under the category Fast passenger transport. Similarly, the priority group may change if a freight train formation changes.

If necessary, the infrastructure manager will arrange an assessment discussion with the rail capacity applicant about whether the priority group reported for the train meets the infrastructure manager's criteria on the priority order assigned to the train.

Table 1. Priority categories used in Finland and the priority order used for allocating railway capacity.

Pri ority	Type of transport
1.	Synergic passenger transport <sup>82</sup>
2.	Fast passenger transport <sup>83</sup> Synergic freight transport <sup>84</sup>
3.	Other passenger transport Other regular freight transport
4.	Freight transport not requiring strict timetables
5.	Other transport <sup>85</sup>

The order within priority groups 2 and 3 may be determined per line section if the services on the line section primarily comprise passenger or goods transport.

In the phase when capacity requests are being coordinated, several criteria may be applied to examine trains within the same priority category. It should be noted that frequent train services have higher priority than less frequent train services. In the coordination process, trains travelling longer distances may have higher priority than trains travelling shorter distances, if changes to the timetables of the train travelling longer distances would lead to several other changes on the train route. The number and length of additional stops due to other traffic must not be unreasonable in relation to the duration of the whole journey.

Factors taken into account in the coordination of passenger services may include the estimated total number of passengers, the significance of the train in the transport system and the onward connections from the train to other trains and transport modes. The infrastructure manager shall, if necessary, be given information about the volume of passengers for the coordination process. In passenger transport, it can also be assessed how the coordination affects rolling stock and personnel duty rotations, so that these do not cause unreasonable inconvenience for the operators after the coordination. During peak hours, trains running in the congested direction are prioritised.

<sup>82</sup> In passenger transport, the term "synergic passenger transport" refers to the group of trains that form a transport system producing clear added value for customers. Such a system could be, for example, the Basic Interval Timetable, with trains running within or between large city centres, and which have good onward rail or other public transport connections. However, traffic density may depend on the passenger volumes in the area.

<sup>83</sup> The term "fast passenger transport" refers to transport that does not belong to the synergy-producing transport system. As a rule, trains are made up of wagons for long-distance traffic, and trains only stop at the most important stations. International passenger transport may belong to this category.

<sup>84</sup> Synergic freight transport" refers to a train or a group of trains that is tightly connected to industry processes. Trains carry goods, for example, between industrial plants or from industrial plants directly to ships in port, which requires a strict timetable for train traffic. Typically, transported goods are not intermediately stored, but are carried straight from the factory to the train and further to the ship in port. In general, a certain type of wagons assigned for these transports, are used.

<sup>85</sup> "Other traffic" refers to, e.g., traffic in connection with track work, non-commercial traffic or shunting operations carried out on the line sections.

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When coordinating freight transport, energy-efficiency in situations with meeting trains should be taken into account. For example, heavy trains should not be stopped repeatedly due to other train traffic. The aim should be to locate meeting trains at traffic operating points where the terrain does not hinder the movements of a slowly arriving or departing train, possibly causing disruptions to other traffic. Trains carrying dangerous goods can only stop for longer periods of time at railway yards designated to handle dangerous goods.

#### **Priority criteria on railway yards**

The following priority order for operating on, issuing permits for and using the tracks on railway yards shall primarily be used, unless otherwise agreed upon for specific traffic operating points:

1. Use of the rail capacity granted in the rail capacity management system
2. Train traffic
3. Moving locomotives in front of a departing fleet at the site of departure
4. Shunting operations between traffic operating points
5. Shunting traffic between traffic operating point sections / passenger traffic shunting
6. Wagon group shunting operations or train formation/splitting
7. Use of loading and unloading tracks
8. Moving rolling stock to storage sidings
9. Storage of rolling stock on the track

Permission for similar type of traffic is granted in the order that permission has been requested. The traffic operator will consider the permits to move track work units (due to malfunctions, service and other movements) at the traffic operating point on a case-by-case basis.

The traffic operator will take impacts of the disruption or the malfunction into account and apply the priority criteria when issuing operating permits.

In situations where a permit to use a storage siding has been issued and it is already used for storage of rolling stock, and where the track, for well-grounded reasons, is needed for operations of higher priority, the Rail Traffic Management Centre first attempts to assign an alternative track for the train traffic/shunting operations. If it is not possible to provide an alternative track, the railway operator shall, without unnecessary delay, move its stationary rolling stock to a location assigned by the Rail Traffic Management Centre. If the railway operator fails to arrange for its rolling stock to be moved within a reasonable period of time, another party may move the wagons, as referred to in Section 4.8.2, to ensure smooth flow of traffic. If necessary, the Rail Traffic Management Centre defines the meaning of reasonable time.

The aim is to ensure smooth operations and predictive analyses of the use of railway yard tracks, so that there is sufficient information on track reservations and the general need for usage, before permits to store rolling stock on the track are issued. A conflict situation as described above is therefore an exceptional situation to be resolved separately.

Railway operators shall contact the infrastructure manager about any needs for storage of rolling stock that have arisen during the timetable period, as referred to in Sections 4.2.3.

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Operations on the railway yard may not intentionally obstruct the operations of another party. Rolling stock may not be unnecessarily stored at turnouts or single cross-overs (for example during breaks). It shall be possible to operate between the parts of the railway yards at all times.

Railway operators shall also ensure that the winter maintenance of tracks can be performed and, for example, move rolling stock as required.

#### **Derogation from the priority order laid down in the Network Statement**

The infrastructure manager may derogate from the general priority order in favour of an applicant operating international services or such services that otherwise maintain or improve the functioning of the rail transport system or public transport. The same applies to cases where the rejection of the application would cause unreasonable inconvenience to applicants or to the business activities of their customers. Derogation from the procedure of setting priority criteria when allocating an element of congested infrastructure shall be preceded by a rail capacity analysis, as referred to in the Rail Transport Act.

#### **4.4.4 Impact of Framework Agreements**

For the time being, the infrastructure manager does not conclude framework agreements (see Chapter 2.3.1). However, in order to ensure a smoothly functioning timetable structure, applicants are requested to provide preliminary information on adjustment needs concerning the timetable structure in effect at the time. The information should be provided no later than 11 months before the start of the new timetable period so that the infrastructure manager can start the timetable coordination process 10-11 months before the start of the new timetable period. The applicants are expected to take part in the coordination procedures in which the aim is to produce a timetable structure that is in the national interest.

The process described in Chapter 4.2.4 will replace this process starting from the timetable year 2022.

## 4.5 Allocation of Capacity for Maintenance, Renewal and Enhancements

### 4.5.1 Machinery Operations and Storage

The railway network may also be used for transferring track machines from depots to worksites, between worksites, and for maintenance purposes.

Under the Rail Transport Act, a safety certificate issued by the Finnish Transport and Communications Agency Traficom is required for train or shunting operations outside the area reserved for track works. The safety certificate is issued upon application for a maximum of five years at a time. The requirements for obtaining a safety certificate are that the traffic operator engaged in infrastructure management has sufficient liability insurance and an adequate risk management system, its stock has been approved by the Finnish Transport and Communications Agency Traficom and that the persons conducting the traffic operations are competent to do so.

Requests for the rail capacity required to operate train services shall be submitted in the LIIKE system. Use of storage tracks shall be agreed upon directly with the capacity management service of the traffic control company and the applicant saves an advance plan for this in the JETI system. The traffic control company changes the advance plan into a capacity reservation, whereby the track is reserved for the operator in question for a certain period of time.

The TURO publication contains detailed instructions on the track work machinery as well as on the persons and railway undertakings with traffic safety duties operating on the track<sup>86</sup>.

### 4.5.2 Coordination of Track works and Train services

#### 4.5.2.1 *Consulting Stakeholder Groups*

The infrastructure manager conducts negotiations with applicants for rail capacity, railway undertakings, and maintenance and transport providers about the timing of track work, track possessions and other capacity restrictions arising from the work. A national meeting discussing the coordination of track work and traffic is the key cooperation forum in this respect. The meetings, which are held four times a year, are convened and chaired by the infrastructure manager. Stakeholder groups are also invited to join the planning of the work stages of rail projects with traffic impacts and, if necessary, the weekly meetings held during track work projects. Based on the results of the negotiations, the infrastructure manager decides on anticipated timings, track possessions and other measures impacting traffic.

The collaboration between infrastructure managers is performed in a separate working group convened by the Finnish Transport Infrastructure Agency.

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<sup>86</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)



#### **4.5.2.2**      *Appendix 3K*

At the time of the publication, Appendix 3K provides the best estimate of the track work affecting traffic during the timetable period 2019 and of the rail capacity needs for railway infrastructure management arising from the work. Appendix 3K to the Network Statement will be updated in accordance with Section 1.6.2.

#### **4.5.2.3**      *Specifying information on track work before the start of a new timetable period*

Track works affecting the timetable period and that the infrastructure manager has been aware of at least six months before the change of the timetable period, and due to which capacity restrictions have to be imposed on traffic, shall be reported no later than four months before the change of the timetable period.

A publication and consultation procedure for capacity restrictions according to the EU Commission-delegated regulation of 4.9.2017 will take effect in autumn 2019. Then, the capacity restrictions due to track works in 2022 (the first consultation round) and in 2021 (the second consultation round) will be published.

#### **4.5.2.4**      *Specifying track work information during a timetable period*

The allocated track capacity is at the disposal of the railway operators, unless the capacity overlaps the track possessions required for track work. The work programme, timing of the work and the track possessions required may, however, change as the funding and planning are specified. Occasionally, the traffic impacts of the work will have to be reviewed during the timetable period in question, or unexpected infrastructure maintenance work not foreseen in the annual plan must be carried out. These situations are due to the following factors: safe traffic services have to be ensured through capacity restrictions; or the infrastructure manager have no influence on the timing of the restrictions; or application of the time limits is cost-inefficient; or it causes unnecessary damage to railway asset management; or in other situations, where all concerned approve the change.

In those cases, the rail capacity allocated to railway undertakings that overlaps infrastructure maintenance needs is not available to railway operators and notification of this is provided no later than:

- 2 months before work commences, if the work has a non-recurring traffic impact.
- 3 months before work commences, if the work has daily traffic impacts lasting for weeks, months or for several weekends.
- 4 months before work commences, if the impact affects high-speed international passenger transport.

If the traffic impacts of the work will have to be revised so that the time limits referred to above cannot be observed, the infrastructure manager will discuss the matter with railway operators before making its decision. If decisions have to be made at short notice or outside office hours, a representative of the infrastructure manager (traffic control company) will conduct the necessary negotiations before decision-making. In addition to the annual planning, railway capacity is reserved for maintenance operations on the terms of railway traffic, and the railway capacity is defined in the

JETI system. When the capacity required for track work has been entered into the Advance Information System and thereby reserved for it, the Railway Operators can no longer apply for it or use it. If not all parts of the Advance Information System are used in the railway yard, information is provided by the traffic management company or, during malfunctions, by the traffic control.

#### **4.5.2.5 *Using Diversionary Routes***

Diversionary routes, as referred to in the Commission Delegated Decision (EU 2017/2075), to which trains can be rerouted during track work, are not available in Finland because most of the railway network is single track and there is only a small number of lines that can be used as alternatives. For this reason, major track work is often carried out when there is low traffic. When diversionary rail routes are available, the rail capacity is prioritised in accordance with the arrangement used in Finland. Occasionally, trains also have to be replaced with other modes of transport. However, in these cases, arranging replacement transport and the costs arising from it are the responsibility of the railway operator.

#### **4.5.2.6 *Ordering Track Possession Affecting Traffic***

The party requiring track possession must contact the traffic control and management company separately and agree on the track possession and its details accordance with the infrastructure manager's decision on track possessions no later than 2-4 months before the work is scheduled to start. For contact details of the traffic control company's capacity management service, visit the Finnish Transport Infrastructure Agency's website<sup>87</sup>: The party performing the work must have been allocated rail capacity, granted permission for track works, and if necessary, granted a voltage cut-off prior to starting the work during the allocated track possessions.

#### **4.5.2.7 *Maintaining Track Work Information***

The data in Appendix 3K on major track works affecting services are updated and published in the Advance Information System, JETI. Data from JETI are forwarded to the LIIKE system and published in the TMFG's open data <sup>88</sup>.

#### **4.5.2.8 *Communication on track work***

Each party is responsible for its own communication concerning track works. The infrastructure manager is responsible for communication regarding track and rail accessibility and for providing information about track works. The railway undertakings are responsible for their own train services and for providing information about their timetables. The parties coordinate beforehand and go over the measures to be taken concerning the communication regarding the track works.

## **4.6 Non-usage**

Railway operators shall without delay cancel railway capacity that will not be used.

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<sup>87</sup> <http://www.vayla.fi/ammattiliikenne-raiteilla/liikennesuunnittelu/liikennesuunnittelualueet>

<sup>88</sup> <https://www.digitraffic.fi/>

The infrastructure manager has the right to cancel all or part of the capacity allocated to an applicant for the rest of the valid timetable period, if the applicant has used less than the required threshold quota over a period of at least 30 days. Currently, in Finland, the threshold quota for the minimum use of capacity is 95 % for passenger trains and 50 % for freight trains. The threshold quotas refer to rail capacity for regular services, which are followed up on a monthly basis. If threshold quotas have not been reached, the infrastructure manager will ask the capacity manager to explain the reasons for not having used the capacity. However, action will not be taken unless the train service has been cancelled more than three times in 30 days.

The infrastructure manager may not, however, cancel the rail capacity if the failure to use it is due to non-economic reasons beyond the applicant's or the railway operator's control. The infrastructure manager always cancels the rail capacity of a railway operator for the time during which the general requirements for railway operations described in Chapter 2.2.1 are not met.

## 4.7 Exceptional Transports

A permit for exceptional transports issued is always required for transports on vehicles that exceed the loading gauge. The permit is issued by the Finnish Transport Infrastructure Agency's Railway Technology Unit and applications for exceptional transport permits shall be submitted well in advance by email: [erikoiskuljetukset.rata@vayla.fi](mailto:erikoiskuljetukset.rata@vayla.fi). The application should include information on weights and dimensions; vehicles, lines and tracks to be used for the transport; and the estimated time of transport. The permits are subject to charge, and they are charged in compliance with the effective Government Decree that applies to the chargeable performances of the infrastructure manager.<sup>89</sup>

When the infrastructure manager has issued a permit for exceptional transports, the permit applicant shall submit at least the track diagrams of the hindrance report. The number of the exceptional transport shall be mentioned in connection with the submission of the report.

The following information shall be added to the basic data in the capacity application for exceptional transports:

- that the application is for exceptional transport ;
- the permit number of the exceptional transport; and
- in the text field for additional schedule information: the special conditions concerning the driver and/or traffic control (for example, the transport must not meet another transport exceeding the loading gauge on the adjacent track).

When allocating rail capacity, it must be ensured that the application includes sufficient information about the exceptional transport.

Without a permit issued by the infrastructure manager, the railway operators may transport exceptional transports, which horizontally exceed the loading gauge by no more than 300 mm, at a height of 1,300–4,300 mm above the rail surface, at their own

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<sup>89</sup> <https://www.finlex.fi/fi/laki/alkup/2018/20181147>

risk. The railway operator should report such transports to the infrastructure manager. The railway operator is responsible for ensuring a smooth traffic flow during the transport, and for requesting that the infrastructure manager issues the required rail capacity. The special characteristic of the transport must be taken into consideration in the request for rail capacity. Two such transports, exceeding the loading gauge, must not meet on adjacent tracks.

A permit issued by the infrastructure manager is always required for special transports with heavy duty cargo wagons.

The terms and conditions of transports with vehicles exceeding the loading gauge are laid down in Appendix 3D. The transport terms and conditions for overweight wagons can be found in Appendix 3M.

## 4.8 Special Measures to be taken in the Event of Disturbance

### 4.8.1 Principles

The traffic control service is described in Section 5.2.

The infrastructure manager has the right to cancel the rail capacity completely or partially on a train path provisionally out of service due to a technical failure in the railway network, an accident or other incident.

In such case, the infrastructure manager offers the operator alternative train paths, as far as possible. The infrastructure manager is, however, not obliged to compensate for damage that may be caused to the operator, unless otherwise is agreed upon in the railway network access agreement.

Compensations due to disruptions are dealt with in Section 6.5.

The aim in the management of disruptions is to restore normal operations without delay, minimise harmful impacts, apply transparent operating models and communication procedures, and ensure impartiality and even quality. Punctuality of railway traffic, efficient use of rail capacity during infrastructure malfunctions, feedback received from stakeholder groups and high/low media visibility are used as success indicators.

The organisations involved must designate partners that are authorised to make decisions contributing to operational solution of disruptions (24/7). This operational group is responsible, under the direction of the national traffic control service, on the coordination of measures and on making the necessary anticipatory decisions on providing train services in situations involving major disruptions. The list of the partners is maintained by the infrastructure manager's contact person for network access agreements.

By concluding a separate agreement with the infrastructure manager, a railway undertaking may also place members of its operational staff in the facilities of the

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traffic control centre so that closer cooperation between rolling stock operations management and traffic control can be ensured during disruptions.

For disruptions, the infrastructure manager has, in cooperation with railway operators, prepared cards describing how to deal with different types of disruptions. The purpose of the cards is to produce a clear situation picture and ensure that decisions can be made on basis of it. Jointly prepared cards speed up the recovery from disruptions and improve the flow of information in connection with the disruptions. All parties must act in accordance with the instructions given in the cards and the guidelines on applying them issued by the Rail Traffic Management Centre.

The infrastructure manager is responsible for preparing an annual traffic reduction plan in cooperation with different railway operators. The purpose of the plan is to prepare for traffic reductions on days with heavy snowfall when snow clearing and cleaning of points reduce capacity available to traffic. Each railway operator must be prepared to suggest which train services could be cancelled during major disruptions.

The Rail Traffic Management Centre decides on the introduction of the reduction plan with immediate effect or the decision can be made on an anticipatory basis on the previous day.

The traffic control company is responsible for keeping the reduction plan and the information cards up to date. The operating model for disruptions management is being jointly developed by the infrastructure manager, the traffic control company and railway operators.

#### **4.8.2 Operational Regulation**

The infrastructure manager determines the rules on the management of disturbances between railway operators. Railway operators may present their own proposals for instructions how to handle disturbances affecting their own trains.

The Rail Traffic Management Centre of the Finnish Transport Infrastructure Agency resolves instances of disruption and provides guidelines on the correct action to be taken in such situations according to sections 4.8.3 (Foreseen problems) and 4.8.4 (Unforeseen problems).

In its instruction "Ohje varautumisesta rautatieonnettomuuksiin" (OVRO)<sup>90</sup>, the infrastructure manager defines the actions to be taken in case of an accident and how to prepare for accidents in advance.

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<sup>90</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

## Safety issues

Safety issues are dealt with in the network access agreement and in Appendix 4A to the Network Statement. The infrastructure manager gives instructions within its jurisdiction that have to be complied with in the state-owned railway network managed by the Finnish Transport Infrastructure Agency.

### Moving rolling stock of another party

Moving of rolling stock of another party shall comply with the instruction Junaliikenteen ja vaihtotyön turvallisuussäännöt (Jt)<sup>91</sup>.

The parties agree between themselves on the costs that may incur by the move and possible damages.

### 4.8.3 Foreseen Problems

The Rail Traffic Management Centre determines the order of priority of trains during disruptions. The manner in which connecting trains should wait for delayed trains and how traffic should be prioritised during delays and disruptions is detailed in the work instructions for rail traffic control<sup>92</sup>.

### 4.8.4 Unforeseen Problems

The infrastructure manager and the railway operators shall be prepared for railway accidents in their fields of activity and follow the Finnish Transport Infrastructure Agency's guidelines "Ohje varautumisesta rautatieonnettomuuksiin" (OVRO)<sup>93</sup> on how to prepare for railway accidents.

The infrastructure manager is responsible for the clearing operations of the train and line in the state-owned railway network, and for assisting the rescue authorities in rescue operations as laid down in the Rail Transport Act, the Rescue Act and in the Commission Regulation 2015/995. The infrastructure manager has published guidelines on how to prepare for railway accidents (OVRO). These guidelines apply to both railway operators and to all other operators in the state-owned railway network.

The infrastructure manager may perform the clearing operations itself or engage its network of service providers and cooperative partners. The service providers or cooperative partners are subordinated to the infrastructure manager's operative management, unless otherwise provided by law. The Finnish Transport Infrastructure Agency grants authoritative and priority decisions concerning clearing operations. The infrastructure manager may give instructions on the training or certification required for the task.

The railway operator is obliged to provide the infrastructure manager with any specific information regarding the clearing operations or to be forwarded to the rescue authorities as provided in Commission Regulation 2015/995 (OPE TSI). The

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<sup>91</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

<sup>92</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

<sup>93</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

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information to be provided is described in more detail in WAG TSI (Commission Regulation 321/2013) and in LOC&PAS TSI (Commission Regulation 1302/2014). Moreover, the railway operator is also obliged to, if necessary, instruct the breakdown gang on how to safely recover, de-energise and safeguard the train. This is done to ensure the safety of the rolling stock as well as the people performing rescue and clearing operations. In cases of accidents and exceptional situations, the railway operator shall, at request, provide specialist train technical advice at its own cost.

The division of costs incurred by accidents and clearing operations between involved parties complies with the provisions laid down in the Rail Traffic Liability Act and the Tort Liability Act.

The infrastructure manager is prepared to restore the track to an operable condition as quickly as possible and then, within a reasonable time, to the condition it was in before the accident. The infrastructure manager agrees thereupon when making the railway network maintenance agreements. Performing several simultaneous tasks and the possible prioritisation of tasks affects the availability of clearing and rescue services.

If any safety deficiencies affecting traffic are detected in the railway network, the infrastructure manager may have to reduce the applicable axle load or speed limit.

The Ministry of Transport and Communications provides guidelines for and oversees the different rail sector operators' preparedness for accidents and exceptional circumstances.

## 4.9 Allocation of Capacity for Service Facilities

The allocation of capacity for service facilities is described in Chapter 5.3.

## 5 Services

### 5.1 Introduction

Provisions on services to be supplied to the railway operators are laid down in the Commission Implementing Regulation (EU) 2017/2177 of 22 November 2017 on access to service facilities and rail-related services<sup>94</sup>, the Rail Transport Act (1302/2018)<sup>95</sup>, and in the Government Decree on services supplied to railway operators (1489/2015)<sup>96</sup>. According to the legislation, services are divided into services included in the minimum access package, access to service facilities, additional services and ancillary services.

Services concerning access to the railway network are described in Chapter 5, Appendix 3B and in the map service. These services may be supplied by the infrastructure manager or other parties. As a rule, the services supplied by the infrastructure manager are agreed upon in the access agreement. Any changes after the signing of the agreement are agreed upon separately with the railway operator or operators and updated as required in the form of an appendix to the access agreement.

Information about these changes will be posted on the infrastructure manager's website<sup>97</sup>.

The prices for the services provided by the infrastructure manager are listed in Chapter 6.

### 5.2 Minimum Access Package

The infrastructure manager shall, in return for the infrastructure charge referred to in Section 139 of the Rail Transport Act, supply to all railway undertakings, in a nondiscriminatory manner, the services included in the minimum access package laid down in point 1 of Annex II to Directive 2012/34/EU of the European Parliament and of the Council establishing a single European railway area<sup>98</sup>. Moreover, the infrastructure manager shall, in return for the infrastructure charge, supply access to the facilities referred to in Section 133 of the Rail Transport Act and in Government Decree 1489/2015.

The following services, included in the minimum access package as referred to in Section 132 of the Rail Transport Act, are supplied by the infrastructure manager:

- 1) handling of requests for railway infrastructure capacity (described in Chapter 4);
- 2) the right to utilise granted capacity;
- 3) use of the railway infrastructure, including railway junctions and turnouts;

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<sup>94</sup> <https://eur-lex.europa.eu/legal-content/FI/TXT/PDF/?uri=CELEX:32017R2177&from=EN>

<sup>95</sup> <https://www.finlex.fi/fi/laki/alkup/2018/20181302>

<sup>96</sup> <https://www.finlex.fi/fi/laki/alkup/2015/20151489>

<sup>97</sup> <http://www.vayla.fi/ammattiliikenne-raiteilla/rautateiden-verkkoselostus>

<sup>98</sup> <https://eur-lex.europa.eu/legal-content/FI/TXT/PDF/?uri=CELEX:02012L0034-20161224>



- 4) train control including signalling, regulation, dispatching and the communication and provision of information on train movement;
- 5) connection to the infrastructure manager's transmission network and use of electrical supply equipment for traffic on electrified line sections, as referred to in Sections 2 and 3 in the Network Statement;
- 6) all other information required to implement or operate the service for which capacity has been granted.

The infrastructure manager levies an infrastructure charge for all traffic operations for which rail capacity has been granted. The principles for levying the infrastructure charge and the railway infrastructure tax are described in Chapter 6.

### **Traffic control and management**

The infrastructure manager is responsible for traffic control and traffic management in the state-owned railway network. The infrastructure manager purchases the traffic control and management services from the traffic control company. In addition to the rail traffic control service, the service also includes the national rail traffic control and management service (Rail Traffic Management Centre). Traffic control service hours and service restrictions are given in the list of traffic control service hours, which can be viewed at the rail data extranet site<sup>99</sup>.

Railway operators may influence traffic management at two different levels: at high level and at the operational level. At the high level, railway operators may comment on the anticipatory information to be included of the Network Statement, influence the new timetable period during access agreement negotiations (Chapter 2.3) and influence the current timetable period in the monitoring groups of the access agreements. The access agreement meetings are mutual forums for the infrastructure manager and the railway operator.

At the operational level, railway operators may influence the procedure for coordinating regular rail capacity for the traffic management (Section 4.4.1), in separate collaboration forums (for example, Section 4.5.2.1) and in operational situations. In the operational level forums, the infrastructure manager offers railway operators and traffic clients the opportunity to contribute to the development of operating models together with the infrastructure manager, the traffic control company and other railway operators.

The contacts between traffic control and railway operators are based on approved rail capacity and they are largely maintained by means of information systems. Railway operators must provide train formation details through the interface or directly in the rail capacity management system before the train's departure. Railway operators must also submit the departure readiness notification by means of the train driver's terminal device. Through the terminal device, the train driver is provided with the train's timetable, notifications provided by the traffic controller and the details of traffic restrictions affecting the movements of the rolling stock unit. More information about traffic control information systems and communications arrangements are given in Chapter 3.3.3 of the Network Statement. Details of the information that must

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<sup>99</sup> <https://vayla.fi/palveluntuottajat/aineistot/ratatiedon-extranet>

be given to the train driver before the issuing of the departure readiness notification are given in the instruction "Junaliikenteen ja vaihtotyön turvallisuussäännöt" (Jt)<sup>100</sup>.

Feedback on the work of the traffic control and management service (traffic control company) can be given to the Finnish Transport Infrastructure Agency personnel responsible for the rail traffic control service agreements or via the feedback channel ([www.palautevayla.fi](http://www.palautevayla.fi)).

Details of the chargeable additional traffic control service for shunting operations provided by the infrastructure manager are given in Section 5.3.2.1 and in Appendix 5A.

## 5.3 Access to Service Facilities

### 5.3.1 Access to service facilities

As laid down in Section 133 of the Rail Transport Act (1302/2018) and in the Government Decree 1489/2015<sup>101</sup>, the infrastructure manager, the railway operator or the operator of another service facility shall give access, including track access, to the following services facilities, when they exist, and to the services supplied in these facilities as referred to in point 2 of Annex II to Directive 2012/34/EU of the European Parliament and of the Council<sup>102</sup>.

Access to services supplied by the infrastructure manager is mainly agreed upon in the access agreements. Availability of other services and access to these shall be negotiated and agreed upon with the service providers.

Examples of such services may be access to the following services (or other services not mentioned here):

- 1) passenger stations, their buildings and other facilities, including travel information display and suitable location for ticketing services;
- 2) freight terminals;
- 3) railway yards and train formation facilities, including shunting facilities;
- 4) storage sidings;
- 5) maintenance facilities, with the exception of heavy maintenance facilities dedicated to high-speed trains or to other types of rolling stock requiring specific facilities;
- 6) other technical facilities than those mentioned in point 3 and 5, including cleaning and washing facilities;
- 7) maritime and inland port facilities which are linked to rail activities;
- 8) relief facilities;
- 9) refuelling facilities and supply of fuel in these facilities, charges for which shall be shown on the invoices separately.

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<sup>100</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

<sup>101</sup> <https://www.finlex.fi/fi/laki/alkup/2015/20151489>

<sup>102</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:343:0032:0077:FI:PDF>

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Track access required to access service facilities shall be given in return for the basic infrastructure charge. The operator of the service facility is entitled to collect a charge according to Section 133 of the Rail Transport Act for access to the service facility and track access at the service facilities and for the services supplied at these.

#### **5.3.1.1**      *Passenger Stations*

The infrastructure manager owns and provides access to the tracks and passenger platforms at passenger stations.

The facilities at passenger stations that may be rented for railway traffic purposes and that are owned by the infrastructure manager and other owners, as well as their contact information, are presented in Appendices 3Q and 3R.

#### **System for passenger information and announcement data**

The passenger information provided at railway stations is part of the railway infrastructure, and is hence the responsibility of the infrastructure manager. The railway operator is responsible for providing information about ticket availability, as well as for the passenger information on the trains. Passenger information is developed with the aim to ensure that train passengers will find their journey satisfactory, even when things do not go according to plan. Infrastructure manager is responsible for the electronic information systems at railway stations and in platform areas. This includes timetable screens, announcement systems, route indicators, signs indicating station names and track numbers, and timetable display cases in the station areas. The railway operator or HSL is responsible for the information in the timetable display cases. The traffic control company is responsible for the passenger information system and produces the electronic, changing information and announcements for the stations.

#### **5.3.1.2**      *Timber Terminals*

Freight terminals in the state-owned railway network are marked with “K” in the table in Appendix 3B. Most of the loading facilities in the state-owned railway network are used for loading timber. Private loading areas are marked with “Y”.

#### **Timber loading facilities**

The timber loading facilities in the railway network are mostly used for storing and/or loading timber. The timber loading facilities in the railway network available to the infrastructure manager of the state-owned railway network are described in Appendices 3B and 3T, and in the map interface of the Network Statement. The land areas and sidings in these facilities are owned by the infrastructure manager of the state-owned railway network. There may also be loading facilities owned by private operators in the private sidings connected to the state-owned railway network.

The loading contractors operating in the loading facilities must purchase their own power connection for their own use. As a rule, the connection must be located outside the area owned by the infrastructure manager. If, however, it has to be placed in the land area administered by the infrastructure manager, a location permit for the connection must be prepared.

A connection to a private siding provided at a traffic operating point in the state-owned railway network is indicated in the tables of Appendices 3B and 3T.

The contact person in matters concerning the rental and use of loading facilities listed in Appendix 3T is the manager responsible for the nationwide administration of timber loading facilities and authorised by the infrastructure manager of the state-owned railway network. For contact information, visit the infrastructure manager's website.<sup>103</sup>

### **5.3.1.3** *Railway yards and train formation facilities*

#### **Railway yards**

The train formation yards owned by the infrastructure manager have been indicated with "Shunting" in Appendix 3B. The largest train formation yards are Tampere and Kouvola.

Not all train formation yards are electrified. Information about electrified railways and contact information to the contact persons at the railway yards can be found in Finnish on the Finnish Transport Infrastructure Agency's website Ratatiedon Extranet<sup>104</sup>.

For the present, no charge is collected for the use of train formation yards. Any changes to this will be updated on the Finnish Transport Infrastructure Agency's website<sup>105</sup>.

If several railway operators need to use the same service (for example, railway yard tracks, control devices or -systems), the principles for access to the service will be examined and an agreement reached under the supervision of the infrastructure manager.

#### **Inclines and their use**

At the traffic operating points in Kouvola and Tampere the railway operators have access to inclines for the recomposing of train wagons. Train operators needing access to the incline shall contact the infrastructure manager in good time (at least six weeks in advance), so that the arrangements for access to the incline capacity and the related practical arrangements can be commenced. Access to inclines is agreed upon in the access agreements.

### **5.3.1.4** *Storage sidings*

Storage sidings are railway yard tracks primarily intended for storage of rolling stock waiting for transport. Rolling stock can only be stored temporarily on these tracks. Storage sidings can also be used for other purposes required for traffic operations. However, in general, storage sidings are not used for the maintenance or cleaning of rolling stock. Should the need to maintain or clean rolling stock on storage sidings

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<sup>103</sup> <https://www.vayla.fi/rataverkko/kunnossapito/tyonjako>

<sup>104</sup> <http://www.vayla.fi/palveluntuottajat/aineistot/ratatiedon-extranet>

<sup>105</sup> <http://www.vayla.fi/ammattiliikenne-raiteilla/rautateiden-verkkoselostus>

arise, the use of the sidings for such purpose must be agreed upon with the infrastructure manager. Only railway operators are allowed to keep stationary wagons on the storage sidings. The infrastructure manager determines which tracks may be used as storage sidings. The number of storage sidings (pcs) and their total length (m) is described for each traffic operating point in Appendix 3B.

A list of the tracks intended for operating train services, which can be used for temporary storage of rolling stock in exceptional situations, is provided by the infrastructure manager. If a railway operator's rolling stock has to be temporarily stored on such storage sidings, this information shall immediately be forwarded to the Rail Traffic Management Centre or to the traffic planner of the traffic control area. Storage requests are also registered in the LIIKE system via the advance reports. Therefore, railway operators shall enter the information in the JETI system and make sure that the report is removed from the JETI system, when the need for storage no longer prevails. If the storage needs prevails after the end of the storage period, the railway operator shall make a new JETI notification and immediately give this information to traffic planning or to the Rail Traffic Management Centre. Traffic planning or the Rail Traffic Management Centre may however refuse permission to store the rolling stock, if the situation so requires. In that case the railway operator shall move the rolling stock to another assigned storage place within reasonable time.

The infrastructure manager is actively developing track access management on railway yards (including system entries and request procedures) together with the other operators in the railway network. The infrastructure manager informs the operators in the railway network of possible changes in procedures made before and/or during the timetable period in a separate notice and/or instructions. The Network Statement is also updated as required.

When storing wagons loaded with dangerous goods, the railway operator is responsible for reporting the storage location of the wagons and the type of substances in them to the rail traffic control

For long-term storage of rolling stock in railway yards: see Section 2.3.

#### **5.3.1.5 Maintenance facilities**

The maintenance, cleaning and repair of rolling stock shall be carried out at appropriate places to be agreed upon with the infrastructure manager before operations begin on tracks in the state-owned railway network.

#### **Use of maintenance equipment in Ilmala railway yard**

The Ilmala railway yard in Helsinki is owned by the infrastructure manager. VR Group's Helsinki depot, which accommodates service and cleaning facilities, locomotive depots and lathes, is also situated in the area. The services provided by VR Group and the service prices can be found in the company's Network Statement<sup>106</sup>

The fenced depot hosts the infrastructure manager's service equipment and other technical devices (e.g. maintenance platforms and tracks used for maintenance

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<sup>106</sup> <http://www.vrgroup.fi/fi/vrgroup/vr-group-yrityksena/liiketoiminnot/kunnossapito/verkkoselostus/>

operations, such as filling of thin oil and water tanks, feeding of heavy current, brake trials using compressed air and vacuum emptying of septic tanks.) There are separate tracks for washing locomotives and applying traction sand to wheels. Other technical devices are safety devices, turnouts and brake-testing equipment. The area also hosts heating points, devices for vacuum emptying, suction pumps, steam, water and air outlets, and compressed air outlets, electrical rooms and oil-absorbing mats (at oil-changing points).

The equipment owned by the infrastructure manager are listed in the Network Statement's map interface and in appendix 3S. Anyone needing access to the railway yard or services can view the services provided at Ilmala railway yard and their location in the capacity management system, LIIKE. The tracks and services provided by the infrastructure manager are available to all operators, whereas use of the services provided by VR Group has to be agreed upon with VR. The services and access to them are also available in the railway diagram <sup>107</sup> on Ratatiedon extranet. The diagram also shows the positions of VR Group's depots etc. in relation to the tracks.

Access to the maintenance equipment in the Ilmala railway yard belongs to the access services, the provision of which is agreed upon in the access agreements.

### **Maintenance facilities**

Agreements on access to maintenance services have to be made with the maintenance providers. The infrastructure manager does not provide maintenance services. More information can be found on VR's website<sup>108</sup>.

#### **5.3.1.6 Other technical facilities**

Use of other technical equipment (e.g. scales, cranes, etc.) shall be agreed upon with the equipment operator. The infrastructure manager does not provide railway operators with access to this equipment.

#### **5.3.1.7 Port facilities**

Most of the tracks in ports are private sidings and the services available are described in port network statements<sup>109</sup>. The Finnish Transport Infrastructure Agency arranges regular meetings with infrastructure managers of private sidings (cooperation group of infrastructure managers), and participants can suggest matters such as the need to develop operating models between railway networks as topics for the meetings.

#### **5.3.1.8 Relief facilities**

The infrastructure manager is responsible for the clearing operations concerning the tracks and the rolling stock in the state-owned railway network, and for assisting the

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<sup>107</sup> <https://www.vayla.fi/palveluntuottajat/aineistot/ratatiedon-extranet>

<sup>108</sup> <http://www.vrgroup.fi/fi/vrgroup/vr-group-yrityksena/liiketoiminnot/kunnossapito/verkkoselostus/palvelukuvaukset/tilanvuokraustoiminta/huoltotilat/>

<sup>109</sup> <https://www.vayla.fi/ammattiliikenne-raiteilla/rautateiden-verkkoselostus/yksityisraiteiden-haltijoiden-verkkoselostukset>

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rescue authorities in rescue operations. The operating procedure is described in more detail in Section 4.8.4.

#### **5.3.1.9 Refuelling facilities**

The infrastructure manager does not supply refuelling services. Appendix 3B and the chart interface show the refuelling facilities on traffic operating points. Use of refuelling facilities shall be agreed upon with the operator of the refuelling facility. More information can be found on VR's website<sup>110</sup>.

#### **5.3.2 Supply of services in service facilities**

##### **5.3.2.1 Shunting**

The traffic control service for shunting operations between traffic operating points is available to railway operators as part of the allocated capacity and it is covered by the infrastructure charge. The traffic control service for shunting operations taking place in railway yards is a chargeable additional service provided by the infrastructure manager. For a description of the service and the structure of the service price, see Appendix 5A.

##### **5.3.2.2 Other services**

The infrastructure manager does not provide other services.

## **5.4 Additional Services**

### **5.4.1 Traction Current**

#### **5.4.1.1 Electricity transfer service**

Traction current and pre-heating of passenger trains are additional services, according to Section 4 in Government Decree 1489/2015 on services supplied to railway operators.

The infrastructure manager transfers the electricity required for traction current and pre-heating of passenger trains, as well as the balance management of the contact-line network, which gives the railway operator the basis to acquire its own electric power. The transfer fees comprise transfer charges to be paid to the grid companies outside the network of electrified railway lines and dissipations in the contact-line network, as well as measurements, assessment services and balance management related to electricity transfers in the network. The infrastructure manager invoices the operators using electricity in the contact-line network for the transmission costs based on consumption in correlation to the costs.

The charging principles and the transfer fees charged by the infrastructure manager are described in Appendix 5B. The infrastructure manager will publish the 2020 price

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<sup>110</sup> <http://www.vrgroup.fi/fi/vrgroup/vr-group-yrityksena/liiketoiminnot/kunnossapito/verkkoselostus/palvelukuvaukset/tankkauspalvelu/>

list before the start of the 2020 timetable period. December 2019 will be charged according to the 2019 price list. The cost correlation of the transfer charge is examined twice a year. The transfer charges of the network companies and the price of electric power may change during the year. The basic fee for traction units may also change if the number of traction units belonging to the Erex system changes. The difference between the actual cost and the invoiced cost is balanced every six months with a balance bill. The cumulative invoice amount is monitored at access agreement monitoring meetings held during the timetable period.

#### **5.4.1.2 Power supply on electrified railway lines**

Use of rail capacity includes the traffic operator's right to use of the infrastructure manager's electricity power supply network for electric stock on the electrified line sections specified in the Network Statement. The infrastructure manager does not, however, provide electricity, but the traffic operator shall enter into an agreement with a service provider.

The 400 and 1,500 V power supply facilities for *rolling stock* are indicated in Appendix 3B and in the map interface. Also for the 400 V power supply, the maximum current available is indicated in amperes.

#### **5.4.2 Services for trains**

The infrastructure manager does not provide other services for trains.

#### **5.4.3 Services for exceptional transports and dangerous goods**

The infrastructure manager does not provide other services for special transports or transports of dangerous goods.

#### **5.4.4 Other Additional Services**

##### **5.4.4.1 Timetable planning services**

At present, the infrastructure manager does not provide timetable planning services in connection with rail capacity applications.

##### **5.4.4.2 Use of buildings and land areas**

The infrastructure manager can supply services on a commercial basis to railway operators. These services may comprise, for example, the use of buildings and land areas owned by the infrastructure manager. The service is agreed upon in separate lease and access agreements.

##### **5.4.4.3 Trial runs of rolling stock and the Rail Training Centre**

Trial runs of rolling stock can be made at the Finnish Transport Infrastructure Agency's centre for trial runs in Laajakangas in Kontiomäki. The use of land areas shall be agreed upon in accordance with separate instructions<sup>111</sup>. More information

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<sup>111</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)



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can be obtained from the Finnish Transport Infrastructure Agency's unit Track and Rolling Stock Technology.

Noise measurements required for the authorisation for the placing in service of rolling stock can be carried out at Leteensuo (line section Riihimäki-Tampere). For more information, contact the environmental and property unit of the Finnish Transport Infrastructure Agency<sup>112</sup>.

Commissioning inspections for machinery and equipment used only at track work sites can be carried out in Oulu, Tampere, Hyvinkää, Kouvola and Kontiomäki.

Railway operators may rent facilities at the Rail Training Centre<sup>113</sup>

## 5.5 Ancillary Services

### 5.5.1 Access to telecommunication network

For more information about the RAILI service and how to join the service and the VIRVE network, see Section 3.3.3.2 and Appendix 3P.

### 5.5.2 Provision of supplementary information

Statistics on the railway network and rail services are published annually in the Finnish Transport Infrastructure Agency's publication The Finnish Railway Statistics<sup>114</sup>.

### 5.5.3 Control Centres

#### 5.5.3.1 Security Control Centre

The Finnish Transport Infrastructure Agency has procured Security Control Centre services from Finrail Ltd since 1 January 2019. The content of the services has remained unaltered. The Security Control Centre has the main responsibility for improving personal security at stations and in platform areas and for protection against vandalism of railway infrastructure. The Security Control Centre monitors situations, receives reports and creates a situation picture, as well as guides security officers, security guards or other authorities to the location where help is required. The operative work in the field is led from the Security Control Centre.

The camera surveillance of the railway and bus stations for commuter transport in the metropolitan area and of the park-and-ride facilities of the Ring Rail Line has been transferred to the Finnish Transport Infrastructure Agency's Security Control Centre. The Security Control Centre acts as the operations and control centre for security guard services. The Security Control Centre collaborates with the cities of Vantaa, Helsinki and Espoo and with HSL (Helsinki Region Transport) and HKL (Helsinki City Transport).

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<sup>112</sup> <https://www.vayla.fi/ymparisto>

<sup>113</sup> <https://www.vayla.fi/palveluntuottajat/ratatekninen-oppimiskeskus>

<sup>114</sup> <https://www.vayla.fi/tilastot/ratatilastot/suomen-rautatietilastot>

### **5.5.3.2**      *Technical Control Centre*

The Finnish Transport Infrastructure Agency has procured Technical Control Centre services from Finrail Ltd since 1 January 2019. The services' content has remained unaltered. The Technical Control Centre is responsible for supervising all of Finland's rolling stock monitoring systems, as well as the tunnel and facilities management systems on the Ring Rail Line and the Vuosaari railway line.

The Technical Control Centre has two main duties: The rolling stock control systems involve the monitoring of the data control process and its quality, data analysis, and the measures resulting from the analysis. The purpose of the control is to monitor properties of the rolling stock that have a direct or indirect interface with the rail infrastructure. Rolling stock control devices are located in all parts of the state-owned railway network.

The second duty is monitoring of tunnel and property automation and the measures required by these in both normal and exceptional situations. The system alerts are forwarded on a case-by-case basis to the various collaborative partners, for example the fire and rescue authorities, the police, system maintenance providers, the traffic, control, the security control centre and the operating centre.

### **5.5.4**      **Ticketing Services in Passenger Stations**

Information about facilities for ticketing services and possibilities to place ticket vending machines in passenger stations can be found in Appendices 3Q and 3R.

### **5.5.5**      **Specialised Heavy Maintenance Services**

The infrastructure manager does not provide heavy maintenance or repair services.

### **5.5.6**      **Other Ancillary Services**

The infrastructure manager does not provide other ancillary services.

## 6 Charges

### 6.1 Charging Principles

Provisions on the basis of the basic infrastructure charge are laid down in the Rail Transport Act (in Finnish)<sup>115</sup>. The basic infrastructure charge is collected for used services in the minimum access package described in Section 5.2 based on the infrastructure manager's directly incurred costs. The basic infrastructure charge is set using a cost model that calculates to what extent one transport performance unit (one gross tonne-kilometre) increases the costs of railway infrastructure management. Electrification of the railway network and the motive power are taken into account in modelling as well as in the pricing in accordance with the requirements in EU legislation. The calculation method has been described in the PM published on the Finnish Transport Infrastructure Agency's website<sup>116</sup>.

As of 1 January 2019, the basic infrastructure charge will be levied on both train traffic and shunting operations between traffic operation points.

Infrastructure tax is not included in the charging system as referred to in EU legislation. The infrastructure tax levy and the investment tax levy on the line section Kerava-Lahti will end on 31 December 2018.

The operator of a service facility provided as part of the access services has the right to charge compensation for the service facility and track access in the service facilities, as well as for the services supplied in them, as laid down in section 133 of the Rail Transport Act. The track access required to access the service facilities is provided in return for the basic infrastructure charge.

Provisions on the pricing of additional and ancillary services supplied by the infrastructure manager are laid down in the Act on Criteria for Charges Payable to the State and in the Decree of the Ministry of Transport and Communications on chargeable performances at the Finnish Transport Infrastructure Agency. Services are billed monthly, unless otherwise specified in the access agreement or lease agreement. Possible new chargeable services are billed from the time when the service was taken into use, or from the time when the service became chargeable.

### 6.2 Charging System

The charges levied on the minimum access package and other services provided by the infrastructure manager and detailed in the Network Statement apply for the period of validity of the document and if necessary for a longer period of validity given separately. The charges levied on the minimum access package (basic infrastructure charge) are given for three-year periods, the first of which is between 1 January 2019 and 31 December 2021. Changes in the prices of the basic infrastructure

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<sup>115</sup> <https://www.finlex.fi/fi/laki/alkup/2018/20181302>

<sup>116</sup> <https://www.vayla.fi/rataverkko/ratamaksu>

charge can also be introduced if special reasons so warrant. Advance notice of any such changes is given. On 25 June 2019, the Finnish Rail Regulatory issued a decision on the infrastructure charges for electric traffic levied by the Finnish Transport Infrastructure Agency in the timetable periods 2019 ja 2020 and referred the determination of the infrastructure charge for 2021 back to FTIA.

The infrastructure manager is implementing an index adjustment procedure that takes changed infrastructure management costs into account in order to adjust the prices of the basic charge during the three-year pricing periods (sub-index 'railway maintenance' of Statistics Finland's cost index of civil engineering works). The basic charges of 2019 and 2020 have been determined based on the value 111.31 (2017 annual average).

## 6.3 Tariffs

### 6.3.1 Infrastructure Charge

#### 6.3.1.1 Basic infrastructure charge

Between 1 January and 31 December 2019, the infrastructure charge will be levied according to Table 2.

Table 2 Infrastructure charge

Electrical drive	0.1355 cent/gross tonne-kilometre
Non-electrical drive	0.1274 cent/gross tonne-kilometre

### 6.3.2 Other Charges Levied by the infrastructure manager

#### 6.3.2.1 Charges for Communication services

The pricing of railway verbal communication complies with the permit conditions of the RAILI service<sup>117</sup> and the price list of the RAILI service<sup>118</sup>.

#### 6.3.2.2 Traffic Control Charges for Shunting Operations

The traffic control service for shunting operations provided by the infrastructure manager is a chargeable additional service. The pricing of the service is based on the number of the shunting routes required by railway operators. The time spent by traffic control for safeguarding the routes is specified for each traffic operating point. The price is determined on the basis of the number of performances and the time required for each performance. An adjustment supplement of 12 per cent is added to the price so that no real-time performance monitoring is required and the service provider will supply the desired service.

The pricing and confirmed tariffs are described in more detail in Appendix 5A.

<sup>117</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

<sup>118</sup> [https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

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The charge for traffic control for shunting operations does not apply to shunting between traffic operating points, which is covered by the infrastructure charge.

### **6.3.2.3**      *Access charge for Ilmala railway yard*

Access charge for Ilmala railway yard as described in this chapter will be introduced in the beginning of timetable period 2020.

In return for paying the network access charge, railway undertakings may use the tracks in the Helsinki depot at Ilmala, their brake-testing systems, as well as the maintenance platforms and their equipment (including 1,500 V feeder points and 400 V socket points), and move to the railway yard services. The location of the equipment is shown in the railway diagram and in Appendix 3S to the Network Statement. The access charge does not cover the supply of water, electricity, oil, sand or other similar items or the processing or transport of the waste resulting from the use of the services. Other operators in the Ilmala railway yard may also charge fees for the use of their services (such as the maintenance halls and lathes) and their pricing is not described in this document (for more information, see the network statement of VR-Group Ltd and other operators).

If necessary, the infrastructure manager will provide railway undertakings with guidance and instructions for the use of the equipment and structures referred to in this section. After having been notified by the railway undertaking of damage or malfunctioning of equipment or structures, the infrastructure manager will ensure that the equipment and structures will be restored, without undue delay, to a good working condition.

Railway undertakings must plan and implement the use of the equipment and structures so that all regulations concerning occupational and train safety are observed. Railway undertakings must provide all persons using the equipment or structures on behalf of the undertakings with adequate training in their use. Railway undertakings must ensure that their own personnel or the personnel working on behalf of the undertakings use the equipment and structures with care and in accordance with any guidance provided for their use and that the equipment and structures do not malfunction or become damaged for reasons arising from their use.

### **6.3.2.4**      *Using timber loading facilities and storage areas in the railway network*

Access to the timber loading facilities in the railway network described in Section 5.3.1.2 is covered by the basic infrastructure charge. A rent is payable for the storage areas provided as part of the loading facilities. From 1 January 2019 to 31 December 2021, the rent is EUR 0.38/m<sup>2</sup>, with the exception of the storage area of the Patokangas loading facility in Kemijärvi for which a rent of EUR 0.60/m<sup>2</sup> is charged.

### **6.3.2.5**      *Rental of Passenger Station Facilities*

The rents charged for the passenger stations owned by the infrastructure manager are given in Appendix 3Q.

### 6.3.2.6 *Rail Training Centre*

The rents charged for the facilities at the Rail Training Centre can be found on the Finnish Transport Infrastructure Agency's website<sup>119</sup>.

## 6.4 Financial Penalties and Incentives

The infrastructure manager has not introduced any other performance charges or penalty fees in connection with the use of the railway network in addition to the performance scheme described in Chapter 6.5.

## 6.5 Performance Scheme

In order to promote the effective use of the railway network and improve train punctuality as well as to minimise operational disruptions to the railway network caused by railway traffic and track maintenance, railway operators and the infrastructure manager are encouraged to limit the disruptions arising from their activities and increase the effective use of the railway network by means of performance incentive schemes.

Railway operators shall compensate the infrastructure manager if the operation of the railway operator essentially differs from the rail capacity allocated to it, for reasons attributed to the operator, and if such a deviation impedes the functioning of the rail system. The infrastructure manager shall compensate the railway operator if, for reasons attributed to the infrastructure manager, the access to the railway network essentially differs from the rail capacity allocated to the operator, and such a deviation impedes the functioning of the rail system. The principles for compensation are agreed upon in the access agreement. Railway undertakings and the infrastructure manager shall agree upon possible changes in the possible monitoring stations used for punctuality monitoring.

The performance system applies to train traffic and to shunting operations between traffic operating points.

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<sup>119</sup> <https://www.vayla.fi/palveluntuottajat/ratatekninen-oppimiskeskus/tilat-ja-tilojen-vuokraus/hinnasto>

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## 6.6 Changes to Charges

Information about the upcoming amendments concerning the infrastructure charge will be posted in the infrastructure manager's Network Statement and on the website<sup>120</sup>. The amendments to the infrastructure charge may concern the basic infrastructure charge, the price categories to be specified for these, prices determined for access, additional and ancillary services and the introduction of additional charges.

The prices for the basic infrastructure charge are given for three-year periods, the first of which is between 1 January 2019 and 31 December 2021. The charges are based on cost modelling and index adjustments, in which consideration is given to changes in infrastructure management costs. Changes in the charges can also be introduced if special reasons so warrant. Advance notice of any such changes is given.

## 6.7 Billing Arrangements

The infrastructure manager invoices the infrastructure charge each calendar month based on the realised performance of the previous month. The kilometric performance is based on data obtained from the infrastructure manager's data system, RataDW.

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<sup>120</sup> <https://www.vayla.fi/rataverkko/ratamaksu>

Updated 26 September 2019



## Basic information on line sections

### Markings:

On	"yes"
—	"no"
AC2	electrification voltage 25 kV / 50 Hz
ATP	Automatic Train Protection

### Chart columns:

**Node of the network** indicates all traffic operating points where the route of the train can be changed.

**Length of line** is the distance between traffic operating points in the railway network (km).

**Max. gradient** is the maximum gradient (mm/m) measured at a distance of 1,200 m.

**Electrification system** indicates that the line section is electrified.

**Section blocking or radio-controlled section** indicates that on the line section there is an automatic safety device system ensuring safe train operation.

**ATP** indicates that the Automatic Train Protection is installed on the line section.

**ERTMS** indicates that the section of line is equipped with the Pan-European safety device system.

**ATP coding for tilting trains** indicates the sections on which ATP allows higher speeds for tilting trains in curves.

Liikennepaikka (verkon solmupiste)	Liikennepaikka (verkon solmupiste)	Radan pituus	Määrävä kaltevuus	Sähköistysjärjestelmä	Suojastettu tai radio-ohjattu osuus	Junan kulunvalvontajärjestelmä	ERTMS	Kallistuvakoristen junien JKV-koodaus
Trafikplats (bannätets knutpunkt)	Trafikplats (bannätets knutpunkt)	Banans längd	Största lutning	Elektrifierings-system	Linje-blockerad eller radiostyrd sträcka	Automatisk tågkontroll		ATP-kodning av lutande tåg
Traffic operating point (Node of the network)	Traffic operating point (Node of the network)	Length of line	Max. gradient	Electrification system	Section blocking or radio controlled section	ATP		ATP-coding for tilting trains
Helsinki asema	Havukoski	18	10,0	AC2	Yes	ATP	—	Yes
Havukoski	Kerava asema	11	7,0	AC2	Yes	ATP	—	Yes
Kerava asema	Hyvinkää	29	7,5	AC2	Yes	ATP	—	Yes
Hyvinkää	Riihimäki asema	12	7,5	AC2	Yes	ATP	—	Yes
Kerava asema	Vuosaari	19	10,0	AC2	Yes	ATP	—	—
Kerava asema	Sköldvik	27	10,0	AC2	Yes	ATP	—	—
Kerava asema	Hakosilta	65	10,0	AC2	Yes	ATP	—	Yes
Hyvinkää	Karjaa	99	10,5	—	Yes	ATP	—	—
Helsinki asema	Huopalahti	6	10,0	AC2	Yes	ATP	—	—
Huopalahti	Havukoski	27	40,0	AC2	Yes	ATP	—	—
Huopalahti	Kirkkonummi	31	10,5	AC2	Yes	ATP	—	—
Kirkkonummi	Karjaa	49	12,0	AC2	Yes	ATP	—	Yes
Karjaa	Hanko asema	50	10,5	—	Yes	ATP	—	—
Karjaa	Turku asema	107	12,7	AC2	Yes	ATP	—	Yes
Turku asema	Turku satama	3	7,0	AC2	Yes	ATP	—	—
Riihimäki asema	Toijala	76	10,0	AC2	Yes	ATP	—	Yes
Toijala	Turku asema	128	10,5	AC2	Yes	ATP	—	Yes
Toijala	Tampere asema	40	10,0	AC2	Yes	ATP	—	Yes
Toijala	Valkeakoski	18	8,0	—	—	—	—	—
Turku asema	Raisio	8	7,0	—	Yes	ATP	—	—
Raisio	Naantali	6	9,0	—	—	—	—	—
Raisio	Uusikaupunki	57	9,0	—	Yes	ATP	—	—
Uusikaupunki	Hangonsaari	3	11,5	—	—	—	—	—
Tampere asema	Lielähti	6	9,0	AC2	Yes	ATP	—	Yes
Lielähti	Kokemäki	91	12,5	AC2	Yes	ATP	—	Yes
Kokemäki	Rauma	47	9,0	AC2	Yes	ATP	—	—
Kokemäki	Pori	38	9,5	AC2	Yes	ATP	—	—
Pori	Mäntyluoto	21	5,5	—	Yes	ATP	—	—
Pori	Aittaluoto	6	10,0	—	—	—	—	—
Mäntyluoto	Tahkoluoto	11	5,5	—	Yes	ATP	—	—
Lielähti	Parkano	69	10,5	AC2	Yes	ATP	—	Yes
Niinisalo	Parkano	42	10,0	—	—	—	—	—
Parkano	Seinäjoki asema	84	10,0	AC2	Yes	ATP	—	Yes
Riihimäki asema	Hakosilta	48	8,0	AC2	Yes	ATP	—	—
Hakosilta	Lahti	11	10,0	AC2	Yes	ATP	—	Yes
Lahti	Loviisan satama	77	12,0	—	—	—	—	—
Lahti	Heinola	38	12,0	—	—	—	—	—
Lahti	Mukkula	7	15,0	—	—	—	—	—
Lahti	Kouvola asema	61	10,0	AC2	Yes	ATP	—	—
Kouvola asema	Luumäki	59	10,0	AC2	Yes	ATP	—	—
Kouvola asema	Juurikorpi	33	10,0	AC2	Yes	ATP	—	—
Juurikorpi	Kotka asema	18	8,5	AC2	Yes	ATP	—	—
Kotka asema	Kotkan satama	1	0,0	AC2	Yes	ATP	—	—
Kotka Hovinsaari	Kotka Mussalo	5	6,0	AC2	—	ATP	—	—
Juurikorpi	Hamina	19	10,0	AC2	Yes	ATP	—	—
Kouvola asema	Kuusankoski	10	9,0	AC2	—	—	—	—

Liikennepaikka (verkon solmupiste)	Liikennepaikka (verkon solmupiste)	Radan pituus	Määrävä kaltevuus	Sähköistysjärjestelmä	Suojastettu tai radio-ohjattu osuus	Junan kulunvalvontajärjestelmä	ERTMS	Kallistuvakoristen junien JKV-koodaus
Trafikplats (bannätets knutpunkt)	Trafikplats (bannätets knutpunkt)	Banans längd	Största lutning	Elektrifierings-system	Linje-blockerad eller radiostyrd sträcka	Automatisk tågkontroll		ATP-kodning av lutande tåg
Traffic operating point (Node of the network)	Traffic operating point (Node of the network)	Length of line	Max. gradient	Electrification system	Section blocking or radio controlled section	ATP		ATP-coding for tilting trains
Kouvola asema	Mynttilä	86	12,0	AC2	Yes	ATP	—	Yes
Mynttilä	Ristiina	21	12,5	—	—	—	—	—
Mynttilä	Pieksämäki asema	105	11,0	AC2	Yes	ATP	—	Yes
Luumäki	Vainikkala asema	33	8,0	AC2	Yes	ATP	—	—
Luumäki	Lappeenranta	27	9,5	AC2	Yes	ATP	—	—
Lappeenranta	Mustolan satama	18	10,0	—	—	—	—	—
Lappeenranta	Imatra tavara	39	9,0	AC2	Yes	ATP	—	Yes
Imatra tavara	Imatrankoski-raja	10	11,0	—	—	—	—	—
Imatra tavara	Parikkala	60	10,0	AC2	Yes	ATP	—	Yes
Pieksämäki asema	Huutokoski	31	11,0	—	Yes	ATP	—	—
Huutokoski	Rantasalmi	38	12,0	—	Yes	ATP	—	—
Savonlinna	Parikkala	59	12,0	—	Yes	ATP	—	—
Parikkala	Säkäniemi	93	10,0	AC2	Yes	ATP	—	—
Niirala-raja	Säkäniemi	33	10,5	—	Yes	ATP	—	—
Säkäniemi	Joensuu asema	37	10,5	AC2	Yes	ATP	—	—
Joensuu asema	Ilomantsi	71	12,0	—	—	—	—	—
Joensuu asema	Viinijärvi	32	9,0	—	Yes	ATP	—	—
Huutokoski	Varkaus	18	10,0	—	Yes	ATP	—	—
Varkaus	Kommila	6	10,0	—	—	—	—	—
Varkaus	Viinijärvi	101	11,0	—	Yes	ATP	—	—
Joensuu asema	Uimaharju	50	17,6	—	Yes	ATP	—	—
Uimaharju	Liekksa	54	11,5	—	Yes	ATP	—	—
Liekksa	Pankkoski	6	10,0	—	—	—	—	—
Liekksa	Nurmes	56	12,5	—	Yes	ATP	—	—
Nurmes	Vuokatti	85	11,5	—	—	—	—	—
Vuokatti	Lahnaslampi	12	10,0	—	—	—	—	—
Vuokatti	Kontiomäki	24	10,5	—	—	—	—	—
Pieksämäki asema	Suonenjoki	38	9,0	AC2	Yes	ATP	—	—
Suonenjoki	Yläkoski	3	10,0	—	—	—	—	—
Suonenjoki	Siilinjärvi	76	12,0	AC2	Yes	ATP	—	—
Siilinjärvi	Sysmäjärvi	99	10,5	—	Yes	ATP	—	—
Siilinjärvi	Iisalmi	60	12,0	AC2	Yes	ATP	—	—
Iisalmi	Murtomäki	62	12,7	AC2	Yes	ATP	—	Yes
Murtomäki	Otanmäki	25	11,0	—	—	—	—	—
Murtomäki	Kajaani	20	12,0	AC2	Yes	ATP	—	Yes
Kontiomäki	Vartius	95	11,0	AC2	Yes	ATP	—	—
Vartius	Vartius-raja	2	10,0	AC2	Yes	ATP	—	—
Kontiomäki	Ämmänsaari	92	12,0	—	—	—	—	—
Tampere asema	Orivesi	40	12,0	AC2	Yes	ATP	—	Yes
Orivesi	Vilppula	47	12,5	—	Yes	ATP	—	—
Vilppula	Mänttä	8	5,0	—	—	—	—	—
Vilppula	Haapamäki	26	12,5	—	Yes	ATP	—	—
Haapamäki	Seinäjäki asema	118	12,0	—	Yes	ATP	—	—
Haapamäki	Jyväskylä	77	12,0	—	Yes	ATP	—	—
Orivesi	Jämsä	56	12,5	AC2	Yes	ATP	—	Yes
Jämsä	Kaipola	7	12,0	—	—	—	—	—

Liikennepaikka (verkon solmupiste)	Liikennepaikka (verkon solmupiste)	Radan pituus	Määrävä kaltevuus	Sähköistysjärjestelmä	Suojastettu tai radio-ohjattu osuus	Junan kulunvalvontajärjestelmä	ERTMS	Kallistuvakoristen junien JKV-koodaus
Trafikplats (bannätets knutpunkt)	Trafikplats (bannätets knutpunkt)	Banans längd	Största lutning	Elektrifierings-system	Linje-blockerad eller radiostyrd sträcka	Automatisk tågkontroll		ATP-kodning av lutande tåg
Traffic operating point (Node of the network)	Traffic operating point (Node of the network)	Length of line	Max. gradient	Electrification system	Section blocking or radio controlled section	ATP		ATP-coding for tilting trains
Jämsä	Jämsänkoski	4	10,0	AC2	Yes	ATP	—	Yes
Jämsänkoski	Jyväskylä	52	10,5	AC2	Yes	ATP	—	—
Jyväskylä	Äänekoski	47	10,5	AC2	Yes	ATP	—	—
Äänekoski	Haapajärvi	164	10,5	—	—	—	—	—
Jyväskylä	Pieksämäki asema	80	12,5	AC2	Yes	ATP	—	Yes
Seinäjoki asema	Kaskinen	112	10,0	—	Yes	ATP	—	—
Seinäjoki asema	Vaasa	75	12,0	AC2	Yes	ATP	—	—
Vaasa	Vaskiluoto	5	1,0	—	—	—	—	—
Iisalmi	Pyhäkumpu erkanemisvaihe	63	10,0	—	Yes	ATP	—	—
Pyhäkumpu erkanemisvaihe	Pyhäkumpu	3	3,0	—	—	—	—	—
Pyhäkumpu erkanemisvaihe	Haapajärvi	36	9,5	—	Yes	ATP	—	—
Haapajärvi	Ylivieska	55	8,0	—	Yes	ATP	—	—
Seinäjoki asema	Pännäinen	101	10,0	AC2	Yes	ATP	—	Yes
Pännäinen	Pietarsaari	10	6,0	AC2	—	—	—	—
Pietarsaari	Alholma	4	3,0	AC2	—	—	—	—
Pännäinen	Kokkola	33	7,0	AC2	Yes	ATP	—	Yes
Kokkola	Ykspihlaja	5	10,0	AC2	—	—	—	—
Kokkola	Ylivieska	79	10,0	AC2	Yes	ATP	—	Yes
Ylivieska	Tuomioja	68	10,0	AC2	Yes	ATP	—	Yes
Tuomioja	Raahe	28	10,0	AC2	Yes	ATP	—	—
Raahe	Rautaruukki	9	10,0	AC2	—	—	—	—
Tuomioja	Oulu asema	54	10,0	AC2	Yes	ATP	—	Yes
Oulu asema	Kontiomäki	166	10,0	AC2	Yes	ATP	—	—
Oulu asema	Kemi	105	10,0	AC2	Yes	ATP	—	—
Kemi	Ajos	9	10,0	—	—	—	—	—
Kemi	Laurila	7	10,0	AC2	Yes	ATP	—	—
Laurila	Tornio asema	19	7,5	—	Yes	ATP	—	—
Laurila	Rovaniemi	106	10,0	AC2	Yes	ATP	—	—
Rovaniemi	Kemijärvi	85	12,0	AC2	Yes	ATP	—	—
Kemijärvi	Patokangas	9	12,0	AC2	Yes	ATP	—	—
Tornio asema	Tornio-raja	3	4,0	—	Yes	ATP	—	—
Tornio asema	Röyttä	8	8,0	—	—	—	—	—
Tornio asema	Kolari	183	10,5	—	Yes	ATP	—	—
Sysmäjärvi	Vuonos	7	10,0	—	—	—	—	—
Viinijärvi	Sysmäjärvi	13	7,5	—	Yes	ATP	—	—
Murtomäki	Talvivaara	24	12,5	AC2	Yes	ATP	—	—
Kajaani	Lamminniemi	3	10,0	—	—	—	—	—
Kajaani	Kontiomäki	26	12,0	AC2	Yes	ATP	—	—

## Rail Traffic Operating Points

### Legend:

( ) in columns regarding platforms	platform not maintained by the Finnish Transport Infrastructure Agency (FTIA)
K	yes
Y	yes, private
K in columns regarding traffic control	remote control
M in columns regarding traffic control	manual

### Chart columns:

**Name** refers to the official name of the station used for in traffic safety work.

**Another name** is the name of a traffic operating point in Finland's second official language. Another name is usually a Swedish name and only in Sköldvik is the Finnish name Kilpilahti used as another name, contrary to what the present language situation in the municipality would imply.

**Abbreviation** indicates the abbreviation used for the official name of the station.

**Commercial name** is mentioned in those cases where it differs from the official name of the stations, used in traffic safety work.

**Km Hki** describes the distance of a traffic operating point to the old station hall of Helsinki (already torn down), measured by a track kilometre system. According to the system, the location of all elements on tracks is fixed to landmarks.

**Municipality** refers to the municipality in which the traffic operating point is located.

**Traffic control** describes whether the traffic operating point has the technical equipment to control the train traffic manually or remotely. It does not mean that traffic control services are regularly provided.

**Private sidings** indicate that the traffic operating point has at least one connection to a private siding, owned or managed by a private owner (includes everyone except the FTIA).

**Shunting** indicates that the form of the tracks at a traffic operating point is such that it is possible to move at least a locomotive to the other end of a line of rolling stock without having to go through the main line of the traffic operating point.

**Minimum and maximum platform length** indicates the minimum and maximum length of platforms used by passenger trains at the traffic operating point. A passenger train should not be longer than the platform at which it stops. If the platform length is in brackets ( ), the platform is not maintained by the FTIA and services are operated at the responsibility of the railway undertaking.

**Platform height** indicates the nominal height of platforms used by passenger trains, calculated from the surface of the rail.

**Design train length** indicates the longest track of a traffic operating point, other than the main line going through it. The length is measured in such a way that it is usable in both directions.

**Power supply** indicates at which traffic operating point it is possible to get 400 V or 1,500 V electric current mainly for rolling stock or track machinery power supply purposes.

**Side loading platform** indicates at which traffic operating point it is possible to load freight cars from the side, and shows the maximum platform length at the traffic operating point.

**End loading platform** indicates at which traffic operating point it is possible to load freight rolling stock from the end of the platform (combined transports).

**Loading site** indicates at which traffic operating point it is possible to load freight rolling stock at rail level. A typical example is loading of raw timber from a vehicle or an intermediate depot at a rail yard onto flatcars.

**Crane** indicates at which traffic operating point it is possible to use a crane to load wagons, and states the maximum capacity of the crane. This service is not provided by the FTIA.

**Fuel** indicates at which traffic operating point there is a fuel distribution point. This service is not provided by the FTIA.

**Passenger transport** shows the operating points where passenger traffic can be operated.

**Freight transport** indicates the operating points where freight transport can be operated.

**Turntables** indicates the traffic operating points where turntables can be used. If the turntable is privately owned it is marked with Y. If it is owned by the FTIA, the length of the turntable is indicated.

**Railway yard for dangerous goods** shows the traffic operating points where it is possible to handle wagons loaded with dangerous goods.





















Nimi	Toinen nimi	Lyhenne	Kaupallinen nimi	Tyyppi	Km Hki	Koodi	Rataosuus	Kunta	Liikenteenohjaus	Yksityisraiteita	Vaihtotyö-mahdollisuus
Namn	Annat namn	Förkortning	Kommersiellt namn	Typ	Km Hki	Kod	Banavsnitt	Kommun	Trafikledning	Privata spår-anläggningar	Möjlighet till växelarbete
Name	Another name	Abbr.	Commercial name	Type	Km Hki	Code	Line section	Municipality	Traffic control	Private sidings	Shunting
<b>TAMPERE</b>		Tre		<b>Ostien jaettu liikennepaikka</b>	-	-	<b>Riihimäki-Tampere, Tampere-Seinäjoki, Tampere-Jyväskylä</b>		<b>M</b>		
Tampere tavana		Tpet		Liikennepaikan osa (Tampere)	184+100	01273		Tampere		K	K
Tampere Viinikka		Vka		Liikennepaikan osa (Tampere)	185+400	01274		Tampere		K	K
Tampere asema	Tammerfors	Tpe	Tampere asema	Liikennepaikan osa (Tampere)	187+389	00160		Tampere			K
Tampere Järvensivu		Jvs		Liikennepaikan osa (Tampere)	187+814	01272		Tampere			
Tapanila	Mosabacka	Tna		Seisake	12+610	00552	Helsinki-Riihimäki	Helsinki			
Tapavainola		Tap		Liikennepaikka	270+405	01276	Kouvola-Joensuu	Lappeenranta	K		
Tavastila		Tsl		Seisake	228+854	00837	Kouvola-Kotka	Kotka			
Tervajoki		Tk		Seisake	460+156	00294	Seinäjoki-Vaasa	Isokyrö			
Tervola		Trv		Liikennepaikka	900+521	00361	Laurila-Kemijärvi	Tervola	K		K
Teuva	Östermark	Tuv		Liikennepaikka	497+474	00271	Seinäjoki-Kaskinen	Teuva	M		K
Tikkala		Tkk		Liikennepaikka	592+461	00916	Kouvola-Joensuu	Tohmajärvi	K		
Tikkaperä		Tkp		Liikennepaikka	720+741	01335	Seinäjoki-Oulu	Liminka	K		
<b>TIKKURILA</b>		<b>Tik</b>		<b>Ostien jaettu liikennepaikka</b>	-	-	<b>Helsinki-Riihimäki, Huopalahti-Havukoski</b>		<b>K</b>		
Havukoski		Hvk		Liikennepaikan osa (Tikkurila)	17+725	01334		Vantaa	K		
Hiekkaharju	Sandkulla	Hkh		Liikennepaikan osa (Tikkurila)	17+109	00556		Vantaa			
Tikkurila asema	Dickursby	Tkl		Liikennepaikan osa (Tikkurila)	15+861	00018		Vantaa	K	K	K
Tohmajärvi		Toh		Liikennepaikka	571+752	00448	Niirala-rajaa-Säkaniemi	Tohmajärvi	K		K
Toijala		Tl		Liikennepaikka	147+339	00150	Toijala-Turku, Riihimäki-Tampere, Toijala-Valkeakoski	Akaa	K	K	K
Toivala		Toi		Liikennepaikka	479+162	00412	Pieksämäki-Kontiomäki	Siitinjärvi	K		K
Tolsa	Tolls	Tol		Seisake	35+454	00830	Helsinki-Turku satama	Kirkkonummi			
Tommola		Tom		Liikennepaikka	117+197	01280	Riihimäki-Kouvola	Hollola	K		
Torkkeli		Trk		Liikennepaikka	240+154	01283	Tampere-Jyväskylä	Orivesi	K		
<b>TORNIO</b>		<b>Trn</b>		<b>Ostien jaettu liikennepaikka</b>	-	-	<b>Tornio-Röyttä, Tornio-Kolari, Laurila-Tornio-rajaa</b>		<b>K</b>		
Tornio asema	Torneå	Tor	Tornio	Liikennepaikan osa (Tornio)	884+656	00351		Tornio	K	K	K
Tornio-rajaa	Torneå gränsen	Trr		Liikennepaikan osa (Tornio)	887+190	00678		Tornio			
Tornio-Itäinen	Torneå Östra	Tri		Seisake	883+307	01318	Laurila-Tornio-rajaa	Tornio			
Tuomarila	Domsby	Trl		Seisake	19+022	00579	Helsinki-Turku satama	Espoo			
Tuomioja		Tja		Liikennepaikka	698+504	00336	Seinäjoki-Oulu, Tuomioja-Raahe	Siikajoki	K		K
Turenki		Tu		Liikennepaikka	93+771	00044	Riihimäki-Tampere	Janakkala	K	K	K
<b>TURKU</b>		<b>Tur</b>		<b>Ostien jaettu liikennepaikka</b>	-	-	<b>Helsinki-Turku satama, Toijala-Turku, Turku-Uusikaupunki</b>	<b>Turku</b>	<b>K</b>		
Kupittaa	Kuppis	Kut		Liikennepaikan osa (Turku)	196+372	00126		Turku			
Turku asema	Åbo	Tku	Turku päärautatieasema	Liikennepaikan osa (Turku)	199+674	00130		Turku		K	K
Turku tavana		Tkut		Liikennepaikan osa (Turku)	200+460	01285		Turku		K	K
Turku satama	Åbo hamn	Tus		Liikennepaikan osa (Turku)	202+510	00135		Turku		K	
Tuupovaara		Tpv		Liikennepaikka	668+672	00458	Joensuu-Ilomantsi	Joensuu			K
Tuuri		Tuu		Seisake	366+962	00283	Orivesi-Seinäjoki	Alavus			K
Törmä		Tör		Liikennepaikka	878+075	01287	Laurila-Kemijärvi	Keminmaa	K		
Törölä		Trä		Liikennepaikka	264+972	01290	Kouvola-Joensuu	Lappeenranta	K		
Uimaharju		Uim		Liikennepaikka	674+451	00465	Joensuu-Nurmes	Joensuu	K		K
Urjala		Ur		Liikennepaikka	165+588	00148	Toijala-Turku	Urjala	K		K
Utajärvi		Utj		Liikennepaikka	810+502	00376	Oulu-Kontiomäki	Utajärvi	K		K
Utti		Uti		Linjavaihde	204+085	00484	Kouvola-Joensuu	Kouvola			K
Uusikaupunki	Nystad	Ukp		Liikennepaikka	264+795	00121	Uusikaupunki-Hangonsaari, Turku-Uusikaupunki	Uusikaupunki	K	K	K
Uusikyliä		Ukä		Liikennepaikka	149+485	00105	Riihimäki-Kouvola	Lahti	K		K





Nimi	Toinen nimi	Lyhenne	Kaupallinen nimi	Tyyppi	Km Hki	Koodi	Rataosuus	Kunta	Liikenteenohjaus	Yksityisraiteita	Vaihtotyö- mahdollisuus
Namn	Annat namn	Förkortning	Kommersiellt namn	Typ	Km Hki	Kod	Banavsnitt	Kommun	Trafikledning	Privata spår- anläggningar	Möjlighet till växelarbete
Name	Another name	Abbr.	Commercial name	Type	Km Hki	Code	Line section	Municipality	Traffic control	Private sidings	Shunting
Ylöjärvi		Ylö		Liikennepaikka	200+753	00211	Tampere–Seinäjoki	Ylöjärvi	K		K
Ypykkävaara		Ypy		Liikennepaikka	729+780	00940	Kontiomäki–Vartius-rajaa	Kuhmo	K		K
Äetsä		Äs		Liikennepaikka	258+280	00174	Lielähti–Kokemäki	Sastamala	K		K
Ähtäri	Etseri	Äht		Liikennepaikka	346+067	00265	Orivesi–Seinäjoki	Ähtäri	K		K
Ämmänsaari		Äm		Liikennepaikka	750+448	00394	Kontiomäki–Ämmänsaari	Suomussalmi	M		K
Äänekoski		Äki		Liikennepaikka	424+515	00252	Jyväskylä–Äänekoski, Äänekoski–Haapajärvi	Äänekoski	K	K	K

























Nimi	Lyhin laituripituus	Pisin laituripituus	Laituri-korkeus	Laituriraitteiden lukumäärä	Mitoittava raidepituus (tavaraliikenne)	Sähkö-virran saanti	Sivulaituri, suurin pituus	Päätylaituri	Kuormaustenttä	Seisontaraide (m/liikennepaikka)	Seisontaraide (kpl /liikennepaikka)	Nosturi	Polttoaine	Henkilö-liikennettä	Tavara-liikennettä	Kääntöpöytä tai kolmioraide (KR)	VAK-ratapihat
Namn	Min.plattformslängd	Max. plattformslängd	Plattforms-höjd	Antal spår med plattform	Dimensionerande spårlängd (godstrafik)	Tillgång på elström	Sidoplattform, max. längd	Plattform i ändan av banan	Lastningsplats	Uppställningsspår (m/trafikplats)	Uppställningsspår st./trafikplats)	Lyftkran	Bränsle	Person-trafik	Godstrafik	Vändskiva eller triangelspår (KR)	Bangård för farliga ämnen
Name	Min. platform length	Max. platform length	Platform height	Number of tracks with platforms	Design train length (freight transport)	Power supply	Side loading platform, max. length	End loading platform	Loading site	Storage siding (m/traffic operating point)	Storage siding (pcs/traffic operating point)	Crane	Fuel	Passenger transport	Freight transport	Turntable or triangle rail (KR)	Marshalling yard for dangerous goods
	[m]	[m]	[mm]		[m]	[400 V, A]	[m]					[t]					
Ammänsaari				0	570	25 A	—	—	K	1386	3	—	—	—	T	—	—
Äänekoski	(35)	(75)	(265)	(2)	850	25 A	14	—	K	3211	6	—	—	—	T	—	—

Nimi	Toinen nimi	Lyhenne	Kaupallinen nimi	Tyyppi	Km Hki	Rataosuus	Kunta	Kauko-ohjaus/ manuaalinen	Yksityis- raiteita	Vaihtotyö- mahdollisuus
Namn	Namn på svenska	Förkortning	Kommersiellt namn	Typ	Km Hki	Banavsnitt	Kommun	Trafikledning	Privata spår- anläggningar	Möjlighet till växelarbeta
Name	Another name	Abbr.	Commercial name	Type	Km Hki	Section	Municipality	Traffic control	Private sidings	Shunting
Haimoo		Hmo			87+700	Hyvinkää–Karjaa	Vihti	K		
Heikkilänkangas		Hg			762+500	Oulu–Kontiomäki	Oulu	K		
Honkaranta		Hkr			572+882	Iisalmi–Ylivieska	Kiuruvesi	K		
Iisalmen kolmioraide		Ilk			553+399	Iisalmi–Ylivieska	Iisalmi	K		
Ilola		loa		Halt	155+100	Toijala–Valkeakoski	Valkeakoski			
Jäniskorpi		Jnk			586+419	Seinäjoki–Oulu	Kannus	K		
Karvoskylä		Kvä			662+676	Iisalmi–Ylivieska	Nivala	K		
Kiilinkangas		Kkg			299+490	Kouvola–Joensuu	Lappeenranta	K		
Kuninkaanmäki		Knm			38+500	Kerava–Vuosaari	Vantaa	K		
Kuusikkoniemi		Ksn			806+900	Oulu–Kontiomäki	Paltamo	K		
Lapinkylä		Lpk			19+900	Vantaankoski–Havukoski	Vantaa	K		
Latukka		Ltk			563+440	Pieksämäki–Kontiomäki	Iisalmi	K		
Liminpuro		Lmp		Traffic operating point	863+770	Oulu–Kontiomäki	Vaala	K		
Melalahti		Mll		Traffic operating point	893+280	Oulu–Kontiomäki	Paltamo	K		
Niska		Nsk		Traffic operating point	826+118	Oulu–Kontiomäki	Utajärvi	K		
Oulunlahti		Oll			746+846	Seinäjoki–Oulu	Oulu	K		
Pappilänkangas		Pkg			308+633	Kouvola–Joensuu	Lappeenranta	K		
Petas		Pet			17+170	Vantaankoski–Havukoski	Vantaa	K		
Puikkokoski		Pui			665+680	Kontiomäki–Vartius-raja	Paltamo	K		
Puolukkasuo		Puo			23+510	Vantaankoski–Havukoski	Vantaa	K		
Rasimäki		Rmk			602+460	Pieksämäki–Kontiomäki	Kajaani	K		
Raudaskylä		Rkä			691+015	Iisalmi–Ylivieska	Ylivieska	K		
Ruoneva		Rnv				Seinäjoki–Oulu	Siikajoki	K		
Ruskeasanta	Rödsand	Rs			28+760	Vantaankoski–Havukoski	Vantaa	K		
Saarela		Srl			594+018	Seinäjoki–Oulu	Kannus	K		
Salmenmäki		Sal				Seinäjoki–Oulu		K		
Temmesjoki		Tmj				Seinäjoki–Oulu	Liminka	K		

Nimi	Toinen nimi	Lyhenne	Kaupallinen nimi	Tyyppi	Km Hki	Rataosuus	Kunta	Kauko-ohjaus/ manuaalinen	Yksityis- raiteita	Vaihtotyö- mahdollisuus
Namn	Namn på svenska	Förkortning	Kommersiellt namn	Typ	Km Hki	Banavsnitt	Kommun	Trafikledning	Privata spår- anläggningar	Möjlighet till växelarbeta
Name	Another name	Abbr.	Commercial name	Type	Km Hki	Section	Municipality	Traffic control	Private sidings	Shunting
Tuomaanvaara		Tva			682+300	Kontiomäki–Vartius-rajaa	Ristijärvi	K		
Tupavuori		Tvu			260+100	Kouvola–Joensuu	Lappeenranta	K		
Tupos		Tup			736+500	Seinäjoki–Oulu	Kempele	K		
Viinikkala	Vinikby	Vkl			22+590	Vantaankoski–Havukoski	Vantaa	K		
Yllikkälä		Yll			268+500	Kouvola–Joensuu	Lappeenranta	K		





## Traffic operating points/Non-Finnish border stations

Nimi	Toinen nimi	Lyhenne	Kaupallinen nimi	Tyyppi	Km Hki	Rataosuus	Kunta	Kauko-ohjaus/ manuaalinen	Yksityisraiteita	Vaihtotyö- mahdollisuus
Namn	Namn på svenska	Förkortning	Kommersiellt namn	Typ	Km Hki	Banavsnitt	Kommun	Trafikledning	Privata spår- anläggningar	Möjlighet till växelarbete
Name	Another name	Abbr.	Commercial name	Type	Km Hki	Section	Municipality	Traffic control	Private sidings	Shunting
Buslovskaja		Bsl			288+000	Vainikkala raja – Viipuri		K		
Haaparanta	Haparanda	Hpa			888+130	Tornio–raja – Boden	Haparanda	K		
Kivijärvi		Kiv			759+800	Vartius–raja – Kostamus		K		
Svetogorsk		Stg			338+200	Imatrankoski–raja – Kamennogorsk (Antrea)		K		
Värtsilä		Vrs			553+300	Niirala–raja – Matkaselkä		K		



# Transport operating regulations for cross-border movements on the line section Tornio–Haaparanta

## INTRODUCTION

This Appendix is based on an agreement between the previous Finnish Rail Administration (currently the Finnish Transport Infrastructure Agency) and the previous Swedish Rail Administration (currently the Swedish Transport Administration).

This Appendix was drawn up in cooperation between the Swedish Transport Administration and the Finnish Transport Infrastructure Agency. These regulations have been drafted in Swedish and Finnish with identical content.

This Appendix will become valid on 1 July 2017.

## COMPLIANCE WITH THESE REGULATIONS

These regulations must be complied with in all cross-border movements between Tornio and Haaparanta.

## REFERENCES

### Sweden

Trafikverket - Regelmoduler i Trafikbestämmelser för järnväg

<http://www.trafikverket.se/for-dig-i-branschen/Arbetsmiljo-och-sakerhet/sakerhet-pa-jarnvag/trafikbestammelser-for-jarnvag--ttj/regelmoduler-i-trafikbestammelser-for-jarnvag/> [reference 30.4.2018]

- Modul 3 H Signaler - System H
- Modul 10 HMS - Växling System H, M och S
- Modul 20 Sidospår

### Finland

The Finnish Transport and Communications Agency, Traficom, National regulations (in Finnish)

<https://www.traficom.fi/fi/liikenne/raideliikenne/raideliikenteen-saadokset>

- The Control Command and Signalling Subsystem, (TRAFI/14975/03.04.02.00/2016)
- Railway Communications System, (TRAFI/26490/03.04.02.00/2014)
- Traffic Operation and Management in the Railway System (TRAFI/2438/03.04.02.00/2015)

The Finnish Transport Infrastructure Agency's railway instructions (in Finnish)

- Safety instructions for train traffic and shunting operations (Jt) (in Finnish)

[https://julkaisut.vayla.fi/pdf7/rautatieohjeet\\_web.pdf](https://julkaisut.vayla.fi/pdf7/rautatieohjeet_web.pdf)

**DEFINITIONS**

<b>Cross-border movement</b>	Movements entirely or partly operated within the common zone.
<b>Movement</b>	Refers to railway work and shunting.
<b>Permission</b>	Refers to permission to allow movement to begin.
<b>Swedish movement</b>	Shunting or railway work started in Sweden.
<b>Finnish movement</b>	Shunting or railway work started in Finland.

**GENERAL**

Swedish safety rules shall be followed during operations in Sweden and when communicating with Swedish traffic control.

Finnish safety rules shall be followed during operations in Finland and when communicating with Finnish traffic control.

Permission for operations must be requested directly from the traffic control in the area where the operations will take place.

Permission to cross the border must be granted both by the Swedish and Finnish traffic control centres before starting operations.

Units operating from Tornio to Haparanda must not cross the state border without the Swedish traffic control's permission. Units operating from Haparanda to Tornio must not pass signals T832 or T833 without Finnish traffic control's permission.

The notice of completed operations must be given to the traffic control that has given the permission.

At the state border, there are no safety devices or control of track vacancy between Swedish signal 101 and Finnish signals T832 and T833.

**COMMUNICATION**

Finnish staff shall be in contact with both the Swedish and Finnish traffic control.

Swedish staff shall be in contact with both the Finnish and Swedish traffic control.

Communication shall take place in the language of the traffic control. Finnish shall be used for communication with Finnish traffic control and Swedish with Swedish traffic control.

The communicated messages shall be repeated.

Examples of useful words can be found in Section 1.5, and example sentences in Section 1.6.

#### **TORNIO–HAAPARANTA DIRECTION, WORKING ORDER**

- Ask for permission regarding shunting operations in Haparanda from the Swedish traffic control.
- Ask for permission regarding shunting operations between Tornio and Haparanda from the Finnish traffic control.
- Begin operations.
- When the unit has returned to the departure country, a notice of completed shunting operations shall be sent to the traffic control in the country where the cross-border shunting operations have been performed.

#### **HAAPARANTA–TORNIO DIRECTION, WORKING ORDER**

- Ask for permission regarding shunting operations in Tornio from the Finnish traffic control.
- Ask for permission regarding shunting operations between Haparanda and Tornio from the Swedish traffic control.
- Begin operations.
- When the unit has returned to the departure country, a notice of completed shunting operations shall be sent to the traffic control in the country where the cross-border shunting operations have been performed.

#### **MAXIMUM PERMITTED SPEED**

The maximum permitted speeds are specified by the speed signs described in Section 1.2.

#### **ACCIDENTS**

Any accident, threat or disruption shall be reported to traffic control. Reports from Haparanda shall be made to the Swedish traffic control in Swedish, and in Tornio, the reports shall be made in Finnish to the Finnish traffic control. If necessary, the reports are also given to the authorities of the country where the accident or threat has occurred.

### 1.1 SIGNALS AND SIGNAL ASPECTS

The signals are applicable in conformity with the regulations of the country concerned.

#### Hand signals

The Swedish shunting staff shall implement manual signalling as specified in "Trafikverket - Regelmoduler i Trafikbestämmelser för järnväg, Modul 3 H Signaler - System H", irrespective of whether the activity takes place on the Swedish or Finnish side of the border.

The Finnish shunting staff shall implement manual signalling as specified in "Liikenneviraston rautatieohjeet, Junaliikenteen ja vaihtotyön turvallisuussäännöt (Jt)", irrespective of whether the activity takes place on the Finnish or Swedish side of the border.

The "Stop" and "Danger" signals shall always be followed, irrespective of whether they are operated in conformity with the Swedish or Finnish regulations.

Ground signals on Finnish tracks in Sweden:



"Stop"



"Proceed"



"Proceed-check clearance"



"Proceed-check turnouts and clearance"

Ground signals on Swedish tracks in Finland.



"Stop"



"Proceed with caution"



"No signals"

### 1.2 SPEED SIGNS

In Finland



Maximum admissible speed  
 (example displaying max. 30 km/h)

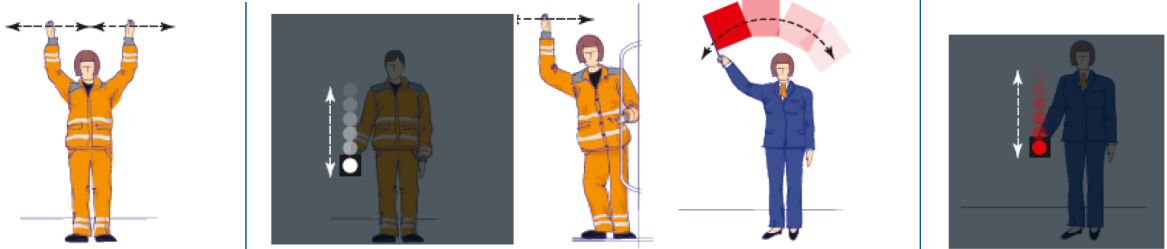
In Sweden



Maximum admissible speed  
 (example displaying max. 30 km/h)

1.3 STOP SIGNALLING

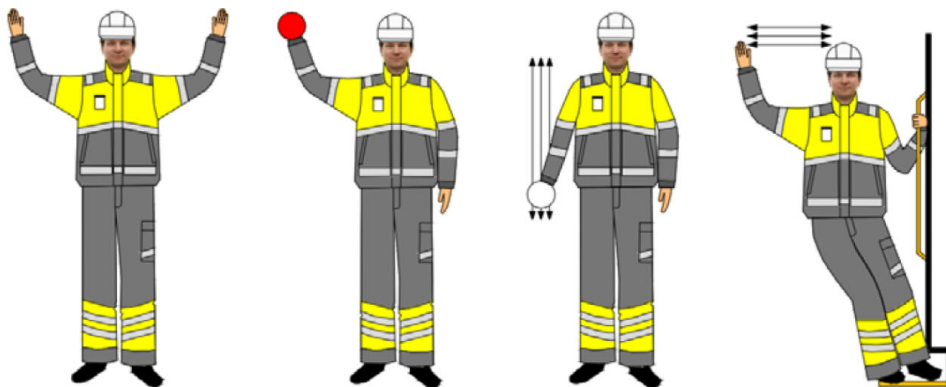
Swedish hand signals



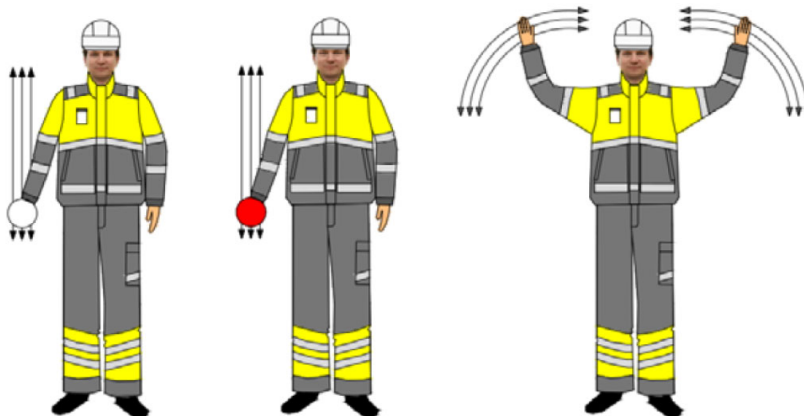
Read: Stop



Finnish hand signals



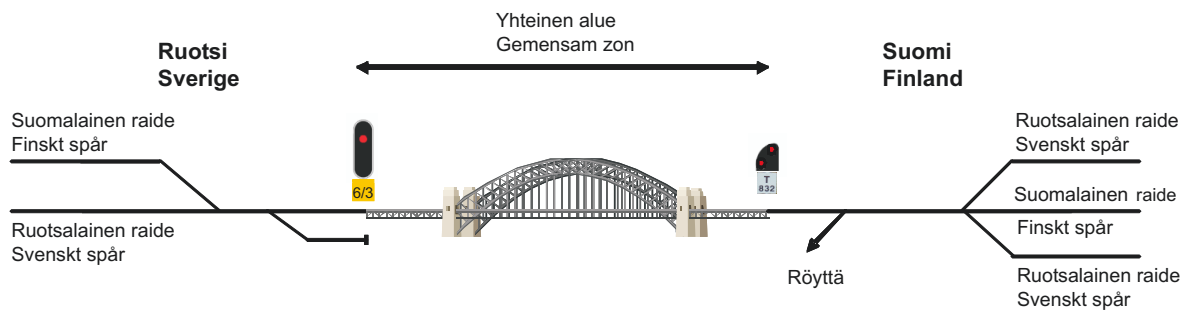
Read: Stop



Read: Danger (Stop)



#### 1.4 DRAWING ON HAAPARANTA–TORNIO AREA



#### 1.5 EXAMPLE TRANSLATIONS

Swedish	Finnish	English
Växling	Vaihtotyö	Shunting work
Arbete	Työ	Work
Reserverad zon	Varaus	Reserved/Occupied
Upphävande	Peruuttaminen	Clearance of occupancy
Tågklarare	Junasuorittaja	Dispatcher
Trafikledning	Liikenteenohjaus	Traffic control
Station	Asema	Station
Fara	Vaara	Danger
Stoppsignal	Seis-opaste	Stop signal
Passage av en signal	Opastimen ohittaminen	Passing of signal aspect
Signal	Opastin/Opaste	Signal/Signal aspect
Repetera	Toistaa	Repeat
Rätt uppfattat	Oikein ymmärretty	Correctly read

## 1.6 EXAMPLE PHRASES

### Permission to pass stop signal aspect

Swe: *Tågklareraren* \_\_\_\_\_, *medgivande att passera signal* \_\_\_\_\_.

Fin: Liikenteenohjaus \_\_\_\_\_, lupa ohittaa opastin \_\_\_\_\_.

Eng: Traffic control \_\_\_\_\_, permission to pass signal aspect \_\_\_\_\_.

### Correctly read

Swe: *Rätt uppfattat*

Fin: Oikein ymmärretty

Eng: Correctly read.

### Repeat

Swe: *Repetera*

Fin: Toista.

Eng: Repeat.

## Loading gauge

The loading gauge (KU) refers to the space inside which the load on an open wagon shall remain, when the wagon is in the centre position on a straight, even track.

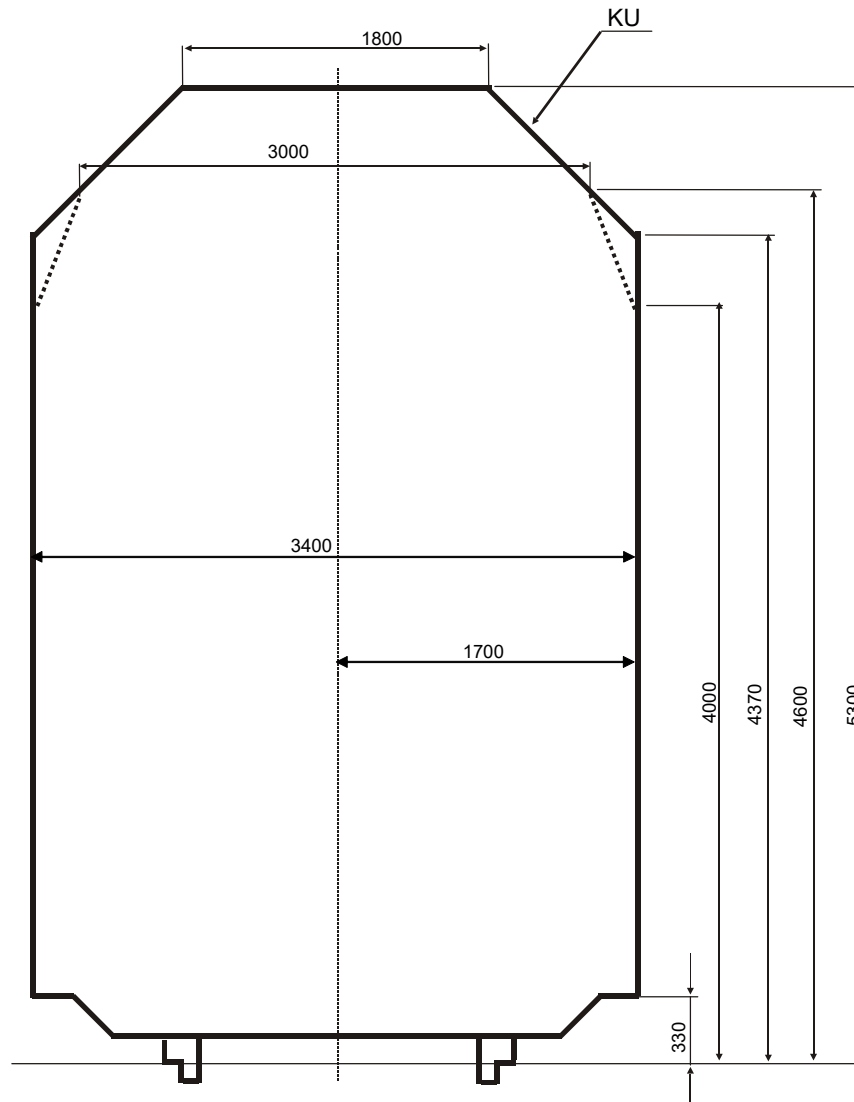


Figure 1. Principal dimensions of the loading gauge.

### Use of the loading gauge

The loading gauge is valid in the whole rail network with the exceptions mentioned below.

The loading gauge may be used for wagons in which the wheel-base or the distance between bogie centres is max. 17.5 m, and the length of the loading area of the wagon outside the wheel-base or the distance between bogie centres is max. 0.2 times the length of the wheel-base or the distance between bogie centres. In other cases, loading shall be examined separately.

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If there is a risk that the load may be displaced laterally outside the loading gauge during transportation, the width of the load shall be reduced correspondingly. If the displacement of the load may increase the height of some parts of the load so that they extend outside the loading gauge, the height of the load shall be reduced correspondingly.

If the load extends below the floor level of the wagon, the regulations concerning the vehicle gauge (LKU) are applied or the load is carried as a special transport.

#### **Loading gauge restrictions**

The bridges on the line section Helsinki – Pasila station – Ilmala railway yard restrict the loading gauge. The loading gauge valid on bridges is marked with a dashed line (-----) on the loading gauge drawing (Figure 1).

On several industrial and other sidings, there are loading gauge restrictions, which shall be taken into account when operating in local traffic.

### **Transport terms and conditions for vehicles or other loading units exceeding the loading gauge**

Lorries, lorry trailers and containers exceeding the loading gauge may be transported on the following conditions. Loading instructions to be inserted in the railway undertaking's safety management system – lorries, lorry trailers and containers exceeding the loading gauge.

Other transports exceeding the loading gauge are transported as special transports.

#### **Loading**

Loading of a vehicle or other loading units exceeding the loading gauge is permitted if the largest width of the vehicle is max. 2,600 mm, and the greatest height is max. 4,200 mm, when the floor height is 1,100 mm.

The greatest load height from the upper surface of the rail shall not exceed 5,300 mm and a maximum  $\pm 100$  mm deviation of the lateral load is allowed.

The instructions for loading from vehicles to goods wagons shall be applied to loading of wagons intended for vehicle transports (onto combined transport wagons).

The loading dimensions are also shown in Figure 2.

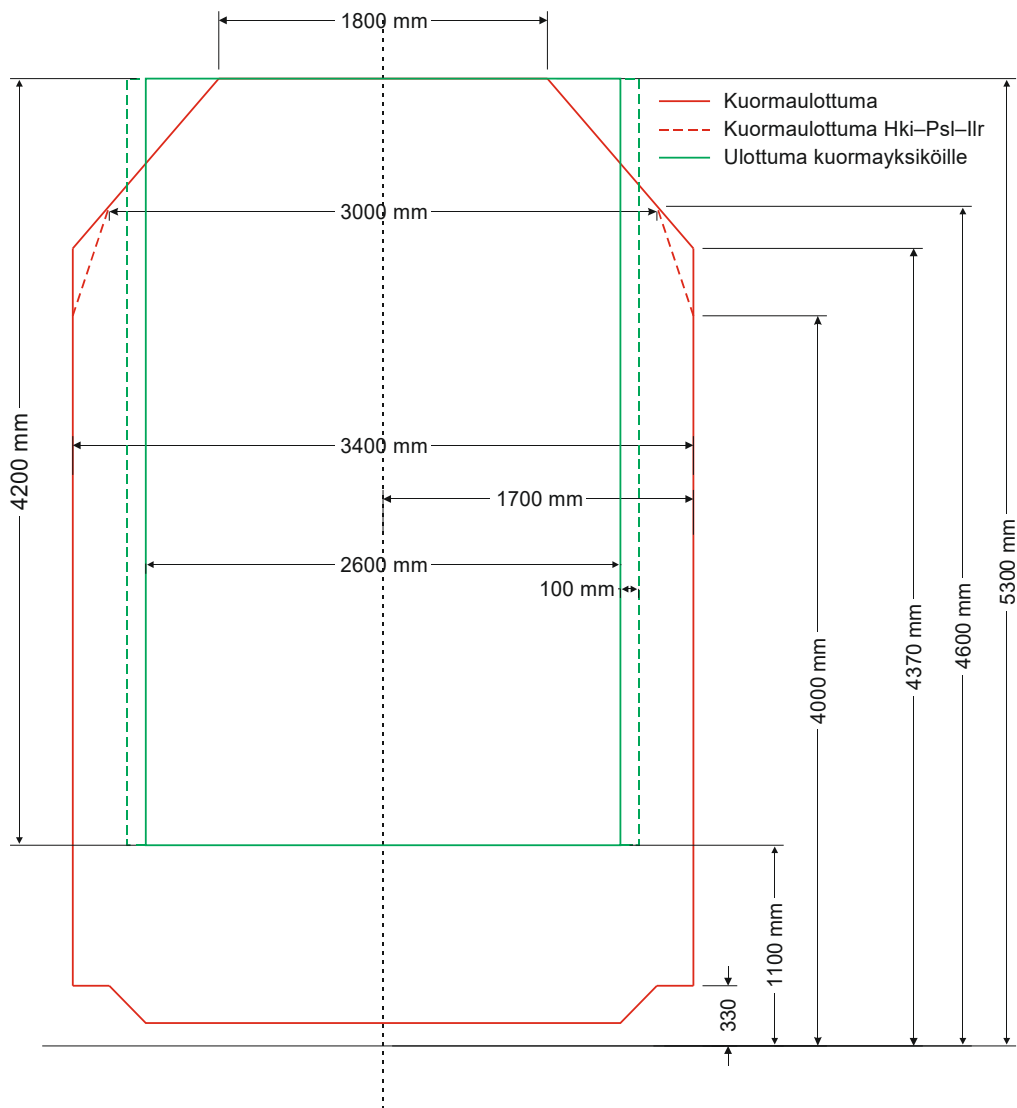


Figure 2. Loading dimensions for vehicles and other loading units exceeding the loading gauge.

### Line sections and tracks where it is allowed to transport wagons exceeding the loading gauge

Vehicles or loading units exceeding the loading gauge may be transported on the line sections mentioned in tables 1 and 2 according to the rolling stock category in table 3. The line sections are shown in Figure 3.

At the traffic operating points, which have not been indicated for the different line sections in the tables, it is allowed to use all through routes according to the rules applying to the use of safety devices.

If a track has been indicated for a traffic operating point in the table, where the same track number is used for different track sections separated with letters, the track number itself refers to all such sections.

If these transports require shunting operations on tracks, which are not mentioned here, the tracks shall be specified locally by a railway technology specialist.

Loading, inspections and unloading of wagons on or in the vicinity of electrified railways shall comply with the safety regulations.

Table 1. Wagon length  $\leq 24.0$  m

Wagon length $\leq 24.0$ m	
I	Helsinki–Kemi–Tornio / Rovaniemi
II	Helsinki–Karjaa–Turku
III	Hanko–Hyvinkää
IV	Uusikaupunki–Turku–Toijala
V	(Tampere)–Lielähti–Mäntyluoto / Tahkoluoto / Rauma
VI	Seinäjäki–Vaskiluoto
VII	Tampere–Jämsä–Pieksämäki
VIII	Riihimäki–Kouvola–Ämmänsaari
IX	Kouvola–Lieksa
X	Pieksämäki–Varkaus–Joensuu
XI	Kontiomäki–Oulu
XII	Viinijärvi–Siilinjärvi
XIII	Kouvola–Kotka / Kotka Mussalo
XIV	Lahti–Port of Loviisa
XV	Kerava–Hakosilta
XVI	Luumäki–Vainikkala border
XVII	Rovaniemi–Kemijärvi

Table 2.  $24.0\text{m} \leq \text{Wagon length} \leq 26.0$  m

24.0m $\leq$ Wagon length $\leq$ 26.0 m	
XVIII	Helsinki–Oulu
XIX	Riihimäki–Kouvola–Vainikkala border
XX	Kerava–Hakosilta
XXI	Kouvola–Kontiomäki–Oulu–Kemijärvi
XXII	Lielähti–Kokemäki
XXIII	Parkano–Niinisalo

### Wagon stock and speed of combined transports

The stock used for combined transports has been divided into two categories according to the principal dimensions. The allowed line sections for these categories are presented in tables 1 and 2.

Table 3. Principal measures of stock used for combined transports.

Principal measures of stock used for combined transports				
Category	Length [s] over buffers / max. coupling length	Distance between bogies centres	Maximum wheelbase (distance between inner wheelsets)	Example
A	$s \leq 24.0$ m	18.4 m	16.6 m	Rbnqss
B	$24.0 \text{ m} \leq s \leq 26.0$ m	20.0 m	18.2 m	Sdggngqss-w

The maximum allowed transport speed is 120 km/h. However, the transport speed shall not be higher than the speed limit imposed for the transporting wagons, the line section or otherwise.

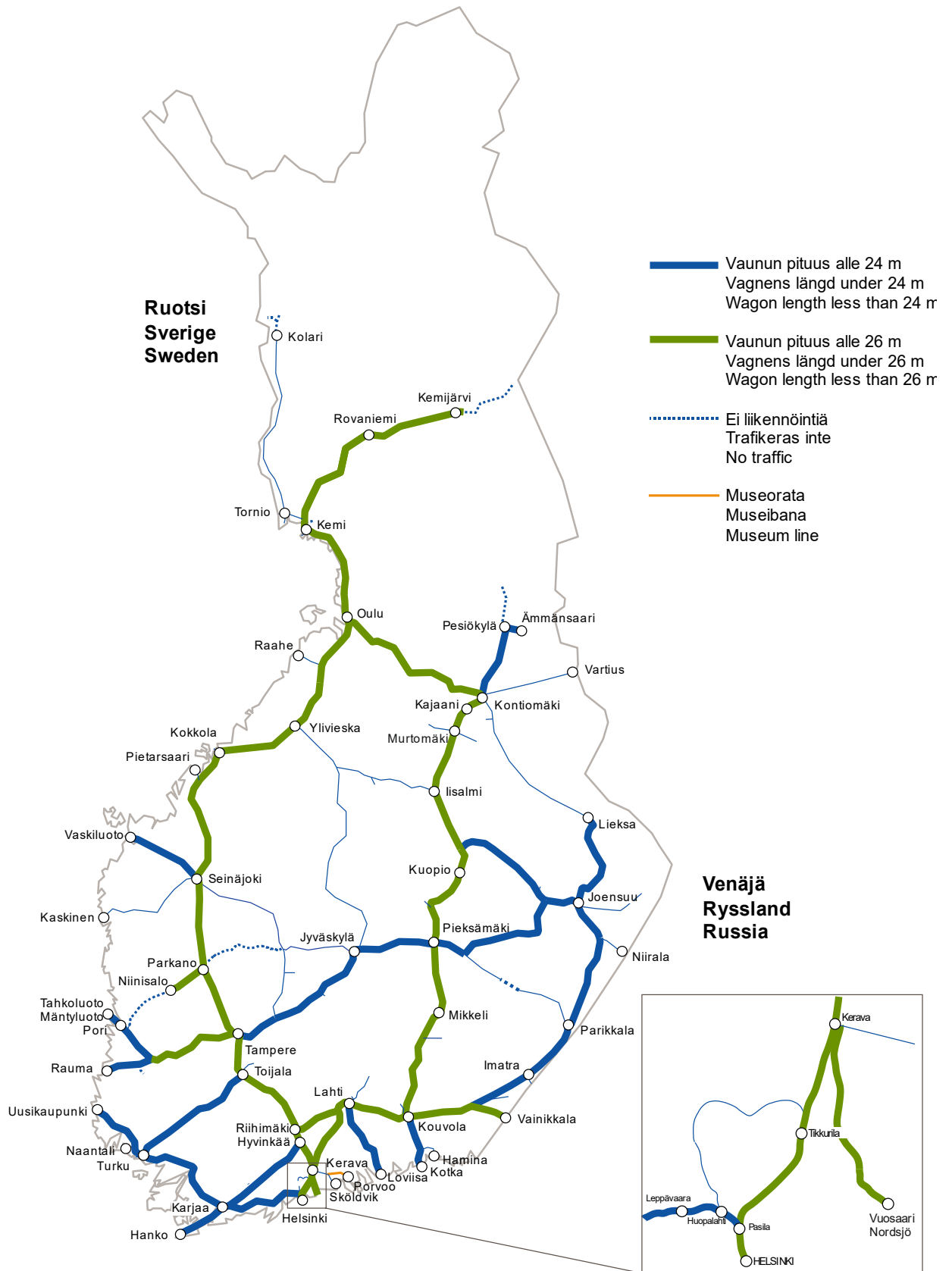


Figure 3 Operating vehicles exceeding the loading gauge on different line sections



# Structure gauge

No fixed installations or equipment must be placed within the structure gauge envelope.

The form and dimensions of the structure gauge (ATU) on a straight track, on an open line and in the railway yard are shown in Figure 1. The space required for the mounting of the catenary structure and for the passage of the pantograph on electrified lines is marked by the broken line D-E-F-G-H-L. The widths of the structure gauge in curves, restrictions and more detailed instructions are presented in the Ratatekniset ohjeet (RA-TO) publication, part 2" Radan geometria" (Track geometry).

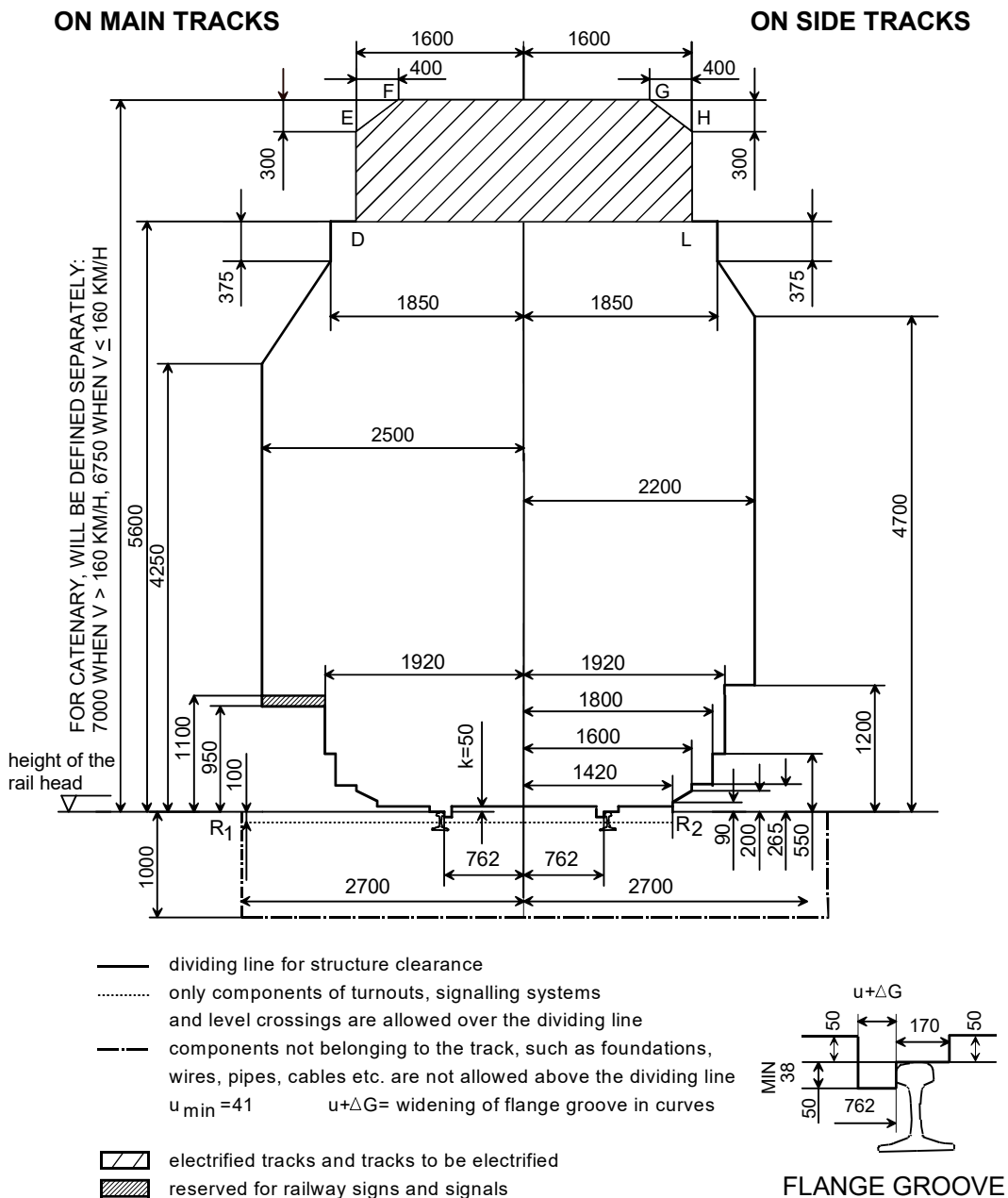


Figure 1. Principal dimensions of the structure gauge.

### **Effective passing clearance**

The structure gauge is used as a guideline for building and mounting new structures and installations in the vicinity of the track. The structure gauge or the deviations from it constitute the so-called effective available structure gauge, i.e. the passing clearance, for special consignments. Information on the passing clearance is collected for each line section and continuously updated by the track maintenance providers.

## Superstructure categories, EN categories derived from the superstructure categories and permitted speeds for different axle loads

### Division of lines into EN categories

The lines are divided into EN categories according to the superstructure as follows:

Table 1. Division of lines into EN categories

Categories		Superstructure		
Infrastructure manager's superstructure category	EN category SFS-EN 15528	Rails	Sleepers	Ballast
A	C4	K30, K33	wooden	gravel or equivalent
B <sub>1</sub>	D4	K43, 54 E1, K60, 60 E1	wooden	gravel or equivalent
B <sub>2</sub>	D4	K43, K60	wooden, concrete	railway ballast
C <sub>1</sub>	D4 /E4	54 E1	wooden, concrete before 1987	railway ballast
C <sub>2</sub>	D4/E4	54 E1	concrete from 1987 onwards	railway ballast
D	D4/E4	60 E1/60E2	concrete	railway ballast

The limit of the line category is marked in the middle of the station building at the traffic operating point, unless another point is indicated by the kilometre marking.

The line categories for sections of lines are also presented in Figure 1.

### Responsibility of track maintenance service provider

The track maintenance service provider has the right to restrict the permitted axle load and speed depending on the condition of the track superstructure.

<sup>1</sup> Shunting traffic only

<sup>2</sup> Museum line

<sup>3</sup> Bridge restriction, see Appendix 3H

<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi

<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

Table 2. Superstructure categories and EN categories derived from the superstructure categories of the main lines and permitted speeds for different axle loads.

Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
<b>Helsinki–Turku satama</b>								
Helsinki asema–km 25,2	D	D4	120	120	120	120	100	–
km 25,2–km 29,0	C1	D4	120	120	120	120	100	–
km 29,0–Kirkkonummi	D	D4	120	120	120	120	100	–
Kirkkonummi–Karjaa	D	D4	160	180	120	120	100	–
Karjaa–km 96,6	D	D4	160	200	120	120	100	–
km 96,6–km 103,6	D	D4	160	180	120	120	100	–
km 103,6–km 119,2	D	D4	160	200	120	120	100	–
km 119,2–km 121,3	D	D4	160	200	120	120	100	–
km 121,3–km 125,0	C1	D4	160	180	120	120	100	–
km 125,0–km 130,8	D	D4	160	180	120	120	100	–
km 130,8–km 152,0	D	D4	160	200	120	120	100	–
km 152,0–km 158,0	C1	D4	160	200	120	120	100	–
km 158,0–km 193,4	C1	D4	160	180	120	120	100	–
km 193,4–Turku asema	D	D4	160	180	120	120	100	–
Turku asema–Turku satama	C1	D4	40	40	40	40	40	–
<b>Huopalahti–Tikkurila</b>								
Huopalahti–Havukoski	D	D4	120	120	–	–	–	–
<b>Hyvinkää–Karjaa</b>								
Hyvinkää–km 133,1	C1	D4	80	80	80	80	80	–
km 133,1–Kirkniemi	D	D4	80	80	80	80	80	–

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
Kirkniemi–km 152,2	D	E4	80	80	80	80	80	80
km 152,2–Karjaa	C1	E4	80	80	80	80	80	60
<b>Karjaa–Hanko</b>								
Karjaa–km 205,7	D	E4	120	120	120	120	100	100
km 205,7–Hanko-Pohjoinen	C1	E4	60	60	60	60	60	60
Hanko-Pohjoinen–Hanko asema	B1	D4	35	35	35	35	35	35
<b>Turku–Uusikaupunki</b>								
Turku asema–Raisio (km 207,4)	C1	D4	60	60	60	60	60	–
Raisio (km 207,4)– Uusikaupunki	B1	D4	60	60	60	60	50	–
<b>Uusikaupunki–Hangonsaari</b>								
Uusikaupunki–km 269,0 <sup>1</sup>	C1	D4	–	–	30	30	30	–
km 269,0–Hangonsaari <sup>1</sup>	B1	D4	–	–	30	30	30	–
<b>Raisio–Naantali</b>								
	B1	D4	50	50	50	50	50	–
<b>Helsinki–Riihimäki</b>								
Helsinki asema–Pasila asema	D	D4	80	80	80	80	80	–
Pasila asema–km 4,2 westernmost track	D	E4	80	80	80	80	80	80
km 4,2–km 8,5 westernmost track	D	E4	140	140	120	120	100	100

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
km 8,5–Tikkurila asema westernmost track	D	E4	160	160	120	120	100	100
Pasila asema–km 4,2 western middle track	D	E4	80	80	80	80	80	80
km 4,2–km 8,5 western middle track	D	E4	140	140	120	120	100	100
km 8,5–Tikkurila asema western middle track	D	E4	160	160	120	120	100	100
Pasila asema–Tikkurila asema eastern middle track	D	E4	120	120	120	120	100	100
Pasila asema–Tikkurila asema easternmost track	D	E4	120	120	120	120	100	100
Tikkurila asema–Kerava asema westernmost track	D	E4	200	200	120	120	100	100
Tikkurila asema–Kerava asema western middle track	D	E4	200	200	120	120	100	100
Tikkurila asema–Kerava asema eastern middle track	D	E4	120	120	120	120	100	100
Tikkurila asema–Kerava asema easternmost track	D	E4	120	120	120	120	100	100
Kerava asema–Kytömaa westernmost track	D	E4	120	120	120	120	100	100
Kerava asema–Kytömaa western middle track	D	E4	200	200	120	120	100	100
Kerava asema–Kytömaa eastern middle track	D	E4	200	200	120	120	100	100
Kerava asema–Kytömaa easternmost track	D	E4	120	120	120	120	100	100
Kytömaa–Ainola	D	E4	200	200	120	120	100	100

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
Ainola–Purola westernmost track	D	E4	120	120	120	120	100	100
Ainola–Purola western middle track	D	E4	200	200	120	120	100	100
Ainola–Purola eastern middle track	D	E4	200	200	120	120	100	100
Ainola–Purola easternmost track	D	E4	120	120	120	120	100	100
Purola–Riihimäki asema	D	E4	200	200	120	120	100	100
<b>Kerava–Hakosilta</b>								
Kytömaa–Hakosilta	D	E4	200	220	120	120	100	100
<b>Kerava–Sköldvik</b>								
Kytömaa–Sköldvik	D	D4	80	80	80	80	80	–
<b>Olli–Porvoo<sup>2</sup></b>	A	C4	35	50	35	–	–	–
<b>Kerava–Vuosaari</b>	D	E4	–	–	80	80	80	80
<b>Riihimäki–Tampere</b>								
Riihimäki asema–Sammalisto western track	D	E4	200	200	120	120	100	100
Riihimäki asema–Sammalisto Middle track	D	E4	200	200	120	120	100	100
Riihimäki asema–Sammalisto Eastern track	D	E4	120	120	120	120	100	100

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
Sammalisto–Sääksjärvi	D	E4	200	200	120	120	100	100
Sääksjärvi–Tampere tavara western track	D	E4	200	200	120	120	100	100
Sääksjärvi–Tampere tavara keskiraide	D	E4	200	200	120	120	100	100
Sääksjärvi–Tampere tavara eastern track	D	E4	100	100	100	100	100	100
Tampere tavara–Tampere asema	D	E4	200	200	120	120	100	100
<b>Toijala–Turku</b>								
Toijala–km 264,7	D	D4	140	140	120	120	100	–
km 264,7–Turku asema	D	D4	120	120	120	120	100	–
<b>Toijala–Valkeakoski</b>	C1	D4	50	50	50	50	50	–
<b>Tampere–Seinäjoki</b>								
Tampere asema–Lielähti	D	E4	120	120	120	120	100	80
Lielähti–Pohjois-Louko	D	E4	200	200	120	120	100	100
Pohjois-Louko–Seinäjoki asema western track	D	E4	200	200	120	120	100	100
Pohjois-Louko–km 343,2 eastern track	D	E4	160	160	120	120	100	100
km 343,2–Seinäjoki asema eastern track	D	E4	130	160	120	120	100	100
<b>Lielähti–Kokemäki</b>	D	E4	140	140	120	120	100	100

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi



Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
<b>Kokemäki–Pori</b>								
Kokemäki–Harjavalta	D	D4	140	140	120	120	100	–
Harjavalta–Pori	D	E4	140	140	120	120	100	100
<b>Pori–Mäntyluoto</b>	C1	E4	70	70	70	70	70	50
<b>Mäntyluoto–Tahkoluoto<sup>1</sup></b>	B2	D4	-	-	50	50	50	-
<b>Kokemäki–Rauma</b>	D	E4	100	100	100	100	100	80
<b>Pori–Aittaluoto<sup>1</sup></b>	B1	D4	–	–	20	20	20	–
<b>Niinisalo–Parkano–Kihniö</b>								
Niinisalo–Parkano	A	C4	30	30	30	30	–	–
<b>Seinäjoki–Vaasa</b>	C2	D4	120	120	120	120	100	–
<b>Seinäjoki–Kaskinen<sup>3</sup></b>								
Seinäjoki–km 452,0	B1	D4	80	80	80	60	50	–
km 452,0–km 513,8	B1	D4	60	60	60	50	40	–
km 513,8–km 514,6	B1	D4	30	30	30	30	30	–
km 514,6–Kaskinen	B1	D4	60	60	60	50	40	–
<b>Seinäjoki–Oulu</b>								
Seinäjoki asema–km 435,3	D	E4	200	200	120	120	100	100
km 435,3–Lapua	D	E4	160	200	120	120	100	100
Lapua–km 459,0	D	E4	160	200	120	120	100	100

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
km 459,0–km 467,5	D	E4	200	200	120	120	100	100
km 467,5–km 482,8	D	E4	190	200	120	120	100	100
km 482,8–km 507,8	D	E4	200	200	120	120	100	100
km 507,8–km 519,2	D	E4	180	200	120	120	100	100
km 519,2–km 524,6	D	E4	190	200	120	120	100	100
km 524,6–km 529,3	D	E4	200	200	120	120	100	100
km 529,3–km 550,5	D	E4	170	200	120	120	100	100
km 550,5–km 552,2	C2	E4	70	70	70	70	70	70
km 552,2–km 568,5 western track	D	E4	160	200	120	120	100	100
Km 552,2–km 553,0 Eastern track	D	E4	120	160	120	120	100	100
km 553,0–568,5 eastern track	D	E4	160	200	120	120	100	100
Km 568,5–km 571,2	D	E4	140	170	120	120	100	100
Km 571,2–km 573,1	D	E4	180	200	120	120	100	100
Km 573,1–km 591,0	D	E4	200	200	120	120	100	100
Km 591,0–km 592,8	D	E4	100	140	120	120	100	100
Km 592,8–km 596,9 Western track	D	E4	170	200	120	120	100	100
Km 596,9–km 605,2 Western track	D	E4	160	200	120	120	100	100
Km 592,8–km 605,3 Eastern track	D	E4	160	200	120	120	100	100
Km 605,2–km 624,4 Western track	D	E4	200	200	120	120	100	100
Km 605,3–km 616,3 Eastern track	D	E4	200	200	120	120	100	100

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
Km 616,3–km 617,4 Eastern track	D	E4	170	200	120	120	100	100
Km 617,4–km 625,4 Eastern track	D	E4	200	200	120	120	100	100
Km 624,4–Ylivieska Western track	D	E4	170	200	120	120	100	100
Km 625,4–Ylivieska Eastern track	D	E4	170	200	120	120	100	100
Ylivieska–km 634,3	D	E4	120	160	120	120	100	100
km 634,3–km 637,4	D	E4	160	190	120	120	100	100
km 637,4–Kangas	D	E4	160	200	120	120	100	100
Kangas–km 646,7	D	E4	120	160	120	120	100	100
km 646,7–km 650,2	D	E4	160	200	120	120	100	100
km 650,2–km 652,4	D	E4	150	200	120	120	100	100
km 652,4–km 653,9	D	E4	130	170	120	120	100	100
km 653,9–Oulainen	D	E4	200	200	120	120	100	100
Oulainen–km 675,2	D	E4	160	200	120	120	100	100
km 675,2–km 704,2	D	E4	200	200	120	120	100	100
km 704,2–km 706,3	D	E4	140	140	120	120	100	100
Ruukki–km 730,2	D	E4	200	200	120	120	100	100
km 730,2–km 735,3	D	E4	180	200	120	120	100	100
Km 735,3–km 744,0	D	E4	200	200	120	120	100	100
Km 744,0–km 748,6	D	E4	160	200	120	120	100	100
Km 748,6–Oulu asema	D	E4	140	180	120	120	100	100
<b>Pännäinen–Pietarsaari</b>	C2	D4	60	60	60	60	60	–

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
<b>Pietarsaari–Alholma<sup>1</sup></b>	B1	D4	–	–	35	35	35	–
<b>Kokkola–Ykspihlaja</b> Kokkola–Ykspihlaja intermediate railway yard	D	D4	35	35	35	35	35	–
<b>Tuomioja–Raahe</b>	C2	E4	80	80	80	80	80	80
<b>Raahe–Rautaruukki<sup>1</sup></b>	C2	E4	–	–	35	35	35	35
<b>Riihimäki–Kouvola</b> Riihimäki asema–Hakosilta	D	D4	140	140	120	120	100	–
Hakosilta–Lahti	D	E4	160	200	120	120	100	80
Lahti–Kouvola asema	D	E4	200	200	120	120	100	100
<b>Kouvola–Kuusankoski</b> Kouvola asema–Kuusankoski	C1	D4	50	50	50	50	50	–
<b>Lahti–Heinola</b>	B1	D4	60	60	60	60	50	–
<b>Lahti–Loviisan satama</b>	B1	D4	60	60	60	60	50	–
<b>Lahti–Mukkula<sup>1</sup></b>	B1	D4	–	–	35	35	35	–
<b>Kouvola–Kotka</b> Kouvola tavara–Juurikorpi	D	D4	120	120	120	120	100	–

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
western track								
Kouvola Oikoraide–Inkeroinen								
eastern track	C1	D4	120	120	120	120	100	–
Inkeroinen–Juurikorpi								
eastern track	D	D4	120	120	120	120	100	–
Juurikorpi–Paimenportti	D	D4	120	120	120	120	100	–
Paimenportti–Kotka asema	C1	D4	80	80	80	80	80	–
Kotka asema–Kotkan satama	C1	D4	35	35	35	35	35	–
<b>Kotka Hovinsaari–Kotka Mussalo</b>	C1	D4	50	50	50	50	50	–
<b>Juurikorpi–Hamina</b>	C1	D4	100	100	100	100	100	–
<b>Kouvola–Joensuu</b>								
Kouvola asema–Luumäki	D	E4	200	200	120	120	100	100
Luumäki–km 395,5	D	D4	140	140	120	120	100	–
km 395,5–Säkäniemi	C2	D4	140	140	120	120	100	–
Säkäniemi–Joensuu Sulkulahti	D	D4	140	140	120	120	100	–
Joensuu Sulkulahti–Joensuu asema	C1	D4	90	90	90	90	90	–
<b>Luumäki–Vainikkala-raja</b>	D	E4	140	140	120	120	100	80
<b>Lappeenranta–Mustolan satama<sup>1</sup></b>	C1	D4	–	–	50	50	50	–

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
<b>Imatra tavara–Imatrankoski-raja</b>	D	D4	50	50	50	50	50	–
<b>Niirala-raja–Säkäniemi</b>	D	D4	100	100	100	100	100	–
<b>Joensuu–Ilomantsi<sup>4</sup></b>								
Joensuu Sulkulahti–Heinävaara	B2	D4	60	60	60	60	60	–
Heinävaara–km 660,4	A	C4	50	50	50	40 <sup>4</sup>	–	–
km 660,4–km 664,1	B1	C4	50	50	50	40 <sup>4</sup>	–	–
km 664,1–km 678,4	A	C4	50	50	50	40 <sup>4</sup>	–	–
km 678,4–km 683,8	B1	C4	50	50	50	40 <sup>4</sup>	–	–
km 683,8–km 687,9	A	C4	50	50	50	40 <sup>4</sup>	–	–
km 687,9–km 692,5	B1	C4	50	50	50	40 <sup>4</sup>	–	–
km 692,5–Ilomantsi	A	C4	50	50	50	40 <sup>4</sup>	–	–
<b>Joensuu–Kontiomäki</b>								
Joensuu asema–Uimaharju	C2	D4	120	120	120	120	100	–
Uimaharju–Lieksa	C2	D4	100	100	100	100	100	–
Lieksa–Nurmes	B2	D4	110	110	110	90	80	–
Nurmes–Porokylä (km 787,9)	B2	D4	80	80	80	80	80	–
Porokylä (km 787,9)–km 807,5	C2	D4	80	80	80	80	80	–
km 807,5–km 809,2	C2	D4	60	60	60	60	60	–
km 809,2–km 810,2	B2	D4	60	60	60	60	60	–
km 810,2–km 813,7	C2	D4	60	60	60	60	60	–
km 813,7–Vuokatti	C2	D4	80	80	80	80	80	–
Vuokatti–Kontiomäki	B1	D4	80	80	80	60	50	–

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
Lieksa–Pankakoski <sup>1</sup>	A	C4	–	–	30	30	20	–
Vuokatti–Lahnaslampi <sup>1</sup>	B2	D4	–	–	50	50	50	–
<b>Kouvola–Pieksämäki</b>								
Kouvola asema–km 245,9	D	D4	140	140	120	120	100	–
km 245,9–Otava	D	D4	160	200	120	120	100	–
Otava–Pieksämäki asema	D	D4	140	140	120	120	100	–
<b>Mynttilä–Ristiina</b>	A	C4	50	50	50	35	20	–
<b>Pieksämäki–Kontiomäki</b>								
Pieksämäki asema–Kuopio km 464,3	D	D4	140	140	120	120	100	–
Kuopio km 464,3–Kuopio km 466,0	C2	D4	50	50	50	50	50	–
Kuopio km 466,0–Toivala	D	D4	120	120	120	120	100	–
Toivala–Iisalmi	D	D4	140	140	120	120	100	–
Iisalmi–Murtomäki	C2	D4	140	140	120	120	100	–
Murtomäki–Kajaani	C1	D4	140	140	120	120	100	–
Kajaani–Kontiomäki	C1	D4	140	140	120	120	100	–
<b>Suonenjoki–Yläkoski<sup>1</sup></b>	B1	D4	–	–	35	35	35	–
<b>Murtomäki–Otanmäki<sup>1</sup></b>	A	C4	–	–	50	40	–	–
<b>Murtomäki–Talvivaara</b>	C2	D4	80	80	80	80	80	–

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
<b>Kajaani–Lamminniemi<sup>1</sup></b>	B1	D4	–	–	35	35	35	–
<b>Pieksämäki–Joensuu</b>								
Pieksämäki–Varkaus	C2	D4	120	120	120	120	100	–
Varkaus–Joensuu asema	C2	D4	120	120	120	120	100	–
<b>Varkaus–Kommila</b>	B2	D4	50	50	50	50	50	–
<b>Huutokoski–Rantasalmi</b>	C2	D4	80	80	80	80	80	–
<b>Savonlinna–Parikkala<sup>3</sup></b>								
Savonlinna asema–Parikkala	B2	D4	110	110	110	90	80	–
<b>Siilinjärvi–Viinijärvi</b>	C2	D4	100	100	100	100	100	–
<b>Symäjärvi–Vuonos<sup>4</sup></b>	B2	D4	–	–	35	35	35	–
<b>Tampere–Jyväskylä</b>								
Tampere Järvensivu–Orivesi northern track	D	E4	140	140	120	120	100	100
Tampere Järvensivu–km 205,0 southern track	C2	E4	140	140	120	120	100	80
km 205,0–km 208,0 southern track	D	E4	140	140	120	120	100	80
km 208,0–Orivesi southern track	C2	E4	140	140	120	120	100	80
Orivesi–Jämsänkoski	D	E4	120	140	120	120	100	80

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi



Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
Jämsänkoski–km 308,2	D	D4	160	160	120	120	100	–
km 308,2–km 312,6	D	D4	140	160	120	120	100	–
km 312,6–km 329,7	D	D4	160	160	120	120	100	–
km 329,7–km 332,8	D	D4	140	160	120	120	100	–
km 332,8–Jyväskylä	D	D4	160	160	120	120	100	–
<b>Jämsä–Kaipola<sup>1</sup></b>	B1	E4	–	–	50	50	50	50
<b>Orivesi–Seinäjoki</b>								
Orivesi–Haapamäki	B1	D4	100	100	100	70	50	–
Haapamäki–Pihlajavesi	C2	D4	100	100	100	100	100	–
Pihlajavesi–Seinäjoki	B1	D4	100	100	100	60	50	–
<b>Vilppula–Mänttä</b>	B1	D4	50	50	50	50	50	–
<b>Haapamäki–Jyväskylä</b>	B1	D4	100	100	100	70	50	–
<b>Jyväskylä–Pieksämäki</b>								
Jyväskylä–Pieksämäki asema	C1	D4	140	140	120	120	100	–
<b>Jyväskylä–Äänekoski</b>	C1	D4	100	100	100	100	100	–
<b>Äänekoski–Haapajärvi</b>								
Äänekoski–Saarijärvi	C2	D4	80	80	80	80	80	–
Saarijärvi–Haapajärvi <sup>5</sup>	A	C4	60	60	60	40 <sup>5</sup>	–	–
<b>Iisalmi–Ylivieska</b>								

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
Iisalmi–km 555,8	C1	D4	120	120	120	120	100	–
km 555,8–km 613,1	D	D4	120	120	120	120	100	–
km 613,1–km 699,0	C2	D4	120	120	120	120	100	–
km 699,0–Ylivieska	D	D4	120	120	120	120	100	–
<b>Pyhäkumpu erk.vh–Pyhäkumpu</b>	C2	D4	35	35	35	35	35	–
<b>Oulu–Laurila</b>								
Oulu asema–Laurila	C2	D4	140	140	120	120	100	–
<b>Kemi–Ajos<sup>1</sup></b>								
Kemi–Ajos km 861,8	B1	D4	–	–	50	50	50	–
Ajos km 861,8–km 863,5	C2	D4	–	–	50	50	50	–
Ajos km 863,5–867,1	B1	D4	–	–	50	50	50	–
<b>Laurila–Tornio-raja</b>								
Laurila–Tornio asema	C2	D4	120	120	120	120	100	–
Tornio asema–Tornio-raja	C1	D4	40	40	40	40	40	–
<b>Tornio–Röyttä<sup>4</sup></b>								
Tornio asema–Röyttä	B1	D4	–	–	50	50	50	–
<b>Tornio–Kolari</b>								
Tornio asema–km 886,1	B2	D4	80	80	80	80	80	–
km 886,1–Kolari	D	D4	100	100	80	80	80	–
<b>Laurila–Kemijärvi</b>								

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
Laurila–Koivu	D	D4	140	140	120	120	100	–
Koivu–Rovaniemi	D	D4	120	120	120	120	100	–
Rovaniemi–Misi	C2	D4	100	100	100	100	100	–
Misi–Kemijärvi	D	D4	100	100	100	100	100	–
<b>Kemijärvi–Patokangas</b>	C2	D4	50	50	50	50	50	–
<b>Oulu–Kontiomäki</b>								
Oulu Nokela–km 775,9	D	D4	120	120	120	120	100	–
km 775,9–km 787,4	D	D4	140	140	120	120	100	–
km 787,4–km 794,5	D	D4	120	120	120	120	100	–
km 794,5–km 796,5	D	D4	130	130	120	120	100	–
km 796,5–km 809,3	D	D4	130	130	120	120	100	–
km 809,3–Utajärvi	D	D4	120	120	120	120	100	–
Utajärvi–km 835,5	D	D4	140	140	120	120	100	–
835,5–km 878,2	D	D4	140	140	120	120	100	–
km 878,2–km 879,6	D	D4	120	120	120	120	100	–
km 879,6–km 893,7	D	D4	140	140	120	120	100	–
km 893,7–Paltamo	D	D4	120	120	120	120	100	–
Paltamo–Kontiomäki	D	D4	140	140	120	120	100	–
<b>Kontiomäki–Ämmänsaari</b>	A	C4	50	50	50	40	–	–
<b>Kontiomäki–Vartius-raja</b>								
Kontiomäki–(Arola)	C2	D4	80	80	80	80	80	–
Arola–(Vartius)	D	D4	80	80	80	80	80	–

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

Section of line	Category		Passenger trains		Freight trains			
	Infrastructure manager	SFS-EN 15528	locomotive-hauled	Motor cars	≤160 kN	160 ≤ 200 kN	200 ≤ 225 kN	225 ≤ 250 kN
Vartius–Vartius raja	C2	D4	80	80	80	80	80	–

<sup>1</sup> Shunting traffic only<sup>2</sup> Museum line<sup>3</sup> Bridge restriction, see Appendix 3H<sup>4</sup> Maximum allowed axle load 180 kN on the line section Heinävaara –Ilomantsi<sup>5</sup> Maximum allowed axle load 180 kN on the line section Saarijärvi –Haapajärvi

*Permitted speed in turnouts and diamond crossings*

Table 3. Permitted speed in turnouts and diamond crossings.

	Superstructure category					
	B <sub>1</sub>	B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub>	C <sub>2</sub>	D
<b>Straight track</b>						
Single turnouts, 60 E 1, short	70	100	110	180	200	200
Single turnouts, 60 E 1, long	—	100	110	180	200	220
Single turnouts, 54 E 1, long	70	100	110	140	140	140
Single turnouts, other	70	100	110	160	160	160
Double turnouts	70	100	110	120	120	120
Diamond crossings with slips	35	90	90	90	90	90
Standard diamond crossings	35 <sup>1</sup>	90 <sup>1</sup>	90 <sup>1</sup>	90 <sup>1</sup>	90 <sup>1</sup>	90 <sup>1</sup>
<b>Diverted track</b>						
Short turnouts R = 165 m	20 <sup>1</sup>	20 <sup>1</sup>	20 <sup>1</sup>	20 <sup>1</sup>	20 <sup>1</sup>	20 <sup>1</sup>
Short turnouts	35	35	35	35	35	35
Short turnouts when axle load max. 225 kN	—	10	20	20	20	35
Long turnouts						
R = 500 m	—	—	—	60	60	60
R = 530 m	70	70	70	—	—	—
R = 900 m, when axle load max. 225 kN	—	80	80	80	80	80
R = 900 m, when axle load over 225 kN	—	—	—	60	60	60
R = 2,500 m	—	—	—	140	140	140
R = 3,000 m	—	—	—	—	—	160
<b>Non-interlocked turnout</b>						
Straight and diverted track	30 <sup>1</sup>	30 <sup>1</sup>	30 <sup>1</sup>	30 <sup>1</sup>	30 <sup>1</sup>	30 <sup>1</sup>

<sup>1</sup> Indicated on speed boards

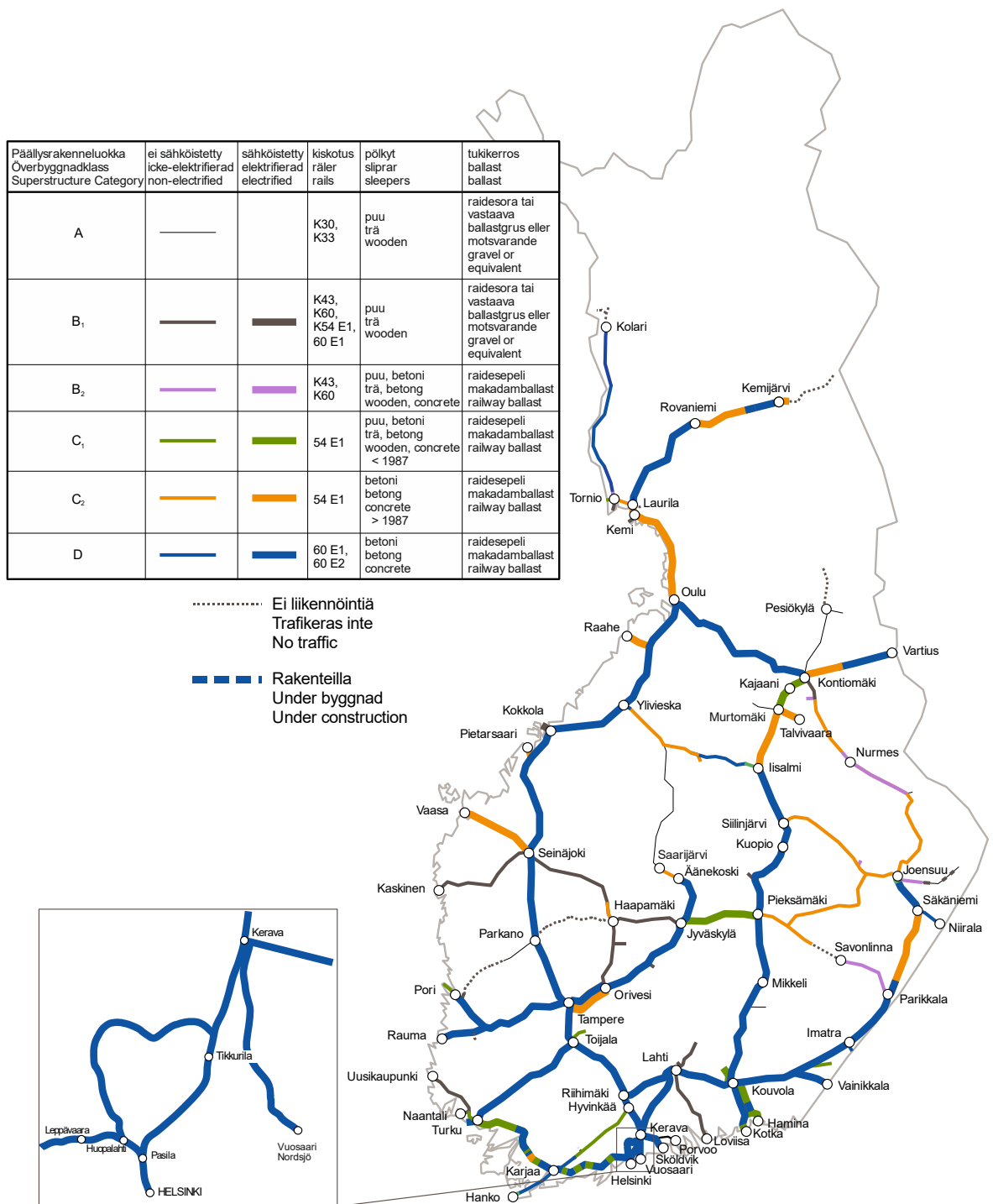


Figure 1. Superstructure categories

**Maintenance level on main lines**

The maintenance levels on main lines used as the basis for railway maintenance are illustrated in Figure 2.

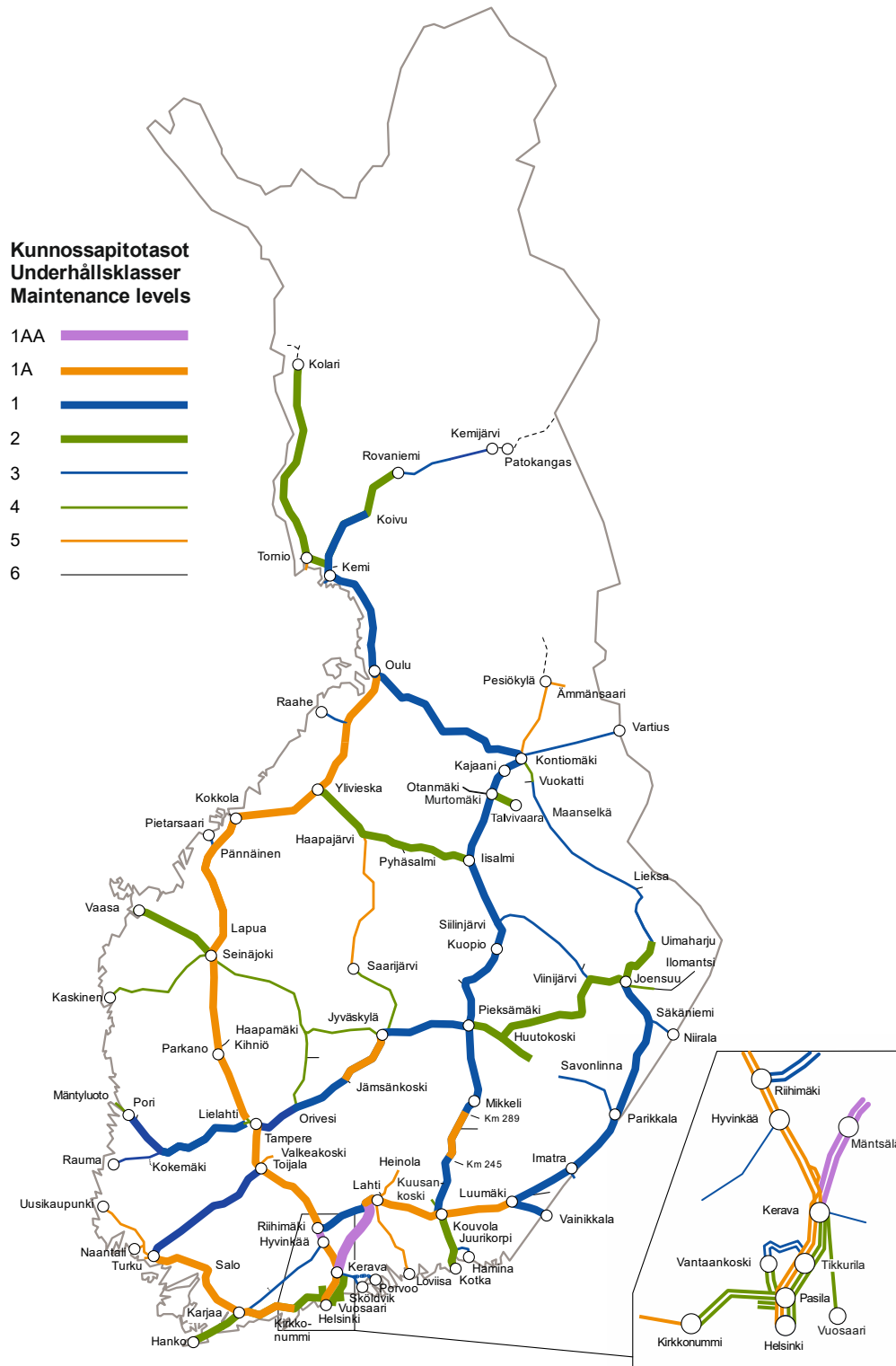


Figure 2. Maintenance levels in the Finnish railway network.

## Signalling systems

The signalling systems used on the lines are displayed in the map interface for the railway network:

<https://www.vayla.fi/web/en/commercial-railway-transport/network-statement>

### Lines with a section blocking system

Helsinki asema–Turku satama	Juurikorpi–(Hamina)
Huopalahti–Havukoski	Kouvola–Imatra tavara raiteet 601–613– (Joensuu)
Hyvinkää–Hanko	Luumäki–Vainikkala
Helsinki asema–Riihimäki asema	Kouvola asema–Pieksämäki asema
Kytömaa–Hakosilta	Pieksämäki asema–Kuopio asema– Iisalmi
Kerava–Sköldvik	Tampere Järvensivu–Jyväskylä
Riihimäki asema–Tampere asema	Jyväskylä–Pieksämäki asema
Toijala–Turku tavara	Oulu asema–Laurila
Tampere asema–Seinäjoki asema	Laurila–Tornio raiteet 721, 722, 732, 741 ja 742
Lielähti–Kokemäki	Oulu Nokela–(Kontiomäki)
Kokemäki–Mäntyluoto	Säkäniemi–(Niirala)
Kokemäki–Rauma	Turku asema–Uusikaupunki
Seinäjoki asema–Oulu asema	Kerava–Vuosaari
Kokkola–Ykspihlaja väli­ratapiha	Kemijärvi–Patokangas
Tuomioja–Raahe raiteet 001 ja 002	
Riihimäki asema–Kouvola asema	
Kouvola–Kymi raide 001–(Kotka)	

### Double-track or multi-track railway lines with section blocking systems in both directions

Helsinki asema–Kirkkonummi
Huopalahti–Havukoski
Helsinki asema–Lielähti
Kytömaa–Hakosilta
Pohjois–Louko–Ruha
Riihimäki asema–Luumäki
Tampere Järvensivu–Orivesi
Kokkola–Karhukangas

The railway lines with section blocking systems and the lines where the blocking system is under construction are displayed in the map service.



**Reporting use of the left-hand track**

On the line Kouvola–Juurakorpi, usage of the left-hand track must be reported in an advance report to the driver or in a report to the traffic control. The report to the driver must always include information about to what point the moving train is allowed to use the left-hand track.

**Lines with a centralised traffic control system**

Helsinki–Turku satama  
Huopalahti–Havukoski  
Hyvinkää–(Hanko)  
Helsinki–Riihimäki  
Kytömaa–Hakosilta  
Kerava–Sköldvik  
Riihimäki–(Tampere)  
Toijala–Turku  
(Tampere)–(Seinäjoki)  
Lielähti–Kokemäki  
Kokemäki–Mäntyluoto  
Kokemäki–Rauma  
(Seinäjoki)–(Ylivieska)–(Oulu)  
Kokkola–Ykspihlaja väli­ratapiha  
Tuomioja–Raahe  
Riihimäki–Kouvola  
Kouvola–(Inkeroinen)–Kymi raide 002–(Kotka)  
Juurikorpi–(Hamina)  
Kouvola–Luumäki  
Luumäki–(Joensuu)  
Luumäki–(Vainikkala)  
Parikkala–Savonlinna  
Kouvola–Pieksämäki  
Pieksämäki–(Kuopio)–Iisalmi  
Siilinjärvi asema–Ruokosuo  
(Tampere)–Jyväskylä  
Jyväskylä–Pieksämäki  
(Oulu)–Laurila  
Laurila–Tornio  
(Oulu)–(Kontiomäki)  
Säkäniemi–(Niirala)  
Turku–Uusikaupunki  
Kerava–Vuosaari  
(Murtomäki)–Talvivaara  
Kemijärvi–Patokangas

**Lines with ATP**

ATP is a class B system "ATP-VR/RHK-Junankulunvalvonta (JKV)" according to appendix B to the technical specification for interoperability relating to the control-command and signalling subsystem of the trans-European conventional rail system of 28 March 2006.

The following railway lines are equipped with ATP:

Helsinki asema–Turku satama	Pieksämäki–Joensuu asema
Huopalahti–Havukoski	Huutokoski–Rantasalmi
Hyvinkää–Hanko asema	Savonlinna–Parikkala
Helsinki asema–Riihimäki asema	Siilinjärvi–Viinijärvi
Kytömaa–Hakosilta	Tampere–Jyväskylä
Kerava–Sköldvik	Orivesi–Seinäjoki
Riihimäki asema–Tampere asema	Haapamäki–Jyväskylä
Toijala–Turku tavara	Jyväskylä–Pieksämäki asema
Tampere asema–Seinäjoki asema	Jyväskylä–Äänekoski
Lielähti–Kokemäki	Iisalmi–Ylivieska
Kokemäki–Mäntyluoto	Oulu asema–Laurila
Kokemäki–Rauma	Laurila–Tornio
Seinäjoki asema–Vaasa	Tornio–Kolari
Seinäjoki asema–Oulu asema	Laurila–Patokangas
Kokkola–Ykspihlaja väliratapiha	Oulu Nokela–Kontiomäki
Tuomioja–(Raahe)	Kontiomäki–Vartius
Riihimäki asema–Kouvola asema	Säkäniemi–(Niirala)
Paimenportti–(Kotka Mussalo)	Turku–Uusikaupunki
Juurikorpi–(Hamina)	Kerava–Vuosaari
Kouvola asema–Joensuu asema	Seinäjoki asema–Kaskinen
Luumäki–(Vainikkala)	Murtomäki–Talvivaara
Joensuu asema–Nurmes	
Kouvola asema–Pieksämäki asema	
Pieksämäki asema–Kontiomäki	

The railway lines with ATP and the lines where ATP is under construction are displayed in the map service.

**Lines with a radio-controlled traffic system**

(Seinäjoki)–Vaasa  
(Joensuu)–Nurmes  
(Iisalmi)–Kontiomäki  
(Pieksämäki)–(Joensuu)  
Huutokoski–Rantasalmi  
(Siilinjärvi)–Viinijärvi  
(Orivesi)–(Seinäjoki)  
Haapamäki–(Jyväskylä)  
(Jyväskylä)–Äänekoski  
(Iisalmi)–(Ylivieska)  
(Tornio)–Kolari  
(Laurila –Kemijärvi  
Kontiomäki–Vartius  
(Seinäjoki)–Kaskinen

The lines with a radio-controlled traffic system are displayed in the map service:

The lines with combined signals are illustrated in Figure 5.

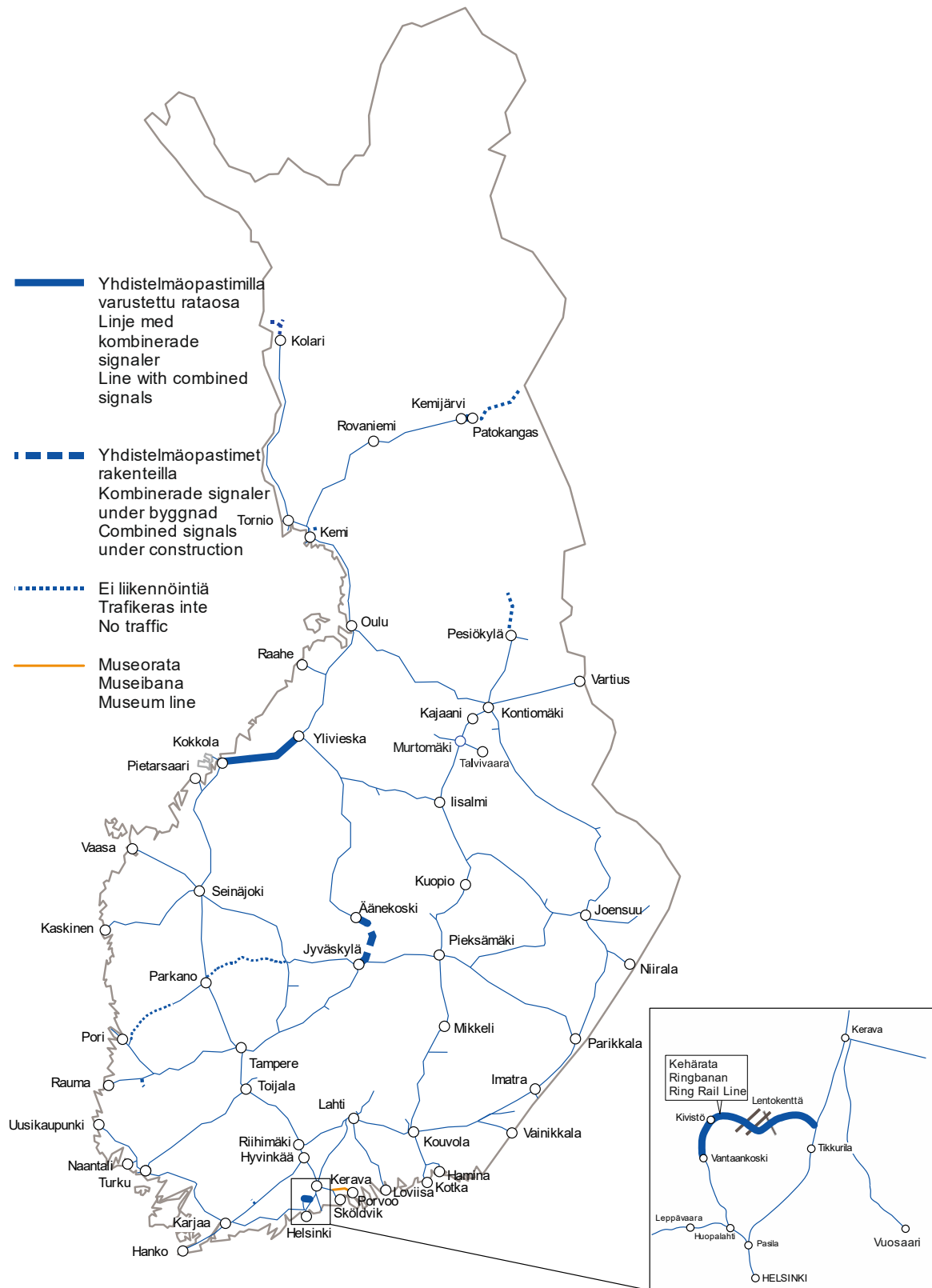


Figure 5. Lines with combined signals.

## Railway tunnels in the state-owned railway network and restrictions due to bridges, tunnels or vibration

Table 1 lists the following restrictions in each line section:

- railway tunnels in the state-owned railway network, as well as the speed restrictions due to tunnels
- the bridges with axle load and speed limits for rolling stock
- vibration-related speed limits

The reasons for imposing restrictions may be that the original load-carrying capacity of the bridge is too low, the bridge is in poor condition or it is movable. The maximum speed on the bridges is indicated on speed-restriction boards. The indicated axle loads must not be exceeded, and excess load shall be unloaded at the station where it has been discovered.

The weight limits on bridges do not apply to 6-axle or 8-axle wagons built according to the Russian standard. These wagons can be carried over the indicated bridges only as special transport on the conditions laid down in the transport permit.

The train-specific speed limits in tunnels apply to trains including at least one of the wagons indicated in the table.

Table 1. Railway tunnels and speed limits due to bridges, tunnels or vibration

Railway No	Line section	Location/Name (tunnel length/ EN 15528 category of the bridge and maximum permitted axle load)	Km-location	Speed limit
001	Helsinki-Karjaa	Espoo (tunnel, 99 m)	21+145-21+244	No restrictions due to the tunnel.
	Helsinki-Karjaa	Lillgård (tunnel, 187 m)	46+790-46+977	Single-decker wagons 160 km/h, Double-decker wagons 120 km/h, Sm3 180 km/h. Reason: piston effect
	Helsinki-Karjaa	Riddarbacken (tunnel, 273 m)	47+770-48+043	Single-decker wagons 160 km/h, Double-decker wagons 120 km/h, Sm3 180 km/h. Reason: piston effect
001	Karjaa-Salo	Bäljens (tunnel, 298 m)	88+924-89+218	Single-decker wagons 160 km/h, Double-decker wagons 140 km/h, Sm3 200 km/h. Reason: piston effect
	Karjaa-Salo	Köpskog (tunnel, 43 m)	90+492-90+535	Single-decker wagons 160 km/h, Double-decker wagons 140 km/h, Sm3 200 km/h. Reason: piston effect

Railway No	Line section	Location/Name (tunnel length/ EN 15528 category of the bridge and maximum permitted axle load)	Km-location	Speed limit
	Karjaa-Salo	Åminne (tunnel, 101 m)	92+391-92+492	Single-decker wagons 160 km/h, Double-decker wagons 140 km/h, Sm3 200 km/h. Reason: piston effect
	Karjaa-Salo	Högbacka (tunnel, 200 m)	94+365-94+565	Single-decker wagons 160 km/h, Double-decker wagons 140 km/h, Sm3 200 km/h. Reason: piston effect
	Karjaa-Salo	Kaivosmäki (tunnel, 99 m)	113+961-114+060	Single-decker wagons 160 km/h, Double-decker wagons 140 km/h, Sm3 200 km/h. Reason: piston effect
	Karjaa-Salo	Haukkamäki (tunnel, 436 m)	114+304-114+740	Single-decker wagons 160 km/h, Double-decker wagons 140 km/h, Sm3 200 km/h. Reason: piston effect
	Karjaa-Salo	Harmaamäki (tunnel, 265 m)	115+150-115+415	Single-decker wagons 160 km/h, Double-decker wagons 140 km/h, Sm3 200 km/h. Reason: piston effect
	Karjaa-Salo	Lemunmäki (tunnel, 775 m)	125+820-126+595	Single-decker wagons 160 km/h, Double-decker wagons 160 km/h, Sm3 160 km/h. Reason: piston effect
	Karjaa-Salo	Märjänmäki (tunnel, 1240 m)	126+940-128+180	Single-decker wagons 160 km/h, Double-decker wagons 160 km/h, Sm3 160 km/h. Reason: piston effect
	Karjaa-Salo	Lavianmäki (tunnel, 582 m)	137+720-138+302	Single-decker wagons 160 km/h, Double-decker wagons 160 km/h, Sm3 180 km/h. Reason: piston effect
	Karjaa-Salo	Tottola (tunnel, 531 m)	139+084-139+615	Single-decker wagons 160 km/h, Double-decker wagons 120 km/h, Sm3 180 km/h. Reason: piston effect
001	Salu-Turku	Halikko (tunnel, 186 m)	150+207-150+393	Single-decker wagons 160 km/h, Double-decker wagons 140 km/h, Sm3 200 km/h. Reason: piston effect
	Salu-Turku	Pepallonmäki (tunnel, 531 m)	152+420-152+951	Single-decker wagons 160 km/h, Double-decker wagons 140 km/h, Sm3 200 km/h. Reason: piston effect

Railway No	Line section	Location/Name (tunnel length/ EN 15528 category of the bridge and maximum permitted axle load)	Km-location	Speed limit
002	Pori-Mäntyluoto	Tahkoluoto railway bridge (E4 250 kN)	343+792	Passenger trains 50 km/h Freight trains 50 km/h Reason: movable bridge
003	Helsinki-Riihimäki	Jokela vibration-related restriction	47+950-49+950	≥ 3000-tonne trains 40 km/h
004	Jyväskylä-Äänekoski	Kangasvuori (tunnel, 2735 m)	380+028-382+763	50 km/h for all trains. Reason: condition of tunnel
005	Kouvola-Pieksämäki	Venekallio (tunnel, 180 m)	204+400-204+580	<i>No restrictions due to the tunnel</i>
	Kouvola-Pieksämäki	Vuohijärvi (tunnel 191 m)	222+400-222+591	<i>No restrictions due to the tunnel</i>
	Kouvola-Pieksämäki	Kulonpalonvuori (tunneli, 418 m)	232+075-232+493	<i>No restrictions due to the tunnel</i>
005	Pieksämäki - Kontiomäki	Mustamäki (tunnel, 249 m)	416+960-417+211	<i>No restrictions due to the tunnel</i>
	Pieksämäki - Kontiomäki	Mustavuori I (tunnel, 283 m)	417+791-418+075	<i>No restrictions due to the tunnel</i>
	Pieksämäki - Kontiomäki	Mustavuori II (tunnel, 374 m)	418+341-418+718	<i>No restrictions due to the tunnel</i>
	Pieksämäki - Kontiomäki	Pieni Neulamäki (tunnel, 1003 m)	454+288-455+291	<i>No restrictions due to the tunnel.</i>
	Pieksämäki - Kontiomäki	Tikkalansaari lift bridge (E5 350 kN)	472+817	Passenger trains 50 km/h Freight trains 50 km/h Reason: movable bridge
	Pieksämäki - Kontiomäki	Honkasalmi railway bridge (D4 225 kN)	527+080	Passenger trains 120 km/h Freight trains 120 km/h Reason: poor condition
006	Riihimäki-Kouvola	Hollola vibration-related restriction	116+200-118+500	≥ 3000-tonne trains 40 km/h
	Riihimäki-Kouvola	Lahti vibration-related restrictions	125+000-125+400	≥ 3000-tonne trains 40 km/h
	Riihimäki-Kouvola	Koria vibration-related restriction	182+900-186+400	≥ 3000-tonne trains 30 km/h
006	Lappeenranta-Imatra	Railway bridge over Saima Canal (D4 225 kN)	294+170	Passenger trains 40 km/h Freight trains 40 km/h Reason: poor condition
006	Imatra-Parikkala	Mansikkakoski railway bridge (D4 225 kN)	324+183	Passenger trains 40 km/h Freight trains 40 km/h Reason: poor condition
006	Parikkala-Säkäniemi	Paksunniemi (tunnel, 26 m)	399+111-399+137	<i>No restrictions due to the tunnel</i>

Railway No	Line section	Location/Name (tunnel length/ EN 15528 category of the bridge and maximum permitted axle load)	Km-location	Speed limit
	Parikkala-Säkäniemi	Syrjäsalmi railway bridge (D4 225 kN)	445+395	Passenger trains 80 km/h Freight trains 60 km/h Reason: poor condition
006	Joensuu-Kontiomäki	Pielisjoki railway bridge (E4 250 kN)	625+146	Passenger trains 50 km/h Freight trains 50 km/h Reason: movable bridge
	Joensuu-Kontiomäki	Uimasalmi railway bridge (E4 250 kN)	673+486	Passenger trains 60 km/h Freight trains 60 km/h Reason: movable bridge
007	Kerava-Lahti	Järvenpää vibration-related restriction	35+800-36+200	≥ 2000-tonne freight trains 40 km/h
008	Tuomioja-Oulu	Siikajoki railway bridge (E4 250 kN)	705+684	Passenger trains 80 km/h Freight trains 80 km/h Reason: poor condition
	Tuomioja-Oulu	Liminka vibration-related restriction	726+900-729+200	≥ 3000-tonne trains 50 km/h
	Tuomioja-Oulu	Kempele vibration-related restriction	740+600-741+700	≥ 3000-tonne trains 50 km/h
008	Oulu-Kemi	Simojoki railway bridge (D4 225 kN)	832+960	Passenger trains 90 km/h Freight trains 90 km/h Reason: poor condition
009	Tampere-Jyväskylä	Matomäki (tunnel, 262 m)	303+987-304+249	<i>No restrictions due to the tunnel</i>
	Tampere-Jyväskylä	Lahdenvuori (tunnel, 4293 m)	308+214-312+507	120 km/h for all trains. Reason: condition of tunnel
	Tampere-Jyväskylä	Sahinmäki (tunnel, 153 m)	316+064-316+217	<i>No restrictions due to the tunnel</i>
	Tampere-Jyväskylä	Lautakkomäki (tunnel, 399 m)	321+171-321+570	<i>No restrictions due to the tunnel</i>
	Tampere-Jyväskylä	Paavalinvuori (tunnel, 771 m)	328+364-329+135	<i>No restrictions due to the tunnel</i>
	Tampere-Jyväskylä	Paasivuori (tunnel, 2475 m)	330+107-332+581	120 km/h for all trains. Reason: condition of tunnel
	Tampere-Jyväskylä	Keljonkangas I (tunnel, 1093 m)	333+973-335+066	<i>No restrictions due to the tunnel</i>
	Tampere-Jyväskylä	Keljonkangas II (tunnel, 224 m)	335+301-335+526	Single-decker wagons 140 km/h, Double-decker wagons 140 km/h, Sm3 140 km/h. Reason: piston effect
014	Parikkala-Savonlinna	Kyrönsalmi railway bridge (D4 225 kN)	483+659	Passenger trains 20 km/h Freight trains 20 km/h Reason: movable bridge
	Parikkala-Savonlinna	Kyrönniemi (tunnel, 336 m)	483+892-484+214	<i>No restrictions due to the tunnel</i>



Railway No	Line section	Location/Name (tunnel length/ EN 15528 category of the bridge and maximum permitted axle load)	Km-location	Speed limit
023	Haapamäki –Jyväskylä	Möykynmäki (tunnel, 350 m)	365+969 –366+319	50 km/h for all trains. Reason: condition of tunnel
023	Jyväskylä–Pieksämäki	Pönttövuori (tunnel, 1429 m)	394+476–395+905	No restrictions due to the tunnel
	Jyväskylä–Pieksämäki	Heinlampi underpass (E4 250 kN)	448+690	Passenger trains 80 km/h Freight trains 80 km/h Reason: Insufficient ballast depth
024	Varkaus–Viinijärvi	Pirtinvirta railway bridge (D4 225 kN)	425+570	Passenger trains 40* km/h Freight trains 40* km/h Reason: movable bridge * = The bridge and rail joints may be locked, in which case the maximum speed is 60 km/h
	Varkaus–Viinijärvi	Railway bridge over Taipale Canal (D4 225 kN)	426+855	Passenger trains 30* km/h Freight trains 30* km/h Syy: avattava silta * = The bridge and rail joints may be locked, in which case the maximum speed is 60 km/h
123	Huopalahti –Havukoski	Malminkartano (tunnel, 230 m)	10+636–10+866	No restrictions due to the tunnel
	Huopalahti –Havukoski	Kivistö (tunnel, 432 m)	18+122–18+554	No restrictions due to the tunnel
	Huopalahti –Havukoski	Airport (tunnel, 8260 m)	21+388–29+636	No restrictions due to the tunnel
125	Kerava–Vuosaari	Savio (tunnel, 13575 m)	32+659–46+234	No restrictions due to the tunnel
	Kerava–Vuosaari	Labbacka (651 m)	48+728–49+379	No restrictions due to the tunnel
131	Kerava–Sköldvik	Kerava vibration-related restriction	30+700–31+650	All trains 40 km/h
	Kerava–Sköldvik	Nikkilä vibration-related restrictions	38+850–40+160	All trains 40 km/h
142	Karjaa–Hanko	Pohja railway bridge, Läntinen salmi (E4 250 kN)	175+051	Passenger trains 50 km/h Freight trains 50 km/h Reason: swing bridge
221	Kouvola–Kotka	Kehä II (tunnel, 388 m)	194+646–195+029	No restrictions due to the tunnel.
	Kouvola–Kotka	Myllykoski vibration-related restriction	201+500–203+100	≥ 3000-tonne trains 40 km/h h

Railway No	Line section	Location/Name (tunnel length/ EN 15528 category of the bridge and maximum permitted axle load)	Km-location	Speed limit
	Kouvola–Kotka	Keltakangas vibration-related restriction	207+300–207+700	All trains 40 km/h
222	Juurikorpi–Hamina	Suurivuori (tunnel, 765 m)	236+028–236+793	<i>No restrictions due to the tunnel</i>
246	Lappeenranta–Metsä-Saimaa	Voisalmensaari (tunnel, 198 m)	290+167–290+365	<i>No restrictions due to the tunnel</i>
251	Lahti–Heinola	Jyränkö railway bridge (D4 225 kN)	166+604	Passenger trains 60 km/h Freight trains 60 km/h Reason: poor condition
321	Toijala–Turku	Toijala vibration-related restriction	150+400–150+900	All trains 40 km/h
	Toijala–Turku	Loimaa vibration-related restriction	208+000–210+600	≥ 3000-tonne trains 40 km/h
	Toijala–Turku	Turku vibration-related restriction	271+900–273+700	≥ 3000-tonne trains 40 km/h
441	Seinäjoki–Kaskinen	Seinäjoki railway bridge (D4 225 kN)	419+367	Passenger trains 50 km/h Freight trains 50 km/h Reason: original load-carrying capacity
	Seinäjoki–Kaskinen	Kyrönjoki railway bridge (D4 225 kN)	442+875	Passenger trains 50 km/h Freight trains 50 km/h Reason: original load-carrying capacity
	Seinäjoki–Kaskinen	Nenättömänluoma railway bridge (D4 225 kN)	446+650	Passenger trains 60 km/h Freight trains 60 km/h Reason: original load-carrying capacity
	Seinäjoki–Kaskinen	Kurikka vibration-related restriction	450+500–452+000	All trains 40 km/h
	Seinäjoki–Kaskinen	Kainastonjoki railway bridge (D4 225 kN)	482+348	Passenger trains 60 km/h Freight trains 60 km/h Reason: original load-carrying capacity
	Seinäjoki–Kaskinen	Teuvanjoki railway bridge (D4 225 kN)	502+165	Passenger trains 60 km/h Freight trains 60 km/h Reason: original load-carrying capacity
	Seinäjoki–Kaskinen	Närpiönjoki railway bridge (D4 225 kN)	518+951	Passenger trains 60 km/h Freight trains 60 km/h Reason: original load-carrying capacity

Railway No	Line section	Location/Name (tunnel length/ EN 15528 category of the bridge and maximum permitted axle load)	Km-location	Speed limit
	Seinäjäjoki–Kaskinen	Kaskistensalmi railway bridge (D4 225 kN)	528+922	Passenger trains 60 km/h Freight trains 60 km/h Reason: original load-carrying capacity
531	Oulu–Kontiomäki	Oulu vibration-related restriction	762+800 – 763+800	≥ 3000-tonne trains 45 km/h
	Oulu–Kontiomäki	Muhos vibration-related restriction	786+000 – 790+000	≥ 3000-tonne trains 60 km/h
	Oulu–Kontiomäki	Vaalansalmi railway bridge (D4 225 kN)	843+637	Passenger trains 80 km/h Freight trains 80 km/h Reason: poor condition
	Oulu–Kontiomäki	Kiehimäjoki railway bridge (D4 225 kN)	902+658	Passenger trains 50 km/h Freight trains 50 km/h Reason: poor condition
731	Joensuu–Viinijärvi	Joensuu vibration-related restriction	631+100– 631+700	≥ 3000-tonne freight trains 40 km/h

## Speed limits due to track conditions

The following restrictions are in force until further notice:

Table 1. Speed limits due to track conditions.

Line section	Km-distance	Restriction km/h	Description of location
Helsinki–Turku Harbour	74+000–75+500	120	Soft soil
Helsinki–Turku Harbour	182+200–183+400	100	Superstructure condition
Helsinki–Riihimäki	20+300–21+700 (LsR) 21+200–21+600 (LKR)	100	Constant geometric error
Kerava–Lahti	31+563	140	Kytömaa, condition of V691 to a diverging track
Toijala–Turku	151+1525–152+295	120	Operation of Sotkia level crossing device, only direction TL–Ur
Toijala–Turku	271+950–272+000	80	Geometric error
Hyvinkää–Karjaa	81+100–81+300	50	Piling area
Hyvinkää–Karjaa	125+600–125+700	50	Geometric error
Turku–Uusikaupunki	219+150–219+250	30	Condition of Hiirvijoki bridge
Lielähti–Kokemäki	201+150–201+250	80	Track geometry, horizontal drilling
Kokemäki–Pori	289+950–290+150	80	Track geometry
Seinäjäki–Vaasa	425+000–425+200	80	Bridgeheads of Munakka railway bridge, geometric error
Seinäjäki–Vaasa	457+800–458+000	80	Permanent geometric error
Seinäjäki–Vaasa	482+750–484+500	50	Visibility at level crossing
Seinäjäki–Vaasa	485+400–485+600	80	Constant geometric error
Seinäjäki–Kaskinen	418+700–419+400	50	Seinäjäki railway bridge
Seinäjäki–Kaskinen	442+600–443+600	50	Kyrönjoki railway bridge
Seinäjäki–Kaskinen	446+500–446+900	60	Nenättömänluoma railway bridge
Seinäjäki–Kaskinen	450+500–452+000	40	Vibration problem
Seinäjäki–Kaskinen	452+000–530+000	60	Superstructure condition
Seinäjäki–Kaskinen	513+800–514+600	30	Soft soil
Seinäjäki–Kokkola	525+620–525+670	140	Kolppi overpass, bridge support too close to the track
Pietarsaari–Alholma	529+012–531+250	20	Restricted track speed
Ylivieska–Oulu	684+968–659+017	160	Vihanti overpass, bridge support too close to the track
Ylivieska–Oulu	705+700–705+900	100	Siikajoki railway bridge
Ylivieska–Oulu	740+613–740+663	140	Kempele overpass, bridge support too close to the track
Ylivieska–Oulu	748+990–749+062	60	Turnout
Kouvola	191+860–191+960	30	Track condition (Kv Rr080 and Rr81)
Lahti–Heinola	134+050–166+400	50	Track condition
Lahti–Heinola	166+415–166+815	30	Track condition (Jyränkö bridge)
Kouvola–Joensuu	293+994–294+348	30	Saima Canal railway bridge

Line section	Km-distance	Restriction km/h	Description of location
Kouvola–Joensuu	323+614–324+400	50	Mansikkakoski railway bridge, bridgeheads
Kouvola–Joensuu	452+800–453+000	100	Turnout geometric error
Joensuu–Ilomantsi	648+900–696+149		Max. allowed axle load 180 kN
Joensuu–Ilomantsi	694+800–695+800	20 <sup>1</sup>	Ilomantsi, turnout condition
Joensuu–Nurmes	627+600–627+800	50	Jukolankatu level crossing, railway condition
Joensuu–Nurmes	658+820–659+000	80	Louhioja bridge, geometric condition
Joensuu–Nurmes	659+000–659+200	50	Track geometry
Joensuu–Nurmes	728+830–773+780	80	Railway condition
Joensuu–Nurmes	765+000–765+700	50	Railway geometric condition
Joensuu–Nurmes	760+400–760+600	50	Track condition
Joensuu–Nurmes	779+700–781+000	50	Railway geometric condition
Pieksämäki–Kontiomäki	551+300–551+400	60	Superstructure condition, Iisalmi marshalling yard
Pieksämäki–Joensuu	410+300–410+500	80	Area with soft soil
Siilinjärvi–Viinijärvi	533+700–553+900	50	Condition of Virraskoski railway bridge
Orivesi–Haapamäki	294+400–294+600	80	Stablizing berm area, constant geometric error
Orivesi–Haapamäki	297+310–297+950	80	Visibility at Louheikko level crossing
Haapamäki–Seinäjohti	361+270–362+270	80	Visibility at level crossings
Haapamäki–Jyväskylä	330+400–331+100	80	Embankment stability, observation
Haapamäki–Jyväskylä	346+800–347+000	50	Rock-cutting condition
Haapamäki–Jyväskylä	365+950–366+450	50	Möykynmäki tunnel and rock cutting condition
Äänekoski–Saarijärvi	424+858–427+170	30	Poikkikuja level crossing
Äänekoski–Saarijärvi	439+403–440+125	60	Saviniemi level crossing
Saarijärvi–Haapajärvi	455+503–587+668		Max. allowed axle load 180 kN
Keitelelohja–Pihtipudas	534+500–534+700	20	Underpass bridgeheads
Oulu–Laurila	789+350–789+600	50	Railway condition
Oulu–Laurila	862+000–862+600	50	Bridge beams
Rovaniemi–Kemijärvi	1011+250–1011+450	50	Frost heave damage
Rovaniemi–Kemijärvi	1020+000–1050+000	80	Geometric errors
Rovaniemi–Kemijärvi	1020+840–1021+800	50	Geometric errors
Rovaniemi–Kemijärvi	1038+700–1039+400	50	Geometric errors
Simo–Kemi	853+600–853+800	100	Ouluntie level crossing
Oulu–Kontiomäki	843+500–843+800	80	Vaalansalmi railway bridge
Oulu–Kontiomäki	902+500–902+700	50	Kiehimäjoki railway bridge: bridge construction and entrance

<sup>1</sup> Axle load > 160 kN

Line section	Km-distance	Restriction km/h	Description of location
Oulu–Kontiomäki	729+700–729+900	50	Ypykkävaara: turnout condition
Kontiomäki–Vartius	662+000–662+330	50	Kontiomäki: turnout condition
Vuokatti–Kontiomäki	869+600–889+200	50	General condition of line section, geometric errors
Kajaani–Kontiomäki	645+700–645+900	30	Culvert is collapsing
Oulu–Kontiomäki	788+149–789+174	50	Muhos, track 422, superstructure condition

## Major track works affecting services

Location	Service impact	Description of track possessions
<b>SOUTHERN FINLAND</b>		
Helsinki: replacement of turnouts Vo45, Vo48, Vo16 and Vo32	x	Service interruptions on weekdays and at weekends, track access alterations.  19–21 April 2019: Platforms 9 and 10 in Helsinki are out of service  27–28 April 2019: tracks 220–410 and 221 are out of service.  4–5 May 2019: tracks 227 and 228 are out of service.  6–10 May 2019: tracks 226 and 227 are out of service.
Helsinki: bicycle tunnel construction	x	Service interruptions on weeknights and at weekends, track access alterations.
Helsinki: Töölönlahti pumping station construction		Service interruptions on weeknights and at weekends, track access alterations.
Helsinki–Pasila: track and turnout tamping	x	Nightly 8-h track possessions in the turnout area, 2–3 turnouts at a time during two weekends in spring and autumn.
Helsinki–Ilmala: service track superstructure replacement	x	Service interruptions on weekdays and at weekends.  19–21 April 2019: Platforms 9 and 10 in Helsinki are out of service  6–10 May 2019: tracks 226 and 227 are out of service  13–17 May 2019: tracks 225 and 226 are out of service  18–20 May 2019: tracks 227–415 and 228–416 are out of service  25–27 May 2019: tracks 415 and 416 are out of service  31 May–3 June: tracks 425–445 and 426–446 and track 6 in Pasila are out of service (only one service track to Ilmala)

Location	Service impact	Description of track possessions
		<p>7–10 June 2019: tracks 425–445 and 426–446 and track 6 in Pasila are out of service (only one service track to Ilmala)</p> <p>14–17 June 2019: tracks 425–445 and 426–446 and track 6 in Pasila are out of service (only one service track to Ilmala)</p> <p>5–9 August 2019: track 414 is out of service</p> <p>10–12 August 2019: tracks 424–444 and platform 5b in Pasila are out of service</p> <p>17–19 August 2019: tracks 424–444 and platform 5b in Pasila are out of service</p> <p>24–26 August 2019: tracks 424–444 and platform 5b in Pasila are out of service</p>
Helsinki–Pasila: HELRA Project	x	<p>Building, testing and implementing safety devices, installing turnouts, alterations to catenary system.</p> <p>Service interruptions on weekdays and at weekends, track access alterations.</p> <p>21–24 June 2019: tracks 425–445 and 426–446 and track 6 in Pasila are out of service (only one service track to Ilmala)</p> <p>28 June–1 July 2019: tracks 425–445 and 426–446 and track 6 in Pasila are out of service (only one service track to Ilmala)</p> <p>1–7 July 2019: western middle track and platforms 3 and 4 in Pasila are out of service</p> <p>8–14 July 2019: westernmost track and platforms 4 and 5 in Pasila are out of service.</p>



Location	Service impact	Description of track possessions
		<p>15–28 July 2019: northernmost track, western service track and platform 6 in Pasila are out of service. (only one service track to Ilmala and three tracks in Ilmala in service)</p> <p>29 July–4 August 2019: eastern service track and platform 5b in Pasila are out of service (only one service track to Ilmala)</p>
Additional western track in Pasila	x	<p>Service interruptions on weeknights and at weekends, track access alterations.</p> <p>Sat. 2 November 22:00 – Mon. 4 November 2019 05:00 am: new western track is joined to the current tracks and platform 11 is taken into service, whereby track 449, platform 9 in Pasila and platform 4 in Ilmala are out of service.</p> <p>Sat. 2 November 23:00 – Sun. 3 November 2019 10:00 am: track 448, platform 8 in Pasila and platform 3 in Ilmala are out of service.</p> <p>Sat. 30 November 22:00 – Mon. 2 December 2019 05:00 am: track 449 joined to the current tracks and platform 10 taken into service, whereby the southernmost track and southern middle track, platforms 8–9 in Pasila and track 3 in Ilmala are out of service.</p> <p>Sat. 30 November from 23:00 to Sun. 1 December 10:00 am: platforms 7 and 10 in Pasila are out of service.</p>
Construction of Central Pasila	x	<p>Service interruptions on weeknights and at weekends. Track access alterations.</p>
Remote-control in Ilmala (ESKO)	x	-
Pasila–Kerava: rail replacement on the westernmost track	x	Service interruptions on weeknights and at weekends.
Oulunkylä: Renewal of safety device cables	x	Service interruptions on weeknights and at weekends.

Location	Service impact	Description of track possessions
Helsinki–Riihimäki: repairs of areas with frost heave damage and soft soils	x	Service interruptions on weeknights and at weekends.
Pasila–Kerava: track and turnout tamping	x	6-hour track possessions on weeknights one track and one line at a time as well as a 3-hour service interruption on two tracks in the turnout area on a total of 12 nights a year.
Helsinki–Riihimäki: catenary maintenance	x	Track possession each month on the night between the first non-holiday Monday and Tuesday in Riihimäki at 0:40–4:05 am and in Kytömaa at 0:30–4:40 am. Helsinki–Kerava will be agreed upon on a case-by-case basis. The traffic impact area will be specified 2 months prior to implementation.
Increased capacity on the section Pasila–Riihimäki: Building a new interlocking system in Kerava, building a noise barrier on the section between km 35+432 and 40+100 on the east and west sides of the track, altogether approx. 5 km.  Superstructure works r001, r002, r003 and r007–r0011 in Riihimäki. Approx. 20 turnout installations. Platform work on platforms 1, 7 and 8.	x	Service interruptions on weeknights and at weekends.  Ainola–Purola: speed limit 140 km/h western middle track (now western track) and eastern middle track (now eastern track), not simultaneously.  Ainola–Purola: voltage cut-offs and track occupations on the new western track and on the easternmost track.  Only one track in use in Riihimäki and passenger traffic via the freight yard.
Kerava–Riihimäki: track and turnout tamping	x	10-hour track possessions on weeknights one track and one line at a time as well as a 2-hour service interruption on two tracks in the turnout area on a total of 6 nights a year.
Riihimäki freight station: remote control (ESKO)	x	-
Huopalahti–Tikkurila: track and turnout tamping	x	8-hour track possessions on weeknights one track and one line at a time as well as a 1-hour service interruption on both tracks in the turnout area on a total of 2 nights a year.
Pasila–Kirkkonummi: Jorvas halt	x	There will be an intermittent speed limit of 50 km/h on both tracks as of November.

Location	Service impact	Description of track possessions
Pasila–Kirkkonummi: track and turnout tamping		7-hour track possessions on weeknights one track and one line at a time as well as a 4-hour service interruption on both tracks in the turnout area on a total of 8 nights a year.
Helsinki–Turku: Paimio–Piikkiö renewal of safety device cables	x	-
Kirkkonummi–Karjaa: improved stability km 69	x	8-h track possessions on weeknights in July. Intermittent 50 km/h.
Kirkkonummi–Turku: track and turnout tamping	x	8-h track possessions on weeknights.
Karjaa–Hanko: Pohja railway bridge, western part of the sound, painting	x	-
Karjaa–Salo: Superstructure work, improved stability and tunnel works	x	8-h track possessions on weeknights in July, service interruptions at weekends 2 x 12 h. Consecutive speed limits 80 km/h 1,000 m, 50 km/h 500 m and 80 km/h 1,000 m from June to August.
Paimio–Piikkiö: repair of safety device cables	x	-
Piikkiö: replacement of turnouts V001 and V002		Service interruptions at weekends.
Turku–Uusikaupunki: electrification	x	Daily 8-h track possession.
Turku–Uusikaupunki: track and turnout tamping	x	Daily 8-h track possession.
Hanko: underpass in railway yard	x	2 x 30-h service interruptions at weekends.
Deck at Tammisaari	x	Service interruptions on weeknights and at weekends.
Hyvinkää–Karjaa: track and turnout tamping	x	8-h track possessions during weekdays.
Karjaa–Hanko: track and turnout tamping	x	5–6-h track possessions during weekdays.
Kerava–Vuosaari: Maintenance work in Savio tunnel. Rock inspections, safety light maintenance, load tests, battery replacements, testing of the smoke extraction system, lighting maintenance, testing of fire stops and other maintenance work related to tunnel technology.	x	Standard track possession Sat. 22:00 – Sun. 19:00.
Kerava–Sköldvik: track and turnout tamping	x	10-h track possessions during weekdays.
Sköldvik: replacement of turnouts and superstructure	x	Freight traffic arrangements.

Location	Service impact	Description of track possessions
<b>EASTERN FINLAND</b>		
Kerava–Lahti: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices.	x	8-hour track possessions on weeknights one track and one line at a time as well as a 3-hour service interruption on both tracks in the turnout area on a total of 6 nights a year.
Riihimäki–Lahti: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	7-hour track possessions on weeknights one track and one line at a time as well as a 3-hour service interruption on both tracks in the turnout area on a total of 8 nights a year.
Lahti–Hakosilta: extended lifecycle of safety devices	-	-
Lahti–Loviisa: Main Road 12, Lahti Southern Ring Road, bridges S30 and S31	x	Lahti–Orimattila: full service interruption 10–16 June 2019. Track possession weekdays 07:00–16:00, 4 February–9 June 2019. Speed limit 50 km/h 1 February–1 August 2019.
Lahti–Kouvola: Main Road 12, Lahti Southern Ring Road, bridge S37	x	Only one track in use. Speed limit 80 km/h 13 January–26 June 2019 between track kilometres 133+300 and 133+600.
Lahti–Kouvola: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	On weeknights: 3-hour period with one track in use + 2-hour period with full service interruption + 3-hour period with one track in use. Scheduled on a case-by-case basis.
Kouvola–Kotka/Hamina: renewal of interlocking devices	x	(Kymi)–Hovinsaari–Kotka Satama: work on safety devices, renewal of switch mechanisms, safety device supplier's testing and final inspection from July to November during daily 10-h track possessions in daytime, whereby part of the tracks are out of service.  (Inkeroinen)–(Juurikorpi)–(Hamina) and (Kymi)–(Juurikorpi): work on safety devices and data communication as well as the safety device supplier's testing from September to October during 8-hour track possessions. Final inspections from November to December during 8-hour track possessions.

Location	Service impact	Description of track possessions
Kouvola–Kotka/Hamina: repairs of areas with frost heave damage and soft soils	x	Only one track in use, daily 8-hour track possessions.
Kouvola–Kotka: axle load increase to 25 t	x	Altogether 8 bridge repair and renewal targets. Speed limit 8 x 50 km/h.
Kymi railway yard: track and turnout renewals.	x	Limited track access and daily 8-hour track possessions.
Hovinsaari: repair of superstructure	x	Limited track access and daily 8-hour track possessions.
Kouvola–Kotka/Hamina: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	5-h track possessions on weeknights.
Remote control in south-eastern Finland	-	-
Kouvola–Luumäki: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	Standard track possession on two lines at a time 22:00–01:00 am and 03:00–06:00 am. Service interruptions on both tracks 01:00–03:00 am.
Luumäki–Vainikkala: maintenance	x	Standard track possession 4.5 h at night at separately agreed upon times.
Luumäki–Vainikkala: Raippo: replacement of turnouts V001 and V002 and removal of turnouts V006, V008, V010 and V012	x	Service interruptions at weekends. Speed limit 50 km/h on a 1,500 m long stretch.
Vainikkala: Installation of a new turnout V090 on the main track due to track extension work. Joining of northern sidings in connection with track extension work.	x	A week-long service interruption for the duration of the joining work on tracks 124–126. Limited track access as well as daily 8-hour track possessions and 3 x 12–20 h service interruptions at weekends in August.
Luumäki–Imatra–Russian border: improved rail connection (LUIMA): Luumäki–Imatra: Mansikkakoski railway bridge	x	Voltage cut-offs and short track possessions.
LUIMA: Lappeenranta–Imatra: Extension of Muukko traffic operating point	x	Speed limits 50 km/h for 3 days and 80 km/h for a week after installation of turnouts on main track. Voltage cut-offs and short track possessions for preparatory work. Track possessions: V312 installation 20 h. The following week: track tamping 4 h. Welding operations 3 x 5 h. V311 installation 20 h. The following week: welding operations 3 x 5 h. Track tamping 4 h. Retamping 6 h. Final inspection 5 h.

Location	Service impact	Description of track possessions
LUIMA: Lappeenranta–Imatra: Building of new siding at Lauritsala traffic operating point, building of noise wall, bridge work, raised track height line, catenary work	*	Speed limits 50 km/h for 3 days and 80 km/h for a week after installation of turnouts on main track and 80 km/h for a week after moving of Hakali bridge. Voltage cut-offs and short track possessions for preparatory work. Installation of V225, whereby traffic is redirected via track 202 for 24 h. Installation of V228, whereby traffic is redirected via track 202 for 24 h. Track possessions: Final inspection 5 h. Piling of Hakali underpass and retaining walls 4 x 8 h. Moving of Hakali bridge 20 h. Track tamping 4 h. Track retamping 6 h.
LUIMA: Lappeenranta–Imatra: Work in Saimaa Canal junction areas	x	Speed limit 50 km/h for a week after the work in the junction area. Voltage cut-offs and short track possessions for preparatory work. Track possessions: Alterations to catenary system 4 x 8 h. Building of junction areas 4 x 20 h. Coordinated with the 20-h service interruptions of other targets in LUIMA. Tamping of junction areas and of the new track 3 x 6 h.
LUIMA: Lappeenranta–Imatra: Bridge contract in the double track area, 9 bridges	*	Two 80 km/h speed limits for a week after Kesola and Karjasilta bridges have been moved. Voltage cut-offs and short service interruptions. Track possessions: Retaining walls 4 x 8 h. Piling operations 4 x 8 h. Moving of Kesola underpass 20 h. Moving of Karjasilta underpass 20 h.
LUIMA: Joutseno–Imatra: earth-moving contracts for double track.	*	Speed limit 80 km/h on 2 x 1,000 m stretches. Advantage is taken of the service interruptions caused by the bridge works and the work at Muukko and Lauritsala traffic operating points. 4-h track possessions 4 days a week for 10 weeks.

Location	Service impact	Description of track possessions
Luumäki–Imatra: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	2 x 3-h or 5-h track possessions at night during the maintenance weeks in spring and in autumn.
Imatra freight station: work on safety devices	x	-
Imatra–Parikkala: work on safety devices in Rautjärvi and Simpele	x	-
Imatra–Joensuu: maintenance	x	2 x 3-h or 5-h track possessions at night during the maintenance weeks in spring and in autumn.
Parikkala–Säkäniemi: superstructure replacement	x	Daily 10-h track possessions and service interruptions at weekends.
Parikkala–Joensuu: installation of a track blocking functionality in the interlocking system	-	-
Heinävaara–Ilomantsi: track improvement	x	Daily 8-h track possessions Mon–Fri for 5 weeks.
Joensuu: replacement of turnouts and tracks	x	-
Joensuu: installation of interlocking system	x	-
Joensuu–Uimaharju: maintenance tamping of turnouts and tracks	x	2–3-h track possessions during 2–3 weeknights.
Uimaharju–Porokylä: maintenance tamping of turnouts and tracks	x	2–3-h track possessions during 2–3 weeknights.
Kouvola–Mäntyharju: repairs of Harjujoki railway bridge and Kalsonlahti underpass	x	60-h service interruption during Midsummer, preceded by 2 x 10-h service interruptions at weekends
Kouvola–Pieksämäki: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	2 x 3-h or 5-h track possessions at night during the maintenance weeks in spring and in autumn.
Mynttilä–Pieksämäki: extended lifecycle of safety devices	-	-
Pieksämäki–Kuopio: renewal of power supply in interlocking systems	x	-
Pieksämäki–Kuopio: repair of Neulamäki underpass and tunnel	x	Specified in August 2018.
Pieksämäki–Kuopio: Renewal of Särkilähti underpass waterproofing	x	Specified in August 2018.
Pieksämäki–Kuopio: Kurkimäki interlocking system	x	Specified in August 2018.
Pieksämäki–Kuopio: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	2 x 3-h or 5-h track possessions at night during the maintenance weeks in spring and in autumn.
Kuopio: station tunnel extension	x	-

Location	Service impact	Description of track possessions
Kuopio: replacement of turnouts and tracks	x	-
Kuopio–Iisalmi: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	2 x 3-h or 5-h track possessions at night during the maintenance weeks in spring and in autumn.
Iisalmi–Siilinjärvi: repairs of areas with frost heave damage and soft soils	x	Daily 8-h track possessions.
Pieksämäki–Joensuu: track tamping	x	10-h shift during weekdays and 12-h shift during weekends with at least 2 h of track possessions.
<b>WESTERN FINLAND</b>		
Turku–Toijala: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	2 x 3-h or 5-h track possessions at night during the maintenance weeks in spring and in autumn.
Turku–Toijala: replacement of Kyrö V405 and V406	x	No crossings during the work.
Turku–Toijala: replacement of Loimaa V505 and removal of V515 and V517	x	No crossings during the work.
Toijala: replacement of turnout V002 and replacement of western track superstructure	x	A service interruption during weekend.
Riihimäki–Hämeenlinna: Hämeenlinna region timber terminal	x	-
Riihimäki–Tampere: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	Between 22:00 and 06:00 am, there are two working sites on the line sections, at both sites only one track is in use between two traffic operating points for 6 h. Moreover, a 1-hour service interruption on both tracks on both working sites. The distance between the working sites is a minimum of 4 lines between traffic operating points. Altogether 6 weeks per year.
Tampere deck and Central Arena project: deck construction and catenary work (northern deck)	x	Track access alterations. 6–12 service interruptions on several tracks at weeknights and weekend nights as well as sporadic short service interruptions on all tracks in the railway yard. Speed limit 40 km/h. Temporary short access at 5–10 km/h speed.
Tampere freight yard track alterations	x	Limited track access.
Tampere–Orivesi: rail replacement on 37 km of the southern track	x	Only one track in use, daily 8-h track possession.
Tampere–Orivesi: Vatiala underpass	x	Specified in August 2018.



Location	Service impact	Description of track possessions
Tampere–Orivesi: Palomyllynoja railway bridge turned to a culvert	x	Specified in August 2018.
Orivesi–Jyväskylä maintenance	x	2 x 3-h or 5-h track possessions at night during the maintenance weeks in spring and in autumn.
Nokia: removal of turnouts V017, V018 and V020 and safety device alteration	x	-
Lielähti–Kokemäki: maintenance	x	2 x 3-h or 5-h track possessions at night during the maintenance weeks in spring and in autumn.
Kokemäki–Rauma: maintenance	x	2 x 3-h or 5-h track possessions at night during the maintenance weeks in spring and in autumn.
Pori–Mäntyluoto: superstructure replacement	x	Daily 10-h track possessions.
Pori–Mäntyluoto: electrification	x	7–10-h daily track possession.
Tampere–Seinäjoki: renewal of interlocking systems	x	April–November, Mon–Fri daily 8-h track possession
Tampere–Seinäjoki: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	2 x 3-h or 5-h track possessions at night during the maintenance weeks in spring and in autumn.
Pohjois-Louko–Seinäjoki: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	Only one track in use, 8 h.
<b>NORTHERN FINLAND</b>		
Seinäjoki–Kokkola: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	2 x 3-h or 5-h track possessions at night during the maintenance weeks in spring and in autumn.
Pietarsaari: interlocking system	x	-
Kokkola–Ylivieska: track and turnout tamping	x	Daily 8-h track possessions on two lines at a time.
Ylivieska: renewal of interlocking system	x	48-h full service interruption in the autumn
Ylivieska–Oulu: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	2 x 3-h or 5-h track possessions at night during the maintenance weeks in spring and in autumn.
Tuomioja–Raahe: Ouluntie underpass	x	-
Tuomioja–Raahe: Kirkkokatu underpass	x	-
Raahe railway yard: axle load increased to 25 t, replacement of turnouts and tracks	x	Track access alterations.

Location	Service impact	Description of track possessions
Oulu: replacement of turnouts and tracks	x	Limited track access and daily 8-hour track possessions.
Oulu: repair of Tulliväylä underpass	x	60-h track possession in the direction Oulu-Tuira.
Oulu: Oulu: repair of Tuira underpass	x	Coordinated with Tulliväylä underpass.
Oulu-Kemi-Laurila-Tornio: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	2 x 3-h or 5-h track possessions at night during the maintenance weeks in spring and in autumn.
Misi-Kemijärvi: superstructure final tamping	x	Daily 10-h track possession.
Rovaniemi: new Posiontie underpass	x	48-h full service interruption in the direction of Kemijärvi.
Kemijärvi: demolition of the timber terminal	x	-
Kemijärvi: replacement of turnouts	x	Track access alterations.
Äänekoski-Haapajärvi: Kuonanjoki railway bridge	x	-
Haapajärvi-Ylivieska: repair of Sorvistonjoja railway bridge	x	-
Iisalmi-Kontiomäki: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	2 x 3-h or 5-h track possessions at night during the maintenance weeks in spring and in autumn.
Iisalmi-Kontiomäki: Kohisevanjoki railway bridge	x	-
Kontiomäki: superstructure of triangle track	x	Daily 10-h track possession Mon-Fri.
Kontiomäki-Oulu: track and turnout tamping, turnout service and maintenance of the catenary system and safety devices	x	2 x 3-h or 5-h track possessions at night during the maintenance weeks in spring and in autumn.
Kontiomäki-Vartius: rail replacement and repairs of areas with frost heave damage and soft soils	x	30 x daily 8-h track possession. Speed limits.
Ypykkävaara and Arola: alterations of traffic operating points	x	Daily 8-h track possessions, 2 x 24 h service interruptions.
Kontiomäki-Vartius: repairs of areas with frost heave damage and soft soils	x	-
Kontiomäki-Vartius: Rasiaho underpass	x	-
<b>OTHER TRACK POSSESSION REQUIREMENTS</b>		
Investments to improve punctuality	-	-
Repair and renewal of safety device cables	x	-
Level crossing renewals and removals, station arrangements	x	-
Bridge, culvert and superstructure repairs	x	-

Location	Service impact	Description of track possessions
Tunnel repairs	x	Service interruptions at weekends on some line sections.
Renewal and maintenance of the catenary system: contact wire, droppers, foundations	x	Daily 4-hour track possessions for renewal of conductors.
Investments to secure the availability of raw materials for the wood processing industry	x	-
Turnout replacements on railway yards: Ilmala V252, V261 and V262 Helsinki V045, V048, V016, V032 Riihimäki V204 Sköldvik 002/004 ... V018 (even-numbered) Nummela V313 Piikkiö V001 and V002 Hangonsaari V001 Kyrö V405 and V406 Loimaa V505 and removals V515, V517 Kirkniemi V515, V516 and V518 Hanko V009 and V010 Turku V183 Viinikka, Tampere V242 removal Seinäjoki V331, V332 and V333 Seinäjoki V0844 Nokia V017, V018 and V020 removal Kiukainen V004 removal Kotka V215 and V218 Raippo V001, V002 replacement and V006, V008, V010 and V012 removal Ilomantsi V001, V005 and V021 Ilomantsi V002, V004 and V007 Joensuu V015 Lahdenperä V005 Ristiina V002 and V004 Ylämylly V824 demolition Puhos V100 Tampere i.a. V281 Haapamäki V416, V430 and V441 Kuopio V001, V003, V005 and V023 Kemijärvi V0918 Arola V411, V412, V413, V421, V422 and V432	x	8–24-h track possessions.
Walking inspections on tracks where the maximum allowed speed exceeds 140 km/h	x	-
Maintenance tamping of tracks and turnouts	x	-

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Location	Service impact	Description of track possessions
Replacement of single sleepers and worn rails in curves	x	-
Rail and turnout grinding	x	-
Rolling stock monitoring equipment	x	-
Renewal of railway markings	-	-

## Speed depending on rolling stock

The rolling stock for which the Finnish Transport Safety Agency has issued a permit, valid until further notice, has been listed in the tables below. As soon as the above mentioned permit has been issued, the rolling stock type will be entered into the respective table.

Table 1. Maximum allowable speed for tractive stock and motor cars

Superstructure category						
Series	A <sup>1</sup>	B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub>	C <sub>2</sub>	D
Dv12	50 <sup>2,3</sup>	100	110	125	125	125
Dv17 9810 6003070-8	30	40	40	40	40	40
Dv19 9810 8000048-3	20	20	20	20	20	20
Dr14, added weight	–	50	75 <sup>4</sup>	75 <sup>4</sup>	75 <sup>4</sup>	75 <sup>4</sup>
Dr16	–	70	110	140 <sup>5</sup>	140 <sup>5</sup>	140 <sup>5</sup>
Dr17 9810 6007001-9	30	65	65	65	65	65
Dr17 9810 6006010-1	–	50	50	50	50	50
Dr18	– <sup>6</sup>	90	90	90	90	90
Dr25 9810 8029002-7	20	25	25	25	25	25
Dr25 9810 8129002-6	20	25	25	25	25	25
Dr25 9810 8129003-4	20	25	25	25	25	25
Dr35 9810 8039011-6	20	60	60	60	60	60
Dr35 9810 8139005-7	–	30	30	30	30	30
Dr35 9810 8139006-5	–	30	30	30	30	30
Dr35 9810 8039013-2	35	60	60	60	60	60
Dr45 9810 8049001-5	–	60	60	60	60	60
Dr25 9810 8021043-9	16	16	16	16	16	16
Dr25 9810 8029002-7	20	25	25	25	25	25
Dr25 9810 8129002-6	20	25	25	25	25	25
Dr25 9810 8129003-4	20	25	25	25	25	25
Dr25 9810 8129166-9	14	14	14	14	14	14
Dr27 9810 8121053-7– 9810 8121054-9	8	8	8	8	8	8
Dr30 9810 1002001-5	60	60	60	60	60	60
Dr35 9810 8039011-6	20	60	60	60	60	60
Dr35 9810 8128001-9 <sup>7</sup>	20	20	20	20	20	20
Dr35 9810 8139005-7	–	30	30	30	30	30
Dr35 9810 8139006-5	–	30	30	30	30	30
Dr35 9810 8039011-6	20	60	60	60	60	60
Dr35 9810 8039013-2	35	60	60	60	60	60

<sup>1</sup> For tracks belonging to superstructure category A, see Use of tractive stock belonging to superstructure category A.

<sup>2</sup> Max. speed 40 km/h in curves with a radius under 600 m. Max. speed 60 km/h on the line section Äänekoski–Haapajärvi.

<sup>3</sup> 20 km/h in the deflecting section of K30 turnouts.

<sup>4</sup> 80 km/h when hauled.

<sup>5</sup> 135 km/h without wagons, either on its own or with double heading.

<sup>6</sup> 160 km/h without wagons. 160 km/h with double heading.

<sup>7</sup> 60 km/h when hauled.

Superstructure category						
Series	A <sup>1</sup>	B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub>	C <sub>2</sub>	D
Dr45 9810 8049001-5	–	60	60	60	60	60
Sk 9010 9981201-7	7	7	7	7	7	7
Sk 9010 9981202-5	7	7	7	7	7	7
Sr1	–	80	100	140	140	140
Sr2	–	80	100	180 <sup>8</sup>	200	210
Sr3	–	80	100	180	200	200
Motor cars						
Sm1, Sm2	–	90	110	120	120	120
Sm3	–	100	110	180	200	220
Sm4	–	90	110	160	160	160
Sm5	–	90	110	160	160	160
Sm6	–	100	110	180	200	220
Dm12	50	100	110	120	120	120

**SMALL-POWER LOCOMOTIVES AND TRACK MOTOR CARS**

(Towing speed in brackets, if it differs from the maximum speed when self-propelled)

Table 2. Maximum allowable speed for small-power locomotives and track motor cars.

Superstructure category				
Series	A <sup>1</sup>	B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub> , C <sub>2</sub> and D
Tve1	30 (60)	30 (80)	30 (80)	30 (80)
Tve2	45 (60)	45 (80)	45 (80)	45 (80)
Tve4	35	60	80	80
Tve5	20 (50)	20 (50)	20 (50)	20 (50)
Tka3–6	60	60 (80)	60 (80)	60 (80)
Tka7, nos. 168–238, 243–247	60	80	80	80
Tka7, with snow plough, nos. 168–238	35 <sup>9</sup>	60 <sup>9</sup> (80)	60 <sup>9</sup> (80)	60 <sup>9</sup> (80)
Tka7, nos. 239–242	50	80	80	80
Tka7, with snow plough, nos 239–247	35 <sup>9</sup>	60 <sup>9</sup> (80)	60 <sup>9</sup> (80)	60 <sup>9</sup> (80)
Tka7, with welding container nos. 168–238, 243–247	35	60	60	80
Tka8	35	60	80	80
Tka9 no. 91901	20 <sup>10</sup>	50 <sup>10</sup>	70 <sup>10</sup>	70 <sup>10</sup>
Otso4 no. 920001	20 <sup>11</sup>	45	45	45

<sup>8</sup> 160 km/h without wagons. 160 km/h with double heading.

<sup>9</sup> The maximum snow-ploughing speed is specified in the machine operator's manual.

<sup>10</sup> Hauling according to the manufacturer's instructions.

<sup>11</sup> 20 km/h on sidings which belong to superstructure category A.

**MAXIMUM ALLOWABLE SPEED FOR SELF-PROPELLED MACHINERY**

(Hauling speed in brackets, if the machine can be coupled to the train and the hauling speed differs from the above mentioned)

Table 3. Maximum allowable speed for self-propelled machinery.

Superstructure category				
Series	A	B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub> , C <sub>2</sub> , D
<b>Track inspection cars</b>				
Et no. 66	20 <sup>12</sup>	60	60	100
Ttr1 no. 51	60	80	120	120
<b>Snow brooms</b>				
Tlh no. 741 <sup>13</sup>	50	60	60	60
<b>Snow ploughs</b>				
Tla 90109691001-2	35	60	60	60
<b>Rail planing machines</b>				
Tkh no. 894 <sup>11</sup>	60	80	80	80
<b>Track replacement machines</b>				
Trk no. 870	20	20 (50)	20 (80)	20 (100)
<b>Ballast ploughs</b>				
Tsl nos. 880, 882, 884, 885, 890 <sup>11</sup>	70	80	80	80
Tsl no. 883 <sup>11</sup>	35	50	60	60
Tsl no. 888 <sup>11</sup>	50	60	60	80
Tsl no. 889 <sup>11</sup>	20	50	80	80
Tsl no. 91021	20	70	70	70
<b>Ballast cleaning machines</b>				
Tsp nos. 891, 893	20	60	80	80
Tsp no. 892	50	80	80	80
<b>Multi-purpose machines</b>				
Ttm1 no. 91101	20 <sup>14</sup>	50	70	70
<b>Tamping machines</b>				
Ttk1 <sup>11</sup> nos. 801–803, 821, 823, 831, 91042	60	80	80	80
<b>Multi-purpose machines</b>				
Ttk1 <sup>11</sup> nos. 818–820	25 (50) <sup>15</sup>	25 (50) <sup>15</sup>	25 (50) <sup>15</sup>	25 (50) <sup>15</sup>
Ttk1 <sup>11</sup> nos. 822, 824–829	50	50 (80)	50 (80)	50 (80)
Ttk1 <sup>11</sup> no. 830	60	85 (90)	85 (90)	85 (90)
Ttk1 <sup>11</sup> nos. 832, 833	50	80	80	80
Ttk1 no. 834	50 <sup>16</sup>	80	80	80
Ttk1 <sup>11</sup> no. 91041	60	60	60	60
Ttk1 no. 91042	60	70	70	70
Ttk1 no. 9010 9122002-9	– <sup>18</sup>	80	80	80
Ttk1 no. 9010 9422001-8	50	80	80	80

<sup>12</sup>Same as the maximum speed on the section in question, as assessed by a railway technology specialist taking the measurements, and a representative of the local maintenance entrepreneur.

<sup>13</sup> Wheel diameter max. 790 mm, which necessitates caution in diamond crossings with slips.

<sup>14</sup> Apuvaunun max. akselipainolla 160 kN (16 t).

<sup>15</sup> 15 km/h in turnouts.

<sup>16</sup> Max. 20 km/h on sidings which belong to railway category A.

Superstructure category				
Series	A	B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub> , C <sub>2</sub> , D
<b>Stabilisation machines</b>				
Ttk2 nos. 841, 844, 849 <sup>13</sup>	60	80	80	80
Ttk2 no. 842 <sup>11</sup>	35	60	60	80
Ttk2 nos. 850, 856	20	60	80	90 (100)
Ttk2 nos. 851–855 <sup>11</sup>	50	50 (80)	50 (80)	50 (80)
Ttk2 no. 857	20	60	80	80 (100)
Ttk2 no. 858	– <sup>16</sup>	60	75	90 (100)
Ttk2 no. 859	20 <sup>16</sup>	60	75	90 (100)
Ttk2 no. 91051	15	35	50	70 <sup>17</sup>
Ttk2 no. 9010 9421002-8	– <sup>18</sup>	80	80	80
Ttk2 no. 9010 9422845	50	80	80	80
Ttk2 no. 9010 9424101	50	80	80	80
Ttk2 no. 9926 0221002-1	80	80	80	80
UTtk no. 9926 0121006-3	– <sup>18</sup>	80	80	80
<b>Ballast compacting machines</b>				
Ttk3 nos. 862, 863 <sup>11</sup>	60	80	80	80
<b>Tamping machines</b>				
Ttk4 no. 91501	20	40	40	40
Ttk5 no. 9010 9422001-8	50	80	80	80
<b>Service and inspection vehicles on electrified lines</b>				
Tta nos. 1, 2	30 <sup>16</sup>	30 <sup>16</sup>	50 <sup>16</sup>	50 <sup>16</sup>
Tta no. 3	30 <sup>16</sup>	50 <sup>16</sup>	70 <sup>16</sup>	70 <sup>16</sup>
Tte nos. 21–29	70	100	110	110
Tte nos. 91201, 91202	20	60	80	80
Ttv nos. 6, 9, 12, 15	50	70	70	90
<b>Rail-mounted cranes</b>				
Tnk4 nos. 982, 983	15 (20)	15 (50)	15 (60)	15 (60)
Tnk4 no. 984	15 (50)	15 (60)	15 (60)	15 (60)
Tnk4 nos. 985–989	15 (60)	15 (60)	15 (60)	15 (60)
Tnk4 no. 990	15 (20)	15 (50)	15 (60) <sup>19</sup>	15 (60) <sup>19</sup>
<b>Electrified trains</b>				
Tnv-sr nos. 911002, 911003	40 (40)	40 (60)	40 (80)	40 (100)

<sup>17</sup> 5 km/h in diamond crossing with slips, due to the small wheel diameter (440 mm).

<sup>18</sup> Access and speeds on line sections of class A are determined on a case-by-case basis.

<sup>19</sup> Hauling speed 80 km/h, when the balance weight has been moved to the crane trailer.



**MAXIMUM SPEED FOR MUSEUM LOCOMOTIVES**

(Hauling speed in brackets, whether it differs from the maximum speed when self-propelled)

Superstructure category				
Sarja	A <sup>20</sup>	B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub> , C <sub>2</sub> , D
Dr12	20 <sup>21</sup>	60 <sup>22</sup>	90	120
Dr13	20 <sup>21</sup>	100	110	120
Dv15	60	75 (80)	75 (80)	75 (80)
Dv16	60	85	85	85
Hr1	20 <sup>21</sup>	80	100	110 <sup>23</sup>
Hv1	60	80	80	80
Hv3	20 <sup>24</sup>	70	70	70
Pr1	20 <sup>21</sup>	80	80	80
Tk3	60	60	60	60
Tr1	20 <sup>21</sup>	80	80	80
Tv1	60	60	60	60
Vr1	40 <sup>25</sup>	40	40	40
Rau 2	70	70	70	70
Dm7	70	95	95	95

**USE OF TRACTIVE STOCK ON TRACKS BELONGING TO SUPERSTRUCTURE CATEGORY A**

This matter has been transferred to Junaliikenteen ja vaihtotyön turvallisuussäännöt (Jt), Instructions of the Finnish Transport Agency 10/2018.

<sup>20</sup> Secondary lines and railway yard sidings belonging to superstructure category A, see section 3.6.5

<sup>21</sup> Operation only allowed on sidings.

<sup>22</sup> 80 km/h on the line sections Orivesi–Haapamäki and Haapamäki–Jyväskylä.

<sup>23</sup> 100 km/h without wagons, either on its own or with double heading.

<sup>24</sup> Max. speed 20 km/h in the deflecting section of K30 turnouts

<sup>25</sup> 25 km/h on its own.

## Transport of overweight wagons

A wagon whose axle load exceeds the maximum axle load given for the different line sections in table 2 in Appendix 6 is overweight for that line section. The terms for transporting wagons with an axle load over 225 kN in eastern transit traffic are listed below.

The load specified in the wagon load table may not be exceeded intentionally. Any excess load must be unloaded at the first possible traffic operating point, if the load exceeds the permitted load by more than 5% when the maximum axle load is 225 kN or by more than 2% when the maximum axle load is 250 kN.

Overweight wagons must be transported in line with the regulations governing exceptional transport. Before transport the wagon's wheelsets and the rest of the bogie structure must be inspected.

Temporary transport of overweight wagons can be considered in case of an ad hoc need. Any temporary transport of overweight loads must be notified to the track's maintenance operator with a view to monitoring the condition of the track superstructure.

### Transport of overweight wagons in the domestic and western transit traffic

When the maximum axle load of a wagon is 225 kN, the speeds of the individual wagons bearing excess weight may not exceed:

Superstructure category	Maximum axle load kN	Speed km/h
A	225 <sup>1</sup>	20 <sup>1</sup>
B1	235	35
B2	235	50
C1, C2, D	235	80

**Transport of wagons with an axle load over 225 kN in the eastern transit traffic and on line sections belonging to superstructure categories C and D, on which it is allowed to operate with a maximum axle load of 250 kN.**

Maximum axle load 250 kN.

In the eastern transit traffic, individual wagons with an axle load over 225 kN, but no more than 250 kN, may be transported at the speed limit imposed on axle loads exceeding 225 kN.

Maximum speed 60 km/h.

**Transport of wagons with an axle load over 225 kN in the eastern transit traffic and on line sections belonging to superstructure categories C and D, on which it is allowed to operate with a maximum axle load of 225 kN.**

<sup>1</sup> On tracks and sidings belonging to superstructure category A, individual overweight wagons with axle loads exceeding 200 kN, but no more than 225 kN, may only be transported on a temporary basis at a speed of 20 km/h. It is prohibited to operate wagons with an axle load exceeding 225 kN on tracks and sidings belonging to superstructure category A.

## a) Axle load over 225 kN, but no more than 235 kN

Maximum axle load 235 kN.

In the eastern transit traffic, individual wagons with an axle load over 225 kN, but no more than 235 kN, may be transported at the speed limit imposed on axle loads exceeding 225 kN.

Maximum speed 60 km/h.

On the line section Kouvola–Kotka, transport with axle loads from 225 to 235 kN are permitted with no limitations to the number of wagons.

## b) Axle load over 235 kN

In case the axle load of a wagon in the eastern transit traffic exceeds 235 kN, the Rail Traffic Management Centre grants transport permits up to an axle load of 245 kN on the line sections listed below. For other line sections, permission must be granted by the Finnish Transport Infrastructure Agency's Engineering and Environment Department. The wagons must be transported as exceptional transport at the speed specified in the permit.

Kerava–Sköldvik	Kouvola–Pieksämäki
Kokemäki–Harjavallta	Pieksämäki–Kontiomäki
Kokkola–Ykspihlaja	Pieksämäki–Joensuu
Riihimäki–Kouvola–Kotka Hakosilta	Siilinjärvi–Viinijärvi
Kotka Hovinsaari–Kotka Mussalo	Iisalmi–Ylivieska
Juurikorpi–Hamina	Oulu–Laurila
Luumäki–Joensuu	Laurila–Tornio
Imatra tavara–Imatrankoski-rajaja	Tornio–Röyttä
Niirala-rajaja–Säkäniemi	Oulu–Kontiomäki
Joensuu–Uimaharju	Kontiomäki–Vartius-rajaja

**Transport of wagons with an axle load exceeding 225 kN in the eastern transit traffic on a line section belonging to superstructure category B.**

Individual wagons with axle loads exceeding 235 kN may temporarily be transported as exceptional transport on a line section belonging to superstructure category B1 at a speed of 35 km/h, and at 50 km/h on a line section belonging to superstructure category B2. A permit for this must be granted by the Rail Traffic Management Centre.

**Transport of wagons with axle loads exceeding 225 kN in the eastern transit traffic on tracks and in turnouts with K30 and K33 rail profiles.**

It is prohibited to operate wagons with an axle load exceeding 225 kN in the eastern transit traffic on tracks and in turnouts with K30 and K33 rail profiles.

## Transport of wagons complying with the Russian standard

If the train contains at least one goods wagon which complies with the Russian standard, the maximum speed on the sidings of the following traffic operating points or their parts is 20 km/h.

**Helsinki-Turku satama**  
Kauniainen

Parkano

Ratikylä

Peräseinäjoki

**Huopalahti-Havukoski**

Seinäjoki asema

Seinäjoki tavara

**Hyvinkää-Karjaa**

**Lielahdi-Kokemäki**

**Karjaa-Hanko**

Hanko

**Kokemäki-Pori**

Pori

**Turku-Uusikaupunki**

**Pori-Mäntyluoto**

Pori

Mäntyluoto

**Uusikaupunki-Hangonsaari**

**Mäntyluoto-Tahkoluoto**

Mäntyluoto

**Raisio-Naantali**

**Kokemäki-Rauma**

**Helsinki-Riihimäki**

**Kiukainen-Säkylä**

**Kerava-Hakosilta**

**Niinisalo-Parkano-Kihniö**

Parkano

**Kerava-Sköldvik**

**Seinäjoki-Vaasa**

Seinäjoki asema

Seinäjoki tavara

**Kerava-Vuosaari**

**Seinäjoki-Kaskinen**

Seinäjoki asema

Seinäjoki tavara

**Riihimäki-Tampere**

Kaskinen

**Toijala-Turku**

**Toijala-Valkeakoski**

**Tampere-Seinäjoki**

Ylöjärvi

**Seinäjoki–Oulu**

Seinäjoki asema

Seinäjoki tavara

Lapua

Jepua

Pännäinen

Kälviä

Kannus

Eskola

Sievi

Ylivieska

Oulainen

Kilpua

Vihanti

Tuomioja

Oulu tavara

**Pännäinen–Pietarsaari**

Pännäinen

Pietarsaari

**Tuomioja–Raahe**

—

**Riihimäki–Kouvola**

—

**Kouvola–Kuusankoski**

Kuusankoski

**Lahti–Heinola**

Heinola

**Lahti–Loviisan satama**

—

**Kouvola–Kotka**

Kymi

**Kotka Hovinsaari–Kotka Mussalo**

—

**Juurikorpi–Hamina**

—

**Kouvola–Joensuu**

Joensuu Peltola

Joensuu asema

**Luumäki–Vainikkala-raja**

—

**Imatra tavara–Imatrankoski-raja**

—

**Niirala-raja–Säkäniemi**

Tohmajärvi

**Joensuu–Ilomantsi**

Joensuu Peltola

Joensuu asema

**Joensuu–Nurmes**

Joensuu Peltola

Joensuu asema

**Nurmes–Kontiomäki**

Valtimo

Vuokatti

**Kouvola–Pieksämäki**

Pieksämäki asema

Pieksämäki Temu

Pieksämäki lajittelu

Pieksämäki tavara

**Mynttilä–Ristiina**

Ristiina

**Pieksämäki–Kontiomäki**

Pieksämäki asema

Pieksämäki Temu

Pieksämäki lajittelu

Pieksämäki tavara

Haapakoski

Markkala

Suonenjoki

Salminen

Kurkimäki

Kuopio asema

Kuopio tavara

Murtoäki

**Pieksämäki–Joensuu**

Pieksämäki asema

Pieksämäki Temu

Pieksämäki lajittelu

Pieksämäki tavara

Varkaus

Heinävesi

Joensuu asema

Joensuu Peltola

**Murtoäki–Talvivaara**

Murtoäki

**Varkaus–Kommila**Varkaus  
Kommila**Laurila–Tornio-raja**

—

**Huutokoski–Rantasalmi**

—

**Tornio–Kolari**

Pello

**Savonlinna–Parikkala**Kerimäki  
Punkaharju**Laurila–Kemijärvi**Rovaniemi  
Kemijärvi**Siilinjärvi–Viinijärvi**

—

**Kemijärvi–Patokangas**

Kemijärvi

**Tampere–Jyväskylä**

—

**Oulu–Kontiomäki**Paltamo  
Oulu tavara**Orivesi–Seinäjoki**Vilppula  
Ähtäri  
Alavus**Kontiomäki–Ämmänsaari**Hyrnsalmi  
Pesiökylä  
Ämmänsaari**Vilppula–Mänttä**

Vilppula

**Kontiomäki–Vartius-raja**

—

**Haapamäki–Jyväskylä**

Keuruu

**Jyväskylä–Pieksämäki**Pieksämäki asema  
Pieksämäki Temu  
Pieksämäki lajittelu  
Pieksämäki tavara**Jyväskylä–Äänekoski**

—

**Äänekoski–Haapajärvi**

Haapajärvi

**Iisalmi–Ylivieska**Pyhäsalmi  
Haapajärvi**Pyhäkumpu erkanemisvaihte-****Pyhäkumpu**

—

**Oulu–Laurila**

Oulu tavara

# Monitoring of rolling stock

## Rolling stock monitoring devices

The location of the rolling stock monitoring devices in the railway network is illustrated in Figure 1

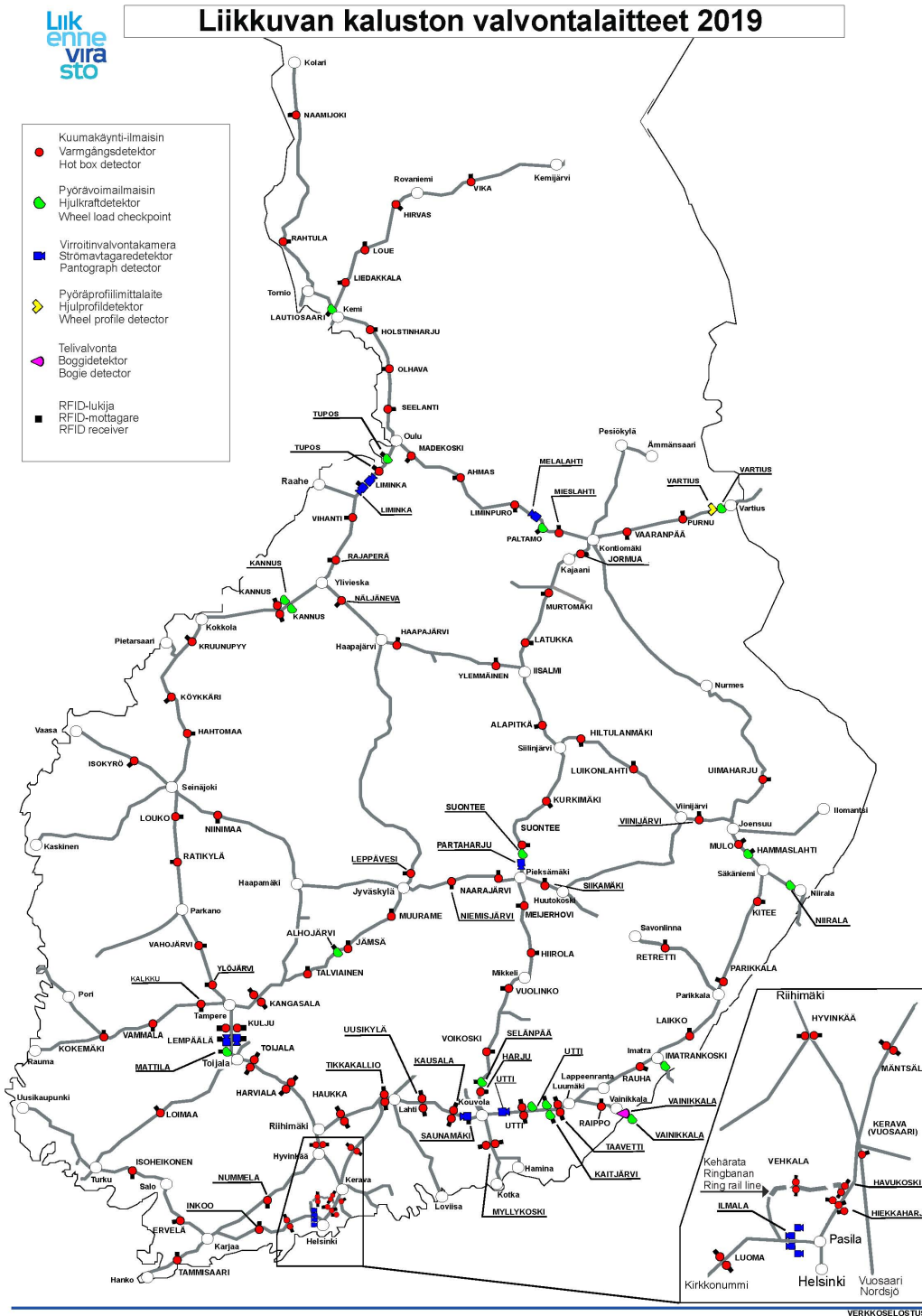


Figure 1. Rolling stock monitoring devices.

### Matters concerning wheel defects

Each passing train must be monitored to detect wheel defects, overheated bearings or brakes, an uneven or unstable load, or something else potentially alarming. Both sides of the train should be checked, whenever there is sufficient staff. Detected defects or deficiencies should be corrected immediately or the unit detached from the train. The unit with wheel defects should, if possible, be transported in the same train to the nearest depot, unless this causes apparent danger or damage, and the maintenance provider of the rolling stock unit should be notified.

The condition of the wheels may be monitored both manually and using automated measuring devices following the procedure below:

- I. If harmful wheel flats are detected, the length of the notch should be measured at the next stop. Further transport of a unit with a wheel flat is permitted on the following conditions:
  - a) If the length of the notch is less than 45 mm, no direct action required
  - b) If the length of the notch is 46–60 mm and the outdoor temperature is below  $-10^{\circ}\text{C}$ , the maximum speed allowed is 10 km/h. At temperatures  $\geq -10^{\circ}\text{C}$ , there is no speed limit, but the speed range 20–45 km/h should be avoided. The wheelset must be replaced at the next depot.
  - c) If the length of the notch is 61–80 mm, the maximum speed allowed is 10 km/h. The wheelset must be replaced at the next depot.
  - d) If the length of the notch or the combined notches exceeds 80 mm, the wheelset must be replaced at the traffic operating point where the notch is measured.
  - e) If the notch of an overweight wagon exceeds 45 mm, the load should be lightened at the nearest station or the wagon should be transported at a maximum speed of 10 km/h to the nearest depot.
- II. The Qimp limit values of the dynamic percussion force of the wheels on the rail have been specified in the table below. This force is usually caused by defects in the running surface of the wheel, such as notches, roughness or ovalisation. The dynamic force  $f_{\text{dyn}}$  indicates the ratio of wheel force variation for an unloaded wagon.

These forces are measured by wheel-flat detectors. The locations of these detectors are illustrated in figure 1.



Type of message	Level	Limit value	Measures	Category
<b>Dynamic force <math>Q_{imp}</math></b>	Q5	> 450 kN	Must be detached from the train; max. speed 50 until detached	critical
	Q4	> 400 kN	Max. speed 50 right after the message. The wheelset must be repaired before the next loading.	critical
	Q3	> 350 kN	No speed limit; must be repaired before the next loading. If the same unit causes at least a Q3 alarm after the following loading, the measures required for Q4 must be taken	warning
	Q2	> 250 kN	Must be repaired at the next depot, at the latest.	remark
	Q1	> 200 kN	The maintenance provider may schedule the repair.	--
<b>Dynamic coefficient <math>f_{dyn}</math></b>	f3	> 800 %	Must be repaired before the next loading. If the same unit causes at least an f3 alarm after the following loading, the measures required for Q4 must be taken	warning
	f2	> 600 %	Must be repaired at the next depot, at the latest	remark
	f1	> 400 %	The maintenance provider may schedule the repair.	--

## Use of the VIRVE network in train traffic

The primary network to be used for verbal communication between trains and traffic control is the VIRVE network. In addition to the VIRVE network, smart phones in commercial networks may be used for verbal communication between assistant shunters and traffic control, and between track work managers and traffic control, for example, by using the RAPLI application that facilitates the log-in procedure.

On 9 January 2015, the Ministerial Finance Committee made the decision to transfer verbal communication to the VIRVE network. Based on this decision, the Finnish Transport Infrastructure Agency submitted a proposal (on 2 March 2015) to the Finnish Transport and Communications Agency (hereinafter Traficom), which requested a derogation by the European Commission, as provided in Directive 2008/57/EC on the interoperability of the rail system. The commission granted Finland this derogation in July 2015.

### 1 Responsibilities of the Finnish Transport Infrastructure Agency

#### 1 VIRVE network subscriptions of trains

The Finnish Transport Infrastructure Agency is responsible for paying the subscription and main user charges for the in-cab radio terminals to be used by train drivers in the VIRVE network. *Train* refers to any unit operated in the state-owned railway network that complies with the railway traffic rules.

The pricing of other verbal communication on railways follows the terms and conditions laid down for the operating licenses of the RAILI service as well as the price list of the RAILI service (<https://vayla.fi/ammattiliikenne-raiteilla/rautateiden-puheviestinta/raili-palvelu>)

#### 2 Safety-related functionalities of verbal communication

The Finnish Transport Infrastructure Agency is responsible for the railway safety-related functionalities of verbal communication, for example, for implementing an application that facilitates the log-in procedure.

#### 3 Radio network coverage

The Finnish Transport Infrastructure Agency shall ensure adequate VIRVE reception of trains on open railway stretches and in railway tunnels. The Finnish Transport Infrastructure Agency is not responsible for radio reception at other indoor facilities.

#### 4 Recording of phone calls

The Finnish Transport Infrastructure Agency is responsible for recording the phone calls of the traffic control. Unless otherwise provided by law, railway operators, private infrastructure managers and companies supplying traffic control services are entitled to obtain recordings and identification data of railway verbal communication in order to investigate incidents and accidents that have occurred during the actor's operations, prevent future occurrence, as well as develop the safety communication. The right to

obtain information on audio recordings only concerns such recordings of verbal communication where the actor or its staff is directly involved.

## 2. Responsibilities of safety certificate holders

### 5 In-cab radio terminals

The safety certificate holders acquire the in-cab radio terminals required for their trains and are responsible for the costs and maintenance of the radio terminals. The safety certificate holders ensure that the TETRA in-cab radio terminals and antennas of the trains comply with the national requirements in Traficom's regulation TRAFI/26490/03.04.02.00/2014 on the railway communications system.

<http://www.finlex.fi/data/normit/42519->

[TRAFI\\_26490\\_03\\_04\\_02\\_00\\_2014\\_FI\\_Rautateiden\\_viestintajarjestelma.pdf](#)

and in the Guidelines of the Finnish Transport Infrastructure Agency 36/2016 on VIRVE Network Requirements for Hand Portable and Mobile Terminals LIVI/5777/06.04.01/2016 [https://julkaisut.vayla.fi/pdf8/ohje\\_2017\\_virve\\_network\\_requirements\\_web.pdf](https://julkaisut.vayla.fi/pdf8/ohje_2017_virve_network_requirements_web.pdf).

Meeting these requirements ensures that a speech connection between the drivers and the traffic control can be established successfully.

### 6 Other safety-related verbal communication in commercial networks

The safety certificate holders shall acquire all required radio terminals and subscriptions at their own cost, with the exception of the application facilitating the log-in procedure, which is the responsibility of the Finnish Transport Infrastructure Agency.

The Finnish Transport Infrastructure Agency recommends that train drivers also continue to use and log in via a spare phone.

### 7 Disruptions and unexpectedly disconnected calls

Radio calls are susceptible to various disturbances and disruptions caused by weather conditions, external radio interferences, device and software failures, as well as changes in the network, phones and their accessories, among other things. The position of the radiophone in relation to the base station and its user, as well as indoor facilities, buildings and constructions, which absorb radio signals, are all factors that may reduce the signal strength in the radio network. The call may be interrupted during a safety-critical work task. An interrupted call can have serious effects on work and occupational safety, since the connection is not automatically restored. Instead the user has to make a new call, may not necessarily connect straight away or not until the interference factor has been eliminated. Continuous monitoring of the talking connection and functionality is important in terms of occupational health and safety.

If the RAILI or VIRVE networks cannot be used due to technical disturbances or poor signal strength, other communications media shall be used. The traffic control, or correspondingly, the train drivers, shunting foremen and track work managers shall be informed of any disruptions preventing or hindering the use of the network, and of alternative contact information in accordance with the instructions on verbal communication.<sup>7</sup>

**The Finnish Transport Infrastructure Agency's stations buildings on passenger stations, situation September 2018**

Rentals of the Finnish Transport Infrastructure Agency's facilities are prepared by the Railway Maintenance Unit.  
 Regarding rentals, please contact [kirjamo@vavia.fi](mailto:kirjamo@vavia.fi)

The rental rate of the facilities is determined before each rental. The rental level is determined based on the actual price level in the region.

\*accuracy +/- 50 %, depending on the condition of the facility) kyllä = yes, ei= no

Building	Post code	Region	Street address	Valid contract (No)	Space for rent, in total (m2)	Vacancies yes/no	Other comments	Waiting space				Office space				Social space				Business space						
								Vacancies yes/no	M2	rent* €/m2/mon	Other comments	Vacancies yes/no	M2	rent* €/m2/mon	Other comments	Vacancies yes/no	M2	rent* €/m2/mon	Other comments	Vacancies yes/no	M2	rent* €/m2/mon	Other comments			
HELSINKI HUOPALAHTI	00320	HELSINKI	KYLÄTIE 25		Less than 100	kyllä	Empty facilities for rent in the station hall. The facilities are in poor condition and require extensive repairs.												kyllä	Alle 100 m2	15					
HELSINKI MALMIN VANHA ASEMA	00700	HELSINKI	LATOKARTANONTIE 1		229.00	kyllä	Vacant stores, office, storage and work space. Far from the station, next to the Jokeri line. Repairs are required before taken into use.					kyllä	no information	15					kyllä	ei tiedossa	15					
HELSINKI PUJINMÄKI	007200	HELSINKI	PUJINMÄENAUKIO 1	61344	125.00	ei	Current pizza-place could be suitable for passenger services, at tunnel level aside from the station.												ei	125.00	15		currently rented			
HELSINKI PUUSTOLA	00750	HELSINKI	TAPULIKAUPUNGINTIE 1	90183	31.00	ei	Currently a pizza place. Facilities (upper station level), 4 customer seats.												ei	31.00	15-20		currently rented			
VANTAA TIKKURILA (NEW STATION BRIDGE)	01300	VANTAA	RATATIE 11		-		YIT manages tenants through long-term contracts.																			
VANTAA KOIVUKYLÄ	01360	VANTAA	KOIVUKYLÄN PUUSTOTIE	61426	262.00	ei	Previous kiosk is rented for other purposes. Aside from the station, the lower floor is suitable for passenger use, requires extensive repairs.	ei	see "Social space"	8		currently rented						ei	220.00	8		Area includes hall and social spaces. Currently rented.	ei	42.00	10	currently rented
JÄMSÄ	42100	JÄMSÄ	ASEMAKATU 5	5495	70.00	ei		ei	40.00	8	Waiting space and WC. Rented.	ei	30.00	8												
LAPUA	62100	LAPUA	ASEMAKATU 7	90077	121.00	ei		ei	43.00	8	Waiting space and 2 WCs. Rented.	kyllä	78.00	8			kyllä	no information	7							
KAUHAVA	62200	KAUHAVA	ASEMAKUJA 3	90076	89.00	ei		ei	64.00	8	Waiting space and 2 WCs. Rented.	kyllä	25.00	8			kyllä	no information	7							
PÄNNÄINEN	68910	PÄNNÄINEN	ASEMATIE 13	90004		no information	kyllä	ei	48.70	8	Waiting space and 2 WCs. Rented.	kyllä	no information	8			kyllä	no information	7			kyllä	no information	8		
HÄRMÄ	62300	HÄRMÄ	PIIRTOLANTIE 6			no information	kyllä	kyllä	no information										kyllä	no information	8					
KANNUS	69100	KANNUS	ASEMATIE 6	90075	450.00	kyllä	At the western end of the station about 120 m2 space originally intended for housing as well as about 60 m2 in the centre of the previous equipment room. The building was renovated in 1991, no repairs since then. All spaces are in extremely primitive condition and require renovations.	ei	63.00	6		kyllä	180.00	6	In poor condition		kyllä	100.00	6	In poor condition						

Traffic operating point	Building	Service point manager	Timetable screen	More information about railway traffic premises for rent
Akaa, Toijala	Station building	VR Group Ltd	No	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Espoo	Station bridge	City of Espoo, Premises Department	Yes	No vacancies. More information from City of Espoo, Premises Department
Espoo, Kauklahti	Station building	Senaatin Asema-alueet Oy	Yes	<a href="https://www.senaatti.fi/asema-alueet/">https://www.senaatti.fi/asema-alueet/</a>
Hamina	Building at traffic operating point	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Hanko	Station building	Senaatin Asema-alueet Oy	No	<a href="https://www.senaatti.fi/asema-alueet/">https://www.senaatti.fi/asema-alueet/</a>
Helsinki, Kannelmäki	Station	Helsinki City Transport HKL	Yes	Helsinki City Transport HKL, Building Management
Helsinki, Malmi	Station building	Senaatin Asema-alueet Oy	Yes	<a href="https://www.senaatti.fi/asema-alueet/">https://www.senaatti.fi/asema-alueet/</a>
Helsinki, Malminkartano	TunneliStation	Helsinki City Transport HKL	Yes	Helsinki City Transport HKL, Building Management
Helsinki, Pasila	Temporary station building/-bridge	YIT Rakennus Oy	Yes	Helsinki City Transport HKL, Building Management
Helsinki, Pasila	New station building	Kiinteistö Oy Uusi Pasilan Asema	Yes	Helsinki City Transport HKL, Building Management
Helsinki, Pohjois-Haaga	Station	Helsinki City Transport HKL	Yes	Helsinki City Transport HKL, Building Management
Helsinki	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Hyvinkää	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Hämeenlinna	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Iisalmi	Station building	Senaatin Asema-alueet Oy	Yes	<a href="https://www.senaatti.fi/asema-alueet/">https://www.senaatti.fi/asema-alueet/</a>
Imatra	Imatra	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Imatra	Imatra	Kiinteistö Oy Imatran keskusasema	Yes	REIM Imatra Oy
Joensuu	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Jyväskylä	Jyväskylä	Jyväskylä-Parkki Oy	Yes	<a href="#">Jyväskylä-Parkki Oy, facility issues (vacancies and prices)</a>
Järvenpää	Station building	Senaatin Asema-alueet Oy	Yes	<a href="https://www.senaatti.fi/asema-alueet/">https://www.senaatti.fi/asema-alueet/</a>
Kajaani	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Kauniainen	Station building	Senaatin Asema-alueet Oy	No	<a href="https://www.senaatti.fi/asema-alueet/">https://www.senaatti.fi/asema-alueet/</a>
Kemi	Station building	Senaatin Asema-alueet Oy	Yes	<a href="https://www.senaatti.fi/asema-alueet/">https://www.senaatti.fi/asema-alueet/</a>
Kemijärvi	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Kerava	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Kirkkonummi	Station building	Senaatin Asema-alueet Oy	No?	<a href="https://www.senaatti.fi/asema-alueet/">https://www.senaatti.fi/asema-alueet/</a>
Kokkola	Station building	Senaatin Asema-alueet Oy	Yes	<a href="https://www.senaatti.fi/asema-alueet/">https://www.senaatti.fi/asema-alueet/</a>
Kolari	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Kotka	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Kouvola	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Kuhmo, Vartius	Station building	VR Group Ltd	No	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Kuopio	Station building	Senaatin Asema-alueet Oy	Yes	<a href="https://www.senaatti.fi/asema-alueet/">https://www.senaatti.fi/asema-alueet/</a>
Lahti	Station building	Senaatin Asema-alueet Oy	Yes	<a href="https://www.senaatti.fi/asema-alueet/">https://www.senaatti.fi/asema-alueet/</a>
Lapinlahti	Station building	Nelson House Oy	Yes	Nelson House Oy, Lapinlahti. No vacancies.
Lappeenranta	Station and customs building	Senaatin Asema-alueet Oy	Yes	<a href="https://www.senaatti.fi/asema-alueet/">https://www.senaatti.fi/asema-alueet/</a>
Mikkeli	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Oulainen	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Oulu	Station building	Senaatin Asema-alueet Oy	Yes	<a href="https://www.senaatti.fi/asema-alueet/">https://www.senaatti.fi/asema-alueet/</a>
Parikkala	Station building	Municipality of Parikkala	Yes	Municipality of Parikkala, Head of Construction.
Parkano	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Pieksämäki	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Pori	Station building	Senaatin Asema-alueet Oy	Yes	<a href="https://www.senaatti.fi/asema-alueet/">https://www.senaatti.fi/asema-alueet/</a>
Raasepori	Station building	Senaatin Asema-alueet Oy	Yes	<a href="https://www.senaatti.fi/asema-alueet/">https://www.senaatti.fi/asema-alueet/</a>
Riihimäki	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Rovaniemi	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Seinäjoki	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Siilinjärvi	Station building	VR Group Ltd	No	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Tampere	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Tohmajärvi	Station building	VR Group Ltd	No	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Turku	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Turku, Kupittaa	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Tuusula, Jokela	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>
Vaasa	Station building, new waiting area	City of Vaasa	Yes	Airaksinen Capital Oy, Vaasa. Vacancies.
Vantaa	Station bridge, halt	City of Vantaa	Yes	City of Vantaa, Real Estate Centre
Vantaa, Kivistö	Station building	City of Vantaa	Yes	City of Vantaa, Real Estate Centre
Vantaa, Leinälä	Station bridge, halt	City of Vantaa	Yes	City of Vantaa, Real Estate Centre
Vantaa, Louhela	Station building	City of Vantaa	Yes	City of Vantaa, Real Estate Centre
Vantaa, Martiniiaakso	Station building	City of Vantaa	Yes	City of Vantaa, Real Estate Centre
Vantaa, Myyrmäki	Station building	City of Vantaa	Yes	City of Vantaa, Real Estate Centre
Vantaa, Vantaankoski	Station bridge, halt	City of Vantaa	Yes	City of Vantaa, Real Estate Centre
Varkaus	Station building	Varkauden keskusliikenneasema Oy	Yes	Realia isännöinti Oy, Varkaus.
Ylivieska	Station building	VR Group Ltd	Yes	<a href="#">VR Network Statement, Passenger stations (vacancies and prices)</a>

ID	Line section no	Line section	Railway device/building description	Type	Coordinates (N)	Coordinates (E)	Track	Owner of the device or building	Maintainer of the device or building	Manager of the device or building	Further information
ILR001	1109	Ilmala railway yard	1500 V heating point	heating centre	60.210284	24.929719					LP829-709 / LP522/523-710
ILR002	1109	Ilmala railway yard	1501 V heating point	heating centre	60.213765	24.931689					LP814-710 / LP813-709 between t.709-710
ILR003	1109	Ilmala railway yard	1502 V heating point	heating centre	60.213814	24.93137					LP816-712 / LP815-711 between t.711-712
ILR004	1109	Ilmala railway yard	1503 V heating point	heating centre	60.210347	24.929488					LP524/525 -712 / LP830-711 between t.711-712
ILR005	1109	Ilmala railway yard	1504 V heating point	heating centre	60.214751	24.923842	792-793				LP1008-793 between t.792-793
ILR006	1109	Ilmala railway yard	1505 V heating point	heating centre	60.215252	24.924398	792				LP1007-792 next to t.792 Käpylä end.
ILR007	1109	Ilmala railway yard	1506 V heating point	heating centre	60.214166	24.923558	787-788				LP1006-788 between t.787-788 Käpylä end
ILR008	1109	Ilmala railway yard	1507 V heating point	heating centre	60.214141	24.923691	786-787				LP1005-787 between t.787-786 Käpylä end
ILR009	1109	Ilmala railway yard	1508 V heating point	heating centre	60.213853	24.92371	785-786				LP1004-786 between t.786-785 Käpylä end
ILR010	1109	Ilmala railway yard	1509 V heating point	heating centre	60.213856	24.923806	784-785				LP1003-785 between t.785-784 Käpylä end
ILR011	1109	Ilmala railway yard	1510 V heating point	heating centre	60.214118	24.924121	784-783				LP1002-784 between t.783-784 Käpylä end
ILR012	1109	Ilmala railway yard	1511 V heating point	heating centre	60.214142	24.9241	783-782				LP1001-783 between t.782-783 Käpylä end
ILR013	1109	Ilmala railway yard	1512 V heating point	heating centre	60.216461	24.928611	169				LP27-169 next to t.169 at the dead stop rail
ILR014	1109	Ilmala railway yard	1513 V heating point	heating centre	60.216194	24.928397	167-168				LP26-168 / LP26-167 between t.167-168
ILR015	1109	Ilmala railway yard	1514 V heating point	heating centre	60.215921	24.928315	166-165				LP 25-166 / LP25-165 between t.165-166
ILR016	1109	Ilmala railway yard	1515 V heating point	heating centre	60.215695	24.928125	163-164				LP24-164 / LP24-163 between t.163-164
ILR017	1109	Ilmala railway yard	1516 V heating point	heating centre	60.215563	24.928088	161-162				LP23-162 / LP23-161 between t.162-161
ILR018	1109	Ilmala railway yard	1517 V heating point	heating centre	60.214916	24.927558	159-158				LP22-159 between t.159-158
ILR019	1109	Ilmala railway yard	1518 V heating point	heating centre	60.214684	24.927785	157-158				LP21-158 / LP21-157 between t.157-158
ILR020	1109	Ilmala railway yard	1519 V heating point	heating centre	60.214712	24.92769	155-156				LP20-156 / LP20-155 between t.155-156
ILR021	1109	Ilmala railway yard	1520 V heating point	heating centre	60.214664	24.927849	149-154				LP28-154 between t.149-154
ILR022	1109	Ilmala railway yard	1521 V heating point	heating centre	60.21505	24.928988	146-147				LP67-146 / LP67-147 between t.146-147
ILR023	1109	Ilmala railway yard	1522 V heating point	heating centre	60.214972	24.92914	144-145				LP66-144 / LP66-145 between t.144-145
ILR024	1109	Ilmala railway yard	1523 V heating point	heating centre	60.214957	24.929466	142-143				LP65-142 / LP65-143 between t.142-143
ILR025	1109	Ilmala railway yard	1524 V heating point	heating centre	60.214824	24.929516	137-138				LP64-137 / LP64-138 between t.137-138
ILR026	1109	Ilmala railway yard	1525 V heating point	heating centre	60.214759	24.929737	135-136				LP63-135 / LP63-136 between t.135-136
ILR027	1109	Ilmala railway yard	1526 V heating point	heating centre	60.214704	24.929828	133-134				LP62-133 / LP62-134 between t.133-134
ILR028	1109	Ilmala railway yard	1527 V heating point	heating centre	60.214975	24.930384	131-132				LP61-132 / LP61-131 between t.131-132
ILR029	1109	Ilmala railway yard	1528 V heating point	heating centre	60.214252	24.931952	812, 811				LP826-811 r.812 behind the dead rail stop next to t. 811
ILR030	1109	Ilmala railway yard	1529 V heating point	heating centre	60.214668	24.932075	813, 814				LP827-813 / LP828-814 r.813 next to t.814 behind the dead rail stop
ILR031	1109	Ilmala railway yard	1530 V heating point	heating centre	60.213484	24.929031	731-732				LP724-731 / LP723-732between t.731-732 maintenance platform for long-distance traffic
ILR032	1109	Ilmala railway yard	1531 V heating point	heating centre	60.210092	24.927081	731-732				LP512-732 / LP511-731 between t.731-732 maintenance platform for long-distance traffic
ILR033	1109	Ilmala railway yard	1532 V heating point	heating centre	60.213363	24.928866	734				LP713-734 next to t.734

ID	Line section no	Line section	Railway device/building description	Type	Coordinates (N)	Coordinates (E)	Track	Owner of the device or building	Maintainer of the device or building	Manager of the device or building	Further information
ILR034	1109	Ilmala railway yard	1533 V heating point	heating centre	60.213385	24.928779					Heating point t. 735 and LP715-736
ILR035	1109	Ilmala railway yard	1534 V heating point	heating centre	60.213271	24.928289	743				LP725-743 next to t.743
ILR036	1109	Ilmala railway yard	1535 V heating point	heating centre	60.213391	24.928687	737-738				LP716-737 / LP717-738 between t.737-738
ILR037	1109	Ilmala railway yard	1536 V heating point	heating centre	60.210832	24.926831	601				LP91-601 t.601
ILR038	1109	Ilmala railway yard	1537 V heating point	heating centre	60.210781	24.926676	602				LP93-602
ILR039	1109	Ilmala railway yard	1538 V heating point	heating centre	60.208375	24.926244	601				LP92-601 next to t.601
ILR040	1109	Ilmala railway yard	1539 V heating point	heating centre	60.208312	24.926083	602				LP94-602 next to t.602
ILR041	1109	Ilmala railway yard	1540 V heating point	heating centre	60.208317	24.925905	603				LP96-603 next to t.603
ILR042	1109	Ilmala railway yard	1541 V heating point	heating centre	60.208386	24.925685	604				LP98-604 next to t.604
ILR043	1109	Ilmala railway yard	1542 V heating point	heating centre	60.210529	24.926288	604				LP97-604 next to t.604
ILR044	1109	Ilmala railway yard	1543 V heating point	heating centre	60.210596	24.92639	603				LP95-603 next to t.603
ILR045	1109	Ilmala railway yard	1544 V heating point	heating centre	60.210295	24.926007	605				LP99-605 next to t.605
ILR046	1109	Ilmala railway yard	1545 V heating point	heating centre	60.21027	24.925949	606				LP910-606 next to t.606
ILR047	1109	Ilmala railway yard	1546 V heating point	heating centre	60.214201	24.931024	715-716				LP817-716 between t.715-716 Käpylä end
ILR048	1109	Ilmala railway yard	1500 V heating point, t.799-800 Russian train services	heating centre	60.215349	24.924133		FTIA	Eitel		LP1009-799 next to t.799
ILR049	1109	Ilmala railway yard	1501 V heating point, t.799-800 Russian train services	heating centre	60.215372	24.924092		FTIA	Eitel		LP1010-800 between t.799-800
ILR050	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.601-602	heating point	60.210761	24.926693	601-602				400V 63A 2pcs and 32A as well as 240V 16A 2pcs between t. 601-602 X13 X14
ILR051	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.601-602	heating point	60.209804	24.926501	601-602				400V 63A 2pcs and 32A as well as 240V 16A 2pcs X11 X12 between t. 601-602
ILR052	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.601-602	heating point	60.209525	24.926214	601-602				400V 63A 2pcs and 32A as well as 240V 16A 2pcs between t. 601-602 X09 X10
ILR053	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.601-602	heating point	60.209412	24.926257	601-602				400V 63A 2pcs and 32A as well as 240V 16A 2pcs X07 X08 between t. 601-602
ILR054	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.601-602	heating point	60.209198	24.926341	601-602				400V 63A 2pcs and 32A as well as 240V 16A 2pcs X07 X08 between t. 601-602
ILR055	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.601-602	heating point	60.20866	24.926085	601-602				400V 63A 2pcs and 32A as well as 240V 16A 2pcs X03 X04 between t. 602-602
ILR056	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.601-602	heating point	60.208449	24.926132	601-602				400V 63A 2pcs and 32A as well as 240V 16A 2pcs X01 X02 between t. 602-602
ILR057	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.603-604	heating point	60.20838	24.92585	603-604				400V 63A 2pcs and 32A as well as 240V 16A X16 X15 between t.603-604
ILR058	1109	Ilmala railway yard	400V kaukoliikenteen huoltotaso r.603-604	heating point	60.208626	24.926027	603-604				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs X18 X17between t.603-604
ILR059	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.603-604	heating point	60.209127	24.926083	603-604				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs between t.603-604 X20 X19
ILR060	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.603-604	heating point	60.209258	24.926099	603-604				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs between t.603-604 X22 X21

ID	Line section no	Line section	Railway device/building description	Type	Coordinates (N)	Coordinates (E)	Track	Owner of the device or building	Maintainer of the device or building	Manager of the device or building	Further information
ILR061	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.603-604	heating point	60.209532	24.926153	603-604				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs between t.603-604 X24 X23
ILR062	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.603-604	heating point	60.209773	24.926138	603-604				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs between t.603-604 X26 X25
ILR063	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.603-604	heating point	60.210425	24.926381	603-604				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs X28 X27 between t.603-604
ILR064	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.605-606	heating point	60.210234	24.925911	605-606				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs X35 X36 between t. 605-606
ILR065	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.605-606	heating point	60.209506	24.92576	605-606				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs X33 X34 between t.605-606
ILR066	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.605-606	heating point	60.209166	24.925627	605-606				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs X31 X32 between t.605-606
ILR067	1109	Ilmala railway yard	400V maintenance platform for long-distance traffic t.605-606	heating point	60.208919	24.925676	605-606				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs X29 X30 between t.605-606
ILR068	1109	Ilmala railway yard	400V t. 731-732 (734) maintenance platform for long-distance traffic	heating point	60.213376	24.928957	731-732				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs between t.731-732 X06
ILR069	1109	Ilmala railway yard	400V t. 731-732 (734) maintenance platform for long-distance traffic	heating point	60.212666	24.928692	731-733				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs between t.731-732 X05
ILR070	1109	Ilmala railway yard	400V t. 731-732 (734) maintenance platform for long-distance traffic	heating point	60.212258	24.928469	731-734				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs between t.731-732 X04
ILR071	1109	Ilmala railway yard	400V t. 731-732 (734) maintenance platform for long-distance traffic	heating point	60.211532	24.927599	731-735				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs between t.731-732 X03
ILR072	1109	Ilmala railway yard	400V t. 731-732 (734) maintenance platform for long-distance traffic	heating point	60.210852	24.92727	731-736				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs between t.731-732 X02
ILR073	1109	Ilmala railway yard	400V t. 731-732 (734) maintenance platform for long-distance traffic	heating point	60.210142	24.926777	731-737				400V 63A 2pcs and 32A as well as 240V 16A 2 pcs between t.731-732 X01
ILR074	1109	Ilmala railway yard	400V t. 731-732 (734) maintenance platform for long-distance traffic	heating point	60.213349	24.928863	734				400V 63A 2pcs and 32A as well as 240V 16A 2pcs next to t.734 X07
ILR075	1109	Ilmala railway yard	400V outside connection	heating point	60.210307	24.929779	709-710				400V 63A 2pcs and 16A as well as 240V 16A 2 pcs between t.709-710 väli
ILR076	1109	Ilmala railway yard	400V outside connection	heating point	60.211023	24.930148	709-710				400V 63A and 32A as well as 16A and 240V 16A between t.709-710 R9-PRK-4
ILR077	1109	Ilmala railway yard	400V outside connection	heating point	60.211897	24.930663	709-710				400V 63A, 32A and 16A as well as 240V 16A 2 pcs between t.709-710 R9 PRK-3
ILR078	1109	Ilmala railway yard	400V outside connection	heating point	60.21209	24.931042	708				400V 63A and 32A as well as 16A and 240V 16A 2 pcs next to t.708
ILR079	1109	Ilmala railway yard	400V outside connection	heating point	60.212854	24.93116	709-710				400V 63A, 32A and 16A as well as 240V 16A 2 pcs R9 PRK-2 between t.709-710
ILR080	1109	Ilmala railway yard	400V outside connection	heating point	60.213841	24.931788	709-710				400V 63A 2pcs and 16A as well as 240V 16A 2 pcs between t.709-710 Käpylä end
ILR082	1109	Ilmala railway yard	400V outside connection	heating point	60.213852	24.931443	711-712				R11 PRK-1 400V 63A and 32A as well as 16A and 240V 16A 2 pcs between t.711-712
ILR083	1109	Ilmala railway yard	400V outside connection	heating point	60.211926	24.930227	711-712				400V 63A and 16A as well as 240V 16A 2 pcs between t. 711-712
ILR084	1109	Ilmala railway yard	400V outside connection	heating point	60.210411	24.929471	711-712				400V 63A 2pcs and 32A as well as 16A and 240V 16A 2 pcs between t.711-712 Helsinki end
ILR085	1109	Ilmala railway yard	400V outside connection	heating point	60.213168	24.92293	788				400V 32A and 16A as well as 240V 16A 2 pcs next to t.788 own consumption gauge in the centre
ILR087	1109	Ilmala railway yard	400V outside connection	heating point	60.214686	24.927865	149-154				400V 63A and 32A as well as 240V 16A 2 pcs between t.149-154
ILR088	1109	Ilmala railway yard	400V outside connection	heating point	60.214699	24.928011	149				400V 63A and 32A as well as 240V 16A 2 pcs next to t.149







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ILR159	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.212111	24.930698	709-710				Vacuum suction device between t.709-710
ILR160	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.21227	24.930847	709-710				Vacuum suction device between t.709-710
ILR161	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.212463	24.930934	709-710				Vacuum suction device between t.709-710
ILR162	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.21293	24.931272	709-710				Vacuum suction device between t.709-710
ILR163	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.213191	24.931286	709-710				Vacuum suction device between t.709-710
ILR164	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.213399	24.931518	709-710				Vacuum suction device between t.709-710
ILR165	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.213399	24.931518	709-710				Vacuum suction device between t.709-710
ILR166	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.213633	24.931618	709-710				Vacuum suction device between t.709-710
ILR167	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.213645	24.931165	711-712				Vacuum suction device between t.711-712
ILR168	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.213393	24.931014	711-712				Vacuum suction device between t.711-712
ILR169	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.213167	24.93091	711-712				Vacuum suction device between t.711-712
ILR170	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.212942	24.930795	711-712				Vacuum suction device between t.711-712
ILR171	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.21272	24.930684	711-712				Vacuum suction device between t.711-712
ILR172	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.2125	24.930564	711-712				Vacuum suction device between t.711-712
ILR173	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.212243	24.93045	711-712				Vacuum suction device between t.711-712
ILR174	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.212036	24.93035	711-712				Vacuum suction device between t.711-712
ILR175	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.211823	24.930191	711-712				Vacuum suction device between t.711-712
ILR176	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.211556	24.930075	711-712				Vacuum suction device between t.711-712
ILR177	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.211415	24.930099	711-712				Vacuum suction device between t.711-712
ILR178	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.211153	24.929928	711-712				Vacuum suction device between t.711-712
ILR179	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.21098	24.929649	711-712				Vacuum suction device between t.711-712
ILR180	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.210699	24.929608	721-712				Vacuum suction device between t.711-712

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ILR181	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.210493	24.929561	711-712				Vacuum suction device between t.711-712
ILR182	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.210306	24.929459	711-712				Vacuum suction device between t.711-712
ILR183	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.210132	24.929299	711-712				Vacuum suction device between t.711-712
ILR184	1109	Ilmala railway yard	Vacuum suction point WC t.709-710 and t.711-712	vacuum suction device	60.209851	24.929149	711-712				Vacuum suction device between t.711-712
ILR185	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.215836	24.923188	801-802				Vacuum suction device between t.801-802, no cold water connection R802 30
ILR186	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.215676	24.923169	801-802				Vacuum suction device and cold water between t.801-802 R802 29
ILR187	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.215565	24.923059	801-802				Vacuum suction device and cold water between t.801-802 R802 28
ILR188	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.215533	24.922965	801-802				Vacuum suction device and cold water between t.801-802 R802 27
ILR189	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.215351	24.922962	801-802				Vacuum suction device and cold water between t.801-802 R802 26
ILR190	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.215241	24.923005	801-802				Vacuum suction device and cold water between t.801-802 R802 25
ILR191	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.215121	24.922715	801-802				Vacuum suction device and cold water between t.801-802 R802 24
ILR192	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.214972	24.922675	801-802				Vacuum suction device and cold water between t.801-802 R802 23
ILR193	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.214865	24.922668	801-802				Vacuum suction device and cold water between t.801-802 R802 22
ILR194	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.214807	24.922447	801-802				Vacuum suction device and cold water between t.801-802 R802 21
ILR195	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.214586	24.92262	801-802				Vacuum suction device and cold water between t.801-802 R802 20
ILR196	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.214507	24.922477	801-802				Vacuum suction device and cold water between t.801-802 R802 19
ILR197	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.214374	24.922524	801-802				Vacuum suction device and cold water between t.801-802 R802 18
ILR198	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.214325	24.922337	801-802				Vacuum suction device and cold water between t.801-802 R802 17
ILR199	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.214158	24.922324	801-802				Vacuum suction device and cold water between t.801-802 R802 16
ILR200	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.214055	24.922174	801-802				Vacuum suction device and cold water between t.801-802 R802 15
ILR201	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.214096	24.922218	801-802				Vacuum suction device and cold water between t.801-802 R802 14
ILR202	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.213849	24.922068	801-802				Vacuum suction device and cold water between t.801-802 R802 13

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ILR203	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.21368	24.922145	801-802				Vacuum suction device and cold water between t.801-802 R802 12
ILR204	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.213615	24.922116	801-802				Vacuum suction device and cold water between t.801-802 R802 11
ILR205	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.21353	24.922046	801-802				Vacuum suction device and cold water between t.801-802 R802 10
ILR206	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.213393	24.921931	801-802				Vacuum suction device and cold water between t.801-802 R802 09
ILR207	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.213281	24.921971	801-802				Vacuum suction device and cold water between t.801-802 R802 08
ILR208	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.213081	24.921633	801-802				Vacuum suction device and cold water between t.801-802 R802 07
ILR209	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.213064	24.921795	801-802				Vacuum set t.801-802 and water main shut t.801-802
ILR210	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.213068	24.921641	801-802				Vacuum suction device and cold water between t.801-802 R802 06
ILR211	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.212923	24.921529	801-802				Vacuum suction device and cold water between t.801-802 R802 05
ILR212	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.212771	24.921436	801-802				Vacuum suction device and cold water between t.801-802 R802 04
ILR213	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.212639	24.921413	801-802				Vacuum suction device and cold water between t.801-802 R802 03
ILR214	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.212596	24.92141	801-802				Vacuum suction device and cold water between t.801-802 R802 02
ILR215	1109	Ilmala railway yard	Vacuum suction point WC t.801-802 and clean water	vacuum suction device	60.212493	24.921363	801-802				Vacuum suction point between t. 801-802, no cold water connection R802 01
ILR216	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.212548	24.921325	803-804				Vacuum suction point between t.803-804, no clean water outlet R804 01
ILR217	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.212641	24.921233	803-804				Vacuum suction point between t.803-804 R804 02 cold-water outlet
ILR218	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.212732	24.921291	804				Vacuum suction point and cold water R804 03
ILR219	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.212949	24.921272	804				Vacuum suction point and cold water R804 04
ILR220	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.21302	24.921331	803-804				Vacuum suction point and cold water between t.803-804 R804 05
ILR221	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.213084	24.921453	803-804				Vacuum suction point and cold water between t.803-804 R804 06
ILR222	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.213125	24.921544	803-804				Vacuum set t.803-804 and water main shut t.803-804, Vacuum suction point and cold water t.803-804 R804 07
ILR223	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.213216	24.921487	803-804				Vacuum suction point and cold water between t.803-804 R804 08
ILR224	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.213329	24.921569	803-804				Vacuum suction point and cold water between t.803-804 R804 09

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ILR225	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.213379	24.921607	803-804				Vacuum suction point and cold water between t.803-804 R804 10
ILR226	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.21354	24.921732	803-804				Vacuum suction point and cold water between t.803-804 R804 11
ILR227	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.213663	24.921848	803-804				Vacuum suction point and cold water between t.803-804 R804 12
ILR228	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.213749	24.921823	803-804				Vacuum suction point and cold water between t.803-804 R804 13
ILR229	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.213918	24.921898	803-804				Vacuum suction point and cold water between t.803-804 R804 14
ILR230	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.213964	24.921992	803-804				Vacuum suction point and cold water between t.803-804 R804 15
ILR231	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.214095	24.922054	803-804				Vacuum suction point and cold water between t.803-804 R804 16
ILR232	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.214232	24.922147	803-804				Vacuum suction point and cold water between t.803-804 R804 17
ILR233	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.214322	24.922225	803-804				Vacuum suction point and cold water between t.803-804 R804 18
ILR234	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.214469	24.922354	803-804				Vacuum suction point and cold water between t.803-804 R804 19
ILR235	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.214574	24.922445	803-804				Vacuum suction point and cold water between t.803-804 R804 20
ILR236	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.214685	24.922477	803-804				Vacuum suction point and cold water between t.803-804 R804 21
ILR237	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.214782	24.922529	803-804				Vacuum suction point and cold water between t.803-804 R804 22
ILR238	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.214913	24.922566	803-804				Vacuum suction point and cold water between t.803-804 R804 23
ILR239	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.21507	24.922666	803-804				Vacuum suction point and cold water between t.803-804 R804 24
ILR240	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.215254	24.922812	803-804				Vacuum suction point and cold water between t.803-804 R804 25
ILR241	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.215366	24.92281	803-804				Vacuum suction point and cold water between t.803-804 R804 26
ILR242	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.215482	24.922952	803-804				Vacuum suction point and cold water between t.803-804 R804 27
ILR243	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.215589	24.923195	803-804				Vacuum suction point and cold water between t.803-804 R804 28
ILR244	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.215689	24.923132	803-804				Vacuum suction point and cold water between t.803-804 R804 29
ILR245	1109	Ilmala railway yard	Vacuum suction point WC t.803-804 and clean water	vacuum suction device	60.215813	24.923154	803-804				Vacuum suction point, no cold water hose between t. 803-804 R804 30
ILR246	1109	Ilmala railway yard	Sanding service Helsinki Ilmala	hiekanantolaite	60.20929	24.925394	608				Also water hose reel and glass and windscreen washing fluid as well as outdoor connection 400V 63A
ILR247	1109	Ilmala railway yard	Sanding service Helsinki Ilmala	hiekanantolaite	60.20929	24.925498	607				Sanding service Helsinki Ilmala t.607-608 Water hose reel and windscreen washing fluid

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ILR248	1109	Ilmala railway yard	Sanding service Helsinki Ilmala	hiekanantolaite	60.209298	24.925503	607				400V 63A on the t.607 side
ILR249	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.210726	24.926682	601-602				R601 IMU 20
ILR250	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.21059	24.926673	601-602				R601 IMU 19
ILR251	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.210464	24.926635	601-602				R601 IMU 18
ILR252	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.21033	24.926577	601-602				R601 IMU 17
ILR253	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.210227	24.926617	601-602				R601 IMU 16
ILR254	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.210055	24.926509	601-602				R601 IMU 15
ILR255	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.209927	24.926424	601-602				R601 IMU 14
ILR256	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.20984	24.926503	601-602				R601 IMU 13
ILR257	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.209779	24.92636	601-602				R601 IMU 12
ILR258	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.209588	24.926064	601-602				R601 IMU 11
ILR259	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.209533	24.926238	601-602				R601 IMU 10
ILR260	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.209411	24.92623	601-602				R601 IMU 09
ILR261	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.209309	24.92619	601-602				R601 IMU 08
ILR262	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.20927	24.926208	601-602				R601 IMU 07
ILR263	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.209065	24.926213	601-602				R601 IMU 06
ILR264	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.208933	24.9261	601-602				R601 IMU 05

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ILR265	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.208856	24.926153	601-602				R601 IMU 04
ILR266	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.208708	24.926072	601-602				R601 IMU 03
ILR267	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.20861	24.926105	601-602				R601 IMU 02
ILR268	1109	Ilmala railway yard	Vacuum suction point between t.601-602, maintenance platform for long-distance traffic	suction pump	60.208459	24.926144	601-602				R601 IMU 01
ILR269	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.208386	24.92586	603-604				R603 IMU 01
ILR270	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.208521	24.925898	603-604				R603 IMU 02
ILR271	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.208672	24.925979	603-604				R603 IMU 03
ILR272	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.208729	24.925885	603-604				R603 IMU 04
ILR273	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.208896	24.926088	603-604				R603 IMU 05
ILR274	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.209027	24.925981	603-604				R603 IMU 06
ILR275	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.209157	24.92612	603-604				R603 IMU 07
ILR276	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.209283	24.926016	603-604				R603 IMU 08
ILR277	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.209258	24.926099	603-604				R603 IMU 09
ILR278	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.209371	24.926133	603-604				R603 IMU 10
ILR279	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.209551	24.926153	603-604				R603 IMU 11
ILR280	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.209678	24.926185	603-604				R603 IMU 12



ID	Line section no	Line section	Railway device/building description	Type	Coordinates (N)	Coordinates (E)	Track	Owner of the device or building	Maintainer of the device or building	Manager of the device or building	Further information
ILR281	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.209857	24.926154	603-604				R603 IMU 13
ILR282	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.209923	24.926188	603-604				R603 IMU 14
ILR283	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.210025	24.926216	603-604				R603 IMU 15
ILR284	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.210145	24.926285	603-604				R603 IMU 16
ILR285	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.210263	24.926298	603-604				R603 IMU 17
ILR286	1109	Ilmala railway yard	Vacuum suction point between t.603-604, maintenance platform for long-distance traffic	suction pump	60.210381	24.926316	603-604				R603 IMU 18
ILR287	1109	Ilmala railway yard	Vacuum suction point between t.605-606, maintenance platform for long-distance traffic	suction pump	60.210242	24.925995	605-606				R605 IMU 12
ILR288	1109	Ilmala railway yard	Vacuum suction point between t.605-606, maintenance platform for long-distance traffic	suction pump	60.210049	24.925913	605-606				R605 IMU 11
ILR289	1109	Ilmala railway yard	Vacuum suction point between t.605-606, maintenance platform for long-distance traffic	suction pump	60.209956	24.925907	605-606				R605 IMU 10
ILR290	1109	Ilmala railway yard	Vacuum suction point between t.605-606, maintenance platform for long-distance traffic	suction pump	60.209839	24.925873	605-606				R605 IMU 09
ILR291	1109	Ilmala railway yard	Vacuum suction point between t.605-606, maintenance platform for long-distance traffic	suction pump	60.209755	24.925833	605-606				R605 IMU 08
ILR292	1109	Ilmala railway yard	Vacuum suction point between t.605-606, maintenance platform for long-distance traffic	suction pump	60.209618	24.925806	605-606				R605 IMU 07
ILR293	1109	Ilmala railway yard	Vacuum suction point between t.605-606, maintenance platform for long-distance traffic	suction pump	60.209485	24.92579	605-606				R605 IMU 06
ILR294	1109	Ilmala railway yard	Vacuum suction point between t.605-606, maintenance platform for long-distance traffic	suction pump	60.209383	24.92584	605-606				R605 IMU 05
ILR295	1109	Ilmala railway yard	Vacuum suction point between t.605-606, maintenance platform for long-distance traffic	suction pump	60.209347	24.925837	605-606				R605 IMU 04
ILR296	1109	Ilmala railway yard	Vacuum suction point between t.605-606, maintenance platform for long-distance traffic	suction pump	60.209165	24.925702	605-606				R605 IMU 03

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ILR297	1109	Ilmala railway yard	Vacuum suction point between t.605-606, maintenance platform for long-distance traffic	suction pump	60.209044	24.925676	605-606				R605 IMU 02
ILR298	1109	Ilmala railway yard	Vacuum suction point between t.605-606, maintenance platform for long-distance traffic	suction pump	60.208935	24.925808	605-606				R605 IMU 01
ILR299	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.213363	24.929039	731-732				R731 IMU 28
ILR300	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.213159	24.928958	731-732				R731 IMU 27
ILR301	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.213078	24.928904	731-732				R731 IMU 26
ILR302	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.212979	24.928924	731-732				R731 IMU 25
ILR303	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.212961	24.928811	731-732				R731 IMU 24
ILR304	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.212711	24.928742	731-732				R731 IMU 23
ILR305	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.212621	24.928685	731-732				R731 IMU 22
ILR306	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.212512	24.92867	731-732				R731 IMU 21
ILR307	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.212402	24.928579	731-732				R731 IMU 20
ILR308	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.212271	24.928504	731-732				R731 IMU 19
ILR309	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.212173	24.928422	731-732				R731 IMU 18
ILR310	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.212067	24.928169	731-732				R731 IMU 17
ILR311	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.211945	24.928091	731-732				R731 IMU 16
ILR312	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.211786	24.928009	731-732				R731 IMU 15
ILR313	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.211695	24.927841	731-732				R731 IMU 14
ILR314	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.211546	24.927625	731-732				R731 IMU 13
ILR315	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.211506	24.927684	731-732				R731 IMU 12
ILR316	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.21139	24.927622	731-732				R731 IMU 11
ILR317	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.21124	24.927593	731-732				R731 IMU 10
ILR318	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.211166	24.927588	731-732				R731 IMU 09
ILR319	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.21095	24.927333	731-732				R731 IMU 08
ILR320	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.21086	24.927274	731-732				R731 IMU 07
ILR321	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.21081	24.927336	731-732				R731 IMU 06
ILR322	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.210719	24.927401	731-732				R731 IMU 05
ILR323	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.210624	24.92728	731-732				R731 IMU 04
ILR324	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.210411	24.927247	731-732				R731 IMU 03
ILR325	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.210304	24.926912	731-732				R731 IMU 02
ILR326	1109	Ilmala railway yard	Vacuum suction point between t.731-732	suction pump	60.210205	24.926672	731-732				R731 IMU 01
ILR327	1109	Ilmala railway yard	Waste points at Ilmala railway yard	waste point	60.210122	24.925627	606-607	VR			Several throughout the railway yard, Lassila & Tikanoja responsible for emptying, VR's waste containers.

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ILR328	1109	Ilmala railway yard	Steam, water and air outlets t.731-732	Steam, water and air outlet	60.213396	24.929084	731-732				R731 LVI-Ö 15 Cold and hot water, compressed air and fuel oil. Collecting pan on both tracks at each outlet.
ILR329	1109	Ilmala railway yard	Steam, water and air outlets t.731-732	Steam, water and air outlet	60.213096	24.928879	731-732				R731 LVI-Ö 14 Cold and hot water, compressed air and fuel oil. Collecting pan on both tracks at each outlet.
ILR330	1109	Ilmala railway yard	Steam, water and air outlets t.731-732	Steam, water and air outlet	60.212292	24.928737	731-732				R731 LVI-Ö 13 Cold and hot water, compressed air and fuel oil. Collecting pan on both tracks at each outlet.
ILR331	1109	Ilmala railway yard	Steam, water and air outlets t.731-732	Steam, water and air outlet	60.212649	24.928743	731-732				R731 LVI-Ö 12 Cold and hot water, compressed air and fuel oil. Collecting pan on both tracks at each outlet.
ILR332	1109	Ilmala railway yard	Steam, water and air outlets t.731-732	Steam, water and air outlet	60.212423	24.928572	731-732				R731 LVI-Ö 11 Cold and hot water, compressed air and fuel oil. Collecting pan on both tracks at each outlet.
ILR333	1109	Ilmala railway yard	Steam, water and air outlets t.731-732	Steam, water and air outlet	60.212204	24.928471	731-732				R731 LVI-Ö 10 Cold and hot water, compressed air and fuel oil. Collecting pan on both tracks at each outlet.
ILR334	1109	Ilmala railway yard	Steam, water and air outlets t.731-732	Steam, water and air outlet	60.211196	24.928088	731-732				R731 LVI-Ö 09 Cold and hot water, compressed air and fuel oil. Collecting pan on both tracks at each outlet.
ILR335	1109	Ilmala railway yard	Steam, water and air outlets t.731-732	Steam, water and air outlet	60.211173	24.927857	731-732				R731 LVI-Ö 08 Cold and hot water, compressed air and fuel oil. Collecting pan on both tracks at each outlet.
ILR336	1109	Ilmala railway yard	Steam, water and air outlets t.731-732	Steam, water and air outlet	60.211497	24.927606	731-732				R731 LVI-Ö 07 Cold and hot water, compressed air and fuel oil. Collecting pan on both tracks at each outlet.
ILR337	1109	Ilmala railway yard	Steam, water and air outlets t.731-732	Steam, water and air outlet	60.211278	24.927566	731-732				R731 LVI-Ö 06 Cold and hot water, compressed air and fuel oil. Collecting pan on both tracks at each outlet.
ILR338	1109	Ilmala railway yard	Steam, water and air outlets t.731-732	Steam, water and air outlet	60.211042	24.927538	731-732				R731 LVI-Ö 05 Cold and hot water, compressed air and fuel oil. Collecting pan on both tracks at each outlet.
ILR339	1109	Ilmala railway yard	Steam, water and air outlets t.731-732	Steam, water and air outlet	60.210797	24.927337	731-732				R731 LVI-Ö 04 Cold and hot water, compressed air and fuel oil. Collecting pan on both tracks at each outlet.
ILR340	1109	Ilmala railway yard	Steam, water and air outlets t.731-732	Steam, water and air outlet	60.210671	24.927329	731-732				R731 LVI-Ö 03 Cold and hot water, compressed air and fuel oil. Collecting pan on both tracks at each outlet.
ILR341	1109	Ilmala railway yard	Steam, water and air outlets t.731-732	Steam, water and air outlet	60.21033	24.927027	731-732				R731 LVI-Ö 02 Cold and hot water, compressed air and fuel oil. Collecting pan on both tracks at each outlet.
ILR342	1109	Ilmala railway yard	Steam, water and air outlets t.731-732	Steam, water and air outlet	60.210103	24.926956	731-732				R731 LVI-Ö 01 Cold and hot water, compressed air and fuel oil. Collecting pan on both tracks at each outlet.
ILR343	1109	Ilmala railway yard	Steam, water and air outlets t.799-800	Steam, water and air outlet	60.212545	24.921788	799-800				R799 LVI1 between t. 799-800. Tracks for Russian train services and their expenses (incl. outlets) are paid by the FTIA - not by VR's Helsinki depot. Compressed air and water at the outlet.
ILR344	1109	Ilmala railway yard	Steam, water and air outlets t.799-800	Steam, water and air outlet	60.213005	24.922067	799-800				R799 LVI2 between t. 799-800. Tracks for Russian train services and their expenses (incl. outlets) are paid by the FTIA - not by VR's Helsinki depot. Compressed air and water at the outlet.
ILR345	1109	Ilmala railway yard	Steam, water and air outlets t.799-800	Steam, water and air outlet	60.213546	24.922325	799-800				R799 LVI3 between t. 799-800. Tracks for Russian train services and their expenses (incl. outlets) are paid by the FTIA - not by VR's Helsinki depot. Compressed air and water at the outlet.
ILR346	1109	Ilmala railway yard	Steam, water and air outlets t.799-800	Steam, water and air outlet	60.213887	24.922483	799-800				R799 LVI4 between t. 799-800. Tracks for Russian train services and their expenses (incl. outlets) are paid by the FTIA - not by VR's Helsinki depot. Compressed air and water at the outlet.
ILR347	1109	Ilmala railway yard	Steam, water and air outlets t.799-800	Steam, water and air outlet	60.214368	24.922722	799-800				R799 LVI5 between t. 799-800. Tracks for Russian train services and their expenses (incl. outlets) are paid by the FTIA - not by VR's Helsinki depot. Compressed air and water at the outlet.
ILR348	1109	Ilmala railway yard	Steam, water and air outlets t.799-800	Steam, water and air outlet	60.21478	24.922886	799-800				R799 LVI6 between t. 799-800. Tracks for Russian train services and their expenses (incl. outlets) are paid by the FTIA - not by VR's Helsinki depot. Compressed air and water at the outlet.
ILR349	1109	Ilmala railway yard	Steam, water and air outlets t.799-800	Steam, water and air outlet	60.215132	24.923382	799-800				R799 LVI7 between t. 799-800. Tracks for Russian train services and their expenses (incl. outlets) are paid by the FTIA - not by VR's Helsinki depot. Compressed air and water at the outlet.
ILR350	1109	Ilmala railway yard	Steam, water and air outlets t.799-800	Steam, water and air outlet	60.215359	24.924206	799-800				R799 LVI8 between t. 799-800. Tracks for Russian train services and their expenses (incl. outlets) are paid by the FTIA - not by VR's Helsinki depot. Compressed air and water at the outlet.
ILR351	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.210367	24.929728	709-710				R9 LVI-16 outlet between t.709-710. Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets and fuel oil discontinued at posts R9 LVI-8 - R9 LVI-16 at the Helsinki end. Collecting pans on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR352	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.210543	24.929854	709-710				R9 LVI-15 between t.709-710. Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets and fuel oil discontinued at posts R9 LVI-8 - R9 LVI-16 at the Helsinki end. Collecting pans on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.

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ILR353	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.210803	24.930071	709-710				R9 LVI-14 between t.709-710. Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets and fuel oil discontinued at posts R9 LVI-8 - R9 LVI-16 at the Helsinki end. Collecting pans on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR354	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.211068	24.930071	709-710				R9 LVI-13 between t.709-710. Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets and fuel oil discontinued at posts R9 LVI-8 - R9 LVI-16 at the Helsinki end. Collecting pans on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR355	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.211269	24.930262	709-710				R9 LVI-12 between t.709-710. Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets and fuel oil discontinued at posts R9 LVI-8 - R9 LVI-16 at the Helsinki end. Collecting pans on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR356	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.2115	24.930427	709-710				R9 LVI-11 between t.709-710. Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets and fuel oil discontinued at posts R9 LVI-8 - R9 LVI-16 at the Helsinki end. Collecting pans on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR357	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.211756	24.930546	709-710				R9 LVI-10 between t.709-710. Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets and fuel oil discontinued at posts R9 LVI-8 - R9 LVI-16 at the Helsinki end. Collecting pans on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR358	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.211971	24.930681	709-710				R9 LVI-9 between t.709-710. Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets and fuel oil discontinued at posts R9 LVI-8 - R9 LVI-16 at the Helsinki end. Collecting pans on both tracks at each outlet.
ILR359	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.212176	24.930726	709-710				R9-LVI-8 between t.709-710. Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets and fuel oil discontinued at posts R9 LVI-8 - R9 LVI-16 at the Helsinki end. Collecting pans on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR360	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.212403	24.930897	709-710				R9 LVI-7 fuel oil, Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pans on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR361	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.212605	24.93106	709-710				R9 LVI-6 pö, Paineilma, lämminvesi, kylmävesi ja höyry. Alipaineviemäri poistettu käytöstä kaikista posteista. Jokaisen postin kohdalla varoallas molemmilla raitteilla. Postin Hki päässä tietyt liittännät ja Käpylään päässä tietyt, postit identtisiä, lähes kaikissa lisäksi 240V 16A 2 kpl.
ILR362	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.212838	24.931204	709-710				R9 LVI-5 fuel oil between t.709-710 Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR363	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.213072	24.931284	709-710				R9 LVI-4 fuel oil between t.709-710 Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR364	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.21328	24.931427	709-710				R9 LVI-3 fuel oil between t.709-710 Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR365	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.21354	24.931618	709-710				R9 LVI-2 fuel oil between t.709-710 Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR366	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.213734	24.931594	709-710				R9 LVI-1 fuel oil between t.709-710 Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR368	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.213785	24.931372	711-712				R11 LVI-1 fuel oil between t.711-712 Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.

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ILR369	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.213538	24.931167	711-712				R11 LVI-2 fuel oil between t.711-712 Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR370	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.21332	24.931034	711-712				R11 LVI-3 fuel oil between t.711-712 Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR371	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.213097	24.930935	711-712				R11 LVI-4 fuel oil between t.711-712 Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR372	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.212852	24.930746	711-712				R11 LVI-5 fuel oil between t.711-712 Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR373	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.212713	24.930758	711-712				R11 LVI-6 fuel oil between t.711-712 Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR374	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.212404	24.930633	711-712				R11 LVI-7 fuel oil between t.711-712 Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR375	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.212196	24.930531	711-712				R11 LVI-8 between t.711-712, Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. No fuel oil at outlets R11 LVI-8 - R11 LVI-16. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR376	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.211958	24.930281	711-712				R11 LVI-9 between t.711-712, Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. No fuel oil at outlets R11 LVI-8 - R11 LVI-16. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR377	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.211729	24.930179	711-712				R11 LVI-10 between t.711-712, Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. No fuel oil at outlets R11 LVI-8 - R11 LVI-16. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR378	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.21155	24.93019	711-712				R11 LVI-11 between t.711-712, Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. No fuel oil at outlets R11 LVI-8 - R11 LVI-16. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR379	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.211278	24.92998	711-712				R11 LVI-12 between t.711-712, Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. No fuel oil at outlets R11 LVI-8 - R11 LVI-16. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR380	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.211084	24.929908	711-712				R11 LVI-13 between t.711-712, Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. No fuel oil at outlets R11 LVI-8 - R11 LVI-16. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR381	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.210906	24.92979	711-712				R11 LVI-14 between t.711-712, Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. No fuel oil at outlets R11 LVI-8 - R11 LVI-16. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR382	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.210622	24.929717	711-712				R11 LVI-15 between t.711-712, Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. No fuel oil at outlets R11 LVI-8 - R11 LVI-16. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.

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ILR383	1109	Ilmala railway yard	Steam, water and air outlets t.708, t. 709-710 and t.711-712	Steam, water and air outlet	60.210399	24.929491	711-712				R11 LVI-16 between t.711-712, Compressed air, hot and cold water and steam. Vacuum main discontinued at all outlets. Collecting pan on both tracks at each outlet. No fuel oil at outlets R11 LVI-8 - R11 LVI-16. Certain outlet connections at the Hki end and certain outlets at the Käpylä end are identical, nearly all of them have two 240V 16A.
ILR384	1109	Ilmala railway yard	Steam, water and air outlets between t. 601-602	Steam, water and air outlet	60.210758	24.92668	601-602				R601 LVI 11 At these outlets: hot and cold water, compressed air. Fuel oil at outlets with the symbol Ö, collecting pans on both tracks at these outlets.
ILR385	1109	Ilmala railway yard	Steam, water and air outlets between t. 601-602	Steam, water and air outlet	60.210479	24.926608	601-602				R601 LVI 10 At these outlets: hot and cold water, compressed air. Fuel oil at outlets with the symbol Ö, collecting pans on both tracks at these outlets.
ILR386	1109	Ilmala railway yard	Steam, water and air outlets between t. 601-602	Steam, water and air outlet	60.210261	24.926605	601-602				R601 LVI-Ö 09 At these outlets: hot and cold water, compressed air. Fuel oil at outlets with the symbol Ö, collecting pans on both tracks at these outlets.
ILR387	1109	Ilmala railway yard	Steam, water and air outlets between t. 601-602	Steam, water and air outlet	60.209975	24.926482	601-602				R601 LVI-Ö 08 At these outlets: hot and cold water, compressed air. Fuel oil at outlets with the symbol Ö, collecting pans on both tracks at these outlets.
ILR388	1109	Ilmala railway yard	Steam, water and air outlets between t. 601-602	Steam, water and air outlet	60.209782	24.92645	601-602				R601 LVI-Ö 07 At these outlets: hot and cold water, compressed air. Fuel oil at outlets with the symbol Ö, collecting pans on both tracks at these outlets.
ILR389	1109	Ilmala railway yard	Steam, water and air outlets between t. 601-602	Steam, water and air outlet	60.209575	24.926195	601-602				R601 LVI-Ö 06 At these outlets: hot and cold water, compressed air. Fuel oil at outlets with the symbol Ö, collecting pans on both tracks at these outlets.
ILR390	1109	Ilmala railway yard	Steam, water and air outlets between t. 601-602	Steam, water and air outlet	60.209344	24.92621	601-602				R601 LVI-Ö 05 At these outlets: hot and cold water, compressed air. Fuel oil at outlets with the symbol Ö, collecting pans on both tracks at these outlets. .
ILR391	1109	Ilmala railway yard	Steam, water and air outlets between t. 601-602	Steam, water and air outlet	60.209154	24.926299	601-602				R601 LVI-Ö 04 At these outlets: hot and cold water, compressed air. Fuel oil at outlets with the symbol Ö, collecting pans on both tracks at these outlets.
ILR392	1109	Ilmala railway yard	Steam, water and air outlets between t. 601-602	Steam, water and air outlet	60.208865	24.92619	601-602				R601 LVI-Ö 03 At these outlets: hot and cold water, compressed air. Fuel oil at outlets with the symbol Ö, collecting pans on both tracks at these outlets.
ILR393	1109	Ilmala railway yard	Steam, water and air outlets between t. 601-602	Steam, water and air outlet	60.208643	24.926076	601-602				R601 LVI 02 At these outlets: hot and cold water, compressed air. Fuel oil at outlets with the symbol Ö, collecting pans on both tracks at these outlets.
ILR394	1109	Ilmala railway yard	Steam, water and air outlets between t. 601-602	Steam, water and air outlet	60.208417	24.926179	601-602				R601 LVI 01 At these outlets: hot and cold water, compressed air. Fuel oil at outlets with the symbol Ö, collecting pans on both tracks at these outlets.
ILR395	1109	Ilmala railway yard	Steam, water and air outlets between t. 603-604	Steam, water and air outlet	60.208322	24.925931	603-604				R603 LVI 01
ILR396	1109	Ilmala railway yard	Steam, water and air outlets between t. 603-604	Steam, water and air outlet	60.208617	24.925838	603-604				R603 LVI 02
ILR397	1109	Ilmala railway yard	Steam, water and air outlets between t. 603-604	Steam, water and air outlet	60.208937	24.925957	603-604				R603 LVI-Ö 03
ILR398	1109	Ilmala railway yard	Steam, water and air outlets between t. 603-604	Steam, water and air outlet	60.209034	24.926033	603-604				R603 LVI-Ö 04
ILR399	1109	Ilmala railway yard	Steam, water and air outlets between t. 603-604	Steam, water and air outlet	60.209261	24.926103	603-604				R603 LVI-Ö 05
ILR400	1109	Ilmala railway yard	Steam, water and air outlets between t. 603-604	Steam, water and air outlet	60.209493	24.926178	603-604				R603 LVI-Ö 06
ILR401	1109	Ilmala railway yard	Steam, water and air outlets between t. 603-604	Steam, water and air outlet	60.209737	24.926176	603-604				R603 LVI-Ö 07
ILR402	1109	Ilmala railway yard	Steam, water and air outlets between t. 603-604	Steam, water and air outlet	60.20997	24.926214	603-604				R603 LVI-Ö 08
ILR403	1109	Ilmala railway yard	Steam, water and air outlets between t. 603-604	Steam, water and air outlet	60.210197	24.926277	603-604				R603 LVI 09

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ILR404	1109	Ilmala railway yard	Steam, water and air outlets between t. 603-604	Steam, water and air outlet	60.210518	24.926379	603-604				R603 LVI 10
ILR405	1109	Ilmala railway yard	Steam, water and air outlets between t. 605-606	Steam, water and air outlet	60.210338	24.925944	605-606				R605 LVI 07
ILR406	1109	Ilmala railway yard	Steam, water and air outlets between t. 605-606	Steam, water and air outlet	60.210001	24.925938	605-606				R605 LVI 06
ILR407	1109	Ilmala railway yard	Steam, water and air outlets between t. 605-606	Steam, water and air outlet	60.209772	24.925828	605-606				R606 LVI-Ö 05
ILR408	1109	Ilmala railway yard	Steam, water and air outlets between t. 605-606	Steam, water and air outlet	60.209555	24.925833	605-606				R605 LVI-Ö 04
ILR409	1109	Ilmala railway yard	Steam, water and air outlets between t. 605-606	Steam, water and air outlet	60.209353	24.925828	605-606				R605 LVI-Ö 03
ILR410	1109	Ilmala railway yard	Steam, water and air outlets between t. 605-606	Steam, water and air outlet	60.209122	24.925808	605-606				R605 LVI 02
ILR411	1109	Ilmala railway yard	Steam, water and air outlets between t. 605-606	Steam, water and air outlet	60.208818	24.925696	605-606				R605 LVI 01
ILR412	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.210365	24.92977	709-710				Compressed air for main air supply pipe and brake testing system between t.709-710 Helsinki end
ILR413	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.213786	24.931697	709-710				Compressed air for main air supply pipe and brake testing system between t.709-710 Käpylä end
ILR414	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.213865	24.931312	711-712				Compressed air for main air supply pipe and brake testing system between t.711-712 Käpylä end
ILR415	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.210243	24.929488	711-712				Compressed air for main air supply pipe and brake testing system between t.711-712 Helsinki end
ILR416	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.214751	24.923842	792-793				Compressed air for main air supply pipe and brake testing system between t.792-793
ILR417	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.215264	24.924641	792				Compressed air for main air supply pipe and brake testing system t.792 Käpylä end
ILR418	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.214101	24.923785	787-788				Compressed air for main air supply pipe and brake testing system between t.787-788 Käpylä end
ILR419	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.214153	24.923697	786-787				Compressed air for main air supply pipe and brake testing system between t.786-787 Käpylä end
ILR420	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.213891	24.923796	785-786				Compressed air for main air supply pipe and brake testing system between t.786-785 Käpylä end
ILR421	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.213847	24.923762	784-785				Compressed air for main air supply pipe and brake testing system between t.784-785 Käpylä end
ILR422	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.214118	24.924121	784-783				Compressed air for main air supply pipe and brake testing system between t.783-784 Käpylä end
ILR423	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.214142	24.9241	783-782				Compressed air for main air supply pipe and brake testing system between t.783-782 Käpylä end
ILR424	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.213459	24.929036	731-732				Compressed air for main air supply pipe and brake testing system between t.731-732 Käpylä end
ILR425	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.210143	24.92723	731-732				Compressed air for main air supply pipe and brake testing system between t.731-732 Helsinki end

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ILR426	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.213363	24.928866	714				Compressed air for main air supply pipe and brake testing system next to t. 714 Käpylä end
ILR427	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.213387	24.928802	735-736				Compressed air for main air supply pipe and brake testing system between t. 735-736, Käpylä end
ILR428	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.213287	24.928282	743				Compressed air for main air supply pipe and brake testing system next to t. 734, Käpylä end
ILR429	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.21344	24.928693	737-738				Compressed air for main air supply pipe and brake testing system between t. 737-738, Käpylä end
ILR430	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.210814	24.926722	601				Compressed air for main air supply pipe and brake testing system t. 601
ILR431	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.210771	24.926691	602				Compressed air for main air supply pipe and brake testing system t. 602, Käpylä end
ILR432	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.208343	24.926211	601				Compressed air for main air supply pipe and brake testing system t. 601, Helsinki end
ILR433	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.208335	24.926159	602				Compressed air for main air supply pipe and brake testing system t. 602, Helsinki end
ILR434	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.208319	24.925938	603				Compressed air for main air supply pipe and brake testing system t. 603, Helsinki end
ILR435	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.208316	24.925761	604				Compressed air for main air supply pipe and brake testing system t. 604
ILR436	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.210571	24.926427	604				Compressed air for main air supply pipe and brake testing system next to t. 604
ILR437	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.210598	24.926393	603				Compressed air for main air supply pipe and brake testing system next to t. 603
ILR438	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.210309	24.926155	605				Compressed air for main air supply pipe and brake testing system t. 605, Käpylä end
ILR439	1109	Ilmala railway yard	Compressed air for main air supply pipe and brake testing system	Compressed air outlet	60.210298	24.925964	606				Compressed air for main air supply pipe and brake testing system t. 606, Käpylä end
ILR440	1109	Ilmala railway yard	Compressed air for main air supply	Compressed air outlet	60.216408	24.928633	169				Compressed air for main air supply t.169
ILR441	1109	Ilmala railway yard	Compressed air for main air supply	Compressed air outlet	60.216123	24.928426	167-168				Compressed air for main air supply t.167-168
ILR442	1109	Ilmala railway yard	Compressed air for main air supply	Compressed air outlet	60.215909	24.928332	165-166				Compressed air for main air supply between t.165-166
ILR443	1109	Ilmala railway yard	Compressed air for main air supply	Compressed air outlet	60.21568	24.928083	163-164				Compressed air for main air supply between t.163-164
ILR444	1109	Ilmala railway yard	Compressed air for main air supply pipe	Compressed air outlet	60.215512	24.928177	161-162				Compressed air for main air supply between t.161-162
ILR445	1109	Ilmala railway yard	Compressed air for main air supply pipe	Compressed air outlet	60.214915	24.927646	158-159				Compressed air for main air supply between t.158-159
ILR446	1109	Ilmala railway yard	Compressed air for main air supply pipe	Compressed air outlet	60.214812	24.927653	157-158				Compressed air for main air supply between t.157-158
ILR447	1109	Ilmala railway yard	Compressed air for main air supply pipe	Compressed air outlet	60.214689	24.927702	154, 155, 156				Compressed air for main air supply t. 144, 145 and 146
ILR448	1109	Ilmala railway yard	Compressed air for main air supply pipe	Compressed air outlet	60.214958	24.929064	146-147				Compressed air for main air supply between t.146-147
ILR449	1109	Ilmala railway yard	Compressed air for main air supply pipe	Compressed air outlet	60.21497	24.929149	144-145				Compressed air for main air supply between t.144-145
ILR450	1109	Ilmala railway yard	Compressed air for main air supply pipe	Compressed air outlet	60.214937	24.929482	142-143				Compressed air for main air supply between t.142-143
ILR451	1109	Ilmala railway yard	Compressed air for main air supply pipe	Compressed air outlet	60.21488	24.92957	137-138				Compressed air for main air supply between t.137-138



ID	Line section no	Line section	Railway device/building description	Type	Coordinates (N)	Coordinates (E)	Track	Owner of the device or building	Maintainer of the device or building	Manager of the device or building	Further information
ILR452	1109	Ilmala railway yard	Compressed air for main air supply pipe	Compressed air outlet	60.214759	24.929633	135-136				Compressed air for main air supply between t.135-136
ILR453	1109	Ilmala railway yard	Compressed air for main air supply pipe	Compressed air outlet	60.214643	24.929859	133-134				Compressed air for main air supply between t.133-134
ILR454	1109	Ilmala railway yard	Compressed air for main air supply pipe	Compressed air outlet	60.215012	24.930165	131-132				Compressed air for main air supply between t.131-132
ILR455	1109	Ilmala railway yard	Compressed air for main air supply pipe	Compressed air outlet	60.214238	24.932054	812				Compressed air for main air supply t. 812 behind the dead stop rail
ILR456	1109	Ilmala railway yard	Compressed air for main air supply pipe	Compressed air outlet	60.214595	24.932105	813				Compressed air for main air supply t. 813
ILR457	1109	Ilmala railway yard	Compressed air for main air supply pipe	Compressed air outlet	60.214679	24.931983	813-814				Compressed air for main air supply between t.813-814
ILR458	1109	Ilmala railway yard	Compressed air outlet t.799-800	Compressed air outlet	60.215427	24.924192	799-800	Liikennevirasto			Compressed for main air supply and brake testing system between t.799-800, received in spring 2016, RATEK
ILR459	1109	Ilmala railway yard	Compressed air outlet t.799-800	Compressed air outlet	60.215405	24.924259	799	Liikennevirasto			Compressed for main air supply and brake testing system next to t.799, received in spring 2016, RATEK
ILR460	1109	Ilmala railway yard	Fuel tank	tank	60.211539	24.926024		VR	Caverion		Fuel tank is filled with car transports. No tanking facilities at the tank. Fuel tank fire extinguisher, inspection OK.
ILR461	1109	Ilmala railway yard	Electric connection? 125?	Electrical room	60.21003	24.926473	601-602				Electric connection between t.601-602, for Russian rolling stock
ILR462	1109	Ilmala railway yard	Electric connection? 125?	Electrical room	60.20906	24.926179	601-602				Electric connection 125A between t.601-602, for Russian rolling stock
ILR463	1109	Ilmala railway yard	Electric connection? 125?	Electrical room	60.209003	24.92598	603-604				Electric connection 125A between t.603-604, for Russian rolling stock
ILR464	1109	Ilmala railway yard	Electric connection? 125?	Electrical room	60.209691	24.926165	603-604				Electric connection 125A between t.603-604, for Russian rolling stock
ILR465	1109	Ilmala railway yard	Electric connection? 125?	Electrical room	60.209486	24.925761	605-606				Electric connection 125A between t.605-606, for Russian rolling stock
ILR466	1109	Ilmala railway yard	Oil-absorbing mat	Oil-absorbing mat	60.213568	24.927594	748	VR			Oil-absorbing mat t. 748, new
ILR467	1109	Ilmala railway yard	Oil-absorbing mat	Oil-absorbing mat	60.213419	24.927799	747	VR			Oil-absorbing mat t. 747, new
ILR468	1109	Ilmala railway yard	Oil-absorbing mat	Oil-absorbing mat	60.212706	24.927278	747	VR			Oil-absorbing mat t. 747, Helsinki, new
ILR469	1109	Ilmala railway yard	Oil-absorbing mat	Oil-absorbing mat	60.212625	24.927255	748	VR			Oil-absorbing mat t. 748, Helsinki, new







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## Safety issues

### Reporting safety anomalies and forwarding of safety information

The infrastructure manager is responsible for the safety in the state-owned rail network. Railway operators shall report accidents, safety anomalies and dangerous situations to the rail traffic control, which forwards this information to the Rail Traffic Management Centre. The report shall be submitted on the same working day as the safety anomaly occurred. Serious safety anomalies shall be reported immediately. The railway operator shall submit a report, regardless of whether or not the railway operator itself is involved or the anomaly affects its operations. In the report, it shall be stated whether the anomaly occurred in the state-owned rail network or elsewhere in the railway network.

All railway operators shall enter information about incidents or dangerous situations involving train and shunting operations (safety anomalies) into the infrastructure manager's TURI system. The following incidents must be reported:

#### Train services

- Collisions
- Collisions between trains
- Collisions between a train and a vehicle unit
- Train collision with obstacle
- Derailing
- Level crossing accidents
- Unauthorised passing of stop aspect (risk of collision)
- Unauthorised passing of stop aspect (no risk of collision)
- Route protection failure (obstruction on track)
- Route protection failure (no obstruction on track)
- Train departure without required preparations
- Train running without a functional ATP onboard unit without permission from the traffic control
- Breaking-loose of a train
- Overspeed of train
- Overheating
- Fire or explosion in vehicle unit
- Leakage of dangerous goods
- Accidents involving dangerous goods (emissions)
- Accidents involving dangerous goods (no emissions)
- Signal aspect changing into stop aspect during train operations (train passing the signal)
- Signal aspect changing into stop aspect during train operations (no train passing the signal)
- Defective cab vehicle ATP (railway undertakings report this quarterly)
- Breaking away of vehicle units during transport
- Other anomalies
- Fatalities: passengers
- Fatalities: personnel
- Fatalities: third parties
- Seriously injured: passengers
- Seriously injured: personnel
- Seriously injured: third parties

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**Shunting operations**

- Collisions of shunting units and other rolling stock units
- Shunting unit hitting an obstacle
- Derailing of shunting unit
- Passing of stop aspect during shunting operations (risk of collision)
- Passing of stop aspect during shunting operations (no risk of collision)
- Unauthorised shunting operations
- Bursting open the points during shunting operations
- Directing to the wrong track during shunting operations
- Accidents involving dangerous goods during shunting operations (emissions)
- Accidents involving wagons carrying dangerous goods during shunting operations (no emissions)
- Fire or explosion in a vehicle unit during shunting operations
- Runaway vehicle unit during shunting operations
- Other anomalies
- Fatalities (passengers, personnel, third parties)
- Seriously injured (passengers, personnel, third parties)
- Slightly injured (passengers, personnel, third parties)

Railway operators shall report anomalies affecting safety (as listed above) and enter them into the TURI system. Data can be submitted as data transfers between systems, or the railway operator can enter the anomalies directly into the TURI system. Correspondingly, the infrastructure manager can transmit information about anomalies concerning the railway operator from the TURI system in a manner separately agreed upon with the railway operator.

If the information cannot be transferred via the TURI system, the information about safety anomalies shall be submitted in a monthly report. The parties shall agree between themselves on the data transfer process, technical arrangements and implementation of the system.

Moreover, the railway undertaking shall submit written reports on and analyses of safety anomalies that have occurred in the traffic control of shunting operations, if the traffic control of shunting operations is handled by the railway undertaking using the operations control equipment of the Infrastructure Manager. It is not possible for the Infrastructure Manager to acquire these reports and analyses via the traffic control service in its use.

The aforementioned information can be extracted from the railway operator's system for handling anomalies and the like.

**Reporting damages and defects**

The railway operators shall immediately report observed defects or malfunctions in the railway network to the railway traffic control of the Infrastructure Manager. For the investigation of each case, the railway operator shall contact the railway manager of the Infrastructure Manager. The Infrastructure Manager is obliged to inform the railway operators about observed damages to rolling stock or defects in it.

### **Occupational safety in railway yards**

In the railway yards, the Infrastructure Manager is responsible for keeping the infrastructure in operable condition, whereby occupational safety is ensured and the provisions in the legislation as well as the requirements in the Railway Track Technical Instructions (RATO) are met.

Railway operators are responsible for the condition of their rolling stock operated in the railway yards and for traffic safety.

The railway operator is responsible for the occupational safety of its employees in the railway yards and for the safety aspects involved in the handling of the devices and rolling stock in their possession.

When storing rolling stock, the railway operator must ensure that it is stationary and that stop blocks are used and stored properly.

### **Precautionary action to be taken by the railway operator**

The railway operator shall be prepared for accidents and exceptional situations as provided by law. The Infrastructure Manager collaborates with the railway operators in implementing precautionary measures. The Infrastructure Manager publishes guidelines for railway operators on railway accident preparedness (OVRO). The railway operator shall integrate the OVRO procedures into its own operations. Additionally, the railway operator shall follow the Infrastructure Manager's further instructions on how to prepare for exceptional situations.

## Description of track access in the railway yards at state-owned traffic operating points

This appendix describes the operations and collaboration regarding traffic operating points in the state-owned railway network, as well as track access in railway yards. The procedures for track access in Finnish railway yards have been described in the Network Statement and in the Infrastructure Manager's (IM) guidelines. The operations and specific features of each traffic operating point shall, if necessary, be described and agreed upon in the network access agreement and in the separate railway yard agreements enclosed in the access agreement. Enclosures regarding specific traffic operating points may be added to the access agreement during the agreement period. As a rule, rolling stock is not maintained or cleaned at traffic operating points or on railway yard tracks. This requires making a specific agreement with the IM.

### **1 Agreements regarding track access at traffic operating points, traffic control and the situational awareness management required for operations**

The need for access to tracks in the railway yards and the right to track access are negotiated and included in the network access agreement. Railway operators shall complement this plan with information about the required services and need for access to railway yard tracks closer to the time when capacity is needed. Applications for ad hoc capacity shall include information about the need for access to railway yards and the required services. The need for storage sidings shall be reported by contacting the local traffic control. For long-term reservations, either traffic control or the traffic operator shall note the storage siding reservation in a JETI advance plan or in the data systems by using the track reservation tool. The required services may be reported as additional information in the capacity application or by contacting traffic planning or traffic control. Railway operators operating at one single traffic operating point shall report their need for access to the railway yard when drawing up the network access agreement.

Needs for storage of rolling stock (track reservations) shall be reported to the Infrastructure Manager for each traffic operating point in connection with the request for annual capacity. Starting from the beginning of the 2018 timetable period, railway operators shall register all long-term (10 days or more) storages in the JETI system.

If museum train operators need to store their rolling stock in the state-owned railway network, they must enter into an agreement about storage with the Infrastructure Manager. The entry of such an agreement is always decided on a case-by-case basis, and the Infrastructure Manager may reject the agreement on reasonable grounds. Applications for agreements shall be addressed to kirjaamo(at)fta.fi.

During congestions, the railway operator shall move its stationary rolling stock within a reasonable amount of time to another location assigned by the IM. If necessary, the IM or the Rail Traffic Management Centre will define the meaning of "a reasonable amount of time".

Decisions on meeting urgent storage needs (under 10 days) are made by traffic planning in the traffic control area, the traffic operator of the track in question, or, if necessary, by the Rail Traffic Management Centre. The decision is based on situational awareness (this includes reviewing of the situation with the various actors in the railway yard, if needed).



In situations where occasional or short-term track access is needed, and the railway operator neither has an established need for track access, nor has been granted capacity at the traffic operating point in question, traffic planning in the traffic control area shall be contacted for short-term storage needs in connection with transport. Prior to making the decision, traffic planning reviews the railway yard situation with the actors operating in the railway yard and informs the parties of the reached decision. In urgent potential conflict situations, the Rail Traffic Management Centre will make the final decision. The Rail Management Centre decides on the rail capacity of railway yards and gives an operative solution to track access in demanding situations, including urgent, short-term storage needs.

Based on the track access needs in railway yards reported by the railway operators, the IM assesses whether there is a need to draw up a separate railway yard agreement for the specific traffic operating point or apply a different capacity management procedure. The railway operators shall report any changes in their operations that affect both the needs for track access in railway yards during the timetable period and the issues described in this appendix or in the railway yard agreement to the IM as soon as possible.

The railway operators, on their part, shall ensure, from a track access perspective (including necessary transfers of rolling stock), that maintenance can be performed in the railway yard. The effectiveness of the maintenance processes is developed in collaboration with railway operators as deemed necessary. The railway operators shall submit their suggestions on various inspection needs to the Infrastructure Manager by the end of March. In this way, the different inspection needs can be optimally coordinated and scheduled.

Operations on the railway yard may not intentionally obstruct the operations of another party. Rolling stock may not be unnecessarily stored at turnouts or single cross-overs (for example during breaks). It must be possible to operate between the parts of the railway yards.

The enclosures specific to the traffic operating points (railway yard agreement) describe the possible railway yard-specific procedures for the common management of the situational awareness on railways.

The IM and its service providing traffic control company are responsible for the traffic control at traffic operating points. Traffic control in a limited area is performed by the service provider responsible for maintenance in that specific area. More detailed information (contact information, procedures and roles regarding granting of permits) can be found (in Finnish) on the IM's website under the heading, "Liikenteenohjauksen yhteystiedot" (Traffic control contact information):

<https://vayla.fi/palveluntuottajat/aineistot/ratatiedon-extranet>

Operating permits and access to shunting frames are granted by the traffic operator/the person issuing permits in the respective area. The traffic operator issues operating permits within the limits of the allocated rail capacity. The area limits where these permits are applicable have been described in the track diagram of each traffic operating point. The communication regarding the operating permits shall comply with the IM's guidelines and the Network Statement.

The services included in the basic infrastructure charge, and the chargeable services, have been described in the Network Statement. Access to these services shall be agreed upon in the network access agreement and in its enclosures specific to each traffic operating point (railway yard agreements).

## **2 Priority criteria for operations, issuing of permits and track access**

The priority criteria for operations, issuing of permits and track access applied on railway yards have been described in the Network Statement.

These priority criteria shall be applied, provided that the use of the capacity has not been registered as allocated rail capacity in the LIIKE system.

Permits for similar operations are issued in the order that they have been requested. The traffic operator will consider the permits to move track work units (due to malfunctions, service and other movements) at the traffic operating point on a case-by-case basis.

The traffic operator shall take the traffic impact of the disruption or the malfunction into account when issuing operating permits. The priority order of the permit shall also be taken into account.

As a rule, the Rail Traffic Management Centre strives to assign an alternative track for the train traffic/shunting operations in situations where a permit to use a storage siding has been issued and the siding is already used for storage of rolling stock, and where the siding, for well-grounded reasons, is needed for operations of higher priority. If it is not possible to provide an alternative track, the railway operator shall, without unnecessary delay, move its stationary rolling stock to a location assigned by Rail Traffic Management Centre. If the railway operator fails to arrange for its rolling stock to be moved within a reasonable amount of time, another railway operator may move the wagons, as referred to in Section 4.8.2, to ensure smooth flow of traffic. In an urgent operational situation, the rolling stock of another railway operator may be moved with the Rail Traffic Management Centre's permission, if it is not possible to contact the rolling stock manager. If necessary, the Rail Traffic Management Centre will define the meaning of "a reasonable amount of time".

The aim of track access in railway yards is to ensure smooth and predictable operations, so that there is sufficient information about track reservations and the general need for access before permits to store rolling stock on the track are issued. A conflict situation as described above is an exceptional situation to be resolved separately.

## **3 Reporting and notifying malfunctions observed in railway yards**

Staff working in railway yards shall report any malfunctions that they have observed to the traffic operator of the traffic operating point. Based on the malfunction report, the traffic operator shall impose the required restrictions affecting operations before the repair work commences. The traffic operator shall notify all parties of malfunctions affecting operations.

#### **4 Track work reservations and notifications**

The time limits and procedures described in Section 4.5 shall be applied when coordinating significant track works and train services. Short track possessions for urgent maintenance operations are planned on the terms of the train services, specified and entered into the Advance Information System. In this way, capacity is reserved for railway infrastructure management, and cannot be used by railway operators. Traffic planning in the respective traffic control areas are responsible for the collaboration and notifications. Urgent malfunctions shall be repaired with the permission of traffic control, whereby services may have to be restricted during the repair work.

#### **5 Action in case of accidents and incidents and the required collaboration**

Railway operators are committed to helping each other during incidents in order to reduce the inconvenience affecting the level of service.

Incidents must immediately be reported to traffic control. In case of an incident, the party requiring assistance shall contact the Rail Traffic Management Centre, which will decide on the assistance measures according to the Railway Act. The assistance measure shall be managed by a person designated by the unit requiring assistance and this person shall take the IM's instructions on assistance into account.

In case of accidents, the IM's guidelines on railway accidents (OVRO) shall be followed.

#### **6 Railway yards handling dangerous goods**

Those operating in the railway yards shall be able to take action according to the legislation on the carriage of dangerous goods by rail, as well as the safety report and rescue plan of the railway yard handling dangerous goods. If necessary, the parties shall participate in joint exercises organised in the area, the time and length of which shall be agreed upon separately.

#### **7 Further items**

##### ***7.1 Moving the rolling stock of another railway operator***

In situations where the rolling stock of another party have to be moved, the rolling stock manager's permission is required. The railway operators shall agree between themselves on possible costs incurred from moving the rolling stock.

##### ***7.2 Other practices***

The railway yard agreements, specific for each traffic operating point, list the issues where the actors in the railway yards shall follow uniform work instructions and agree between themselves on practices at the traffic operating point in question. Examples of such issues include:

- Daily communication (including contact information)
- Management of railway situational awareness
- Possible familiarisation training

**7.3** *The use of JETI data in railway yards and in shunting operations between parts of railway yards*

The JETI system is used for train operations. Data in the JETI system are not primarily used in railway yards (with the exception of long-term storage of rolling stock), nor for shunting operations between the parts of the railway yards. However, the JETI system may be useful for planning shunting operations, as it provides advance and real-time information about track works in the railway yard and in its parts. Users of the JETI system shall note that the data in the system may change rapidly, since the system is continually updated.

**8 Participating in the collaboration and monitoring the operating models for track access in railway yards**

Applicants for rail capacity, railway operators and the Infrastructure Manager shall outline the best practices for effective collaboration and inspection procedures for the regional inspections of railway yards, among other things. The railway operators shall submit their suggestions on various inspection needs to the Infrastructure Manager by the end of March of each year. In this way, the different inspection needs can be optimally coordinated and scheduled. Every autumn, regional meetings for planning snow clearance works or other collaboration procedures are arranged. Railway operators are invited to these meetings. The collaboration models for the safety work have been described in the access agreement.

The execution of the issues in this appendix, possible amendments and other issues regarding track access in railway yards are negotiated in connection with the monitoring of the network access agreement. For those traffic operating points, for which a specific railway yard agreement has been drawn up, a collaboration meeting between the parties to the agreement will be arranged, if this is deemed necessary. The IM is responsible for arranging this meeting. The parties to the agreement specific for the railway yard shall assign their representatives for a follow-up meeting.

Anomalies regarding the accessibility due to railway traffic and railway infrastructure management will be monitored and the actions taken will be determined in a manner as agreed upon in the network access agreement.

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## DESCRIPTION AND PRICING OF THE TRAFFIC CONTROL SERVICE FOR SHUNTING OPERATIONS SUPPLIED BY THE INFRASTRUCTURE MANAGER (IM)

### 1 Description of the traffic control service supplied by the infrastructure manager

This document describes the traffic control services supplied by the IM to the railway operators in the class 1 traffic control area in return for the infrastructure charge, as included in the allocated rail capacity. The document also includes descriptions of such traffic control services that the IM may supply to railway operators that are not included in the infrastructure charge but instead covered by a separate service charge. Provision of traffic control services not covered by the infrastructure charge shall be agreed upon with the IM. Services requiring interlocking and shunting operations shall be agreed upon with the provider of other services, depending on the traffic operating point.

### 2 Traffic control service in return for the infrastructure charge

#### Train traffic control

##### Trains departing from their departure station

- Moving a locomotive to the front of an already coupled set of wagons (including change of locomotives while underway)
- Moving a set of wagons from a storage siding or loading siding to the departure track. This also includes moving a full departing set of wagons in a railway yard to the departure track, if the train cannot depart from the sorting siding due to the infrastructure.

##### Shunting operations and locomotives looping intermediate traffic operating points:

- Permission for shunting operations
- Local permissions
- Moving the locomotive from one end of the set of wagons to the other when changing direction.

Removing suddenly damaged rolling stock from the train, immediate actions.

##### Trains arriving at their destination station:

- Moving the locomotive from the front of the set of wagons to a storage siding or yard track (also applies to locomotives changed while underway)
- Moving an arriving train, without changing the train formation, from the departure siding to a storage siding, a loading/unloading track (or to a new departure track, see below)
- Moving a locomotive, which has hauled an arriving set of wagons to a storage siding, a loading/unloading track or to a new departure track, to a storage siding or yard track, or to the front of a departing set of wagons (on-call operations covered by a separate service charge).

##### On-call units:

- Permission for shunting operations
- Local permissions

If a traffic control service covered by the infrastructure charge described here cannot be fully provided due to technical circumstances (operation of points) by anyone other than the railway operator's staff travelling in the rolling stock, this is not considered "shunting operations in line service", and therefore the railway operator shall not invoice the IM for these operations.

Similarly, if there is no local traffic control staff or shunting or signal box operators in the railway yard, the railway operator shall operate the points.

Moving departing sets of wagons to departure tracks and arriving trains to service or storage sidings are included in the basic infrastructure charge.

The additional service charge covers arrangements regarding rolling stock which have been damaged in Helsinki and in the railway network, moving parts of arriving sets of wagons to another departure track, as well as sorting sets of wagons for service or storage.

The required changes are discussed in the meetings on railway network access.

### 3 Pricing of the traffic control service for shunting operation

The traffic control service for shunting operations supplied by the Finnish Transport Infrastructure Agency is a chargeable additional service. The pricing of traffic control service for shunting operations is based on performance. The railway operator's need for a control service, the time used for traffic control shunting operations and the performance-based price for traffic control have been taken into account when calculating the price. The traffic control performance refers to the so-called shunting route in one direction.

- The railway operator reports his need of traffic control to the IM in a mutually agreed-upon manner. The quantity describing the control need is determined on a case-by-case basis (for example, shunting route, quantity, time)
- The time used for the traffic control performance and the performance quantity is specified/confirmed at least twice a year on the basis of the weekly follow-up carried out by Oy Finrail Ltd. The time spent on the autumn's follow-up is taken into account in the charges of the following year's first six months (January–June) and the spring's follow-up in the charges of the last six months (July–December). The practices of any other follow-up times are agreed upon in the access agreement.
- A 12% margin is added to the results of the weekly follow-ups in order to ensure availability of the service and flexibility in situations that change daily without having to reserve resources in advance.
- In accordance with the Ministry of Transport and Communications' Decree on the chargeable performances of the Finnish Transport Infrastructure Agency (1147/2018), the traffic control service for shunting operations is a fixed-price performance governed by public law. In 2019, the price of the performance is EUR 70/hour.

The Finnish Transport Infrastructure Agency invoices the supplied service monthly during the contract period.

The checking/verifying of the information on the need for control services submitted by the railway operator is based on the weekly follow-ups carried out by Oy Finrail Ltd. If changes occur in the traffic control of the railway yard, the performance and invoicing procedure is examined based on the changed situation.

## Electricity transfer fees in the contact line network from 1 January 2019

The transfer fee is charged on a monthly basis (VAT 0).

	Basic fee/tractive unit		Transfer fee from high-voltage networks		Fee for contact-line dissipation
	With gauges	Without gauges	Winter months*)	Other months	
<b>Fees</b>	v = 35 €/month	w = 35 €/month	x = 8.80 €/MWh	y = 5.55 €/MWh	z = 50 €/MWh

\*) The winter months are December, January and February

### Basis for railway operators' transfer fee

	Basic fee				Transfer fee from high-voltage networks			Dissipation fee	
	With gauges Units		Without gauges Units		Consumption	Winter months	Other months	Dissipation	
	Quantity	€/month	Quantity	€/month	MWh/month	€/month	€/month	MWh/month	€/month
Railway operator	a quantity	a*v €	b quantity	b*w €	m MWh	m*x €	m*y €	n MWh	n*z €

The transfer fee comprises the basic fee specified for the tractive unit, the average transfer fee from high-voltage networks in winter months/other months, and the contact-line dissipation costs.

- The basic fee specified for the tractive unit is based on the measurement and reporting services required for the procurement of electric power. The basic fee is based on the estimated total quantity of the transport operator's tractive units. The basic fee may also change if the number of traction units belonging to the Erex system changes.
- The transfer fee from high-voltage networks is based on the transfer fees from the main grid and high-voltage distribution networks. An average transfer fee is used in the whole rail network. A different price is set for the winter months, since the high-voltage networks also charge a higher transfer fee in winter.
- The net consumption of the individual consumption targets subtracted from the net consumption of feeder stations equals the contact-line dissipations. The transfer dissipation determined for fixed consumption targets is 3.3 %. The dissipation cost is based on the actual price of electric power procured by the Infrastructure Manager in 2019. The transfer fee in the price list is based on an average cost estimate for 2019.



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