



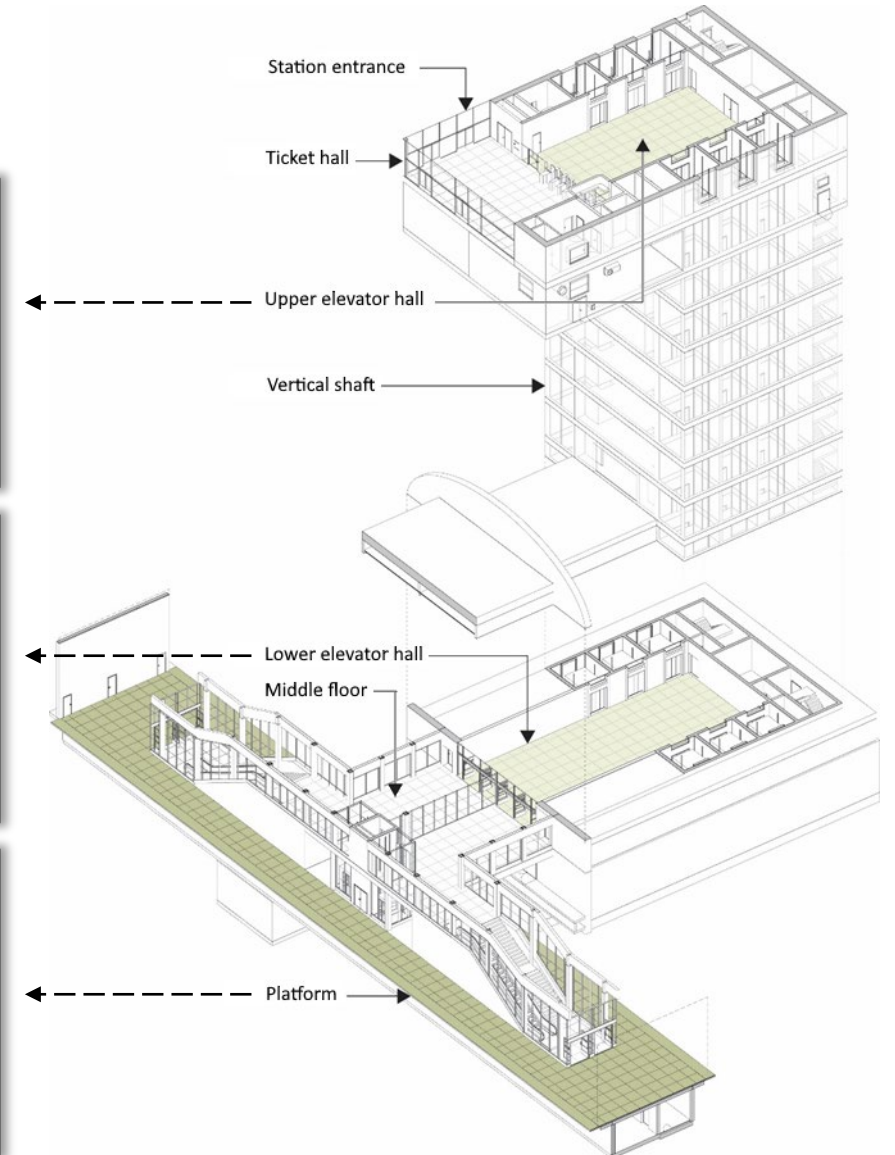
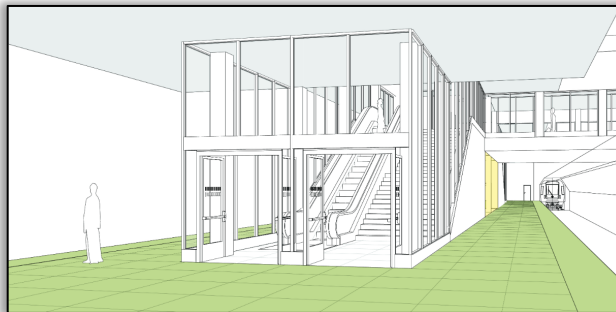
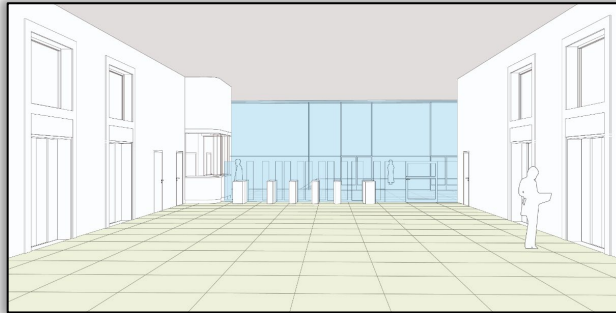
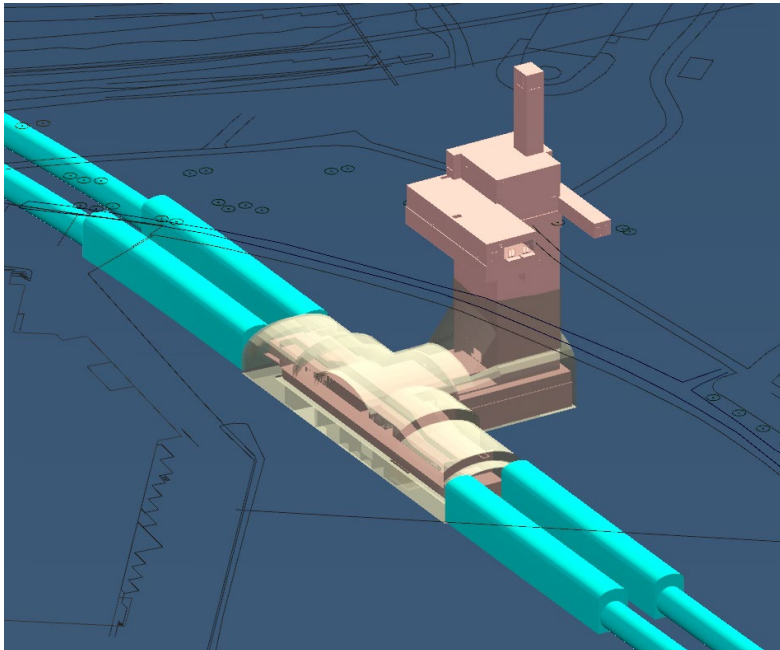
**New metro line
between
Fridhemsplan and
Älvsjö**

General overview of the project

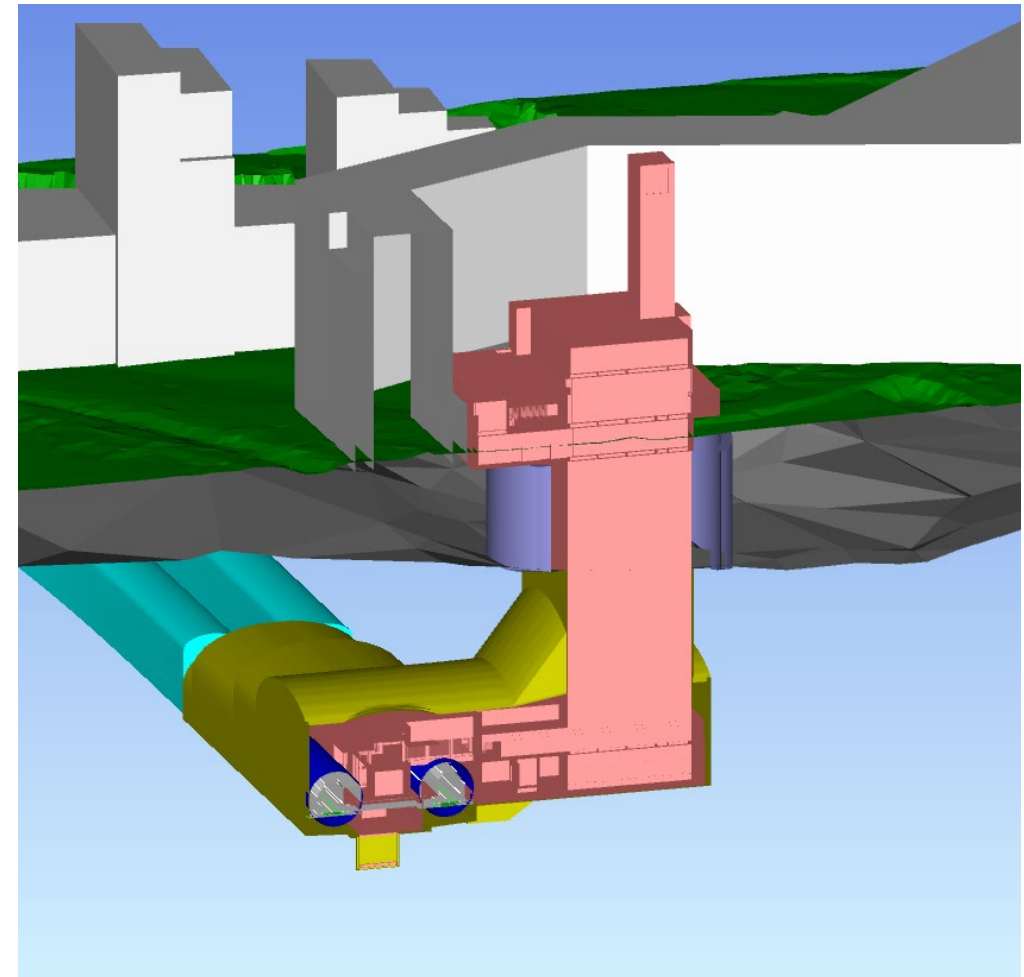
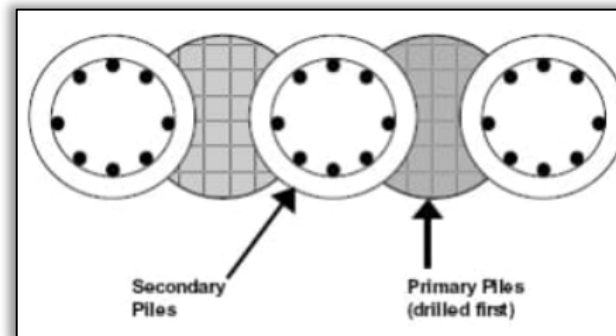
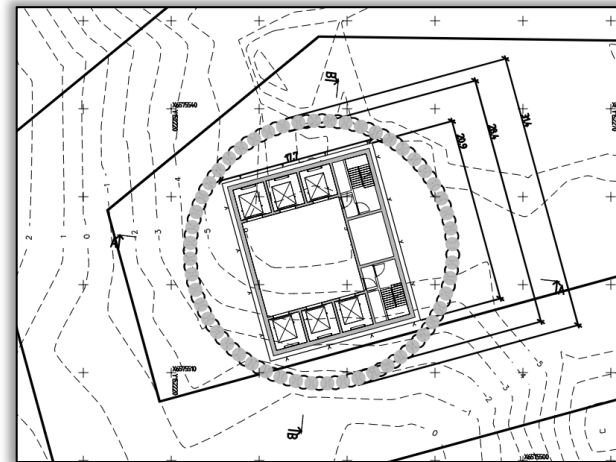


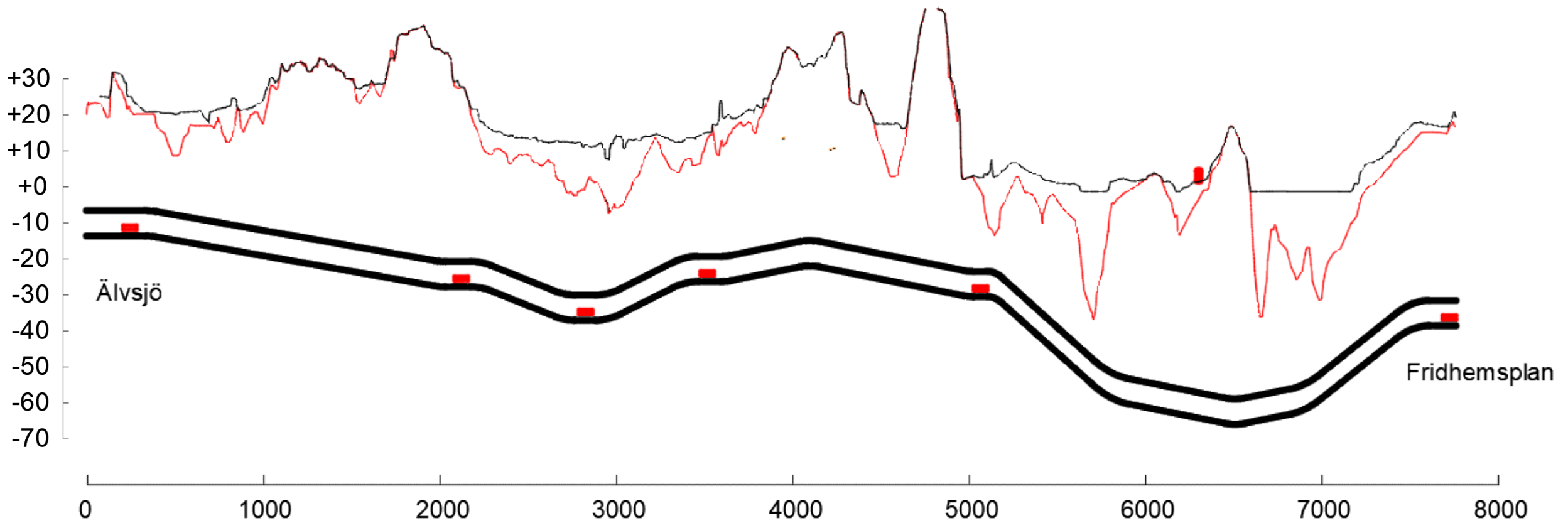
Stations

- Layout



Geostructures

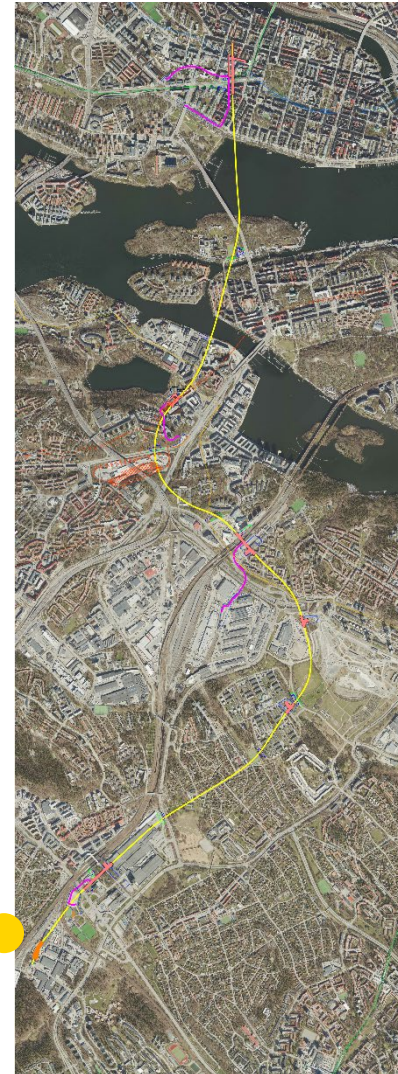
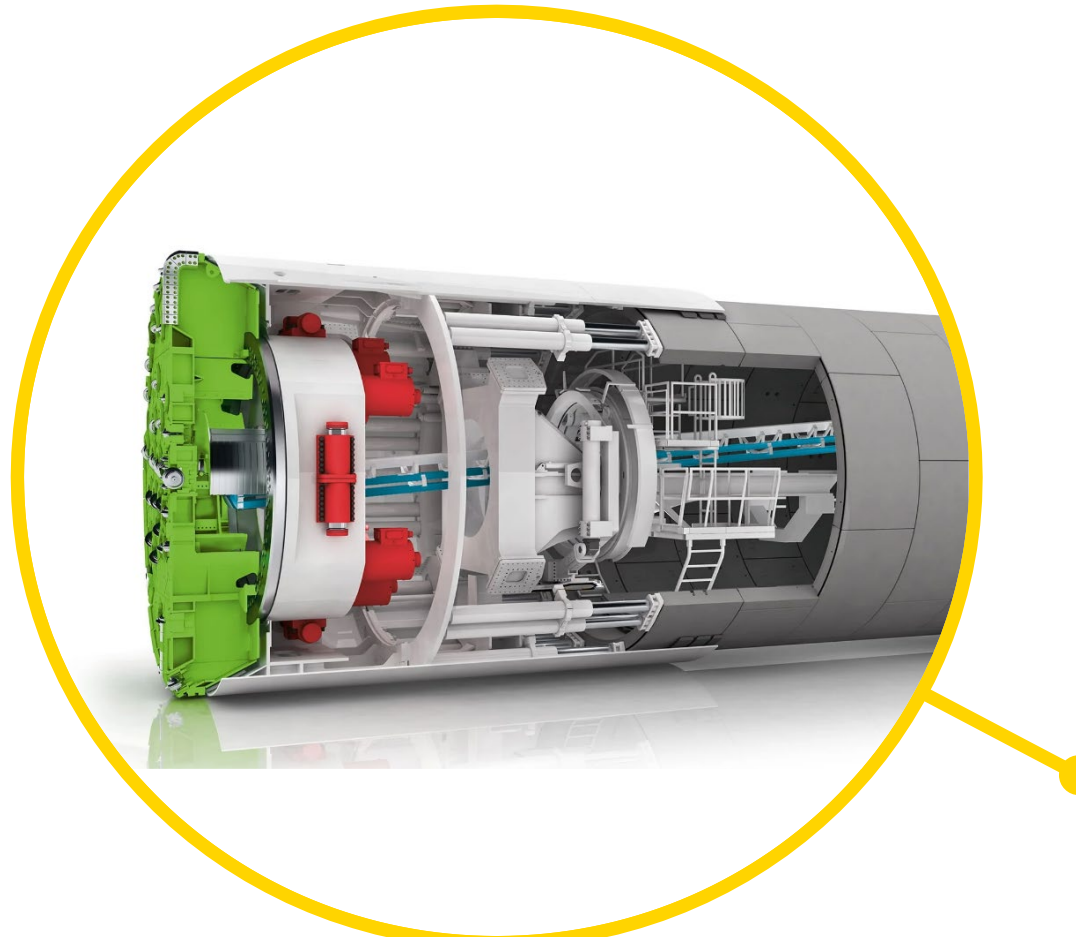


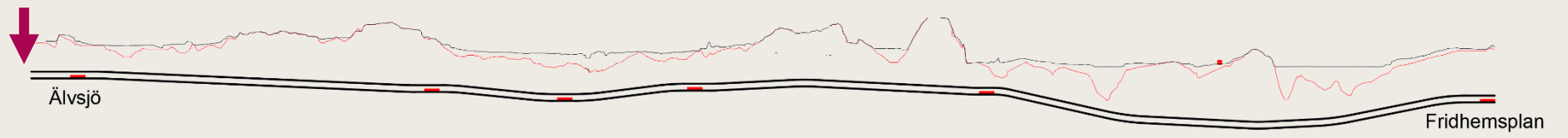




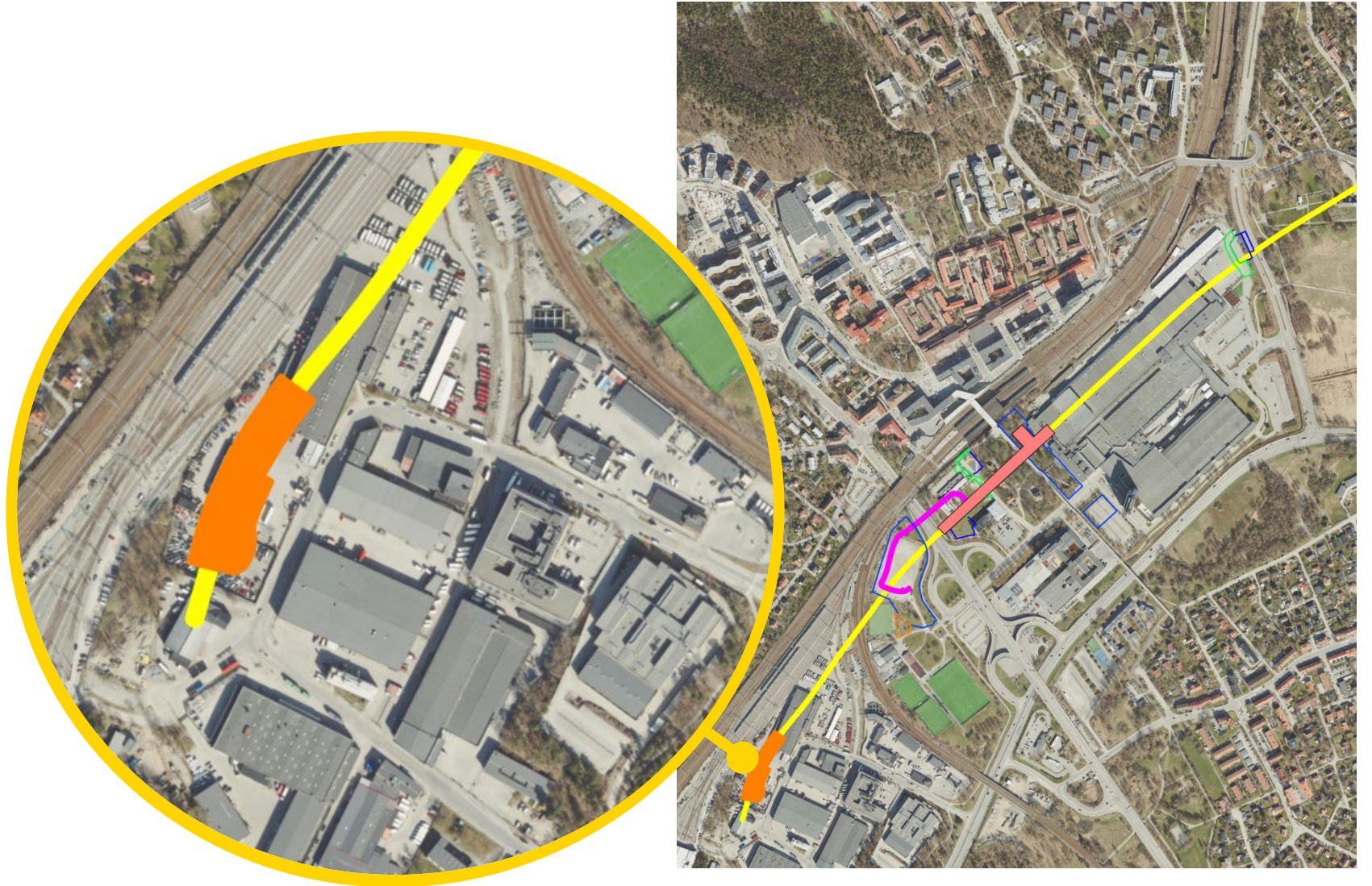
General overview

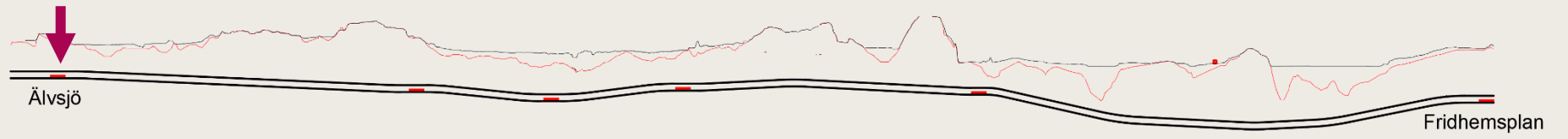
- Start TBM





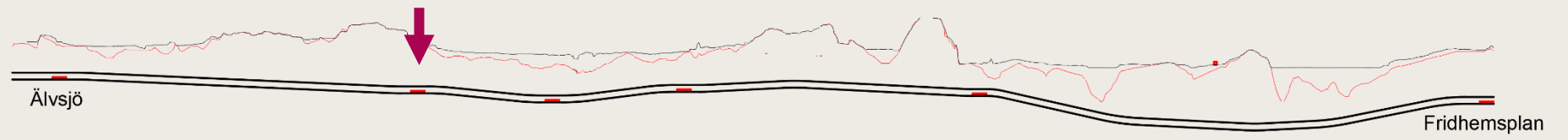
- Launching pit in Älvsjö. Total area for sight establishment including launching pit 25,000 sqm



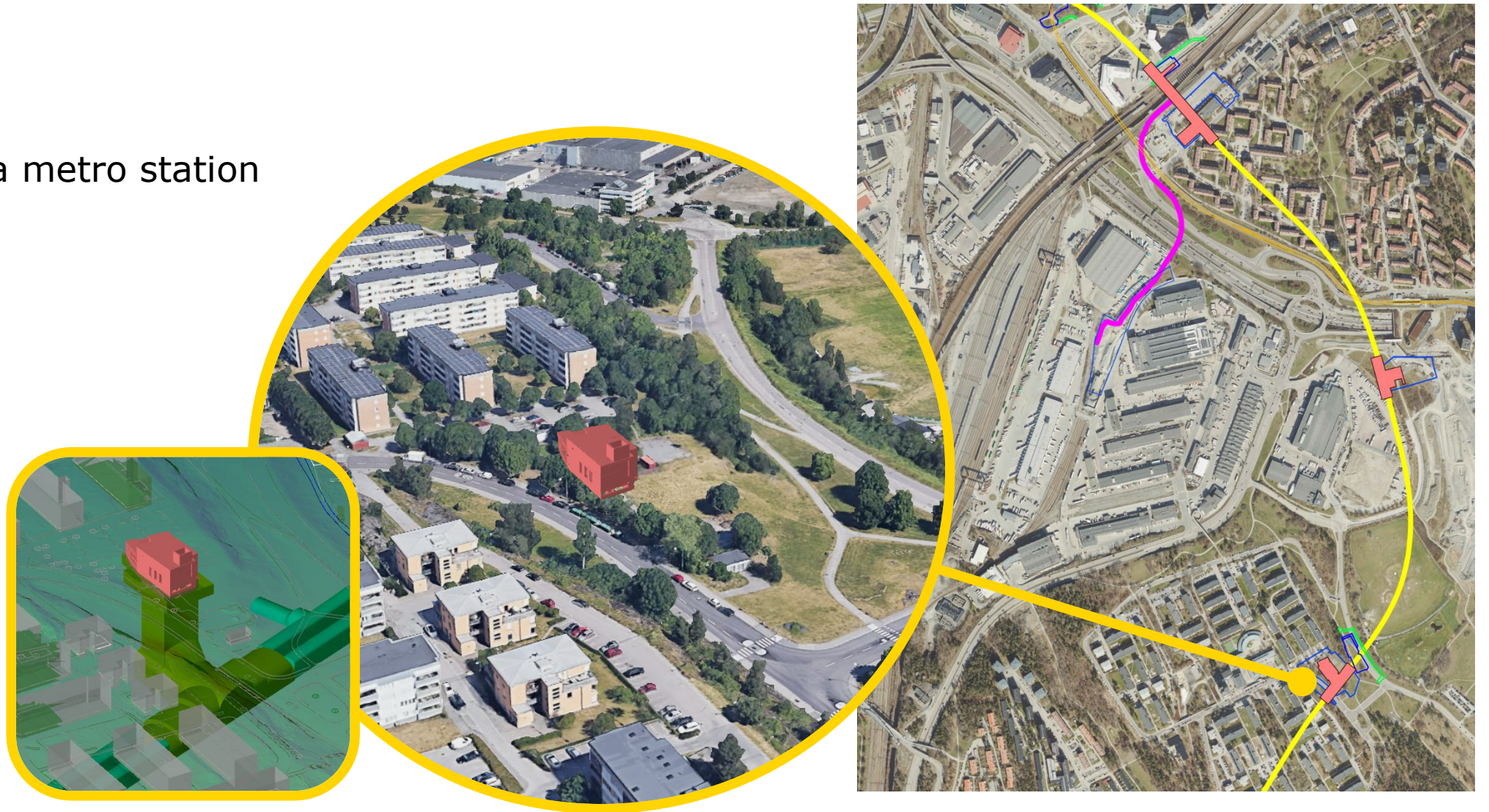


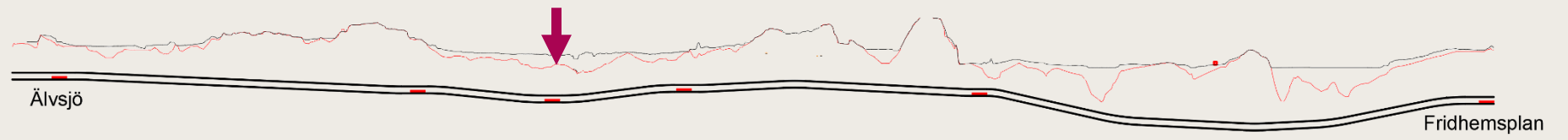
- Älvsjö metro station



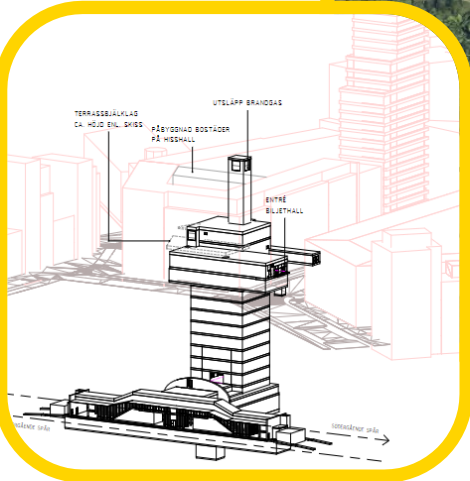


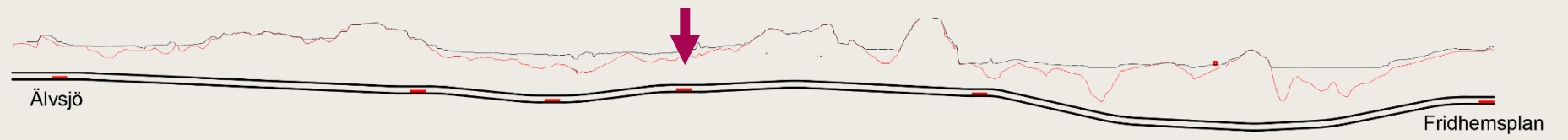
- Östberga metro station





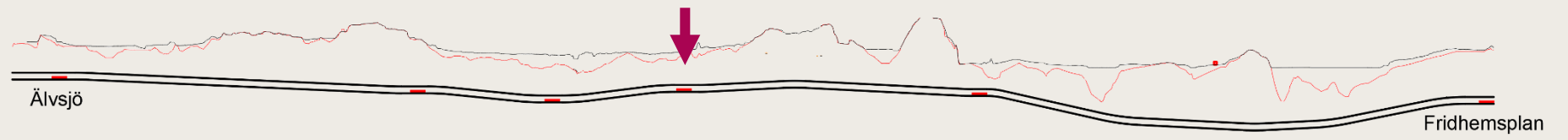
- Årstafältet metro station



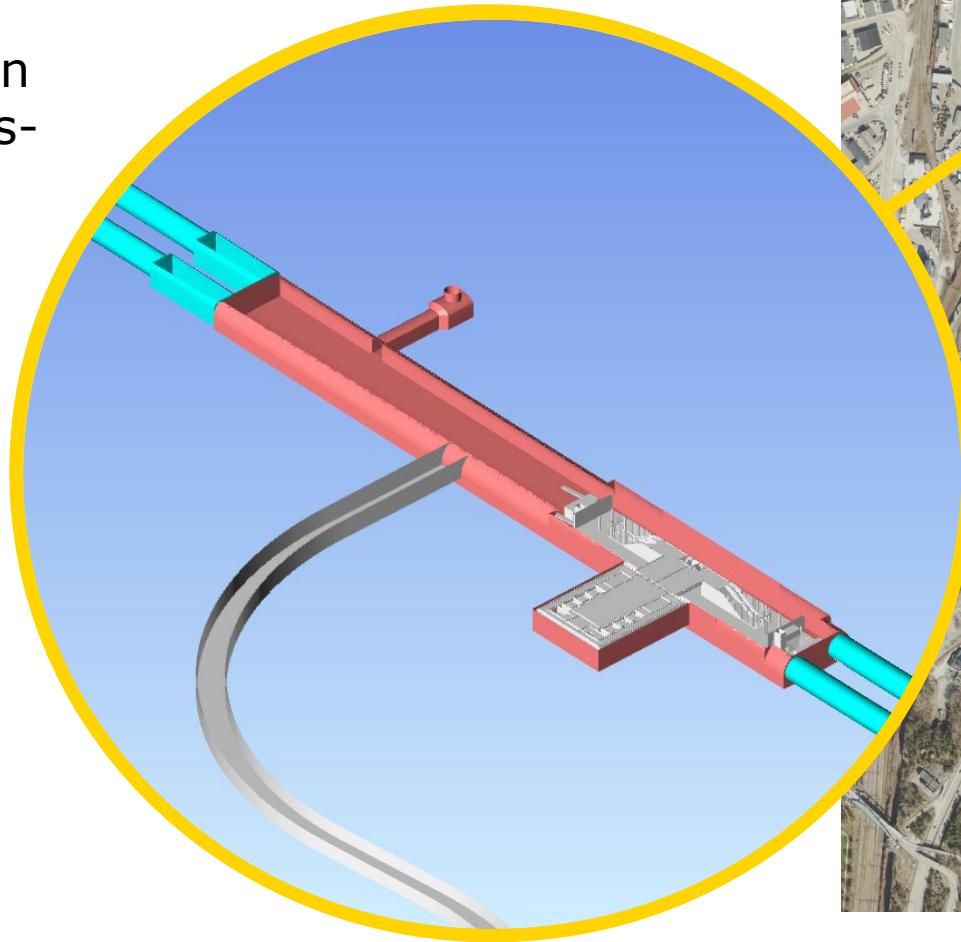


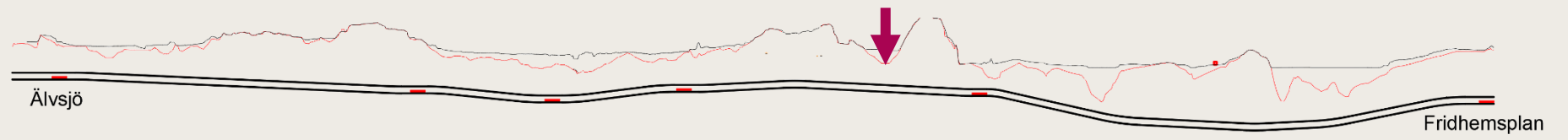
- Årstabergr metro station





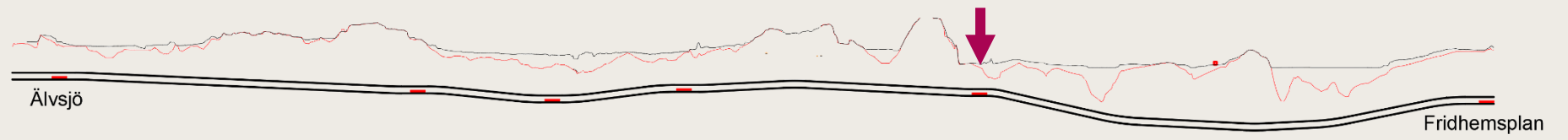
- Årstabergr metro station including area for cross-over switches





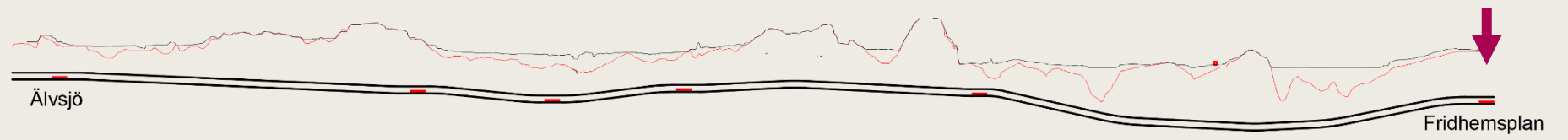
- Site establishment area at Liljeholmen



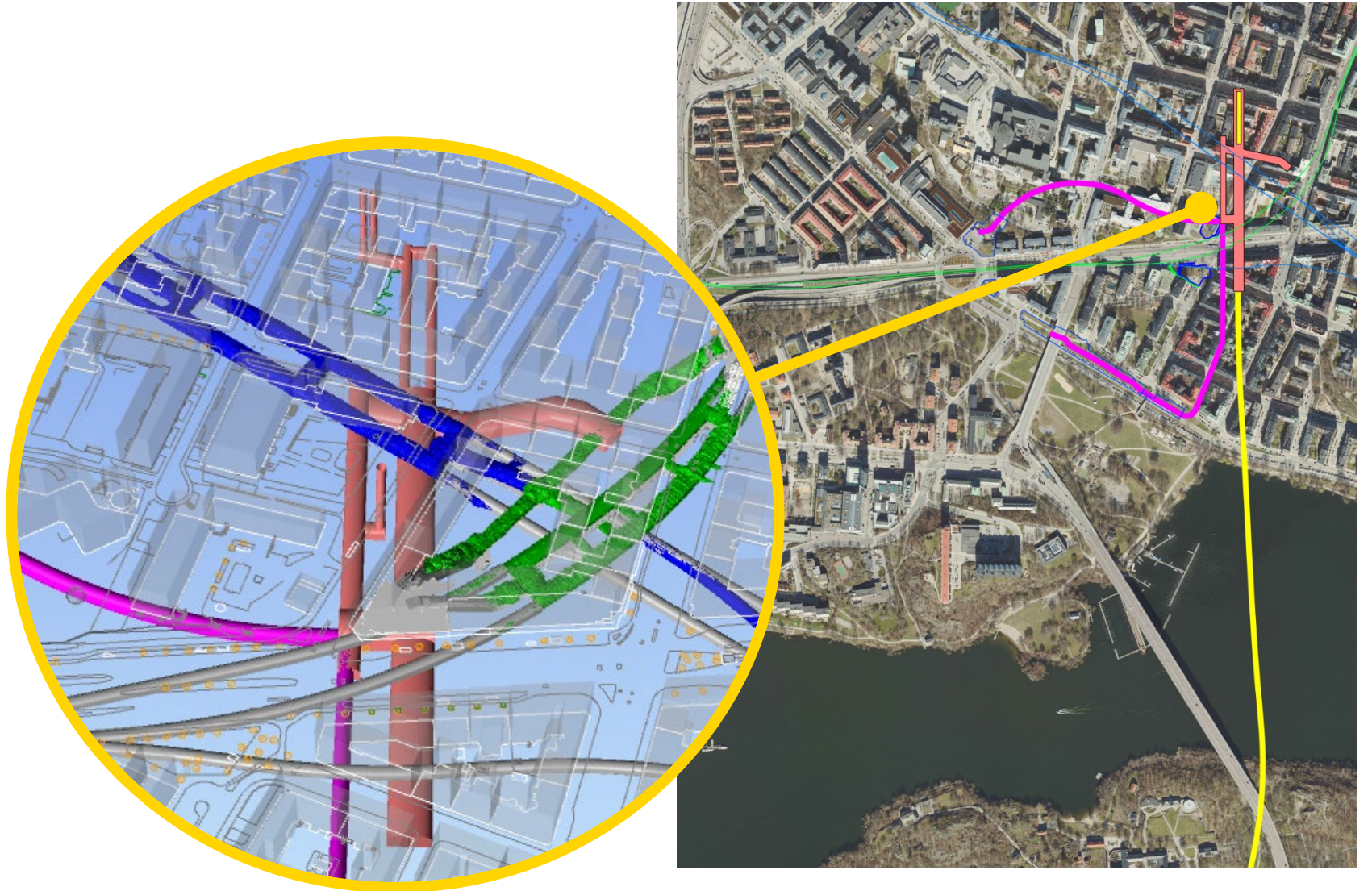


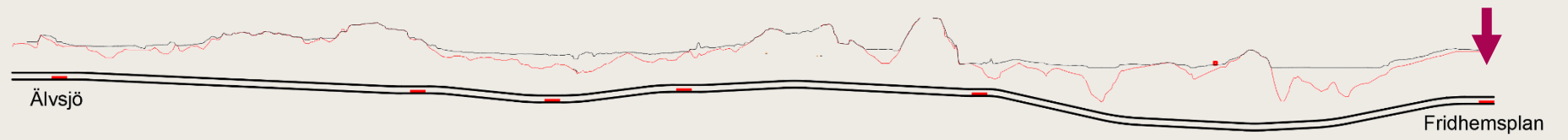
- Liljeholmen metro station



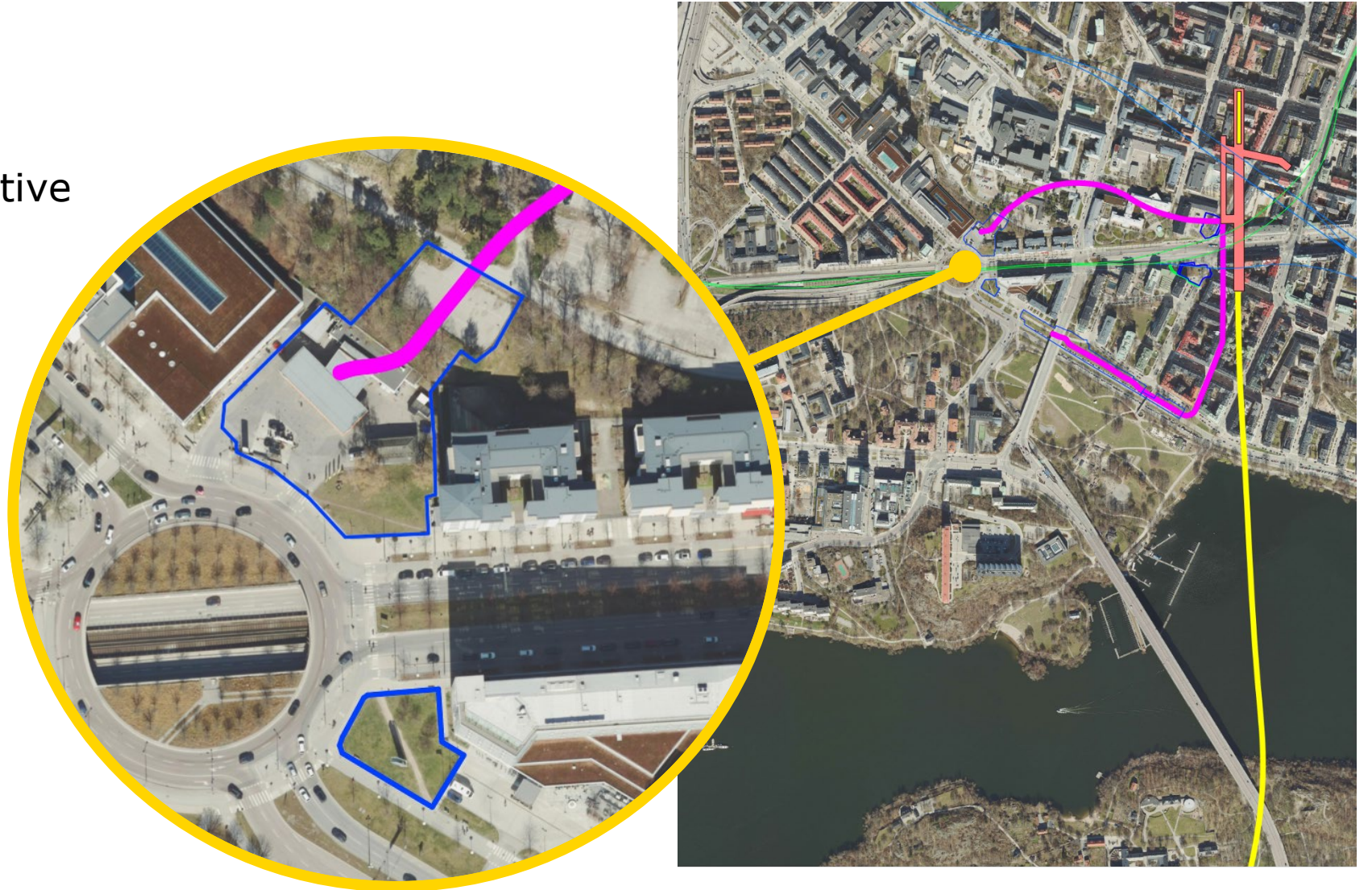


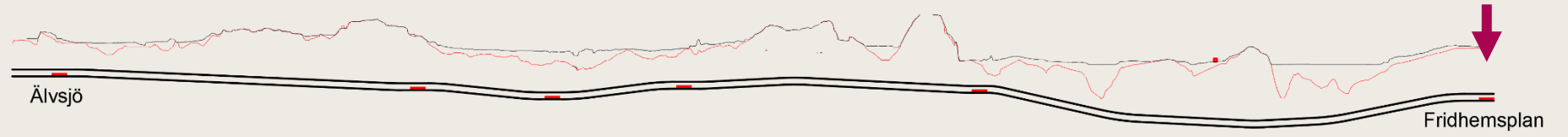
- Fridhemsplan metro station



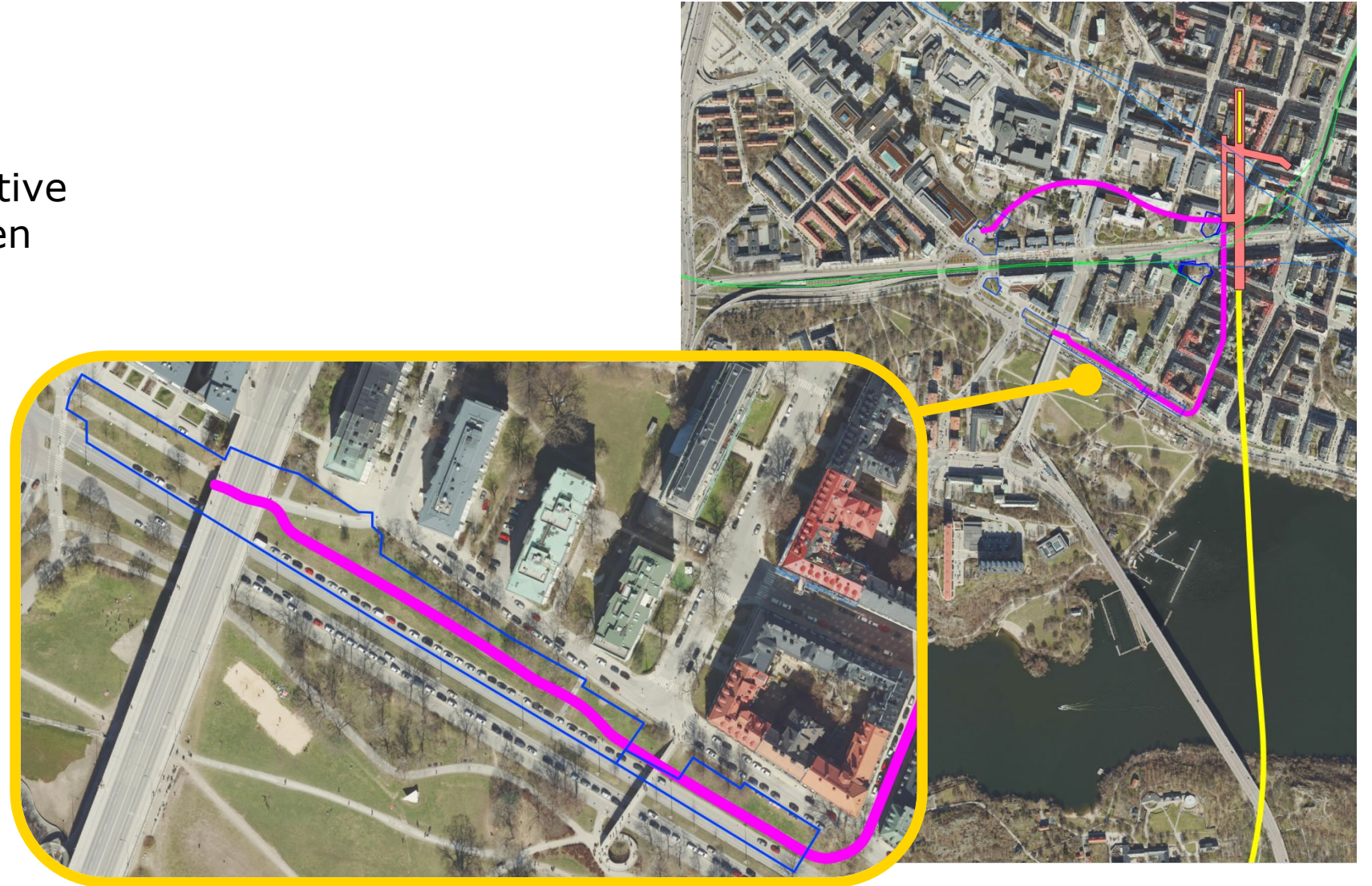


- Access tunnel, alternative from Lindhagensplan



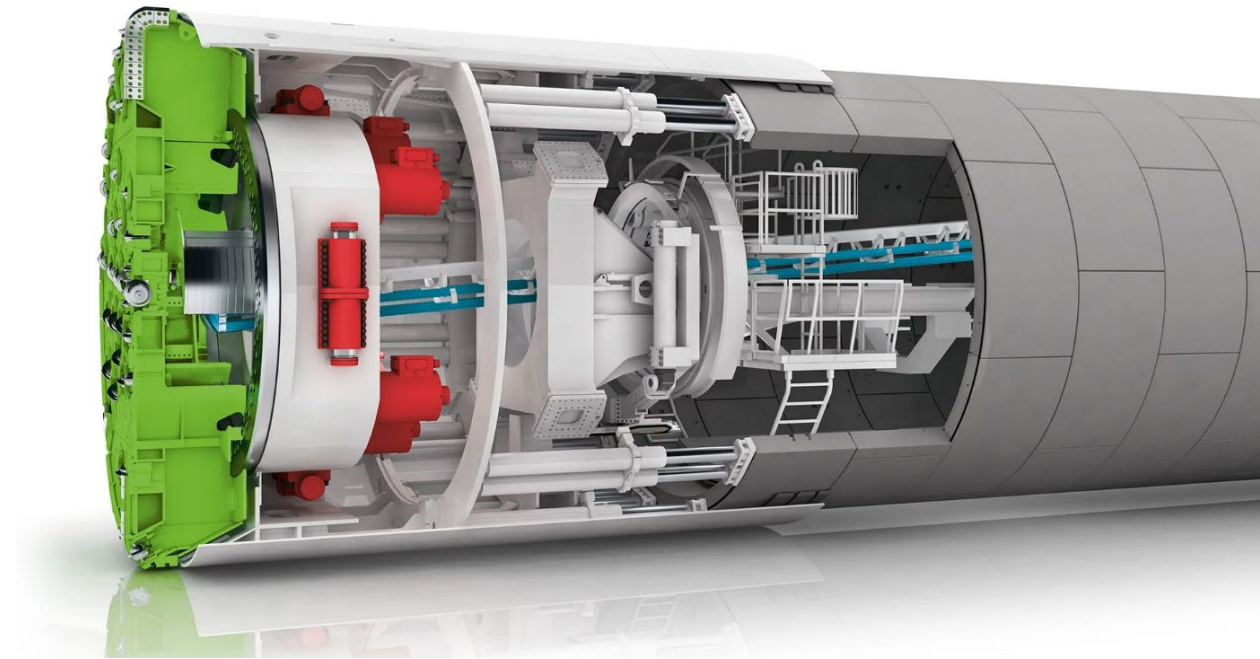


- Access tunnel, alternative from Rålambshovsleden



Planned TBM

- Current planning:
 - single shield TBM
 - capabilities to close the front
 - pregrout through the shield
- Double shield has not been ruled out
- TBM must have pre-grouting capabilities



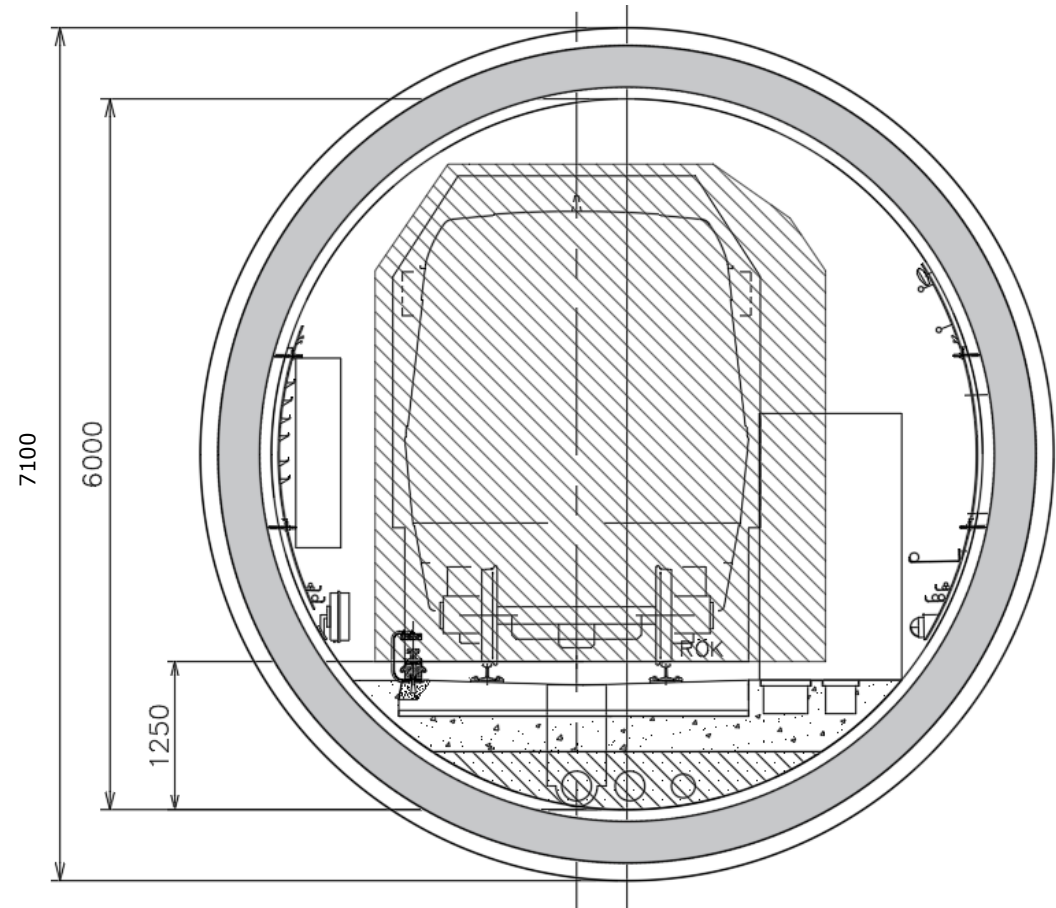
TBM logistics

Areas and set up for segment manufacturing and storage to be sourced and designed by the contractor



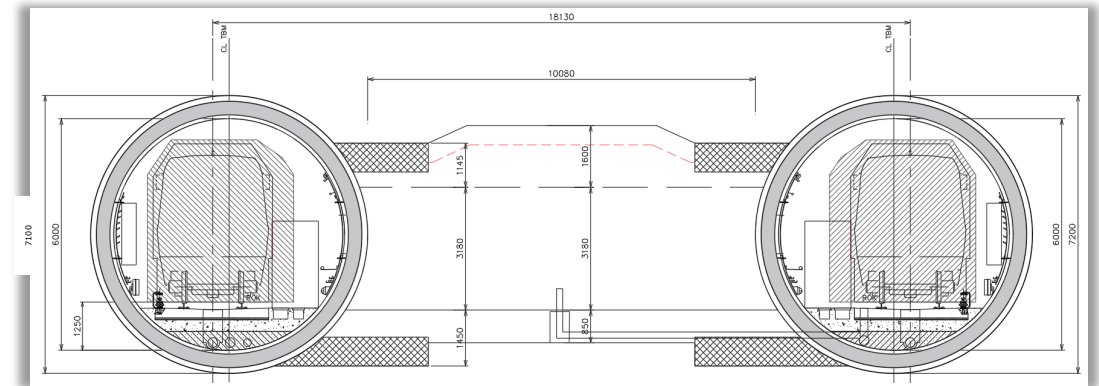
Tunnels and cross section

- Tunnel



Tunnels and cross section

- Cross passages



Geological conditions

Ongoing crossings across straits
in Stockholm

Svenska kraftnät
(tunnel for power cables)

Fridhemsplan - Älvsjö

Metro extension

Stockholm new sewer

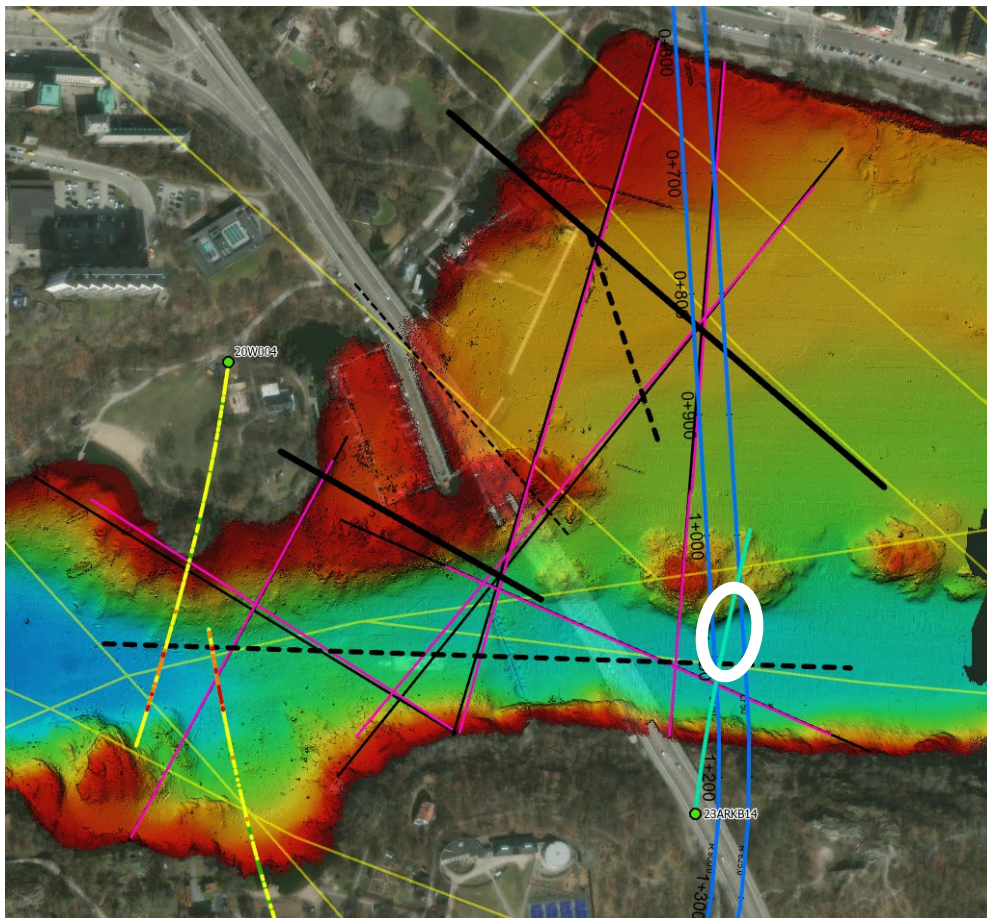
Stockholm bypass
(highway)



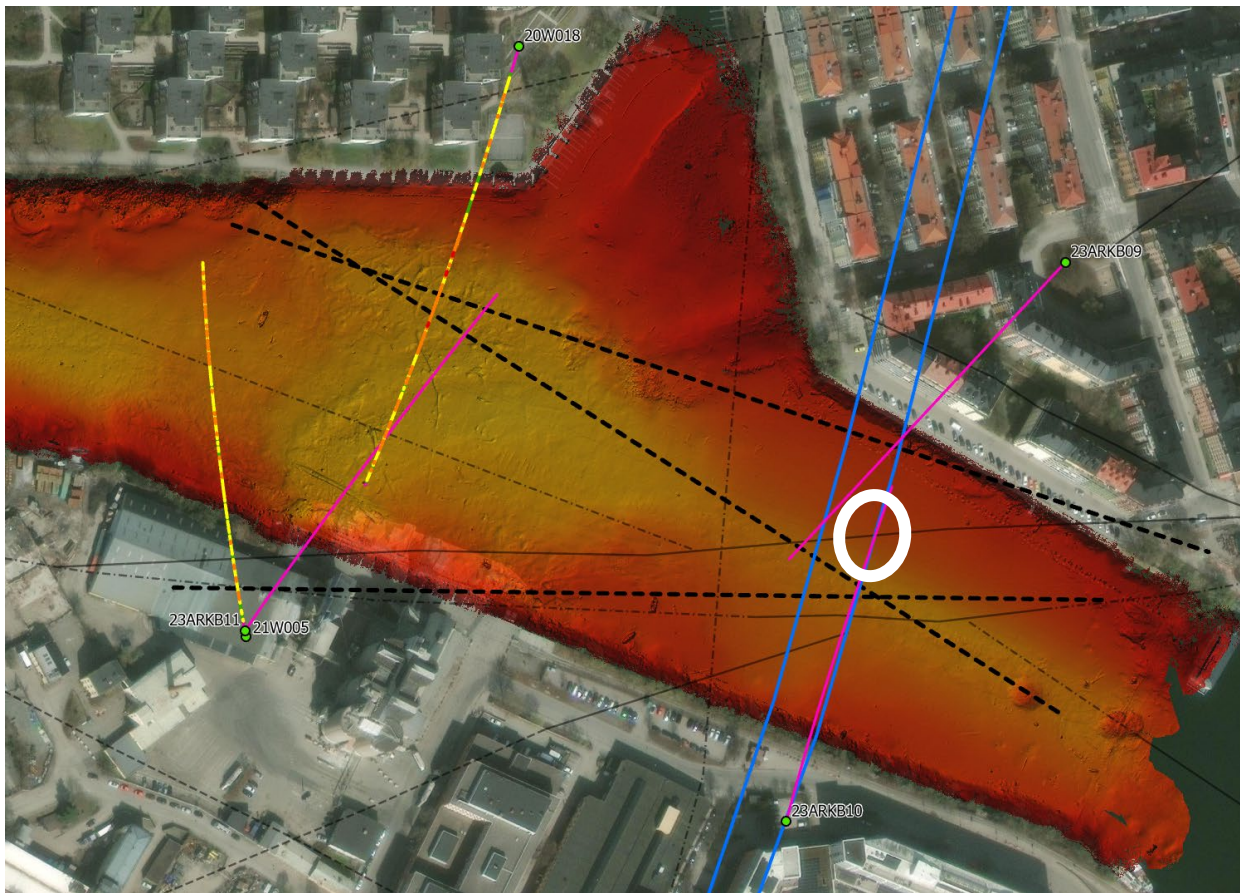
Status on site investigations

- Desk top studies
- Geophysical investigations
- Rock and soil probing
- Core drilling
- Test on abrasivity

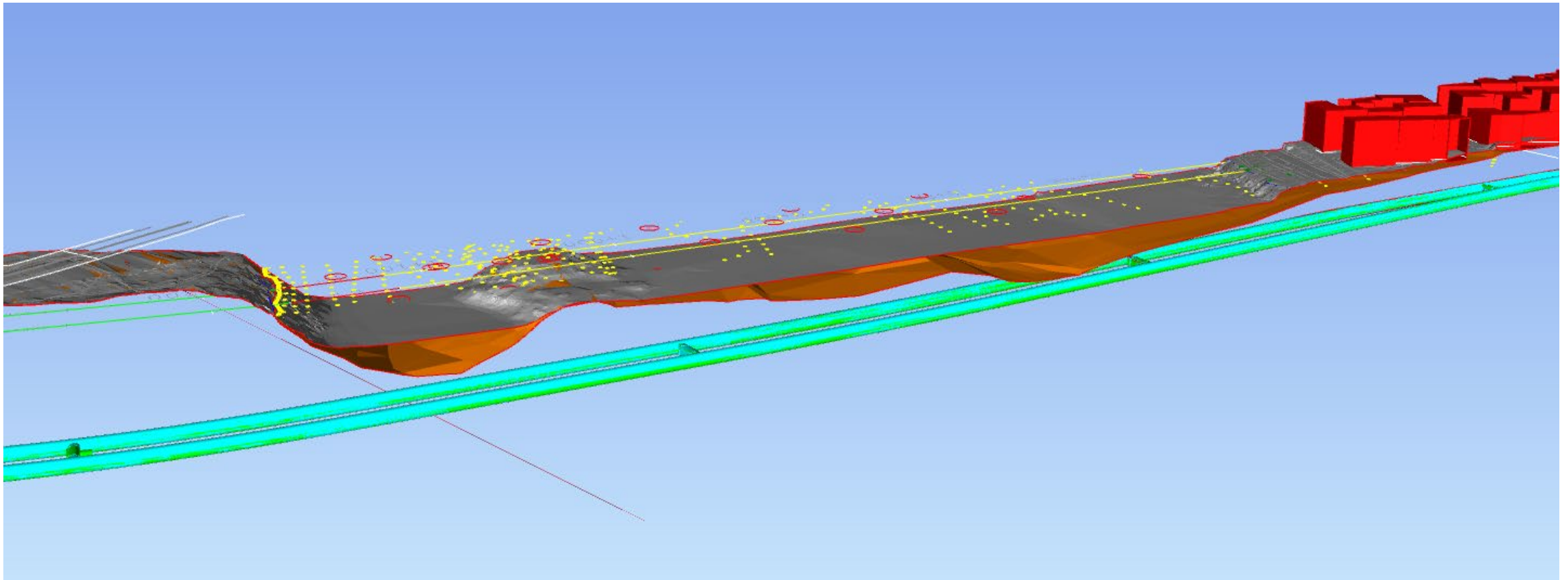
Riddarfjärden – core drilling



Liljeholmsviken – core drilling



Model over bedrock at Mälar-crossing





**Program for
civil and
building works**



**Collaboration
Plans and permits
Sustainability
Health and safety**



Procurement strategy

Three engineering contracts

for detailed design and support during construction

Tender documents, detailed design rockworks & civil, schematic design for building and E&M, support during construction - stations

- One call for tender
- Two contracts
- Tender period March - April 2024

Tender documents, based on current design and support during construction for TBM tunnel

- One call for tender
- One contract
- Tender period March - April 2024

Current planning is to procure

tunnel-, civil- building works in five packages *

1. Preparatory works

- Utility diversions
- Water- and power supply to worksites
- Worksites

2. Access tunnels, major geotechnical structures, shafts and caverns

- Access tunnel to Älvsjö and Liljeholmen
- Elevator shafts and stations in Älvsjö, Östberga, Årstafältet and Liljeholmen

3. Main tunnels and Årstabergr

- Stations in rock in Årstabergr
- TBM tunnels and cross passages from Älvsjö depå to Fridhemsplan

4. Civil, building and E&M for stations

- Structural concrete (mainly prefab), building works, E&M for six stations

5. Station Fridhemsplan

- Access tunnel
- Station (rock works and some civil works)

Package 1 Preparatory works

Scope

- One or more contracts
- Including all preparatory works, utility diversions
- Along the entire yellow line

Facts



Estimated size

100-200 MSEK



Type of procurement

Frame work agreement



Type of contract

Build only



Remuneration

Cost plus

Prel. program



Call for tender

From Maj/June 2024



Sign of contract

From August 2024



Start of contract

2024

Package 2 Access tunnels, major geotechnical structures, shafts, caverns

Access tunnels – two contracts

Stations and elevator shafts

- 4 contracts, Älvsjö station, Östberga station, Årstafältet station and Liljeholmen station

Major geotechnical structures

- Secant piling at Årstafältet and Liljeholmen in one or two contracts

Facts



Volume of works

Between 100-600 MSEK



Type of procurement

Value-added evaluation



Type of contract

Build only



Remuneration

Fixed price, BoQ

Prel. program



First call Apr 2025

Subsequent calls,
2025-2026



Contract award

2025

Subsequent contracts
2025-2026



Start of projects

Q3 2025

Package 3 TBM tunnels, cross passages, vertical ventilation shafts and Årstabergr Station

Scope

1 contract

- TBM tunnels from depo in Älvsjö industrial area to Fridhemsplan, including cross passages and ventilation shafts
- Station in Årstabergr

Facts



Estimated value

4-5000 MSEK



Type of procurement

Value-added evaluation



Type of contract

Station: build only
TBM: design and build



Remuneration

Station: BoQ
TBM: Fixed price (ev.
based on boring classes)

Prel. program



Publish of tender

Dec 2025



Award of contract

Dec 2026



Project start

From Jan 2027

Package 4 Building and electrical and mechanical works in stations

Scope

1-6 contracts

- Structural concrete, civil and building works along with all necessary electrical and mechanical works for stations
- Älvsjö, Östberga, Årstafältet, Årstaberget, Liljeholmen and Fridhemsplan

Facts



Estimated value

Approx 2-3000 MSEK



Type of procurement

Value-added evaluation



Type of contract

Design and build



Remuneration

Fixed price

Prel. program



Publish tender

fr. Feb 2028



Award of contract

fr. Aug 2028



Start of project

fr. Apr 2029

Package 5 Station Fridhemsplan – rock works

Scope

1 contract

- Access tunnel, station, cross-over area, access to into existing station
- Possible option, building and installation

Facts



Estimated value

Ca 600 MSEK



Type of procurement

Value-added evaluation



Type of contract

Build only



Remuneration

Cost plus

Prel. program



Publish tender

Nov 2025



Award of contract

Maj 2026



Start of project

Aug 2026

Conclusion

		Älvsjö industrial area (TBM Start)	Station at Älvsjö	Station at Östberga	Station at Årstafältet	Station at Årstaberget	Station at Liljeholmen	Station at Fridhemsplan	
A	Utility diversion, service to work sites	Package 1 100-200 MSEK							
B	Preparation of work sites								
C	Access tunnels / launching pit for TBM	200-400 MSEK				100-200 MSEK	Comb. with E, F & G		
D	Geotechnical structures and earth works				30-60 MSEK		30-40 MSEK		
E	Rock works in vertical shafts and messanine plane			Package 2 Station contract 300-500 MSEK each				Package 2 Station contract 300-500 MSEK each	Package 5 500-600 MSEK
F	Rock works in messanine plane and cavern								
G	Civil works included in rock works contract								
H	Railroad tunnels	Package 3 4000-5000 MSEK							
I	Civil works by TBM contractor								
J	Building works in stations - structures				Package 4 Station contract 400-600 MSEK each				
K	Building works in stations								
L	Electro Mechanical works in stations								

- Package 1
Build only
- Package 2
Build only
- Package 3
TBM – Design and
build, station
build only
- Package 4
Design and
build
- Package 5
Build only

Planned procurement schedule

