



February 25, 2026

PRE-QUALIFICATION CONFERENCE



PRE-QUALIFICATION CONFERENCE



YODFAT AFEK ARAZI

CHAIRWOMAN OF THE BOARD



PRE-QUALIFICATION CONFERENCE



ITAMAR BEN MEIR

NTA CEO



PRE-QUALIFICATION CONFERENCE



ZVIKA BROT

MAYOR OF BAT YAM,
REPRESENTATIVE OF THE LOCAL AUTHORITIES

PRE-QUALIFICATION CONFERENCE



OSHRAT DAVID

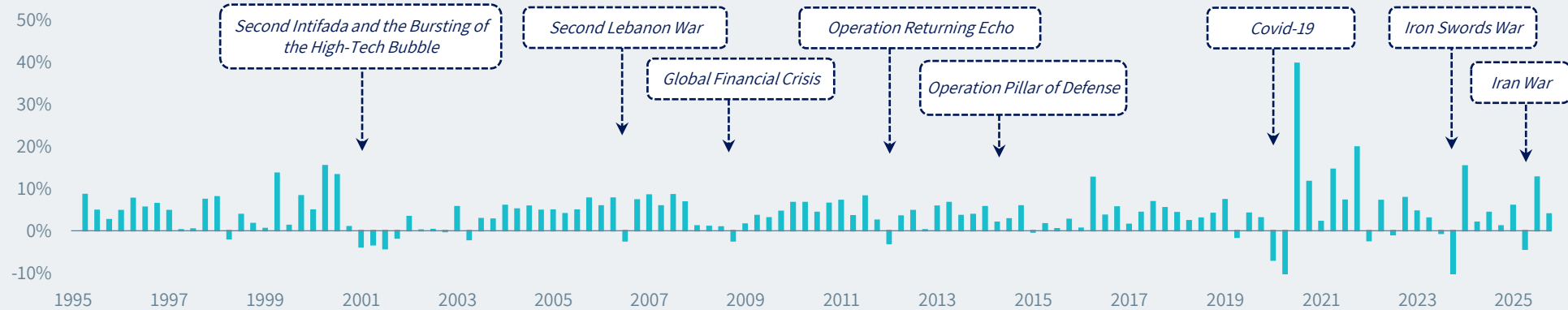
ACCOUNTANT GENERAL



Israeli Infrastructure Opportunities ►

Israel proves resilience through turmoil

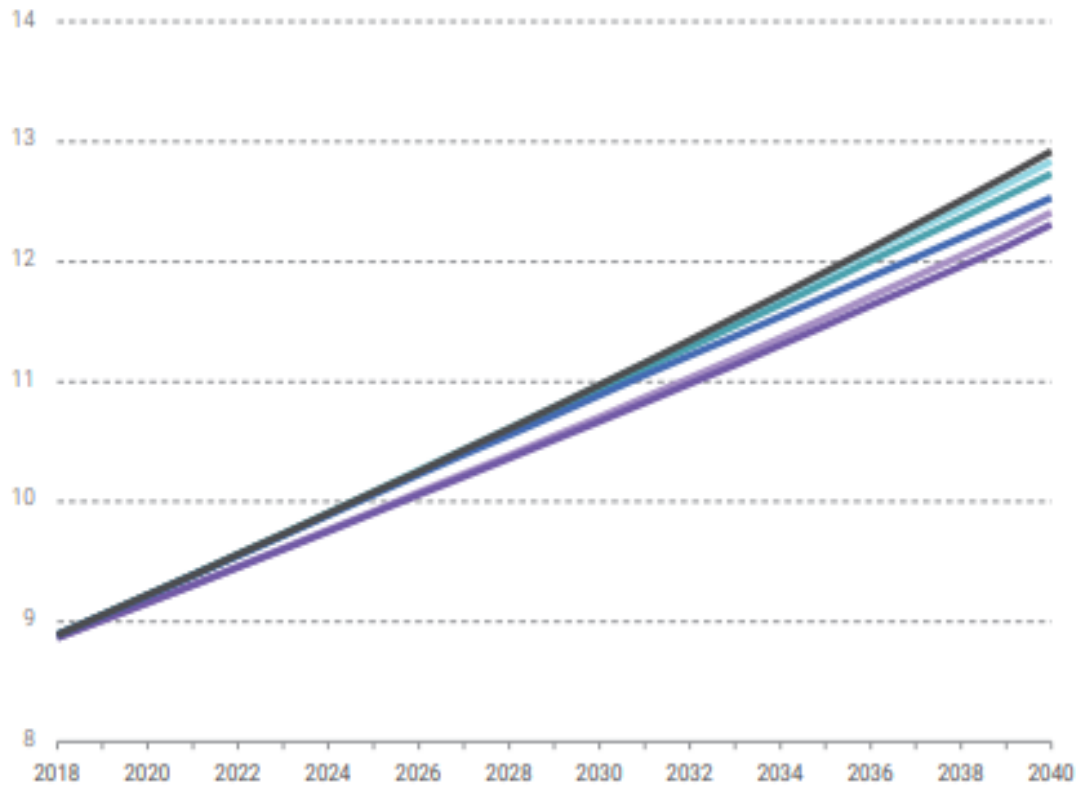
Real Quarterly GDP Growth Rate, 1995-2025 (% annualized)



Real Quarterly GDP Growth Rate, 2020-Q2 2025 (% annualized, seasonally adjusted data)



Population Growth

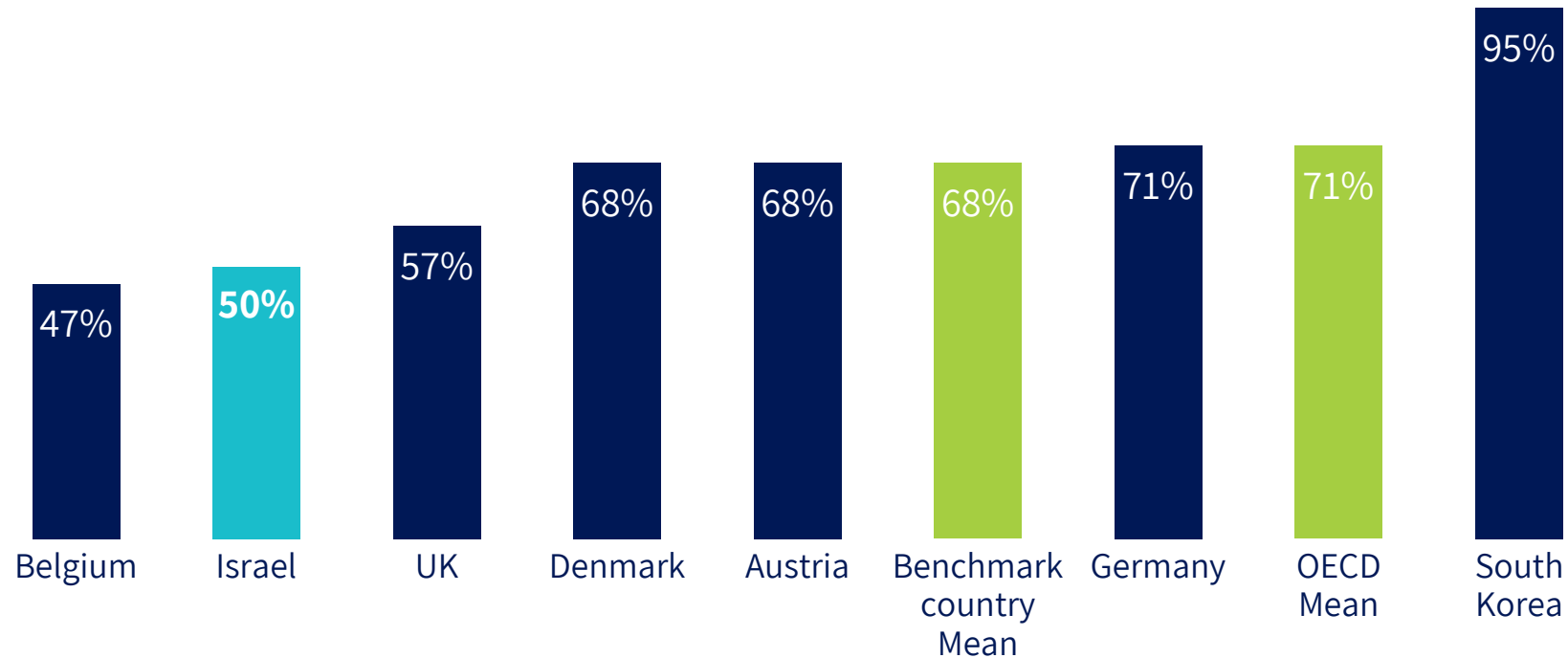


Israel's Population is set to increase to a number between 12.3 Million and 12.9 Million Citizens by the year 2040

**That is between
21%-27%
in 15 Years**

Israel faces infrastructure deficit

Infrastructure Stock (% of GDP)



Israel Views Infrastructure as a Growth Generator

Expected investments
in the coming decade:

**NIS
446
Billion**



Metro
NIS **180** billion



Roads
NIS **25** billion



**Water
Infrastructure**
NIS **22** billion



Israel Railways
NIS **65** billion



Aviation
NIS **15** billion



**Construction
(Health, defense,
incarceration)**
NIS **22** billion



LRT
NIS **65** billion



**Power
Generation**
NIS **47** billion



Waste
NIS **5** billion



Complementary Airport to Ben Gurion Airport

- 20,000,000 Passengers
- The tender is structured as a Public-Private Partnership (PPP) tender
- The airport will be operated by a private concessionaire
- We are seeking bidders with proven experience in airport operation





Israel Railways



NIS 65 Billion
in Heavy rail investment

- Electrification
- New Railroads
- Rolling Stock
- 2050 Expansion path

NIS 65 Billion

An addition of 400 km of tracks

The railway development plan for 2040

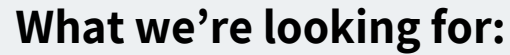
- Single Track
- Two Tracks
- Four Tracks
- Six Tracks





- Jerusalem LRT Network
- Dan Metropolitan Network
- Haifa-Nazareth LRT Line

NIS 65 Billion



- Civil Engineering experts
- Tunneling experts
- Construction Contractors
- Train Operators

Jerusalem Light Rail Map



The Water Sector

Desalination Plants

- Emek Hefer 400 MMBTU
- Ashkelon 220 MMBTU
- Shafdan 165 MMBTU

NIS **10** Billion

By the end of 2026, With the addition of Ashkelon and Emek Hefer Plants, **90% of Israel's Sweetwater will be from Desalination!**

Water Authority Projects

- Expansion and upgrading of the national Transmission and distribution networks
- Expansion of wastewater treatment facilities

NIS **12** Billion



Overall NIS 22 Billion in Water investments



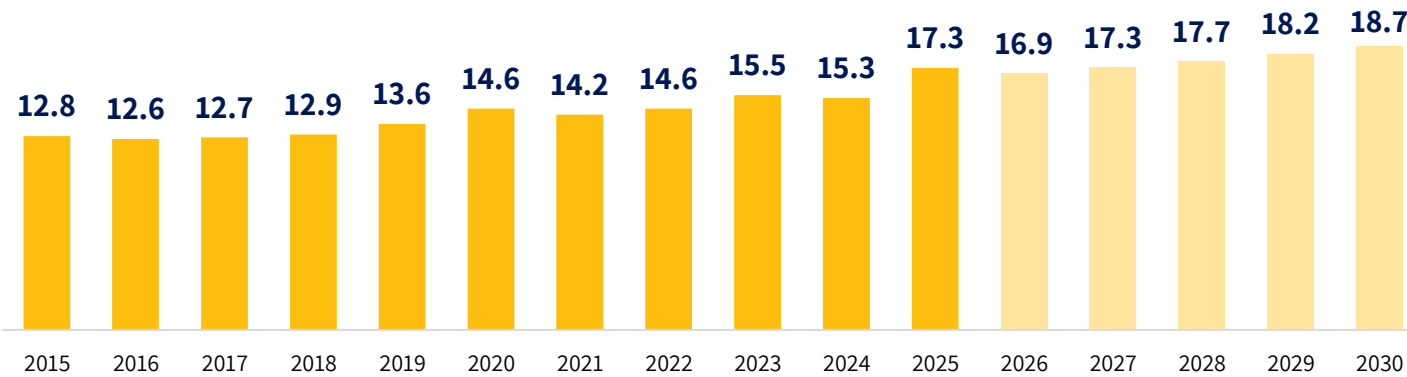
What we're looking for:

- Civil Engineering experts
- Desalination Experts
- Long-term operation experts
- Energy generation experts

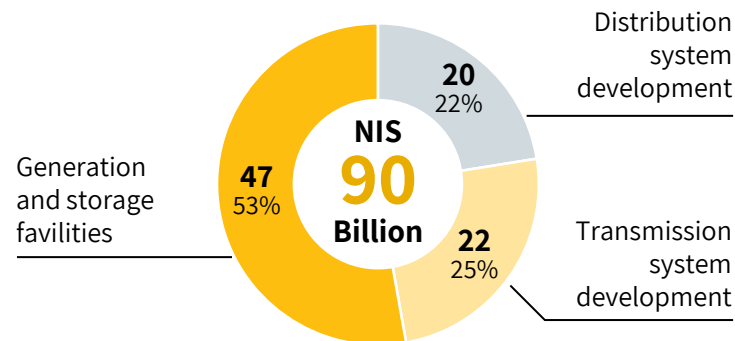


The Energy Sector

An Ever-growing demand for electricity



13 combined cycle power plants (CCGT) with a capacity of 670–900 MW each by 2035



What we're looking for:

- Power station EPCs and Operators
- Solar Energy Experts
- Energy Storage Experts
- LNG Import and Storage Experts
- Hydrogen Experts
- Data Center experts



The Waste Sector

2026:
 **80%**
goes to landfilling

 **20%**
goes to treatment
↓

Israel Plans to reverse
the trend by 2033:

 **80%**
treatment

 **20%**
landfilling



Hence, by 2033 we expect to
launch:

At least
10
**Waste to
Energy Plants**



What we're looking for:

- Civil Engineering experts
- sorting Experts
- Long-term operation experts
- Waste to Energy experts

THANK YOU!

Would you like to stay updated?

Please send us email to
PPP.Projects.Israel@inbal.co.il
and join our mailing list!



Ministry of Finance

 **Accountant
General**



PRE-QUALIFICATION CONFERENCE



YAIR EREZ

METRO AUTHORITY



The Tel Aviv Metro Project

Government Readiness,
Secured Funding,
and Execution Opportunities

Yair Erez

Head of Metro Unit
The Metro
Authority
Ministry of Transport

Decade of Investment Shift



The Macro View:

The government of Israel is aggressively shifting its focus from road construction to mass transit systems.

Growing Capital Expenditure:

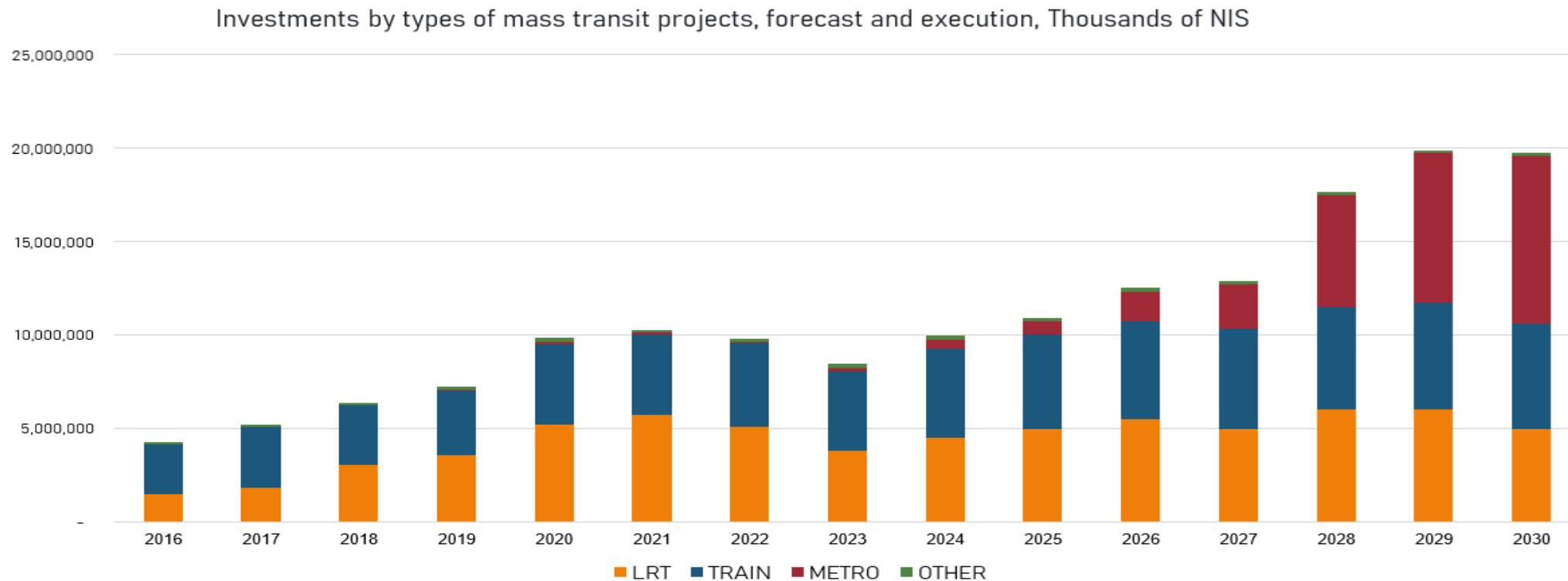
The state is executing an extensive investment plan in transportation infrastructure for the next decades.

The Goal:

Closing the infrastructure gap compared to OECD countries and supporting Israel's rapid demographic and economic growth (approx. 2% annual population growth).

Investment Pipeline

Budget Investment in Light Rail Transit (LRT), Heavy Rail, and the Metro is growing exponentially year-over-year, reaching tens of billions of NIS annually by 2030.



Tel Aviv Metro - Project Scope

The Largest Infrastructure Challenge:

The most complex and largest transportation project ever carried out in Israel's history.



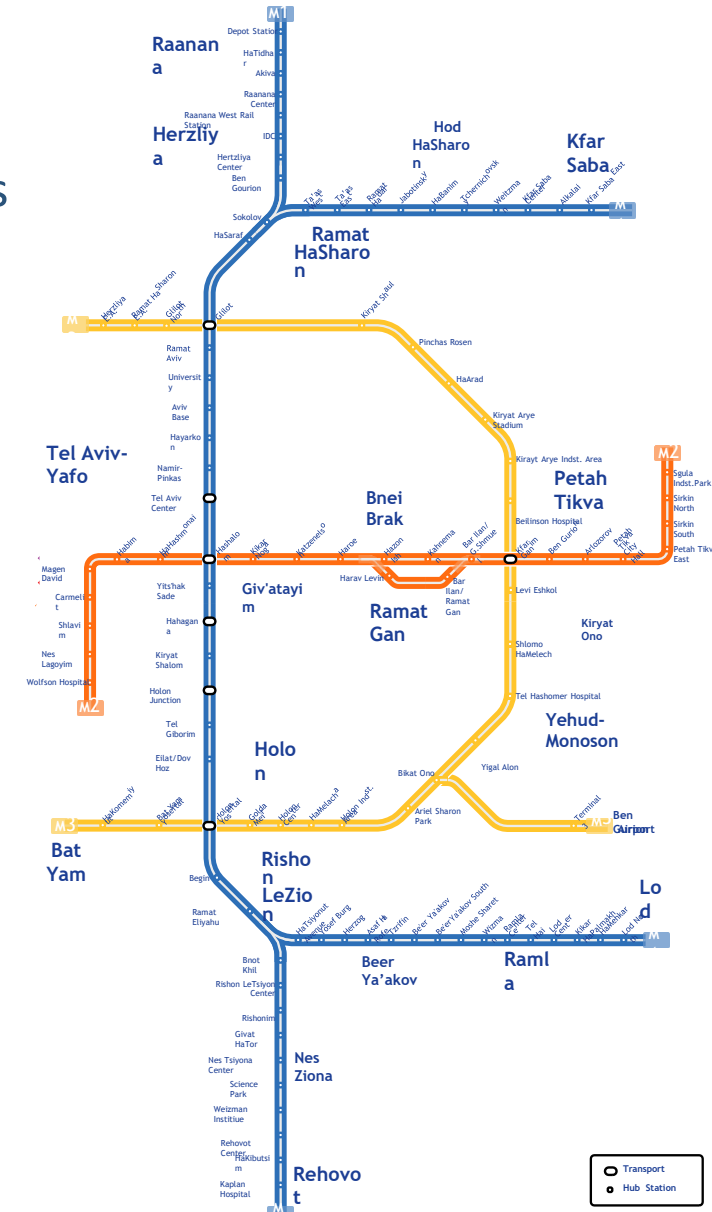
3 Lines (M1, M2, M3) spanning across 24 Local Municipalities



150 KM of underground track network



109 underground stations and 4 depots



Economic Impact:

Estimated to \$8.5 Billion (approx. 25 Billion NIS) in economic benefits annually

Secured Funding & Government Commitment

Total Estimated Budget

Approximately 180 billion NIS (roughly \$50-60 billion).

Legislated Financial Stability

The project's budget is officially secured in valid legislation, ensuring stability for executing contractors.

Unique Funding Mechanism

- 50% State Budget: Direct government capital injection.
- 50% Value Capture : Funded through designated "Metro Taxes" and real estate development rights above and around stations.





Dedicated Chain of Command

The government has established a robust, centralized management structure to oversee this mega-project.

The Metro Authority (MOT)

A dedicated government regulatory and oversight body designed to remove barriers, coordinate among ministries, and provide strategic backing to the executing company.

NTA (Metropolitan Mass Transit System)

The government-owned executing company is fully in charge of design, procurement, and construction.

The Regulatory Council

A supreme statutory committee empowered to resolve disputes between the project and local authorities or utility companies to prevent any execution delays.

The Metro Act

A unique, independent legislative package aimed to guarantee the project's success



Funding package

- Project budget
- Funding mechanisms



Structure and management

- Establishment of the Metro Authority
- Government board of the project
- Supervision mechanism by the Israel Parliament



Regulation barriers

- Prioritize the project
- Remove bureaucracy and regulatory barriers

Removing Barriers: Fast-Tracking Execution

The Metro Act provides executing contractors with special regulatory tools to mitigate common construction risk

- **Utility Diversion:** Implementation of short SLAs for utility coordination and automatic approvals if authorities fail to respond on time
- **Workforce:** Accelerated permit processes for bringing in foreign workers and international experts
- **Land & Property:** Fast-tracking land acquisition and statutory processes
- **Environmental & Civil Works:** Flexible protocols and tools for antiquities, tree preservation, noise regulations, and water protection coordination.



Future Horizons: Expanding the Metro & LRT

Entering the Israeli market now opens the door to a massive pipeline of future urban transit projects

- **Tel Aviv Metro Expansion:** Additional planning is already underway for 2 more underground metro lines in the Gush Dan region.
- **Jerusalem Metro**
Feasibility tests and initial planning for 2 underground metro lines in the capital.



Key National Heavy Railway Mega-Projects

In addition to urban transit, Israel Railways is promoting massive national infrastructure tenders

- **High-Speed Tracks (Haifa - Tel Aviv)**

A \$6 Billion USD project to construct 68 km of double high-speed tracks.

- **High-Speed Tracks (Tel Aviv - Beer Sheva)**

- A \$4 Billion USD project for a 106 km double track.

- **Jerusalem Line Extension**

- A 3.5 km underground tunnel and 2 underground stations in the capital.

- **The Ayalon Underground Corridor**

- Construction of a 30 km tunnel through Tel Aviv's main railway corridor, including 2 underground stations.



Thank You & Shalom!

Yair Erez

Head of Metro Unit

The Metro

Authority

Ministry of Transport

State of Israel



THE
ISRAEL METRO
AUTHORITY



PRE-QUALIFICATION CONFERENCE



MOSHE NAKASH

POPULATION AND
IMMIGRATION AUTHORITY



Preparations for the Metro Project

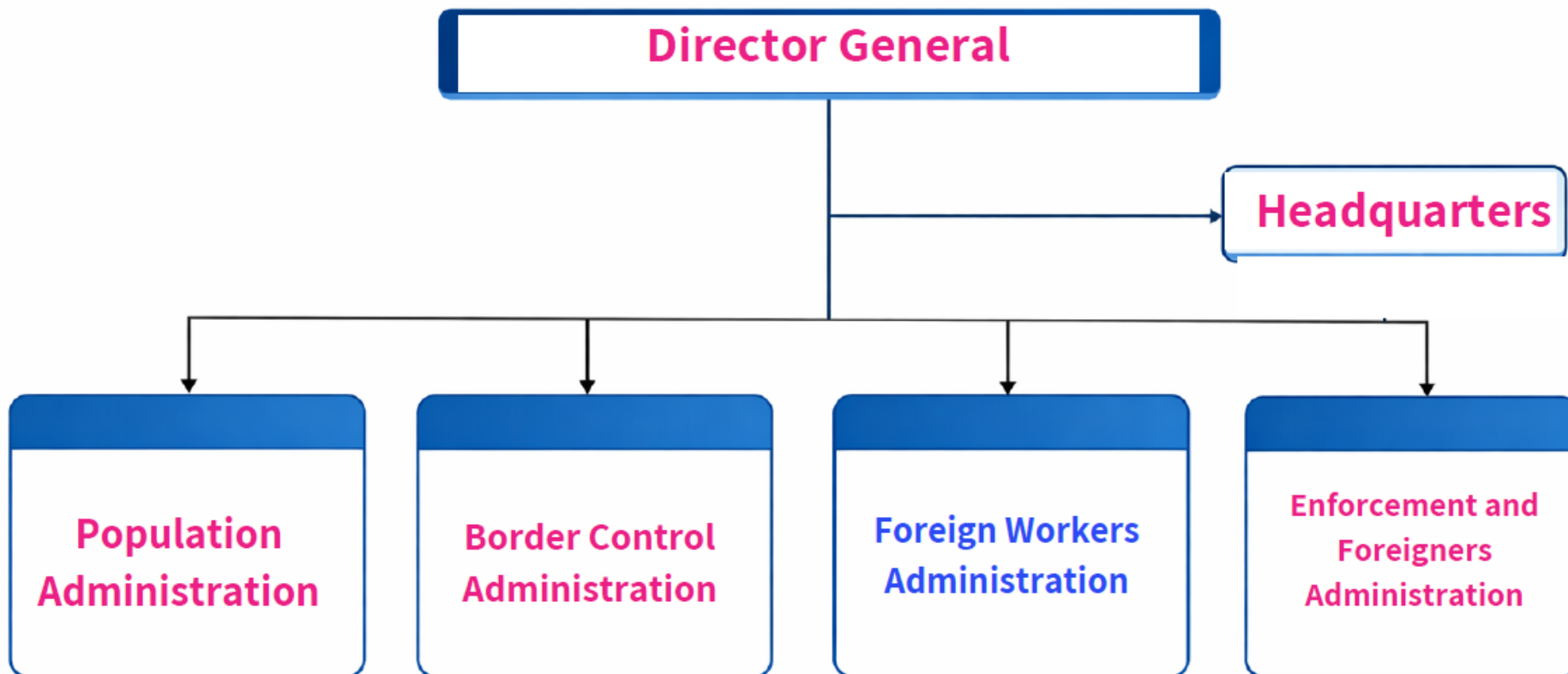
Moshe Nakash

**Director of the Foreign Workers Administration
Population & Immigration Authority (PIBA)**

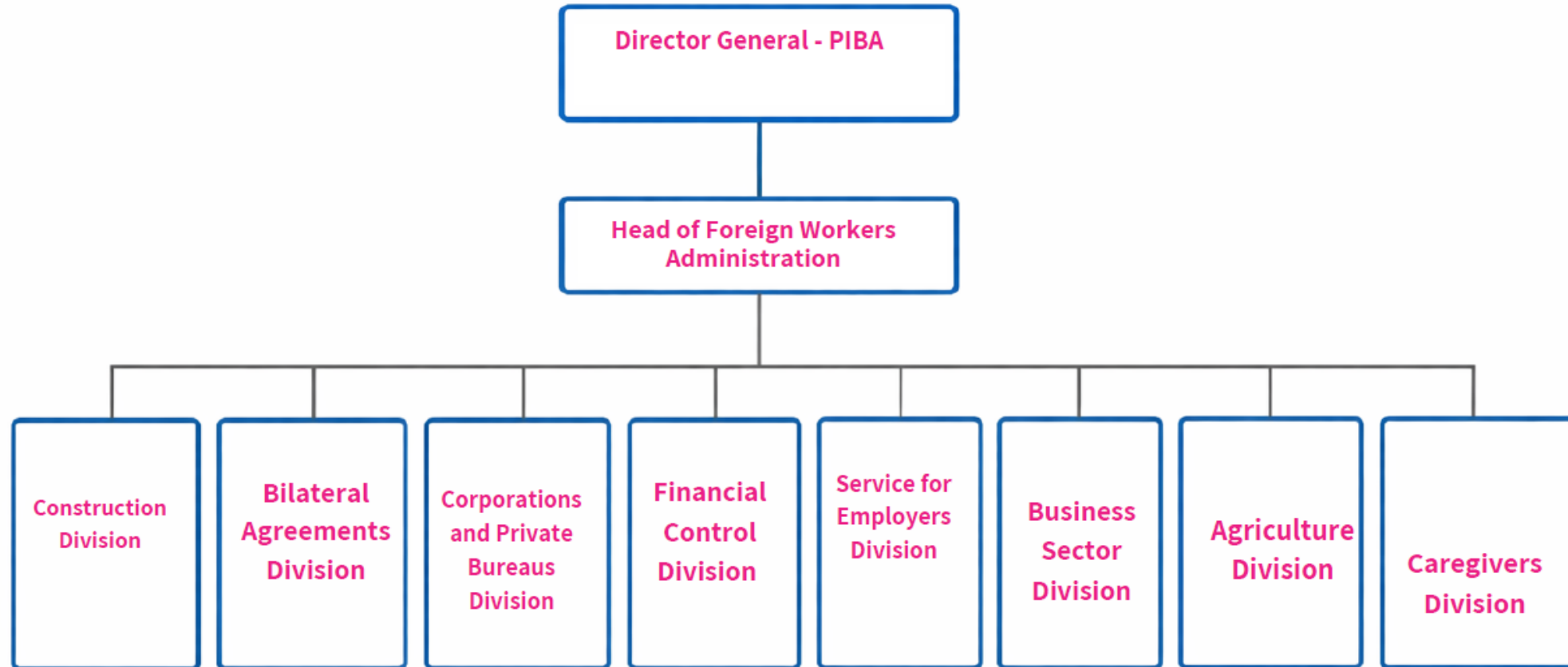
February 2026



Organizational Structure – PIBA



Foreign Workers Administration Structure



Our vision: Establishment of a new department for The Metro Project



Employer Service Unit:

- Processing requests for employment permits
- Ongoing service for employers



Foreign Worker Service Unit:

- Processing invitations for foreign workers to Israel.
- Processing visa extensions and re-entry visas.



Administrative Enforcement Unit:

Conducting hearings and administrative decisions regarding employers and foreign workers.



External Interfaces Unit:

Corporation with government ministries, Metro Authority, Enforcement Administration, and Legal Advisor.

- There is a "Call Center" available for professional, ongoing responses regarding rights, obligations, visas, permits, and employment conditions.
- Deposit Mechanism: A dedicated deposit system ensures the worker's departure at the end of their legal stay while safeguarding their social rights.

Prior Checks for the Workers:

- No criminal record.
- Medical examinations.
- No prior violations.
- No family members currently residing in Israel.
- Additional checks as required.



Types of Workers in the Metro Sector

Low Skilled Workers

- **Maximum period of work permit - 63 months.**
- **No possibility for staying of family members.**

High Skilled Workers

- **A unique expertise not available in Israel.**
- **Possibility for spouses to join the worker.**
- **Possibility for extension work permit beyond 63 months.**

Main Principles

Regulatory Certainty

Digitization, Remote
Service & Timelines

Government Policy

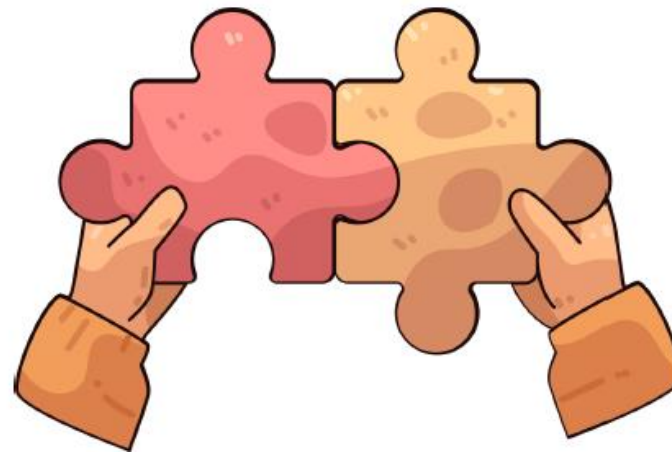
Defining a
Separate Sector

Types of Workers

Control and
Supervision



Thank you and
Good Luck!



PQ Infra 1 Conference

Zohar Zoller
Deputy CEO –
Head of Metro, NTA



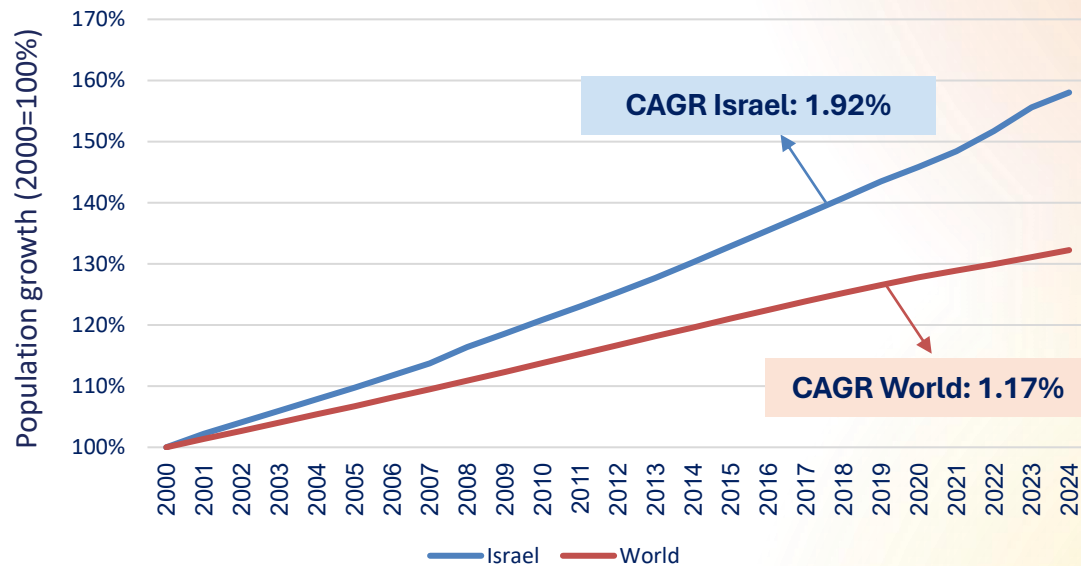
February 25, 2026

Disclaimer

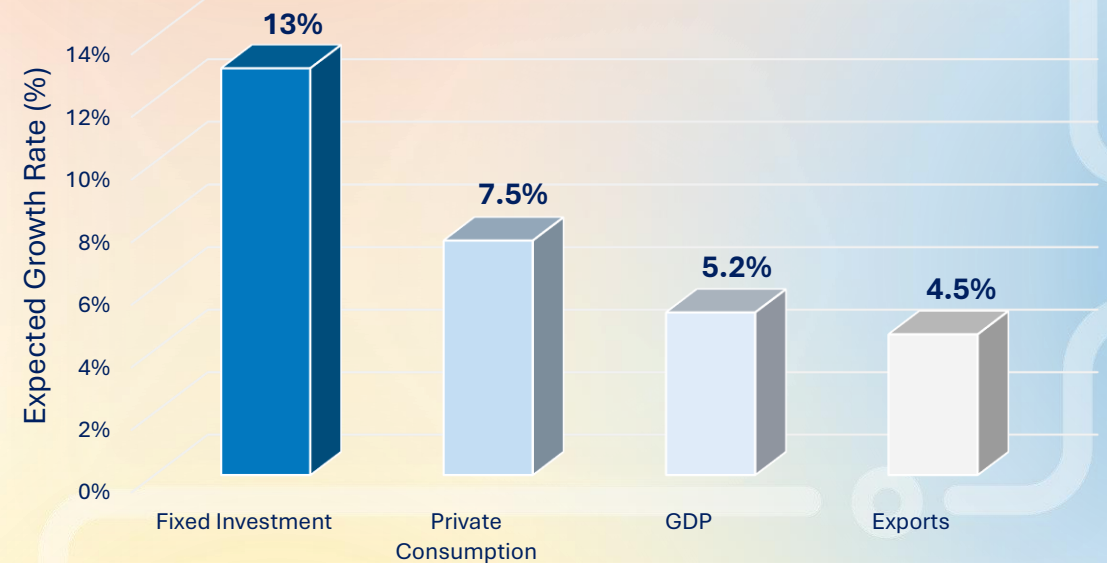
The purpose of this presentation is to provide certain high-level information, as general reference only, regarding the Tel Aviv Metro Network Programme. NTA intends, in due course, to publish tenders for the execution of the works for the Programme. Nothing herein is intended or should be construed as: (i) imposing any obligation on NTA to publish any such tender or any similar tender; and/or (ii) imposing any obligation on NTA to include any specific terms, conditions or provisions in any tender documents (if any); and/or (iii) derogating from any tender process (if any) or from any tender documents (if any); and/or (iv) negating, replacing, amending or limiting any tender documents (if any). Without derogating from the generality of the foregoing, only formally published tender documents (if any) shall be binding on NTA and any reliance on any of the contents of this presentation shall be at the sole risk of the person/entity relying thereon

Israel 2026: Leading in Population and Economic Growth

Population Growth: Israel vs. World



Israel 2026 Forecast: Key Growth Drivers



Sources: Central Bureau of Statistics (official website), OECD, Bank of Israel, Research Department – Macroeconomic Forecast (January 2026).

Israel's Main Metropolitan



Population



Jobs

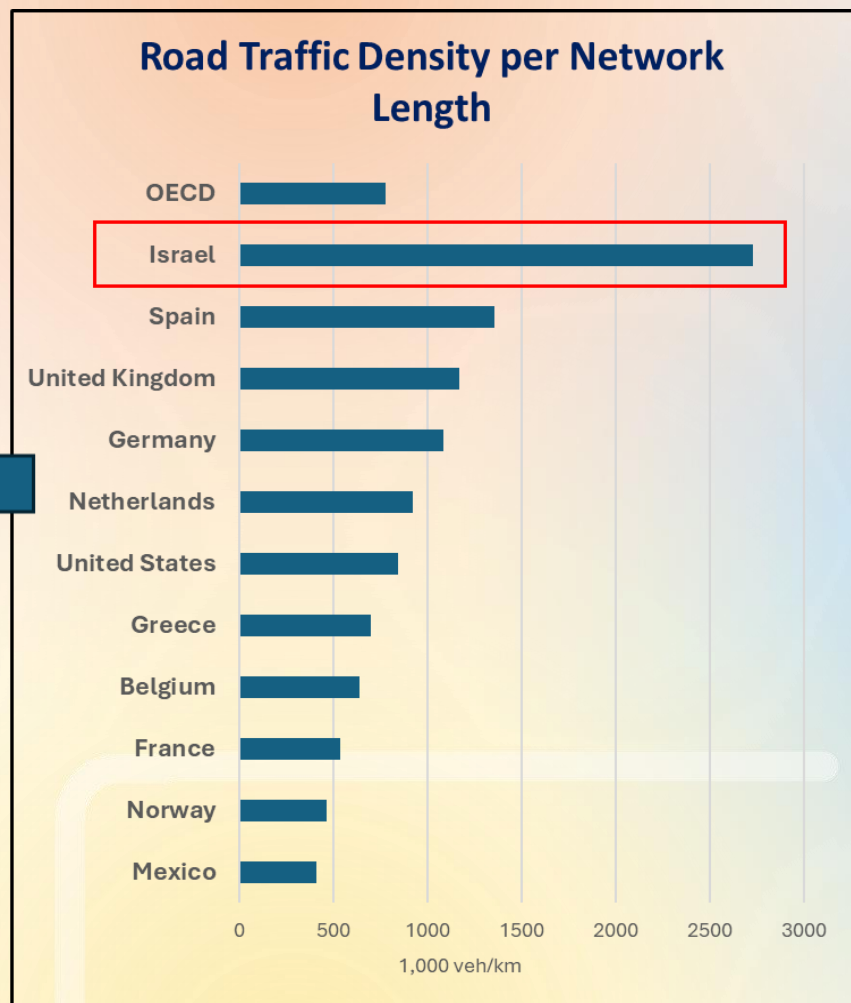
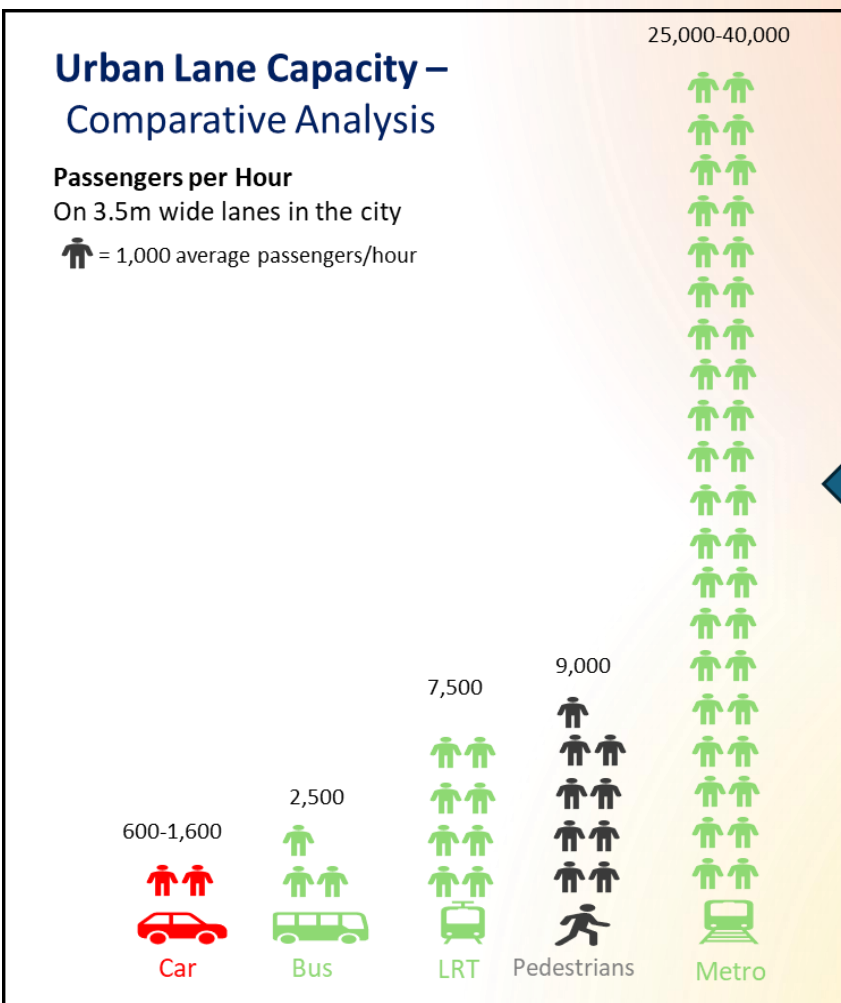


Business product

	Population	Jobs	Business product
Tel Aviv	44%	50%	62%
Jerusalem	15%	14%	12%
Haifa	10%	8%	10%
Be'er Sheva	4%	4%	4%



The Metro: Solving Israel's Mobility Crisis



Source: Executive Summary of the report "The Economic, Social, and Urban Impacts of the Gush Dan Metro Network," authored by Prof. Yoram Shiftan, Head of the Israel Smart Transportation Research Center, Technion.

Source: Assessing incentives to reduce congestion in Israel, OECD.

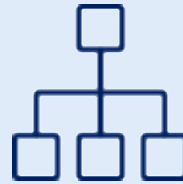
Tel Aviv Metro Act

In August 2024, the Israeli Government legislated **the Metro Act** to ensure the project's continued development.

The Key Provisions of the Metro Act:



**Strategic
Funding**



**The Metro
Authority**



**Statutory and Decision-
Making Authorities**



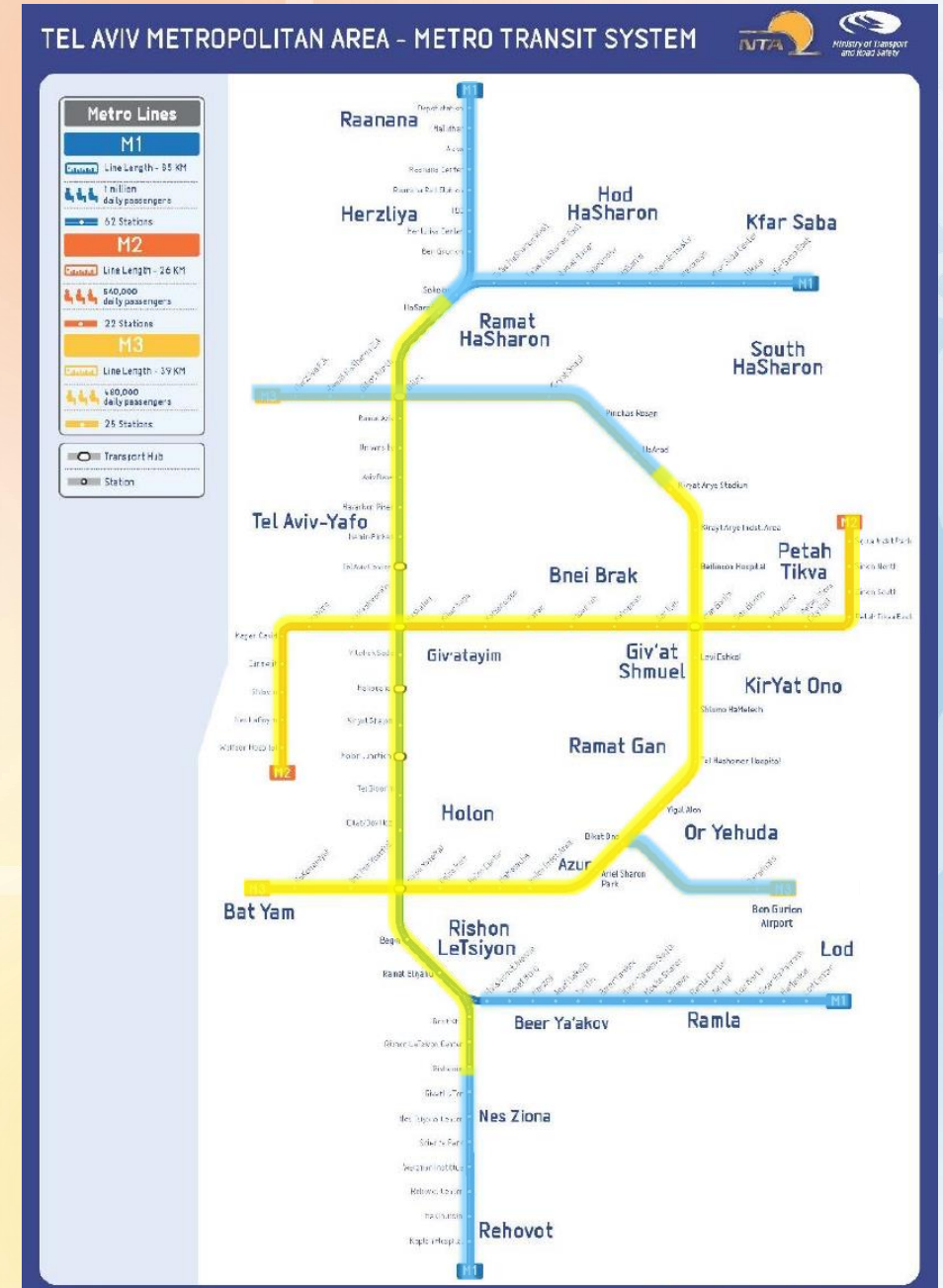
**Utility Coordination and
Relocation Framework**



**Regulatory
Optimization**

Tel Aviv Metro Programme

- 3 Lines (**M1** / **M2** / **M3**)
- 150 km Underground Network (double tunneling)
- 109 Stations
- 24 Municipalities
- 4 Depots
- 7 Transportation Hubs
- 4-5 Car Units
- 1500VDC Rigid OCS
- GOA4 Fully Automated Driverless Signaling



Transportation Hubs and LVC



GLILOT

- M1
- M3
- IR
- IR 5-6
- Bus Station

KFAR GANIM

- M2
- M3
- LRT-P
- Bus Station

YOSEFTAL

- M1
- M3
- IR

SAVIDOR

- LRT-R
- LRT-P
- M1
- IR
- Bus Station

HAHAGANA

- LRT-P
- M1
- IR
- Bus Station

HASHALOM

- LRT-R
- M1
- M2
- IR
- IR 5-6
- Bus Station

MAAR BEN TZVI

- LRT-G
- M1
- IR
- Bus Station

Transportation Hubs and LVC

TLV CENTRAL

Transportation Hub

Plan area (Blue Line): approx. 300 dunams

Peak hour passenger forecast:
80,000

Employment area: 1,000,000 sq/ m

Transportation means:

- Light rail Red Line
- Light rail Purple Line
- Israel Railways
- Metro Line M1
- Bus terminal
- High-speed rails 5-6



Transportation Hubs and LVC

HOLON JUNCTION

Transportation Hub

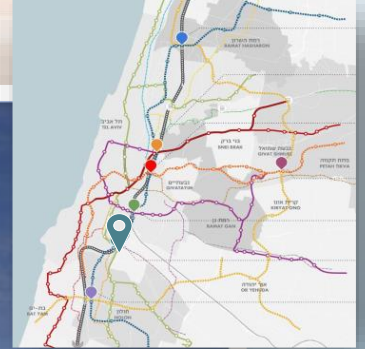
Plan area (Blue Line): approx. 270 dunams

Peak hour passenger forecast:
15,000

Employment area: 500,000 sq/ m

Transportation means:

- Green Line Light Rail
- M1 Metro Line
- Israel Railways
- Bus terminal and overnight parking



Transportation Hubs and LVC

YOSEFTAL

Transportation Hub

Plan area (Blue Line): approx. 60 dunams

Peak hour passenger forecast:
approx. 14,000

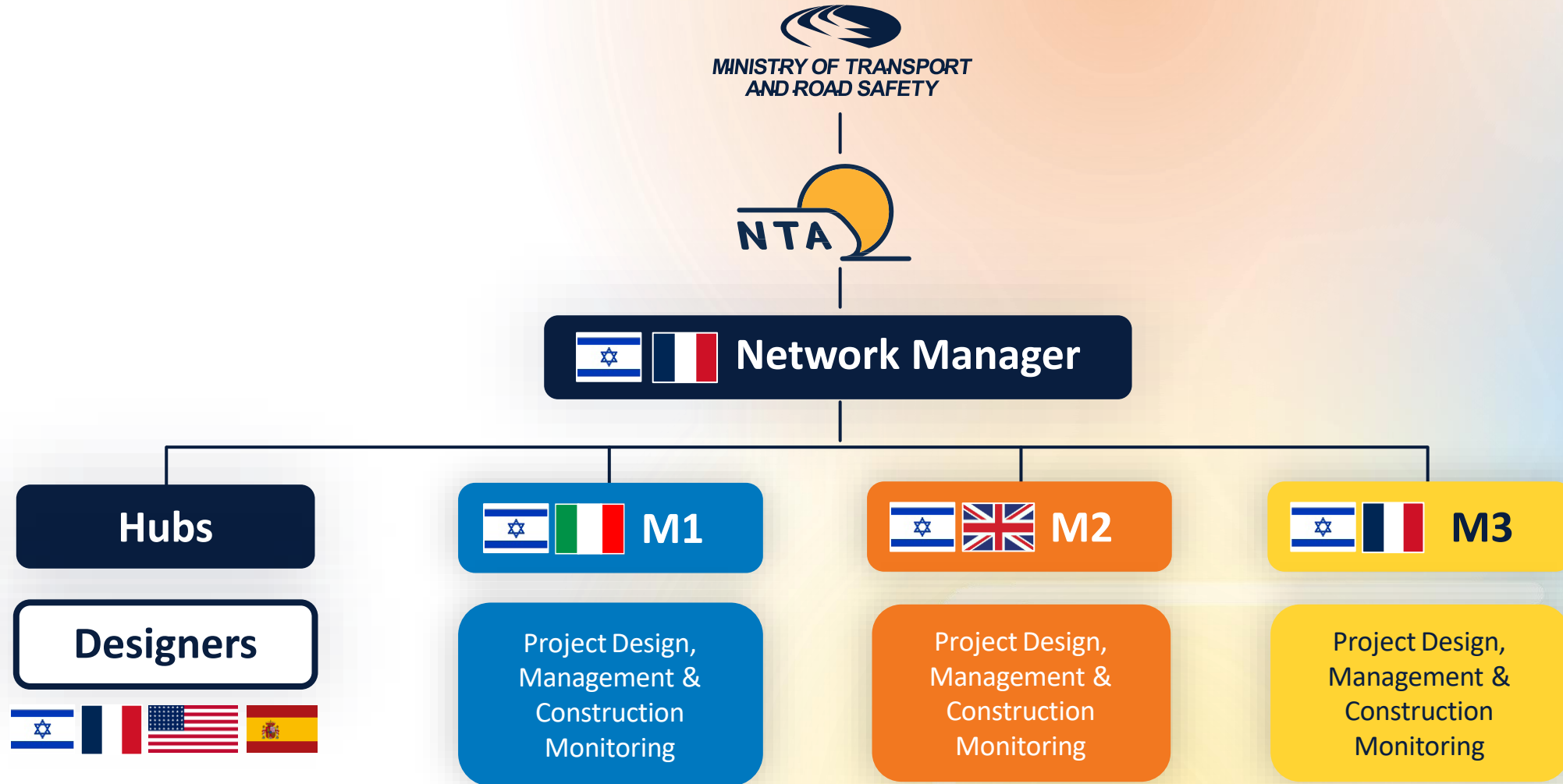
Employment area: 6,000 sq/ m

Transportation means:

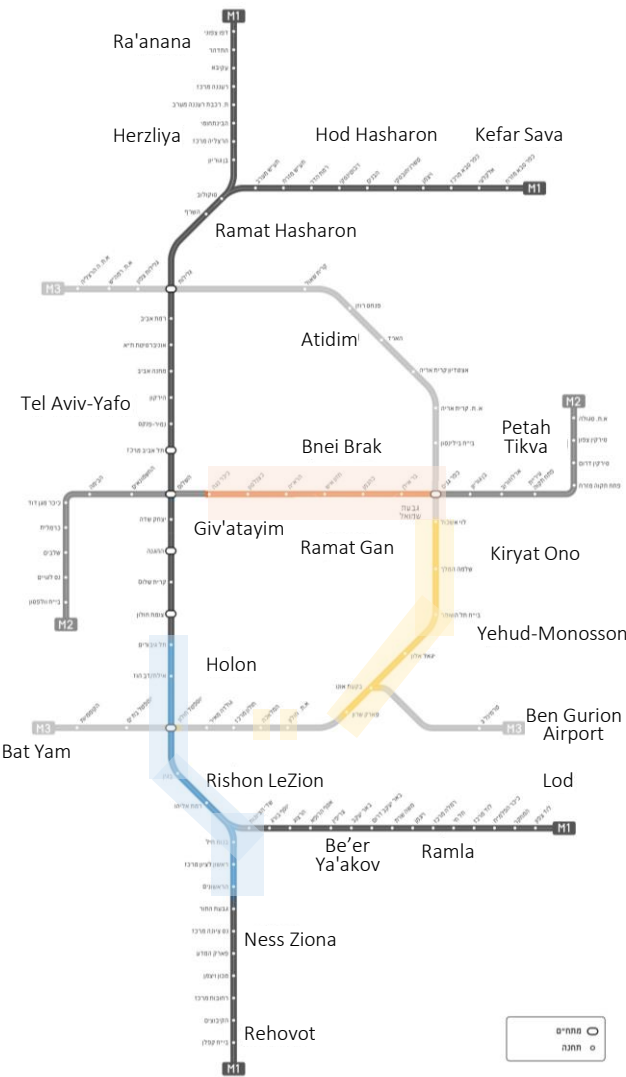
- Metro Line M1
- Metro Line M3
- Israel Railways



Our Partners



Execution Stage 1.1



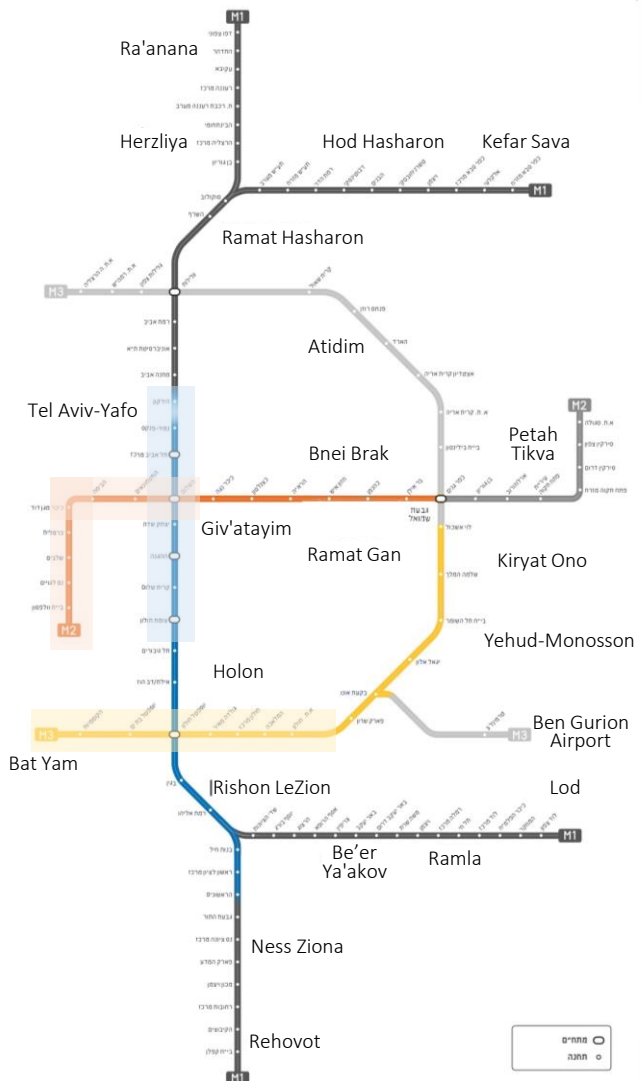
M3 Substage 1.1	Km	Boxes
Ha Melacha – Yigal Alon	0	8

M1 Substage 1.1	Km	Stations
Rishonim-Ramat Eliahu-Holon Junction	14.2	9

M2 Substage 1.1	Km	Stations
Kfar Ganim-Kikar Noga	5.1	6

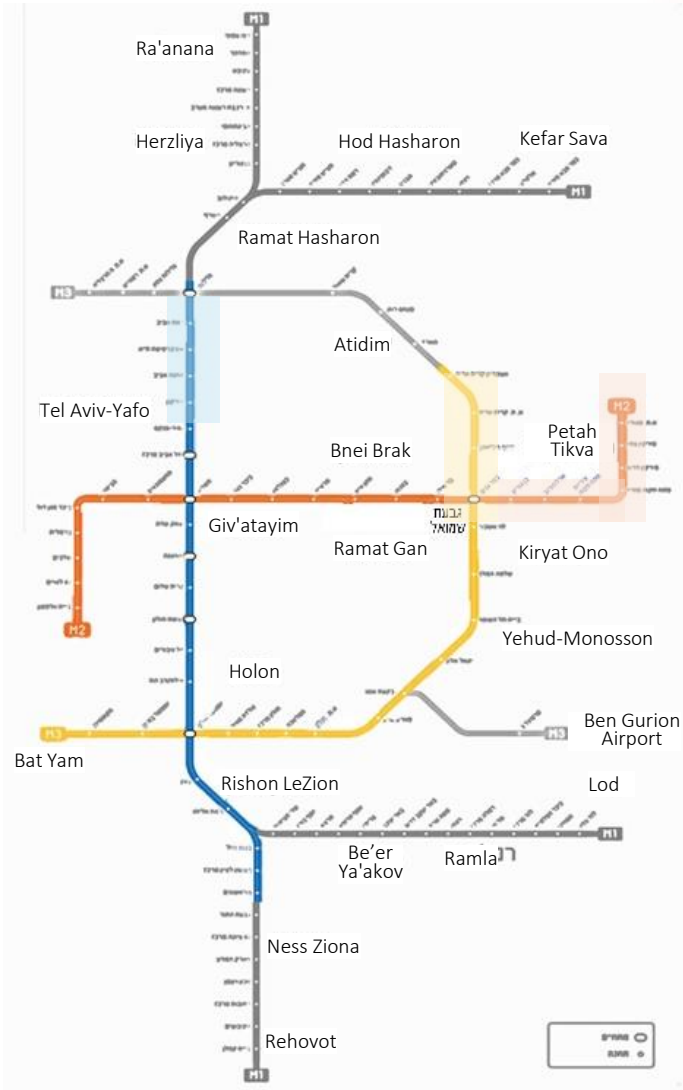
M3 Substage 1.1	Km	Stations
Ariel Sharon Park-Shlomo Ha Melech + Depot Interchange	7.4	5

Execution Stage 1.2



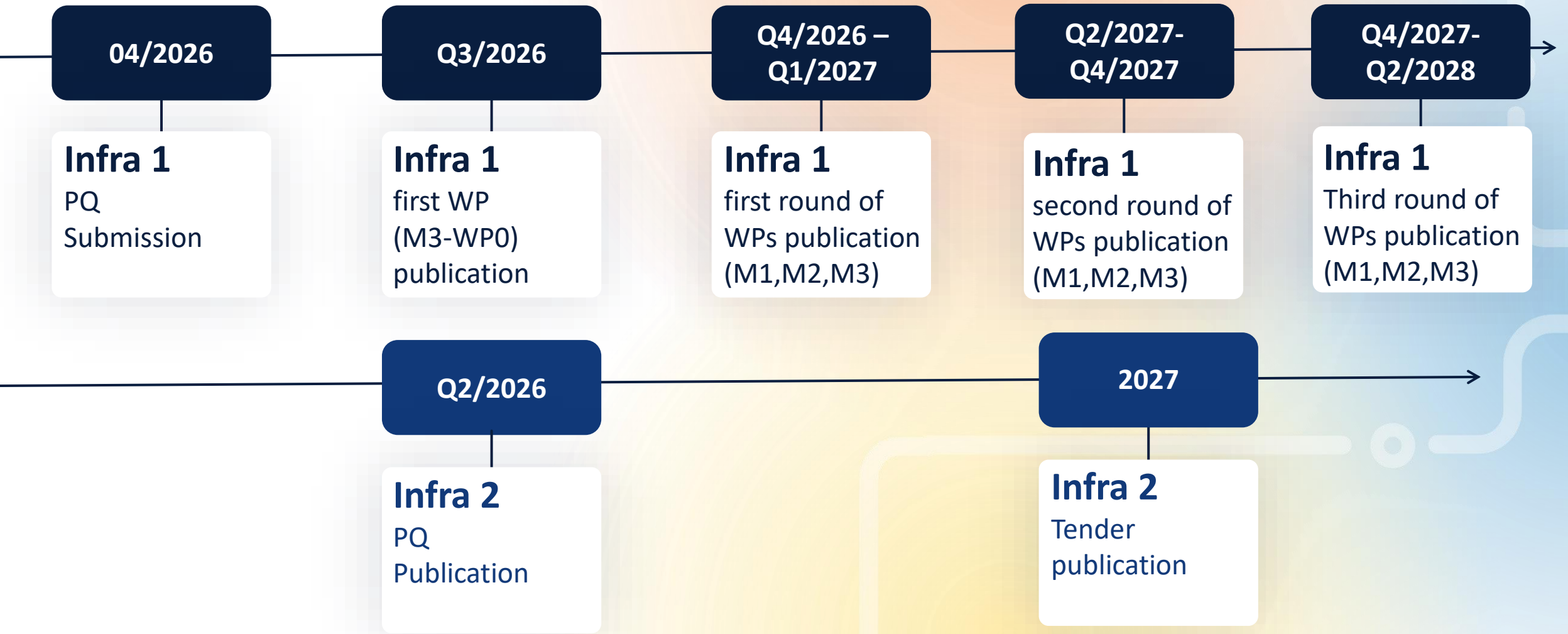
M1 Substage 1.2	Km	Stations
Holon Junction-Hayarkon	7.9	7
M2 Substage 1.2	Km	Stations
Wolfson-Kikar Noga	9.3	8
M3 Substage 1.2	Km	Stations
Bat Yam Terminus-Ariel Sharon Park	8.7	6

Execution Stage 1.3



M1 Substage 1.3	Km	Stations
Hayarkon-Glilot	5.5	4
M2 Substage 1.3	Km	Stations
Kfar Ganim-Segula Depot	7.6	7
M3 Substage 1.3	Km	Stations
Hayarkon-Kfar Ganim-Shlomo HaMelecha	7.9	5

Project Major Milestones



Thank You & Shalom

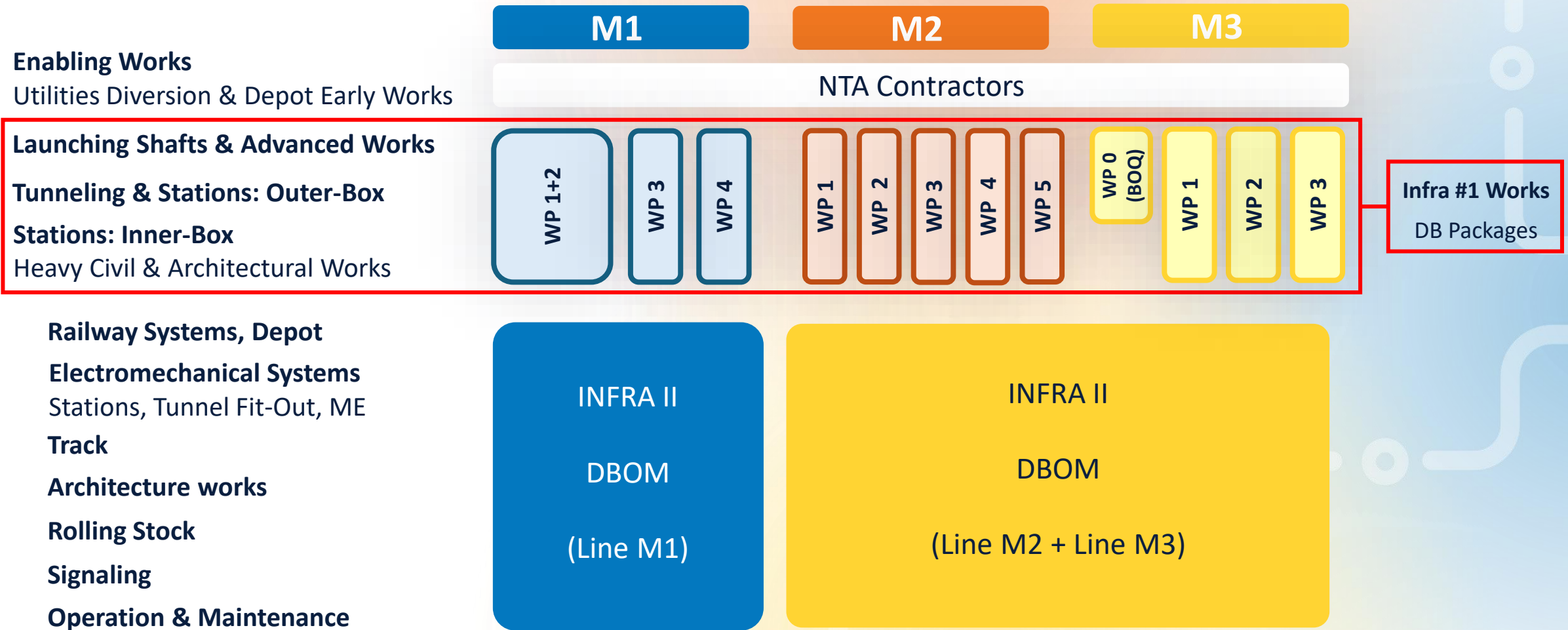


PQ Infra 1 Conference

Helen Maor
Procurement Director, NTA



Procurement Strategy Scheme



A Pre-Qualification Process for the Two Types of Work Packages

Two Types of Infra #1 Work Packages

Type "A"

1 Experience in the Construction of TBM Tunnels

2 Underground Structure: Cut & Cover Experience

Type "B"

1 Experience in the Construction of TBM Tunnels

2 Underground Structure: Cut & Cover Experience

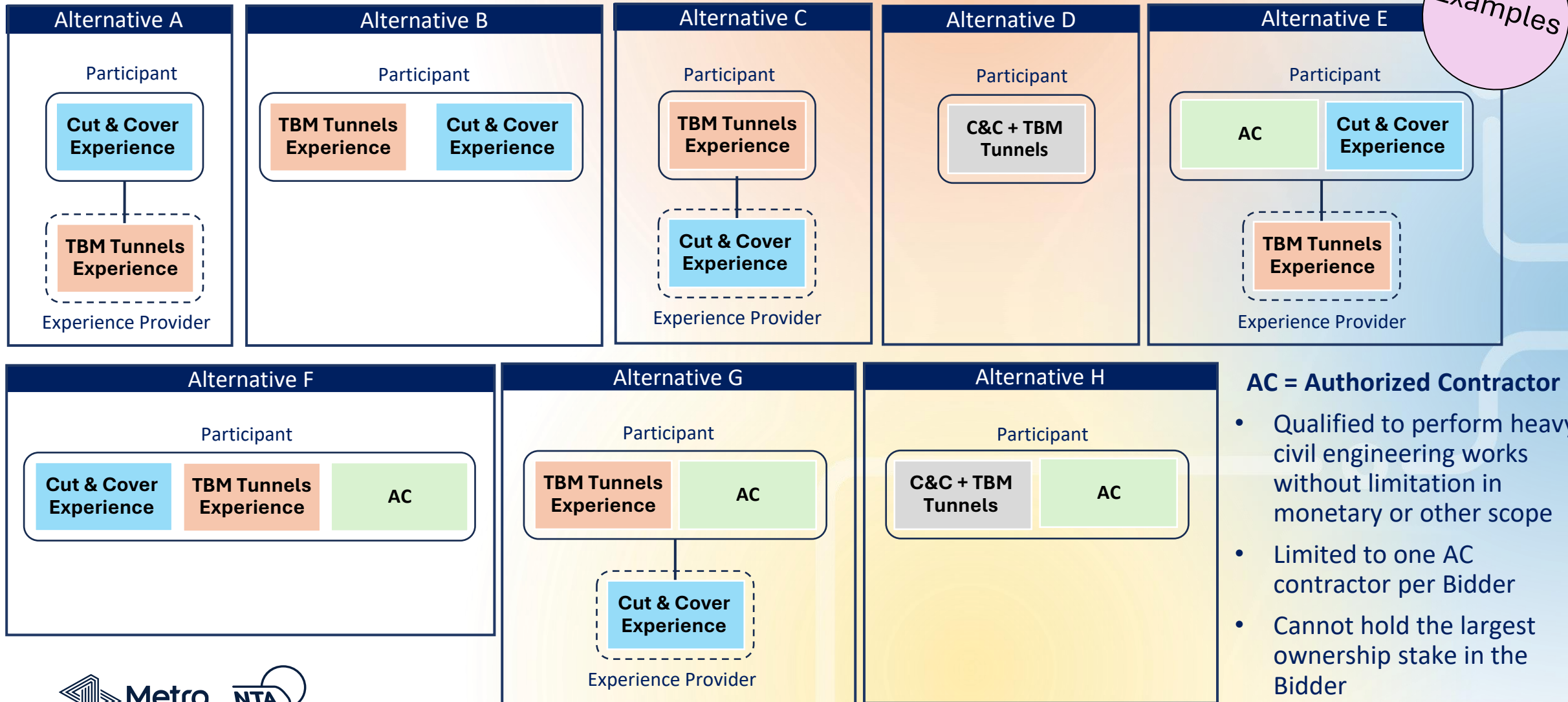
3 Underground Structure: Mined Experience

A proposal may be submitted for one Type or for both Types. In case of submission for both Types, a separate (stand-alone) submission must be submitted for each Type.

Participation in a Pre-Qualification Submission - Restrictions

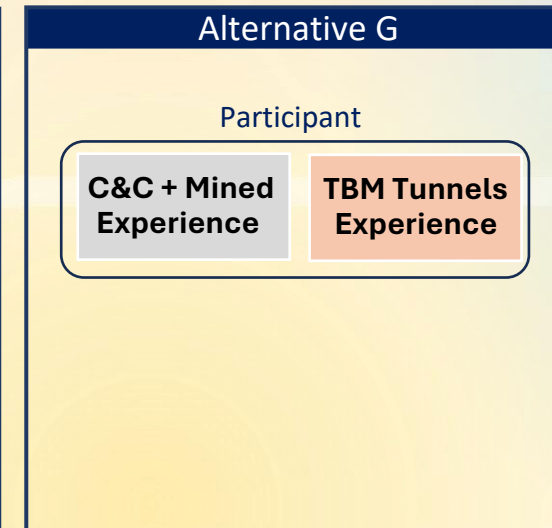
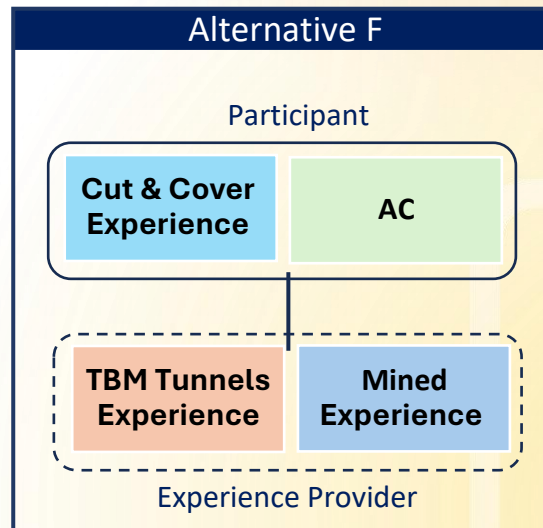
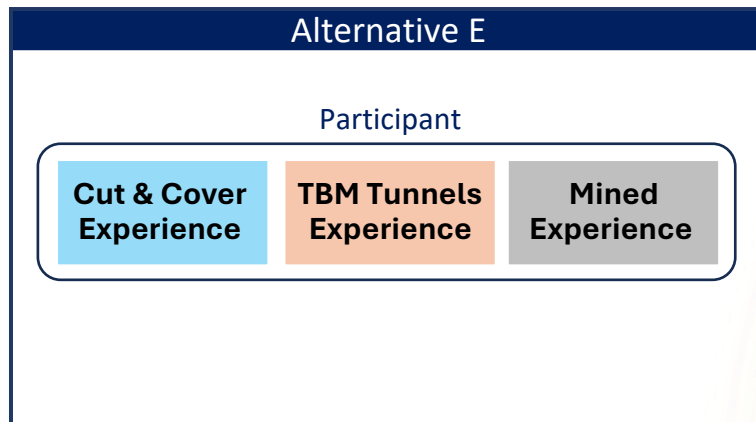
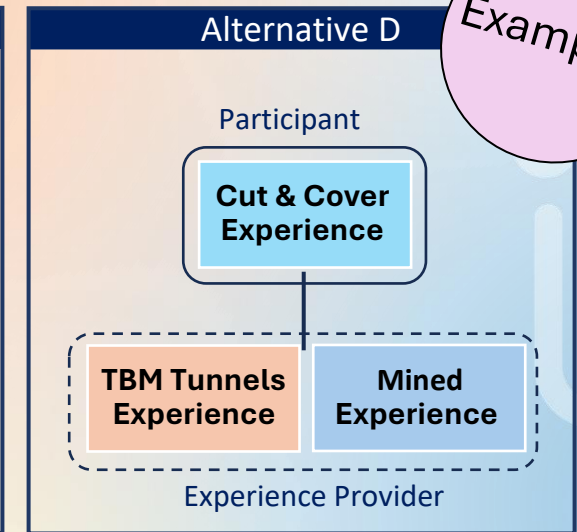
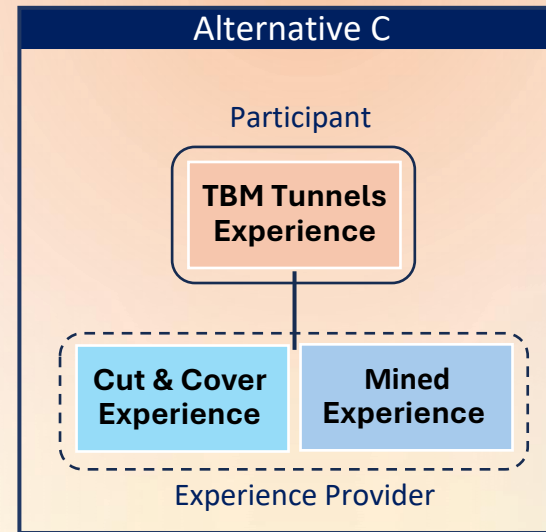
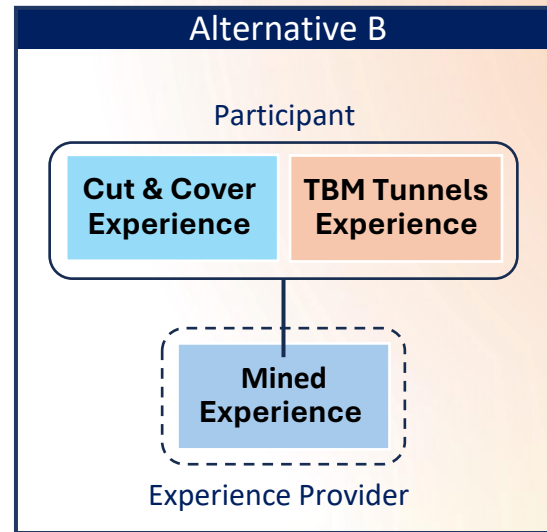
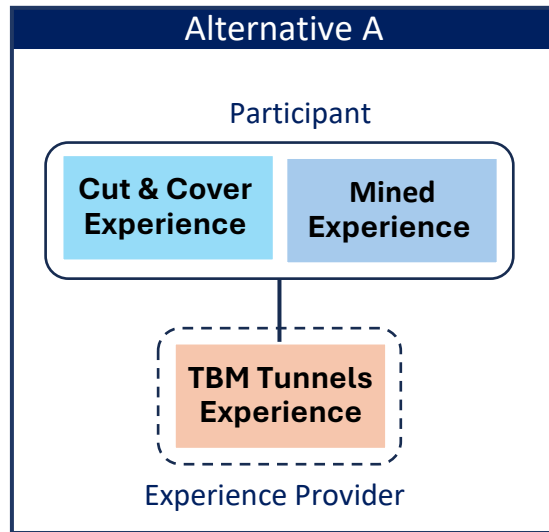
- An Entity **may not participate in more than 1 PQ Submission** of each Type
- Participation in **both Types** of PQ Submissions: If a single Participating Entity wishes to participate in both Types of PQ Submissions (Type "A" and Type "B"), it can do so:
 1. with the **same Entities**; or
 2. **with different Entities**, provided however, that Entities participating in different (competing) Type "A" PQ Submissions, **may not cooperate and participate together** in the same Type "B" PQ, and vice versa

Alternatives for Participant's Structure - Type "A"



Alternatives for Participant's Structure - Type "B"

Examples



AC = Authorized Contractor

- Qualified to perform heavy civil engineering works without limitation in monetary or other scope
- Limited to one AC contractor per Bidder
- Cannot hold the largest ownership stake in the Bidder

Participation Principles

Structure of a Joint Venture Participant

Joint Venture – Alternative A

Member 1

Member 2

Each JV Member must hold **at least 20%** of the JV's Means of Control

Joint Venture – Alternative B

Member 1

Member 2

Member 3

Each JV Member must hold **at least 20%** of the JV's Means of Control

A JV “**Member**” is an entity holding Means of Control that meets:

At least 1 of the **Professional** Pre-Qualification Requirements

and

All the applicable **Financial** Pre-Qualification Requirements

and

all the applicable **Participation – General Requirements**

AC = Authorized Contractor

- Qualified to perform **Heavy Civil Works** without limitation in monetary or other scope
- Limited to one AC contractor per Bidder
- Cannot hold the largest ownership stake in the Bidder

As updated
In
Addendum
4

Threshold Requirement - TBM Tunnels

1

Experience of
Design and
Construction of
TBM Tunnels

2

Experience of
Construction of
Underground
Structures

1 | Experience of TBM Tunnels

Example for Threshold Requirements

TBM Tunnel

From 2010 - ending on the Pre-Qualification Submission Date

Completed the Construction of at least

- (i) 1 single bore TBM Tunnel** of a minimum Length of **3 km**; **or**
- (ii) 1 twin bore TBM Tunnel** of a minimum Length of **1.5 km** in each direction; **or**
- (iii) 2 single bore TBM Tunnels** of a minimum Length of **1.5 km** each

The presented TBM tunnels must meet all the following requirements:

1. the TBM Tunnels was Constructed (in whole or in part) in an **Urban Area**; and
2. **at least 1** of the TBM Tunnels **passes through an underground structure**; and
3. **at least 1** of the TBM Tunnels was Constructed (in whole or in part) **below the groundwater table** ; and

Tunnel which complies with: (a) it a **TBM**; (b) it was executed in **soft ground and/or mixed ground conditions**; (c) **the internal diameter of which is at least five (5) meters**; (d) it is lined by a **precast concrete segmental lining installed by the TBM**

Threshold Requirement - Underground Structures

1

Experience of Design and Construction of TBM Tunnels

2

Experience of Construction of Underground Structures

2 | Experience of Underground Structures - Cut & Cover Experience

Example for Threshold Requirements

C&C Underground Structure

From **2010** - ending on the Pre-Qualification Submission Date

Completed the Construction of at least two (2) C&C Underground Structures, which meet all the following requirements:

1. **at least one Underground Structure** with a total internal surface area (footprint) of **at least 2,400 m²**, **and the second structure with at least 1,500 m²**; and
1. **at least one** of which was Constructed in **an Urban Area**; and
2. **at least one** of which was part of a **Design-Build Project**; and

Groundwater Dewatering Experience – From 2015 - ending on the Pre-Qualification Submission Date.

Completed groundwater dewatering in at least one C&C Underground Structure (which does not have to include diaphragm walls) with a minimum 1,500 m² underground level, located in an urban area

Underground structure that complies with:

- (a) its method of Construction was: (i) **Cut & Cover**; and (ii) **utilizing diaphragm walls**;
- (b) the depth below the excavated original ground level to the upper surface of the lowest concrete floor level of which is **at least fourteen (14) meters**

As updated
In
Addendum
4

Threshold Requirement - Underground Structures

Required
only for
"Type B"

1

Experience of
Design and
Construction of
TBM Tunnels

2

Experience of
Construction of
Underground
Structures

2 | Experience of Underground Structures - Mined Experience

Example for Threshold Requirements

From 2015 - ending on the Pre-Qualification Submission Date

Completed the Construction of at least one (1) Mined Underground Structure

The presented Mined Underground Structure must meet all the following requirements:

1. was Constructed in an **Urban Area**; and
2. was part of a **Design-Build Project** ; and

Mined
UndergroundS
tructure

Underground structure that complies with:

(a) its method of **Construction was conventional tunneling** (excluding drill & blast) utilizing pre-support measures; (b) the cross-sectional face of the excavated cavern is at least **80m²**; (c) the total excavated cavern volume of which was at least **10,000 cubic meters**; (d) it was excavated in **soft ground conditions**; (e) the Construction thereof has been performed, in whole or in part, **below ground water table**

Methods for Demonstrating Professional Threshold Requirement (1)

Compliance by a Demonstrating Entity

By the Participant itself
(if it is a Single Entity Participant)

or

By its Member
(if it is a Joint Venture Participant)

and/or

By (an) Experience Provider(s)



compliance with a particular
Professional Pre-Qualification
Requirement cannot be “split”
between different
Demonstrating Entities

Methods for Demonstrating Professional Threshold Requirement (2)

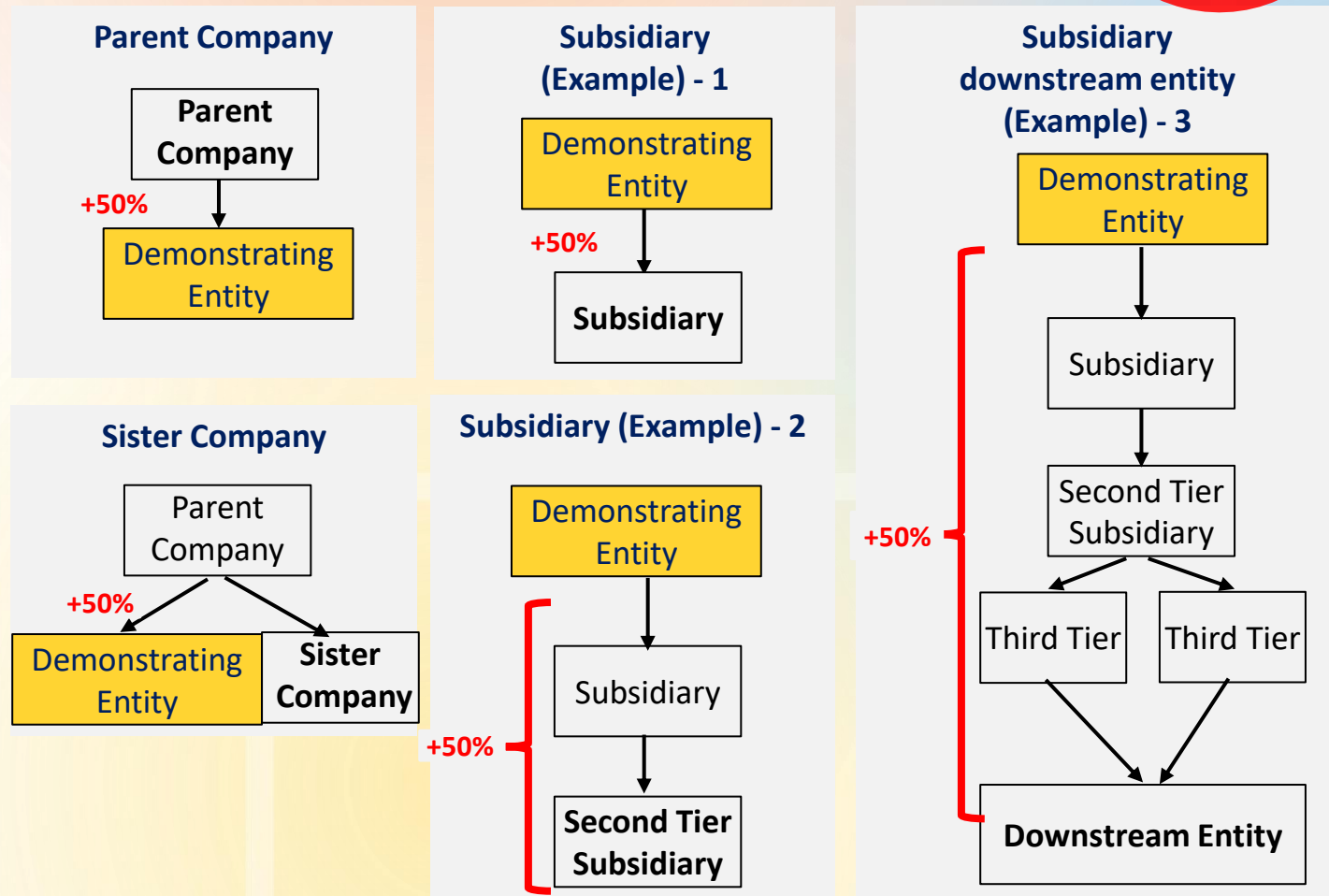
As updated
In
Addendum
4

A Demonstrating Entity may present and rely on Works which were executed by an Associated Party:

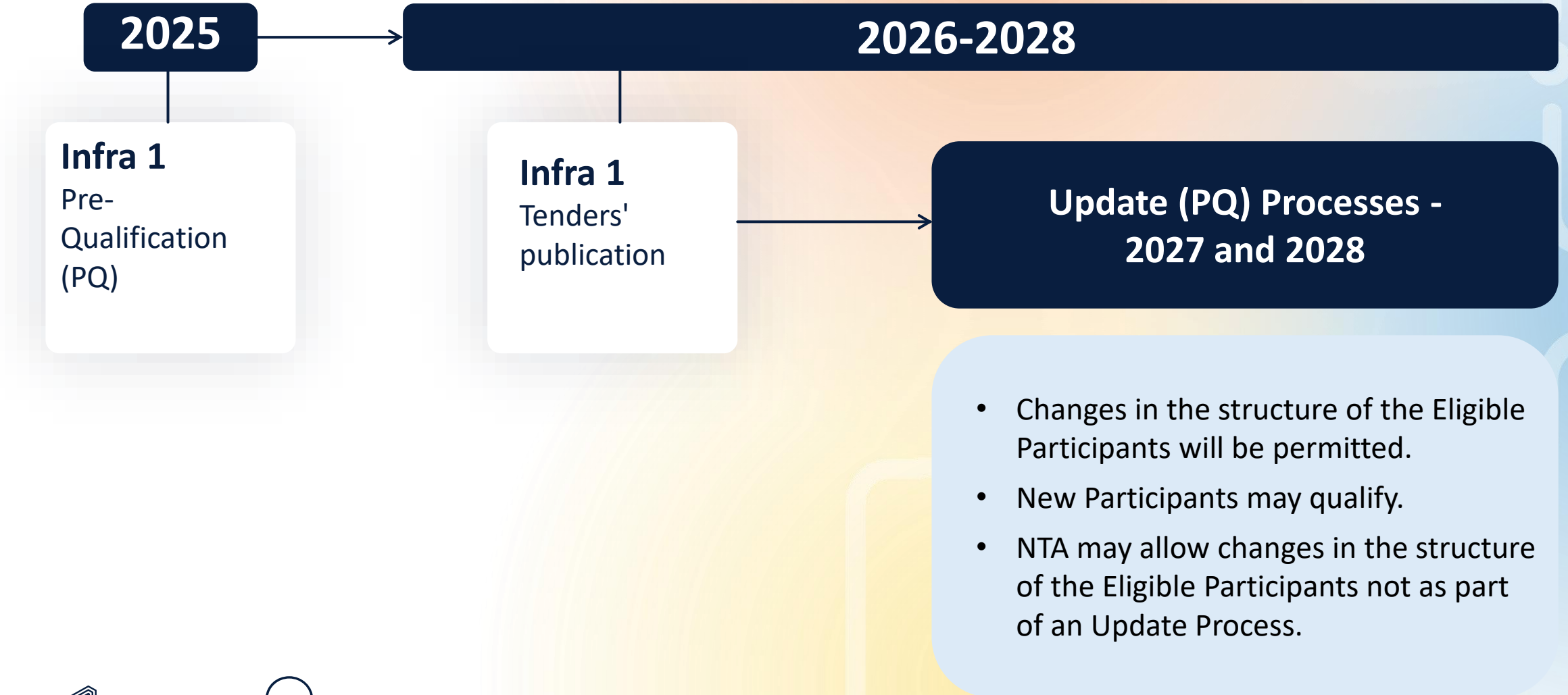
- Parent Company - **directly or indirectly**
- Subsidiary - **directly or indirectly**
- Sister Company - **directly**



Different Associated Parties may be relied on with respect to different Elements and Works presented by the Demonstrating Entity



Participation Principles



A Pre-Qualification Process Timeline & Milestones

Topic	Anticipated Schedule
Published Date	11/10/2025
Final date for the Submission of Requests for Clarifications	05/03/2026
Submission Date	29/04/2026, 14:00 Local Time
Email Box for Clarification Questions ntapqinfra1@nta.co.il	

Thank You & Shalom



Risk Allocation

Barak Kirschner

Procurement and Commercial
Manager, Partner – B&K



Risk Allocation Basic Principals

Contractor

Owner

Utility Diversion



Acoustic Protection



Noise and Vibration Monitoring



Reference Design



Detailed Design



* For the avoidance of doubt, the distribution of risks between the Contractor and the Owner shall be as stipulated in the Tender Documents and Agreement, notwithstanding its description in this presentation

Risk Allocation Basic Principals

Contractor

Owner

Permits



Launching Shafts



Unknown Utilities and Infrastructure



Unforeseeable Underground Conditions (GBR)



* For the avoidance of doubt, the distribution of risks between the Contractor and the Owner shall be as stipulated in the Tender Documents and Agreement, notwithstanding its description in this presentation

Risk Allocation Basic Principals

Contractor

Owner

Guarantees/Bonds



Limit of Liability



Site Availability Date (SAD)



Insurance



* For the avoidance of doubt, the distribution of risks between the Contractor and the Owner shall be as stipulated in the Tender Documents and Agreement, notwithstanding its description in this presentation

Risk Allocation Basic Principals

Contractor

Owner

Betterment Tax



Expropriation Costs



Removal and treatment of Soil



* For the avoidance of doubt, the distribution of risks between the Contractor and the Owner shall be as stipulated in the Tender Documents and Agreement, notwithstanding its description in this presentation

Risk Allocation Basic Principals

Contractor

Owner

Indexation and Inflation



Foreign Exchange Rates (EUR/USD)



Advance Payments

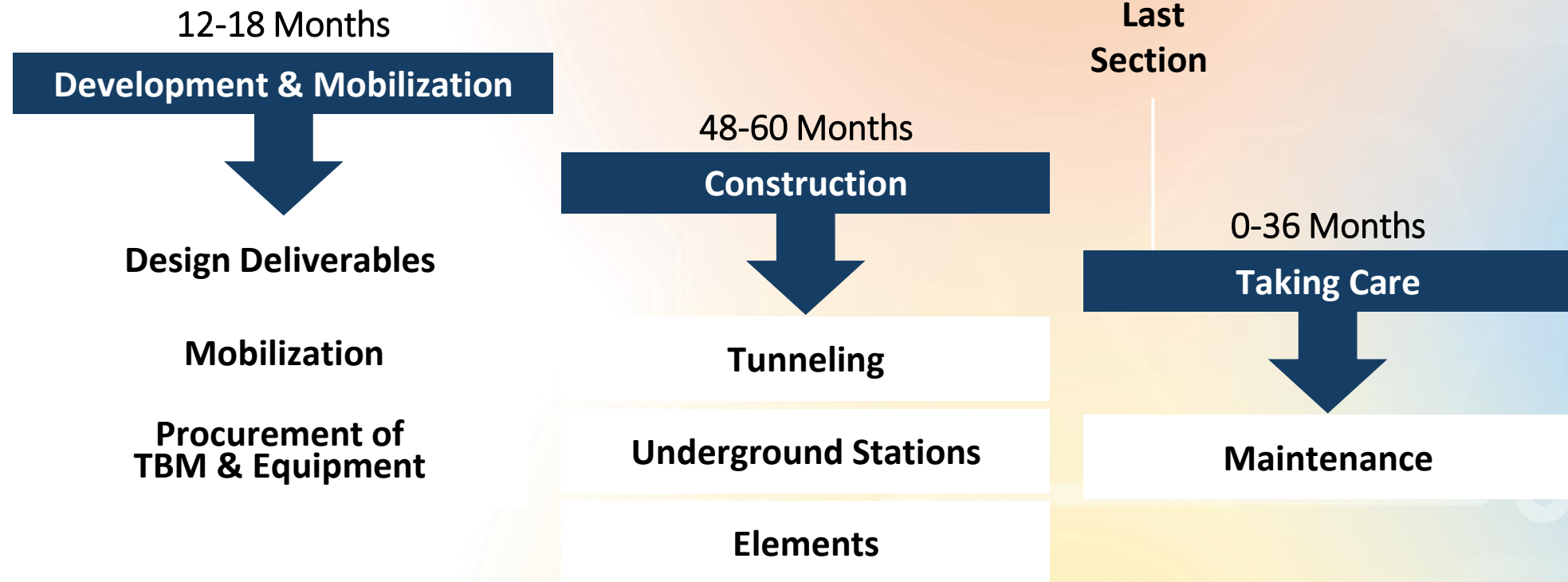


Interim Payments during Construction



* For the avoidance of doubt, the distribution of risks between the Contractor and the Owner shall be as stipulated in the Tender Documents and Agreement, notwithstanding its description in this presentation

Infra I - Project Stages



Evaluation Formula & Compensation

$$\text{Final Score} = A\% * TPS + B\% * PPS$$

TPS = Technical Proposal Score

PPS = Price Proposal Score

Price Proposal Components

- Lump Sum - Price Proposal
- Submission of basket of indices and exchange rates which will be evaluated as part of the Adjusted Price Proposal

Reimbursement of Bid Preparation Costs

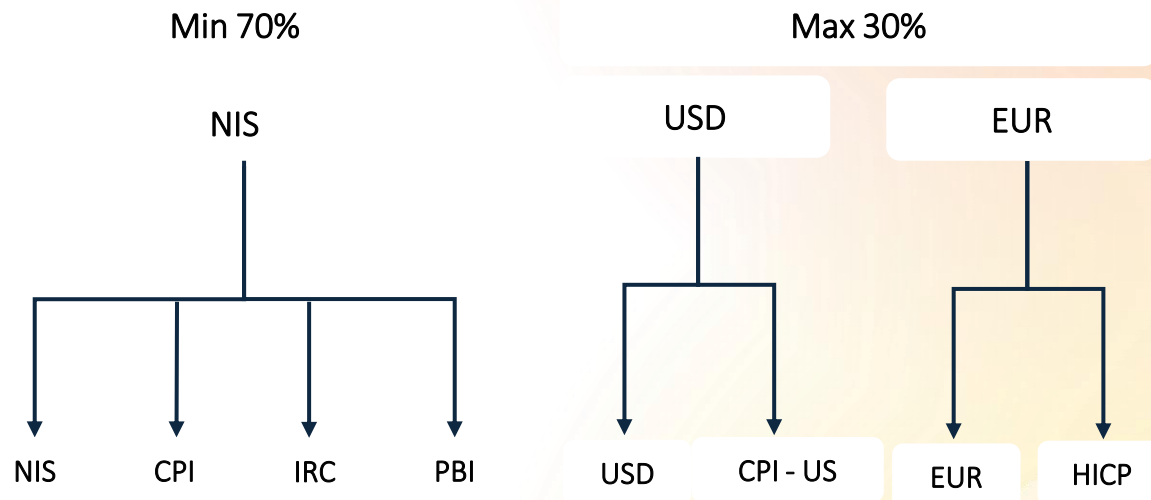
- Unsuccessful Bidders shall be entitled to reimbursement of partial Bid preparation costs, subject to a pre-determined cap
- Eligibility requires proof of expenses (process will be detailed in the ITB document)

Indexation and Inflation Hedge Mechanism

Example for illustration

Currency

Index



- The chosen basket will be evaluated as part of the Bidder Price Proposal (Adjusted Price Proposal)
- Base rates will be published by NTA at least 10 days prior to Bid Submission Date

Payment Principles

Payment Principles

Example for illustration

Lump Sum

Payment by Milestones and Progress

1

Advance Payments

2

Interim Payments based on progress

3

Final Payment for completion a Milestone

Provisional Sums

Payment based on defined Price List

1

Protection of structures in zone of Influence

2

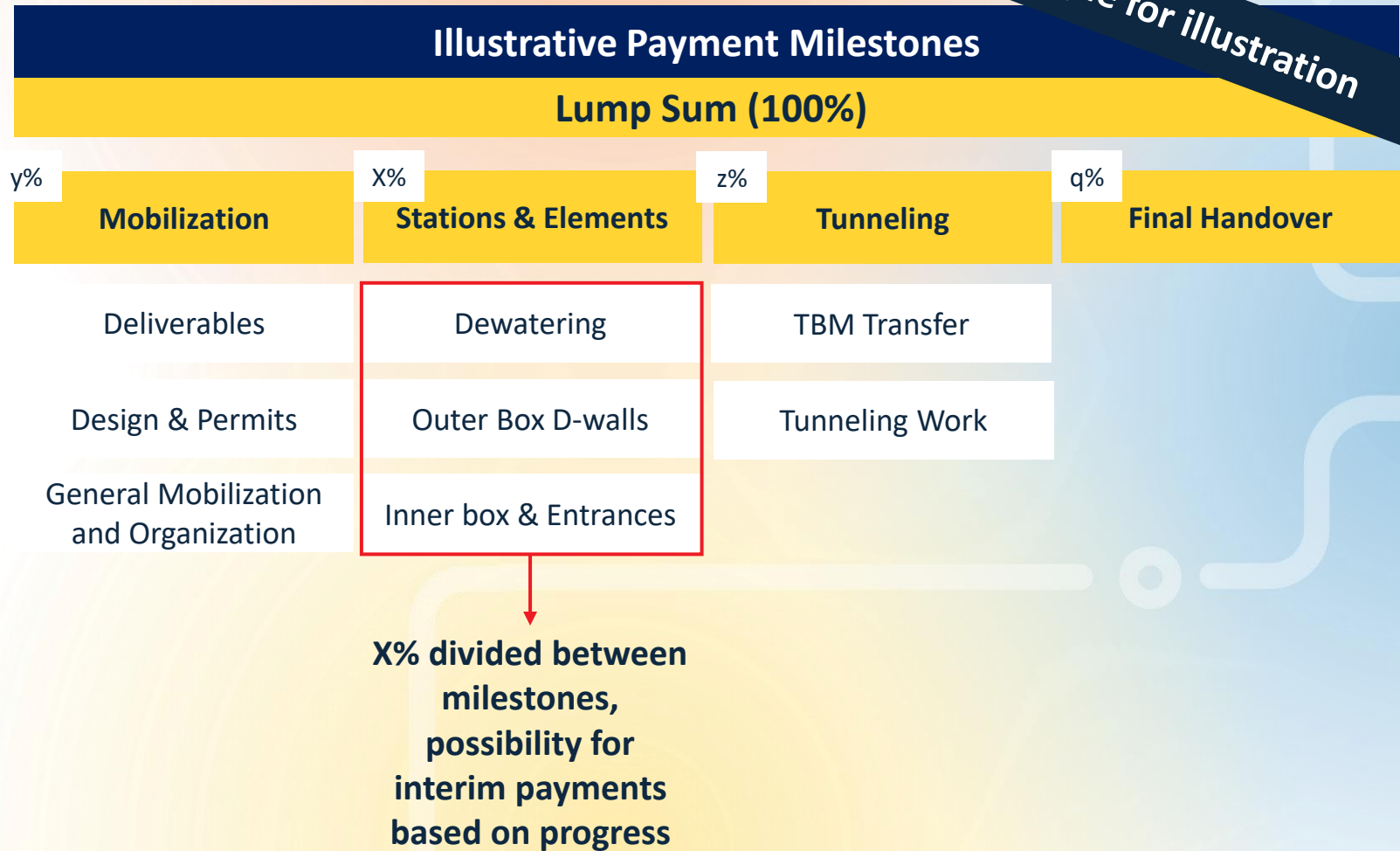
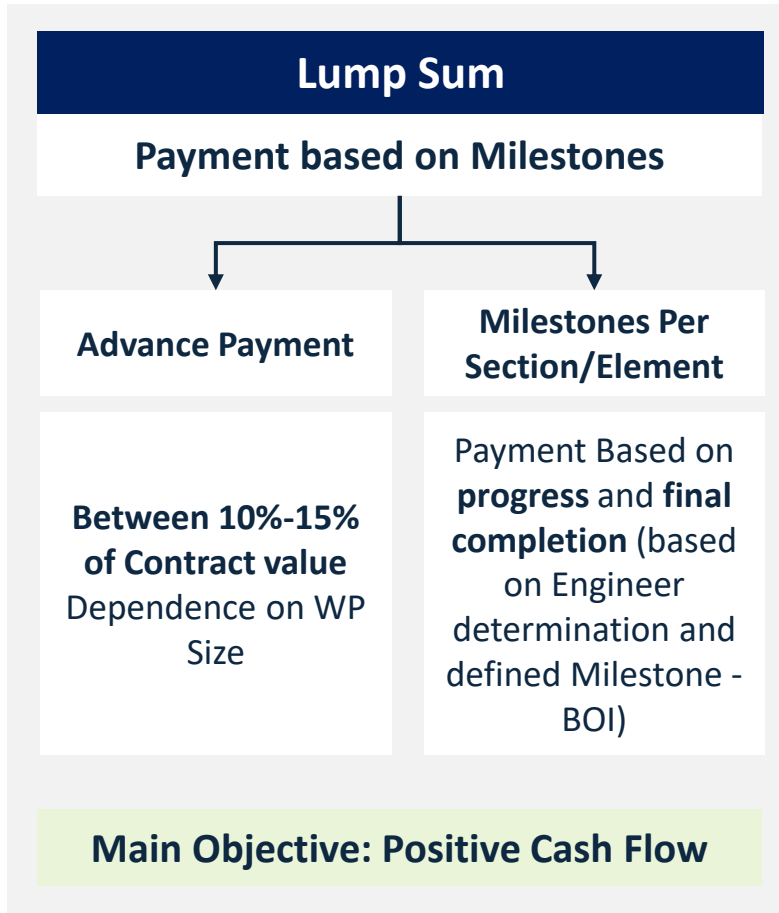
Fences for worksites

3

Other

Infra I - Payment Milestones

Example for illustration



Thank You & Shalom



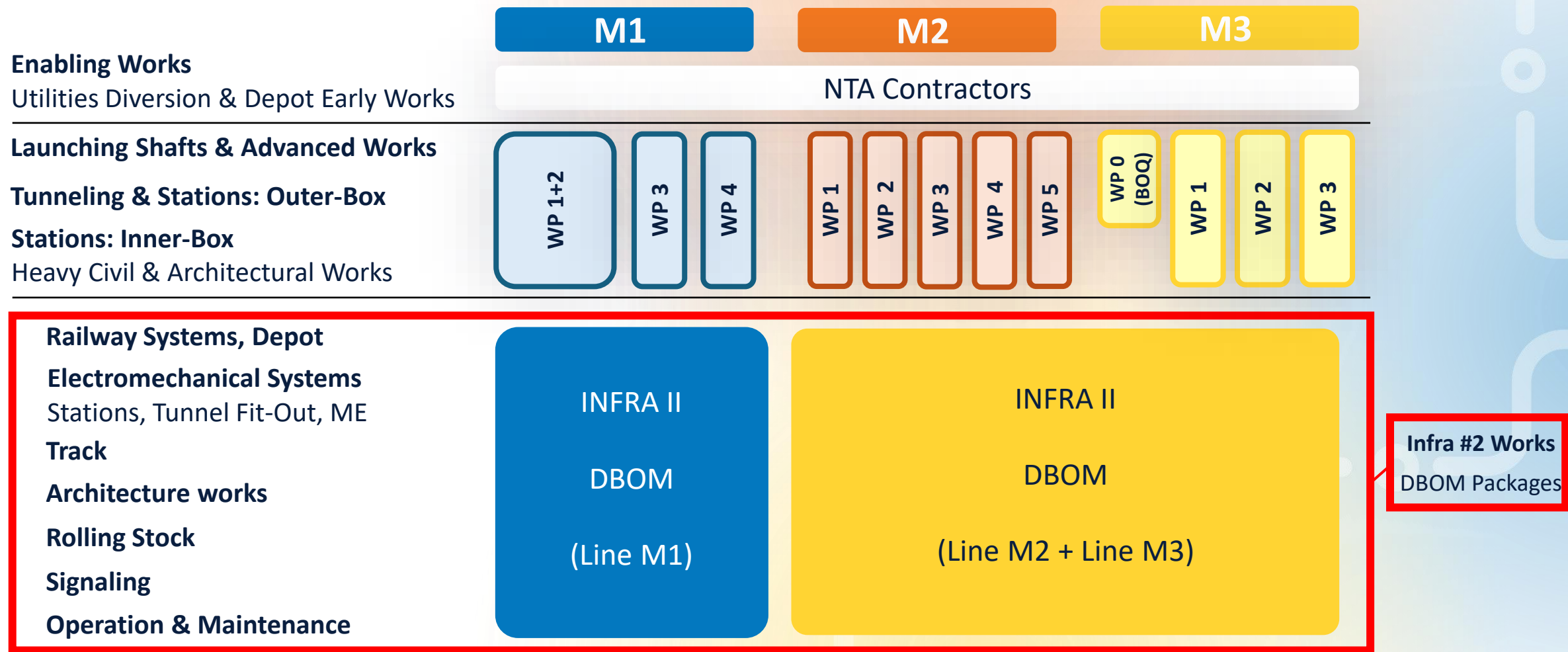
Infra II

PQ – Presentation

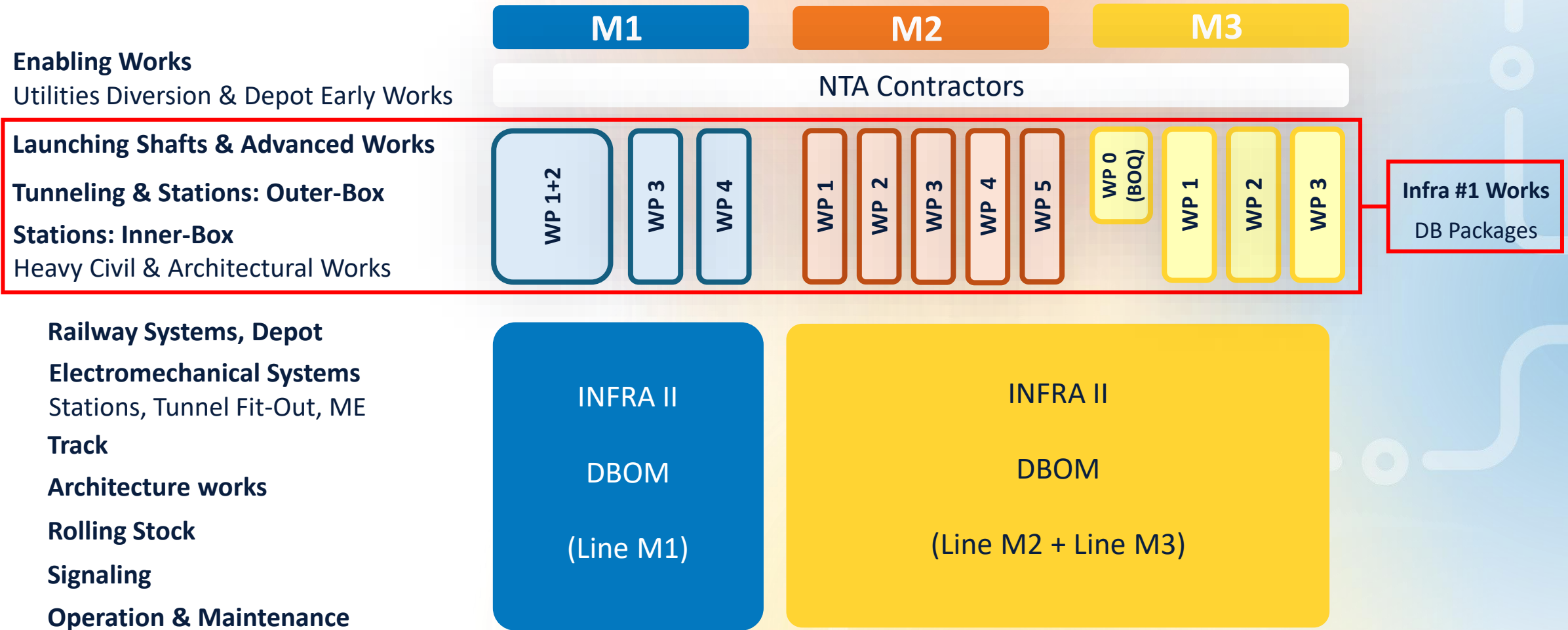
Gilad Fux
VP, Systems and
Technologies, NTA



Procurement Strategy Scheme

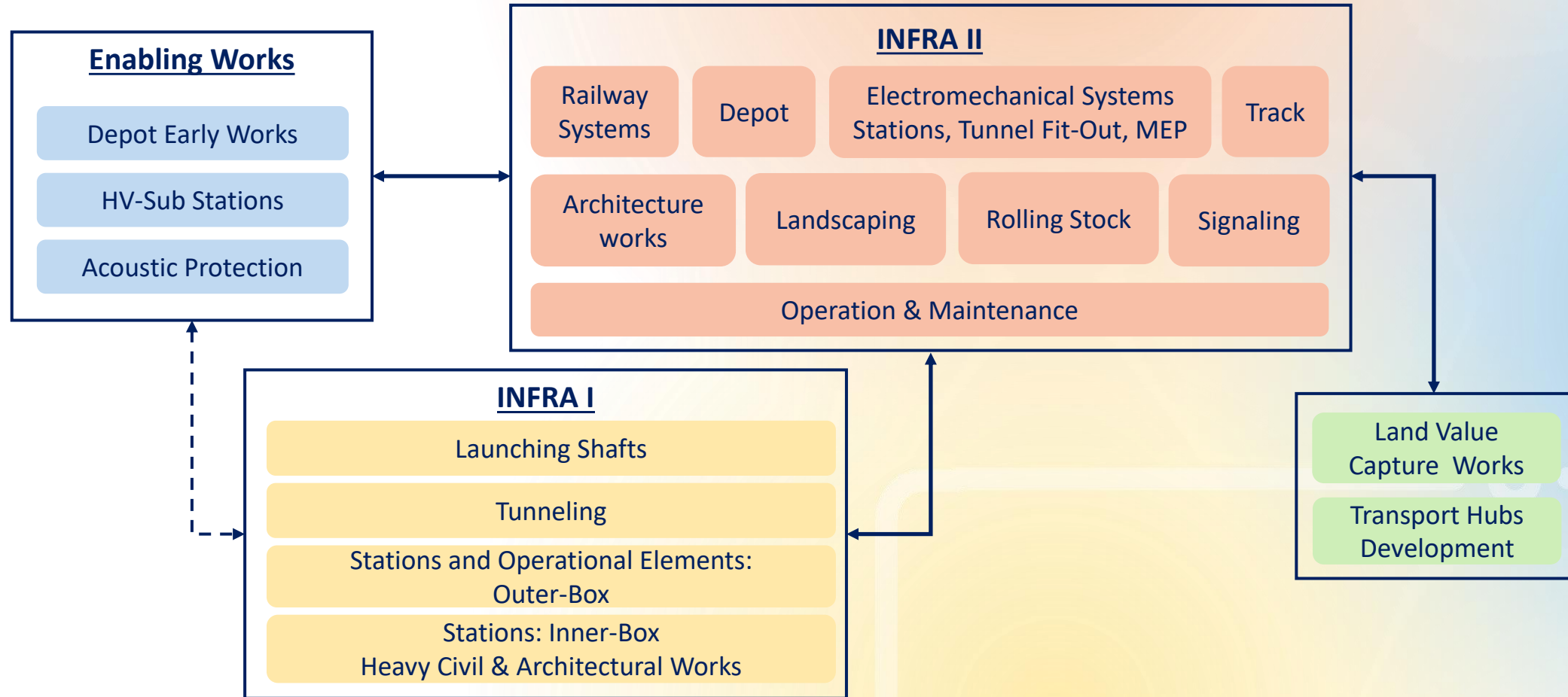


Procurement Strategy Scheme



Infra II: Main Interfaces

Project Delivery Timeline



Indicative SOW Allocation Cut & Cover Station

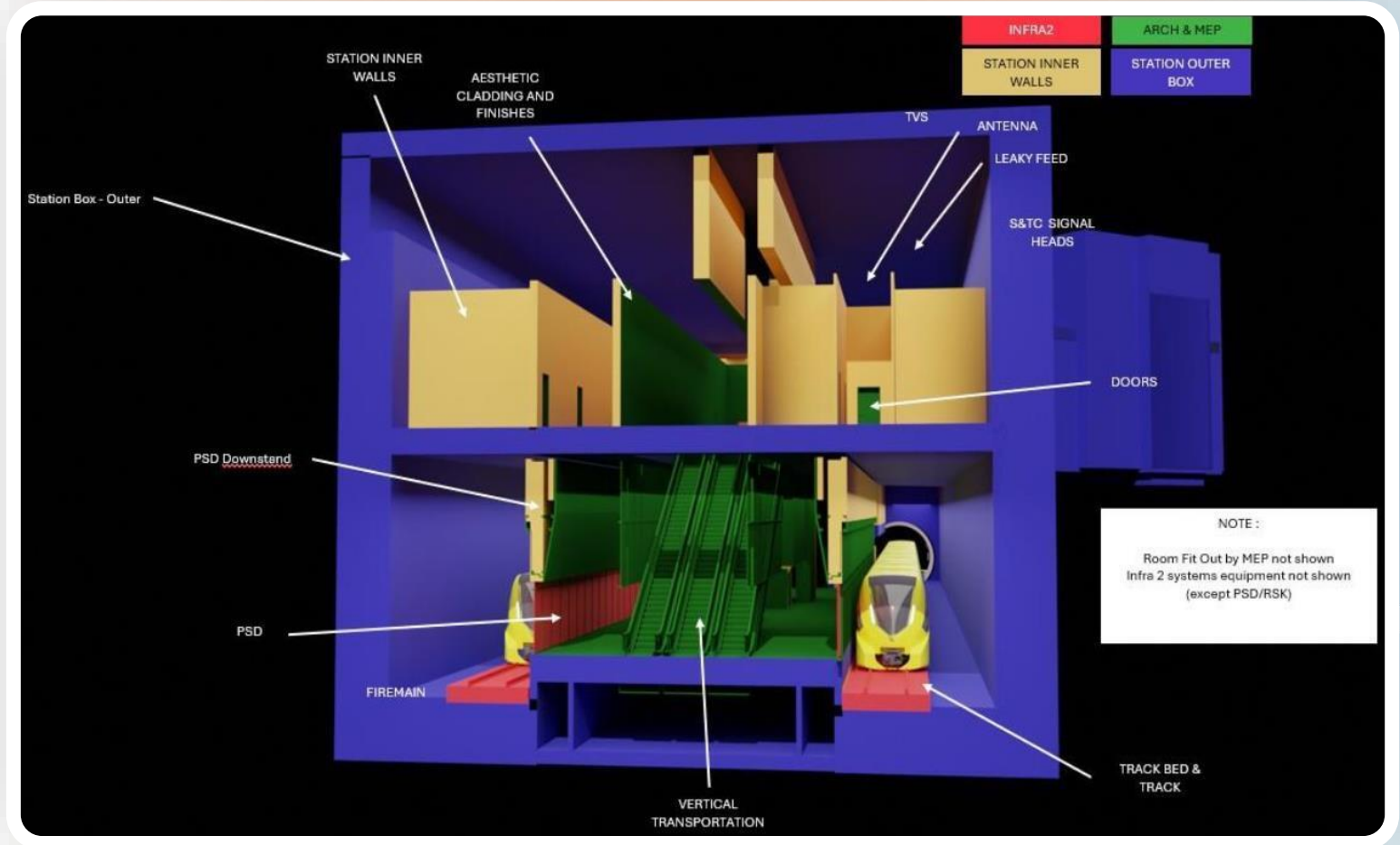
INFRA 1: CIVILS

INFRA 2: CIVILS

INFRA 2: PARTITION WALLS

INFRA 2: ARC & MEP

INFRA 2: RAIL SYSTEMS



Indicative SOW Allocation Mined Station

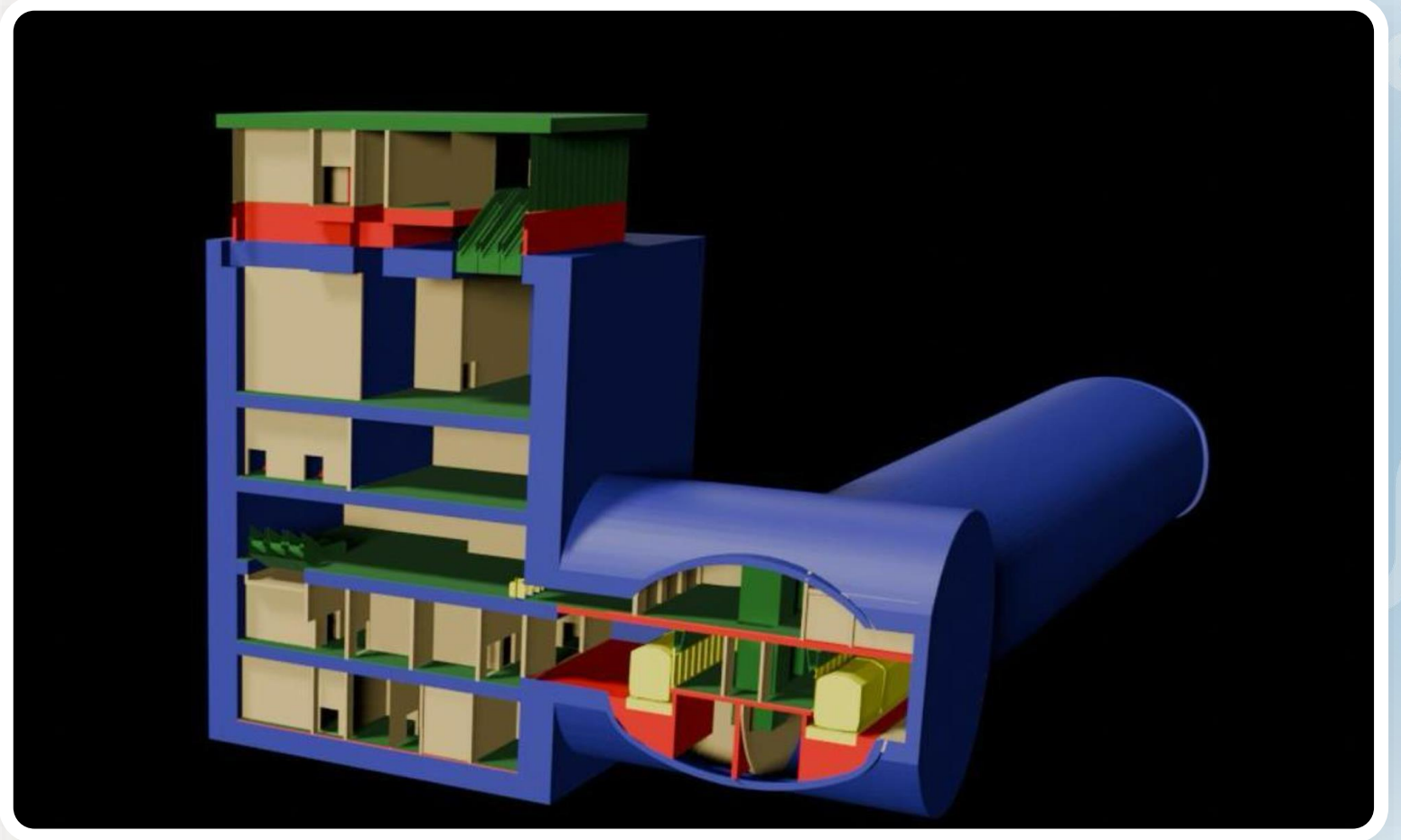
INFRA 1: CIVILS

INFRA 2: CIVILS

INFRA 2: PARTITION WALLS

INFRA 2: ARC & MEP

INFRA 2: RAIL SYSTEMS



Main Characteristics

Unified PQ and Tender process for both M1 and M2-M3 Infra 2 WPs



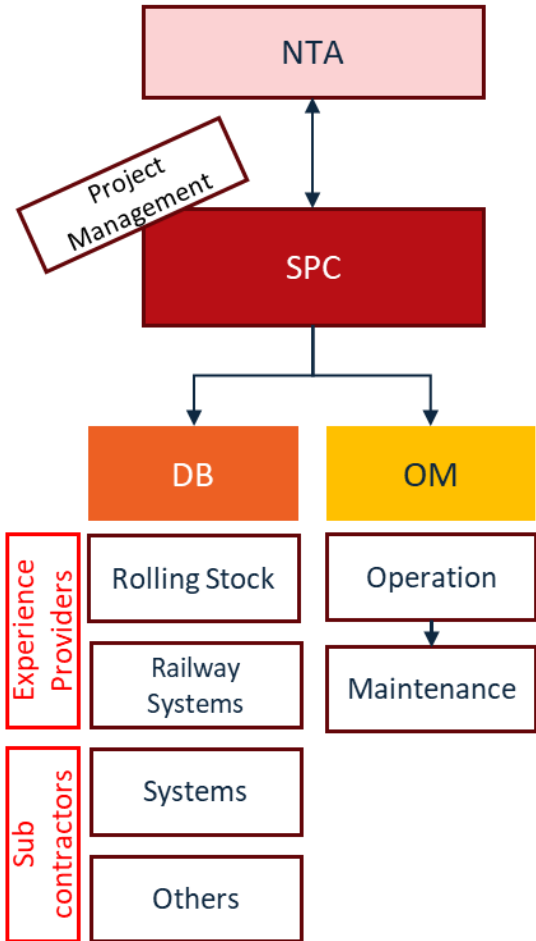
* Infra 2 SOW covers Stage A of the project with an option to extend the services also to Stage B

Overview of Main Disciplines

Demonstration	Threshold Requirements	#
PQ	Railway Systems	1
PQ	Rolling Stock	2
PQ	Project Management, Integration	3
PQ	Maintenance	4
PQ	Operations	5
Tender Phase / Post nomination	Signaling System	6

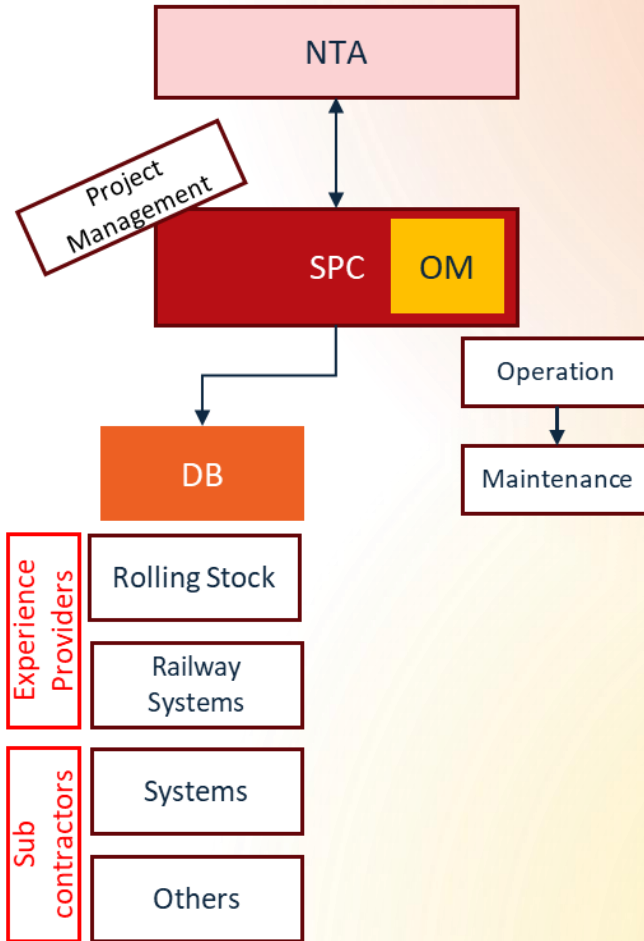
Bidder's Structure

Alternative A



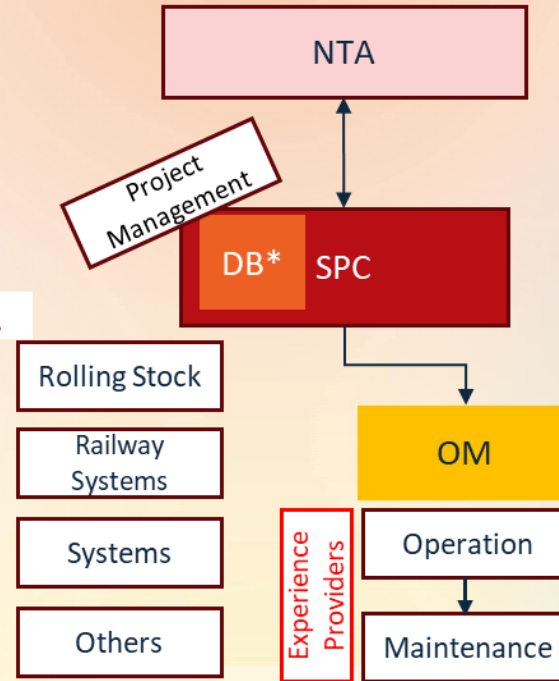
OR

Alternative B



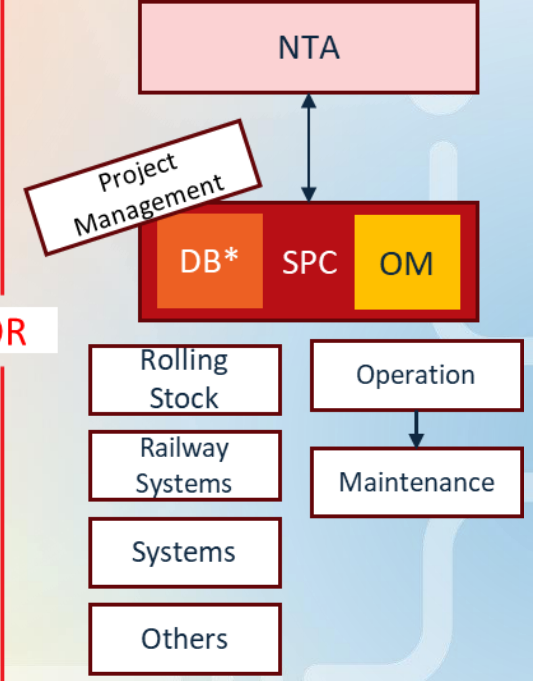
OR

Alternative C



OR

Alternative D



Alternative Structures for Metro Network Operator

Alternative A - Metro Network Operator with proven metro operation experience

The Operating Company



Network Operator with Experienced Metro Operator

Alternative B - Bus/LRT/Metro Operator with Service Agreement with Experienced Metro Operator

The Operating Company



The services agreement requires the involvement of the network operator

Bus/LRT Operator



Operator with Experienced Metro Operator

Critical Systems



Communication:

Wired, Wireless, Operational Radio, Emergency Networks, Cellular, WIFI



Security Layers:

Information Security System (ISS), Physical Security Systems



Computing Infrastructure:

Data Centers ,Cloud ,Workstations ,Laptops



Industrial Control:

SCADA, PLCs, HMIs



Control & Integrations:

Command & Control (C2), Integration Systems, Operational Management



Transit Core:

Signaling and OCC

The Tender Committee may impose participation restrictions on competition, criminal or national security grounds, in accordance with applicable law, including with respect to specific parts or aspects of the process or project.

Thank You & Shalom



PRE-QUALIFICATION CONFERENCE

A thick orange line that starts from the right edge, moves left, then turns down and left, ending with a small orange circle at the start of the name 'Adam Ross'.

Adam Ross

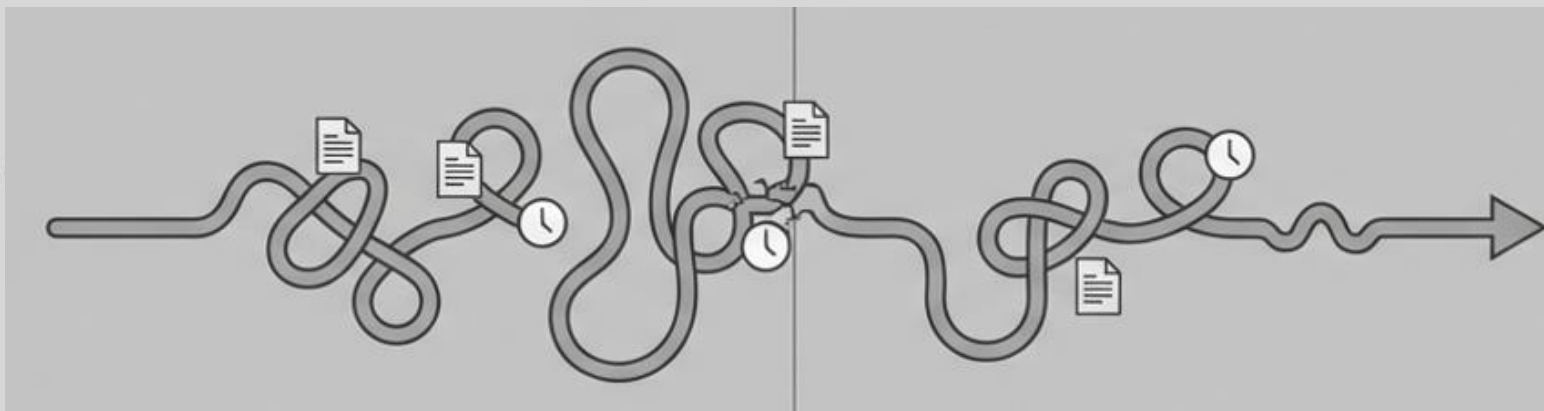
LICENSING AUTHORITY

STATE PREPAREDNESS FOR THE **METRO** **PROJECT** WITH NATIONAL LICENSING AUTHORITY



No More Queue. One Platform.

Sequential Process
(Sequential)



Parallel Process
(Parallel)



Coordination with authorities and external bodies happens simultaneously.

24

AUTHORITIES

150

KILOMETERS

1

SINGLE GOAL

NATIONAL LICENSING AUTHORITY

THE ANSWER TO THE METRO PROJECT CHALLENGES



One body with authority
to approve all licensing
processes and start of works.



For infrastructure projects
of national importance.



Specifically designated team
to handle the Metro project.

One Address. for all licensing needs.



Holistic response under one body

For synchronization between various government ministries and approving bodies.

Multidisciplinary expertise

Combining engineering, legal, and planning experts under one roof to provide a complementary response.

Providing a response to changing needs

Ability to make decisions according to changing needs.

Goodbye Permit. Welcome Authorization.

The Past

Permit

- Linear Process •
- Construction Checks •
- Coordination Verification •

The Licensing
Revolution

The Future

Authorization

- Detailed Design for Review •
- Designer Responsibility •
- Speed •

LICENSING PROCESS IN 60 BUSINESS DAYS



60
BUSINESS DAYS

One address. End-to-end.



The **National Licensing Authority** is a body established by the state in 2023 and includes a broad **professional team** for licensing and environmental issues.

THANK YOU

Senior Division National Licensing Authority

michall@iplan.gov.il

r-artzit@iplan.gov.il

Scope of Works (Common to all Lines) & Overview of Reference Design Content

Roberto Nassi

Project Lead Designer M1

Project Director, Metro Milano



Reference Design

1

Design and
Construction of
TBM Tunnels
Launching /
Retrieval Shaft

2

Design and
Construction of
Underground
Structures

Purpose of the Reference Design (Common to All Lines) (1/2)

Employer's Design for tender

Define the **technical baseline** for procurement of Infra 1 Design & Build works.

Establish **mandatory constraints, interfaces and performance requirements**.

Provide sufficient definition to enable **pricing, risk allocation and design development** by D&B Contractors.

D&B Particulars

The Reference Design is not a construction design and does not prescribe construction methods or sequencing.

Reference Design

1

Design and
Construction of
TBM Tunnels
Launching /
Retrieval Shaft

2

Design and
Construction of
Underground
Structures

Purpose of the Reference Design (Common to All Lines) (2/2)

Employer's Design for tender

D&B Particulars

Reference Design includes definition of:

Alignment and geometry

- Horizontal and vertical alignment
- Tunnel envelopes and clearances
- Station and shaft locations

Geotechnical and hydrogeological baseline

- Ground models and parameters
- Groundwater regime
- Baseline ground behaviour (via GBR)

Structural concepts

- Permanent structural systems
- Load paths and structural principles

Statutory and planning constraints

- Approved planning boundaries
- Environmental and permitting conditions
- Interfaces with stations, shafts, roads and third parties

Interface boundaries

- Infra 1 ↔ Infra 2 interfaces

The Reference Design is not a construction design and does not prescribe construction methods or sequencing.

Tunnels Launching Shafts

1

Design and Construction of TBM Tunnels Launching / Retrieval Shaft

2

Design and Construction of Underground Structures

1.1 | Tunnels Launching / Retrieval Shafts (Common to All Lines)

Scope of Works

Construction of launching, retrieval and intermediate shafts

Ground and groundwater management

Provision of interfaces for tunnelling operations

Provision of construction logistics for tunnelling operations

D&B Particulars

The configuration, construction method, sequencing and temporary works for launching and retrieval shafts remain the responsibility of the Design & Build Contractor, provided contractual performance, safety and interface requirements are satisfied.

Tunnels Launching Shafts

1

Design and Construction of TBM Tunnels Launching / Retrieval Shaft

2

Design and Construction of Underground Structures

1.1 | Tunnels Launching / Retrieval Shafts (Common to All Lines)

Employer's Designer – Detailed Design Scope

The Employer's Designer is responsible for the preparation of the **Detailed Design** of launching and retrieval shafts, including:

Final shaft geometry and permanent structural design, including walls, slabs, foundations and thrust structures.

Defined ground and groundwater design assumptions, including dewatering concepts and uplift control, in accordance with the GBR.

TBM interface design intent, including break-in / break-out arrangements and structural interfaces with running tunnels.

Instrumentation and monitoring design intent for shaft construction and TBM operations.

D&B Particulars

Construction methods, sequencing, temporary works and logistics remain the responsibility of the Infra 1 Contractor.

Tunnels Launching Shafts

1

Design and Construction of TBM Tunnels Launching / Retrieval Shaft

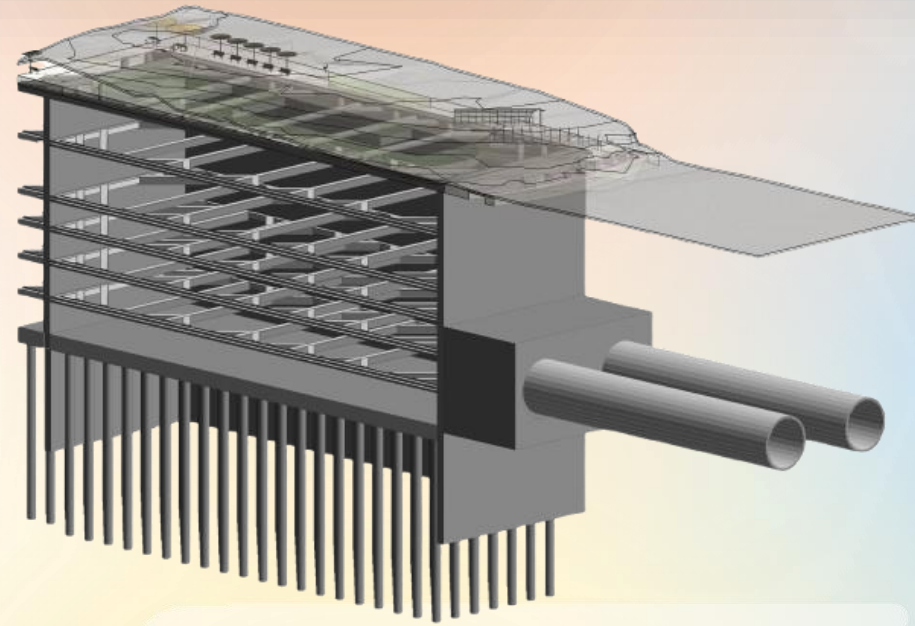
2

Design and Construction of Underground Structures

1.1 | Tunnels Launching / Retrieval Shafts (Common to All Lines)

Scope of Works

D&B Particulars



The configuration, construction method, sequencing and temporary works for launching and retrieval shafts remain the responsibility of the Design & Build Contractor, provided contractual performance, safety and interface requirements are satisfied.

Tunnels Launching Shafts

1

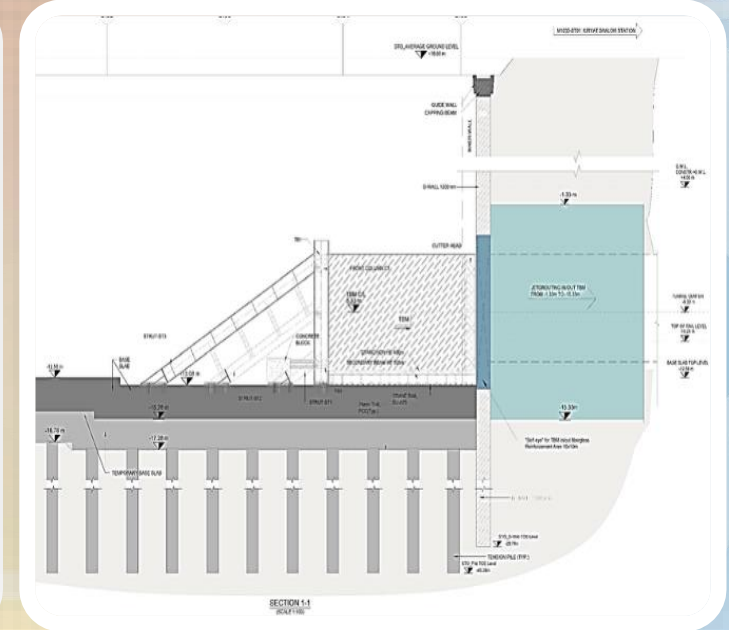
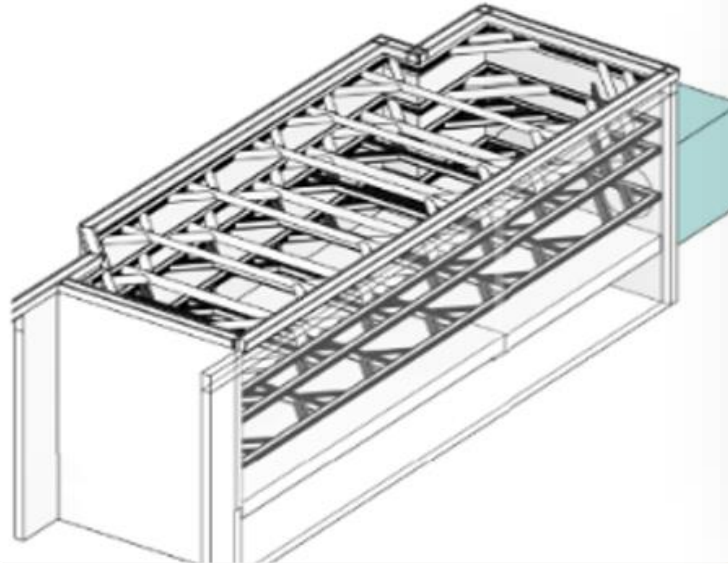
Design and Construction of TBM Tunnels Launching / Retrieval Shaft

2

Design and Construction of Underground Structures

1.1 | Tunnels Launching / Retrieval Shafts (Common to All Lines)

Scope of Works



D&B Particulars

The configuration, construction method, sequencing and temporary works for launching and retrieval shafts remain the responsibility of the Design & Build Contractor, provided contractual performance, safety and interface requirements are satisfied.

Tunnels

1

Design and
Construction of
TBM Tunnels

2

Design and
Construction of
Underground
Structures

1.2 | Twin Tunnel excavation and lining works (Common to All Lines)

Scope of Works

Design and construction of running tunnels

Supply, operation and demobilization of tunnelling equipment

Tunnel – shaft – station interfaces

Instrumentation, monitoring and mitigation

D&B Particulars

The Scope defines performance and outcomes.

Selection of tunnelling methods, shaft configurations, sequencing and temporary works arrangements remains the responsibility of the Design & Build Contractor.

Tunnels

1

Design and
Construction of
TBM Tunnels

2

Design and
Construction of
Underground
Structures

1.2 | Twin Tunnel excavation and lining works (Common to All Lines)

Employer's Designer – Reference Design

Tunnelling and Underground Structures

Running tunnels (TBM / conventionally excavated – method-neutral)
Cross passages and evacuation connections
Ventilation or Escape shafts
Cut-and-cover and mined tunnel sections
Tunnel portals and interfaces with stations and shafts

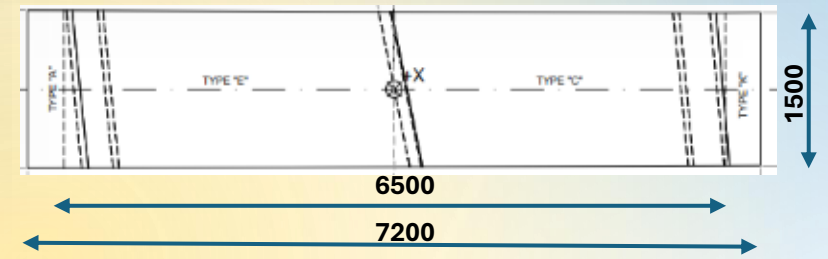
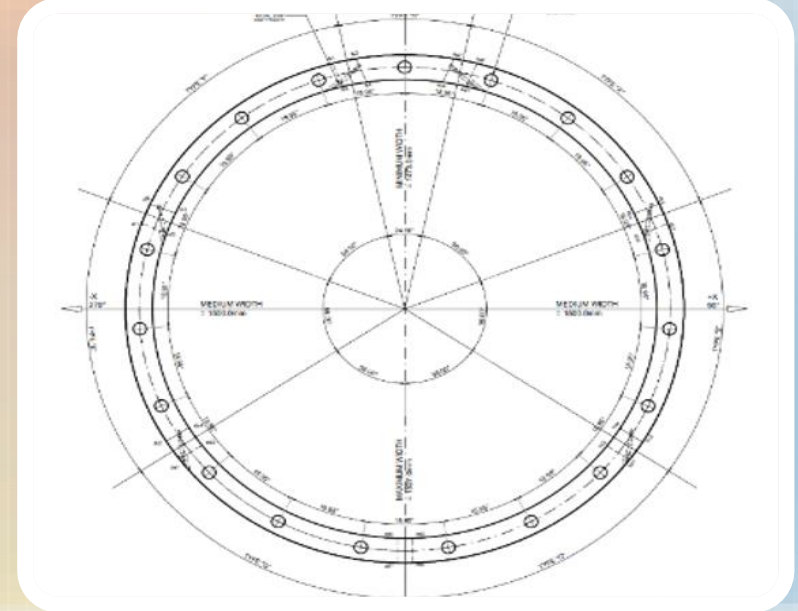
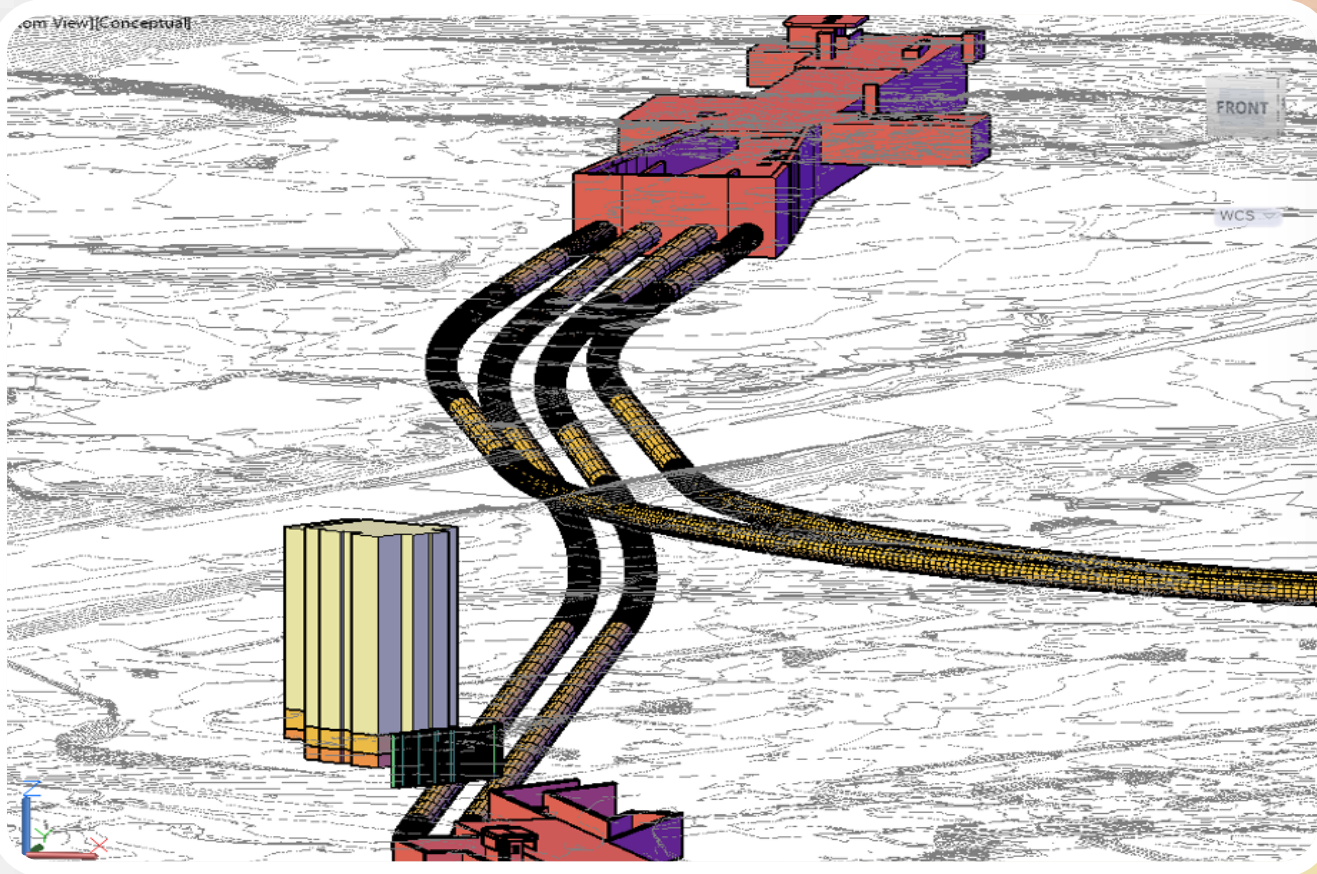
Provided at Reference Design level:

Geometry and spatial definition
Structural concept and lining principles
Waterproofing concept
Drainage and safety provisions
Interface locations and limits

D&B Particulars

The Scope defines performance and outcomes.
Selection of tunnelling methods, shaft configurations, sequencing and temporary works arrangements remains the responsibility of the Design & Build Contractor.

Tunnel Excavation and Lining Works



Cross Passages

1

Design and
Construction of
TBM Tunnels

2

Design and
Construction of
Underground
Structures

1.3 | Cross Passages excavation and lining works (Common to All Lines)

Scope of Works

Design and construction of cross passages

Ground treatment and stability measures

Integration with running tunnels

D&B Particulars

The selection of excavation method, sequencing and temporary works for cross passages remains the responsibility of the Design & Build Contractor, provided contractual performance and safety requirements are achieved.

Cross Passages

1

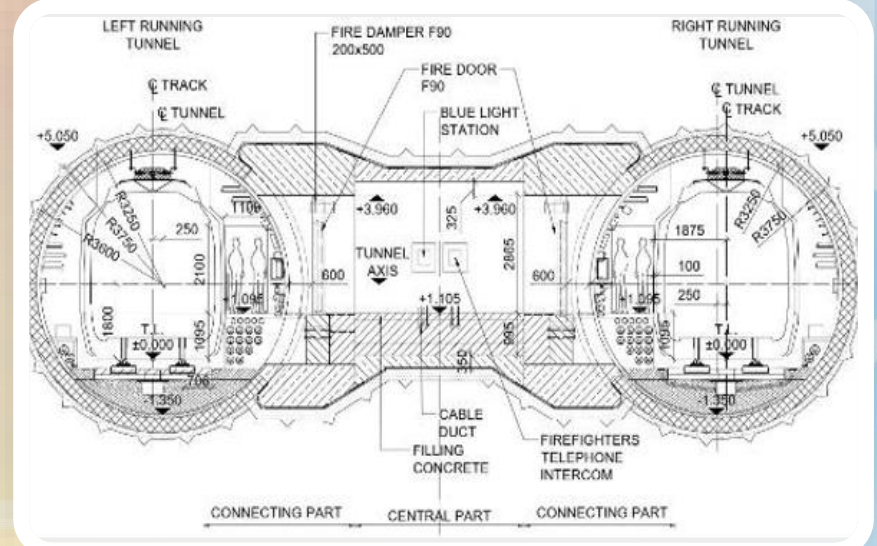
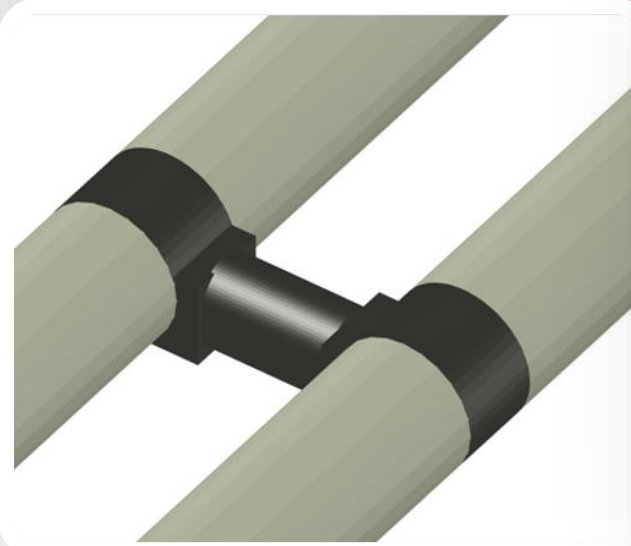
Design and
Construction of
TBM Tunnels

2

Design and
Construction of
Underground
Structures

1.3 | Cross Passages excavation and lining works (Common to All Lines)

Scope of
Works



D&B
Particulars

The selection of excavation method, sequencing and temporary works for cross passages remains the responsibility of the Design & Build Contractor, provided contractual performance and safety requirements are achieved.

First Stage Concrete

1

Design and
Construction of
TBM Tunnels

2

Design and
Construction of
Underground
Structures

1.4 | First-Stage Concrete (Running Tunnels) & Embedded Items (Common to All Lines)

Scope of Works

Execution of first-stage in-situ concrete works

Provision and installation of embedded items

Integration with permanent tunnel lining

Surface preparation, geometry control and tolerances

Testing, inspection and documentation

D&B Particulars

The Contractor remains fully responsible for the design, sequencing and execution of first-stage concrete works to meet the required performance, durability and interface outcomes excluding the Design responsibility of Embedded Items.

Underground Structures

1
Design and Construction of TBM Tunnels

2
Design and Construction of Underground Structures

2.1 | UG Structure OUTER BOX excavation and lining works (Common to All Lines)

Scope of Works

Design and construction of the outer box

Execution of all permanent and temporary works

Ground and groundwater management

Provision of a complete waterproof envelope

D&B Particulars

The selection of construction methodology, sequencing, excavation support systems and temporary works for the outer box remains the responsibility of the Design & Build Contractor, provided contractual performance, safety and interface requirements are satisfied.

Underground Structures

1

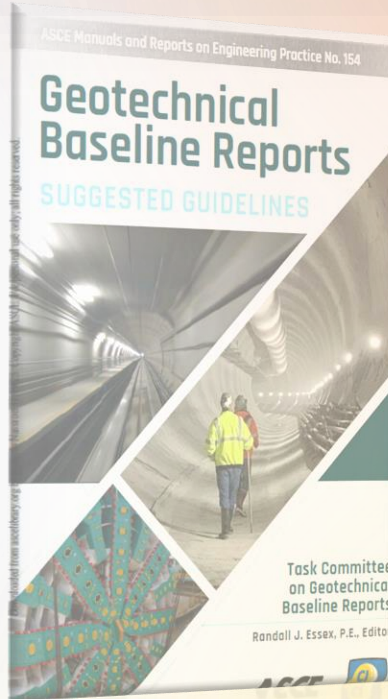
Design and
Construction of
TBM Tunnels

2

Design and
Construction of
Underground
Structures

2.2 | UG Structure excavation and lining works (Common to All Lines)

Employer's
Designer –
Reference
Design



Ground, Groundwater & Environment

Geological and hydrogeological models

Geotechnical baseline parameters

Groundwater levels, regimes and sensitivities

Environmental constraints and mitigation principles

D&B
Particulars

The Geotechnical Baseline Report (GBR) governs ground risk allocation and prevails over descriptive content.

Underground Structures

1

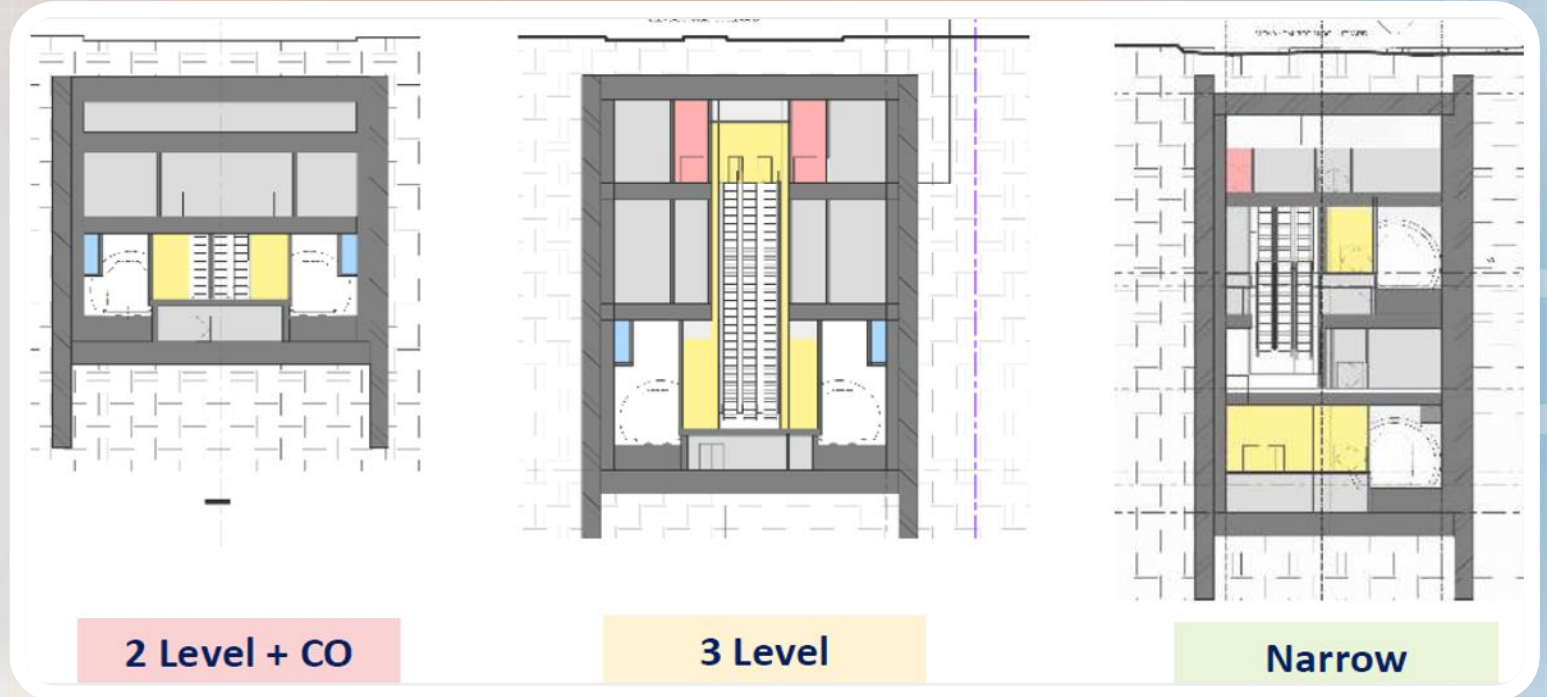
Design and
Construction of
TBM Tunnels

2

Design and
Construction of
Underground
Structures

2.1 | UG Structure OUTER BOX excavation and lining works (Common to All Lines)

Scope of Works



D&B Particulars

The selection of construction methodology, sequencing, excavation support systems and temporary works for the outer box remains the responsibility of the Design & Build Contractor, provided contractual performance, safety and interface requirements are satisfied.

Underground Structures

1

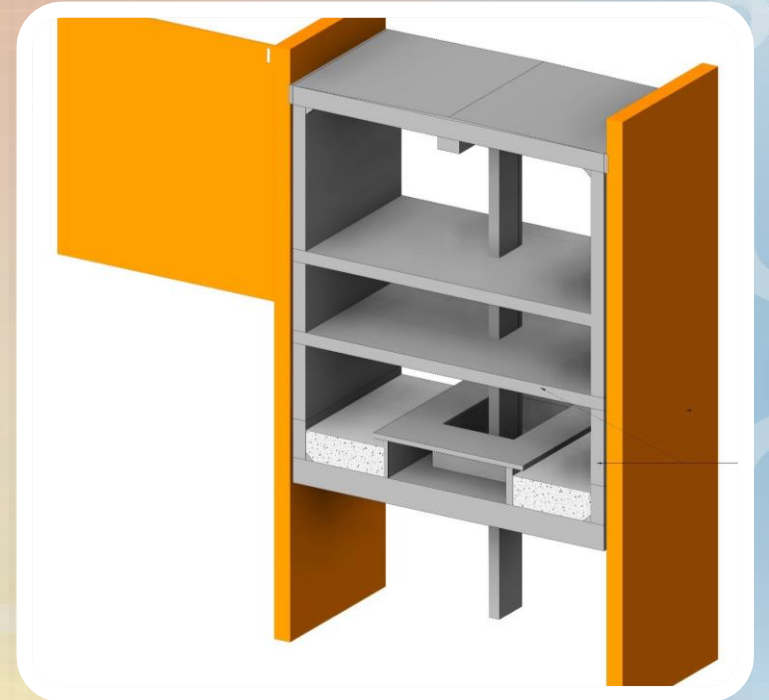
Design and
Construction of
TBM Tunnels

2

Design and
Construction of
Underground
Structures

2.1 | UG Structure OUTER BOX excavation and lining works (Common to All Lines)

Scope of Works



D&B Particulars

The selection of construction methodology, sequencing, excavation support systems and temporary works for the outer box remains the responsibility of the Design & Build Contractor, provided contractual performance, safety and interface requirements are satisfied.

Underground Structures

1

Design and
Construction of
TBM Tunnels

2

Design and
Construction of
Underground
Structures

2.2 | Underground Structure excavation and lining works (Common to All Lines)

Employer's Designer – Reference Design

Underground Stations & Boxes

Outer box structural concept and footprint
Inner box structural concept and load-bearing system
Station galleries, caverns and interfaces with tunnels
Entrances, ventilation and escape shafts (civil scope)

Reference Design defines:

Structural arrangement and envelopes
Interface readiness for fit-out and systems
Waterproofing and drainage concepts
Construction staging constraints (without prescribing methods)

D&B Particulars

The selection of construction methodology, sequencing, excavation support systems and temporary works for the outer box remains the responsibility of the Design & Build Contractor, provided contractual performance, safety and interface requirements are satisfied.

Underground Structures – Inner Box

1

Design and
Construction of
TBM Tunnels

2

Design and
Construction of
Underground
Structures

2.2 | UG Structure INNER BOX lining works (Common to All Lines)

Scope of Works

Design and construction of the inner box

Completion of the permanent internal structure

Integration with the outer box

Provision of all embedded items and reserved openings

D&B Particulars

The selection of construction methodology, sequencing, excavation support systems and temporary works for the outer box remains the responsibility of the Design & Build Contractor, provided contractual performance, safety and interface requirements are satisfied.

Underground Structures – Inner Box

1

Design and
Construction of
TBM Tunnels

2

Design and
Construction of
Underground
Structures

2.2 | UG Structure INNER BOX lining works (Common to All Lines)

Scope of Works

Internal drainage and water management provisions

Coordination with adjacent works and interfaces

Handover of a finish-ready civil structure

Provision of a complete waterproof envelope

D&B Particulars

Architectural finishes, MEP systems, rail systems and operational equipment are excluded, except where embedded items and interface provisions are expressly required under this Scope.

Underground Structures – Inner Box

1

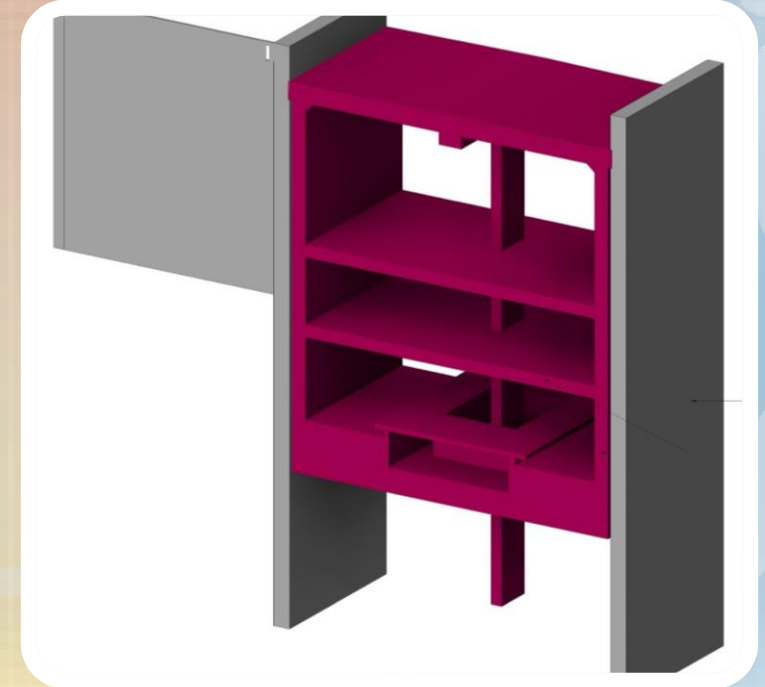
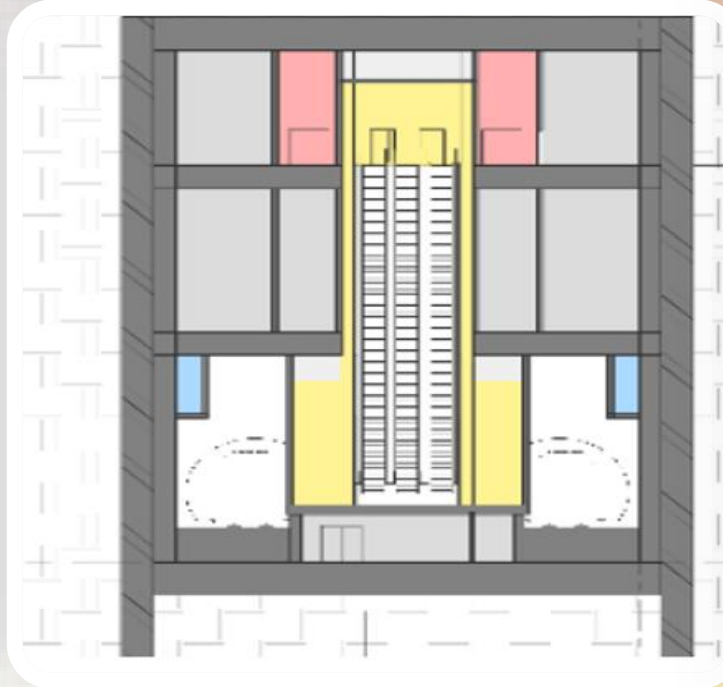
Design and
Construction of
TBM Tunnels

2

Design and
Construction of
Underground
Structures

2.2 | UGd Structure INNER BOX lining works (Common to All Lines)

Scope of
Works



D&B
Particulars

Architectural finishes, MEP systems, rail systems and operational equipment are excluded, except where embedded items and interface provisions are expressly required under this Scope.

Infra 1 / Infra 2 Interfaces

Employer's Design | Excavation and lining works (Common to All Lines)

Reference Design: Interfaces & Coordination

Interface Definition (Infra 1)

Defined interface limits with:

- Infra 2 systems and fit-out
- Roads, utilities and third parties
- Existing and future infrastructure

Required embedded items and reserved openings

Dimensional tolerances and access requirements

BIM coordination and information exchange requirements

Outcome:

A complete, interface-ready civil shell suitable for D&B delivery.

What the Reference Design Does NOT Include

Explicit Exclusions

Detailed construction methods or sequencing

Temporary works design

Means and methods for tunnelling or excavation

Contractor-specific optimisation solutions

Detailed reinforcement, rebar schedules or shop drawings

These elements are developed by the Design & Build Contractor during Detailed Design.

Infra 1 / Infra 2 Interfaces

4 | Excavation and lining works (Common to All Lines)

Defined interface boundaries, including tunnels, stations, shafts, cross passages, outer and inner boxes, shall be delivered to agreed geometric, structural and tolerance requirements suitable for Infra 2 works.

Provision of all embedded items and reserved openings required for rail systems, MEP, architectural and operational installations, including sleeves, fixings, inserts, anchor points and penetrations.

Interface readiness at handover, including finish-ready civil surfaces, protection of waterproofing systems, completed drainage provisions and unobstructed access for Infra 2 installation works.

Coordination of load assumptions and operational interfaces, ensuring that structural capacities, fire-life-safety provisions and operational envelopes accommodate Infra 2 systems and equipment.

D&B Particulars

Infra 1 defines and delivers interface readiness; Infra 2 adapts installation design to verified as-built conditions within the defined interface limits.

Infra 1 / Infra 2 Interfaces

1

Design and
Construction of
TBM Tunnels

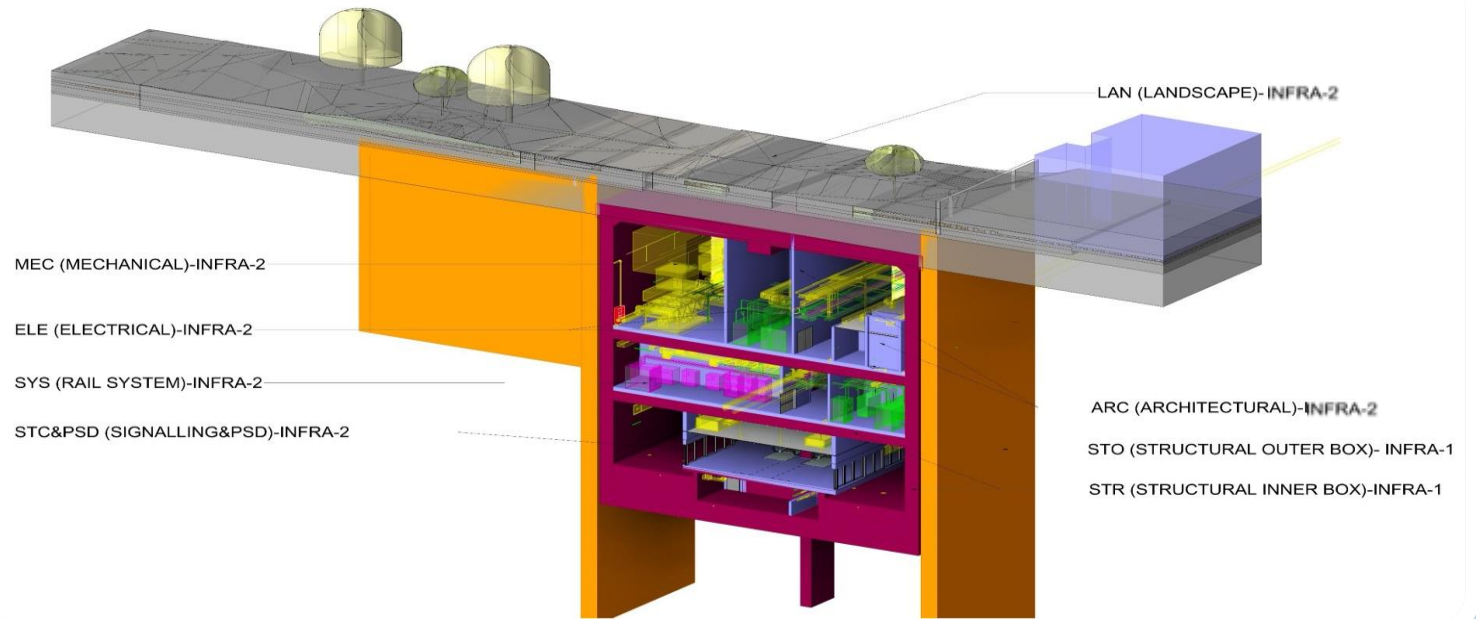
2

Design and
Construction of
Underground
Structures

4 | Underground Structure Interface with Infra 2 (Common to All Lines)

Scope of Works

D&B Particulars



Architectural finishes, MEP systems, rail systems and operational equipment are excluded, except where embedded items and interface provisions are expressly required under this Scope.

Thank You & Shalom



Risk Mitigation

How We Manage Logistic Challenges

Noam Dan Lahav
Metro projects Department, NTA





What are we going to talk about?

Reducing Contractor Risk Through Strategic Management



What are we going to talk about?

Reducing Contractor Risk Through Strategic Management

- Surplus soil
- Foreign workforce



Surplus Excavated Soil in the Metro Project

Total excavation volume is estimated at approximately 45 million cubic meters. About 28 million cubic meters (~60%) are in Stage 1, of which roughly 50% is designated for disposal.



~15 million cubic meters
cannot be reused.

Win-Win Solution: Restoring Quarries with Surplus Soil

Beit - Meir Quarry –
5 million cubic meters



Win-Win Solution: Restoring Quarries with Surplus Soil

Gan Rave Quarry –
1.2 million cubic meters



Win-Win Solution: Restoring Quarries with Surplus Soil

Kfar Menahem Quarry –
1.6 million cubic meters



Win-Win Solution: Restoring Quarries with Surplus Soil

Foyar Quarry –
8 million cubic meters



Surplus Excavated Soil and Quarry Capacity

Authorized Disposal Sites (NTA-Regulated)



Map of Local Disposal Facilities

Total capacity of approximately 11 million m³:

Foyer Quarry – 8.0 million m³

Kfar Menahem Quarry – 1.6 million m³

Gan Rave Quarry – 1.2 million m³

Beit Meir Quarry – 5.0 million m³

Migdal Tzedek Quarry – 0.8 million m³

Retamim Landfill – 0.5 million m³

Rotem Plain (Southern Dead Sea Area) – 2.0 million m³



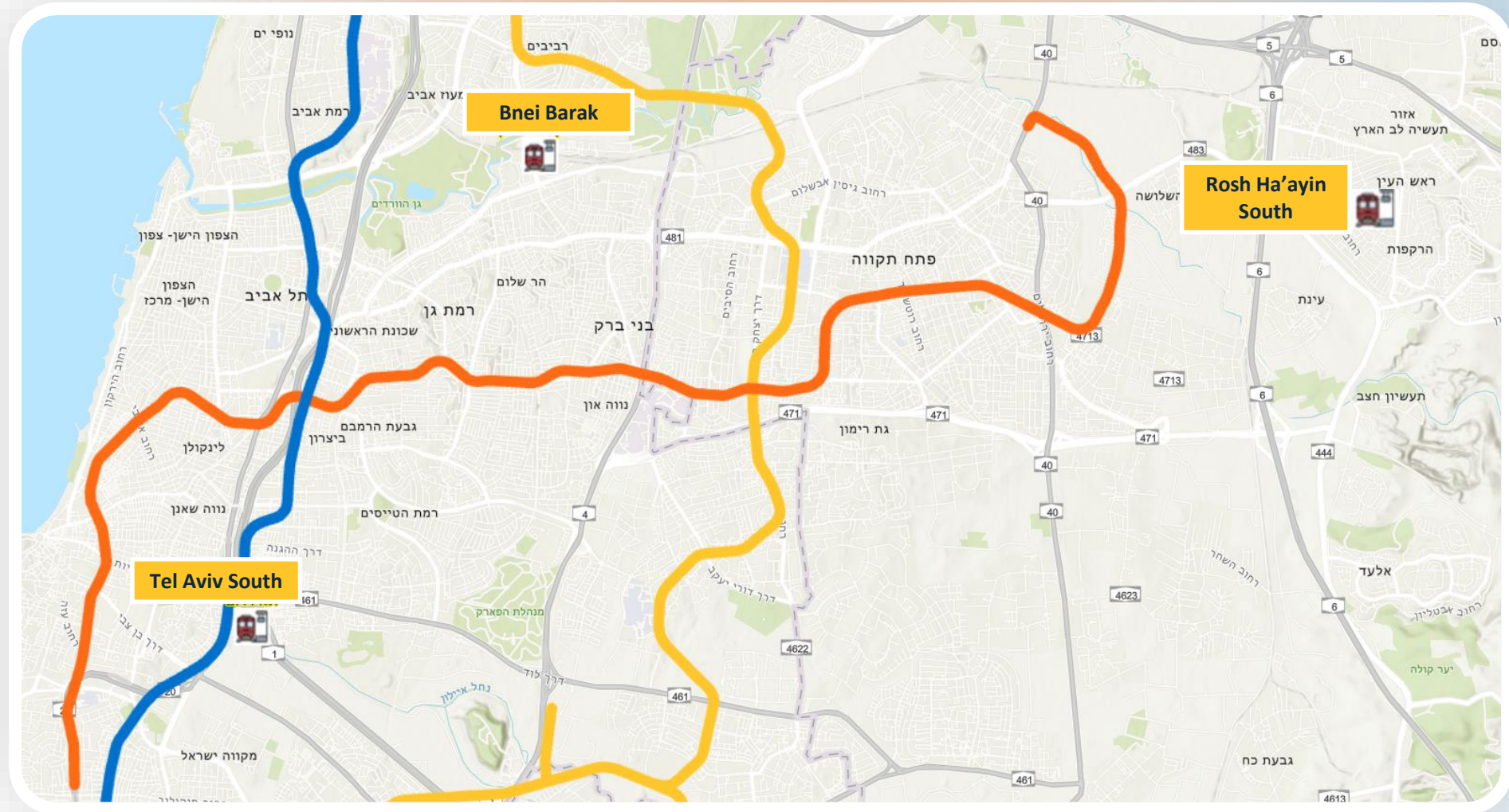
Rail Terminals in the Metropolitan Area

Terminal

Bnei Barak

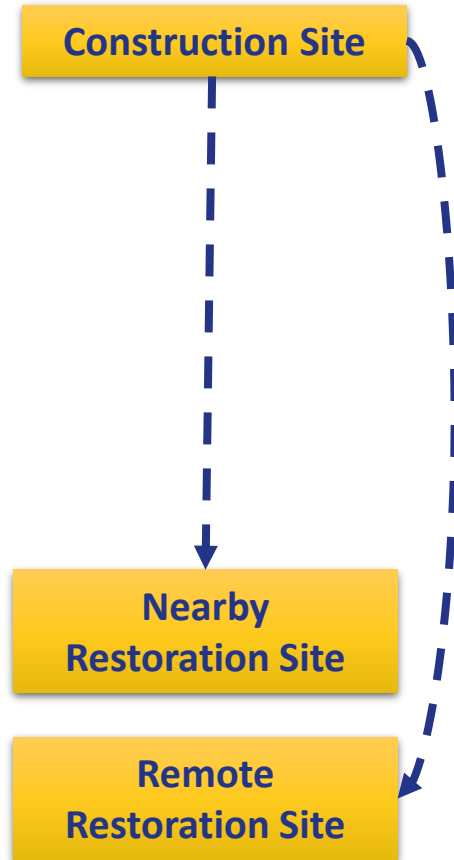
Tel Aviv South - Planned

Rosh Ha'ayin South



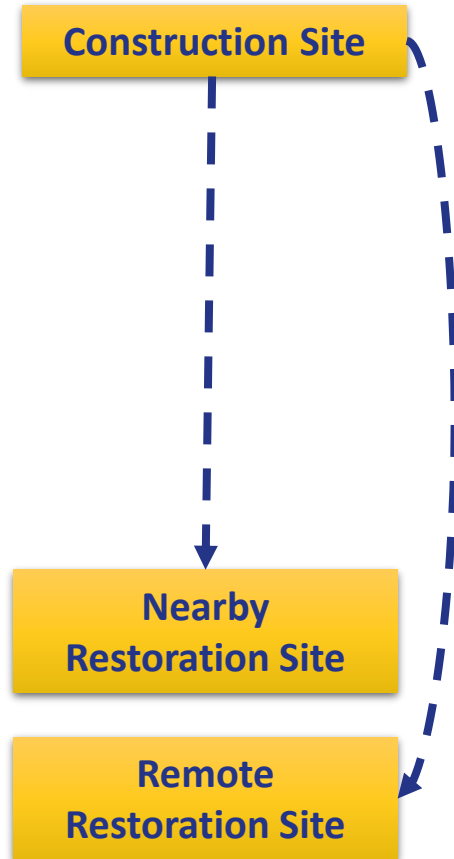
Surplus Excavated Soil Management Strategy

Direct Disposal Material

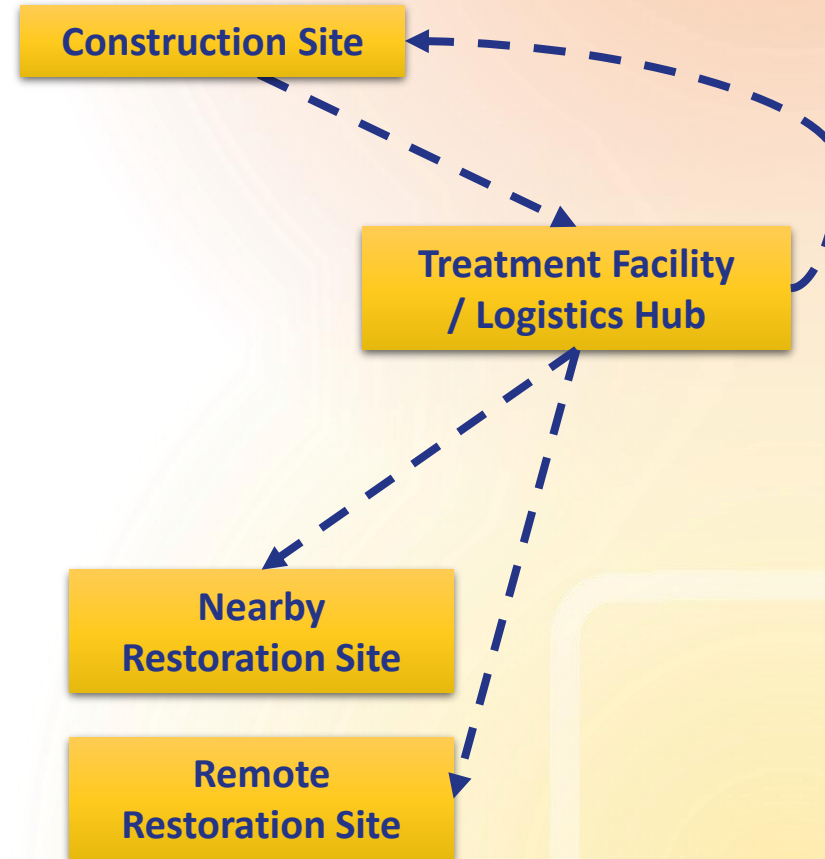


Surplus Excavated Soil Management Strategy

Direct Disposal Material

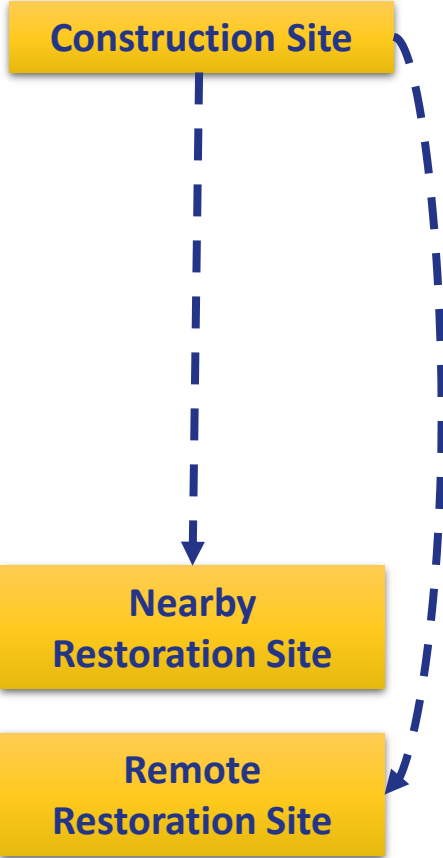


Material Requiring Treatment

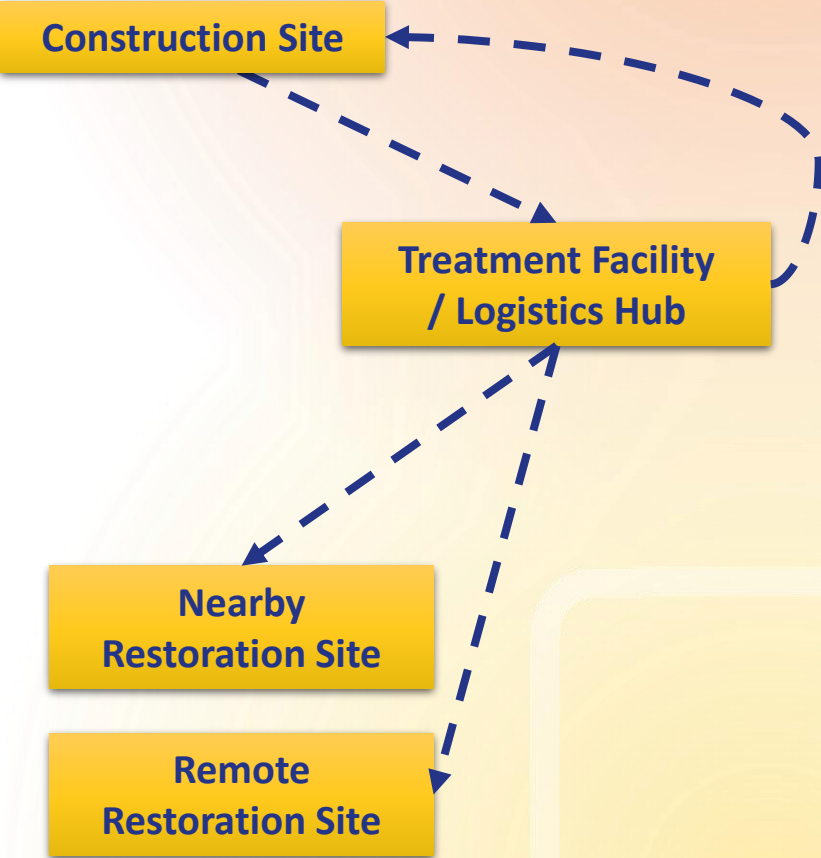


Surplus Excavated Soil Management Strategy

Direct Disposal Material



Material Requiring Treatment



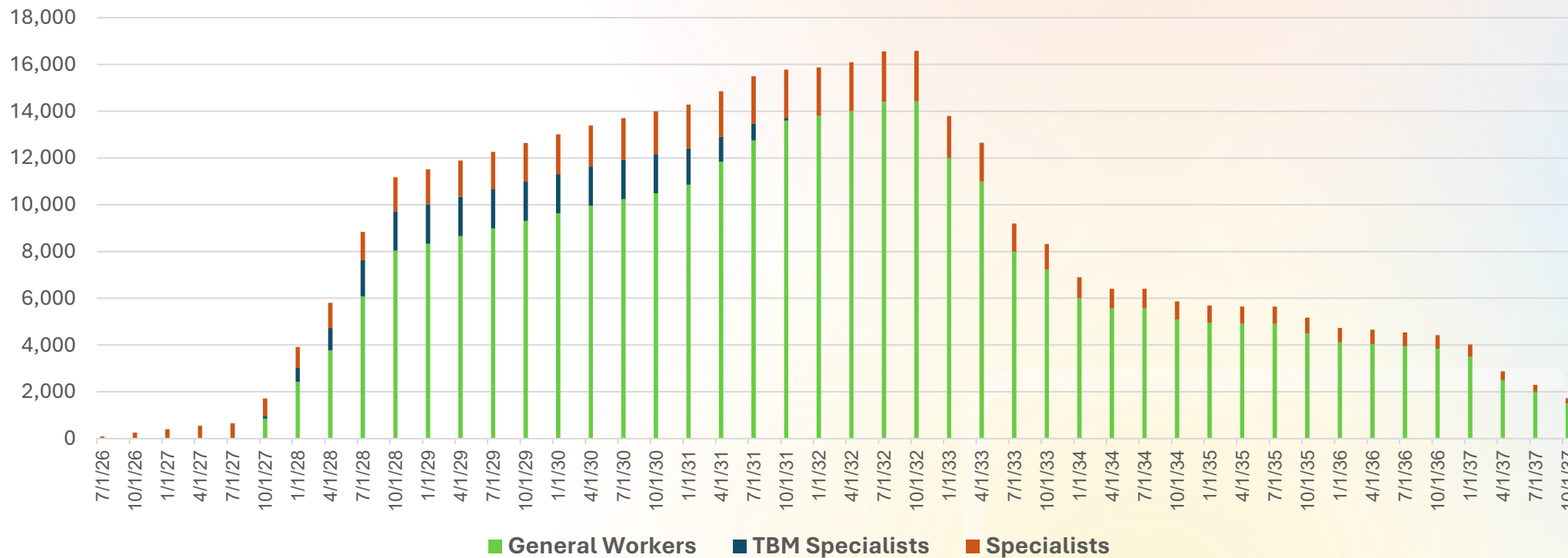
Sites with Access to Rail





Foreign Workforce Deployment Timeline

General Workers, Skilled Workers, and Specialists



Foreign Workforce Required Headcount by Year

Year	General Workers	Equipment & Technology Specialists	Specialists	Total
2026			250	250
2027	850	120	650	1,620
2028	8,000	1,700	1,500	11,200
2029	9,300	1,700	1,650	12,650
2030	10,500	1,700	1,800	14,000
2031	13,600	1,600	2,200	17,400
2032	14,400	1,600	2,200	18,200
2033	12,000	1,000	1,800	14,800
2034	6,000	500	1,200	7,700
2035	5,000	0	800	5,800
2036	4,000	0	600	4,600
2037	3,000	0	300	3,300

Two Key Challenges

Recruitment and Accommodation



Recruitment of Foreign Workers

- Direct recruitment of foreign workers by contractors is required
- Concerns regarding long visa approval processes
- Specialist employment restrictions – current regulations limit spouse employment and restrict residency to 63 months



Worker Accommodation

- Provision of housing for approximately 16,000 foreign workers at peak project demand

Foreign Workforce Solutions Key Principles



Fast-track visa process

Establishment of a dedicated visa track for Metro workers through the Population and Immigration Authority.



Extended stay for Metro experts

Allowing Metro experts to remain in Israel beyond 63 months, including family and work permits for spouses.



Dedicated workforce quota

Allocation of a dedicated quota of 16,000 foreign workers specifically for the Metro project.



Designated sites for foreign worker housing

Including approvals for establishing housing facilities or the use of temporary structures for foreign workers.



Direct recruitment framework

Enabling contractors to directly recruit and bring in workers they are familiar with and trust, based on proven relevant experience.

Thank You & Shalom



Line M1

Roberto Nassi

Project Lead Designer M1

Project Director, Metro Milano



Line M1

M1 Line

Serving 13 Municipalities

85

km

62

stations

1M

Daily
passengers

Tel Aviv – Yafo

Ramat Aviv
University
Aviv Base
Hayarkon River
Namir-Pinkas
Tel Aviv Center
Hashalom
Yits'hak Sade
Hahagana
Kiryat Shalom
Holon Junction

Rishon LeTsiyon

Bnot Khil
Rishon Lezion Center
Rishonim
Sderot Hatziyonut
Yosef Burg
Herzog
Assaf HaRofo
Tsrifin

Ra'anana

Depot Station
HaTidhar
Akiva
Ra'anana Center
Ra'anana Rail Station

Herzliya

IDC
Herzliya Center
Ben Guryon

Holon

Tel Giborim
Dov Hoz
Yoseftal
Menachem Begin
Ramat Eliyahu

Ness Ziona

Givat Hator
Nes Tziona Center
Science Park

Ramat HaSharon

Taas Hasharon West
Sokolov
HaSaraf
Gilot

Be'er Ya'akov

Be'er Ya'akov Eliyahu
Be'er Ya'akov Darom

Lod

Lod Center
Kikar Hapaplmach
Hamehkar
Lod North

Ramla

Neve David (Moshe Sharet)
Weizman
Ramla Center
Tel Hai

Rehovot

Weizman Institute
Rehovot Center
Hakibutsim
Kaplan

Kefar Sava

Kfar Sava East
Alkalai
Kfar Sava Center
Weizmann
Tchernikhovski

Hod HaSharon

HaBanim
Jabotinski
Ramat Hadar
Taas Hasharon East

Source: NTA <https://www.nta.co.il/en/metro/m1-line/>



(*) All inputs shall remain indicative and non-binding, and shall not be interpreted as defining design solutions, construction methods, or risk allocation.

Line M1 - General Overview

Execution Stage 1 - Central

28.6 Km

20 Stations

10 Operational Elements

1 Depot

3 HV Substations

Execution Stage 2 - Branches

North

28 Km

20 Stations

8 Operational Elements

1 Depot

1 HV Substations

South

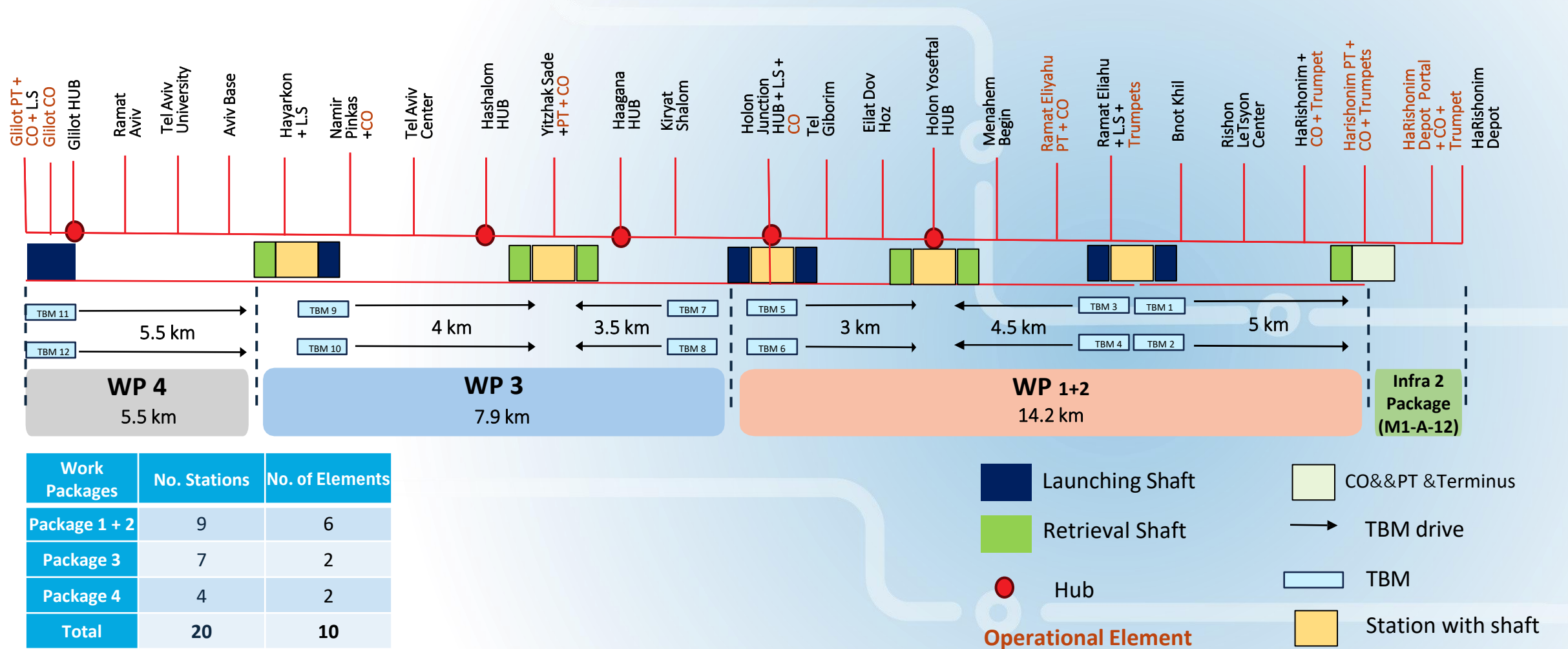
29 Km

22 Stations

7 Operational Elements

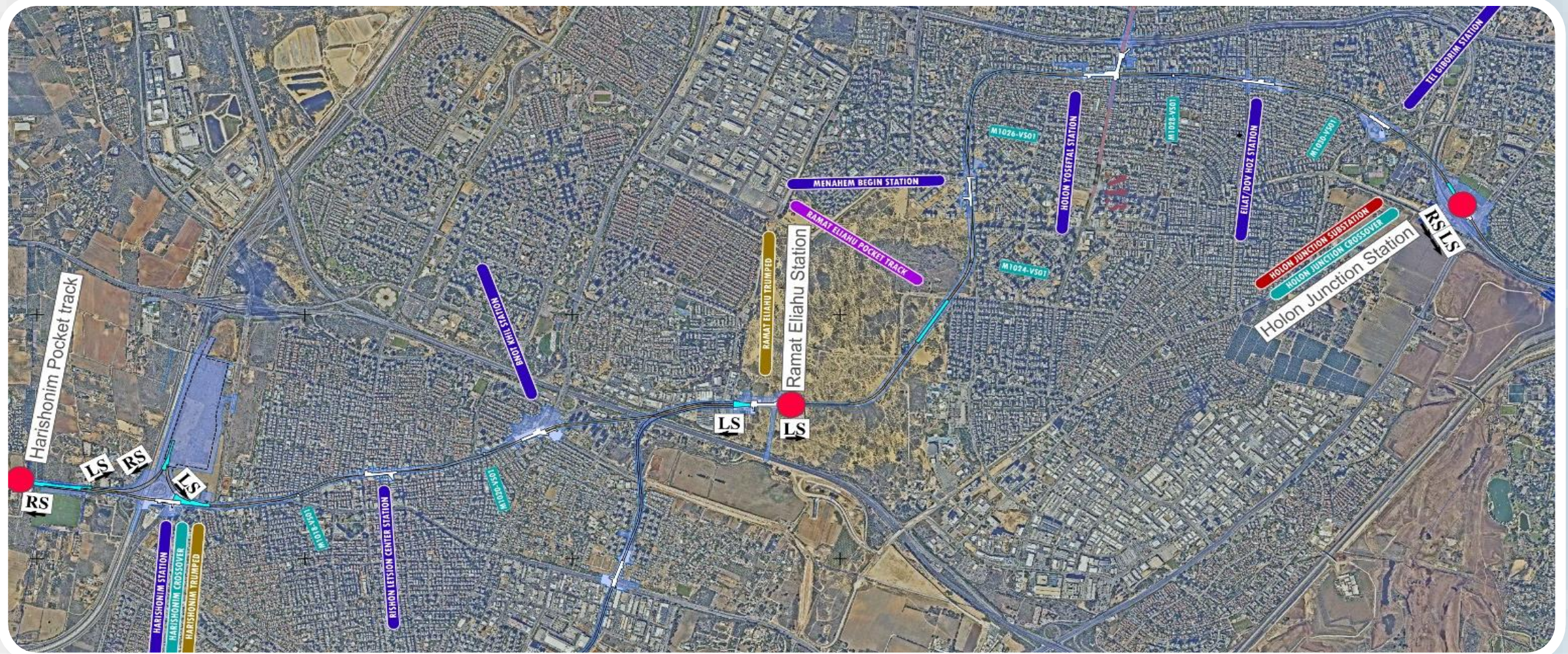


Line M1 - Stage 1 Work Packages



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Line M1 - Sub-Stage Implementation Map



Line M1 - Stations Configurations Summary (WP₁₊₂)

		Stations Dimension [Length/Width/Depth]	Top of Uppermost Rail	# Entrances	# Levels	Station Type
1	Harishonim	415/27/24	22.05	3	2 Level	2-Level + Operational Element
2	Rishon Letzion Centre	240/23/38-42	26.5	2	4 Level	4-Level Narrow – High Ridership
3	Bnot Khil	200/27/34	8.65	3	3 Level	3-Level
4	Ramat Eliyahu	350/27/21-25	22.0	3	2 Level	2-Level + Operational Element
5	Menachem Begin	244/23/36-28	8.58	2	4 Level	4-Level Narrow
6	Holon Yoseftal	270/27/27	-0.36	5	4 Level	4-Level Interchange Hub with M3 crossing below
7	Dov Hoz	240/22/37-41.5	2.97	2	4 Level	4-Level Narrow
8	Tel Giborim	186/27/27-39	-4.9	2	4 Level	4-Level (3 levels + 1 level due to hill park above)
9	Holon Junction	360/27/30	-10.23	2	3 Level	3-Level Hub + Operational Element

* For stacked stations, T.O.R. refers to the elevation of the top of the uppermost rail

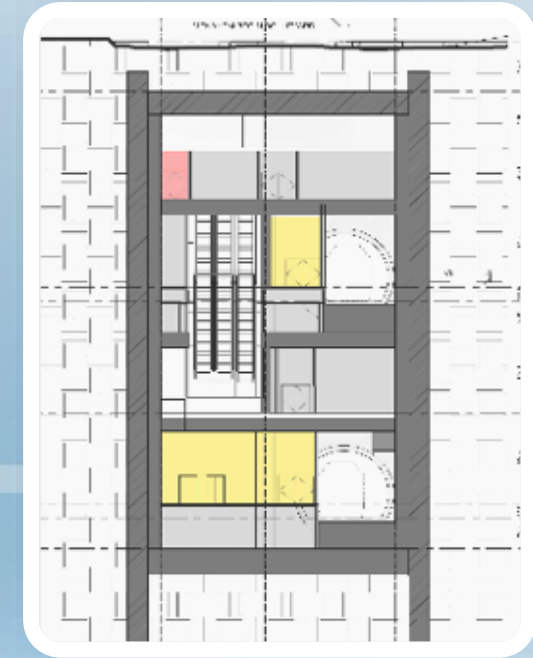
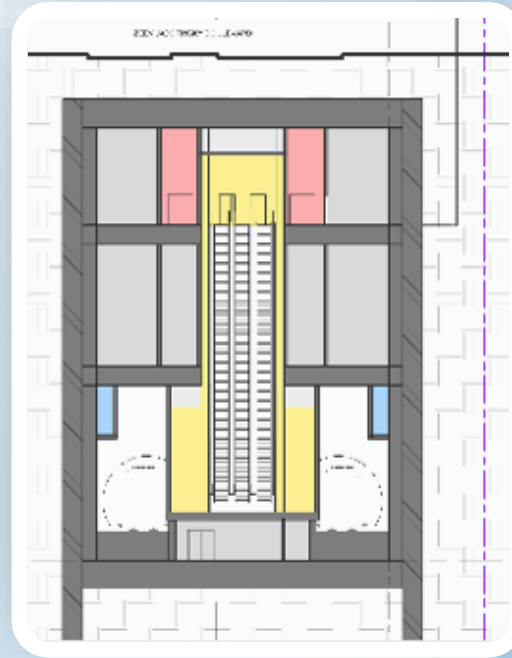
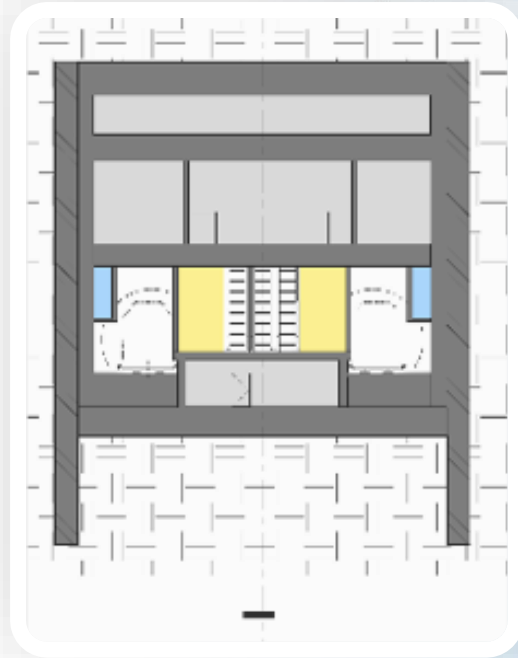


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Line M1 - List of stations and elements of (WP₁₊₂)

Length-WP1+2 [KM]	Number of Stations and Operational Elements	#	
14.2 km	6 Operational Elements 6 Escape Shafts 9 Stations 2 Launching Shafts	1	HaRishonim Pocket Track
		2	HaRishonim Station & CO & Trumpet
		3	Rishon LeTsiyon Center South Esc. Shaft
		4	Rishon LeTsiyon Center Station
		5	Rishon LeTsiyon Center North Esc. Shaft
		6	Bnot Khil Station
		7	Ramat Eliahu Station & Trumpet & Launching Shaft
		8	Harishonim Portal & CO & Trumpet
		9	Ramat Eliyahu Pocket Track
		10	Menachem Begin East Esc. Shaft
		11	Menahem Begin Station
		12	Menachem Begin West Esc. Shaft
		13	Holon Yoseftal Station
		14	Eilat Dov Hoz South Esc. Shaft
		15	Eilat Dov Hoz Station
		16	Eilat Dov Hoz North Esc. Shaft
		17	Tel Giborim Station
		18	Holon Junction Station+ Crossover & Launching Shaft

Line M1 - Station Typologies



Station Typology

2 Level + CO

3 Level

Narrow

**Typical
Dimensions**

**≈ 27 Width
≈ 200 Length
≈ 16 Height**

**≈27 Width
≈ 200 Length
≈ 23 Height**

**≈23 Width
≈ 250 Length
≈ 35 Height**



(*) All inputs shall remain indicative and non-binding, and shall not be interpreted as defining design solutions, construction methods, or risk allocation.

Line M1 - 2 Level Station

Advance Level of maturity of the Design

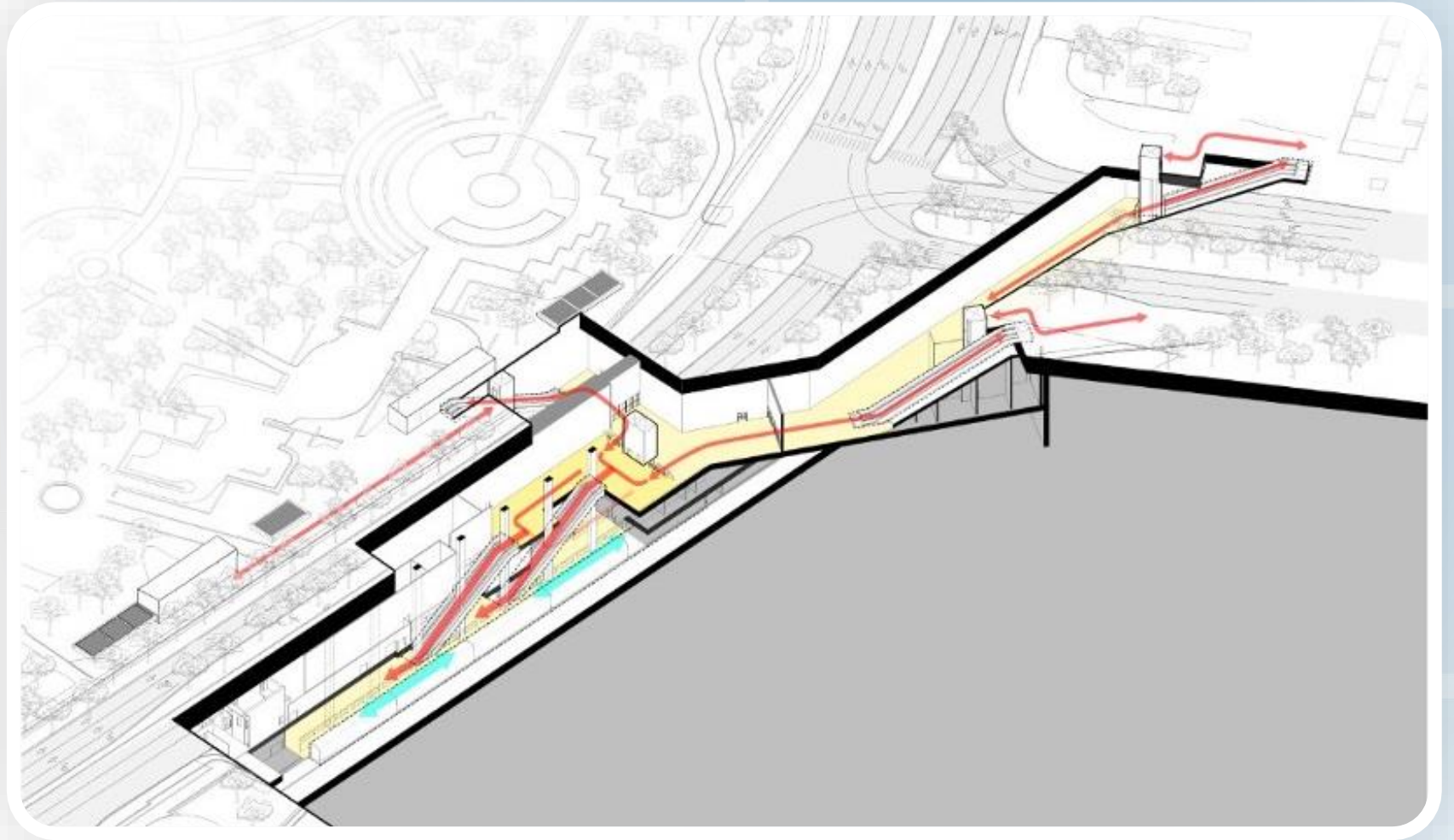
- Harishonim Station



Line M1 - Typical 3 Level Station

Advance Level of maturity of the Design

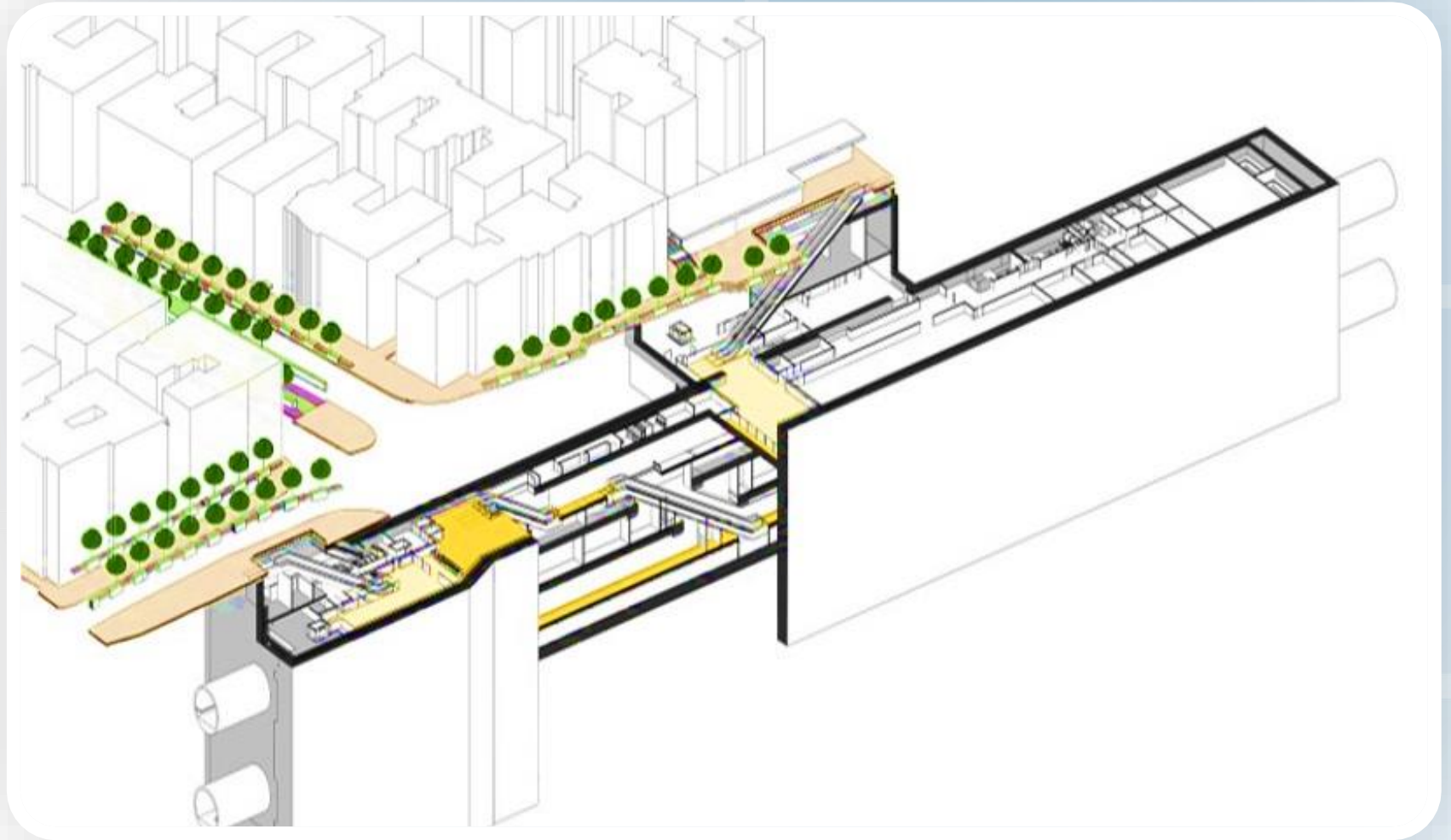
- Bnot Khil Station



Line M1 - Typical Narrow Station

Advance Level of maturity of the Design

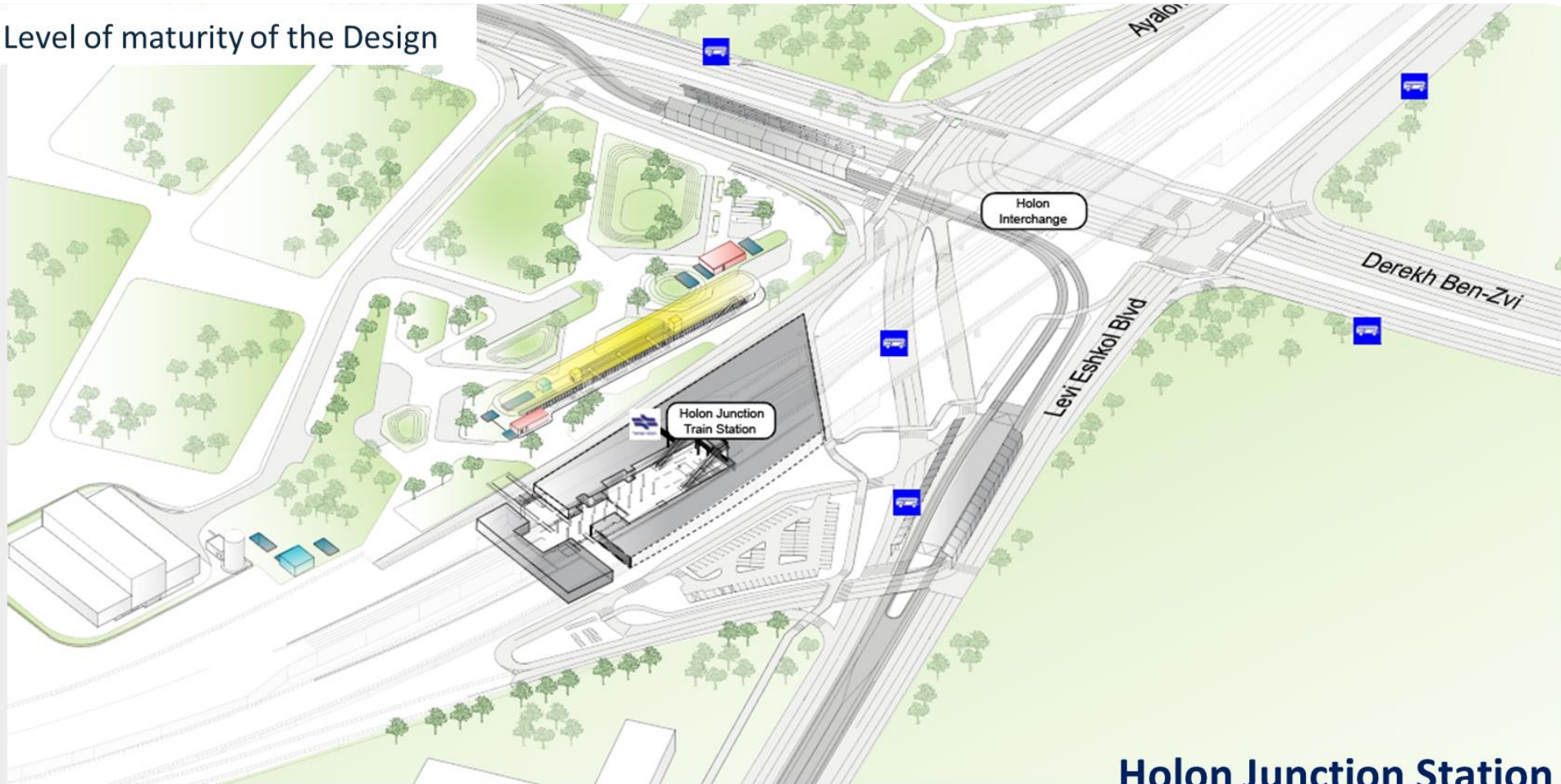
- Eilat Dov Hoz Station
Stacked Tunnel



Line M1 - 3 Level HUB Station

Advance Level of maturity of the Design

Advance Level of maturity of the Design

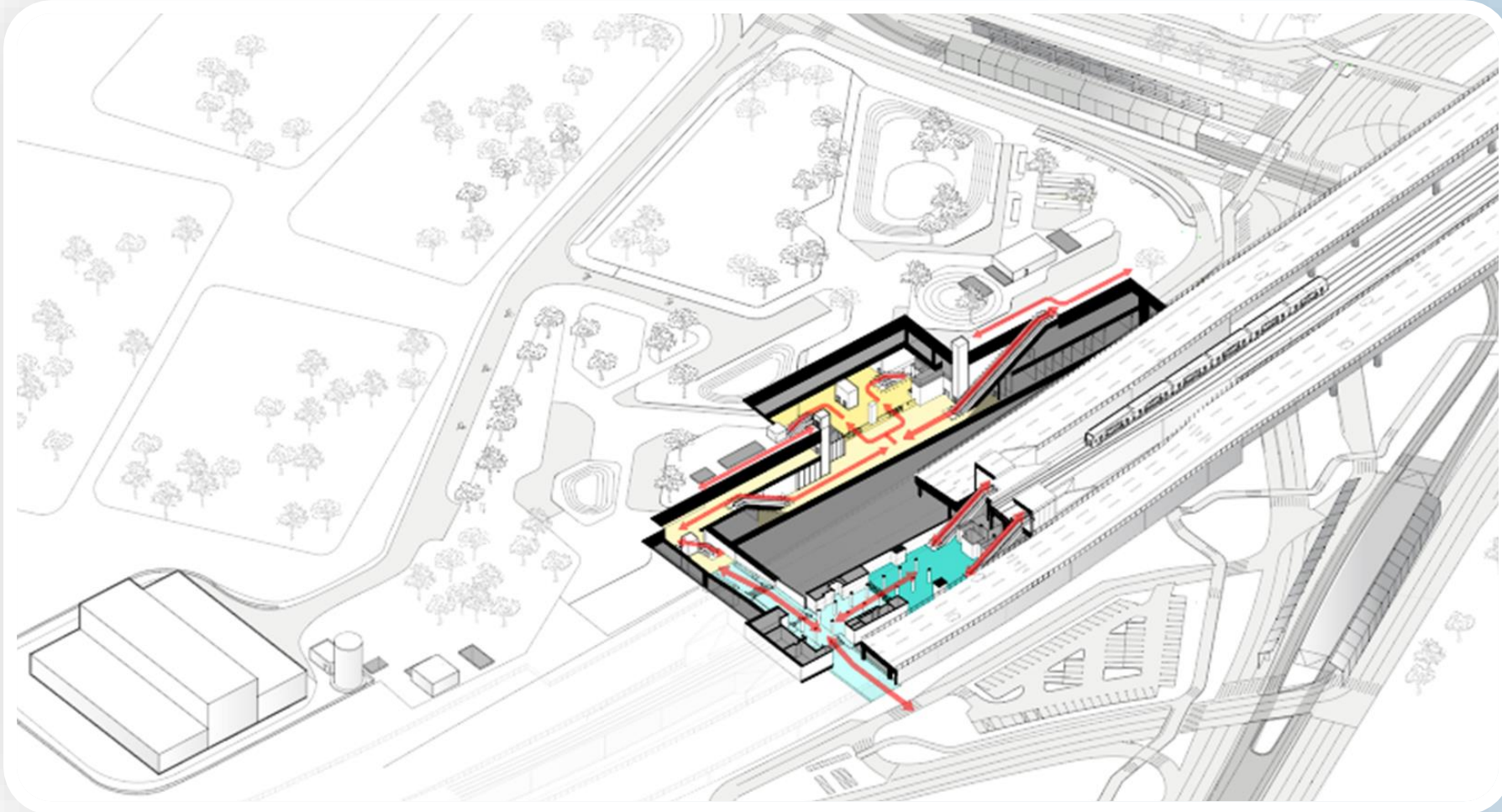


Holon Junction Station

(*) All inputs shall remain indicative and non-binding, and shall not be interpreted as defining design solutions, construction methods, or risk allocation.

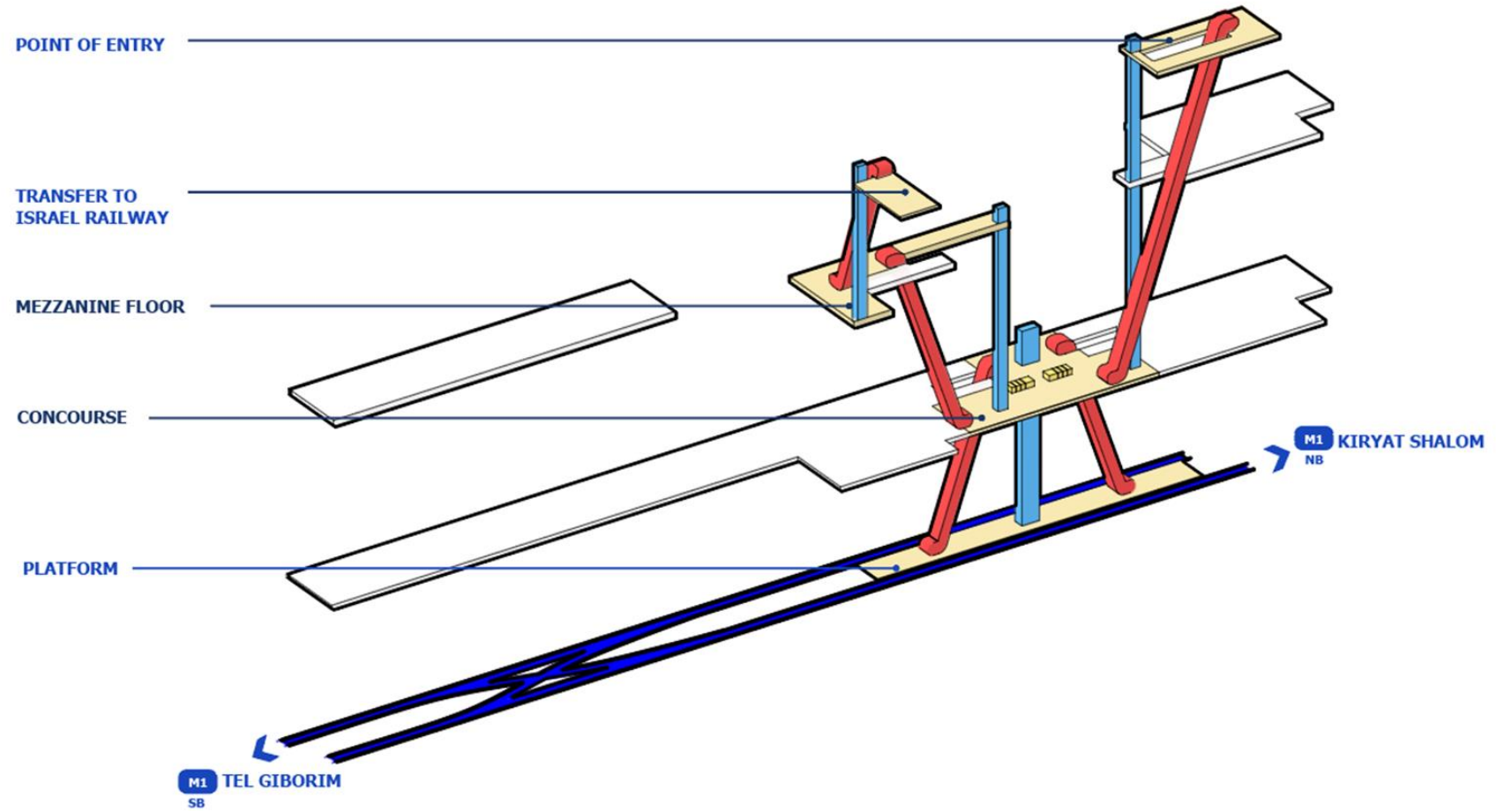
Line M1 - 3 Level HUB Station

Advance Level of maturity of the Design



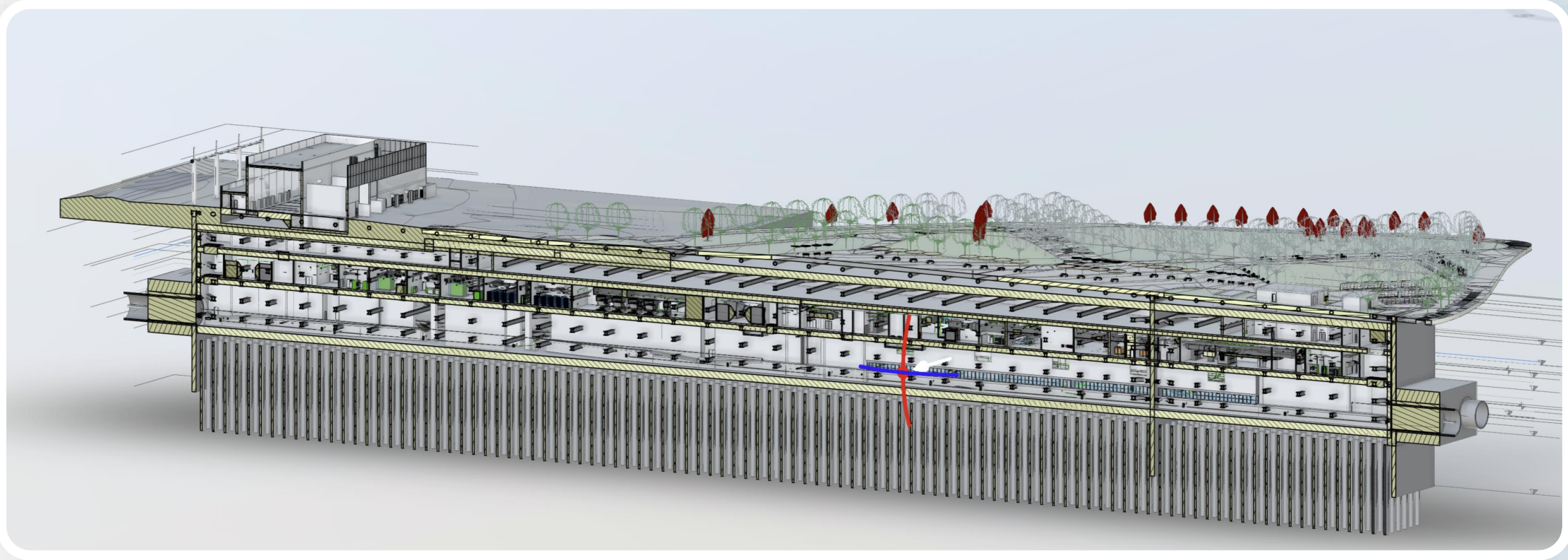
Line M1 - 3 Level HUB Station

Advance Level of maturity of the Design



Line M1 - 3 Level HUB Station

Advance Level of maturity of the Design



Entrance portal





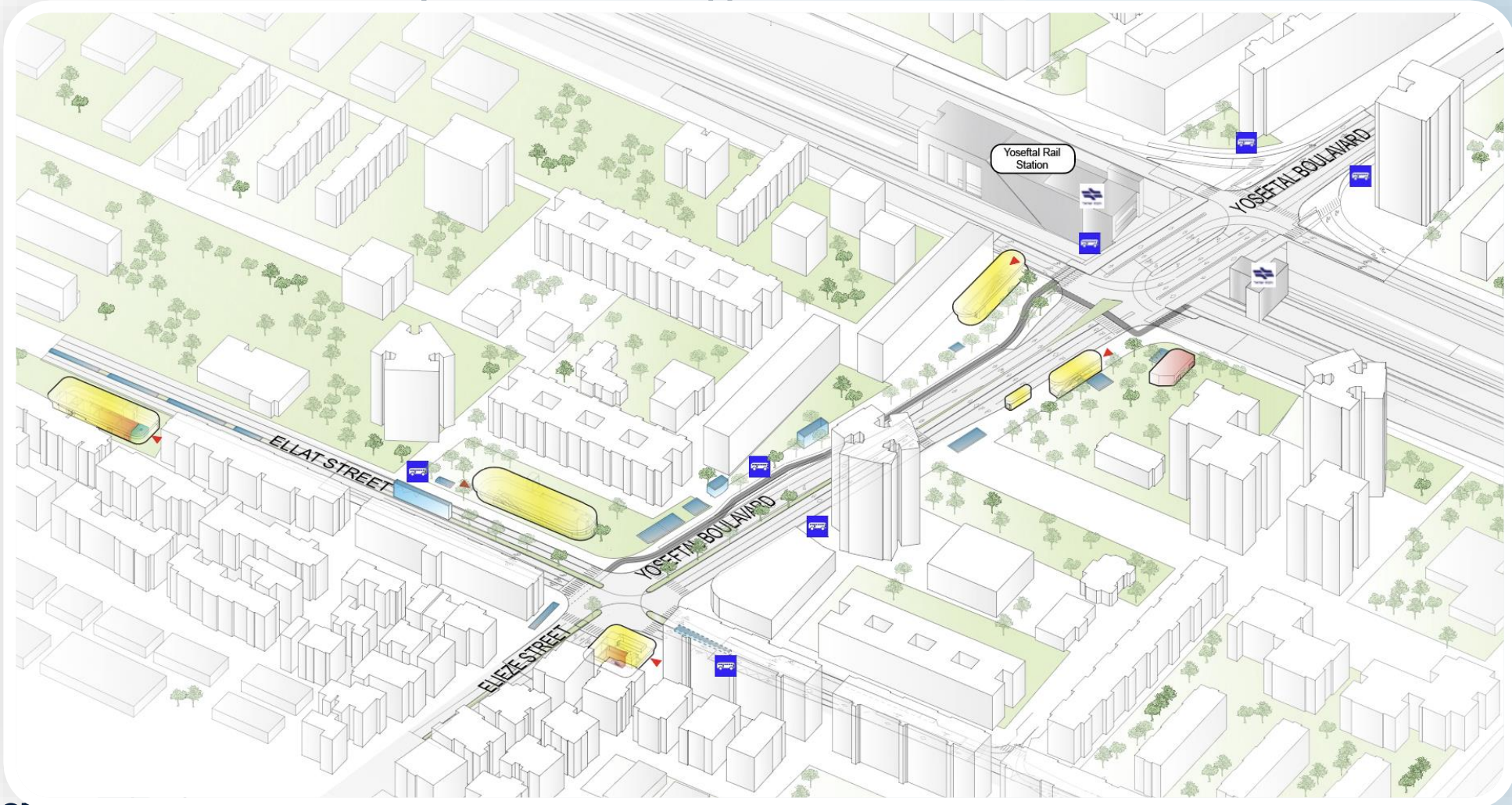


Concourse Aternate



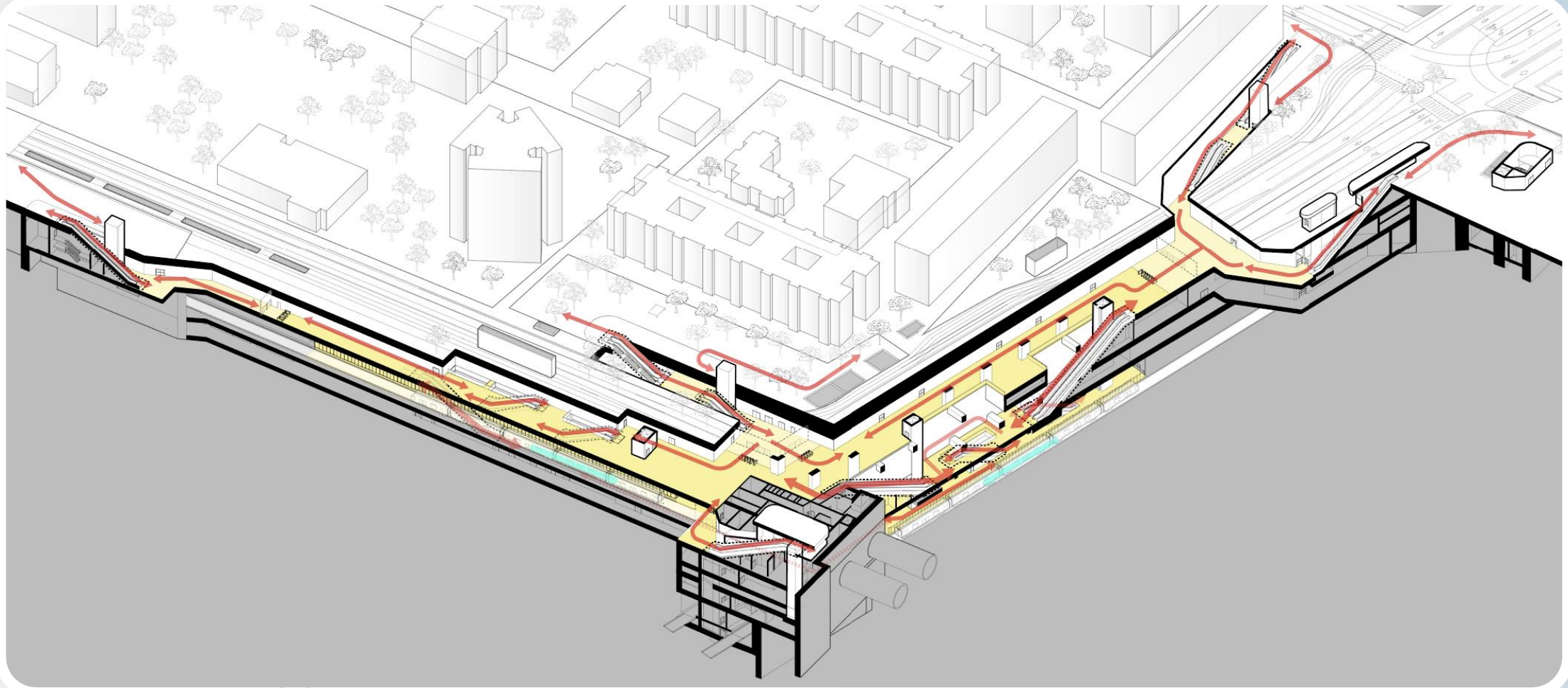
Line M1 - Interchange Station

Advance Level of maturity of the Design



Line M1 - Interchange Station

Advance Level of maturity of the Design

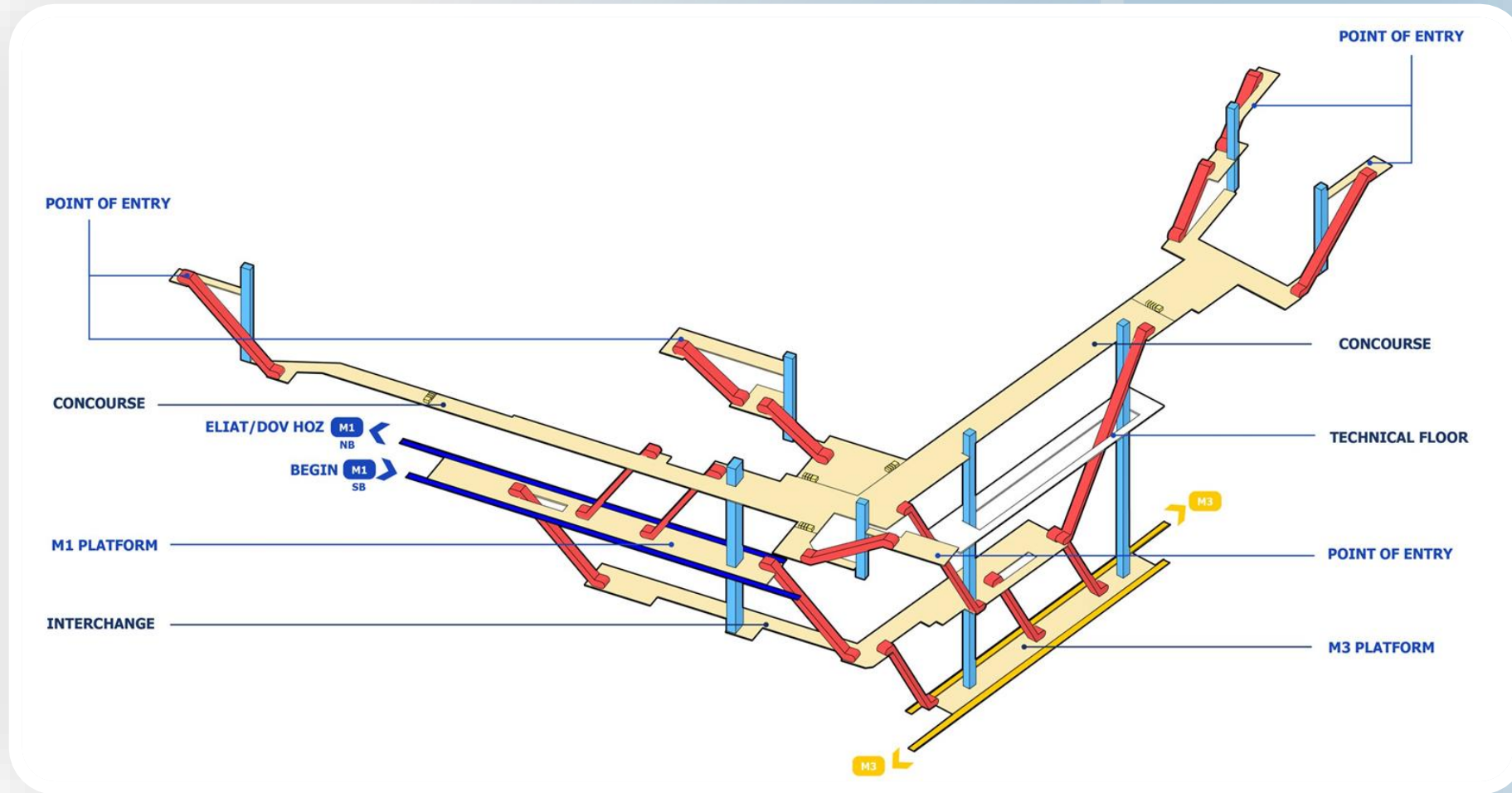


Yoseftal M1/M3 Station

(*) All inputs shall remain indicative and non-binding, and shall not be interpreted as defining design solutions, construction methods, or risk allocation.

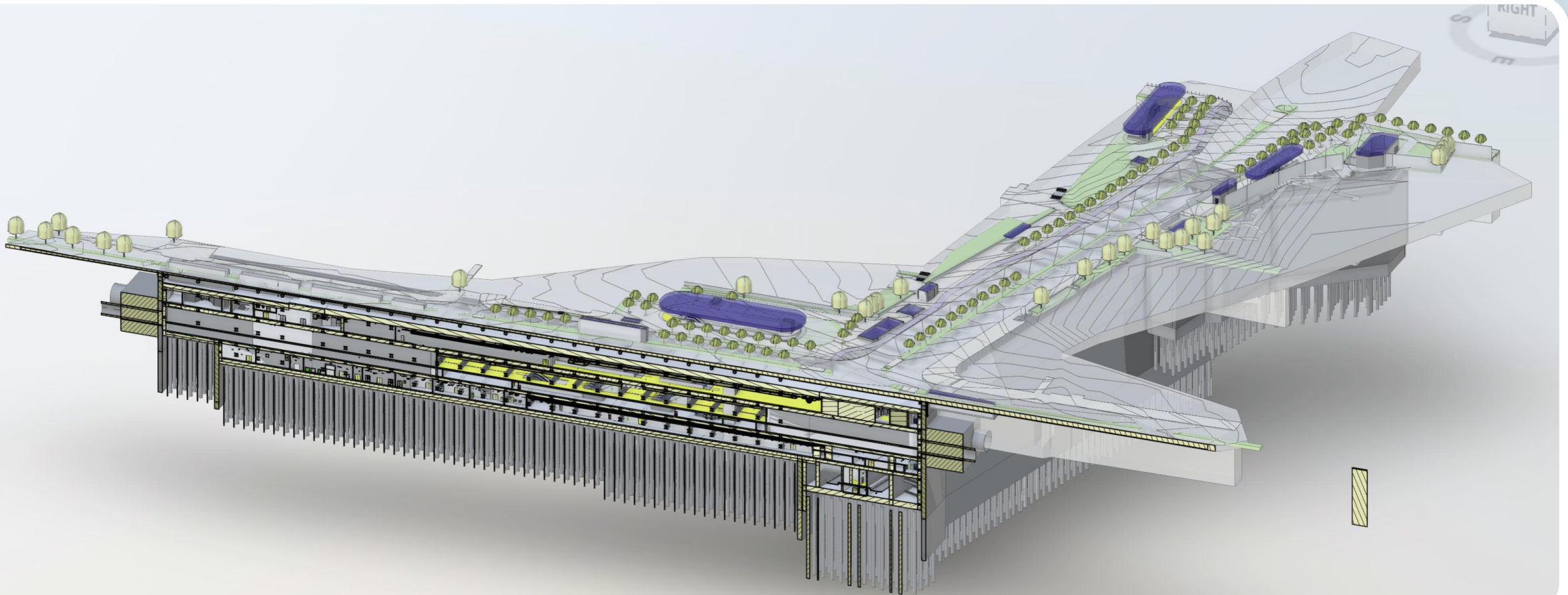
Line M1 - Interchange Station

Advance Level of maturity of the Design



Line M1 - Interchange Station

Advance Level of maturity of the Design



Yoseftal M1/M3 Station

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Entrance Design



M3 Concourse



M3 Concourse



M3 Triple Height Space



M3 Interchange Concourse



M3 Interchange Concourse



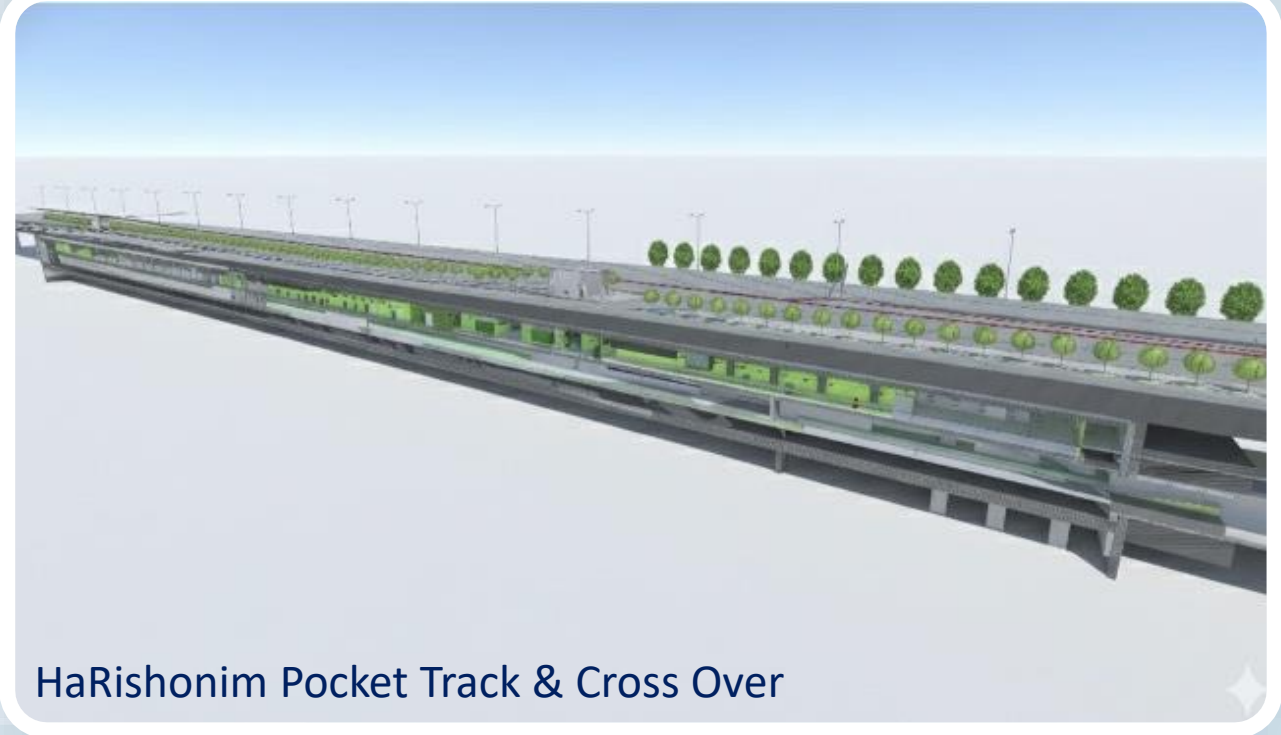
Line M1 - Typical Operational Elements

Track Geometry & Layout

- Connected via turnouts from both main tracks
- Designed for low-speed movements
- Compact geometry suitable for underground constraints
- Typically center pocket configuration
- Pocket Tracks and Turnouts: Switch 1:9, radius 190 m, velocity in siding 40 km/h.

Scissor Crossover

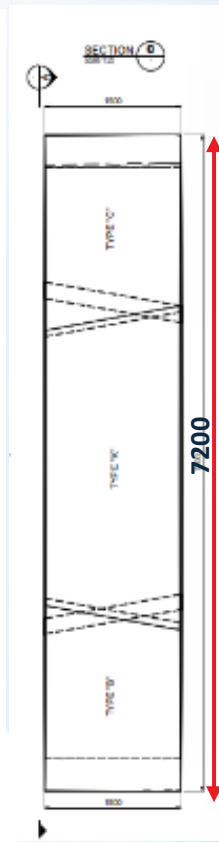
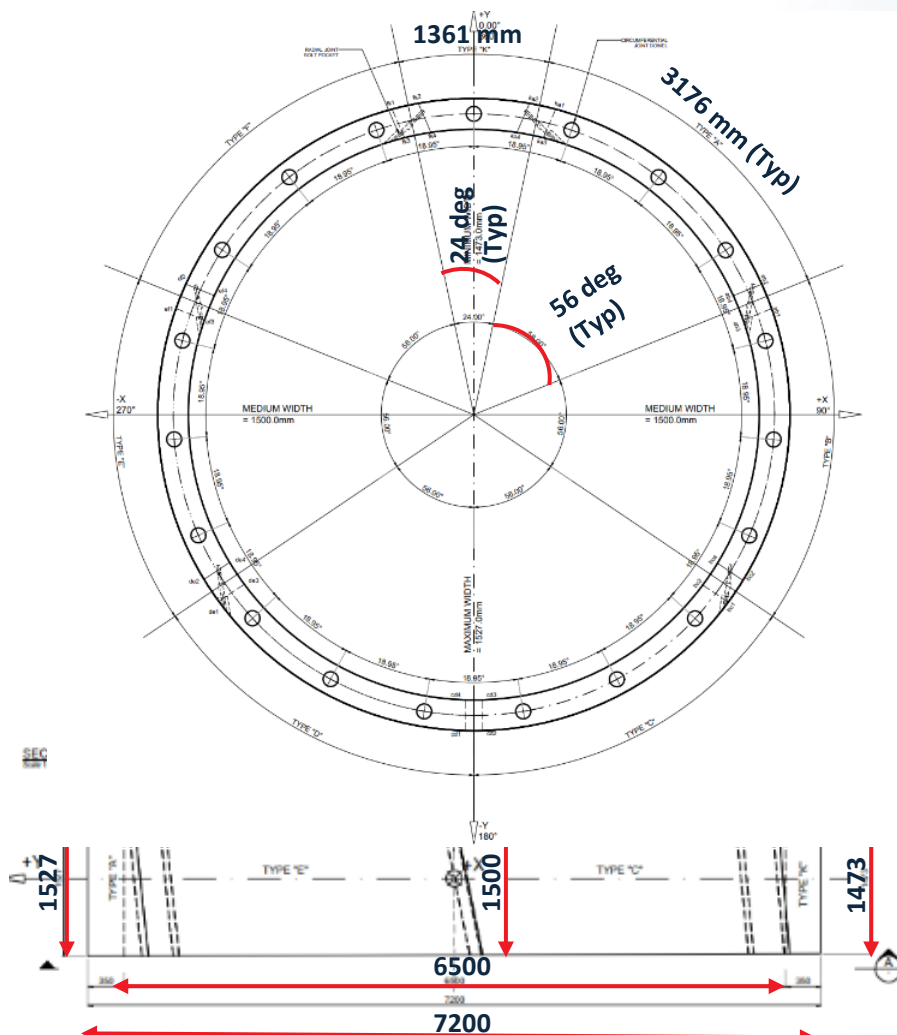
- Superior performance during degraded operating conditions
- Enables Temporary Single-Track (TST) operation when one track is out of service
- Allows bidirectional train movement on a single track
- Maintains partial service instead of full line shutdown
- Reduces:
 - Train turnbacks
 - Line closures
 - Station evacuations



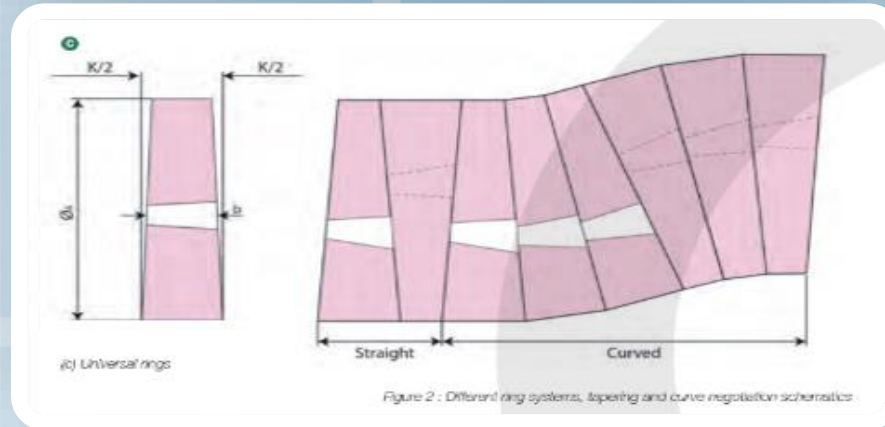
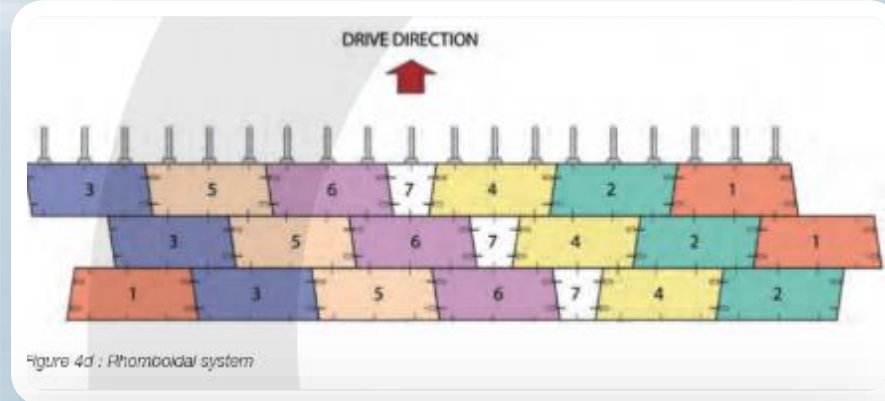
HaRishonim Pocket Track & Cross Over

Main Line Crossover:
Switch 1:9, radius 300 m, velocity in siding 50 km/h.
~ 200[M] length

Line M1 - General TBM Tunnel Configuration & Geometry



Normal segment 74 kg/m³
Heavy segment 118 kg/m³



Universal ring assembly

- ❖ 10-12 TBMs
- ❖ ~ 168,000 Segments
- ❖ ~ 28,000 Rings



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Line M1

HaRishonim Depot

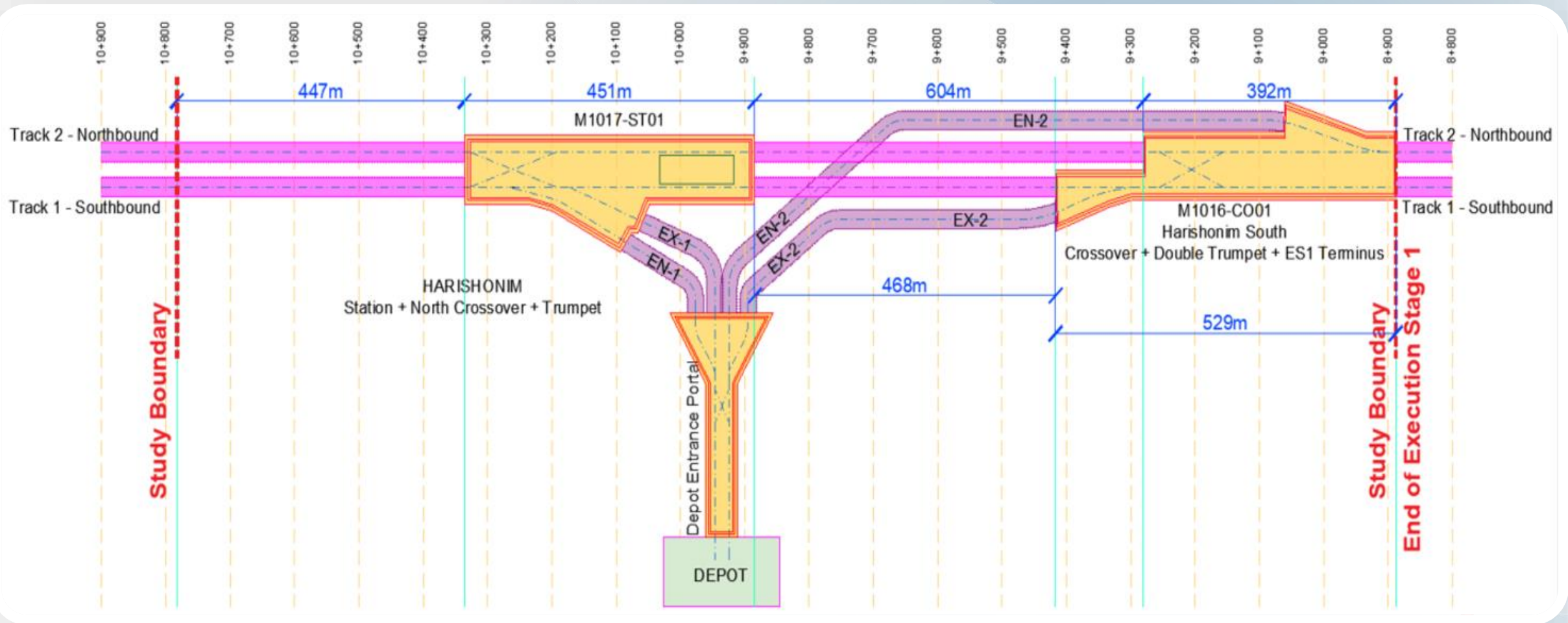


Line M1

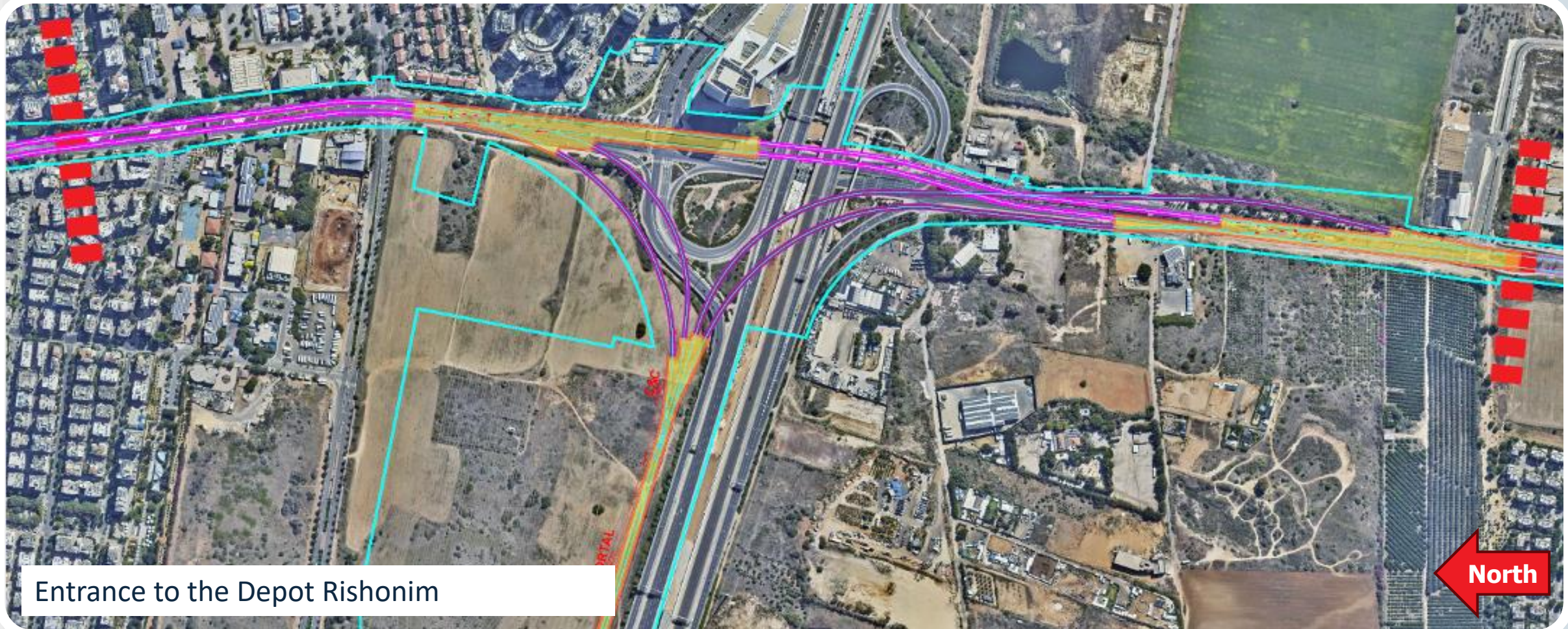
HaRishonim Depot



Line M1



Line M1



Legend

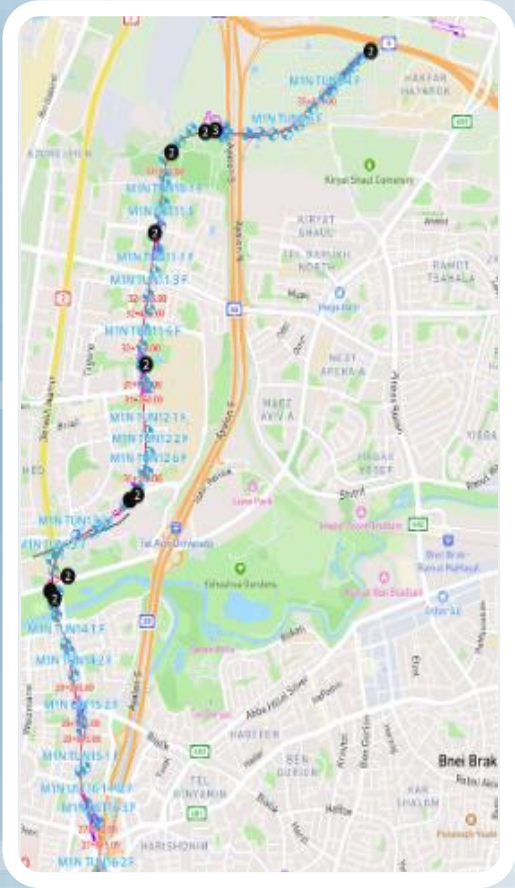
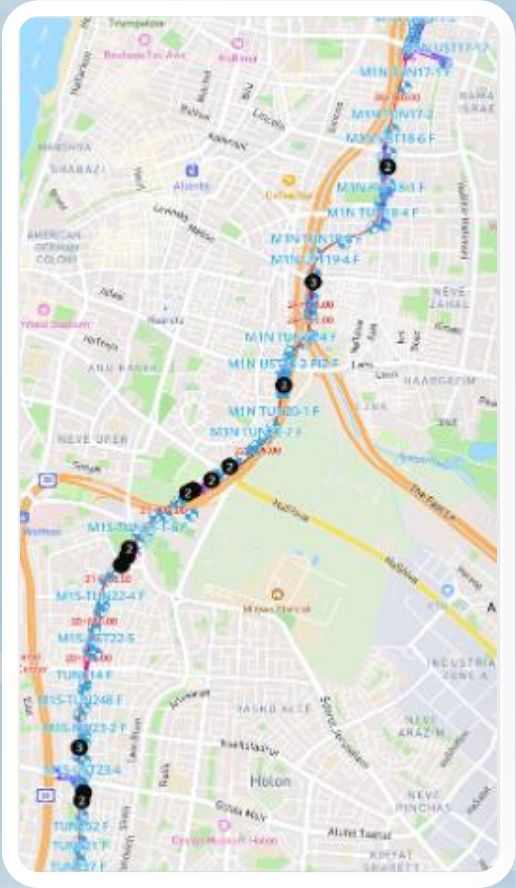
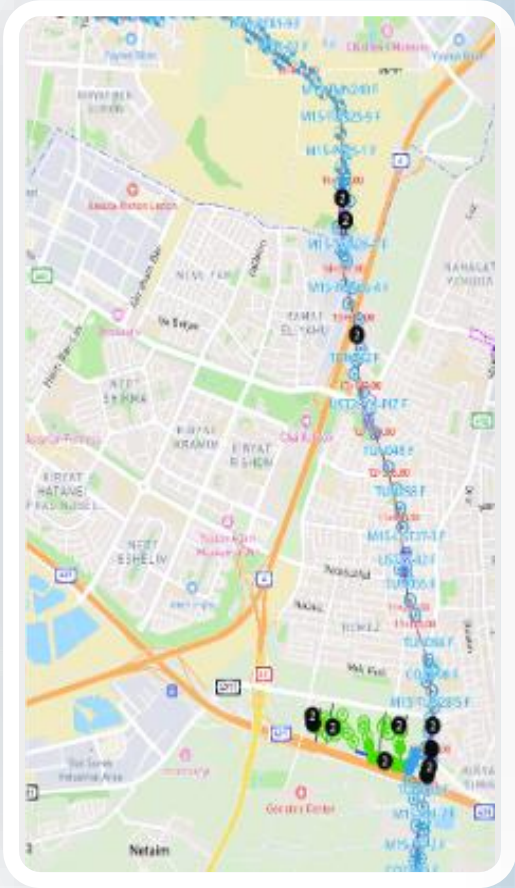


Line M1 - Ground Survey - Boreholes status

No. of Boreholes	
Typical Station	3
Typical Tunnel Section (Between Stations)	4

- Legend:**
- Blue: borehole placement and ID
 - Red: alignment with chainage
 - Green: Depot boreholes

GI – Boreholes status 11.01.2026



Total of 244 boreholes planned WP1+2, 100% completed

(*) All inputs shall remain indicative and non-binding, and shall not be interpreted as defining design solutions, construction methods, or risk allocation.

Thank You & Shalom



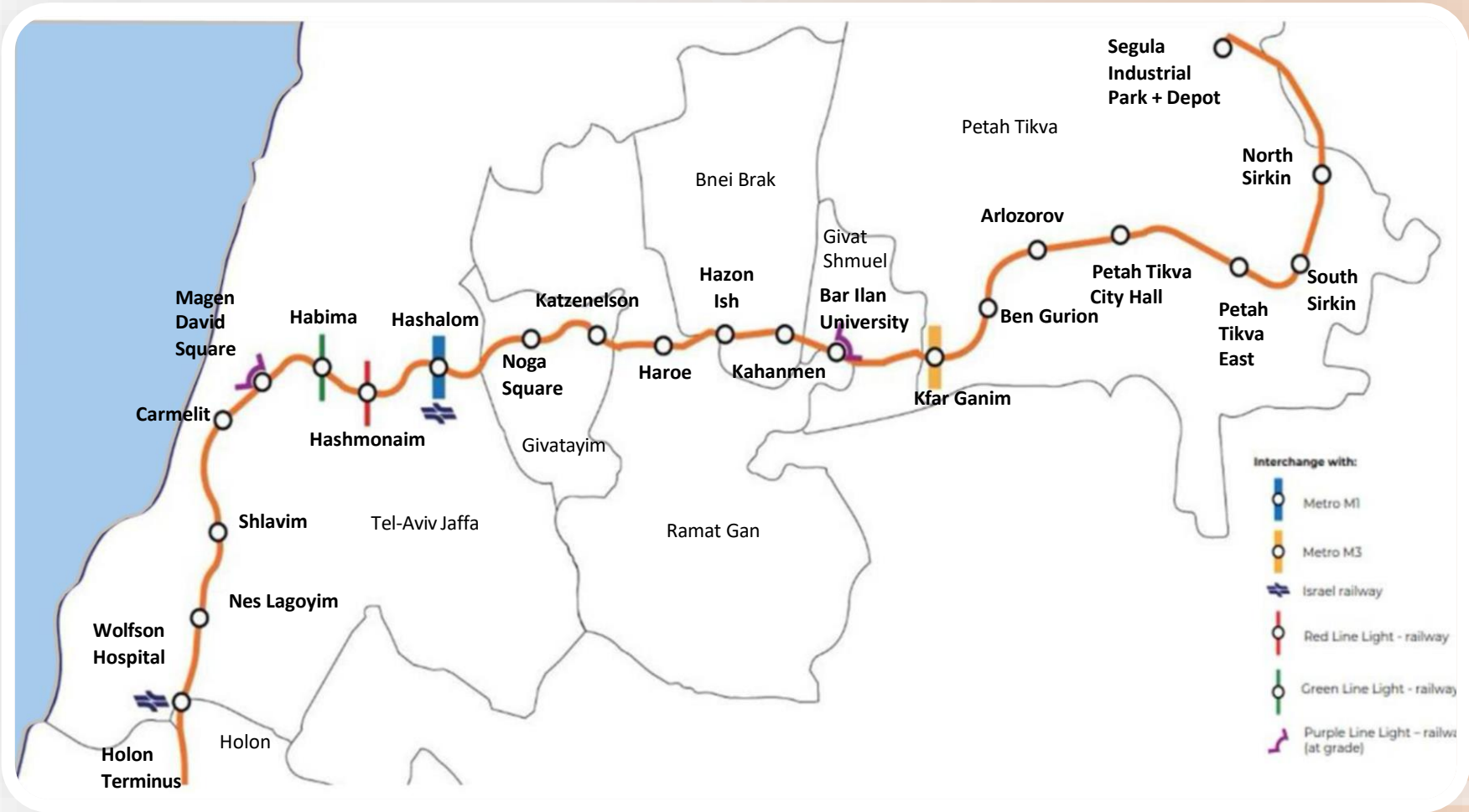
Line M2

Gilad Katz

Procurement and
Contract Manager M2



Overview



↔ 26
Km Length

🚆 22
Stations

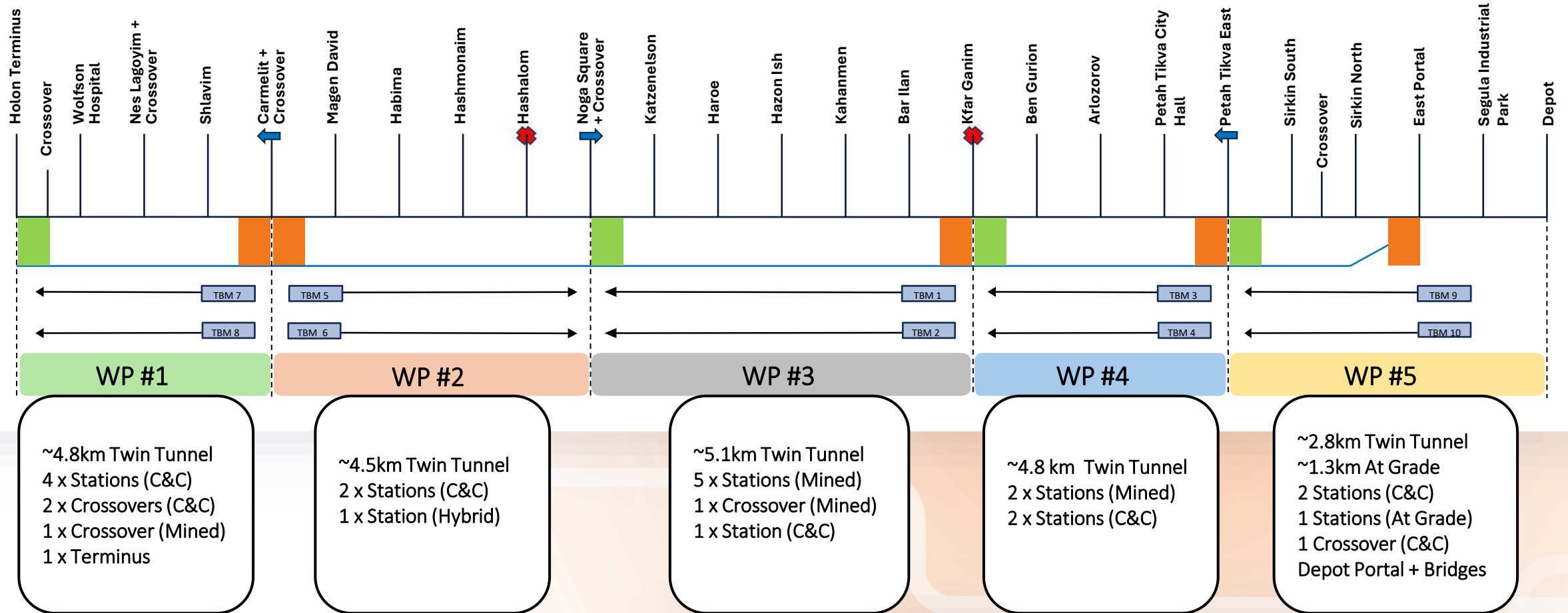
🏠 7
Municipalities

🚆 1
Depot

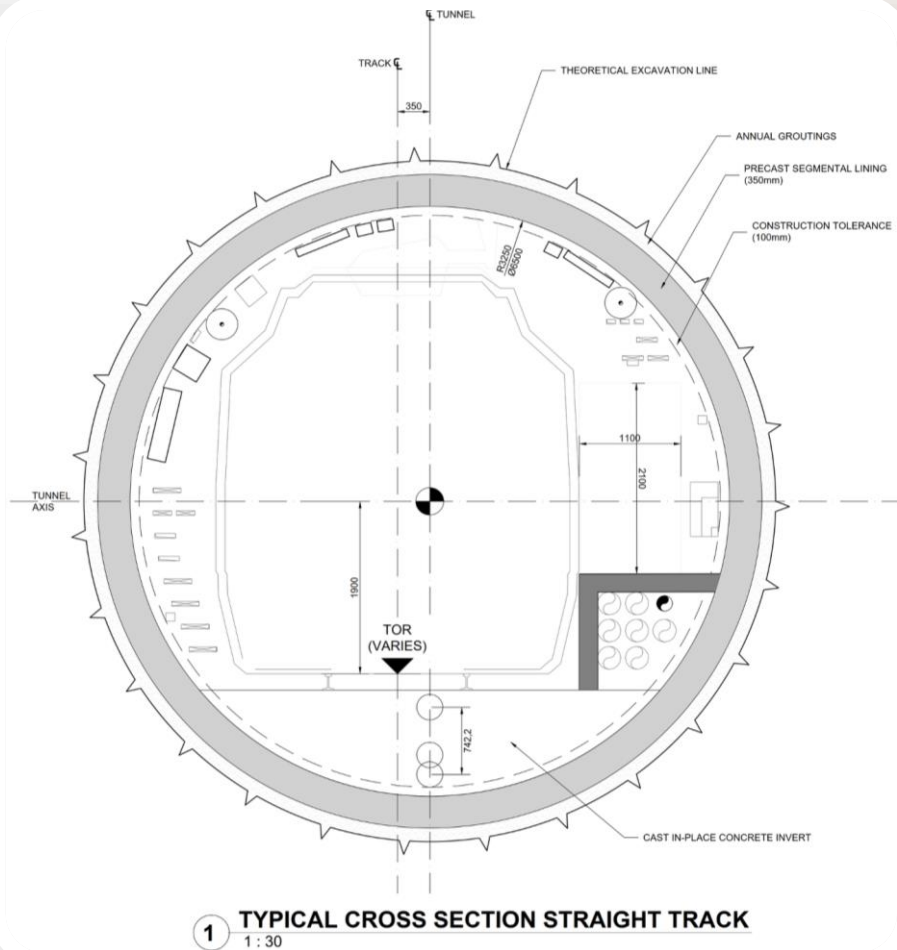
🚧 2
Interchange
Stations

⚙️ 6
Operational
elements

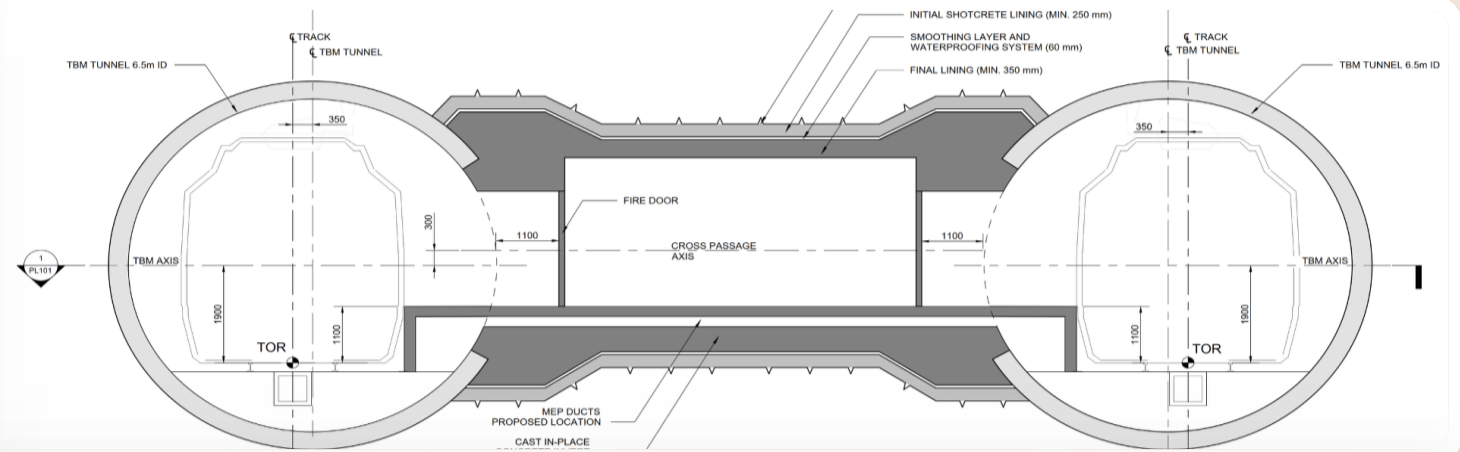
Infra #1 - Work Package



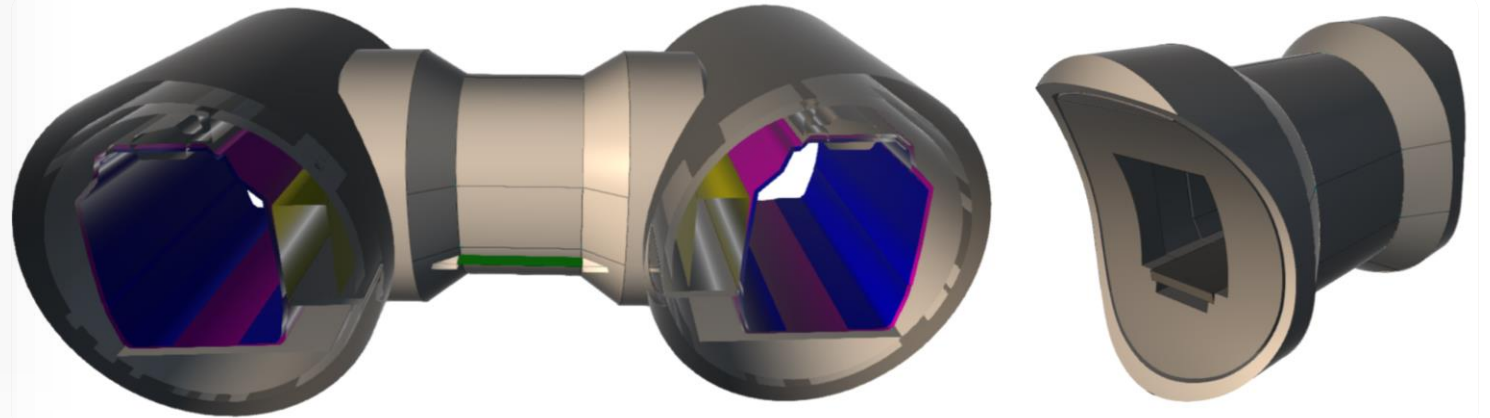
Tunnelling Cross Section + Typical Cross Passage



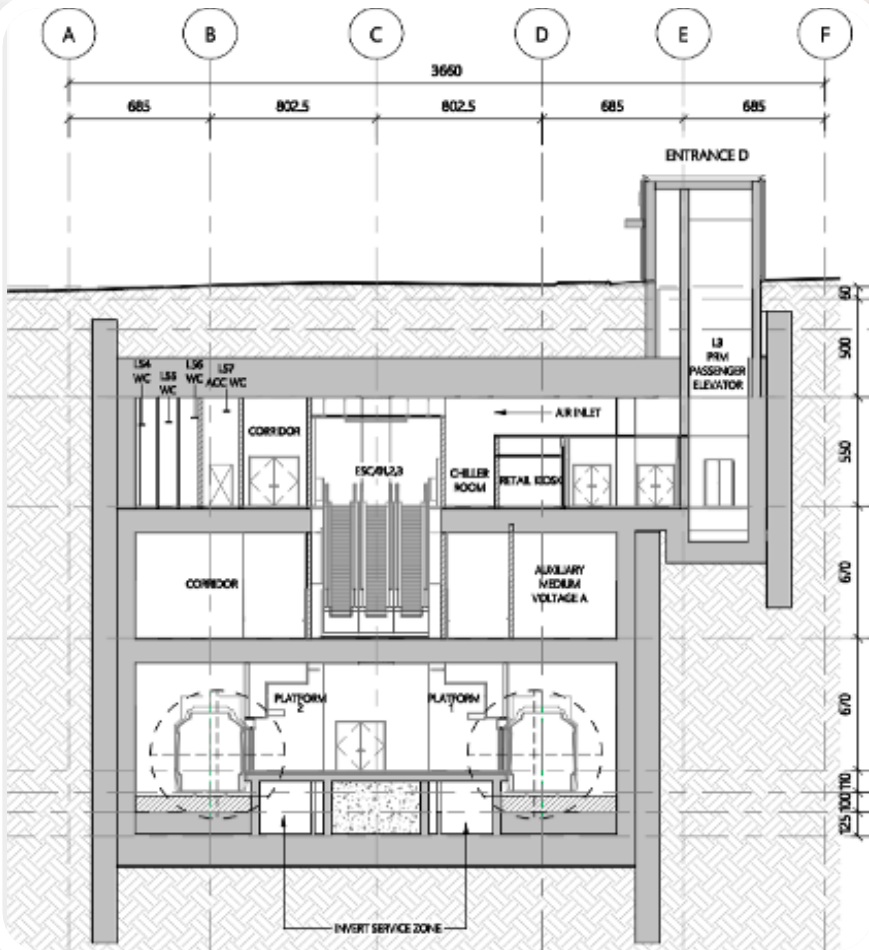
Tunnelling internal diameter = 6.5 m



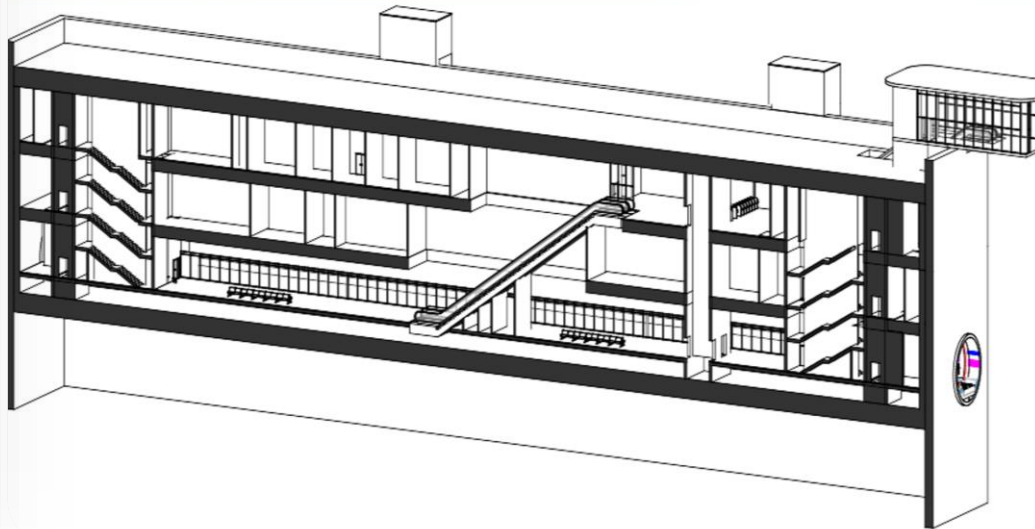
CP Average Length ~ 7 m-12 m | Construction Method – NATM



Cut & Cover Stations



Typical 3 Level Cut & Cover Station



**11 x C&C
Stations**

9 x 3-Level Stations

2 x 4-Level Stations

Depth:
~25-28m

Length:
~170m

Width:
~23m

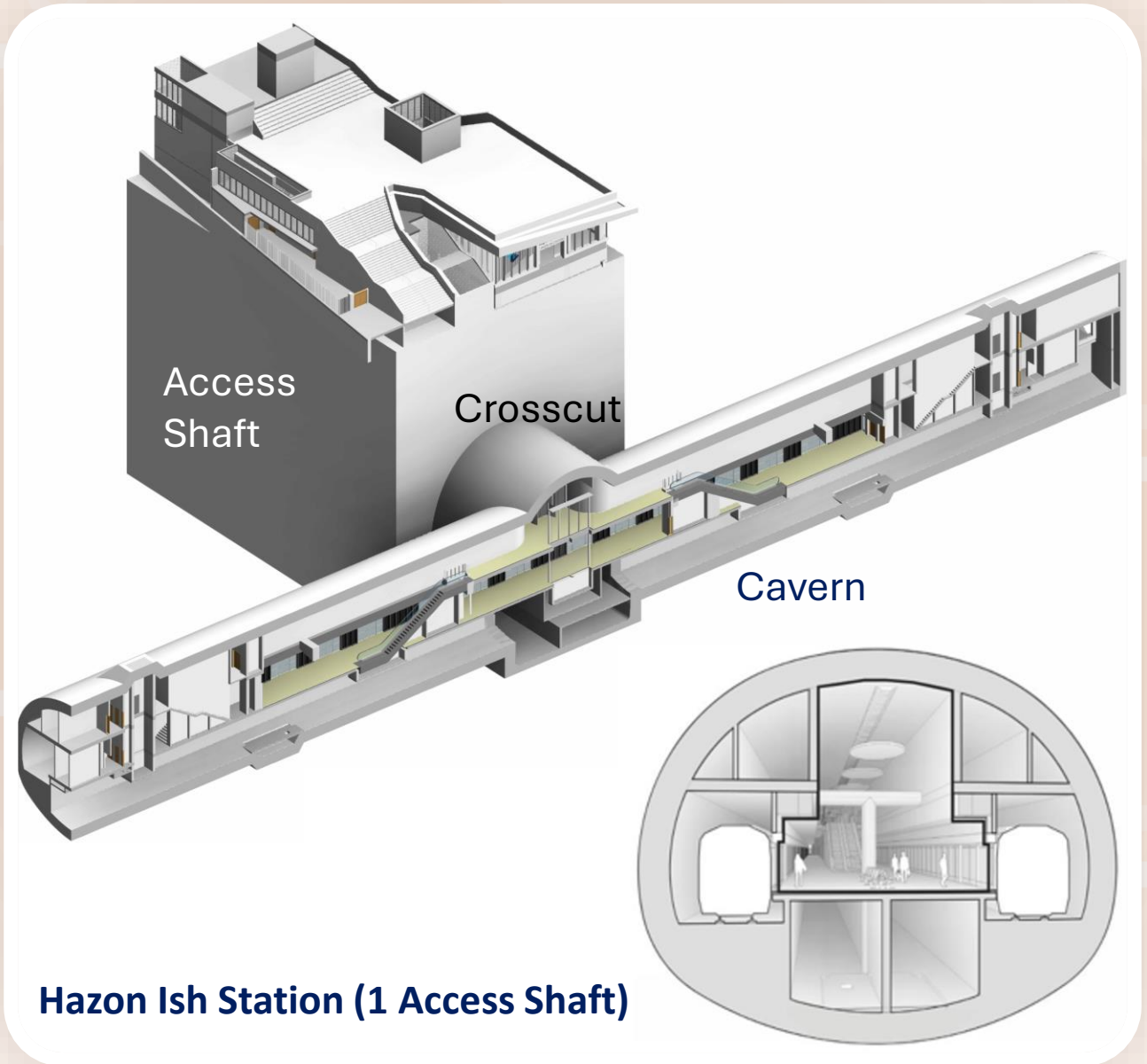
Conventional Tunnelling Stations (Mined / NATM)

Station Caverns:

- 7 x 2 Level Caverns
- 1 x Hybrid (Habima)
- Depth ~40m

Cavern Dimensions:

- Length ~ 140-180m
- Width ~ 23m
- Height ~ 18 m



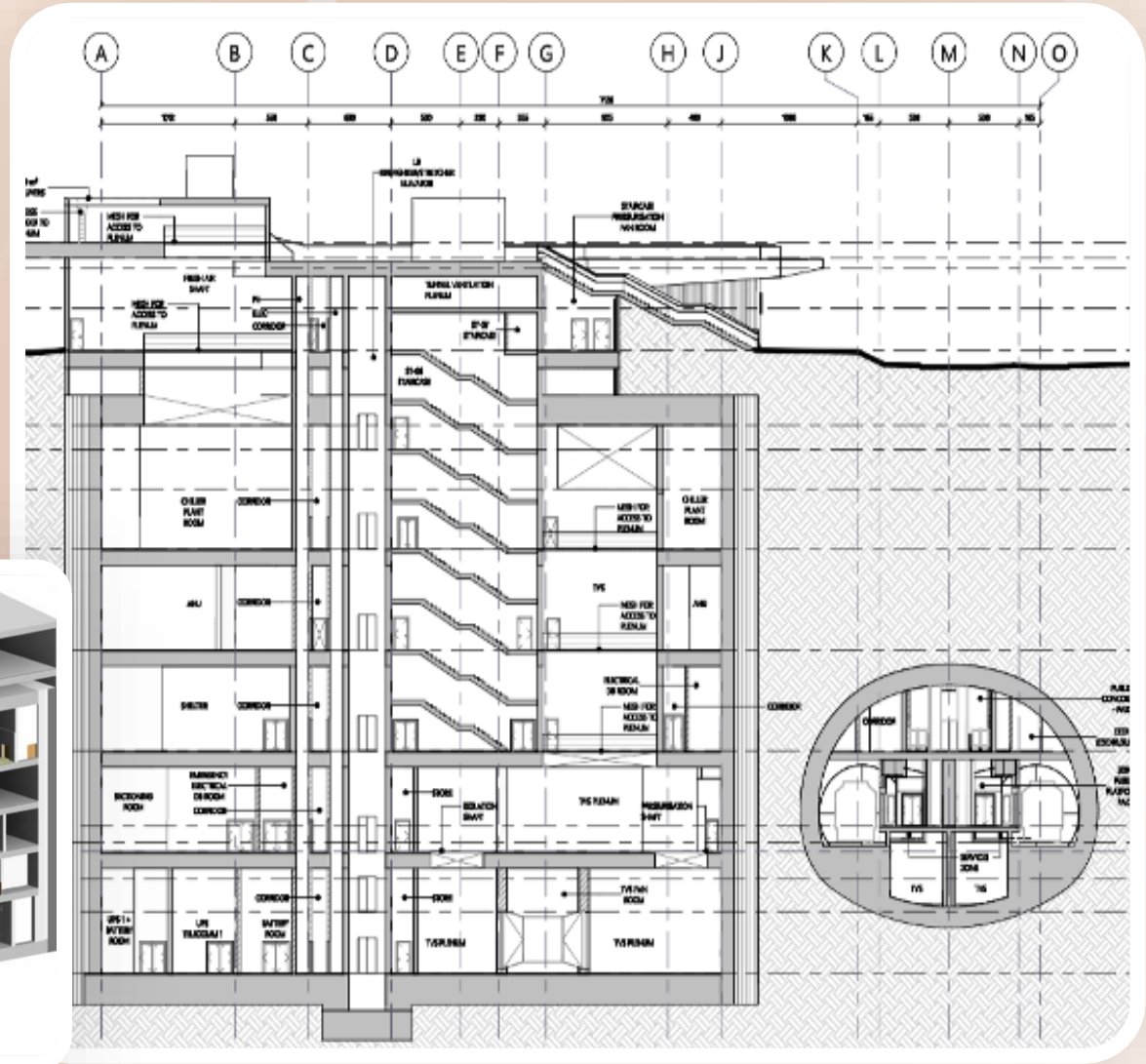
Access Shafts (Conventional Tunnelling Stations)

Access Shafts:

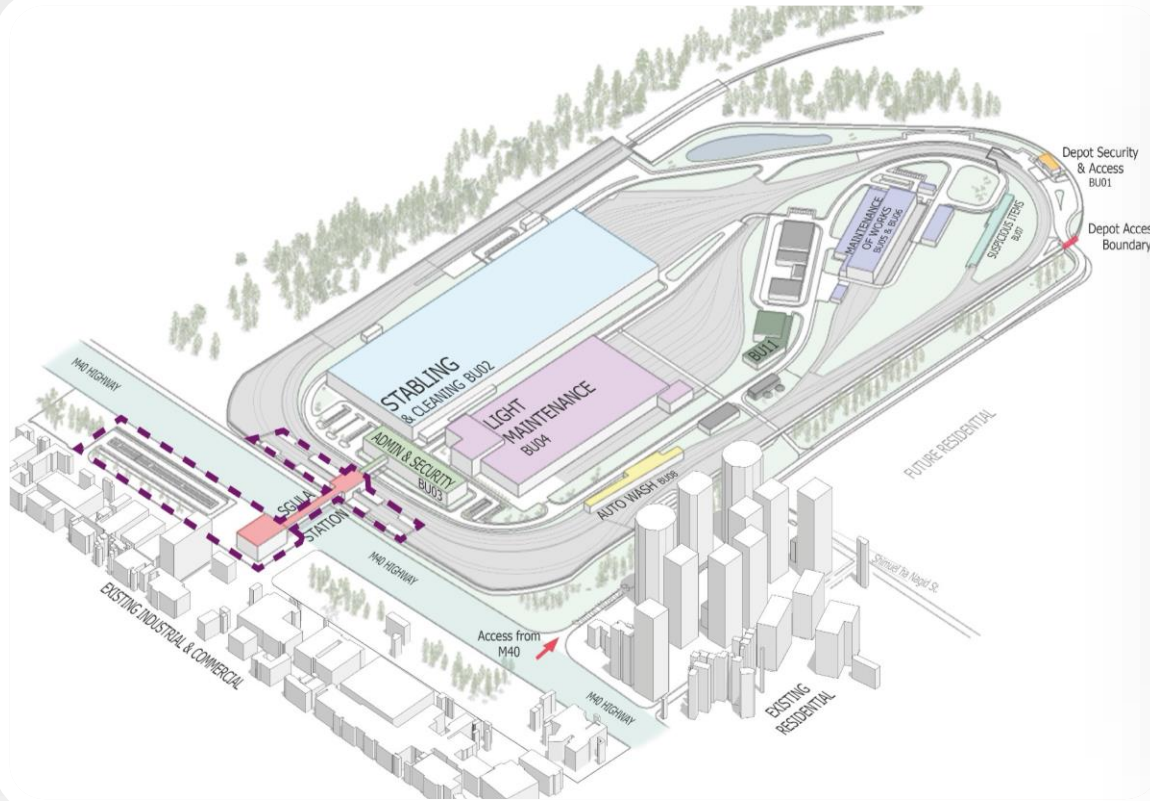
- 2 Stations with Single Access Shafts
- 5 Stations with Double Access Shafts
- 6-7 levels
- Depth: ~40 m

Dimensions:

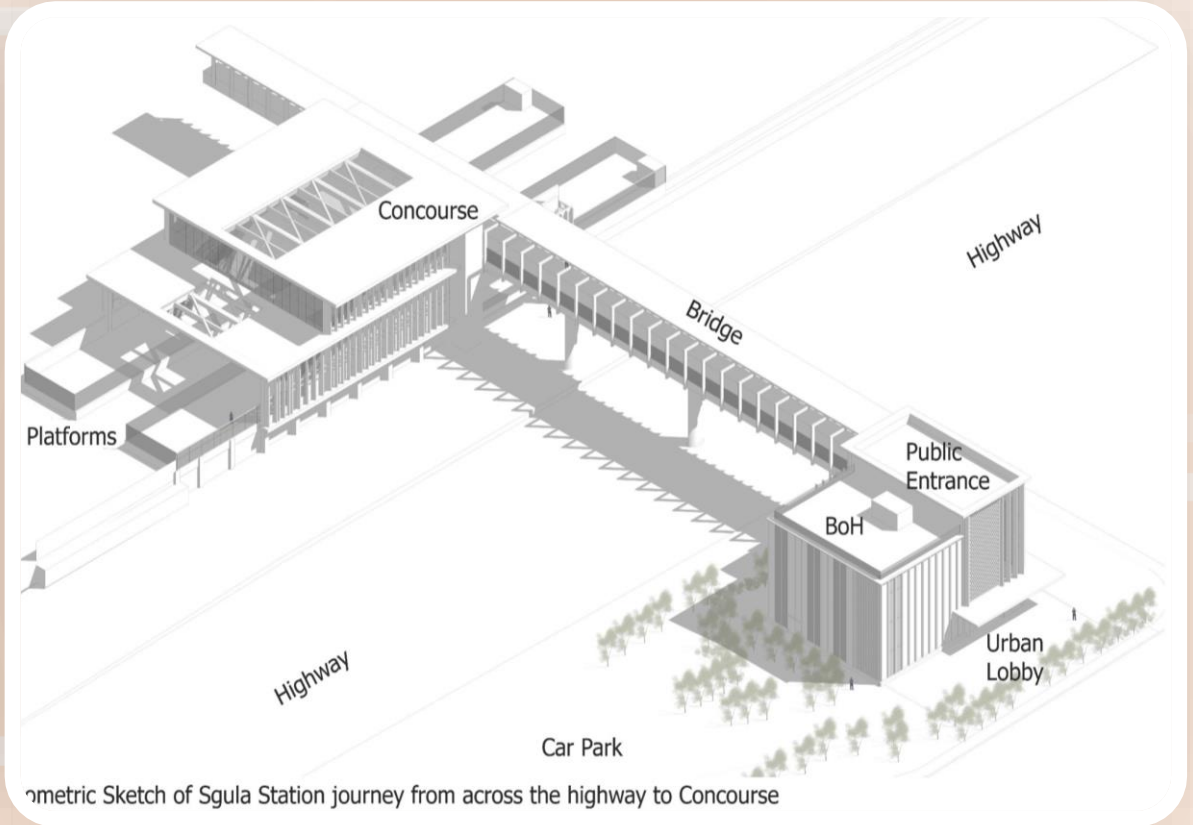
- Vary depending on location
- Typically 40m x 20m



At Grade Station (Segula Industrial Park)

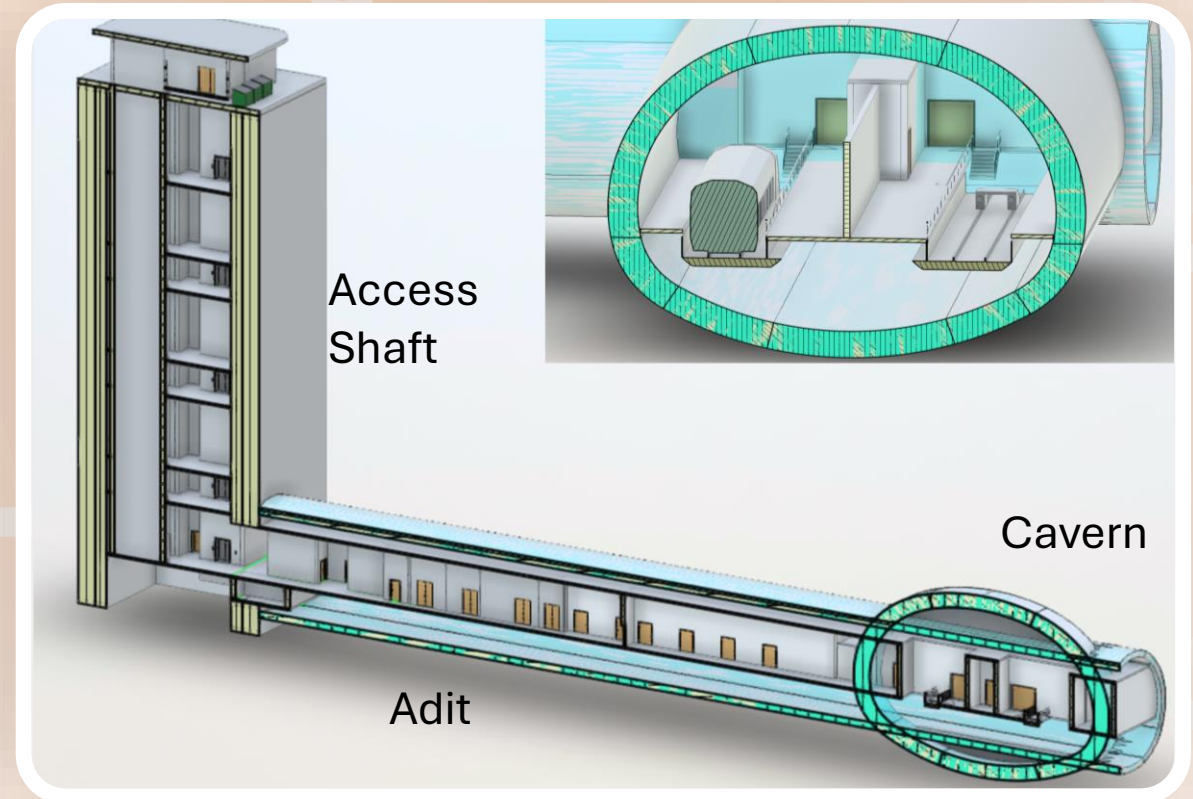
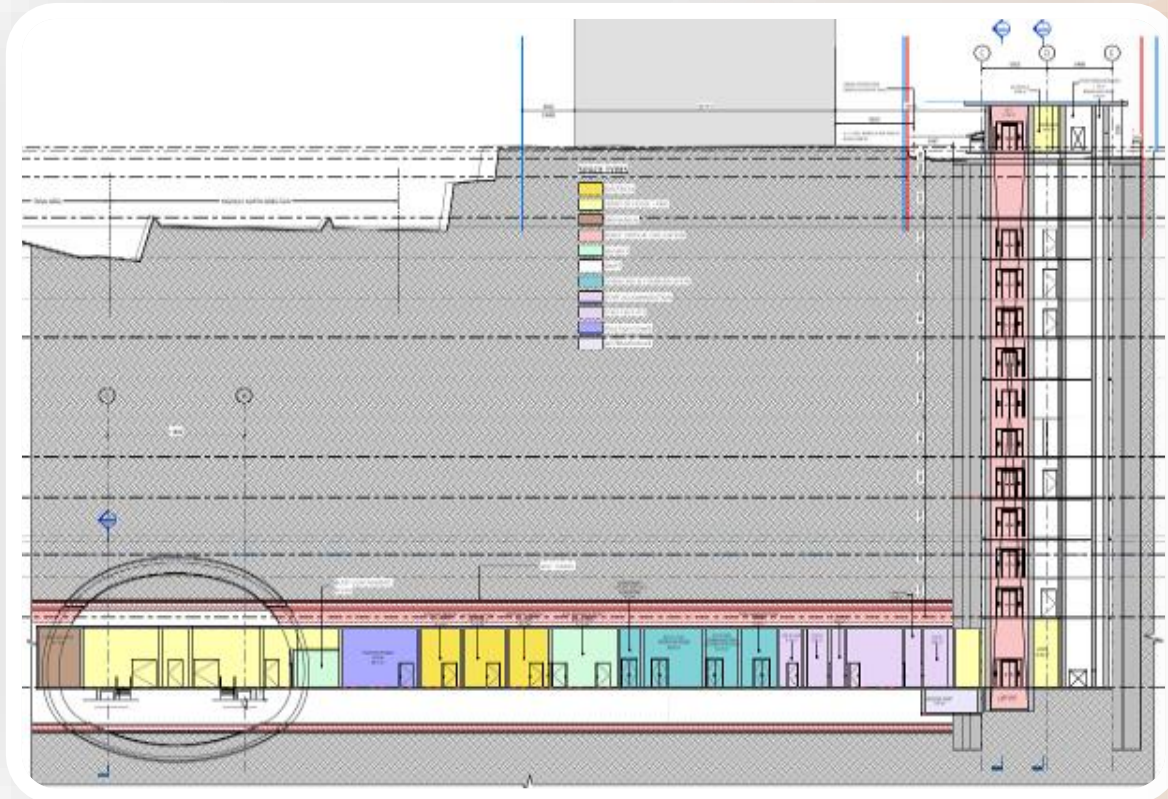


1 x At Grade Station | Pedestrian Bridge



Holon Terminus

- 1 x Access Shaft
- Length of Cavern: ~30m
- Depth of Shaft: ~50m
- Height ~ 18 m
- Adit Tunnel: ~80-90m
- Width of Cavern: ~23m



Ground Investigation

Boreholes:

280 completed to date (out of 357)

Piezometers:

42 installed to date (out of 71)

Pumping tests:

2 completed to date (out of 18)

Remaining to be completed
prior to release of tender

To the extent required, Contractor to
complete any additional boreholes / tests for
Detailed Design

Guideline frequency of Boreholes per structure

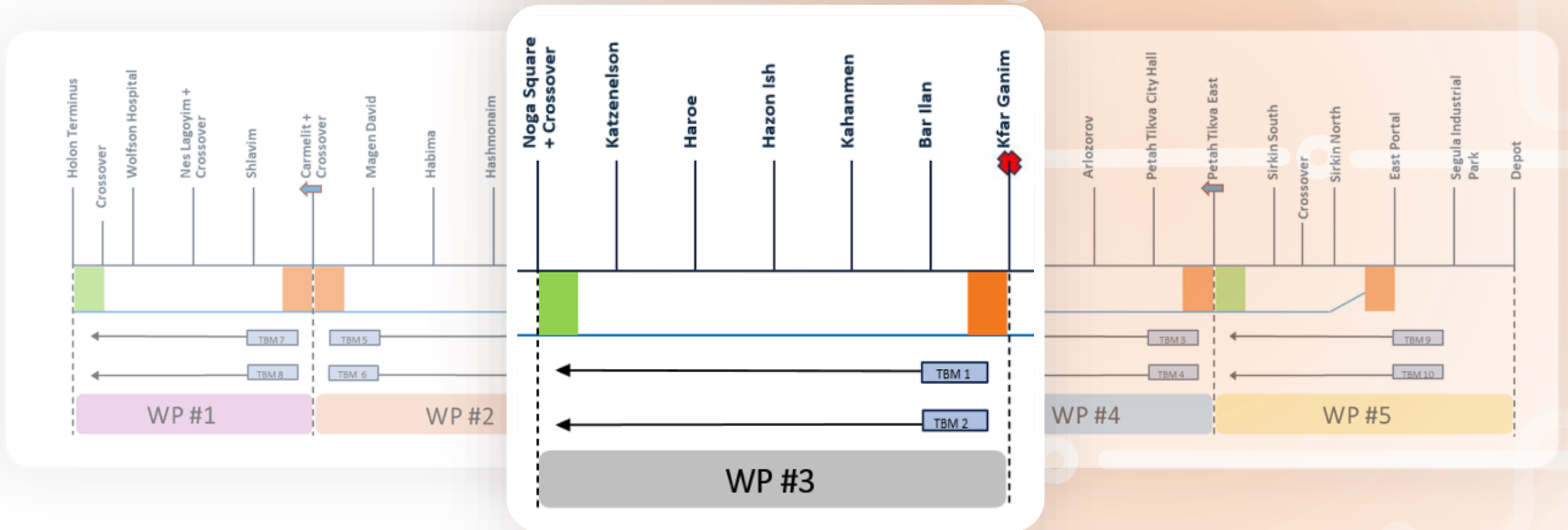
Structure	Quantity
Cut & Cover	3 BH
Mined	5 BH
Cross Passages	1 BH
TBM Tunnel	1 BH per 300 m

Guideline frequency of piezometers per structure

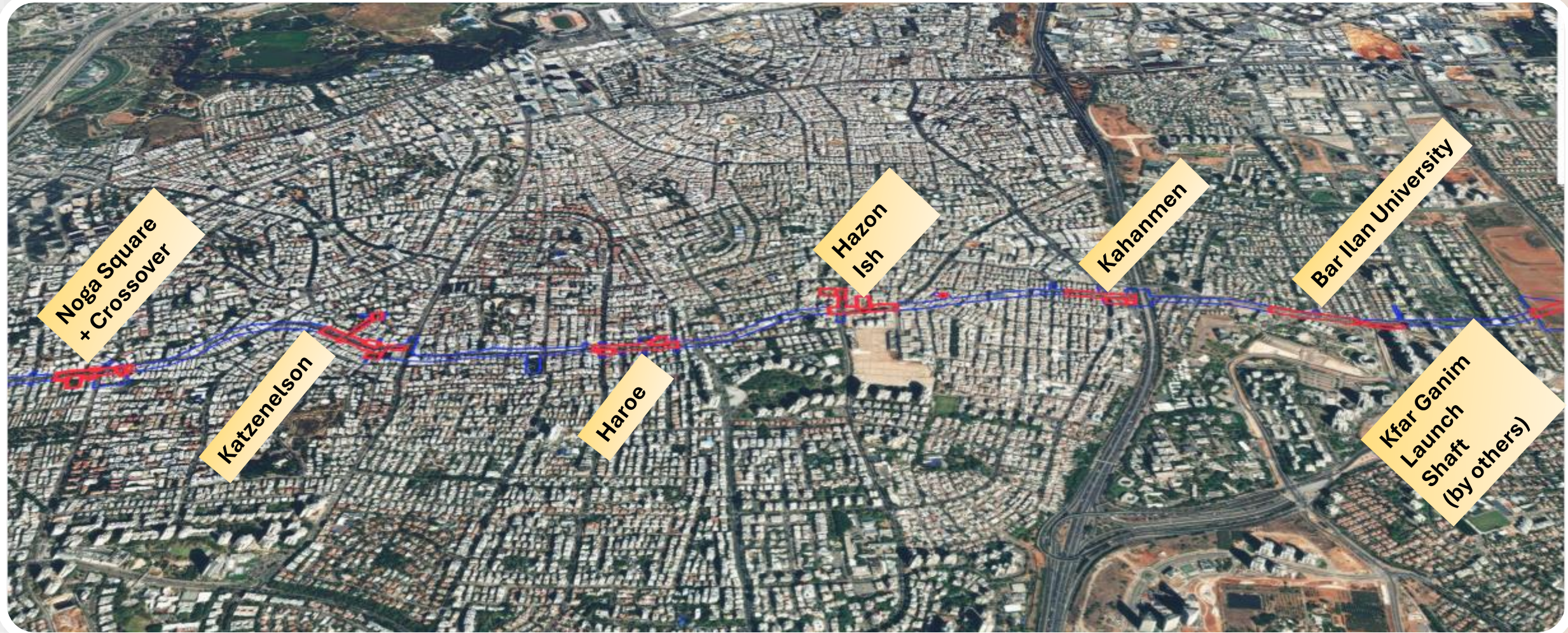
Structure	Quantity
Station / Crossover	1 per submerged element
TBM Tunnel	1 per 1 km in submerged sections

Infra #1 - Work Package #3

- ~5.1km twin tunnels (2 x TBMs)
- 5 x Mined / NATM Stations
- 1 x Mined / NATM Crossover
- 1 x Cut & Cover Station
- Launching Shaft (by others)

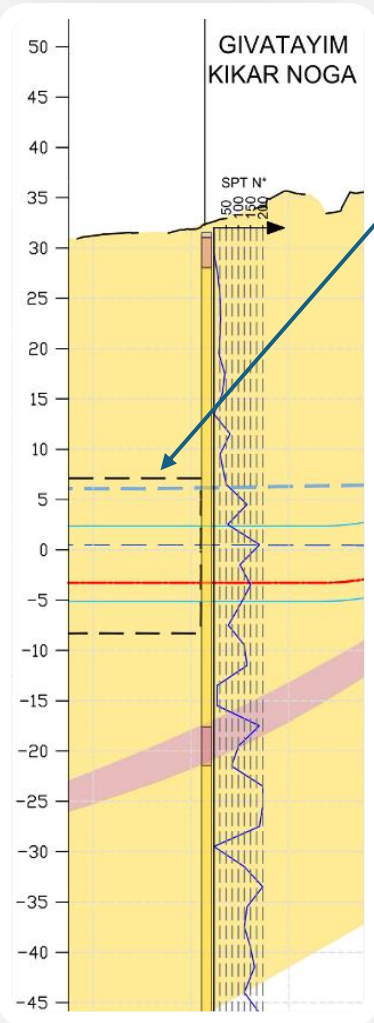


Work Package #3

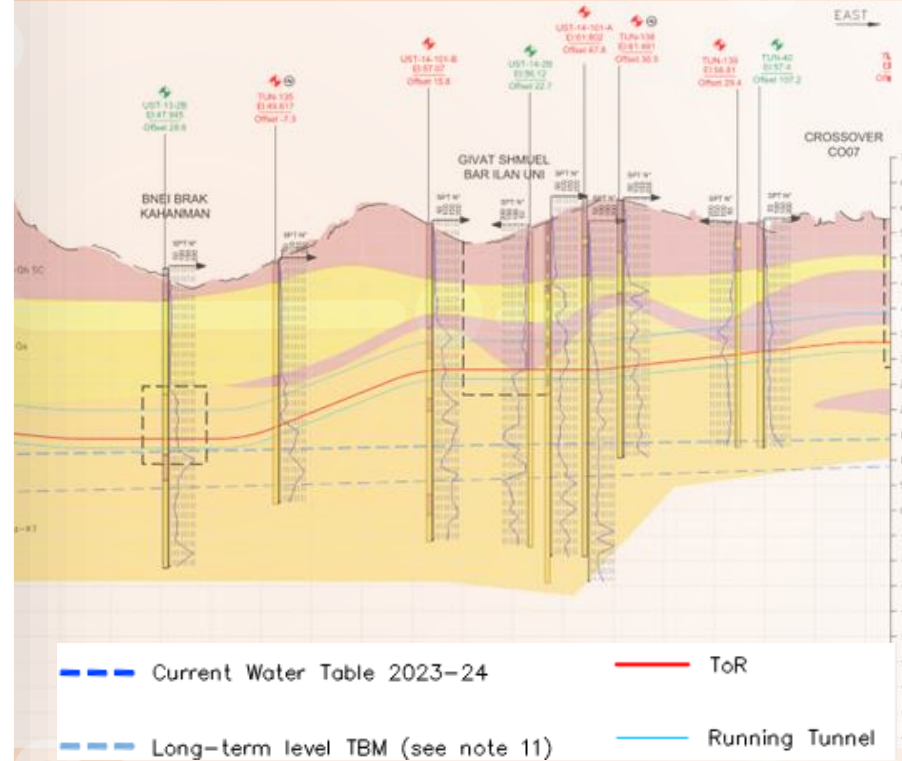
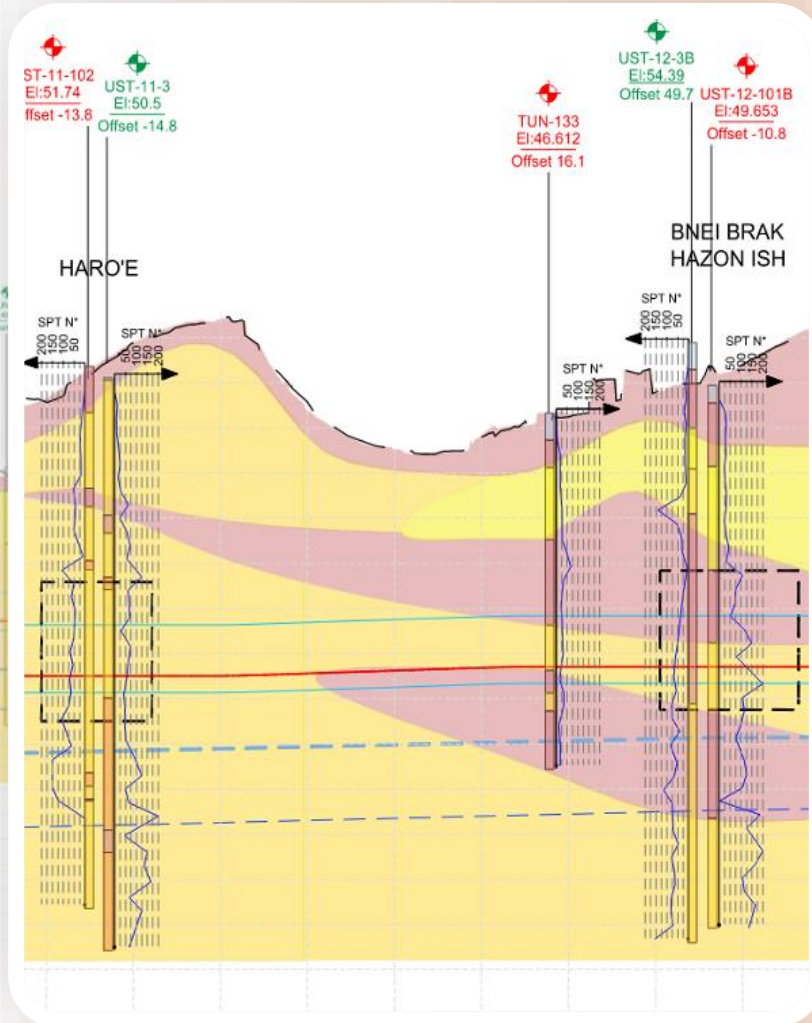
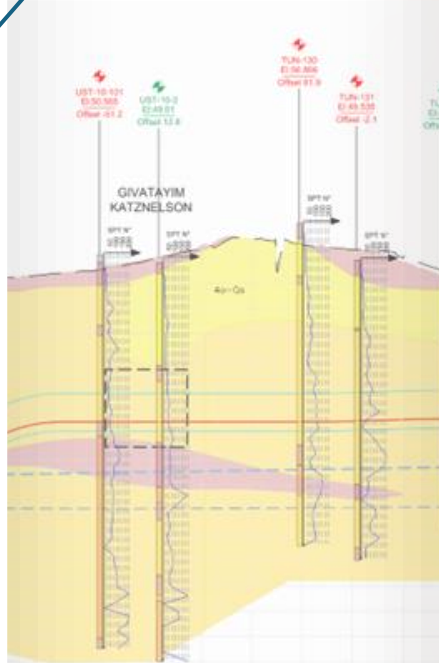


WP #3 - Geotechnical Conditions

Geological Classification		Geotechnical Classification – Used in the Profile			
		Geo-Group	USCS / Rock Classification	Description	
Hamra / (Qh) Palaeosol		3	a	Predominantly SC to SM-SC with occasional SP-SC	Clayey sand paleosol deposits
			b	Predominantly CL with occasional CL-CH	Silty clay paleosol deposits
Dune Sand (Qs)	Aeolian Deposits	4	a – Qs	Predominantly K1, SP, SP-SM with some SP-SC, SP-K1, CL+SP	Dune Sand – Kurkar K1 (generally uncemented)
K1 (Qk)			a – K1		
K2 (Qk)			b	Predominantly K2 and K3 with some K2-K3, SP-K3 and K2+SC	Kurkar K2 – Kurkar K3 (generally moderately cemented)
K3 (Qk)					
K4 (Qk)			c	Predominantly K4	Kurkar K4 (generally well cemented)



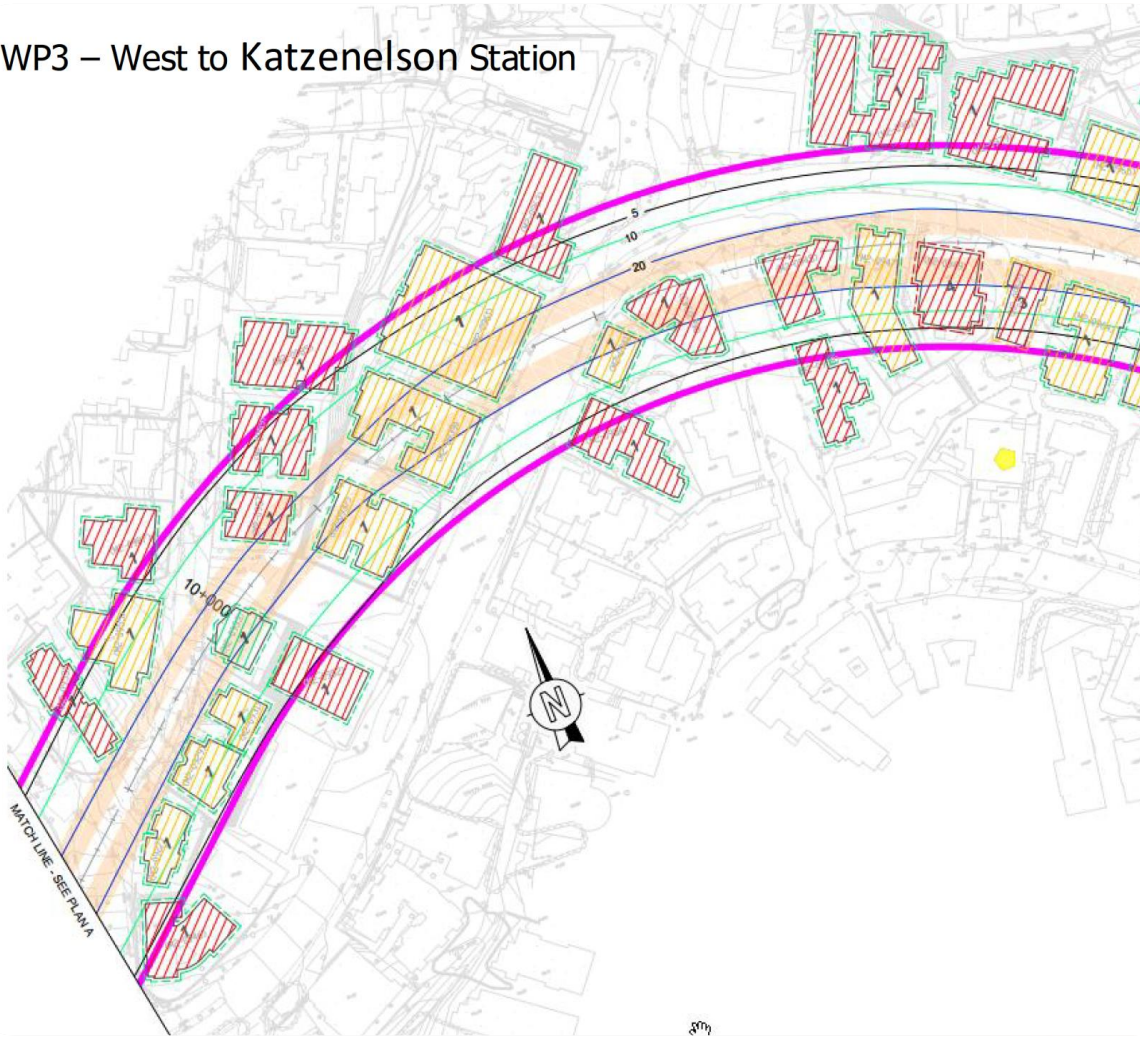
Noga Square Station partially submerged



- Predominately 3a-Qh SC (Hamra), 4a-K1 (Kurkar) and 4a-Qs (Dune Sand)
- Majority of Work Package above ground water table

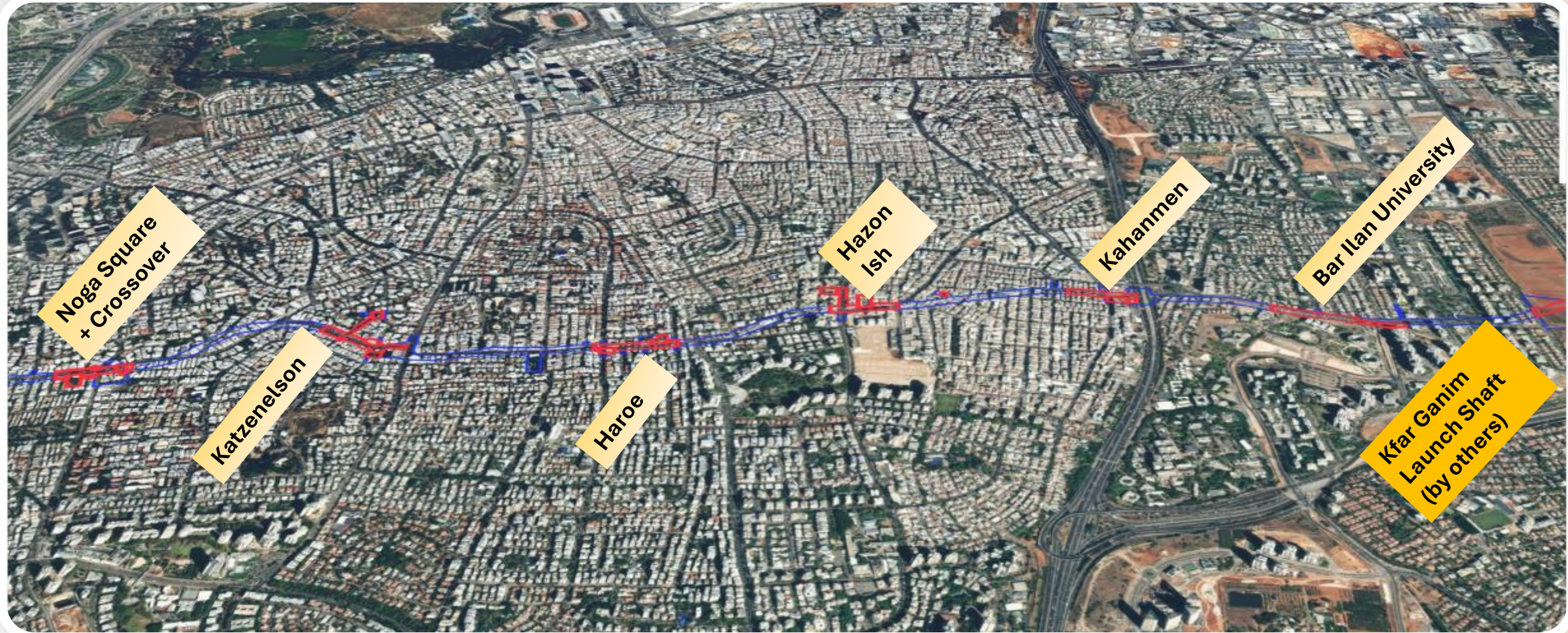
WP #3 - Building Conditions Survey (BCS)

WP3 – West to Katzenelson Station



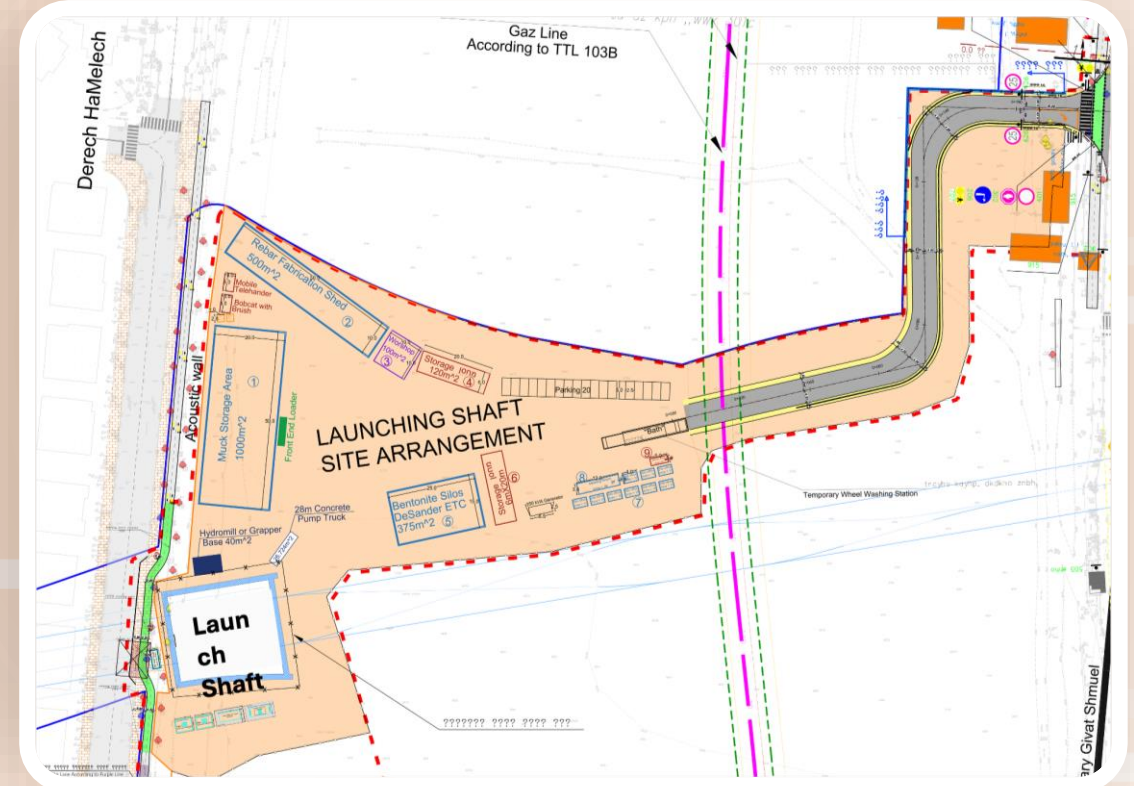
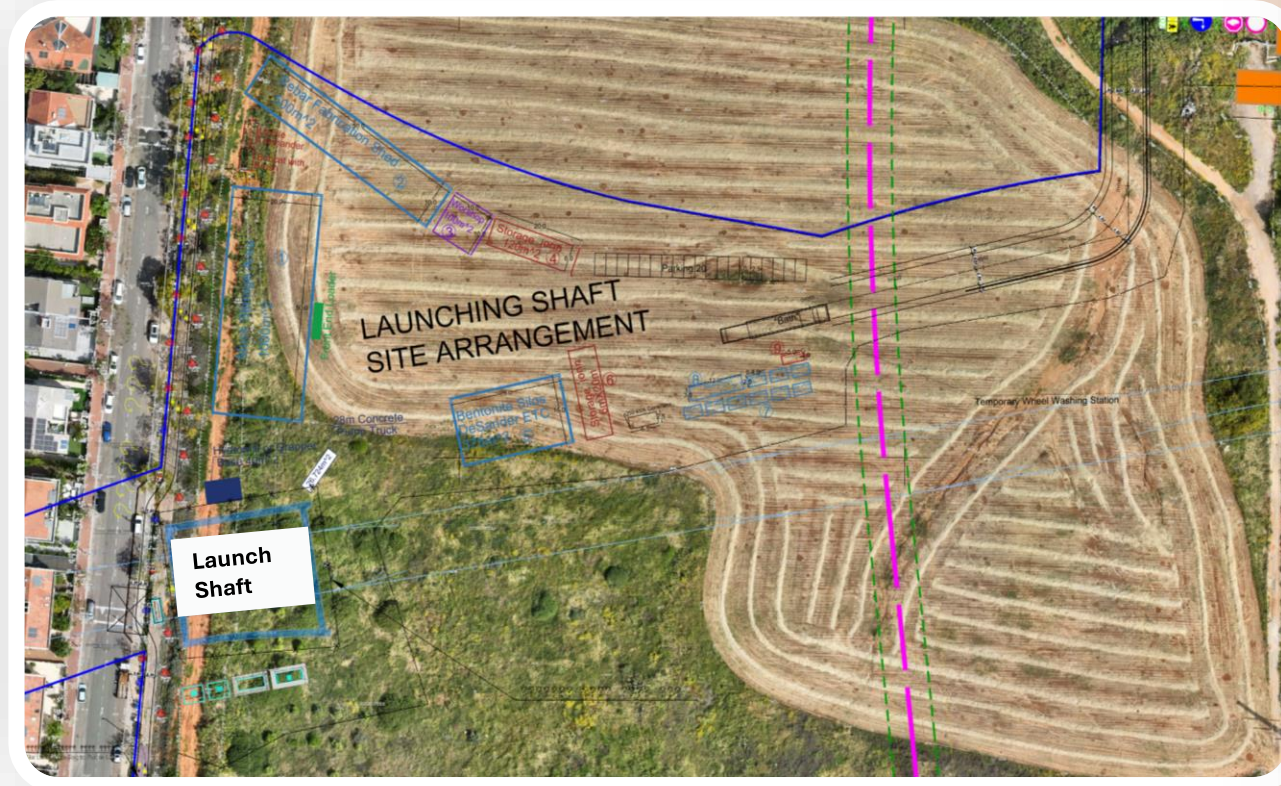
Work Package # 3	No. of Buildings	Status
Tunnels	300	Work in Progress
Bar Ilan	24	Work in Progress
Katzenelson	72	Work in Progress
Haroe	82	Work in Progress
Crossover	57	Complete
Noga Square	54	Complete
Kahanmen	24	Complete
Hazon Ish	28	Complete

Work Package #3



WP #3 - Kfar Ganim Mobilisation Site

- Site ~18,000 m²
- Launching Shaft (by Advanced Works)



Work Package #3

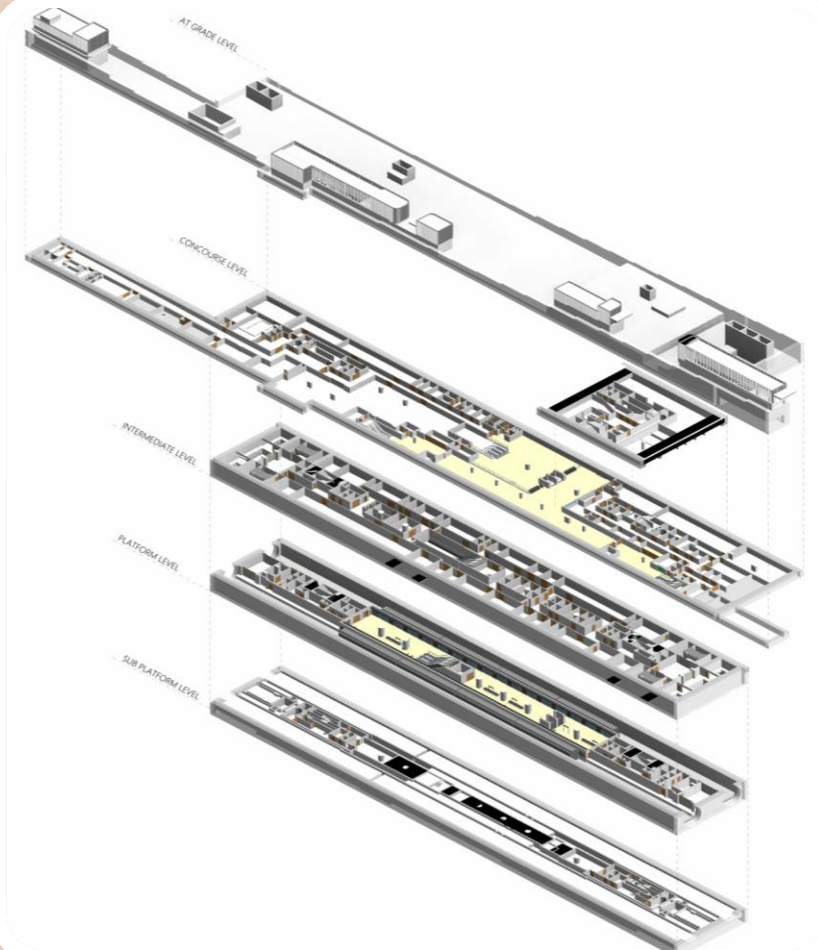
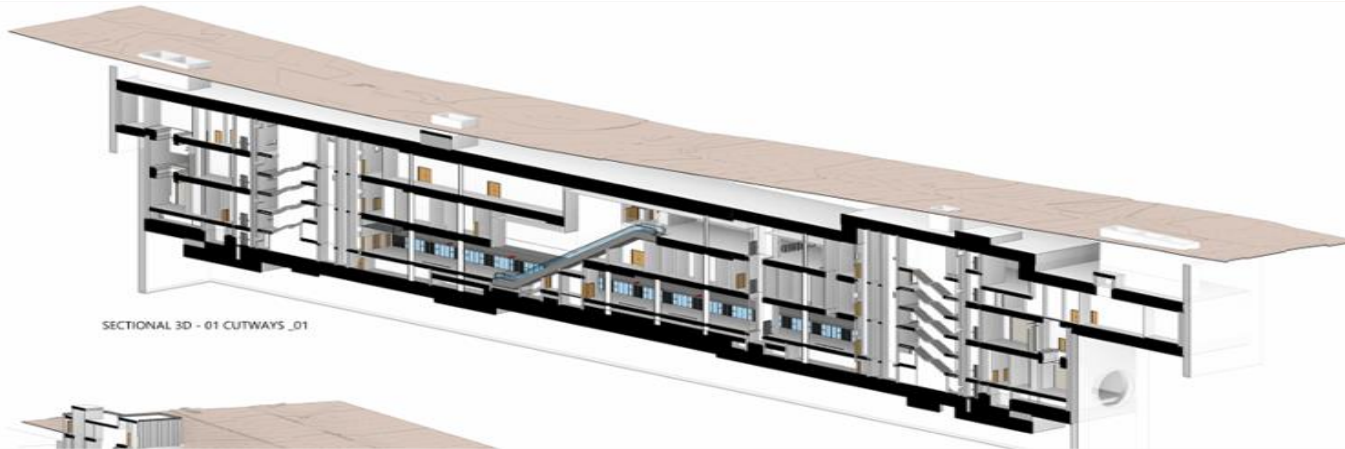


WP #3 - Bar Ilan Station

- Cut & Cover Station
- 3 Level Station Shafts
- ~25 m Depth
- ~180m Length
- 2 Entrances

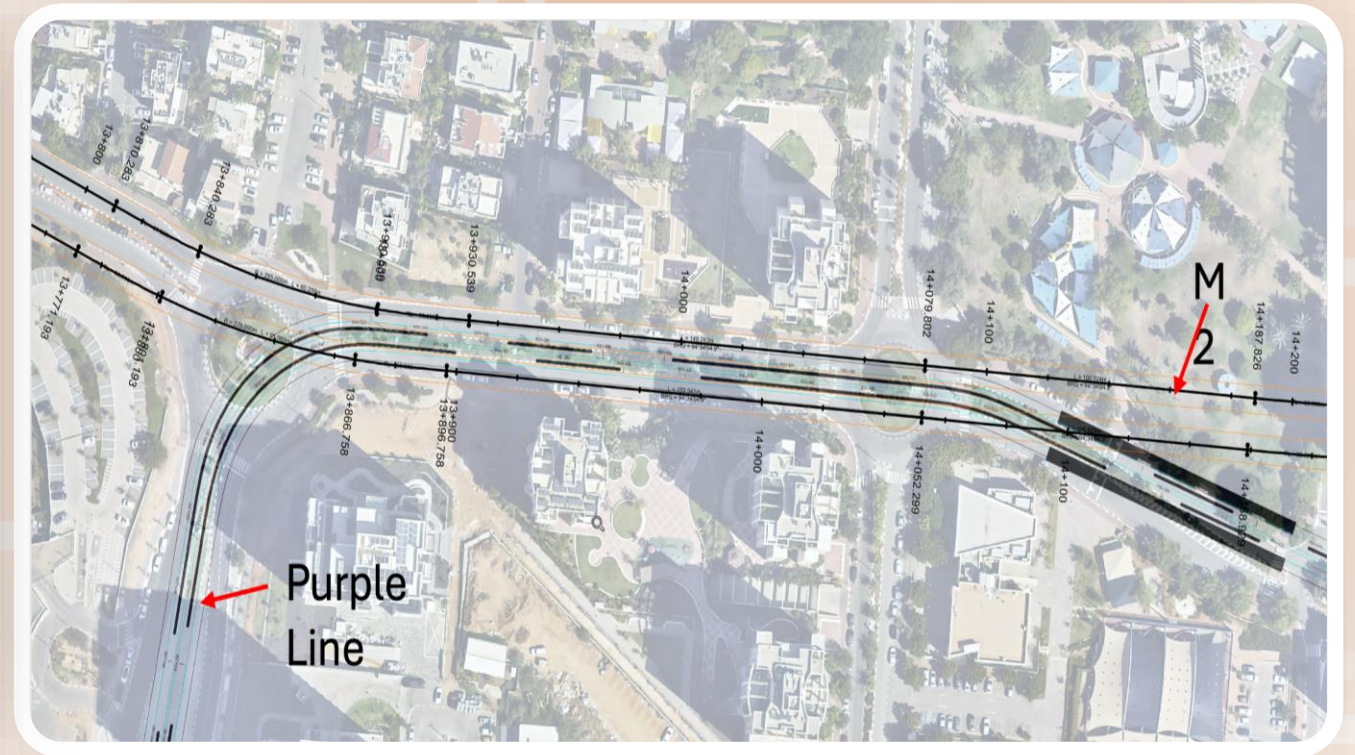
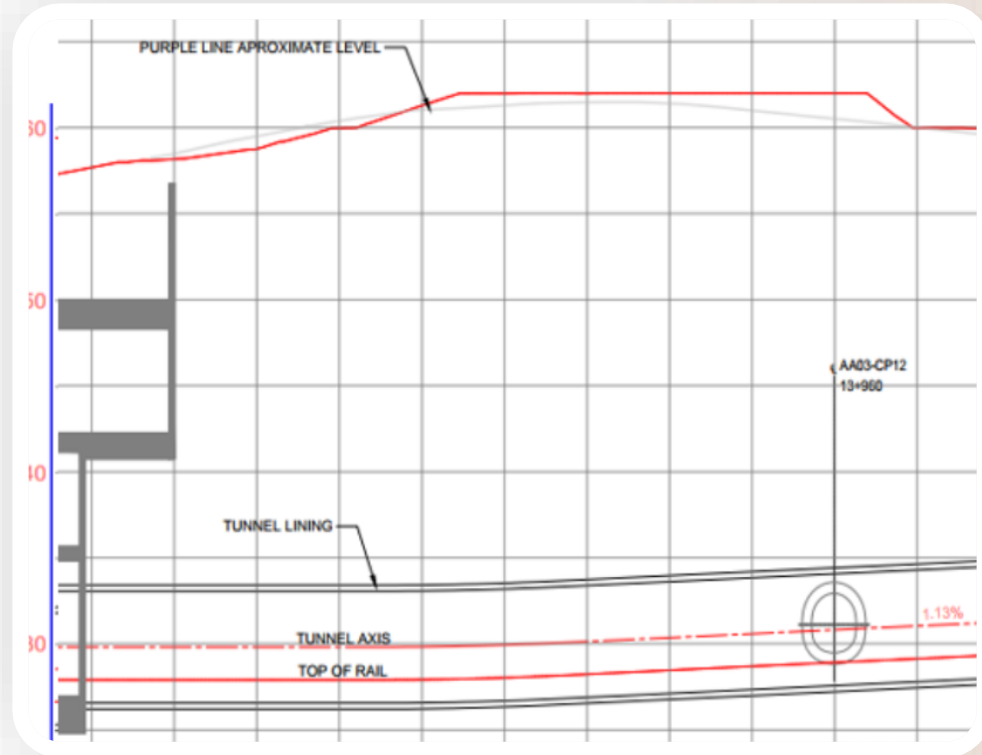


WP #3 - Bar Ilan Station



WP #3 - Assets and Structures

- M2 tunnels pass ~23m below At-Grade rail tracks of purple line.
- Nearest station Bar Ilan



Work Package #3

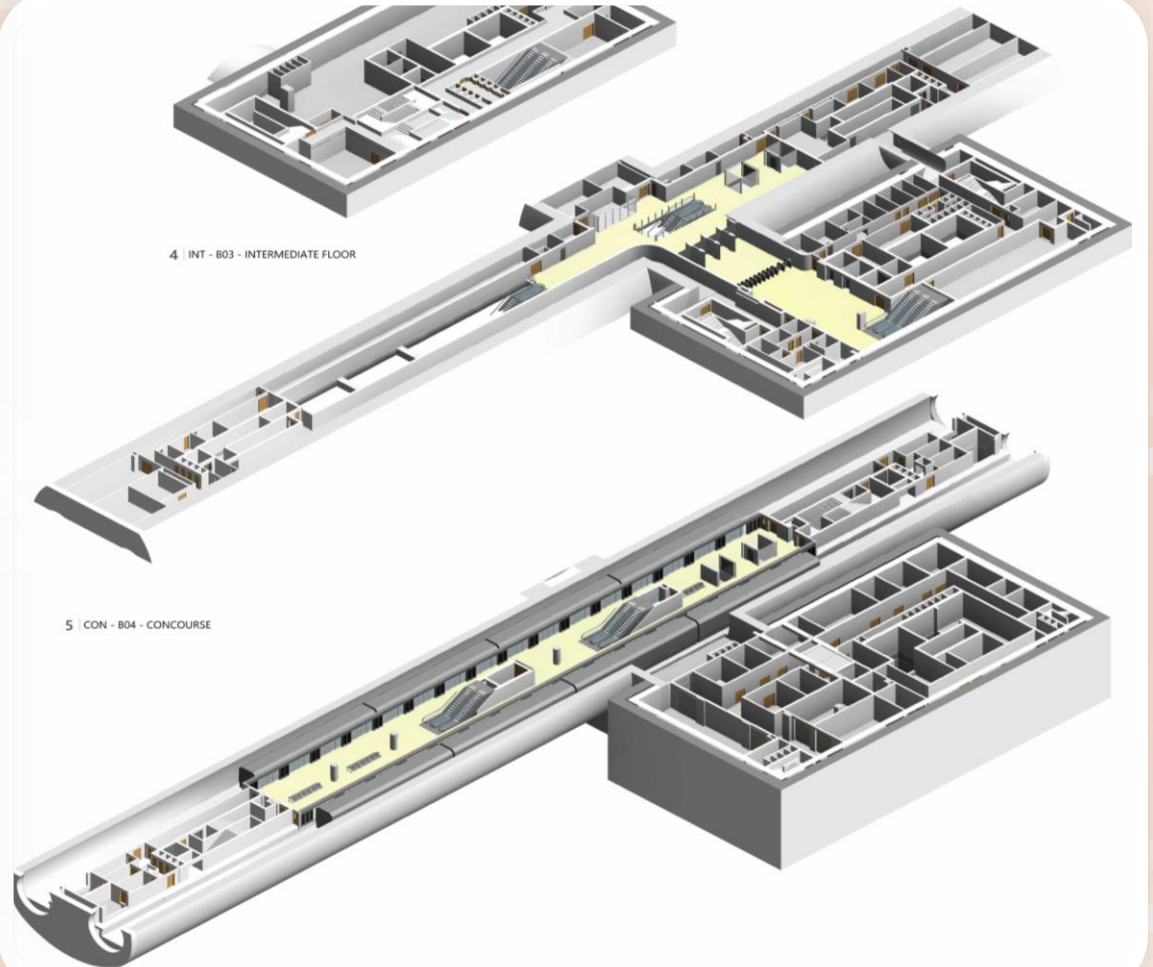
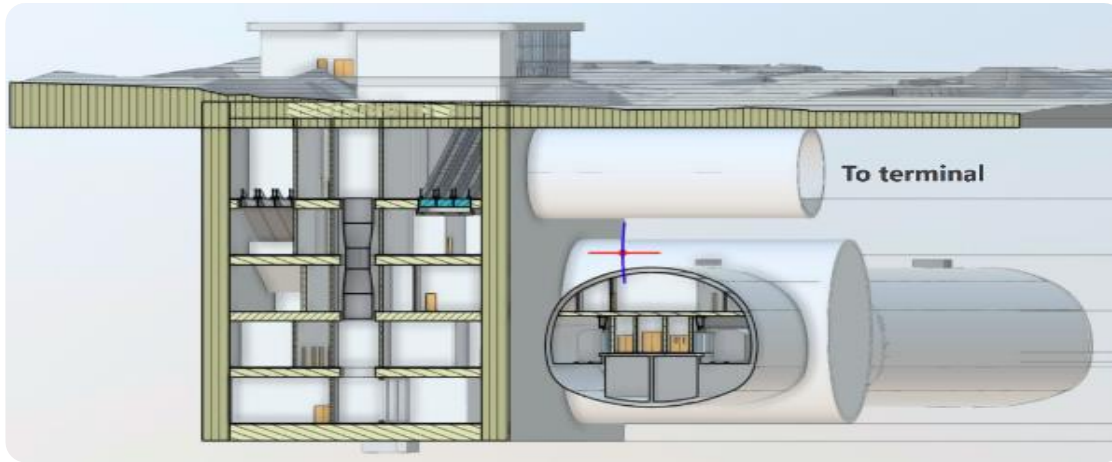
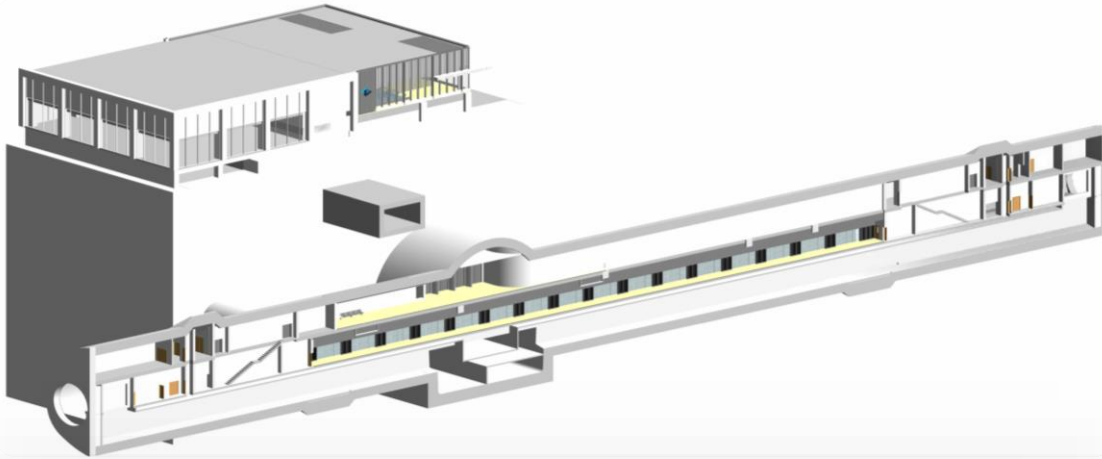


WP #3 - Kahanmen Station

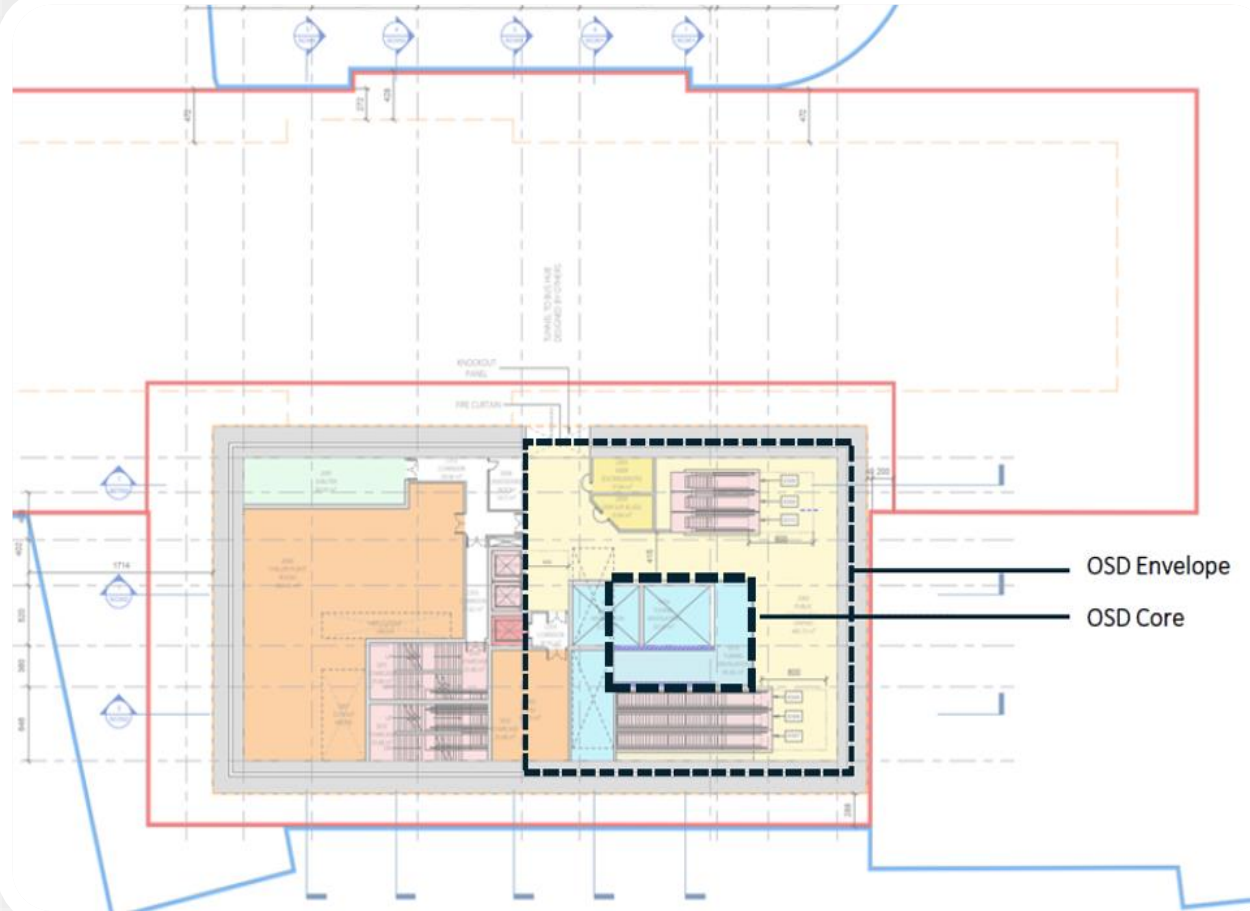
- Mined / NATM Station
- 1 Access Shaft
- 1 Entrance
- Shaft: ~44 m Depth
- Cavern: ~38 m Depth
- Cavern: ~140m Length



WP #3 - Kahanmen Station

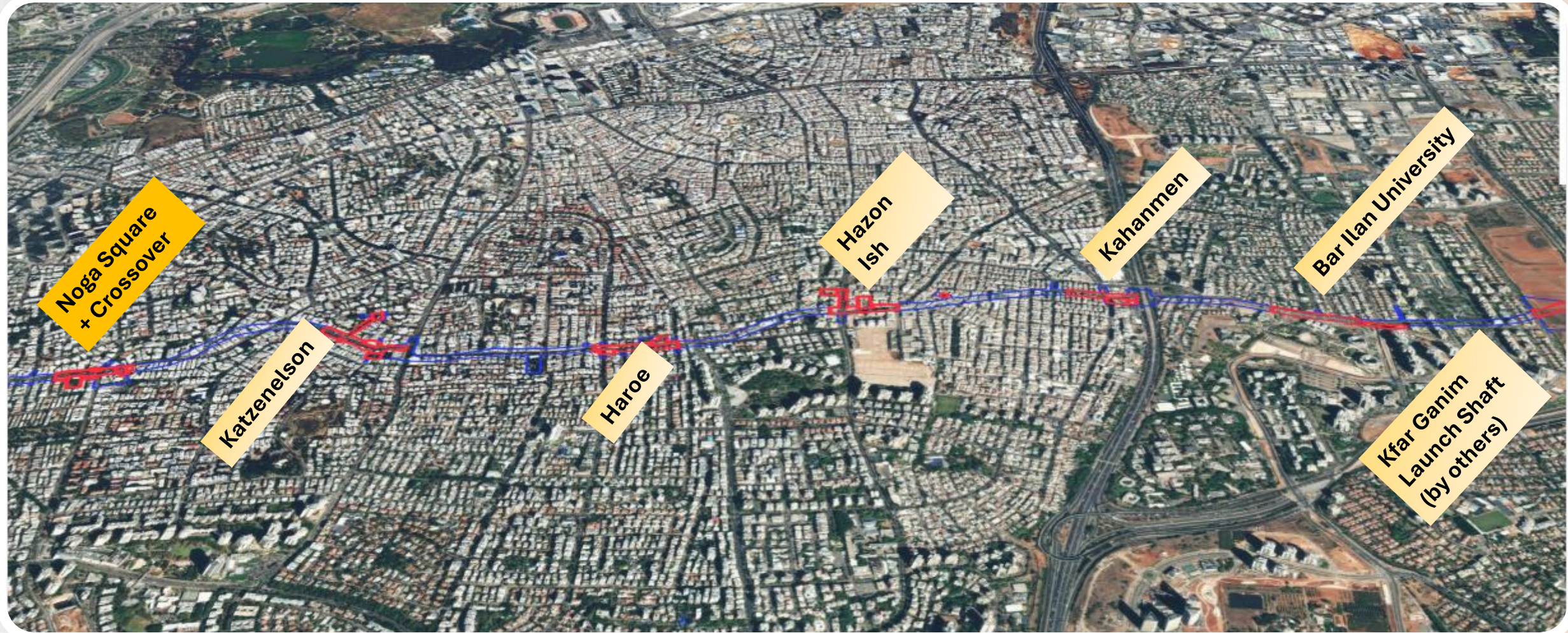


WP #3 - Oversight Development



12 level residential development above Kahanmen Station

Work Package #3



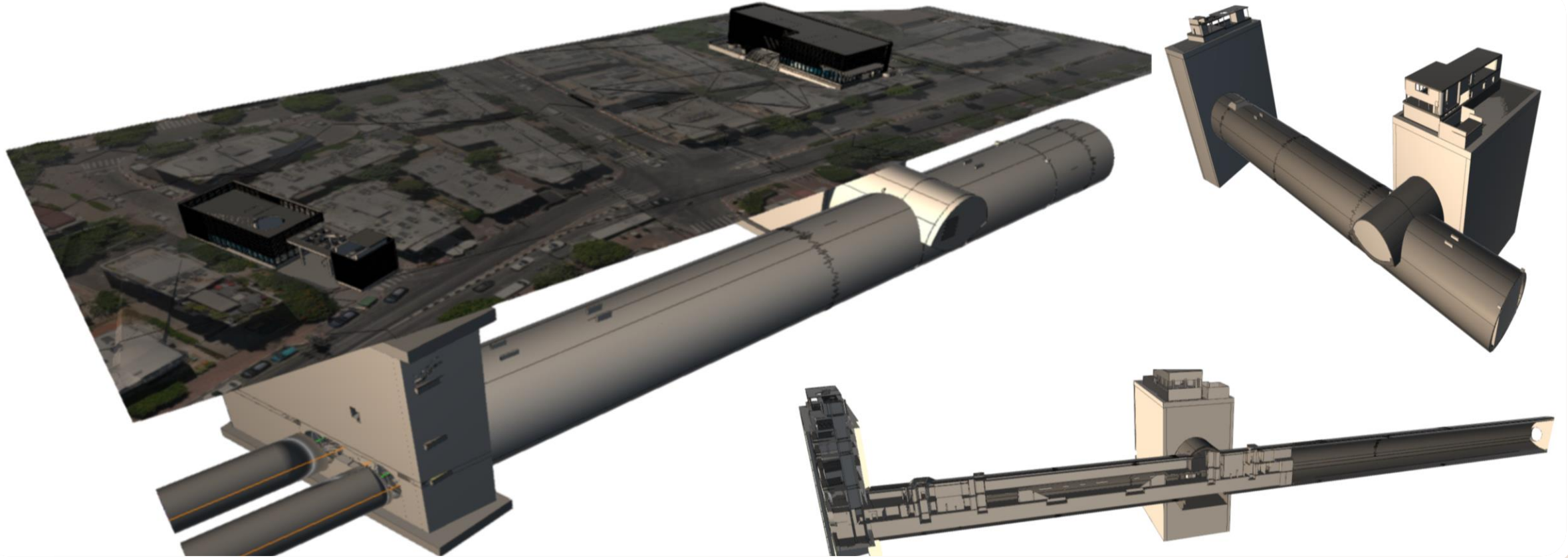
WP #3 - Noga Square Station & Crossover

- Mined/NATM Station & Crossover
- 2 Access Shafts (6-7 levels)
- 2 Entrances
- Shaft: ~42 m Depth
- Cavern: ~40 m Depth
- Cavern: ~340m Length (Station & Crossover)



WP #3 - Noga Square Station & Crossover

- Mined Station & Crossover
- 2 x Access Shafts



Thank You & Shalom



Line M3

Ira Davelman
Line Director - M3



Line M3 - Overview



13
Municipalities



39
Kms



25
Stations



480,000
Daily Passengers

Municipalities

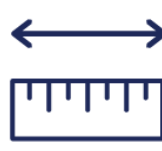
Herzliya
Ramat HaSharon
Tel Aviv
Petach Tikva
Givat Shmuel
Kiryat Ono
Ramat Gan
Or Yehuda
Hemed
Mikve Israel
Azor
Holon
Bat Yam

Stations

Ben Gurion Branch
Herzliya Terminus
Herzliya E.A
Ramat HaSharon Employment Area
Glilot
Kiryat Shaul
Pinchas Rosen
Ramat Hachayal - Ha'arad
Kiryat Arye Train Station
Kiryat Arye Industrial Area
Beilinson Hospital
Kfar Ganim
Levi Eshkol
Shlomo HaMelech
Tel Hashomer Hospital
Yigal Alon
Bik'at Ono
Depot Interchange and Depot Or Yehuda
Ariel Sharon Park
Holon Industrial Area
HaMelacha
Holon Center
Golda Meir
Holon Yoseftal
Bat Yam Yoseftal
Hakomemiyut
Terminus Bat Yam



Line M3 - Execution Stage A

 **24**
Kms

 **16**
Stations

 **10**
Operational
elements

 **1** Depot
2 HV SS



Stations

Ben Gurion Branch
Herzliya Terminus
Herzliya E.A
Ramat HaSharon Employment Area
Gilot
Kiryat Shaul
Pinchas Rosen
Ramat Hachayal - Ha'arad
Kiryat Arye Train Station
Kiryat Arye Industrial Area
Beilinson Hospital
Kfar Ganim
Levi Eshkol
Shlomo HaMelech
Tel Hashomer Hospital
Yigal Alon
Bik'at Ono
Depot Interchange and Depot Or Yehuda
Ariel Sharon Park
Holon Industrial Area
HaMelacha
Holon Center
Golda Meir
Holon Yoseftal
Bat Yam Yoseftal
Hakomemiyut
Terminus Bat Yam



Line M3 - Execution Stage B

↔ **11+5**
Kms

 **7+1**
Stations

 **5**
Operational
elements

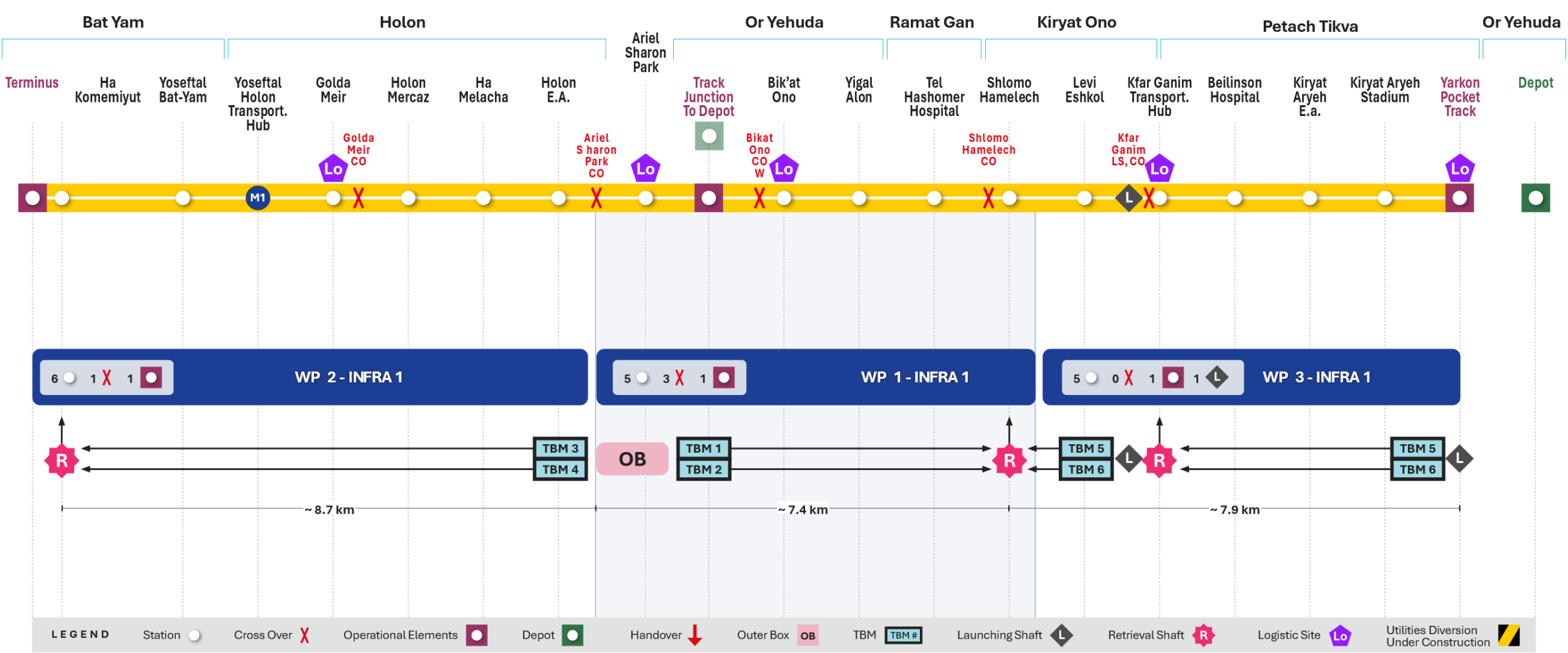


Line M3

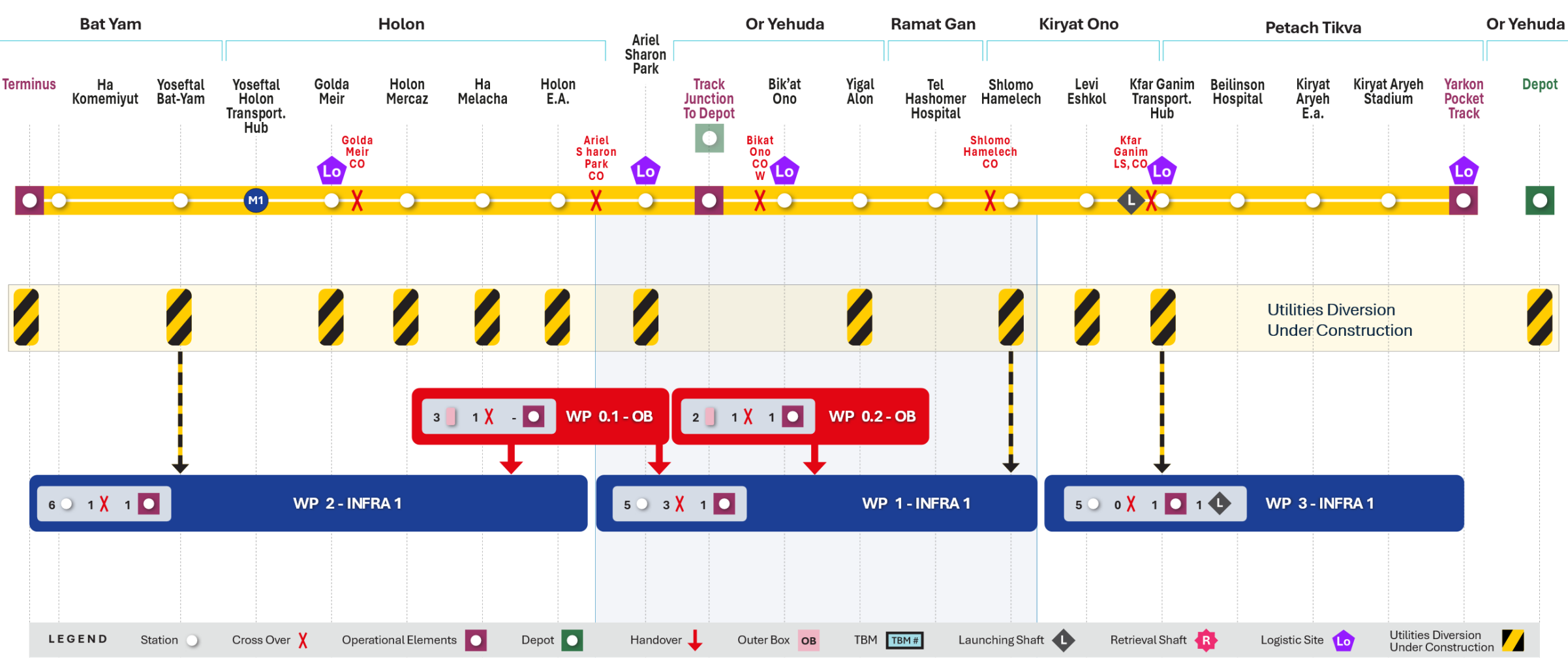
WP1 INFRA 1

Delivery Strategy

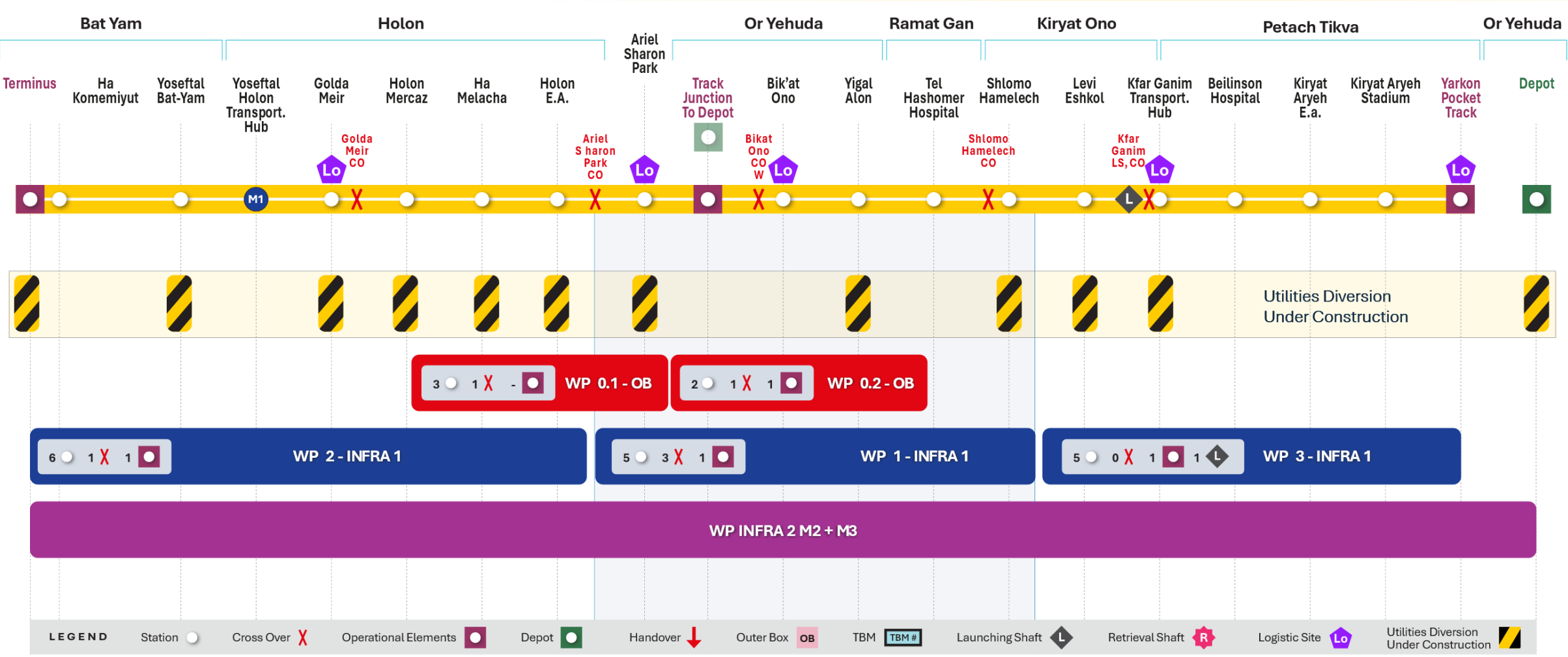
Line M3 – Delivery Strategy



Line M3 - Station-Box-First Delivery Strategy



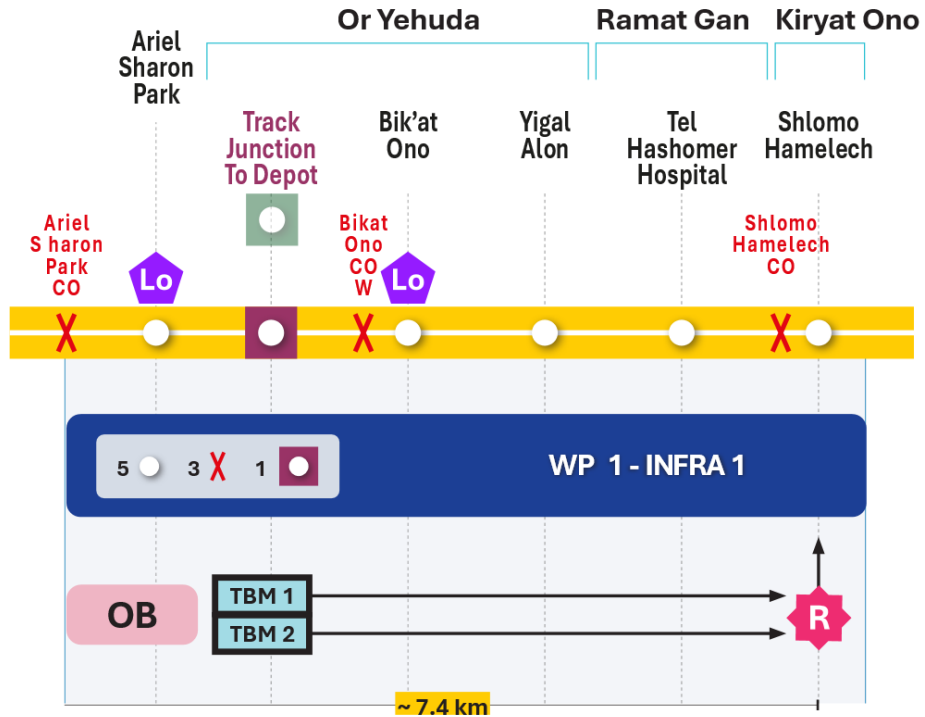
Line M3 - Delivery Strategy - Completion to INFRA2



WP1 INFRA 1 **Story Board**

M13

Line M3



WP1 INFRA 1

Total Tunnel Length:
7.4 KM

Tunnel Length:
5.6Km (excluding station lengths)

Stations:
5 (from which 3 stations have an existing outer box)

Crossover:
3 (from which 2 crossovers have an existing outer box)

Track Junction:
1 (existing outer box)

Cross passages @ 250 m Approx

The description of the Infra 1 Work Packages, including their scope and content, is indicative only and does not constitute a final or complete definition of the Works. The detailed scope of each Work Package shall be as defined in the Tender Documents to be issued by NTA.

Line M3 WP1 - Municipalities

A landmark environmental restoration zone, transforming a former landfill into a metropolitan park serving the entire region



Ariel Sharon Park, Israel, 2014 | MathKogut | wikimedia.org

**ARIEL
SHARON
PARK**

A metropolitan centre of ~170,000 and a key leading business district, driven by the economic power of dense urban planning.



View Of Ramat Gan Diamond Exchange District | Science35 | wikimedia.org

**RAMAT
GAN**

A strategically located city of ~40,000 residents near Ben-Gurion Airport, whose growth is tied to its transportation connectivity



Or Yehuda, Israel. Aerial photograph | Shashar | wikimedia.org

**OR
YEHUDA**

A ~46,000-resident municipality undergoing major urban renewal, embracing the shift toward higher-density metropolitan living.



Kiryat Ono, Israel. | Salomir | wikimedia.org

**KIRYAT
ONO**

Line M3 WP1 - Stations



A landmark environmental restoration area, transforming a former landfill into a metropolitan park.



A strategic infrastructure node that supports network continuity and emphasizes coordinated transit planning.



A ~46,000-resident community undergoing urban renewal, embracing the shift toward higher-density metropolitan living.

Ariel Sharon Park

Track Junction

Bik'at Ono

Positioned at the city entrance in a low-density urban area near major traffic routes, affecting few residences and slated for significant future redevelopment



Yigal Alon



A major medical campus that serves as a central treatment and research center in the region, treating over a million patients annually and functioning as a critical national healthcare hub.

Tel Hashomer Hospital

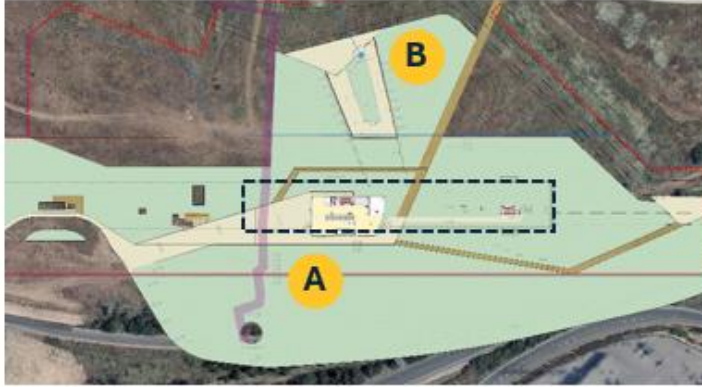


A gateway location to Kiryat Ono where infrastructure development aligns with ongoing neighborhood renewal and growth.

Shlomo Hamelech

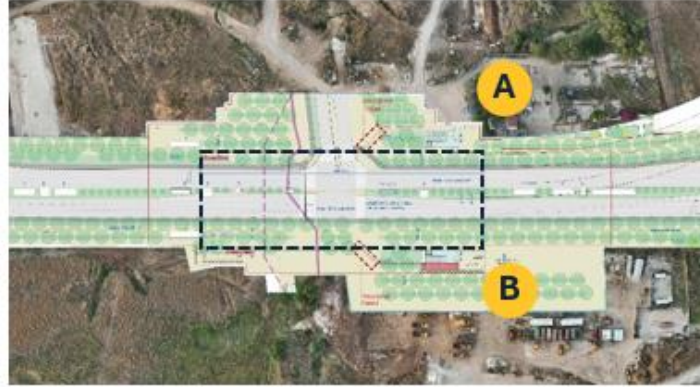


Line M3 WP1 - Stations - At Grade Level



ARIEL SHARON PARK

X 2 Entrances: 1 pavilion and 1 direct to Concourse



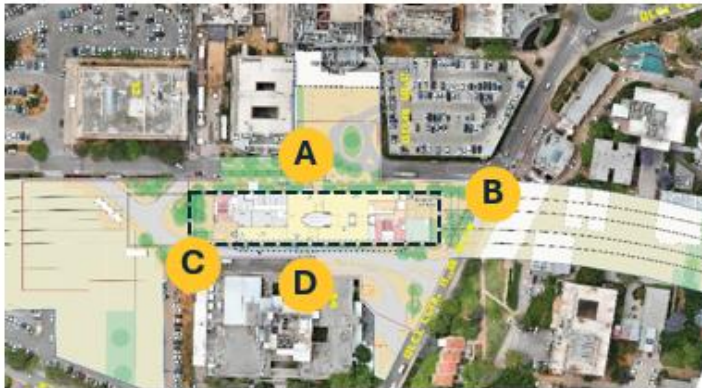
BIKAT ONO

X2 Entrances



YIGAL ALON

X3 Entrances



TEL HA'SHOMER HOSPITAL

Grade Concourse

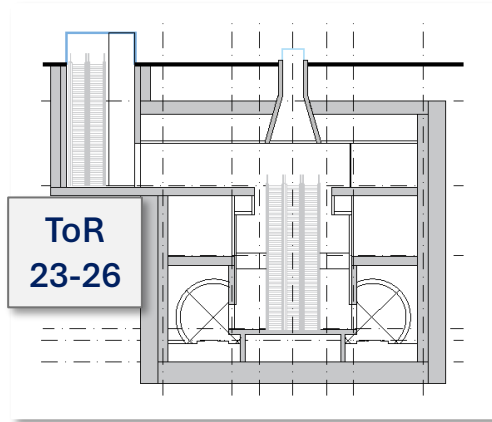


SHLOMO HAMELECH

X3 Entrances

Line M3 - Station Typologies

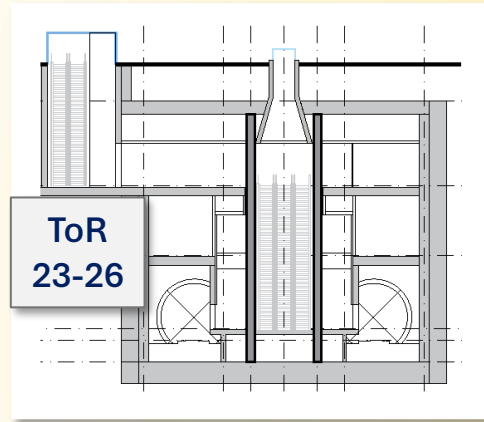
B



Total
28.9

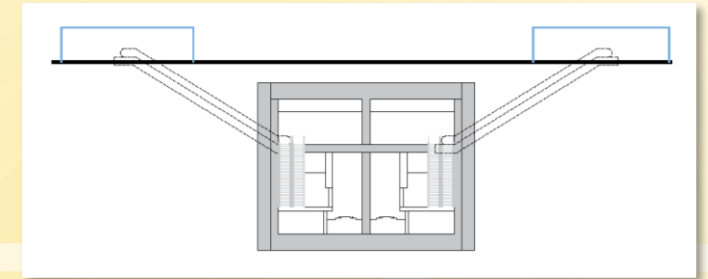
3 levels

Bc



Total
30.9

3 levels + columns



Grade Concourse
Tel Ha'Shomer St.

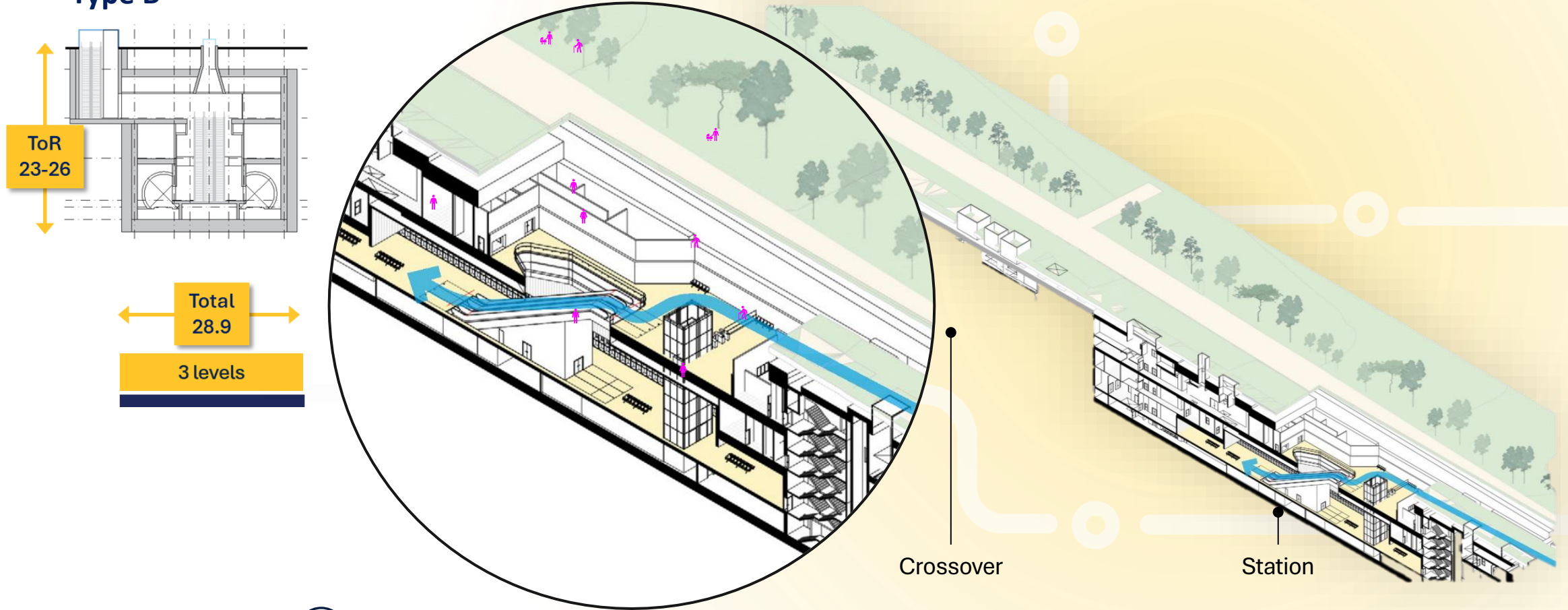
&

Transfer
Bikat Ono St.

Custom

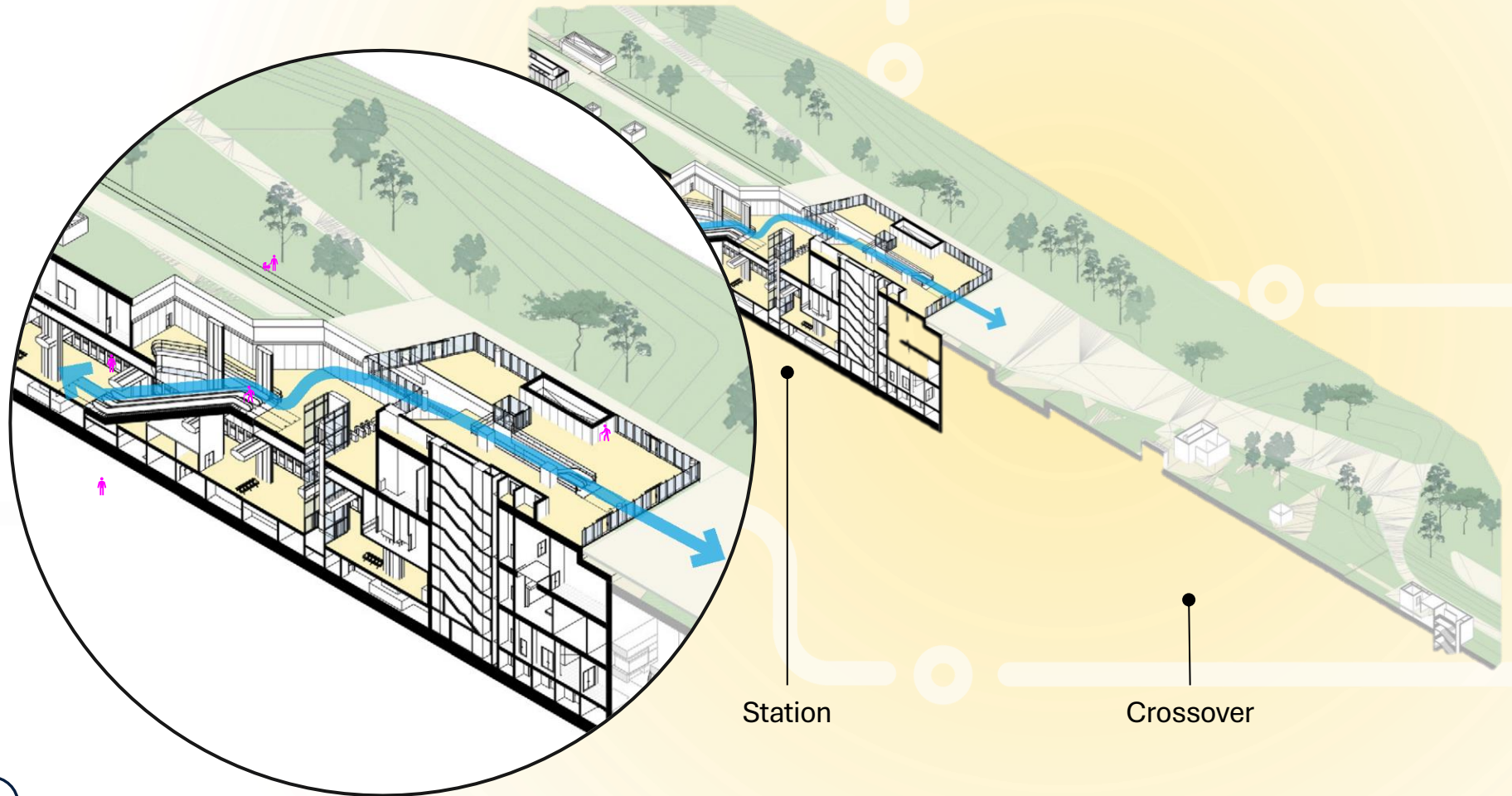
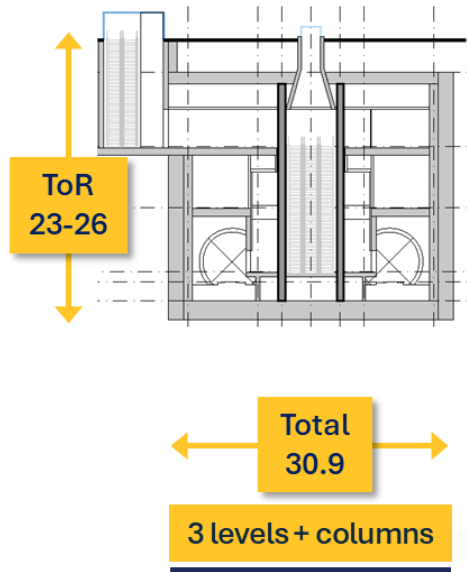
Line M3 - Station Layout - Type B

- Shlomo Hamelech Station & Operational Element
- **Type B**



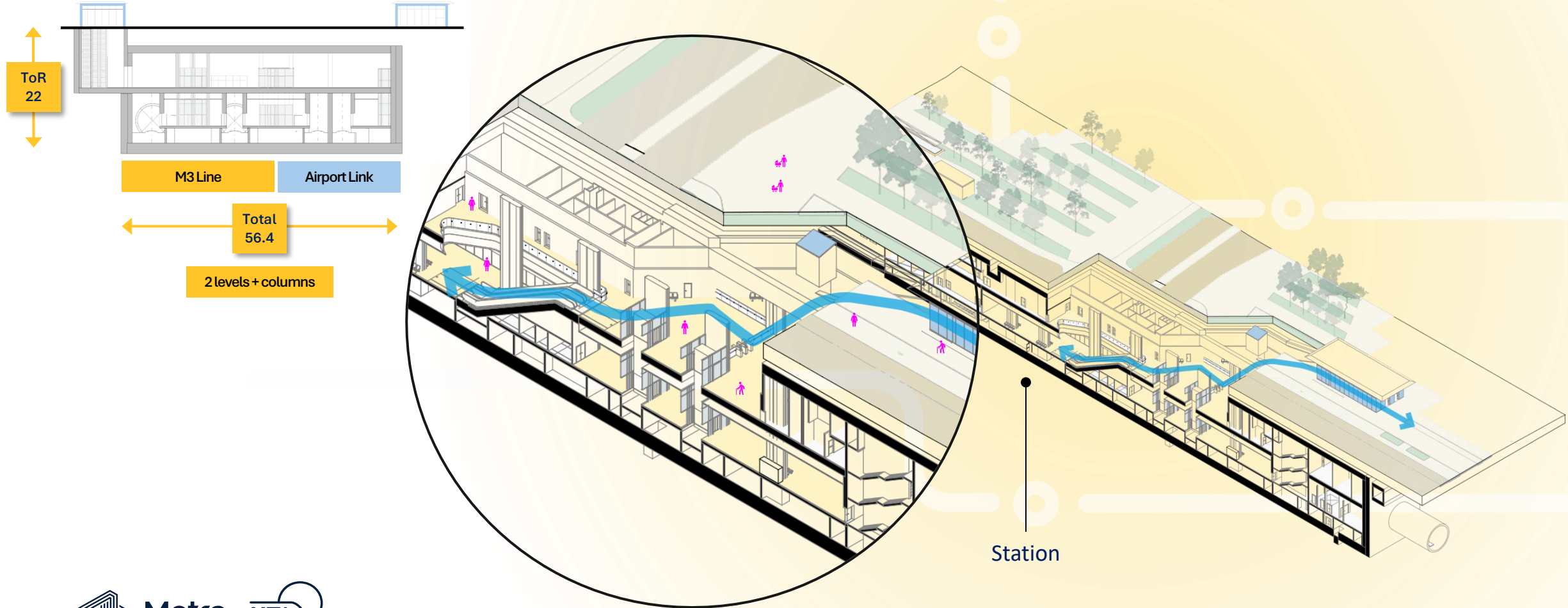
Line M3 - Station Layout - Type BC

- Ariel Sharon park Station & Operational Element
- **Type Bc**



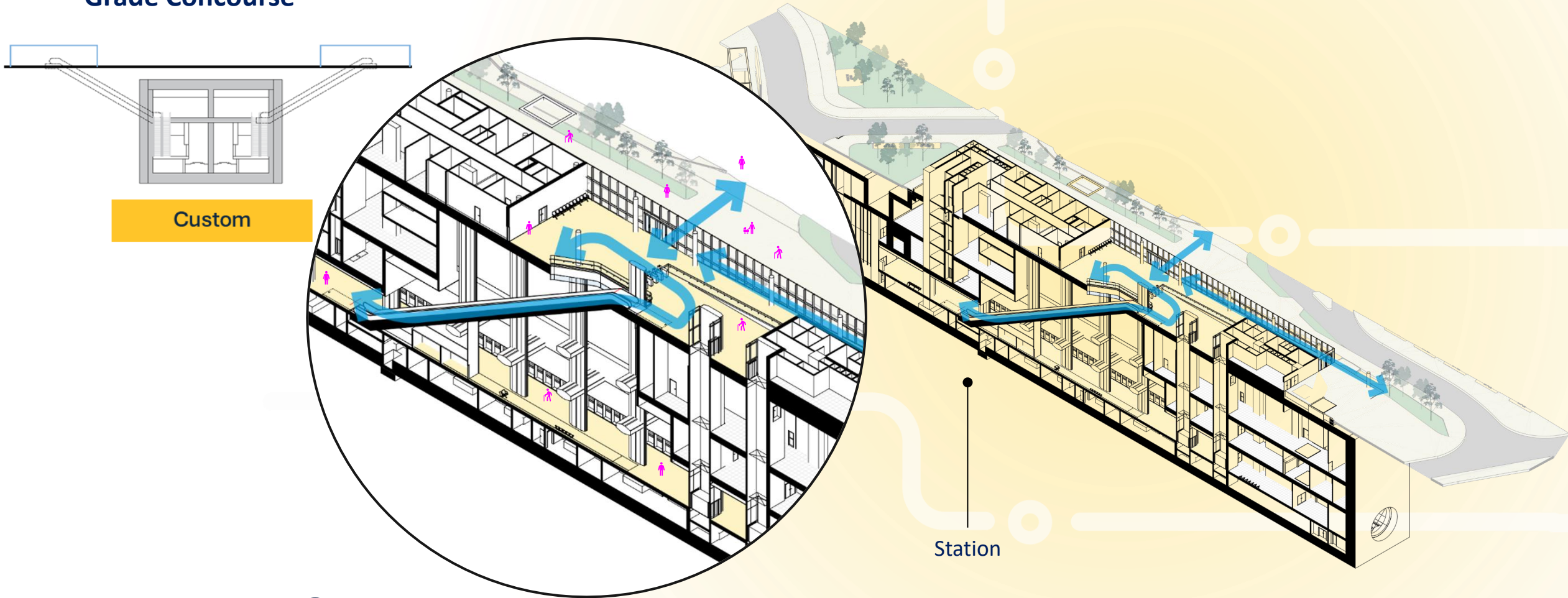
Line M3 - Station Layout - Transfer

- Bikat Ono Station
- Transfer - Airport Link



Line M3 - Station Layout - Grade Concourse

- Tel Ha'Shomer Station
- **Grade Concourse**



WP1 INFRA 1 **SOW**

M13

Line M3 - Infra 1 WP1 - Scope of Works



Station Box First Typology

CONSTRUCTION METHODOLOGY

“Station Box” First, Tunneling by TBM

SCOPE OF WORK – DESIGN AND BUILD

- Mobilization Site Construction | Temporary Traffic Arrangements
- Relocating Utilities | Environmental Treatment and Works
- Construction of Outer Box | of Inner Box and Entrances
- Tunneling Works | Tunnel Drainage | 1st stage concrete for Tracks
- Embedded items | Concrete opening
- At Grade Works
- Functional architecture | Construction Methodology Phasing
- Detailed Design for all above | Permits | IFC | As Made in CDE / BIM Models
- Interface with 3rd parties, Authorities , M1/M2, other M3 packages and more.
- HO and giving the access to Infra 2 Contractor | Taking Care | Taking Over

NTA's REFERENCE DESIGN AND PERMITS

- Reference design includes coordination with NPA and 3rd parties.
- Contractor responsible for permits and relevant approvals.

Line M3 - Infra 1 WP1 - Scope of Works



Bottom Up - Inner Box

CONSTRUCTION METHODOLOGY

“Station Box First” strategy
min 6 Hydromill working in parallel

UNDERGROUND STATIONS ARE CONSTRUCTED WITH:

OUTER BOX (OB)

Permanent diaphragm walls (D-Walls) forming the stations envelope.

Permanent contiguous pile walls forming the entrances envelope.

Horizontal struts, Temporary Base Slabs (TBS), or JG plugs, as required for stability.

Temporary decks to support construction and maintain existing traffic.

INNER BOX (IB)

All permanent internal walls, columns, intermediate slabs, and roof slabs.

Entrances and other operational structural elements, including ventilation.

Full integration with tunnelling works and OB structure

GROUND WATER CONTROL

TBS BY OB CONTRACTOR DRY BOX FOR INFRA 1

Igal Alon Station
Bik'at Ono

2 sites

DRAINAGE (SUMP)

Ariel Sharon Station
Track Junction (Depot)

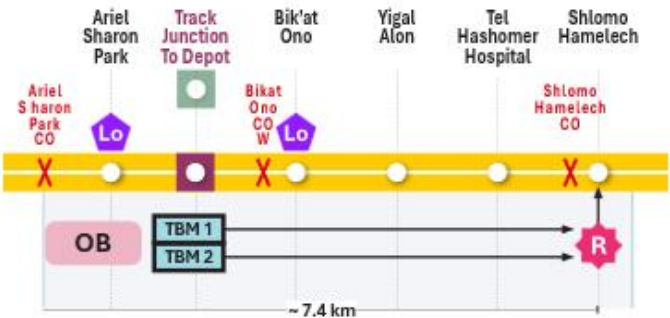
2 sites

NO GROUND WATER CONTROL IS NEEDED

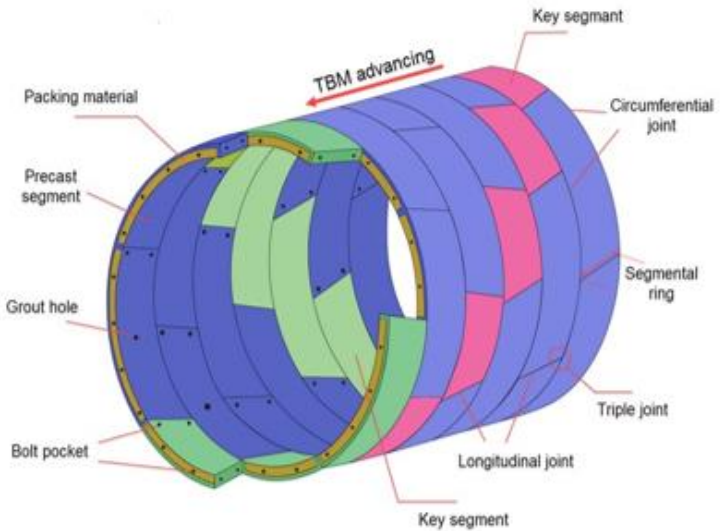
Tel Ha'Shomer Station
Shlomo Ha'Melecha Station

4 sites

Line M3 - Infra 1 - Scoop of Works



TBM tunnels (double-tube) :
Excavation diameter = 7.5 m
Internal diameter = 6.5 m
Segment thickness = 0.35 m



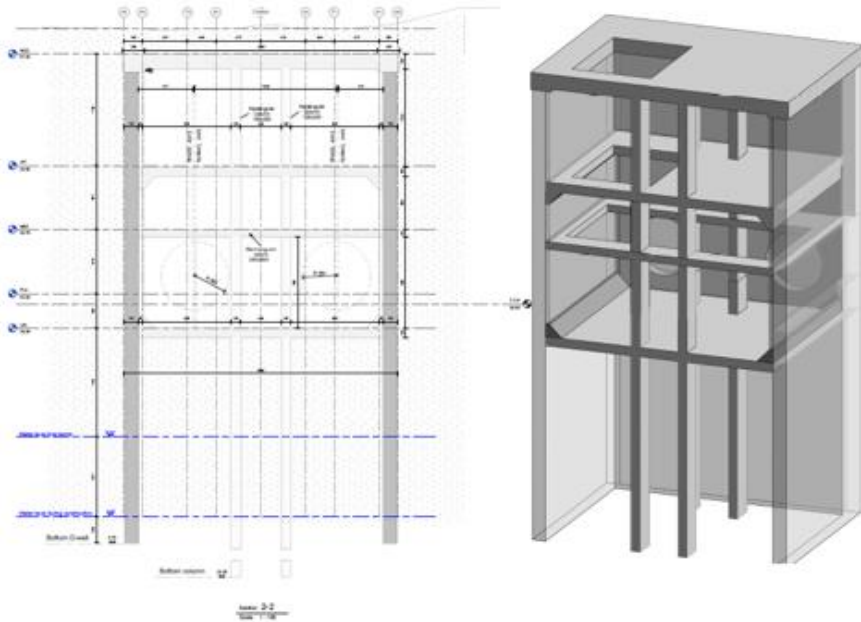
Alignment | Tunneling | Geotech

THE CONSTRUCTION STRATEGY
ENCOMPASSES 2 TBM DRIVES.

Considering the “Station Box First” strategy, the tunnel excavation length is estimated approximately, excluding station lengths.

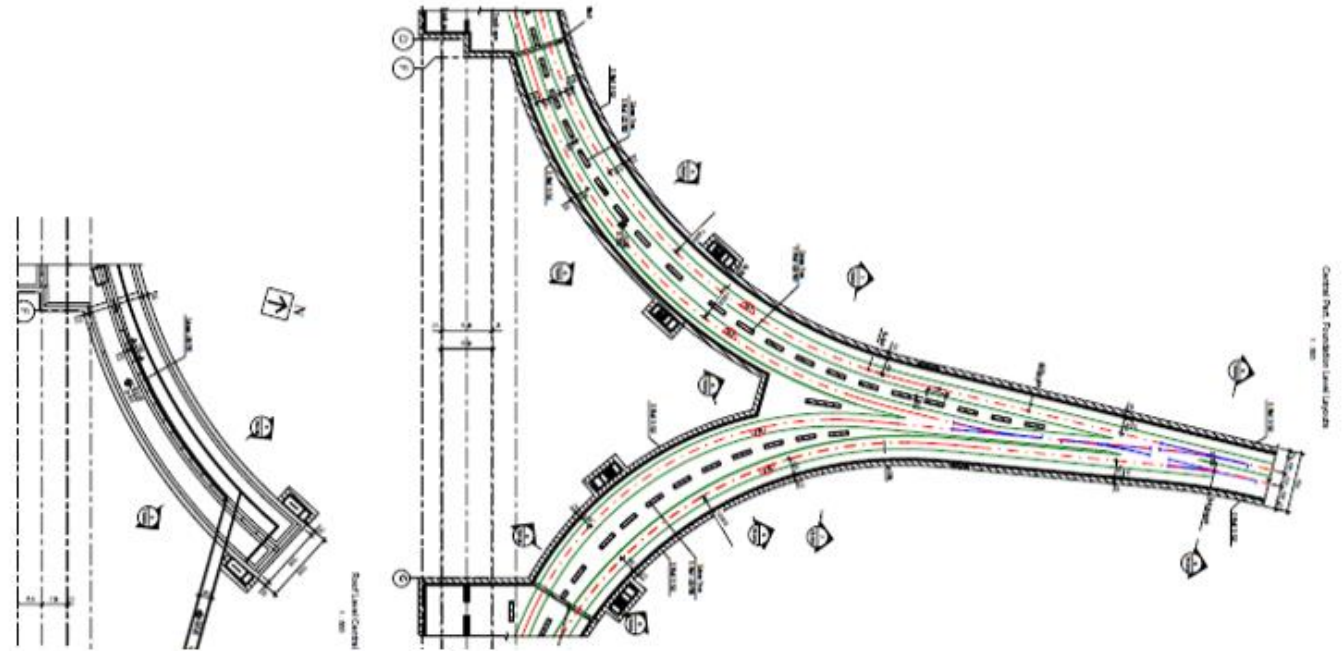
LAUNCHING	RETRIEVING	LENGTH [KM]
Ariel Sharon Park Station	Shlomo Hamelech	5.6
Kfar Ganim Cross-over -South	Shlomo Hamelech	2.04
Elements length		2.05
Total		9.7

Line M3 - Infra 1 WP1 Special Operational Elements



Shlomo HaMelech Crossover

- Depth- 31m | Width- 29m | Length- 180m
- Top Down | Temp. Support Method - D-Wall + Slabs
- D-Walls [Depth (Thickness)] – 50 (1.5) m
- Depth of Bottom Excavation - 30m



Track Junction to Depot

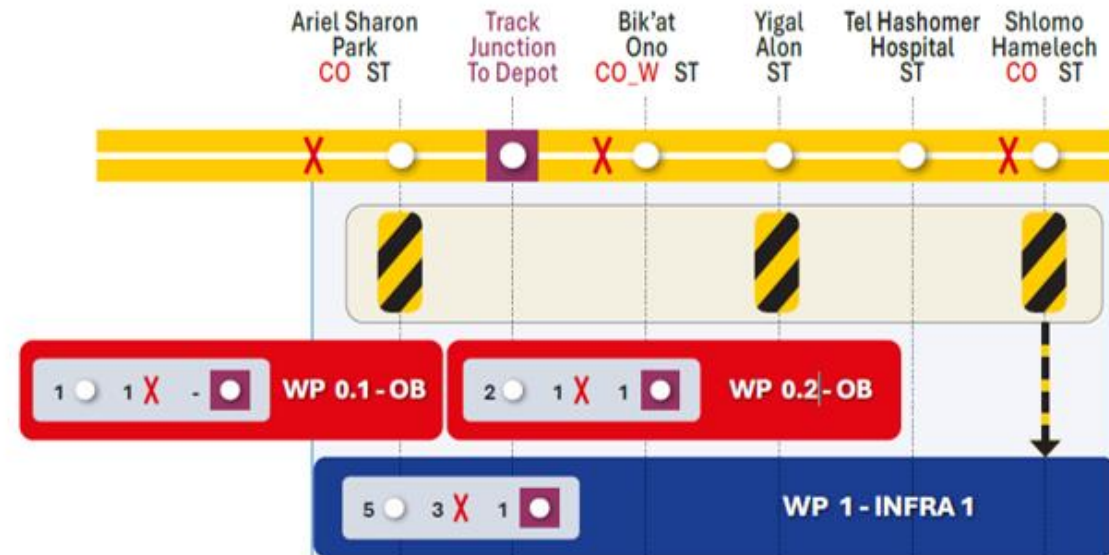
- Track Junction is located between Ariel Sharon Park to the west and Or Yehuda to the east. It forms the connection between the M3 Line and the Mesubim Depot through a track split.
- Depth-18m
- Width-30m
- East- 117m
- West-130m

Line M3 - Utilities Relocation execution prior to Infra 1



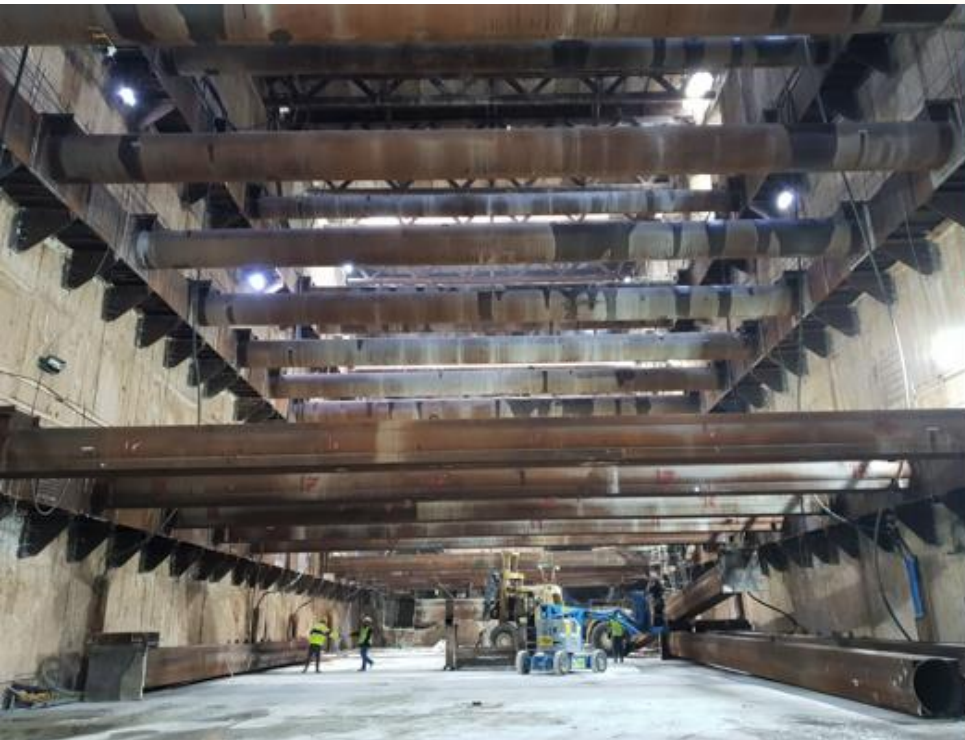
Early Utilities Relocation

The Utilities Contractors will hand over the sites and works to the WP 0.1-0.2 OB Contractors and/or WP1 Infra 1 Contractor upon accomplishing:



- Completion to the greatest extent possible of relocating various utilities outside the Station Box limits, to their final locations
- Demobilization of the Contractor's site
- Set of As-Built Drawings, Quality Control Doc., etc.

Line M3 - OB [WP0.1-0.2] execution prior to Infra 1

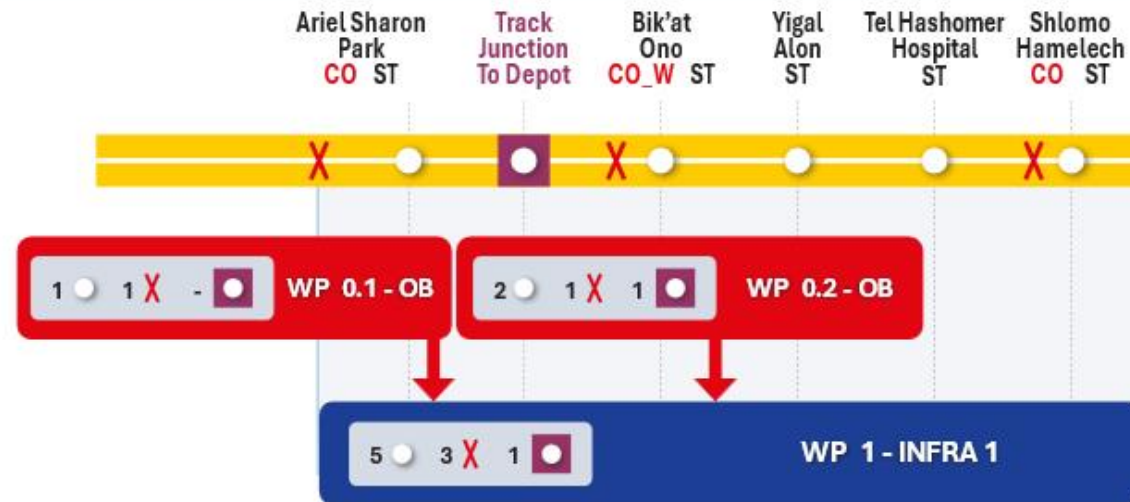


Outer Boxes Typology

CONSTRUCTION METHODOLOGY

“Bottom Up”

The Outer Box Contractors will hand over the Outer Boxes at 3 locations (out of 6) and the sites to the Infra 1 contractor upon accomplishing :



- Excavation and Support Structure | TBS (as defined)
- Full or Partial Dismantling of the Dewatering System
- Demobilization of the Contractor's site
- Set of As-Built Drawings, Quality Control Doc., etc.

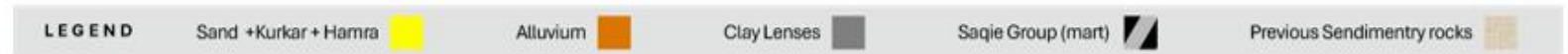
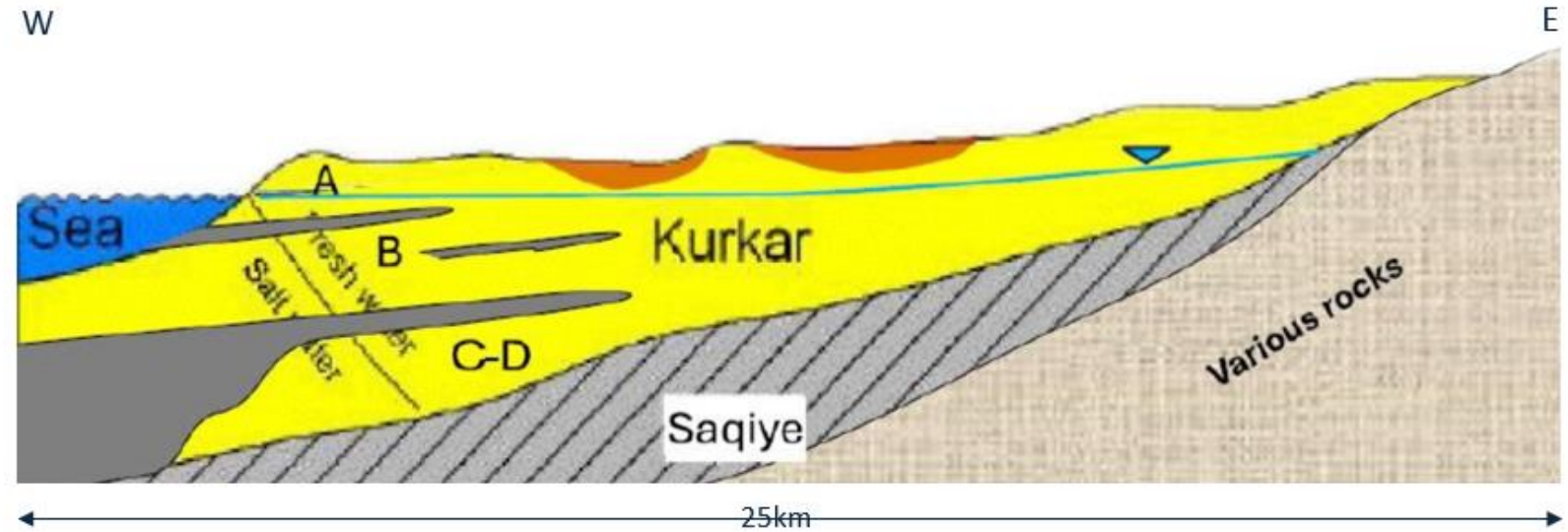
Line M3 - Infra 1 - Geological & Geotechnical profile

The M3 Line :

- Reaches a max. depth of ~50m.
- Runs within the Kurkar Group of ~100m depths of at least.

Kurkar Group Composition:

- Calcareous sandstone (Kurkar)
- Clayey to silty sand (Hamra)
- Loose dune sand
- Dark clays
- Silt and marls

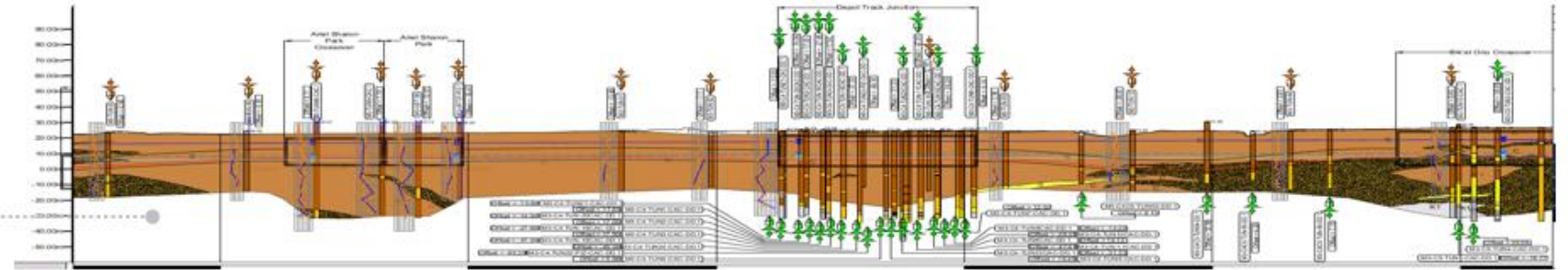


Tests Done along the line	Numbers
Typical station	8
Typical tunnel section	9

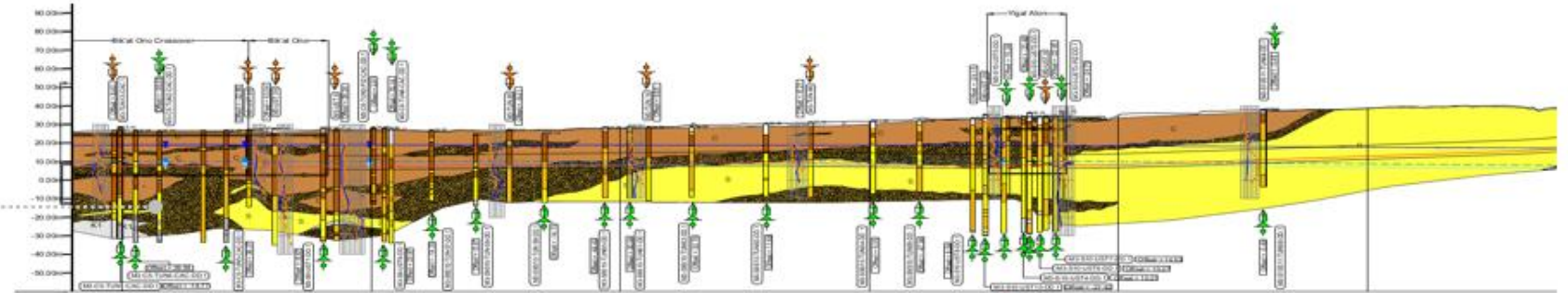
Tests Done along the line	Numbers
Boreholes	470
Lab testing	320

Line M3 - Geological & Geotechnical profile

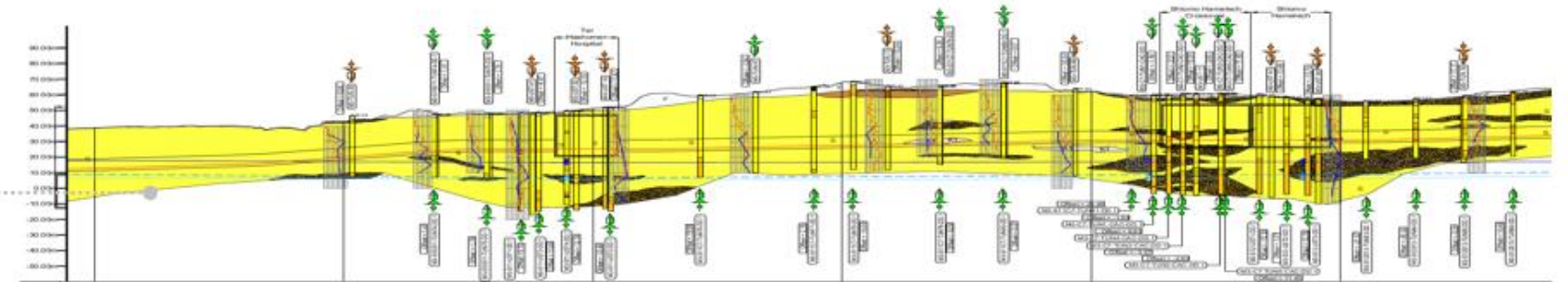
Ariel Sharon - Bikat Ono



Bikat Ono - Yigal Alon



Yigal Alon - Shlomo Hamelech



LEGEND

Fill

Clay

Sand
Fines content <12%

Clayey sand
Fines content between
12 and 35%

Calcareous sand to sandstone:
Kurkar K1
Carbonate content between 10 and 20

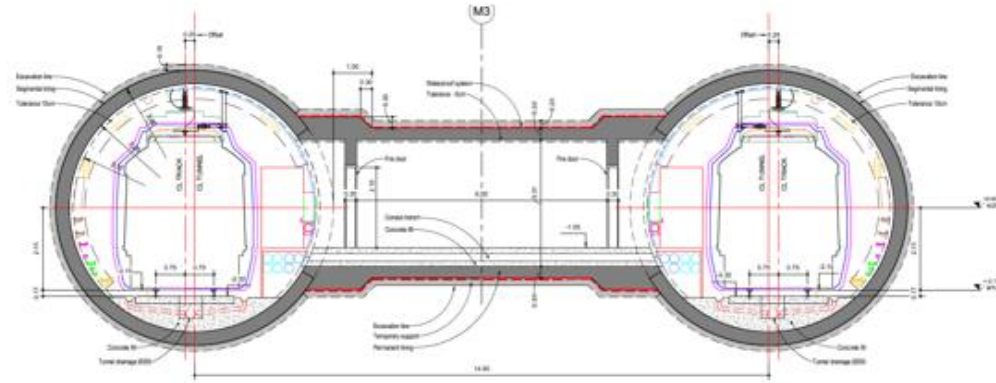
Calcareous sand to sandstone:
Kurkar K2/K3
Carbonate content between 20 and 40%

Calcareous sand to sandstone:
Kurkar K4
Carbonate content >40%

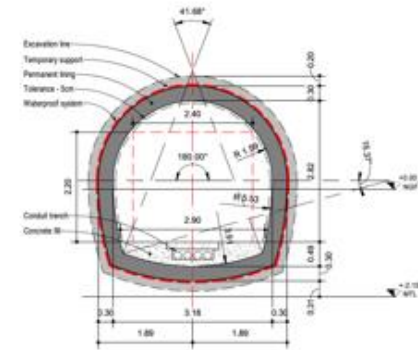
Line M3 - Design in Progress

DESIGN IN PROGRESS

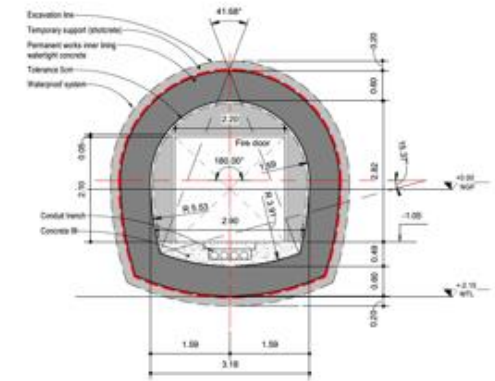
Cross Passages



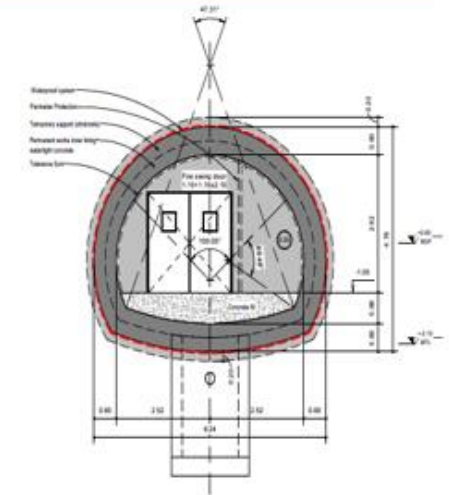
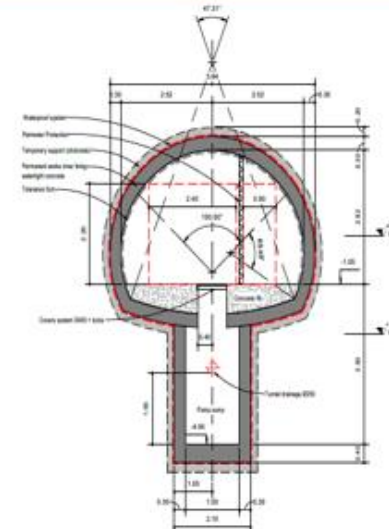
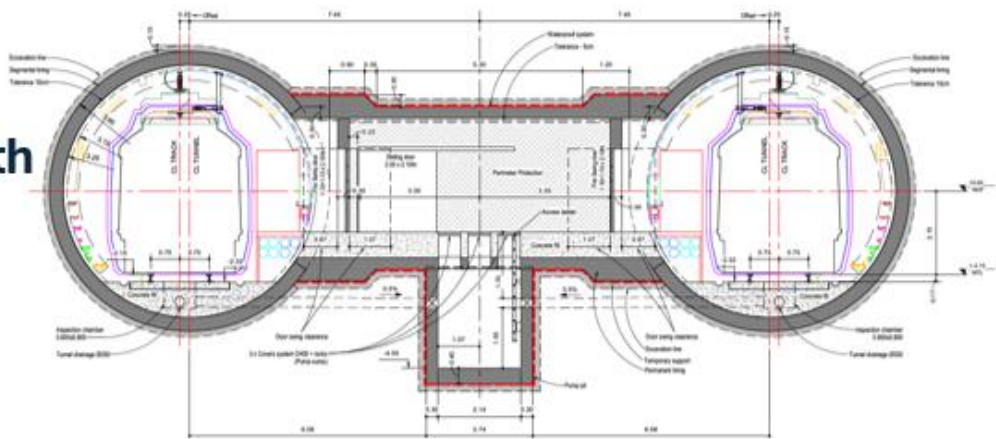
Section C2 ECH : 1 : 50



Section C3 ECH : 1 : 50



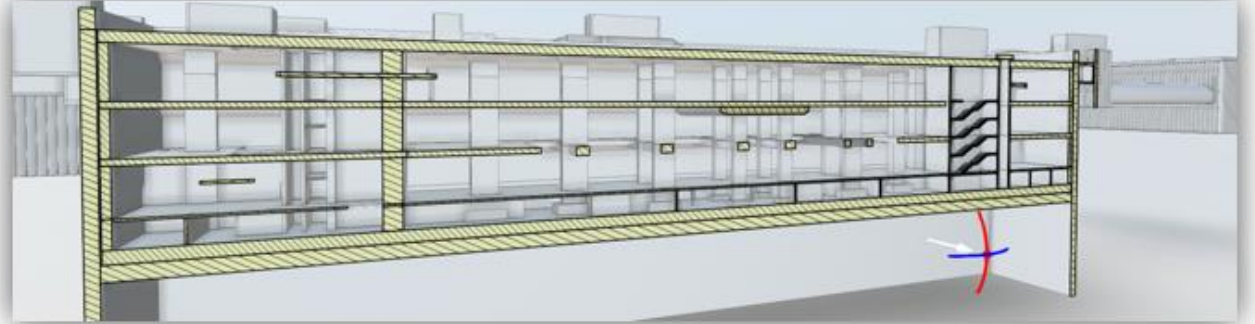
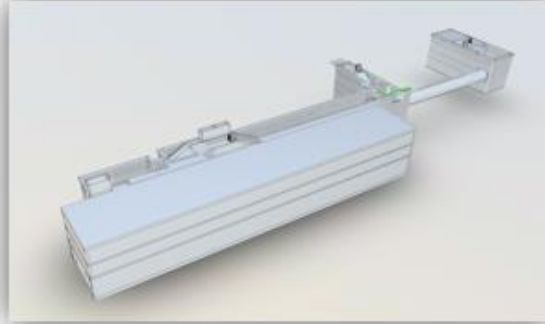
Cross Passages with Sump Pit



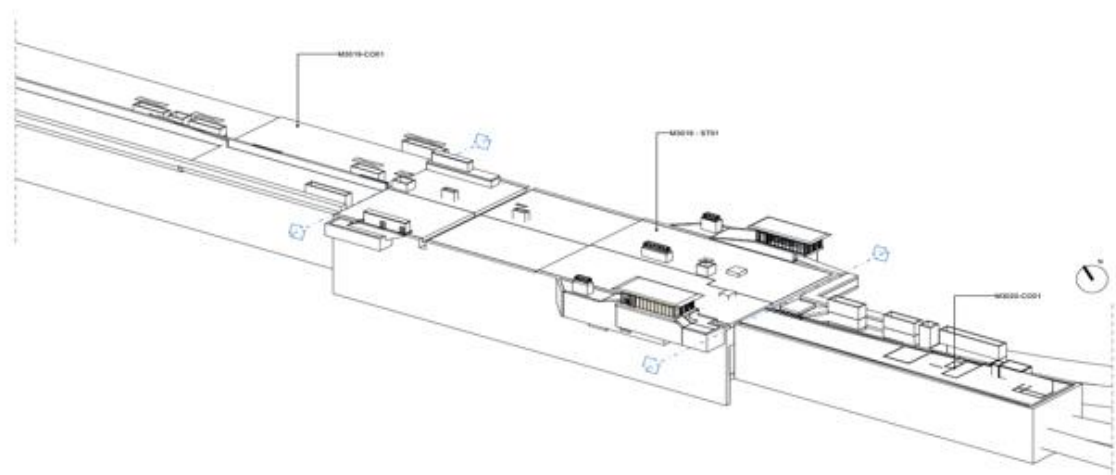
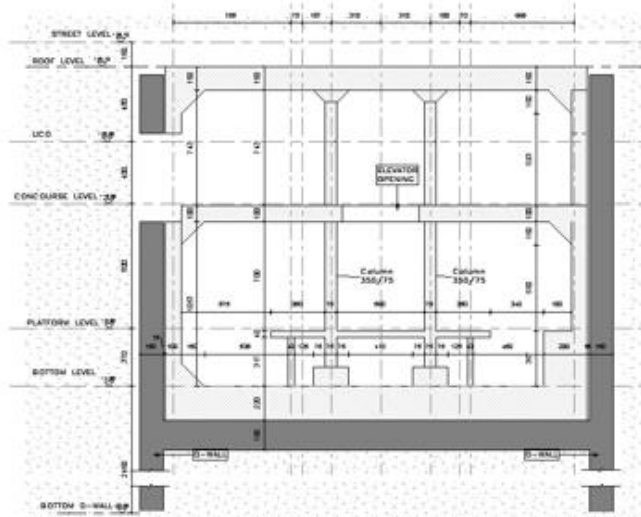
Line M3 - Design in Progress

DESIGN IN PROGRESS

**Yigal Alon
Station**



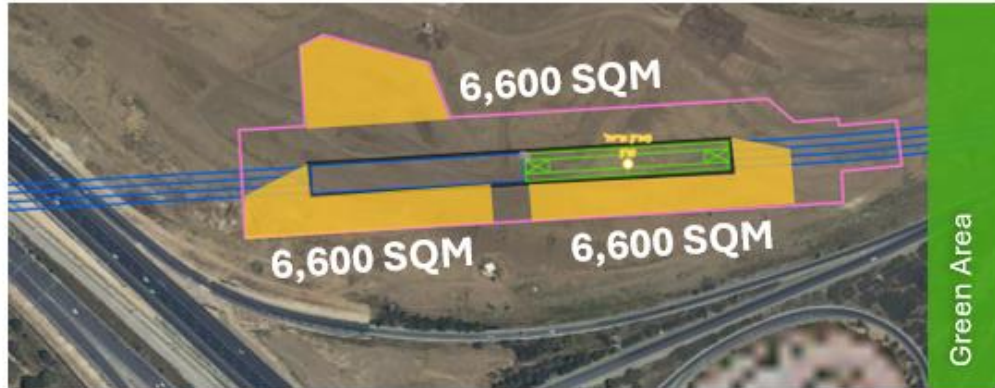
**Bikat Ono
Station**



WP1 INFRA 1

Logistics

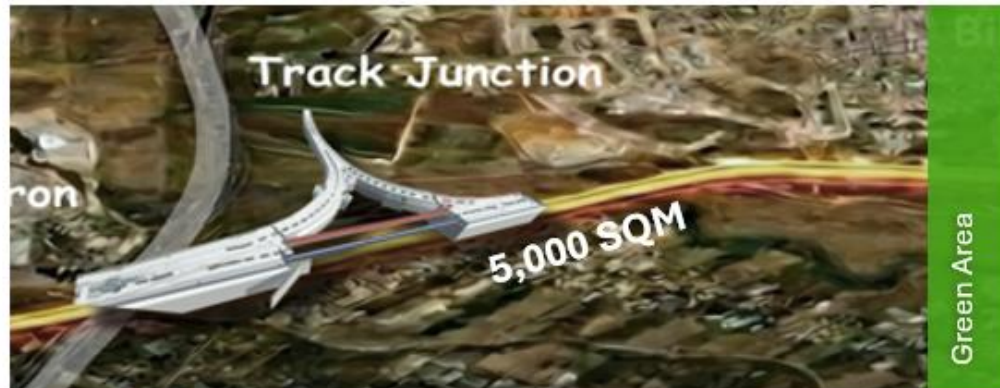
Line M3 - Logistics Availability



ARIEL SHARON PARK
Station and Chamber | TBM | Mobilization and Logistic Areas



BIKAT ONO STATION AND CHAMBER
Mobilization Area + Logistic Site



DEPOT TRACK JUNCTION
Mobilization Area

Line M3 - Logistics Availability



SHLOMO HAMELECH STATION & CROSSOVER KIRYAT ONO
Mobilization Areas

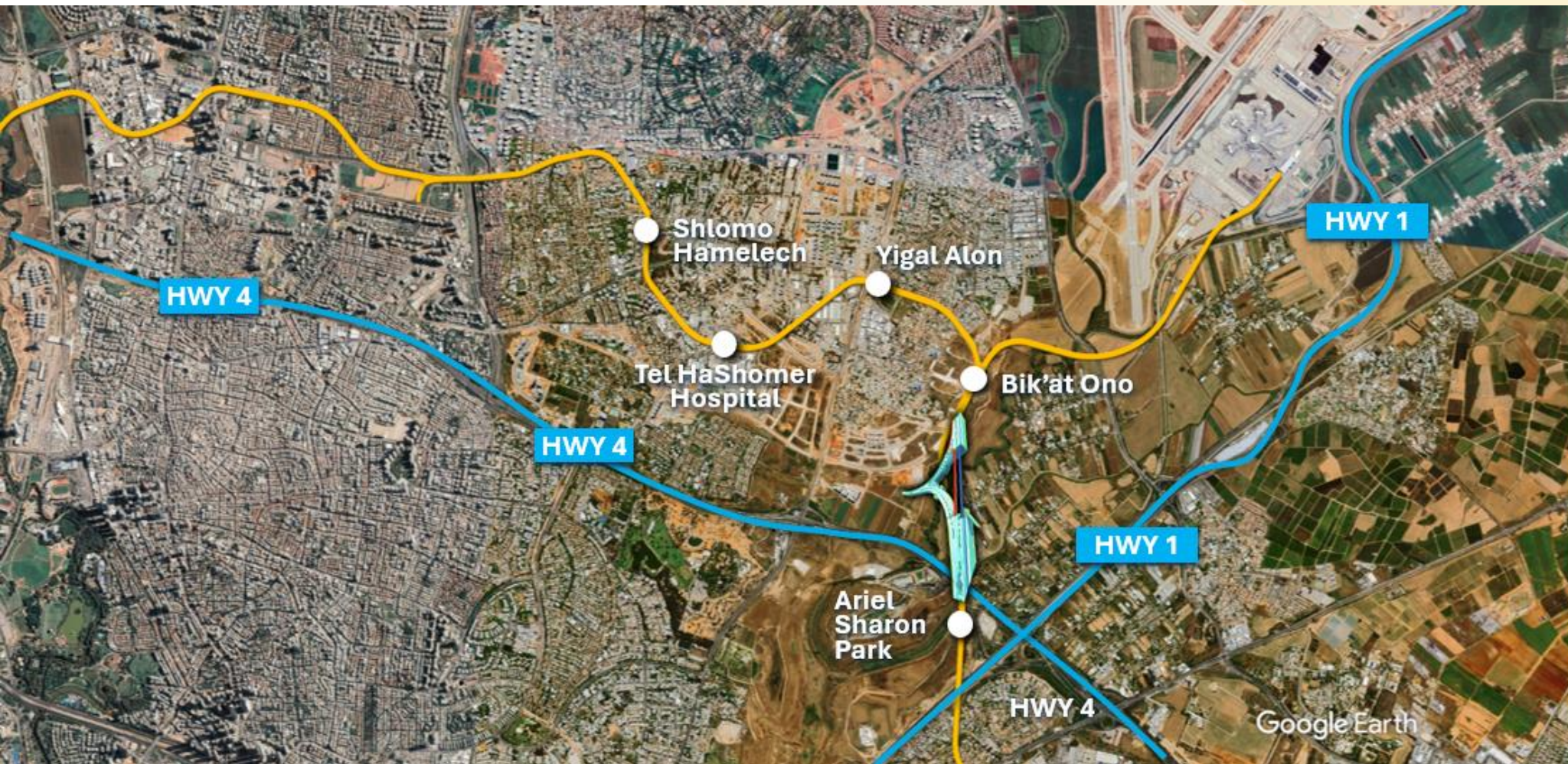


YIGAL ALON STATION
Mobilization Areas



TEL HASHOMER HOSPITAL STATION
Mobilization Area

Line M3 - GIS View



Line M3 - Logistics



**Sufficient Space
For Logistics**

**Convenient
Access For
Construction
Sites**

LEGEND

Logistic Site	Concrete Plant
	Mobilization Area

Line M3 - Logistics



In addition,
feasibility for
concrete plants
at 3 locations

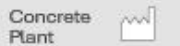
LEGEND

Logistic Site



Concrete Plant

Mobilization Area



POTENTIAL "Logistical Hub" being designed at Park Ariel Sharon – Total 690,000 m2



Basic functions:

- Administration
- Segment factory & storage
- Muck treatment area
- Logistical Area for additional uses
- Soil storage
- Concrete plant
- Connection to Israel heavy rail network
- Employee housing for up to 1000 workers

LEGEND

Initial Planning Polygon



WP1 INFRA 1 **Summary**

Line M3 - Summary of Main Features

	Ariel Sharon CO	Ariel Sharon	Track Junction	<u>Bikat Ono</u> CO	<u>Bikat Ono</u>	Yigal Alon	Tel Hashomer Hospital	Shlomo Hamelech CO	Shlomo Hamelech
Station Typology		3 Levels columns			Transfer	3 Levels columns	Grade concourse		3Levels
Outer Box – D-Walls	OB	OB	44 (1.2)/28	OB	OB	OB	44 (1.2)/28	50 (1.5)/33	47 (1.5)/31
TBS				OB	OB	OB			
Dewatering	SP	SP	SP	D-OB	D-OB	D-OB	NoGWC	NoGWC	NoGWC
Temporary Deck								V	V
Temporary Traffic Arrangements	FTD	FTD	FTD	FTD	FTD	FTD	FTD	2 TTA	4 TTA
Contaminated Soil Removal			Suspected			Suspected	V		

OB Done by OB	L E G E N D
DWALLS Depth, Thickness, Bottom Excavation	
CUSTOM	
FTD Full Traffic Diversion	
D-OB Dry after OB	
SP Sump Pump	
NoGWC No Ground Water Control	

Line M3 - Our Primary Objective

- Robust WP1 Infra1 Tender that is attractive to bidders, enabled by:

STATION-BOX- FIRST

unlocks TBM advance and
optimises project resources

Early Utilities Relocation and Outer Boxes INITIALIZED

faster mobilization, and
earlier construction start

LOGISTICS STREAMLINED

greenfield/open-terrain sites
with minimal traffic
disruption

Possible efforts have been made to optimize the delivery towards success!

Thank You & Shalom



Metro





PRE-QUALIFICATION CONFERENCE

INTERNATIONAL PANEL



PRE-QUALIFICATION CONFERENCE



MARIANNE SENECHAL
TECHNICAL DIRECTOR
EGIS / METAV



COLIN GRADWELL
SYSTEMS ENGINEERING,
INTEGRATION &
ASSURANCE DIRECTOR
WSP



ROBERTO NASSI
PROJECT LEAD DESIGNER, M1
METRO MILANO S.A.P / METPRO DMY

**Thank you &
Bon Appétit**

