

SAFE AND SECURE PUBLIC TRANSPORT

E-DOCA & DOCA

Social safety:

Case Amsterdam metro system.

AMSTERDAM

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Social safety

Case Metro system Amsterdam.

- Metro plans
- Lessons learned East metro line
- Basic principles North/South metro line
- Social safety: other concepts / systems

Study of network



1964

2013

—— Main network

----- Additional network

Social safety : case

Metro East line principles (1970's):

- Functional design
- More civil engineering than architecture
- Strong appearance, "built to last"
- Transfer between transport systems without crossing the street:
 - Relatively large number of entrances
 - Large intermediate levels

Metro Amsterdam: central station



Platform



Metro Amsterdam: Weesperplein station



Platform

Exit



Metro Amsterdam: Weesperplein station



Control line

Transfer hall



Metro Amsterdam: Weesperplein station



Plan



Exit





Old

Modified



Entrances



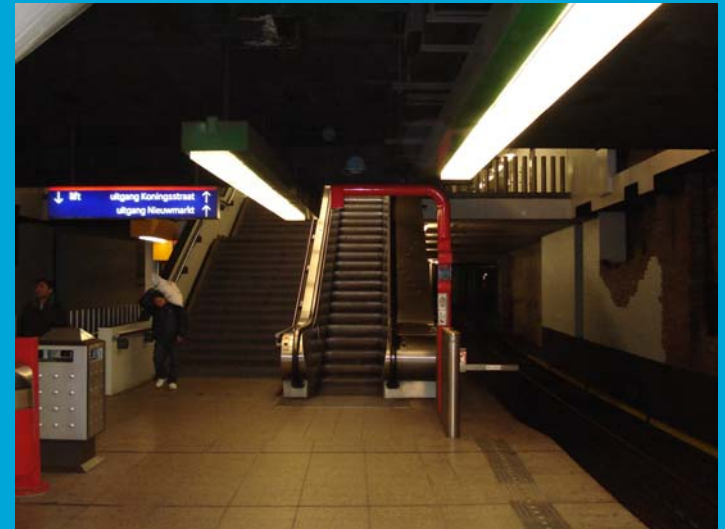
Entrance



Entrance



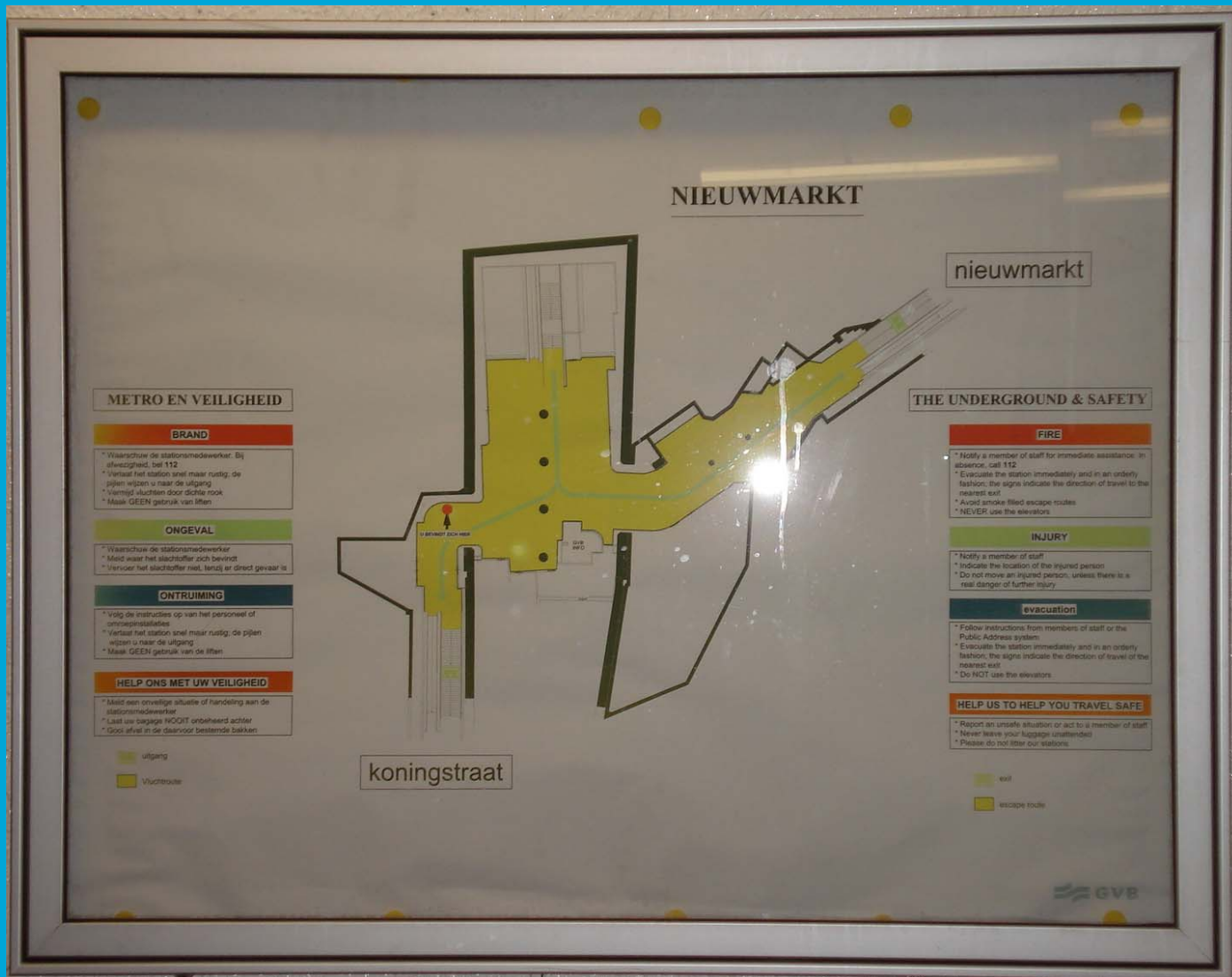
Station Nieuwmarkt



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Lessons learned

Metro east line Amsterdam:

- No or insufficient overview
- Spreading of the passengers
- (To) Many entrances/exits
- Maintenance difficult due to chosen materials
- Many control lines
- Many places to hide
- Loss of direction for the passenger

North South metro line



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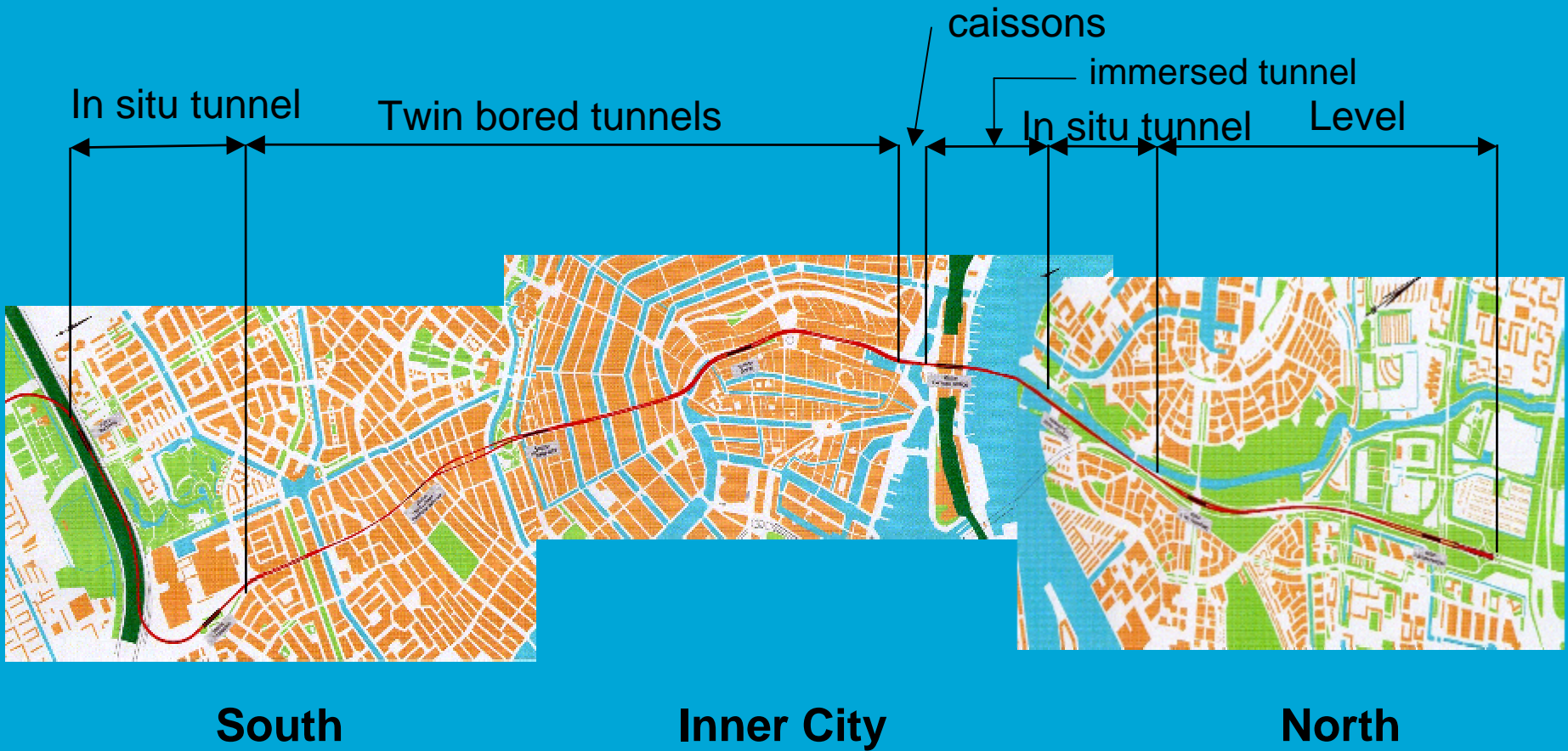
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The Project: key figures

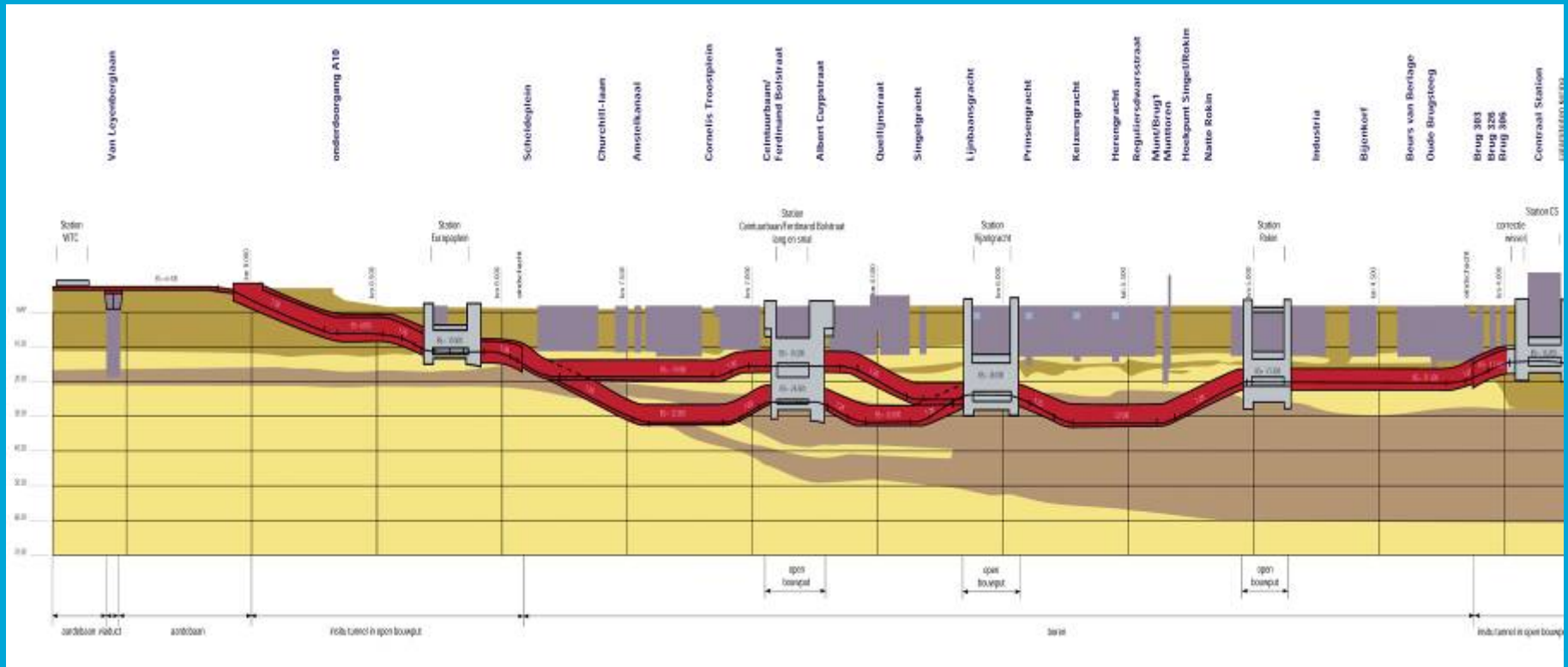
- 200.000 passengers / day
- 9 km long new infrastructure
- 6 km subsurface
- 4 complex deep stations
- 2x3 km single track twin bored tunnels
- in operation: 2013



Overview of the construction methods



Vertical alignment bored tunnels

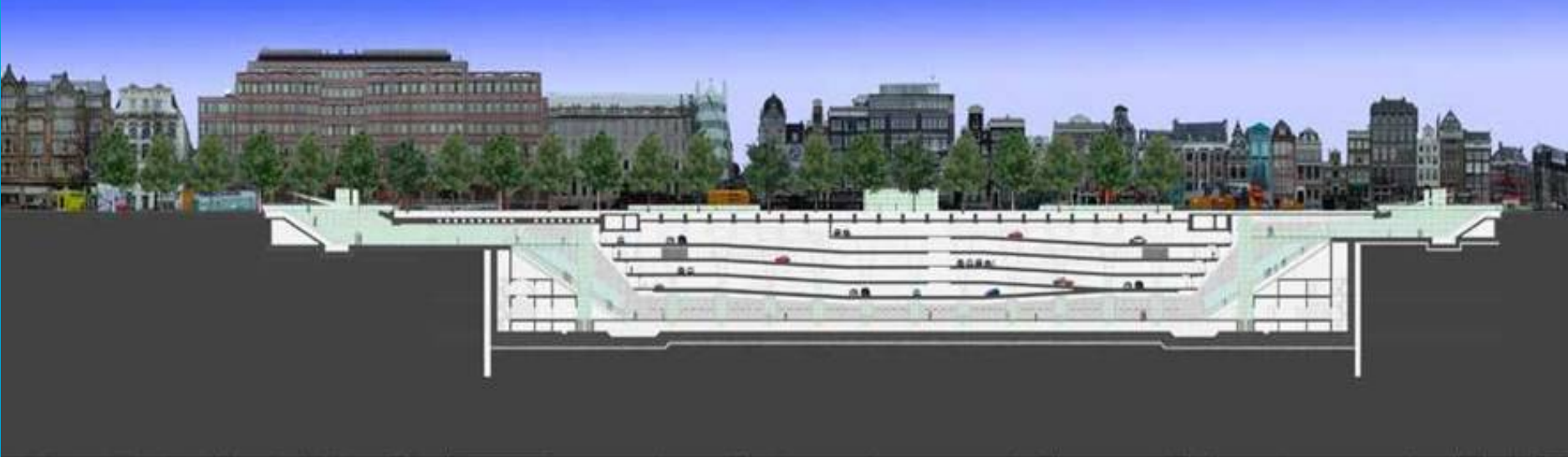


North/South metro line

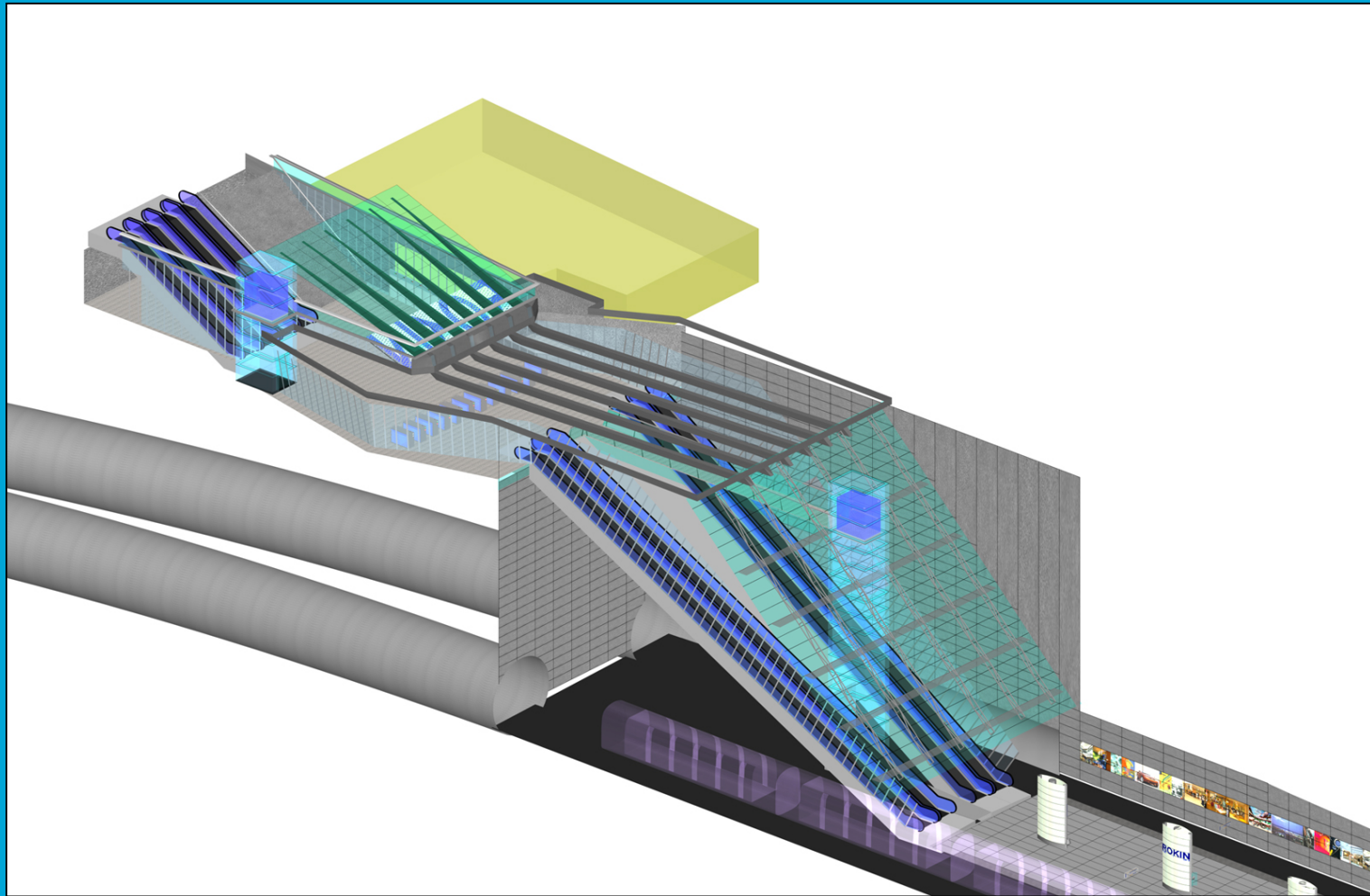
- Overview, logical layout
- No thinning of the passengers
- Maintain orientation and sense of direction
- Clear control line
- Same layout for different stations
- If possible: day light at exits
- Finishing materials that can be maintained

Station Rokin

307 Metrostation Rokin Langsdoorsnede



Entrance Rokin station



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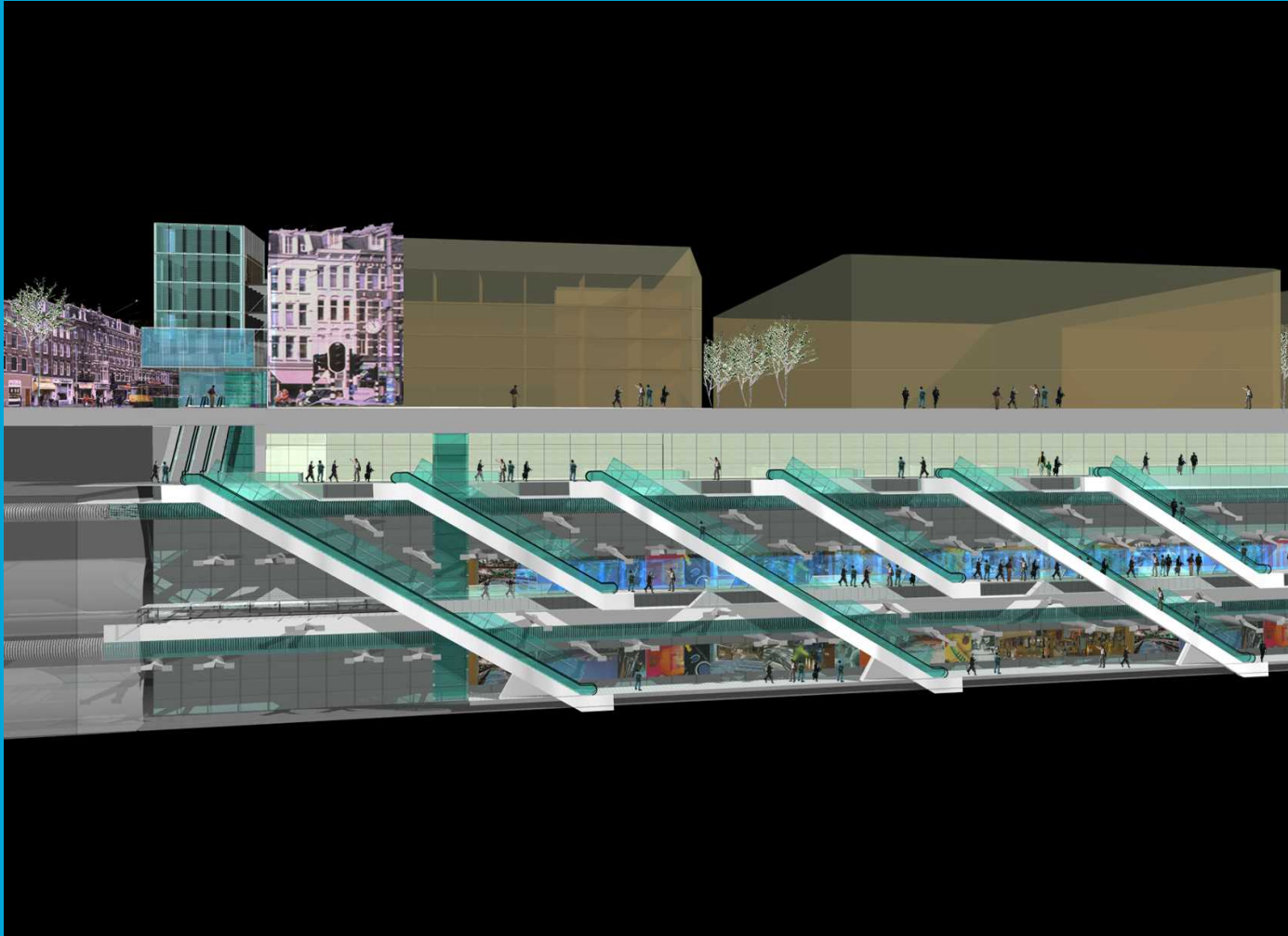
Platform design



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Station Ceintuurbaan



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Social safety: other concept

- Metro Sur
 - Space
 - Colors
 - Double track tunnels: side platforms
- Japan, South-Korea
 - Construction technology decisive

Metrosur



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Metrosur



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Metro Seoul, Korea



Metro Seoul, Korea



Metro Moscow, Russia



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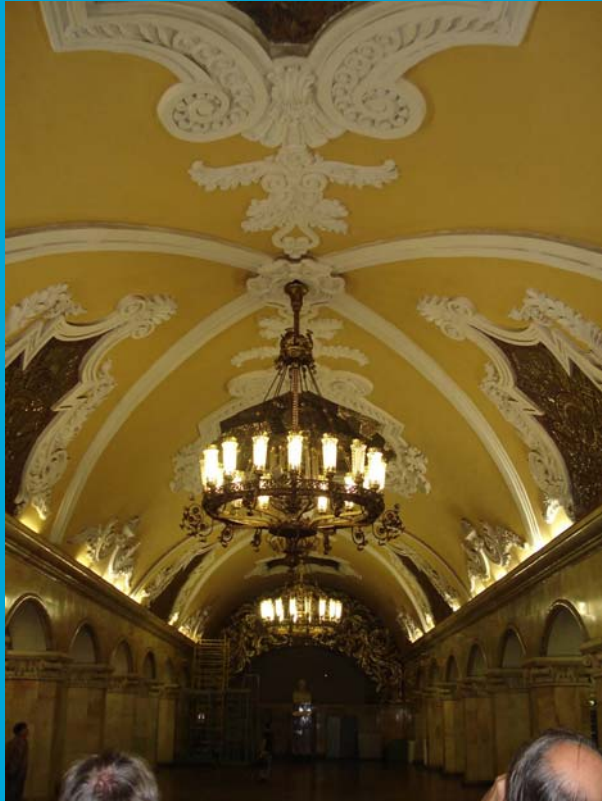
Metro Moscow, Russia



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Metro Moscow, Russia



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Metro Moscow, Russia



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