



Finnish Transport
Infrastructure Agency

DIGIROAD

Covering letter for the material
publication 1/2025



1/2025 DIGIROAD

Picture: Finnish Transport Infrastructure Agency
E-Publication (pdf) (www.vayla.fi/digiroad)



Finnish Transport
Infrastructure Agency

Table of contents

Digiroad-publication 1/2025	2
Paved road code value changes	3
Functional class changes.....	4
The geometry of the road network has been updated to September 2024 situation.....	4
Published data objects	5
Data structure.....	5
Road Link Data	6
Digiroad R and Digiroad K	8
Next publication.....	8
Contact of the Digiroad operator	8

Digiroad-publication 1/2025

Digiroad Publication 1/2025 includes road link geometry obtained from the National Land Survey on 17.9.2024.

- The municipal union of Mäntyharju and Pertunmaa is considered in the address information of the road links. But the Tampere and Lempäälä partly municipal union is not considered in the address information of the road links.
- Two construction projects that opened to traffic at the end of 2024 have been converted into use at road network.
 - improvement of highway 4 at the Kevätlahti exit, Äänekoski
 - Highway 180 Hessundinsalmi bridge renewal, Parainen.
- **Regarding the highway network**, the information on the data objects corresponds to the situation in February 2022 regarding the following data types: Lit road, paved road, road width and pedestrian crossings. During 2025, the goal is to implement the integration into the Finnish Transport Infrastructure Agency's Tievalho, after which the road data types will be updated
- **Regarding the street network**, the information of the data types corresponds to the situation in January 2025. Traffic signs supplied or maintained by the municipalities have been utilized in the maintenance of street network information for approximately 80 municipalities.
- **Regarding the private road network**, the traffic restriction information corresponds to the situation in January 2025, for those municipal private roads that have applied for the municipality's or ELY center's private road subsidy.
- **The speed limits** have been updated on the roads to reflect the December 2024 situation of the Finnish Transport Infrastructure Agency, and the street network has been updated for the municipalities of Espoo, Vantaa, Tampere, Pori, Seinäjoki, Porvoo, Kotka, Rauma, Kaarina and Kemi to reflect the summer 2024 situation. In addition, for approximately 80 municipalities, the speed limits have been updated to match the traffic signs provided or maintained by the municipality.
- **Maximum allowed mass, height and width restrictions** have been updated to match the values of the road signs at the points in question. The sources have been traffic signs supplied by the FTIA`s Tievalho and the municipalities.
- **The public transport**, local transport, long-distance transport and express service types of public transport stops have been changed to bus stops in accordance with the current Road Traffic Act.
- **Traffic signs** can now only have three additional signs instead of five.
- **Note.** The data types of the previous material publications of the attributes of data types have been changed back from text format to integer or floating-point format.

Paved road code value changes

The pavement type of Digiroad's paved road data type (concrete, stone, hard and soft asphalt concretes, gravel road surfacing, gravel wear layer, other coatings, unknown) is previously implemented based on the Tierekisteri data type *137 road pavement* code. In Tievalho the pavement classes are at a more precise level than in Tierekisteri. Both Digiroad's current data model and Tievalho's data model are too specific for Digiroad's needs. In Digiroad's Tievalho integration, the classifications of the output system have been generalized to meet Digiroad's needs.

PAVED ROAD				
Attribute value	Data type	Description	New Code values	
Class	Code value	Describes the pavement type of the road.	1 Asphalt	Hard and soft asphalt concrete and all other asphalts
			2 Stone	Stacked surface structures (concrete-stone, natural stone, stone)
			3 Unbound wear layers	Gravel, crushed stone, stone ash
			4 Other pavement categories	Concrete, steel, wood, coatings (sod wheel coating, sprinkler coating, slurry coating)
			99 Paved, type unknown	The road identified as paved based on the aerial image

Digiroad's old code values have been converted to new ones as follows:

Old code value	New code value
1 Concrete	4 Other pavement categories
2 Stone	2 Stone
10 Hard asphalt concretes	1 Asphalt
20 Soft asphalt concretes	1 Asphalt
30 Gravel Road surfacing	4 Other pavement categories
40 Gravel wear layer	3 Unbound wear layers
50 Other coatings	4 Other pavement categories
99 Paved, type unknown	99 Paved, type unknown

The code value changes for the paved road are included in material publication 1/2025 and have been published in Suomen Väylät and the WFS and WMS interfaces on 28th October 2024

Functional class changes

Changes have been made to the functional class for the following road link types: rest area (7), service opening on the highway (13) and special transport connection without booms (14) and special transport connection with boom (15).

- A new functional class 9 has been created for maintenance openings and special transport connections.
 - Service openings and special transport connections are not intended for general traffic, which is why their own functional class has been established below the current categories.
- Rest areas have been moved to functional class 5.
 - Until now, the rest areas have been in the same functional class (1–4) as the main road, the move was made to avoid routing errors.

The code value changes of the functional class are included in material publication 1/2025 and have been published in Suomen Väylät and the WFS and WMS interfaces on 28th October 2024.

The geometry of the road network has been updated to September 2024 situation

In January 2025, the road network in Digiroad was updated to the situation of the National Survey of Finland in September 2024, the geometry of the road network currently corresponds to the geometry of the road address network of the Finnish Transport Infrastructure Agency`s (status date 1 January 2025).

Digiroad has not yet decided when to start the daily, up-to-date maintenance of road links from the National Land Survey's national terrain database.

In November 2022, the ID of the road link changed to a new identifier in Digiroad, which consists of the National Land Survey's national terrain database identifier and the version number of the road link (e.g. 00000ece-8555-4a89-9062-a99cd440c162:1). In this context, a correspondence file has been prepared between Digiroad's previous link ID and the new identifier, which has been published on the Finnish Transport Infrastructure Agency - Forwarding service for open data (ava.vaylapilvi.fi) at: https://ava.vaylapilvi.fi/ava/Tie/Digiroad/Aineistojulkaisut/tielinkkitunnisteiden_vastaavuus

Published data objects

The Digiroad publication 1/2025 includes the following data objects

- Vehicle-specific restriction
- barrier structure
- European road number
- treatment class
- public transport lane
- public transport stop
- cirrhosis
- turn restriction
- Width
- traffic sign
- traffic volume
- traffic light
- subscription number
- speed limit
- information board
- parking ban
- paved road
- level crossing
- protective road
- Maximum allowed restrictions x7
- winter speed limit
- road link
- road work
- Transport of Dangerous Goods (VAK) restriction
- Lit roads
- Service
 - Culvert
 - Customs
 - Frontier crossing
 - Rest area
 - Airport
 - Ferry terminal
 - Taxi stand
 - Bus station
 - Railway station
 - Parking area
 - Car shipping terminal
 - Coach or lorry parking
 - Parking building

Data structure

The datasets are delivered in zip-files including:

- All data, excluding public transport bus stops, are divided according to the extraction areas in Esri shape files.
- Public transport bus stops, covering the whole area of Finland in a single Esri shape file.
- Data in GeoPackage format.

The coordinate system is ETRS-TM35FIN (EPSG: 3067).

All the directions of digitizing in the road links have been unified according to the cardinal directions. The starting point of a road link is always the southern end point of the link. However, the starting point of a link in the fully East-West direction is the western end-point. Due to the unification of the directions of digitizing, the first house number on the right and left side may be larger than the final house number on the right and left side.

Furthermore, changes in speed limits and maximum allowed restrictions are available via TN-ITS API. More information on TN-ITS is available on the Digiroad website. After this 1/2025 release, the first published TN_ITS change interface dataset is:

<https://avoinapi.vaylapilvi.fi/tnits/public/download/readDataSet?datasetID=%2BQBW3IIFSIWYYPDwF4Vc%2FQAAZSawS24AAABILnefFQ%3D>

This publication does not include separate quality reports.

Road Link Data

The geometry is obtained from the National Land Survey of Finland with a time stamp of September 17th, 2024.

The link ID (LINK_ID) by the National Land Survey of Finland will be used as a unique road link ID. The MML-ID (LINK_MMLID) will continue to be published as part of the attribute data of the road links.

The Road link is the linear reference for dynamic segmentation.

The road links include the following attribute data:

- Data source
- Carriageway number (based on road address network by FTIA)
- Start and end distance from the beginning of the road part (based on road address network by FTIA) In Initial and final number of piles
- Initial and final number of piles
- First and last house number on right and left
- Direction of digitization in relation to the data provided by the National Land Survey
- Administrative class
- Municipal number
- Direction of traffic flow
- Link ID
- Link status
- MML-ID
- MTK road class (differs slightly from Digiroad's own classification, for which some MTK classes are combined)
- Last modified timestamp
- Location and elevation precision
- Bridge, Underpass or Tunnel
- Road number and a number of the part of a road (based on road address network by FTIA)
- Type of road link
- Road name in Finnish, Swedish, Sami
- Direction of digitization in relation to the data provided by the National Land Survey
- Functional class

Tracks (by the National Land Survey) are included in the new geometry. The functional class of the track and the road link type are both marked as "track" (= "polku" in Finnish).

Digiroad R and Digiroad K

The differences between various data types are described in the Description of Data Objects document chapter 3.3. Description of Data Objects document is attached in the data publication.

Next publication

The next Digiroad material publication will be in the spring of 2025.

Contact of the Digiroad operator

info@digiroad.fi

Tel: +358 40 507 2301 (From 9 a.m. to 4 p.m.)

vayla.fi/Digiroad

[LinkedIn](#)

