

Non-technical summary

Investor's intention is to upgrade the Břeclav railway junction in order to achieve parameters defined in the agreements concluded at European Union and International Railway Union levels.

Reconstruction of the Břeclav railway junction includes in particular reconstruction of the passenger station (82.857 – 83.678 km) with the objective to increase number of platform rims to 12 in order to secure contemporary train clearance in more directions. In addition the passenger station will be subject to reconstruction and improvement of corridor tracks and tracks by newly build platforms. Improvement of the railway substructure will be performed under the reconstruction tracks.

The construction project also includes reconstruction of the station's south gridiron, including reconstruction of the bridge over Dyje river at 82.467 km. In the station forecourt 4 corridor tracks will be reconstructed within 84.634 – 85.91 km. The related north gridiron will be also subject to overall reconstruction. As a result of reconstruction speed in the area of the station forecourt and the north gridiron will be increased from current 80 to 130 km/hr. In addition traction mains, heavy current electro-technology, safety and communication systems will be upgraded.

According to the Act No. 100/2001 Coll., as amended by the Act No. 93/2004 Coll. environmental impact assessment documentation has been prepared for the "Reconstruction of the railway junction Břeclav". Based on this documentation positive decision of the Regional Office of South Moravia has been issued, ref. No. JMK 41571/2005/OŽP/Vr/2 under §10 of the Act No. 100/2001 Coll. as amended by the Act No. 93/2004 Coll.

Planning permission

The project location is within the territory of South Moravia. It concerns Břeclav and Poštorná territories.

Planning permission for „Reconstruction of the railway junction Břeclav“ has been issued by the Municipal Office in Břeclav on December 22, 2006 under reference number MUBR 72823/2006.

Building permission

Building permission is the next step. It is issued on the basis of approved design documentation. This documentation has been completed on April 30, 2007. It clearly defines technical solution as well as requirements for environmental protection (monitoring, protective measures etc.). The building permission has been issued by the Railway Authority in Olomouc on July 23, 2007 under reference number 20-0153/07-11769-DŮ/Ds.

Scope and subject of the construction project

The construction project deals with reconstruction of the Břeclav railway junction and its connection to previously reconstructed track sections, i.e. Břeclav – Austrian state boarder, Slovakian state boarder, Břeclav – Podivín and partly reconstructed track section Břeclav –

Hrušky. The Břeclav railway station connects transit corridors I. and II.. The project site is located within track section 2401 – CR/SR state boarder – Břeclav – Přerov.

The construction project is delimited by the following track sections:

- Austrian state boarder – Břeclav – Přerov (incl. Břeclav station) km 80.998 – 87.000;
- Břeclav – Brno km 85.730 – 87.478.

Project concept:

Existing state:

The last significant reconstruction of the station took place in 1980'. Currently infrastructure in the railway station is at the end of its service life, for example 25 kV 50 Hz system tractions mains and station illumination are in operation since 1967. In the past years adjacent track sections have been subject to reconstruction and arc fir for maximum speed up to 160 km/h. The superstructures and substructures do not meet requirements for spatial trafficability of UIC-GC and to the D4 load class; due to their deterioration the existing speeds in straight direction are as follows:

State boarder – 82.229 km (track section state boarder – Břeclav):	100 km/h
82.229 – 82.895 km (station's south gridiron):	80 km/h
82.895 – 84.395 km (passenger station and intermediate gridiron):	40 km/h
84.395 – 86.000 km (station forecourt and north gridiron):	80 km/h
86.000 km (track section Břeclav – Hrušky):	100 km/h
86.000 km (track section Břeclav – Podivín):	120 km/h

Designed state:

The objective of reconstruction of the Břeclav railway junction is to accelerate passage of trains in Vienna - Brno and Vienna - Přerov with the existing relay safety system. The design will respect already implemented upgrades of the track sections Austrian state boarder - Břeclav – Vranovice, Břeclav – Hodonín and upgrade of Břeclav – Slovakian state boarder track section.

Travelling times will remain the same upon completion of 1st construction. Travelling times will be reduced upon full completion of intermediate gridiron reconstruction and upgrade of the station safety system, which is part of the 2nd construction.

The railway junction reconstruction meets requirements for spatial trafficability UIC-GC, considering the D4 load class.

Capacity data	
Speed limit (upon completion of 2 nd construction) For conventional train sets	100 – 160 km/h

Capacity data	
For train sets with tilting body	100 – 160 km/h
Railway superstructure and substructure	
Superstructure reconstruction with new material UIC 60	17 312 m
Superstructure reconstruction with new material S49	2 117 m
Superstructure reconstruction with recovered material S49 or R65	2 318 m
Number of newly inserted rail points UIC60	36 pcs
Number of newly inserted rail points S49	6 pcs
Number of recovered rail points	9 pcs
Modification of railroad crossing structure	1 pc
Lengths of reconstructed and new platform rims	3 236 m
Bridges and passages	
Railway bridge reconstruction	4 pcs
Underpass reconstruction	1 pc
Passage reconstruction	4 pcs
New technology bridges	1 pc
New signal bridges and cantilevers	5 pcs
Ground buildings	
New buildings	2 665 m ³
Reconstructions	410 m ²
Light roofing	6 957 m ²
Heavy current equipment	
New booth transformer station 22/0,4 kV	2 pcs
Mobile emergency source – diesel generator	1 pc
Reconstruction of switching station 27 kV for electrical pre-heating	1 pc
Reconstruction of switching station 3 kV for electric pre-heating	1 pc
Electric pre-heating system – racks	10 pcs
Booth transformer station 25/0,4 kV for exchange electric heating	6 pcs
Modification of cable crossing 22 kV (JME) with ČD track	3 pcs
Traction mains	
New traction mains	41.7 km
Reconstructed traction mains	37.7 km
Signalling equipment	
Cable routes - freely installed	4 648 m
Cable routes in cable duct	1 600 m
Central radio office	1 pc
Safety system	
Modifications of existing relay safety system	54 v.j.
Modifications of existing track safety system	3.35 km

Description of the subject territory

Climate

According to the Map of Czechoslovakian Climatic Regions (QUITT 1971) the subject location is situated within the warm region of T4 category. T4 warm region can be described as an area which is characterized by long, very dry and very hot summers. Transition periods are short, with warm springs and autumns. Winters are short, mild, dry to very dry, with short snow periods. The average annual air temperature exceeds 9°C, average annual precipitation amount is 500 mm (Břeclav).

Geological composition and hydro-geological conditions

The territory forms part of the Vienna geological basin belonging to the post-orogenic basins on flysh belt. Formation of post-orogenic basins has been closely related to the final phases of Outer Carpathian Mountains development. The Vienna basin forms an intramount depression, delimited by Ždánický Forrest, Chřiby, White and Small Carpathian Mountains. Most of the subject territory is covered by quaternary deposits. The youngest deposits from quaternary period - alluvium – follow all streams within the subject territory and fill flood plains of Morava and Dyje rivers. These are fluvial sandy loam deposits, with sporadic cobbles flood loams) and deluviofluvial sandy deposits.

According to the hydrological classification the subject territory belongs under the hydro-geological territory No. 165 Fluvial Deposits of Morava River in the Lower Moravia Ravine.

Mineral resources

Part of the railway route interferes with the Protected Deposit Territory Břeclav (No. 13880102, lignite resource), the route belongs to CHLÚ with its branches in Podivín direction (app. From 86.0 km) and in Hrušky direction (app. from 85.9 km). It does not interfere with any other CHLÚ. In addition the subject territory is not situated within exclusive mineral resources deposits or established mining areas.

The closest exclusive mineral resources deposit is the area exclusive deposit with former mine - Břeclav 13 (Poštorná) in app. 450 m distance southwards from the site starting point (80.998 km). The closest mining area is located in app. 250 m distance in south-east direction app. at 82.3 km.

Geomorphology

According to DEMEK and collective (1987) the subject territory forms part of the West Pannonian Basin province, Vienna Basin system, South Moravian Basin subsystem and Lower Moravia Ravine unit.

Two geo-morphological units are present within the territory. On the west it is the Dyje-Moravian Alluvium subunit and on the east the Dyje-Moravian Upland subunit and in case of more detail classification this part belongs to the Tvrdonice Upland region.

Dyje-Moravian Alluvium presents the south most part of the Lower Moravia Ravine. It is formed by Morava and Dyje rivers. It is an accumulation plain along both rivers, formed by quaternary deposits. The location includes numerous river bends, dead channels and low terraces converted to dunes (alluvial elevations).

Dyje-Moravian Upland is situated at the north of the Lower Moravia Ravine. It is a flat low upland between Morava and Dyje alluviums and Central Moravia Carpathian Mountains. Its north-west part consists of flysh rock and another significant part of it is

formed by neogenous and quaternary deposits. Location is typical for its round ridges separated by wide valleys (sporadically with cryopediments).

Tvrdonice Upland forms part of the Dyje-Moravian Upland. It is a low upland on neogenous and quaternary deposits at the bottom of Central Moravia Carpathian Mountains. Its edges form accumulation terraces of Morava and Dyje rivers.

Hydrologic conditions

The subject area forms part of Morava and Dyje rivers catch basins and belongs to Black Sea drainage area. It is situated in the catch basin 4-17-01 of Dyje river from Svratka river until its delta. In more detail classification it is situated within the hydrological order 4-17-01-061, 4-17-01-047, 4-17-01-115.

The most important stream in the territory is Dyje river, formed by confluence of Moravian Dyje and Austrian Dyje rivers in Austria by Raabsk at 410 m above the sea level. In addition to Dyje, which comes to contact with the railway route at 82.467 km, the route interacts with several other streams. They include for example Old Dyje at 81.914 km, Svodnice stream, passing under the railway road bed in a passage at 84.863 and several right side Svodnice confluents.

The subject territory includes delimited flooding area along flood release channel of Dyje river, flowing south of the assessed track section. The railway road embankment from the site starting point up to app. 81.9 km (crossing with Old Dyje) forms the eastern boarder of this flood area. The flood release channel of Dyje river (Poštorná – Břeclav) is considered to be a significant water stream according to the Regulation No. 470/2001 Coll., as amended.

Soil

Based on soil characteristics in areas adjacent to the railway route according to acknowledged soil environmental units (BPEJ) the territory is situated in a very warm region with prevailing modal black earth and modal carbonate black earth, fluvial black earth and both modal and carbonate fluvial earth on 30 – 70 cm thick loess and very permeable base, medium heavy, mostly bone-free, depending on precipitation in the vegetation season. Soils are deep to medium deep.

Territories with higher sensitivity, resp. vulnerability

The subject territory does not include any areas with higher sensitivity, respective vulnerability considering the local conditions - area around Břeclav station does not include any locations with earth fall, neither there are any undermined areas. There is one location with old environmental load character within the subject territory. It is situated on the right in stationing direction, right next to the railway route app. at 82.5 – 82.6 km. This load is registered under the name BORS, a.s. Břeclav, qualitative risk has been assessed at level 5 - none, quantitative risk at level 3 - local.

According to the seismic regions map the subject territory is classified as a region with maximum expected earthquake intensity 6°MSK-64 (Mercalli's classification adopted to technical practice).

According to the geological base radon index map the Břeclav station area belongs to the transitional regions (non homogenous quaternary deposits).

Description of designed options

Design options of the given construction projects have not been considered due to its character and scope.

Environmental impact of the construction project

Impact on climate

Dispersion survey has been prepared for three calculation versions considering existing pollutant load in the location as well as pollutant load resulting from diesel engines in the location. Also considered was pollutant load in 2010 caused by operation of sources in Břeclav town and operation of diesel engines and the last option includes contribution to pollutant load by climate pollution sources related to reconstruction of the railway route.

The dispersion survey concludes that pollutant load within the subject territory is high. The main source contributing to this fact is automotive traffic and small resources. At some location the pollutant limit are and will be exceeded.

In the construction phase contributions to pollutant load exceed the limit only at some locations and only for pollutant PM10 (airborne dust <10 µm) and its pollutant characteristics of overage daily concentration. As for the other pollutants the contributions to pollutant load are small. An important condition of construction is spraying of the recovery line by water in order to reduce its emissions of TZL (solid pollutants) and PM10.

Certainly the area around the works will be subject to higher concentration of solid particles. The affected territory and level of pollution are not stable since works are performed at different locations in time and therefore there will be temporary resources of pollution within the length of the reconstructed track section.

During earth works dust nuisance mitigation is possible only by dampening the excavated material, eventually spraying by water during loading to railway cars. Excavated material dampening is suggested by watering the bed from vehicle tanks prior material removal. It will be specified in the POV (construction organization plan) at the next phase of design preparation.

Noise effect

Noise related to railway transport on the reconstructed track will contribute to overall community noise in areas adjacent to the railway route and therefore it needs to be reviewed and assessed. Noise barriers are designed for the size of this railway noise contribution.

Assessed is the target noise situation upon railway junction reconstruction and the construction process is considered as well. Measures include both of these states.

Based on completed noise measurements, assessment and calculations the following noise reduction measures have been suggested:

1) Noise protection walls:

č.	Location	km	type	Elevation above UT
1	Břetislavova	82.53 – 82.65 left	Both side absorbing	4 m
2	Mládežnická	82.79 – 82.90 right	Both side absorbing	3,5 m
		On the bridge	glazed	3,5 m

2) Individual anti-noise measures

At the construction units where maintenance of required noise limits can not be assured, individual anti noise measures are suggested, such are replacement of windows. These are windows which ensure maintenance of limit noise level in the protected interior and enable ventilation of rooms.

An expert testimony has been prepared by an authorized expert on noise and dust nuisance effect on public health, concluding the following:

The current noise load in the subject territory surrounding Břeclav station reaches significant level, which presents a source of noise health risk for exposed population. Contributors to this load are railway junction operation as well as automotive traffic on adjacent road network. According to rough estimation the noise load from both sources causes nuisance to about 45% of population in the subject territory, sleep disturbing to about 14% people in the territory and in case of 4% of these people this may result in higher sick rate and civilizing sickness.

Implementation of the railway junction reconstruction project will not result in any significant change in this situation around the station. Number of passing trains will increase, however noise level should be reduced as a result of rail replacement. The designed noise barriers have only limited areal effect for smaller part of residential areas. As for the noise health risks, comparing to the current state, there should be significant benefit resulting from implementation of individual anti noise measures, which should reduce noise load impact on sick rate of population.

The higher health risk in form of respiratory tract irritation and downgrade in the course of respiratory sicknesses may result for the population in adjacent residential areas from secondary dust nuisance, which will occur during performance of earth works during railway superstructure reconstruction. Therefore the design documentation for these works should include suggestion for efficient anti-dusting measures.

Effect of vibrations

The vibration survey concerning Břeclav railway junction reconstruction included review of all possible sources of vibrations during construction activities and road and railway transport. Based on results of vibration measurement and expert documents it has been proved that during the entire Břeclav railway junction reconstruction project all vibration hygienic limits determined by the Government Decree No.148/2006 Coll. will be respected for habitable rooms and community facilities.

Impact on waters

Underground water protected areas

The whole tract section subject to reconstruction passes protected areas of underground water accumulation Morava River Quaternary (established by Government Regulation No. 85/81 Coll.) and therefore protective measures need to be maintained during the entire construction period in order to eliminate water pollution. At 86.650-86.870 km of Břeclav-Brno track section there is both side contact with the level 1 protected zone and at 86.600 km - site starting point (87.475) with the level 2 protected zone of Břeclav - Bažantnice, Nové prameniště, Široký dvůr catchment area.

Surface waters

The track passes Dyje, Old Dyje, Svodnice streams and number of smaller reclamation canals draining water to Dyje river.

Water streams crossings:

- 81.914 km Old Dyje
- 82.467 km Dyje
- 83.888 km Svodnice 03
- 84.863 km right hand confluent of Svodnice
- 85.405 km (85,350) Svodnice 01
- 85.624 km right hand confluent of Svodnice
- 86.719 km right hand confluent of Svodnice

The railway route Břeclav – CR/Austria state boarder leads in an embankment in sections where it is in contact with flood land.

Flood land is situated in the stationing direction of the railway route

On the left side of the embankment at 81.002 – 81.900 km

Track drainage is suggested by ditches or drains inlet to recipients and partly to municipal sewage. Sanitary sewage of buildings within the station will be connected to the existing piping, leading to the municipal sewage system. New storm sewer from station buildings will lead to a pumping station, which forms part of track drainage and from there storm water will be pumped to the recipient.

Buildings are situated out of the flood land. The pedestrian underpass structure includes water pumping from the building pit in case long lasting heavy rains which may flood the pit. Pumped water will be released to the municipal sewer.

During construction gravel will be removed from under point switches separately and taken out of the site - this aggregate is intended for bio-degradation or deposit. Other gravel beds will be recovered. Recovery base will be established for recovery of removed gravel at ČD land app. at 83.800 – 84.100 km in station forecourt area and within the Břeclav passenger station. The operator (project contractor) of the recovery line will ensure that the area will be secured in order to prevent pollution of underground waters and monitored prior work initiation and during work performance.

Works on bridge structures and columns will need to be performed with maximum attention and any demolished parts of concrete will be captured to auxiliary structures (such as sheets). Demolished debris will be collected to bags or containers and taken to a deposit. Under no circumstance spreading of debris to water under bridges is assumed.

Water clarity protection within construction site

In the areas of construction site temporary installations measures must be implemented for handling oil products and materials polluted by oil products. The principles for such areas include thorough securing of parking space for construction machines, which may cause subsoil contamination. The following measures apply:

- Machines must be maintained in perfect technical condition. Any defects which may potentially result in water contamination (oil leakage etc.) must be corrected immediately.
- Machines must be equipped with sealed containers catching oil products in case of leakage and at least by two bags of sorbent (Vapex, Experlit)

- The recovery line operator shall make sure that storm water around the recovery line will not infiltrate to subsoil, resp. it should be drained to a pit of sufficient size.
- Storage of any substances harmful to water, including fuel, is prohibited,
- Any wash away material will be continuously removed from construction site temporary installations, construction machines will be equipped with rescue means for eventual elimination of oil products leakage.

Impact on soil and forests

Part of the construction site (81.00 - 82.1 km) is situated within the forest protection zone (50 m o), therefore the construction work will not interfere with forest and forest greenery will not be affected.

This project will only deal with permanent occupation of ZPF for a steel pole of traction mains, with 1 m² concrete foundation. In this case, according to the Agricultural Land Resources Protection Act No. 334/1992 Coll. as amended by the Act No. 231/1999 Coll. § 9(2b), it is a permanent occupation not subject to ZPF protection authority approval.

Extra-forest greenery will be disposed only in minimum required scope. It concerns in particular areas intended for temporary site installation and random tree species around the track. They must be removed in order to ensure safe operation of electrified track.

MěÚ Břeclav, as a materially involved and subject-matter venue in relation of nature protection in proceedings for granting permission for chopping down tree species growing out of forests, prescribed landscaping on lands nearby Břeclav municipality, as a compensation for environmental damage.

Impact on fauna and flora

Design preparation included survey of occurrence of extra protected plants and animals. In total 41 vertebrate species extra protected according to the Act No. 114/1992 Coll., identified by the Regulation No. 395/1992 Coll. were found. In the site region no plant species extra protected according to the Act No. 114/1992 Sb., identified by the Regulation No. 395/1992 Coll. have been found.

Conclusions of the above mentioned survey have been discussed in Břeclav on a meeting attended by CHKO Pálava administration representative and the project investor. It has been stated that construction works will be performed only within the track body and environmental protection elements will not be affected by the works.

Natura 2000

The track section between 81.000-82.467 km is situated at the boarder of NATURA 2000 system, proposed important European locality Soutok – Podluží (locality code CZ0624119) and bird locality Soutok – Tvrdonicko (locality code CZ0621027). This bird locality has been established by Government Decree No. 26/2005 Coll.

Populations of the following birds are subject to protection within this bird locality:

White Stork (*Ciconia ciconia*), Honey Buzzard (*Pernis apivorus*), Black Kite (*Milvus migrans*), Red Kite (*Milvus milvus*), Saker Falcon (*Falco cherrug*), Common Kingfisher (*Alcedo atthis*), Grey-headed Woodpecker (*Picus canus*), Middle Spotted Woodpecker (*Dendrocopos medius*) and Collared Flycatcher (*Ficedula albicollis*) and their biotopes.

Among typical plants in this territory (EVL Confluent-Podluží) belong populations of *Salici-alneta* with prevailing White Willow, in the undergrowth Korean feather reed grass

and sedges. At drier locations we can find populations of *Fraxini-querceta roboris* with Ash-tree manna and huge English oaks, the herb layer includes Spring Snowflake. The driest positions are occupied by populations of *Ulm-fraxineta carpini*, including European Hornbeam, Small-leaved Lime and Common Maple, plant layer consists of Corydalis, Lungwort and Wood Anemone.

Their biotopes will not be affected by the construction project. Access roads to the construction side do not pass the above mentioned territory - Dyje river alluvium. Construction works in this territory will be performed on the track body.

Impact on ecosystems

- The reconstructed track section comes into contact with the following ÚSES sections:
- Axis of multiregional corridors K 161(alluvial): km 81.700 both sides – Dyje alluvium
- Axis of multiregional corridors K 161(water): km 82.467 both sides – Dyje
- Common protection zone NRBK: km 81.002 – 82.700

The multiregional bio-corridor will be affected by the construction project mainly during reconstruction of the bridge crossing Dyje 82.467 km. The design maintains the existing bridge span, structural design and method of implementation have been discussed with the river administrator as well as with environmental protection authorities (administration of CHKO Pálava).

Important landscape elements according to §4 of the Act No. 114/1992 Coll.

The construction project affects several important landscape elements (VKs) according to the above mentioned act

- 81.002-82.467 km (0.5–app. 0.960 –track section Břeclav – Lanžhot) Dyje alluvial flat
- 0.664 km (i.e. 82.467 track section Břeclav – Austrian state boarder) Dyje river
- 83.888 km Svodnice 03
- 84.863 km right confluent of Svodnice
- 85.624 km right confluent of Svodnice
- 86.719 km right confluent of Svodnice

Other VKPs are not registered within the subject territory according to § 6 of the above Act.

Impact on extra protected areas

No extra protected territory is affected by the construction project.

Wastes

During construction significant quantity of yields and waste of various categories will be generated. All yielded material is property of SŽDC, resp. ČD. Construction yield handling is subject to GR Directive No. 11/2004 – Directive for management of yielded material owned by SŽDC, administrated by ČD, issued under ref. No. 1664/04-OI on April 1, 1.4.2004 including Amendment No. 1 dated January 2006.

The originator is responsible for waste management until waste reuse or disposal and sort waste by types and categories as specified by the Waste Catalogue (issued by the Ministry of Environment Regulation No. 381/2001 Coll., as amended). Design documentation suggests that all materials identified as waste generated during construction will be managed according to the Waste Management Act No. 185/2001 Coll., as amended, including related regulations applicable at the time of design documentation preparation.

Materials suitable for reuse will be offered to authorized legal entities which will ensure their future reuse. Stored at deposits will be only wastes with no other disposal option available or presenting higher risk for environment or human health. Dangerous elements of waste must be properly disposed; dilution or mixing of waste for reduction of dangerous substances concentration is prohibited.

Surveys of the subject territory, concerning gravel bed and subsoil contamination, have been completed already at the stage 3 of design preparation. Other additional surveys were undertaken in the phase of building permit design.

Aggregate and earth form the highest portion of the total yielded material volume during construction work. That includes gravel from the tracks and earth from the railway substructure, i.e. soil base and soil excavated in relation to construction of bridge structures. Gravel removed from track bed will be taken to recovery base. Upon regrinding, screening and adding rough fraction, this gravel will be returned back to the track bed. Sorted aggregate polluted by oil products will be subject to bio-degradation. Remaining required quantity will be refilled by new aggregate.

Impact on protected national monuments and archaeology

The construction project does not interfere with any registered archaeological locations, neither registered national monuments. However if necessary the constructor will allow for protective archaeological research according to §22 of the Act No.20/1987 during performance of earth works and excavations. According to §22 of the Act No. 20/1987 Coll. archaeological research is paid by the investor and a contract for these works must be concluded in advance.

Impact on scenery

The project concerns reconstruction of structures, which are already incorporated into landscape. Therefore it will have no significant impact on scenery.

Summary of measures for elimination of negative environmental impact of the construction project

- Chopping down tree species along the site according to approved plan will be preformed out of the nesting period of birds and only mechanically with no use of herbicides
- Replacement planting is suggested as a compensation for chopped down trees
- Recovery-geological supervisor will be present during gravel bed removal
- Excavated material during construction works, polluted by oil products, will be subject to bio-degradation process
- Construction works will follow all principles of water protection from pollutants
- Construction of noise barriers complemented by replacement of windows in residential buildings (IPO)

Used abbreviations

List of abbreviations used in the text

ČD	České dráhy (Czech Railways)
DÚR	planning permit documentation
CHOPAV	natural water accumulation protected zone
IPO	individual anti noise measures – replacement of windows
KN	real estate cadastre
NRBK	multi-regional corridor
OPD	railway protection zone
PHS	noise barrier
PUPFL	land intended to perform forest functionality
PD	design documentation
PM10	airborne dust <10 µm
POV	construction organization plant
SŽDC	railway transport route administration
SEE	energetic and electro technology administration
TK	rail surface
TN	heavy duty trucks
TZL	solid pollutants
ÚSES	territorial environmental stability system
VKP	important landscape element
ŽST	railway station
ZPF	agricultural land resources