

URBAN RAILWAY NETWORK DEVELOPMENT PLAN IN HANOI

Hanoi, 2018

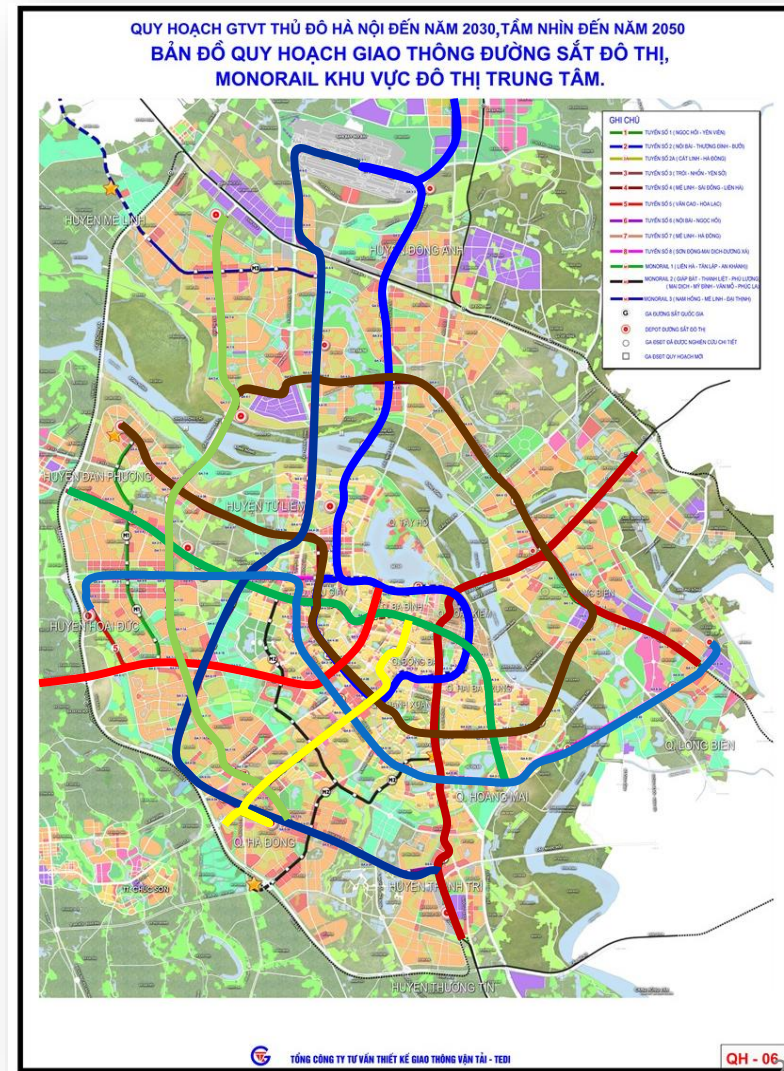
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PLANNED URBAN RAILWAY NETWORK IN HANOI

Decision 519/QĐ-TTg 31/3/2016 của Thủ tướng CP

Nine (9) urban railway lines will be developed in Hanoi. Besides, there will be three (3) monorail lines, eight (8) BRT lines, which will support the urban railway network and will be converted to urban railway in the future.

No.	Line	Alignment	Length (km)		
			EI	Ug	Total
1	Line 1	Ngọc Hồi - Yên Viên - Như Quỳnh			
		- Ngọc Hồi - Yên Viên	28.6		36.0
		- Gia Lâm - Dương Xá	7.4		
2	Line 2	Nội Bài - Thượng Đình - Bưởi			
		- Đoạn Nam Thăng Long - Trần Hưng Đạo	2.6	8.9	
		- Đoạn Trần Hưng Đạo - Thượng Đình		5.9	
		- Đoạn Thượng Đình - Ring Road 2.5 - Bưởi		7.0	52.0
		- Đoạn Nội Bài - Nam Thăng Long	14.0	3.4	
		- Kéo dài Line 2 đến Sóc Sơn	10.2		
3	Line 2A	- Line 2A (Cát Linh - Hà Đông)	13.0		33.0
		- Extension of Line 2A to Xuân Mai	20.0		
4	Line 3	Trôi - Nhổn - Yên Sở			
		- Nhổn – Hanoi Station	8.9	3.6	
		- Hanoi Station - Hoàng Mai (Yên Sở)		7.3	55.7
		- Trôi - Nhổn	5.9		
		- Extension of Line 3 to Sơn Tây	30.0		
5	Line 4	Mê Linh - Sài Đồng - Liên Hà	41.0	13.0	54.0
6	Line 5	Văn Cao - Hòa Lạc			
		- Văn Cao – Ring Road 4	8.8	6.2	38.4
		- Line 5 (Ring Road 4 - Hòa Lạc)	23.4		
7	Line 6	Nội Bài - Ngọc Hồi	44.9	3.1	48.0
8	Line 7	Mê Linh - Hà Đông	28.0		28.0
9	Line 8	Sơn Đồng - Mai Dịch - Dương Xá			
		- Sơn Đồng - Mai Dịch	12.0		39.1
		- Mai Dịch – Ring Road 3 - Dương Xá	6.8	20.3	
10	Satellite line	Sơn Tây - Hòa Lạc - Xuân Mai (linking satellite towns)	32.0		32.0
Total			337.5	78.7	417.8



Urban Railway Development Road Map

No	Line	Alignment	Target period	Funding Sources
1	Line 1	Ngọc Hồi - Yên Viên - Như Quỳnh		
		- Ngọc Hồi - Hanoi - Yên Viên	2017-2025	Japanese ODA
		- Gia Lâm - Dương Xá	After 2025	
2	Line 2	Nội Bài - Thượng Đình - Bưởi		
		- Nam Thăng Long - Trần Hưng Đạo	2018-2024	Japanese ODA
		- Trần Hưng Đạo - Thượng Đình	2021-2025	PPP
		- Thượng Đình – Ring Road 2.5 - Bưởi	2025-2030	PPP
		- Nội Bài - Nam Thăng Long	2021-2030	PPP
		- Extension of Line 2 to Sóc Sơn	After 2030	PPP
Line 2A	- Cát Linh - Hà Đông	2012-2019	Chinese ODA	
	- Extension of Line 2A to Xuân Mai	2025-2030		
3	Line 3	Trôi - Nhỏ - Yên Sở		
		- Nhỏ - Hanoi Station	2016-2022	French ODA, ADB,EIB,AFD
		- Hanoi Station - Hoàng Mai	2021-2025	PPP
		- Nhỏ – Phùng	2025-2030	PPP
		- Phùng - Sơn Tây	2025-2030	PPP
4	Line 4	Mê Linh - Sài Đồng - Liên Hà	2025 - 2030	PPP
5	Line 5	Văn Cao - Hòa Lạc		PPP
		- Văn Cao - Ring Road 4	2020-2025	
		- Ring Road 4 - Hòa Lạc	2020-2030	
6	Line 6	Nội Bài - Ngọc Hồi		
		- Nội Bài - Phú Diễn;	2021-2025	PPP
		- Phú Diễn - Hà Đông - Ngọc Hồi	2025-2030	PPP
7	Line 7	Mê Linh - Hà Đông	2020-2030	PPP
8	Line 8	- Sơn Đồng - Mai Dịch	2025-2030	PPP
		- Mai Dịch - Ring Road 3 - Dương Xá	2021-2025	PPP

II CURRENT STATUS OF URBAN RAILWAY PROJECTS

Lines with approved development projects

No.	Line	Length (km)			Status
		Elev-ated	Under ground	Total	
					triển khai
1	Line 2A: Cát Linh - Hà Đông	13.0		13.0	Ongoing
2	Line 3: Nhổn – Hanoi station	8.9	3.6	12.5	Ongoing
3	Line 1: Ngọc Hồi - Yên Viên	28.6			Project under revision
4	Line 2: Nam Thăng Long - Trần Hưng Đạo	2.6	8.9	11.5	Project under revision
	Total			65.6	
	% to planned			16%	

II CURRENT STATUS OF URBAN RAILWAY PROJECTS

Lines currently under study

No.	Line	Length (km)			Status
		El.	Ug.	Total	
1	Line 2.2: Trần Hưng Đạo - Thượng Đình		5.9	5.9	under study by VINGROUP
2	Line 2.3: Nội Bài - Nam Thăng Long	14.0	3.4	17.4	Pre-FS under preparation with JICA's assistance
3	Line 3.2: Hanoi station - Hoàng Mai		8.7	8.7	Pre-FS under preparation with ADB's assistance
4	Line 3.3 - 3.4: Nhổn - RR4 - Sơn Tây	35.9		35.9	under study by T&T
5	Line 4 Mê Linh - Sài Đồng - Liên Hà	41.0	13.0	54.0	under study by T&T
6	Line 5 Văn Cao - Hòa Lạc	32.2	6.2	38.4	under study by VINGROUP
7	Line 6.1: Nội Bài - Phú Diễn	19.2	3.1	22.3	PT investment fund
8	Line 8 Sơn Đồng - Mai Dịch - Dương Xá	18.8	20.3	39.1	Pre-FS under preparation with KOICA's assistance
	Total	161.1	60.6	221.7	
	Chiếm tỷ lệ % theo quy hoạch			53%	

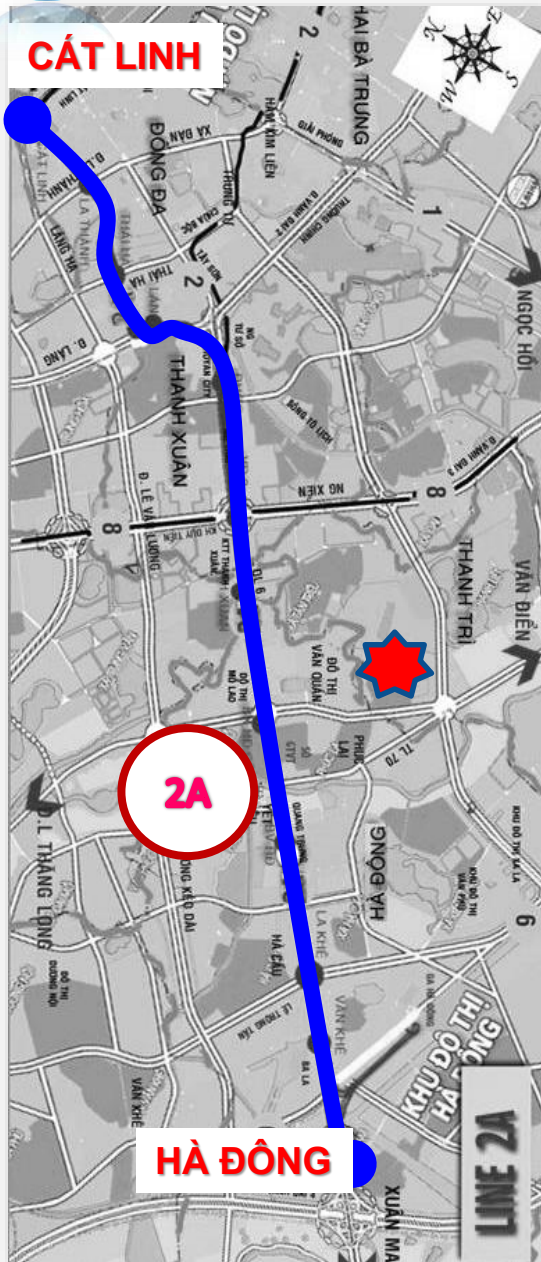
II TÌNH HÌNH TRIỂN KHAI CÁC Line ĐSĐT

Các Line chưa nghiên cứu

No.	Alignment	Length (km)			Status
		El.	Ug.	Total	
1	Line 2: Thượng Đình - Ring Road 2.5 - Hoàng Quốc Việt		7.0	7.0	2025-2030
2	Line 2: extension to Sóc Sơn	10.2		10.2	After 2030
3	Line 2A: extension to Xuân Mai	20.0		20.0	2025-2030
4	Line 6.2: Phú Diễn - Hà Đông - Ngọc Hồi	25.7		25.7	2025-2030
5	Line 7: Mê Linh - Hà Đông	28.0		28.0	2020-2030
6	Line Sơn Tây - Hòa Lạc - Xuân Mai	32.0		32.0	Sau 2030
	Total	115.9	7.0	122.9	

II

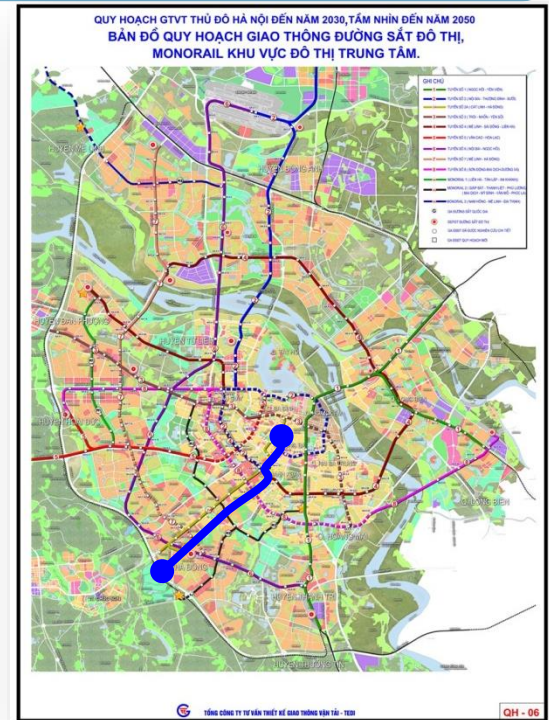
CURRENT STATUS OF URBAN RAILWAY PROJECTS



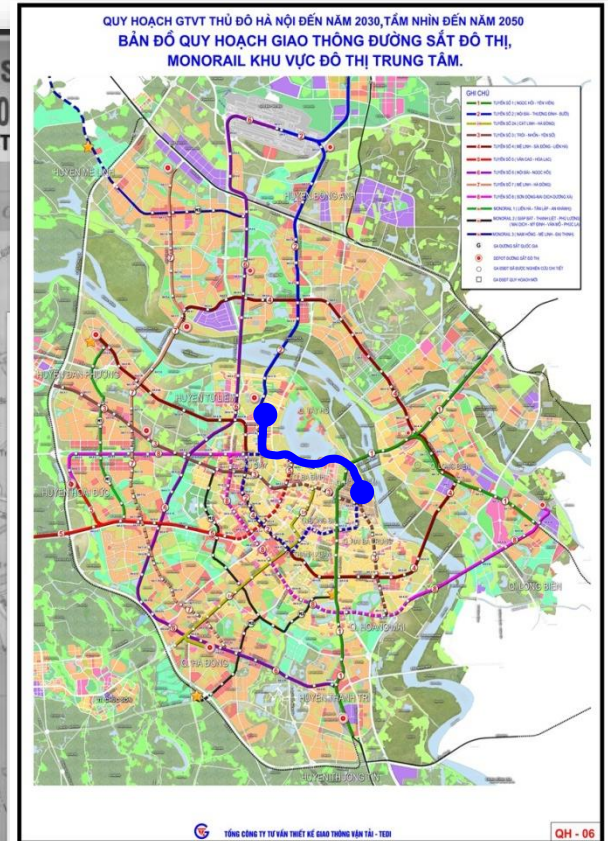
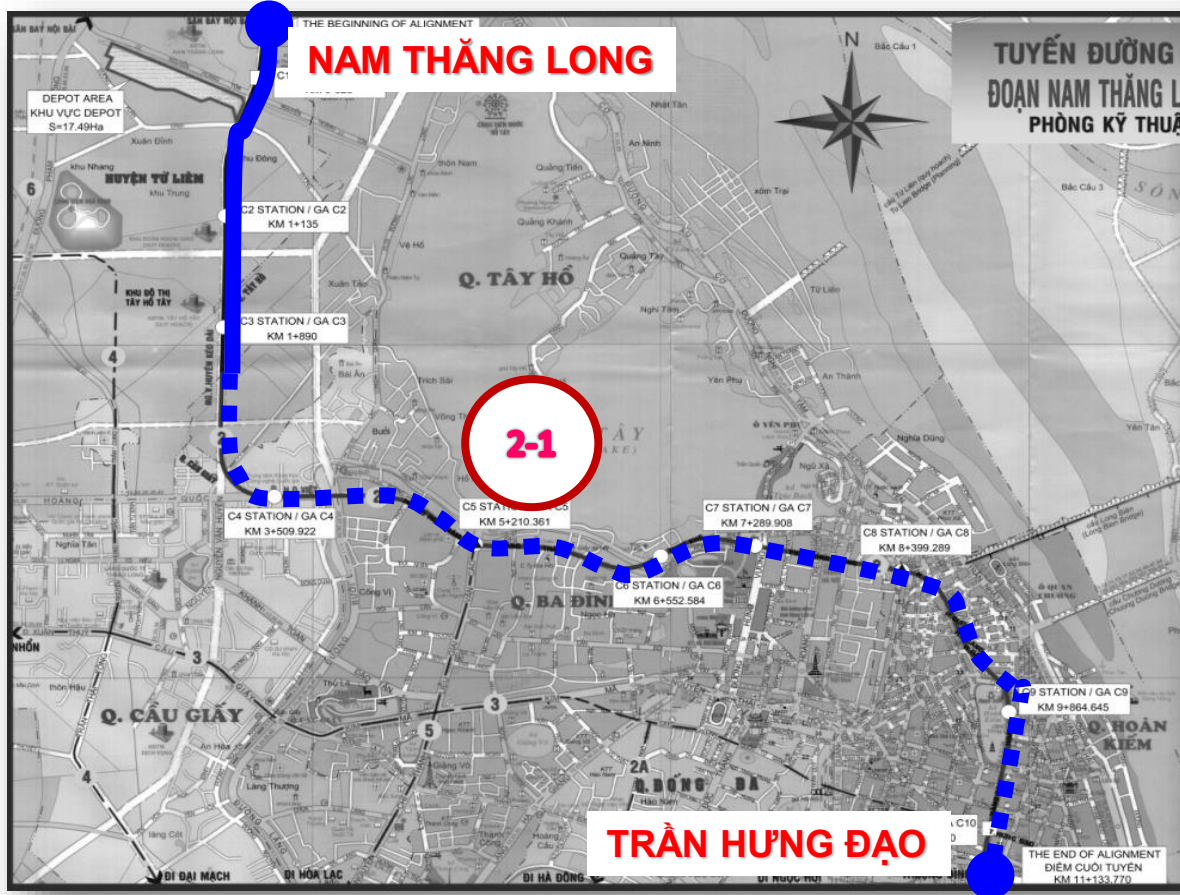
Line 2A Cát Linh - Hà Đông

PROFILE

- ✓ The line is about 13.05 km long, all elevated with 12 stations and 1 depot in Yen Nghia (Ha Dong district);
- ✓ Investor: Ministry of Transport; Representative of Investor: Railway Project Management Unit;
- ✓ Implementation status: At present, the 96% of the project has been completed, and test run is ongoing.



Line 2 - Nam Thăng Long - Trần Hưng Đạo

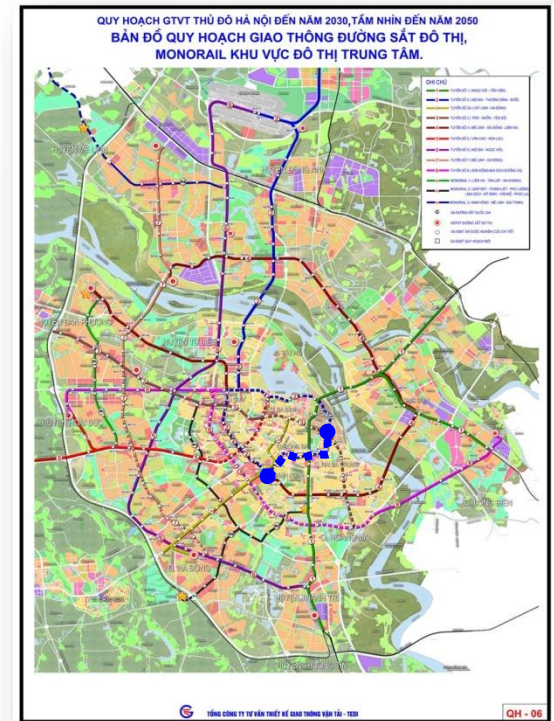
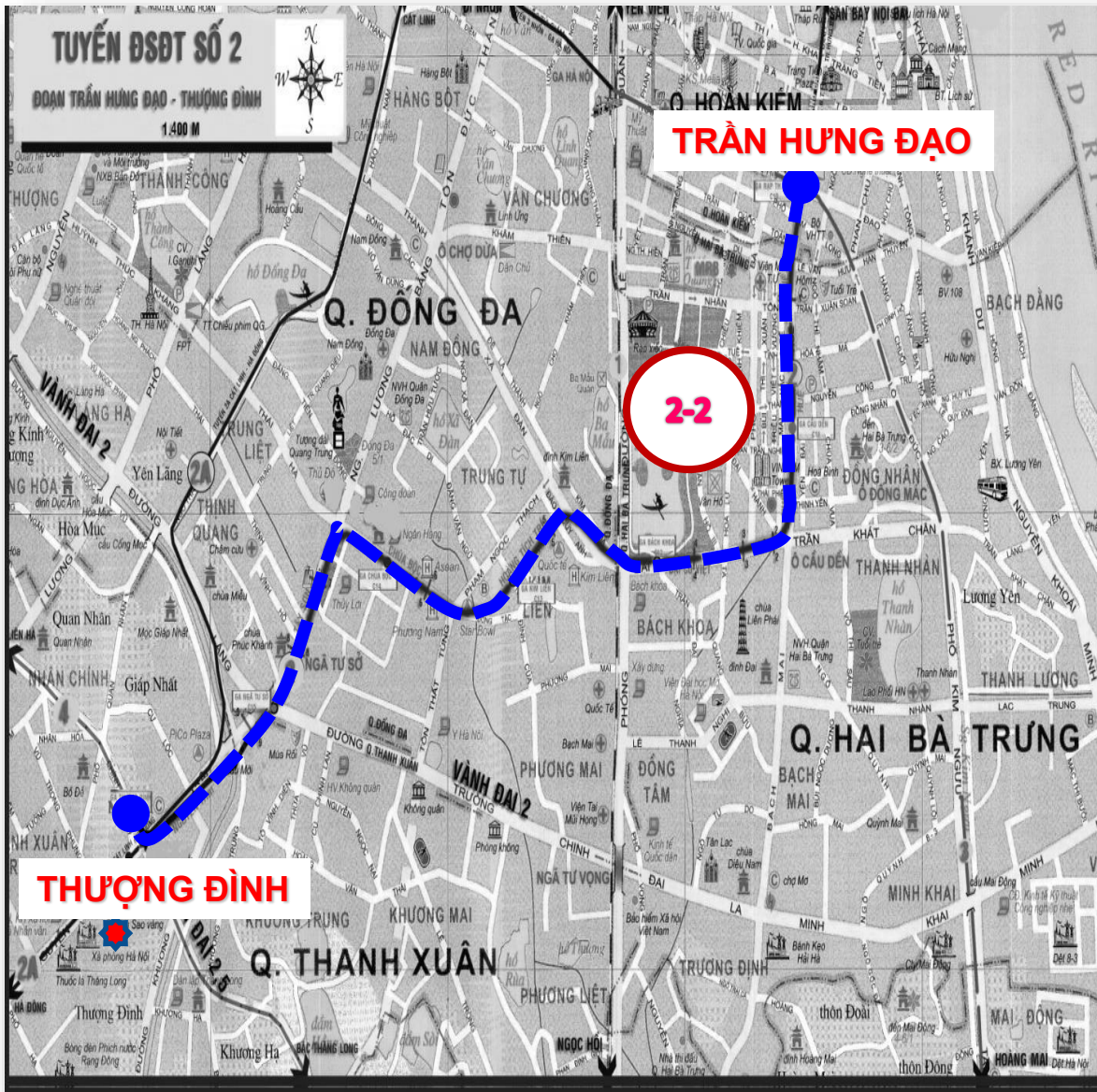


C9	GA HỒ HOÀN KIẾM
C10	TRẦN HƯNG ĐẠO STATION GA TRẦN HƯNG ĐẠO

PROFILE

- ✓ The total line length is 11.5Km (8.9 km underground and 2.6 km elevated), funded by Japanese ODA loan
- ✓ Total investment: Report submitted to the Government for approval of adjusted project's total costs
- ✓ Implementation situation: Technical design completed, prequalification conducted, approval of 9/10 station layout plan obtained; 86% of the Depot area made available; about 52% of the elevated section area and 28% of underground section made available

Line 2 - Trần Hưng Đạo - Thượng Đình

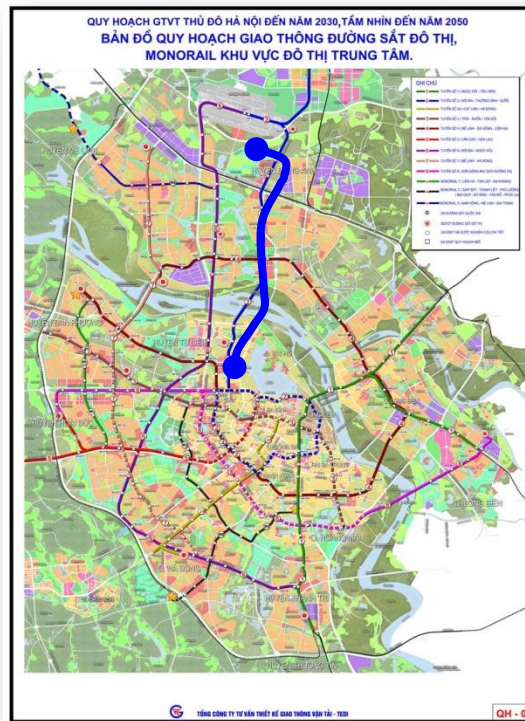


PROFILE

- ✓ Length: 6km;
- ✓ Estimated total investment cost: VND 27,814 billion (according to Pre-FS report, PPP scheme).
- ✓ Current status: Investor is preparing pre-FS report

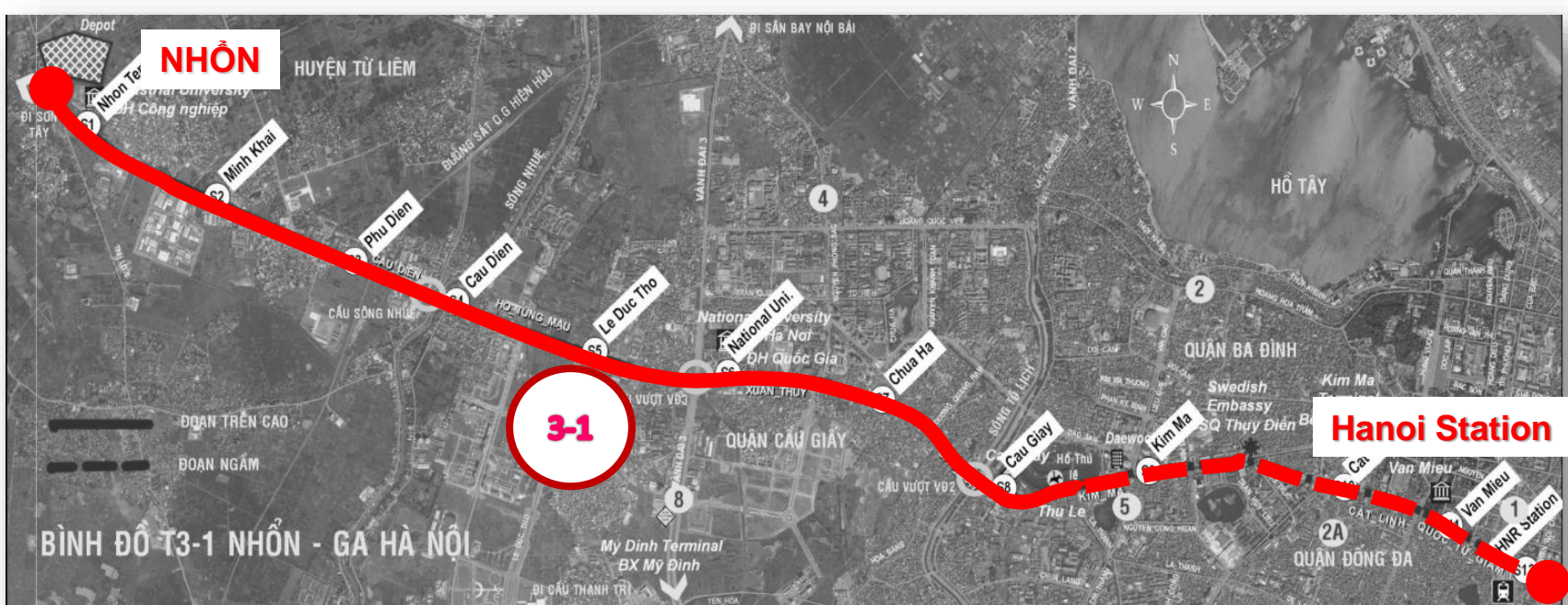


Line 2 - Nội Bài - Nam Thăng Long



PROFILE

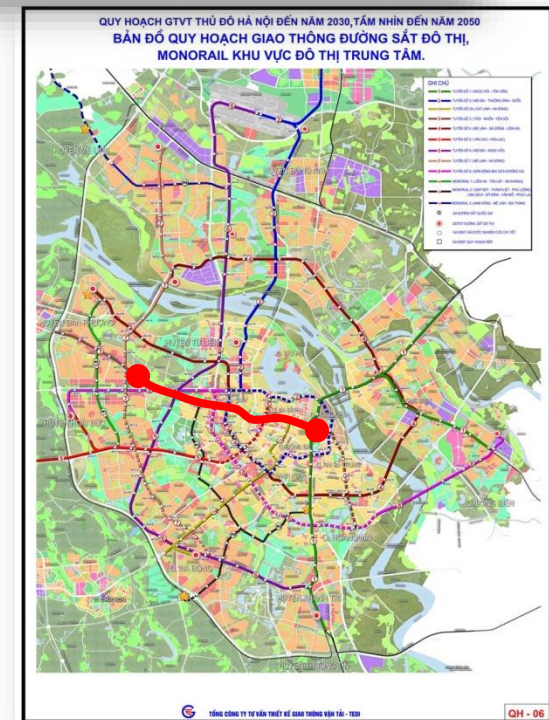
- ✓ Line is 18km long, runs elevated through districts of Tay Ho, Dong Anh and Soc Son and has 10 stations, 1 depot at Phu Lo.
- ✓ Total estimated investment: USD 1,698 million (According to Report 161/BC-UBND dated June 20, 2017).
- ✓ Current status: HPC and JICA signed a memorandum of cooperation to study and collect data as the basis for Hanoi city to prepare a pre-feasibility study report for the project. MBR coordinates with JICA Consultant to study



Line 3 - Nhon – Hanoi Station

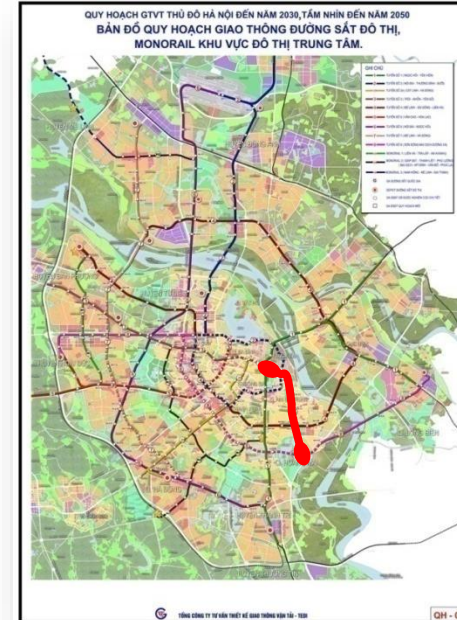
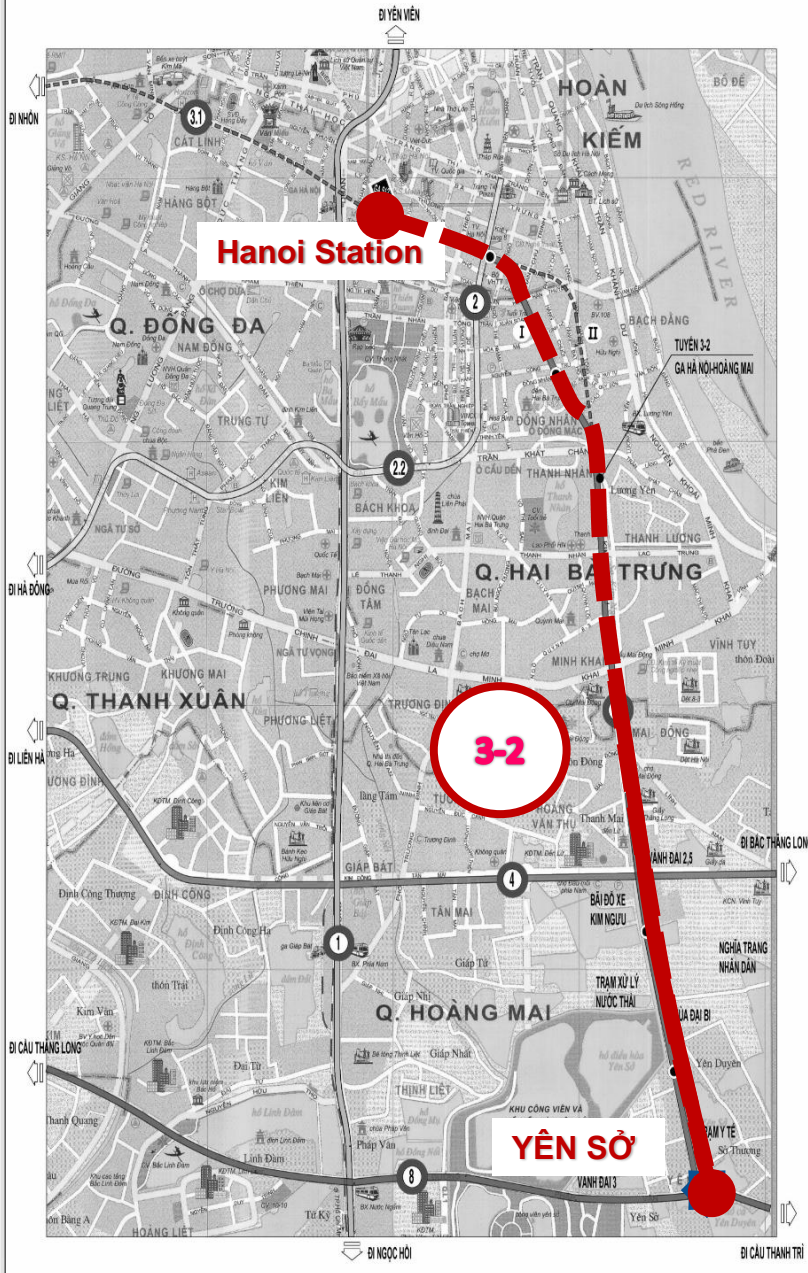
PROFILE

- ✓ The length is 12.5 km (8.9 km elevated, 3.6 km underground), there are 12 stations and 01 depot in Nhon.
- ✓ Total investment is VND 32,910 billion (Euro 1,176 million). Funding source: French ODA-AFD-ADB-EIB
- ✓ Current status: Construction period is 2009 - 2022. Currently under construction; the overall progress of the project to 12/2018 reaches 45%



Line 3

- Hanoi Station - Hoàng Mai (Yên Sở)

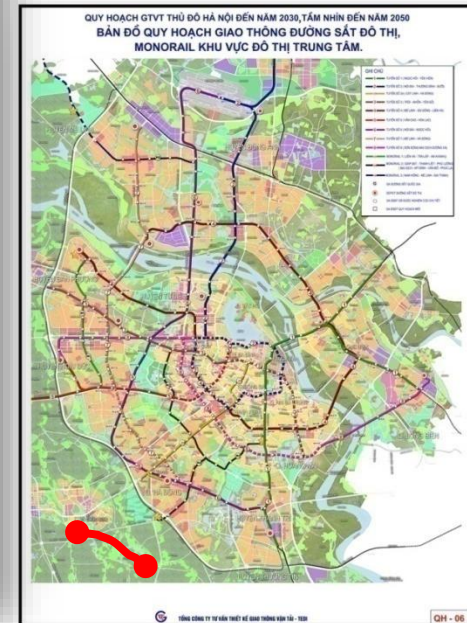
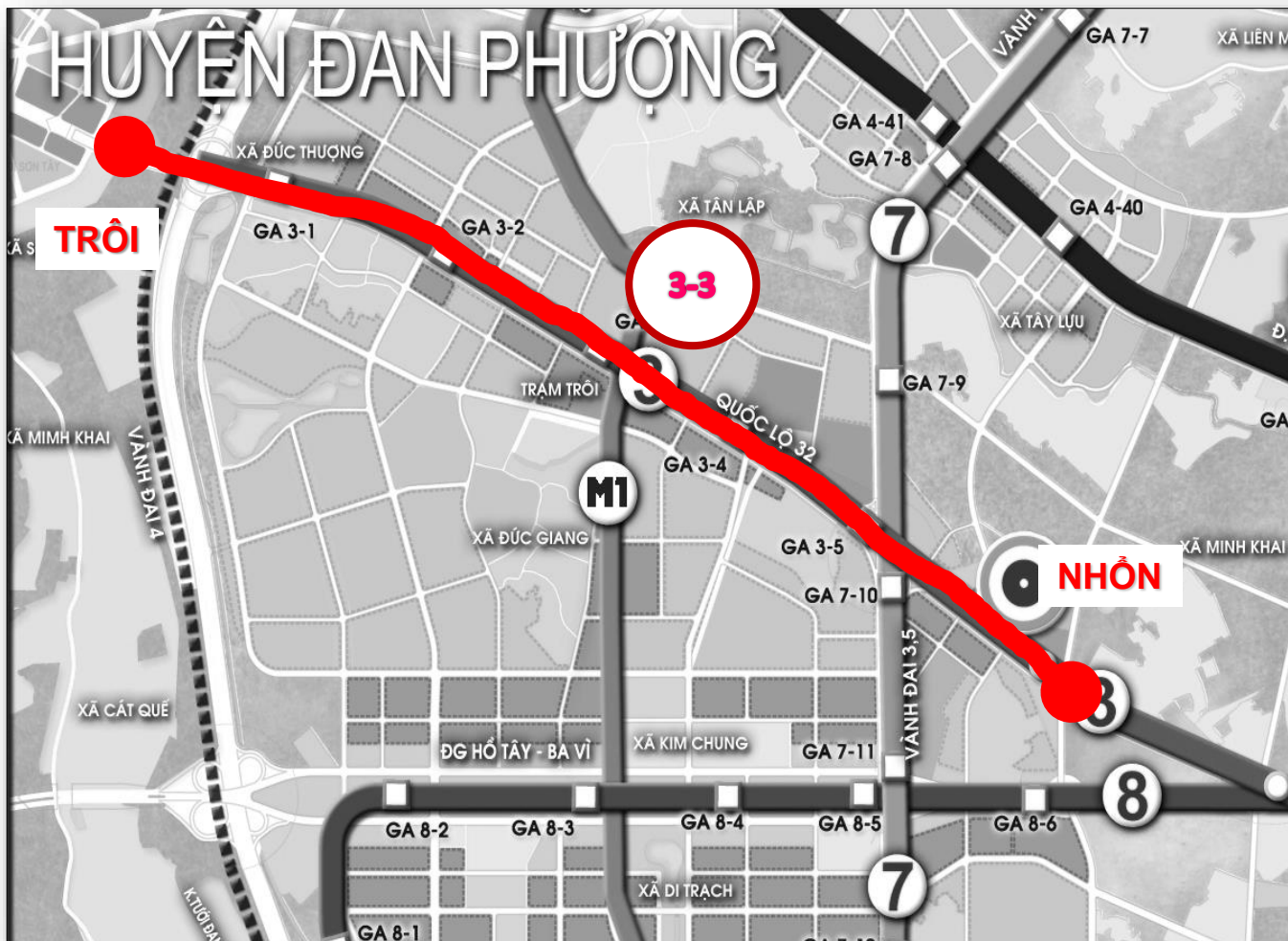


PROFILE

✓ The length is 8.5 km (5km underground, 3.5km at-grade), there are 7 stations

✓ Total estimated investment: VND 42,880 billion (according to the pre-feasibility study report, PPP plan);

✓ Current Status: Currently finalizing the pre-feasibility study report.



Line 3 - Trôi - Nhỏn

PROFILE

- ✓ The length is 5.9km, all elevated.
- ✓ Total estimated investment: USD 472 million USD (According to report 161 / BC-UBND dated June 20, 2017)
- ✓ Current status: At present, the line has been assigned by Hanoi City People's Committee to T&T Group for study

Challenges facing Urban Railway Projects in Hanoi

According to the Hanoi Transport Master Plan approved by the Prime Minister, the city has just started with 4 sections with combined length of 65.6 km (of 417.8 km - 16%). The fund need for implementation of remaining lines is huge - about US\$ 35 billion - while the government debt is too high for mobilization of government's fund for railway projects. The current optimal option is to implement projects in public-private partnership (PPP) scheme; however, PPP-based project implementation is a new practice in Vietnam.

Challenges facing Urban Railway Projects in Hanoi

Urban railway projects are new in Vietnam, so experience in implementation and management is limited, which leads to difficulties in project implementation .

Currently, common technical standards urban railways have not been approved. Thus, current implementation is basing on foreign standards according to commitments to respective donors of the lines (especially in terms of equipment and operation), so it is difficult to ensure integration among the lines during construction and implementation stage..

Challenges facing Urban Railway Projects in Hanoi

Transport-oriented development (TOD) is now the orientation in order to increase urban railway ridership, improve social and environmental conditions, recover investment costs through increased land value, and prepare institutional framework for private sector participation. However, currently only the general plan is available, while detailed plans for each lines are only prepared with feasibility study reports.

On the other hand, as no detailed plans are available for the entire urban railway system, land availability for construction is increasingly narrowed, encroached or overlapped by other earlier plans. Therefore, land acquisition also faces complications and difficulties, which leads to significantly prolonged project period.

**THANK YOU
FOR YOUR ATTENTION!**