



Figur 36. Perspektivvy.

Description of design and construction contract, Project Skavsta

This document provides general information, ahead of the market dialogues, on how the upcoming construction contract in Project Skavsta might be performed. The design and construct contract (the contract) is part of the East Link Project, which is a part of New Main Lines. We reserve the right to make changes to this information in future tender documents.

We plan to carry out the contract as a design and construct contract with early contractor involvement (ECI). The estimated value is over SEK 10 billion (2021 price level).

The contract is part of the completion of the East Link, which is a part of New Main Lines in Sweden. The East Link consists of 160-kilometre new double track railway between Järna and Linköping. The works included in this contract are located about 60 kilometres south-west of Stockholm and affect the municipality of Nyköping.

The route between Sillekrog and Skavsta includes approximately 35 kilometres of double-track lines (railway for 250 km/h). And a part of the bypass line of 14 km to the new travel centre at Skavsta Airport that will be constructed as part of the East Link Project. The railway alternates between embankments, bridges and cuttings. Great emphasis has been placed on minimising intrusions and adverse consequences in

areas meriting protection. The railway includes, for example, an approximately 1400-metre-long bridge, which will be one of the East Link's longest bridges. The railway follows the E4 highway to a large extent to minimise the infrastructure's barrier effects for people and wildlife.

The project scope is for the detailed design and completion of works for a new mainline.

The contract language is Swedish.

Railway plans are expected to be completed before the contract, or at the latest during the early part of the planning and design.

Project organisation

The East Link and Project Skavsta are part of the Swedish Transport Administration's program New Main Lines.

The project will be implemented with great transparency and in close collaboration with the project's stakeholders. The project organisation's working methods are thus characterised by collaboration and transparency both internally in the project and towards contractors, project designers, affected municipalities and other external stakeholders.

Quality

Well-functioning quality management is a prerequisite for successful completion of the project. The Swedish Transport Administration sets clear requirements in the contract that the contractor quality-assure their undertakings and maintain well-functioning self-monitoring and risk management. The contractor is responsible for preparing monitoring programmes and plans, for implementing these, and for follow-up and reporting.

Environment, Nature and Cultural Environment

Consideration for the surroundings is a natural approach in the East Link Project.

Environmental work must therefore be integrated in the project's and in our contractors' working methods. Adverse environmental impact, both short-term and long-term, must be minimised. Particularly essential aspects are therefore to work for energy efficiency in the form of reduction of carbon dioxide emissions during the construction phase and to comply with the environmental requirements set, both those established by environmental judgements and the project's own environmental requirements.

Working environment

The working environment has a high priority at the Swedish Transport Administration. Our main message – ‘that everyone must get home safely’ – also means that everyone must come home from work every day uninjured. Our goal is that no one is seriously injured or killed in the transport system or at our workplaces, and that injuries and losses are minimised. To achieve this goal, we will require that our contractors conduct systematic work environment management in which the Swedish Transport Administration ensures that the contractor follows up their working methods systematically and meticulously.

Conditions

The route runs through a landscape of great natural and cultural value: ancient monuments and areas of national importance, the Nyköping river valley, Natura 2000 areas and water protection areas.

Schedule

The contract is expected to start in 2024. The railway is expected to be operational by 2035.

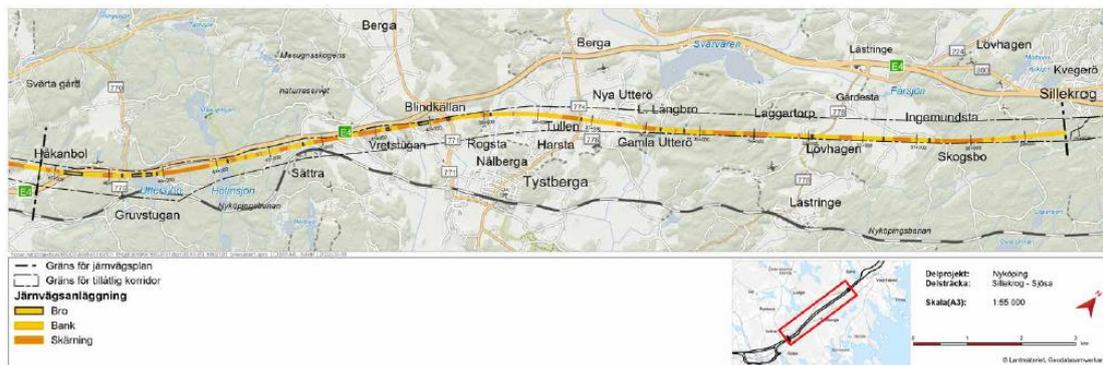
THE CONTRACT IN APPROXIMATE UNITS

Length of the route	ca 35 km (dubbelspår)
Soil excavation	ca 1 000 000 m ³
Rock excavation	ca 3 400 000 m ³
Filling	ca 3 600 000 m ³
Rock tunnel	0 m
Service tunnel	0 m
Concrete tunnel	0 m
Short railway bridges 6-40 m	21 st
Long railway bridges 116 -1402 m	11 st
Roadbridges	4 st
Piles	ca 600 000 m
Piledeck	ca 6400 m ²
Lime cement columns	ca 2 070 000 m
Vertical drainage	0 m
Travel centre	1 st

Railway plans

The contract is based on two railway plans, from north Sillekrog–Sjösa and Sjösa–Skavsta.

Railway Plan Sillekrog–Sjösa, Nyköping Municipality



Figur 2-1. Översiktskarta över delsträckan Sillekrog–Sjösa.

Railway Plan Sjösa–Skavsta, Nyköping Municipality



The railway plans are expected to be completed before the contract, or at the latest during the early part of the planning and design.

Sections within the Sillekrog–Sjösa railway plan

1. Sillekrog–Ingemundsta

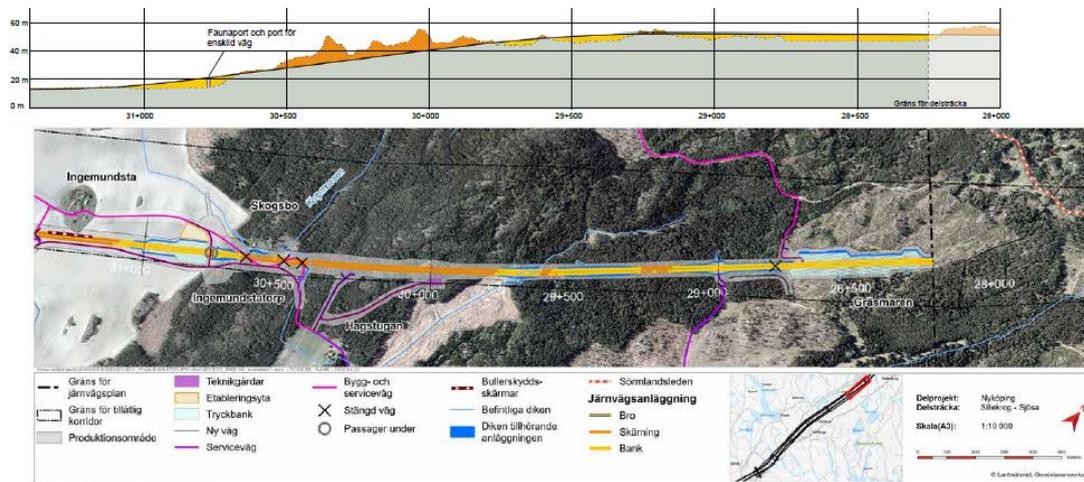
This section starts in Silleskog (km 28+250), which is a forest-dominated hilly area between Sillekrog and Ingemundsta. The area is largely undeveloped. The railway will run on embankments and in cuttings to adapt to the terrain of the landscape.

An engineering yard will be built right at the start of the section (km 28+707). The new main line will then cross two existing private roads (km 28+800). The roads will be closed and it is not deemed necessary to establish a crossing at this location as there is very little traffic on the roads and there are alternative access roads to the affected properties.

The existing roads that are closed will be replaced by two new roads. A turning area will be built on the northern side. A new private road will be built south of the track, which will provide access to a building on the southern side. Signal cabins (km 29+005 and 29+009) will be erected and a service road built to provide access to these.

A little further to the south-west, just east of Skogsbo (km 29+750), the East Link will run in cuttings, and an engineering yard with radio tower (km 29+985) and signal cabin (km 30+268 and 30+273) will be built here on the southern side of the track with about 250 metres between. Two service roads will be built for these, which both connect to an existing private road in the forest south of the track. A higher mountain section in the western parts is the reason that the service road to the signal cabin is not proposed to connect to the existing road in the west.

Just south-west of Skogsbo (km 30+765), the old main road is rerouted and passes through an underpass under the East Link. The underpass is designed to enable wildlife passage for large animals.



2. Ingemundsta–Laggartorp

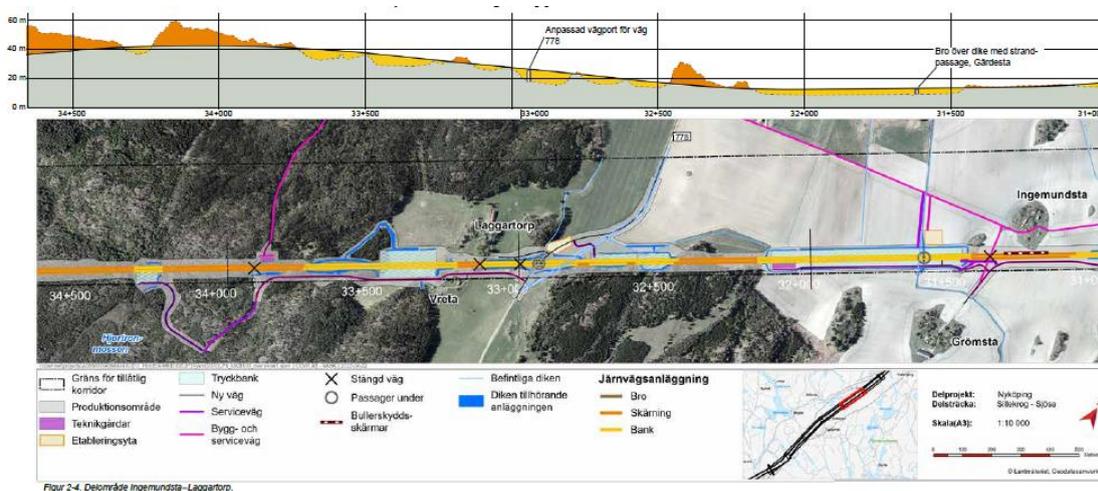
The East Link continues through the open agricultural landscape at Ingemundsta. Past Ingemundsta gård, the railway passes in a cutting (km 31+050) and an approximately 150-metre-long noise-reduction screen will be constructed on the northern side along the new main line, to reduce noise for nearby homes. The road towards Grömsta is also cut off and diverted to the southern side to cross the railway in the passage at Skogsbo.

From the cut, the main line goes over to a low embankment with wide loading berms on both sides of the track. Just south-west of Ingemundsta gård, a passage is constructed for an agricultural ditch (km 31+612), which is also a shoreline passage for smaller animals. Signal cabins are then erected along the southern side of the track (km 31+639 and 31+650).

A bit further to the south-west, an engineering yard with a radio tower is built on the southern side of the track (km 32+090), on top of the loading berm. A service road is constructed to the engineering yard along the track, which is also built on the loading berm. The road is connected to the road towards Grömsta.

Signal cabins (km 32+721 and 32+725) are erected along the northern side of the railway. A new service road is built (km 32+750) to provide access to signal cabins. At km 32+900, Road 778 crosses the new main line. The road is rerouted in a more westerly position to straighten out the angle to the new main line and enable the bridge to be shortened. The new placement of the road enables the construction of a new passage under the track while road traffic continues on the existing road.

The East Link passes Laggartorp and goes into the forested area north of Lärstringe. The railway will run both on embankments and in cuttings. Just south-west of Laggartorp, loading berms are constructed on both sides of the track (km 33+300). The track runs in a cutting through the forest. An engineering yard with radio tower is constructed along the northern side of the track (33+865). Further to the south-west, signal cabins are erected on the southern side of the track (km 34+287 and 34+291), and a new service road is established along the track from Vreta and Road 778, along with a road from the south providing access to this.



3. Laggartorp–Tullen

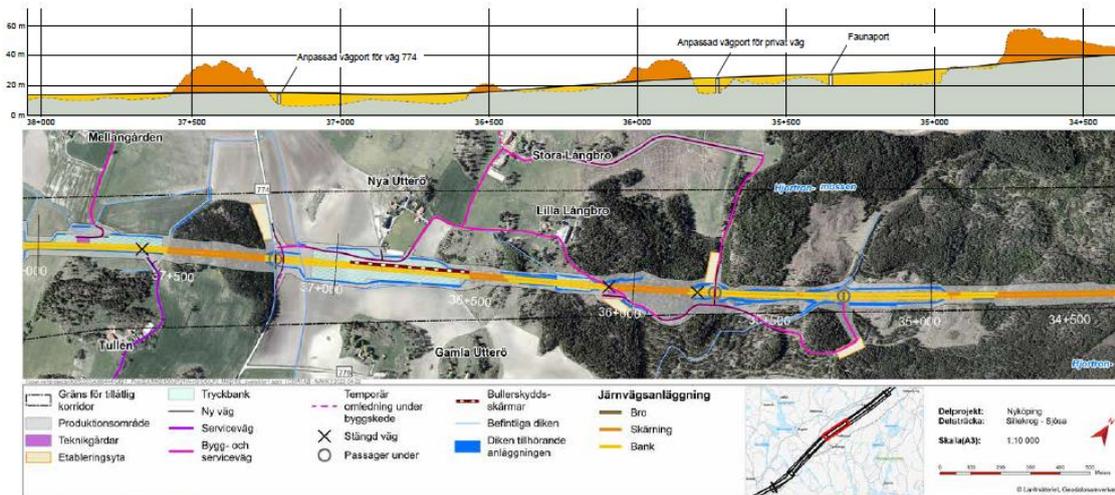
A detention trench is constructed in the woodlands at Långsbrostugan (km 35+000) on the northern side of the track. There is a wildlife passage (km 35+294) here. A bit further to the south-west (km 35+730), a passage is also built under the railway for the older main road.

Just south-east of Lilla Långbro, an engineering yard with radio tower is built on the southern side of the new main line (km 36+060), along with a detention trench on the northern side to handle the water from the cutting.

Past the Tystberg church, Gamla and Nya Utterö, the East Link runs on a low embankment to blend into the open agricultural landscape. A 500-metre-long loading berm will be constructed along the track line and part of the private road to Nya Utterö and Lilla Långbro is placed on the berm. Past the Nya Utterö farm, a noise-reducing screen will be erected on the northern part of the construction.

Road 774 is crossed by bridge. Signal cabins are erected on the northern side of the new main line (km 37+586 and 37+591). Level with Tullen, the East Link cuts off an existing private road, which is closed and equipped with a turning area on the southern

side. On the northern side, part of the existing road is used to provide access to an engineering yard with radio tower (km 37+850). Level with Rogsta, the new main line turns off slightly to run parallel to the E4.



Figur 2-4. Delområde Laggartorp-Tullen.

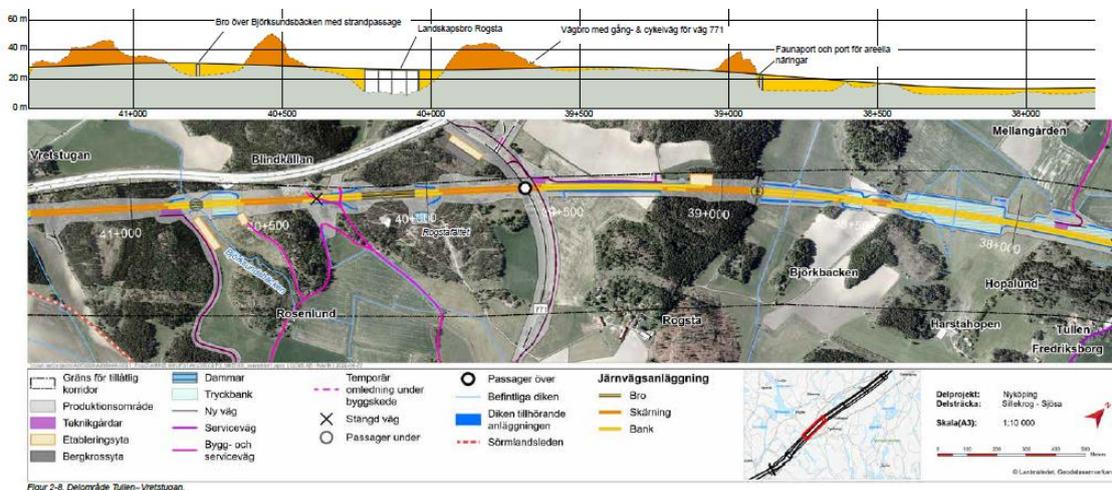
4. Tullen–Vretstugan

A 330-metre-long loading berm is constructed over the farmlands west of Tullen (km 38+050). At Björkbacken, a wide trench is constructed to handle water from the cutting in the south-west. An agricultural passage is also constructed here along the edge of the forest, which can also function as a passage for animals. Just south of the Tystberga interchange, the railway crosses Road 771. Road 771 will be raised to run over the track, but preserved in its existing layout. Along the western side of the road, the railway is enabled through the construction of a two-way pedestrian and bicycle path, which is not part of the railway plan. During the construction period, Road 771 will be diverted to a temporary road that runs parallel with the existing road. Just west of where the East Link passes Road 771 is the bus station in Tystberga. A wildlife fence will be erected along Road 771 but is designed so that animals can pass under the road bridge for Road 771. Sub-area Tullen–Vretstugan.

The railway then crosses the water protection area in Tystberga and the Rogstafältet groundwater body. Just north of where the East Link passes under Road 771, a service road is connected to signal cabins (km 39+202 and 39+206) and an engineering yard with radio towers (km 39+620). The engineering yard is located outside the groundwater catchment. The engineering yard is located outside the groundwater catchment. Through the eastern part of the Rogstafältet, closest to Road 771, is a large archaeological area that the East Link will pass through a deep rock cutting. The cutting is followed by a landscape bridge over the old gravel pit in Rogsta. An infiltration

area will be built in the gravel pit to handle the water from the cutting in the operational phase (km 40+000).

The East Link goes through the elevated area at Blindkällan and then over the Björksundsbacken body of water, which is subject to environmental quality standards (km 40+800). The watercourse is crossed by bridge. In the forest area south of Björksundsbacken, an engineering yard with a radio tower is built on the southern side of the track (km 40+867). A new service road for access to the engineering yard is built as close to the edge of the forest as possible to account for the Björksundsbacken stream.

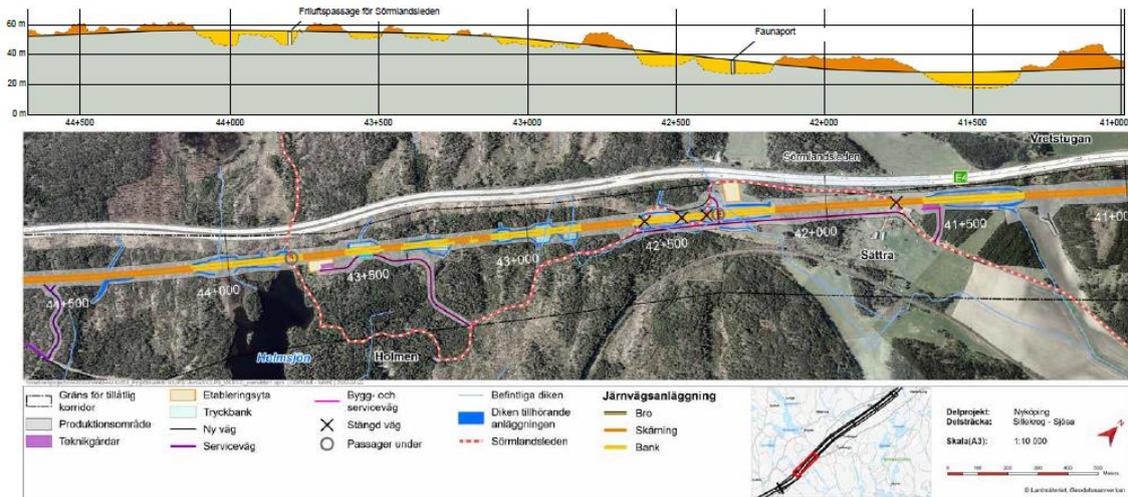


5. Vretstugan–Holmsjön

Level with Vretstugan (km 41+300), the track crosses a private road, which is closed and equipped with a turning area. At Sättra, an engineering yard with radio tower is built on the southern side of the track (km 41+657). A service road connecting to the existing private road on the southern side is built. The track crosses the Sörmlandsleden hiking trail several times (km 42+500). The main road where the hiking trail is located is rerouted on the south-eastern side of the new main road, where it will also provide access to signal cabins (km 42+299 and 42+303). The road crosses the new main line in a wildlife underpass at km 42+400. In connection to the crossing, a wildlife bridge is being planned over E4, which will be handled through a separate road plan. The road connects to the existing private road north of the track and ensures access to the waste land between the track and the E4.

The East Link runs through the forest parallel to the E4. Just north-east of Holmsjön, a service road is built to provide access to an engineering yard with radio tower (km 43+672). The road has been adapted so as to not encroach on the valued natural and

cultural areas in the vicinity. Where the northern shore of Holmsjön is passed, a recreation passage is constructed for the Sörmlandsleden trail. The passage connects to an existing passage under the E4 (km 43+800).



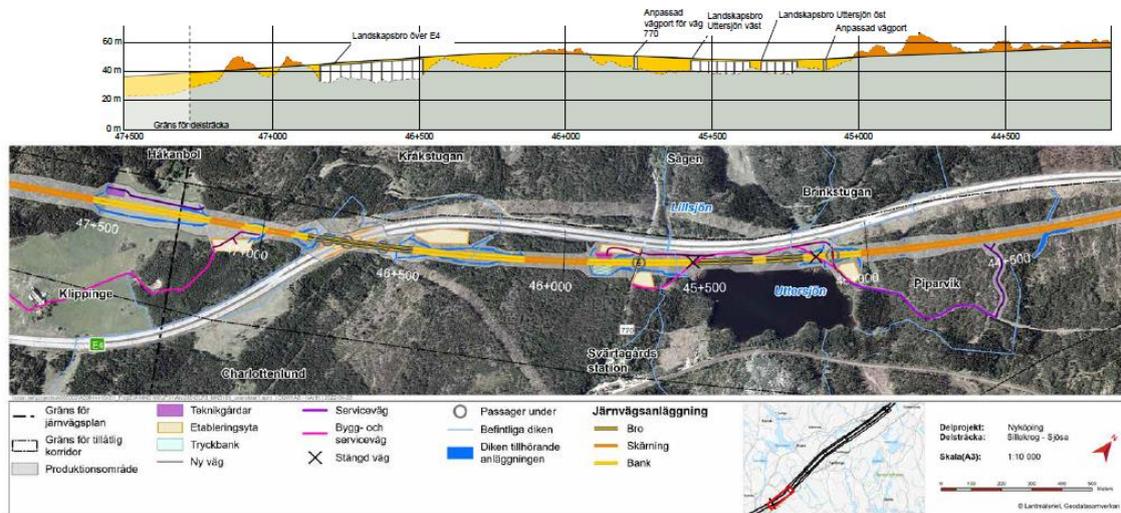
Figur 2-10. Delområde Vrestugan-Holmsjön.

6. Holmsjön–Sjösa (Håkanbol)

The East Link continues running parallel to the E4 through the forested area towards Uttersjön. Signal cabins are erected between Holmsjön and Uttersjön (km 44+560 and 44+564) with a service road connecting to an existing private road (km 44+600).

The East Link will run on two bridges along the entire northern shore of the Uttersjön lake. Bridge supports are planned in the water area. Two passages are constructed along the Uttersjön – one on the eastern and one on the western side. On the eastern side, a passage is constructed for a road along the lake, between the East Link and the E4. It connects to the west to Road 770, which also has a passage under the East Link. An engineering yard with radio tower (km 45+870) is located on the northern side of the track, to the left of Road 770. The East Link crosses the E4 just south-west of the Uttersjön (km 46+500). A landscape bridge is constructed over the highway. The East Link is positioned high enough that the E4 can be preserved in its existing location, but a bridge support will be added between the carriageways. The bridge support is designed as a cross, both on the sides and on the front. The design marks the intersection between the E4 and East Link and highlights the location as an important hub.

South of the railway, right after the bridge over the E4, signal cabins are erected (km 47+019 and 47+023) with an associated service road.



Sections within the Sjösa–Skavsta railway plan

1. Håkanbol–Hagnesta quarry

The sub-area is hilly and characterised by farmlands in the valleys and forests on the hills. The Svärtaån valley contains the Svärtaån river, which is a designated surface water body and Natura 2000 area. In the western part of the area is the Hagnesta quarry, where rock is quarried to make gravel and other products.

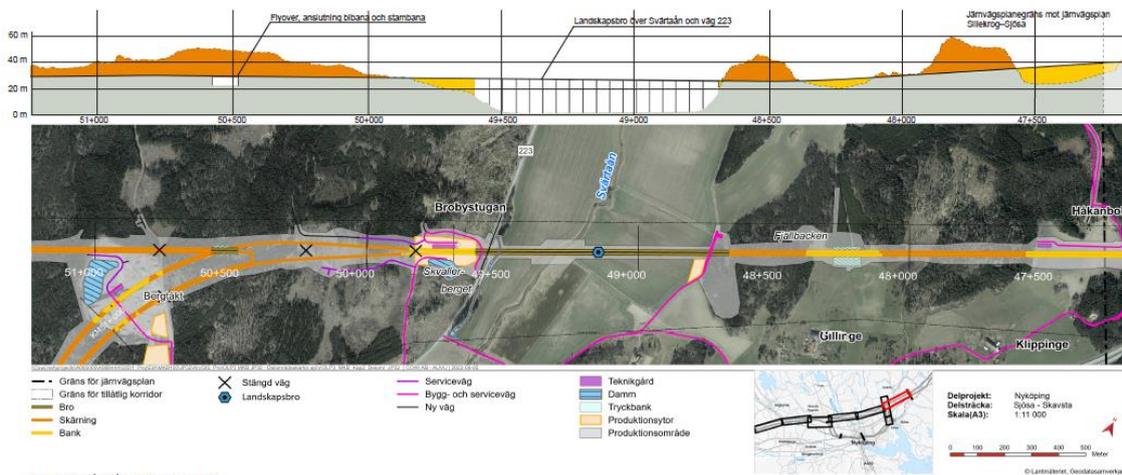
The railway plan for the Sjösa–Skavsta section starts from the Sillekrog–Sjösa section at Håkanbol (km 47+280). The railway alternates between embankments and cuttings at the edge of the agricultural landscape and through the forest towards the Svärtaån valley. At Håkanbol, an engineering yard is constructed north of the track. Service roads are established to these from the north.

A detention trench north of Gillinge handles water from the cuttings on both sides. The water is released in an equalised flow north via the existing ditch to the Svärtaån river.

At the Svärtaån valley, a landscape bridge is constructed over the entire valley. The bridge is just under a kilometre long and means that Road 223 on the left side and a private road on the east side of the valley can be retained in their existing position and that the Svärtaån river is not affected by the railway.

At the bridge abutment on the left side of the valley, an engineering yard and a parking area are constructed north of the track. The associated service road goes under the bridge and connects to Road 223. A detention dam is built south of the track. Water

from the dam is released on to a detention trench along Road 223 and onwards to the Svärtaån river. A service road is routed to the dam from an existing forest road that connects to Road 223 south of the railway.

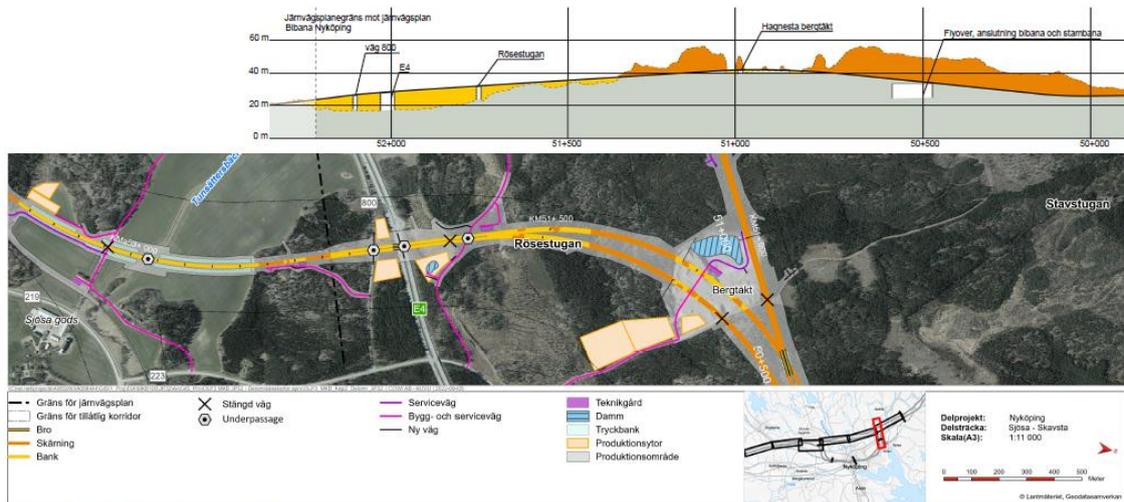


To the west of the Svärtaån valley, the main line goes into a long and deep cutting through the mountain towards the Hagnesta quarry. In the cutting, the secondary line connects to the main line with two tracks, of which one crosses over the main line on a bridge. The two tracks of the main line and the secondary line pass through the quarry on an embankment. In the quarry, between the main line and the secondary line, a detention dam to handle the water from parts of the cut to the east of the quarry, and an engineering yard with a radio tower, are built. A service road is built for this from the south, which passes under the secondary line track in the quarry. The road will not be accessible to the public. The dam is built as a dry dam, i.e., a dam without a reflective water surface, so as not to attract birds to the area. The even flow is released westwards through the cutting and to the existing ditch system at Hagnesta.

The secondary line's track takes off to the south in a wide arc and runs in cuttings and on embankments through a forested area. North of the E4, it crosses a private road. An underpass is built into the embankment and the position of the road is adjusted somewhat to obtain a better angle for the passage. An engineering yard and associated service road are built north of the road, on the western side of the secondary line. A detention dam is constructed just north of the E4, east of the secondary line. The dam handles water from the cuttings in the forested area south of the quarry and the equalised flow is released into the existing ditch system north of the E4.

Two bridges are constructed to cross the E4 and Road 800, which allow the secondary line to pass over the roads in their existing locations. South of the bridges, the tracks

merge and become a single track. Just south of Road 800, the railway plan for the Nyköping secondary line takes over at km 52+270.



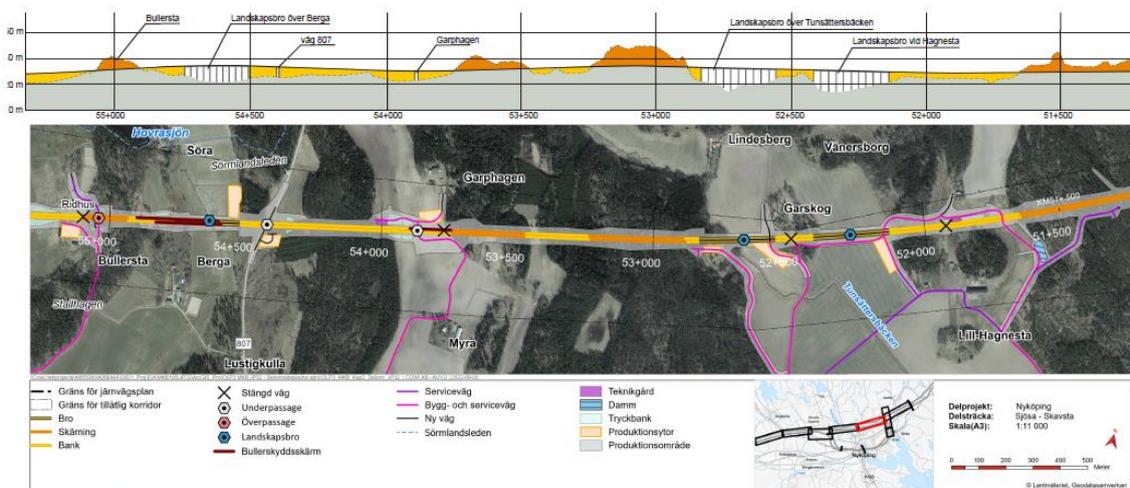
2. Hagnesta quarry–Bullersta

The sub-area is hilly and characterised by farmlands in the valleys and forests on the hills. Many of the smaller hills are populated by small villages or farms. One of the valleys contains the Tunsättersbäcken stream, which is a tributary to the Svärtaån Natura 2000 area.

From the Hagnesta quarry, the main track runs in a long cutting down towards the valley and the village of Hagnesta. A signal cabin south of the track requires a service road, which is constructed from the west. At the end of the cutting, a detention dam is built south of the railway to handle water from the cutting. The water from the dam is released in an equalised flow to the existing agricultural ditch west of the dam. The main line passes through Hagnesta village on an embankment. An engineering yard is built north of the track. A noise barrier is constructed on the southern side of the track. The private road that currently passes through the village is rerouted to the west of the bridge abutment.

West of Hagnesta, the main line runs on two landscape bridges over the valley joined by an embankment over Garskog. The private road that passes Garskog is rerouted under the landscape bridge on the left side of the elevation. The western of the two landscape bridges passes over the Tunsättersbäcken stream. At the bridge's western abutment is a signal cabin south of the track, to which a service road is built from the south.

West of the landscape bridges, the main line alternates between cuttings and embankments through a forested area to Garphagen, where the railway passes over a small valley on an embankment with loading berm. A noise-reduction screen is installed on the north side of the track. The private road to the property north of the track is diverted under the track, in the middle of the farmlands. An engineering yard and a service road are constructed on the loading berm north of the railway. From Garphagen, the main line runs on an embankment through a forested area and passes over Road 807 on a bridge. The road is retained in its current location.



Figur 13. Deiområde Hagnesta Bergfakt-Bullersta.

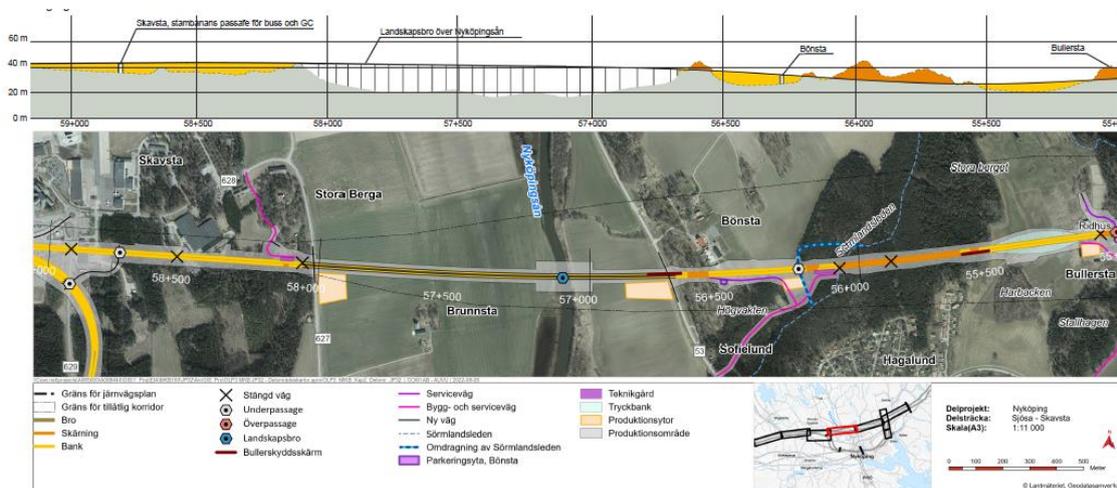
3. Bullersta–Skavsta

The sub-area is dominated by the Nyköpingsån valley, a wide valley through which the Nyköpingsån river runs surrounded by farmlands and pastures. The river is a designated body of water. The valley and river are designated areas of national importance for natural and cultural environmental conservation and for outdoor recreation.

The agricultural land west of Bullersta is passed on an embankment with loading berm. On the south side of the railway in the western end of the embankment, a noise-reduction screen is installed. From Bullersta, the railway runs in a long cutting through the forested area north of Hagalund. The cutting stops at Bönsta, where the main line reverts to embankment before it reaches the Nyköpingsån valley. In the western end of the cutting, an engineering yard is constructed on the southern side and a combined wildlife and recreation passage is built under the railway. The railway crosses the Sörmlandsleden hiking trail here, which is rerouted through the passage. A service road is constructed to the south-west to connect to Road 53. The road provides access to the engineering yard and a parking area on the eastern side of the Nyköpingsån valley.

The Nyköpingsån valley is crossed on a landscape bridge approximately 1.4 kilometres long. The bridge means that Road 53 and Road 627 can be retained in their current locations and that the Nyköpingsån river is not affected by the railway. In the eastern end of the bridge, a noise-reduction screen is installed along the northern side of the bridge.

At the bridge's western abutment, an engineering yard and a parking area with associated service road are constructed on the northern side of the track. The parking areas on each side of the landscape bridge are intended to be used as turning and parking areas for buses in the event a train must be evacuated on the bridge.



4. Skavsta Airport

The sub-area stretches along the airport's southern side. The airport is of national importance for transport and travel and there are also businesses related to airport and aviation operations in the area. The proximity to the airport places demands on the design of the railway, e.g., height restrictions. Pollution in the ground and groundwater caused by the many years of aviation and defence activities also means that requirements are set on the design and building methods so as to not risk further spreading of the contamination or exacerbating future decontamination. The Municipality of Nyköping is planning a new operating area south of the airport.

The main line passes just south of Skavsta Airport on an embankment, with the exception of a couple of short cuttings at Gabrielstorp. The Nyköping secondary line connects from the south at km 62+180, the length measurement of the secondary line, and runs in parallel with the main line throughout the entire sub-area. The main line and the secondary line pass over what is currently the airport's car park. A station is

constructed in this area on the secondary line. A pedestrian passage is built over the tracks.

A new travel centre with platforms on the secondary line is planned adjacent to the airport.



Figur 33. Illustration norra entrébyggnaden.

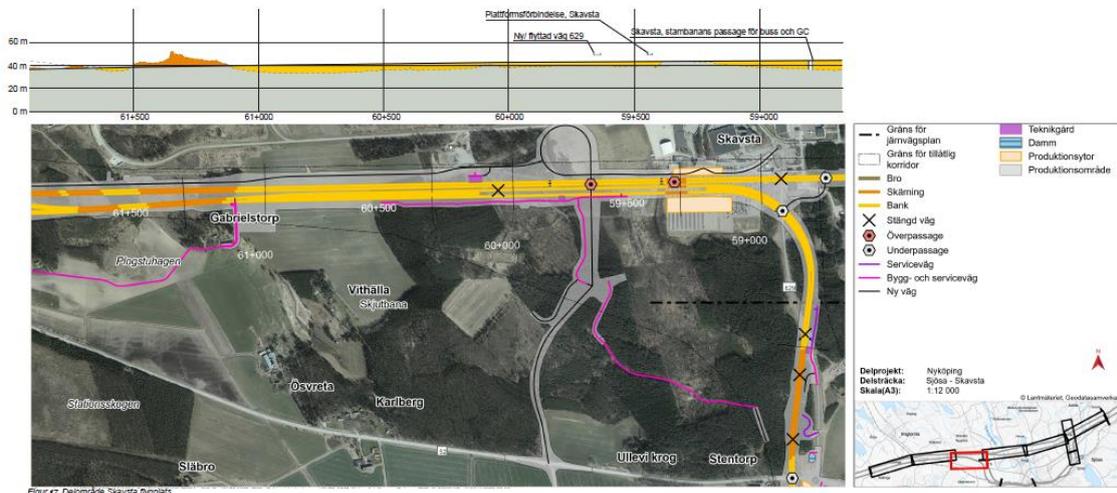


Figur 34. Illustration södra entrébyggnaden.

Road 629, the current main entrance to the airport, is crossed by the secondary line in the railway plan for the Nyköping secondary line and thus closed. It is proposed that the road is replaced by a new road approximately one kilometre to the west. The new road connects Road 52 with the airport. The road passes over the railway on a bridge west of the platforms and then continues eastwards, parallel to the tracks, to the airport. The road provides access to the municipality's planned operational area south of the airport.

A passage under the secondary line and main line is created to the area east of the secondary line. A pedestrian and bicycle path is created along the new road to replace the pedestrian and bicycle path that currently runs along Road 629 to the airport. The pedestrian and bicycle path is not handled in the railway plan, but rather in the municipal planning process, in dialogue between the municipality and the Swedish Transport Administration.

A new road is also constructed to the west on the north side of the railway to connect Road 625 with the airport and Road 52. The road also provides access to an engineering yard (km 60+150) on the northern side of the tracks. A service road is also constructed to the south of the tracks, which provides access to an engineering yard and to the parking tracks constructed for the secondary line. An engineering yard with associated service road is constructed on the southern side of the track at Gabrielstorp.



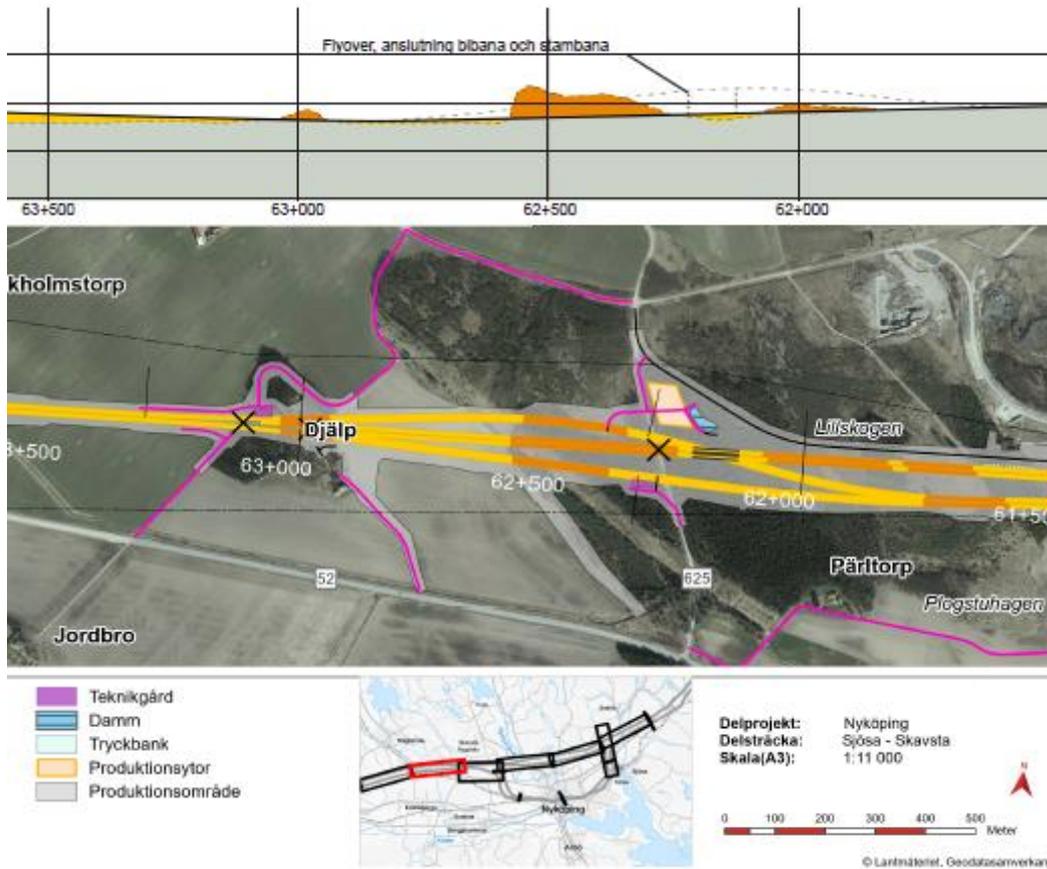
5. Skavsta–Stigtoamtalmen

The sub-section consists of a flatter landscape, primarily composed of farmlands. Buildings and farms are clustered on the smaller elevations. South of the planned new main line is Larslundsmalmen, designated groundwater body, and the Högåsen waterworks, which supply Nyköping with drinking water. The railway passes through the secondary protection zone for the Högåsen water protection area basically along the entire sub-area, which means that consideration must be taken so as to not impact the quality or quantity of the water.

At km 62+176, one of the secondary line tracks passes over the main line to then connect to it at Djälp. The railway also crosses Road 625 here, which is closed. The road is replaced by the road to the airport that is constructed parallel to the railway. The road also connects to Road 52 via the new road that replaces Road 629.

The main line and the secondary line run in a number of smaller cuttings through the elevated areas at Päriltorp and Djälp. To handle the water from one of the cuttings, a dam is constructed to the north of the railway. A road is routed to the dams to provide access for maintenance. The water from other cuttings is handled by the detention trench. The equalised flows are released to the Idbäcken stream, which runs along Road 52 south of the railway. Two engineering yards with associated service roads are also constructed in the area. One south of the railway at km 62+316 and one north of the railway at Djälp (km 63+075).

This section ends west of Djälp at 63+300.



Conclusion

This document should only be considered as an overview of a potential future construction of the railway. The accuracy of this document is subject to change and need not be consistent with future tender documents.

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