



NUSANTARA
Capital City of Indonesia

MARKET BRIEFING FOR THE PROSPECTIVE INVESTOR

**TO DEVELOP THE FEASIBILITY STUDY (FS)
OF THE ROAD MASTER PLAN AND GRAND DESIGN MUT
IN THE NUSANTARA CAPITAL CITY**

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Purpose of Marketing Briefing

- To find the qualified prospective investor so that infrastructure road and MUT in Nusantara developed as targeted
- To make sure the sustainability by developing a robust Road Master Plan and grand design of MUT in IKN
- To provide investment opportunity for the prospective investor

CONTENT

1. OVERVIEW OF NUSANTARA

2. PROGRAMME VISION – PROJECT DETAILS – SCOPE OF WORK
ROAD AND MULTI UTILITY TUNNEL PLAN

3. PROJECT STRUCTURE - INCENTIVES - GOVERNANCE - INDICATIVE TIMELINE

4. SELECTION OF THE PROSPECTIVE INITIATING INVESTOR

5. Q/A



02

PROGRAMME VISION—PROJECT DETAILS—SCOPE OF WORK

Road and Multi Utility Tunnel Plan

Road and MUT Infrastructure are the key success factors to realise the early stages of the development of the following priority sectors in IKN

Priority Sectors
(short term)



Renewable Energy



Residential Settlements



Transportation



Telecommunications Network



Water Management



Waste Management

Priority Sectors
(long term)



Digital Technology Infrastructure



Commercial Infrastructure



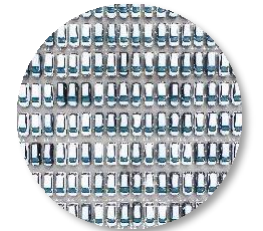
Health Facilities



Public and Social Facilities



Education Facilities



Green Industrial Zone

The availability of road infrastructure and MUT in IKN is in line with KPIs, the realization of which is bridged by investment in the sector

Nusantara KPIs

Sub-KPIs 2045

KIPP Development Target 2024-2025

KPIs are extracted from IKN Masterplan regulated in Perpres 63/2022

3 Connected, Active, and Easily Accesible

Nusantara as an accessible people-orientated city with active mobility

3.1 80% perjalanan dengan transportasi umum atau mobilitas aktif

3.2 10 menit ke fasilitas penting dan simpul transportasi publik

3.3 <50 menit koneksi transit ekspres dari KIPP ke bandara strategis pada tahun 2030

6 Safe and Affordable

Nusantara as a city with its infrastructure reaches all city facilities

6.1 Top-10 EIU Liveable City in the world by 2045

6.2 Existing and planned settlements in the 256K area have access to important infrastructure by 2045

6.3 Fair housing with a ratio of 1: 3: 6 for luxury, middle, and basic types

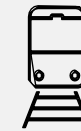
7 Comfortable and Efficient through Technology

Nusantara as a city that is efficient in utilising the latest technology

7.1 Achieving a very high ranking in E-Government Development Index (EGDI) from UN

7.2 100% digital and ICT connectivity for all residents and business

7.3 >75% Business satisfaction with Digital Services ranking



1. Road operates with some extent of pedestrian and cycling facilities, some main access roads (west side national axis) and some secondary local roads;

2. Availability of distribution network for basic infrastructure required in the urban ecosystem; including water, electricity, gas, fibre optic, and other utilities located within the MUT.

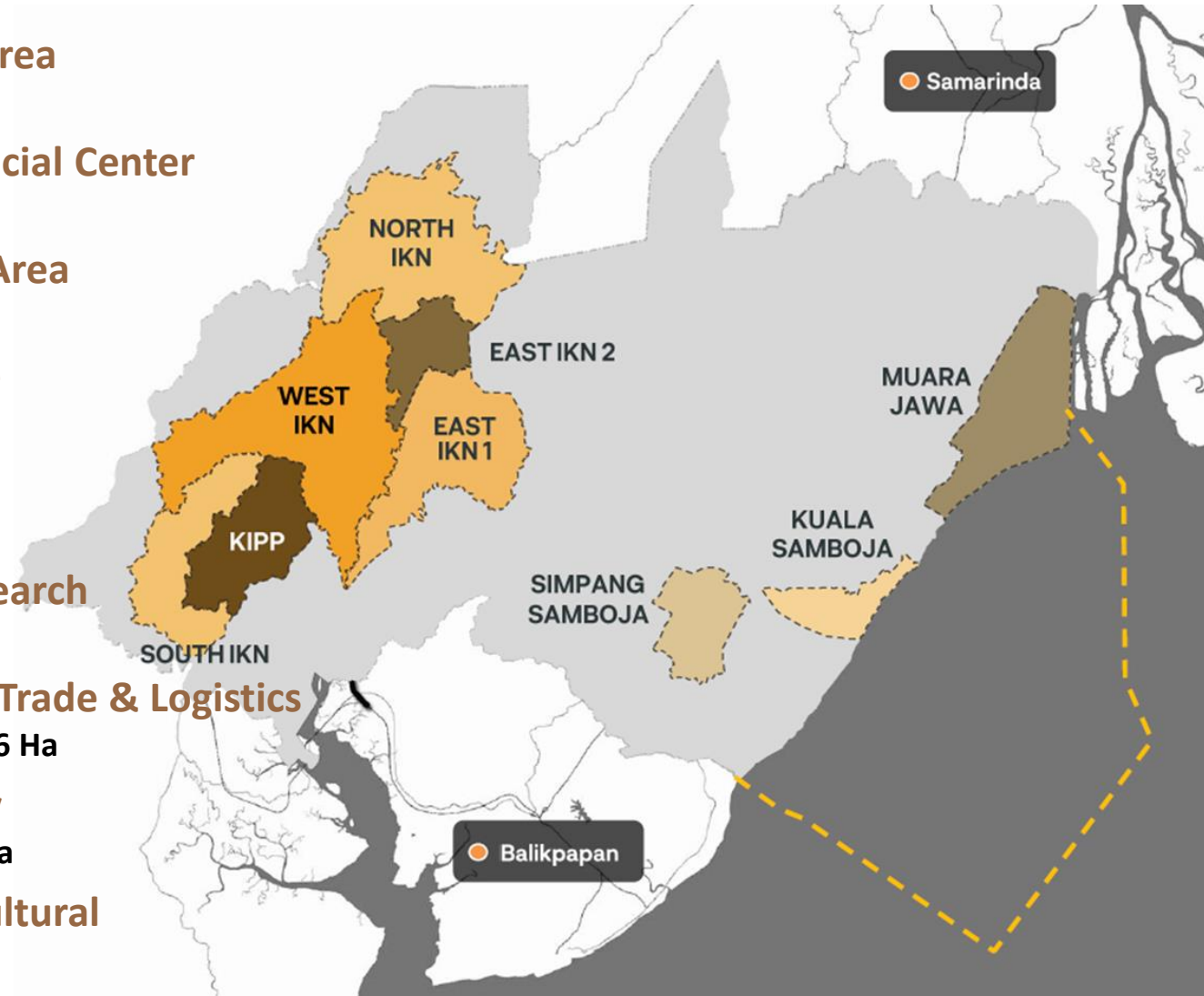


3. Initial construction of systems, control centres, telecommunications infrastructure and digital technology, and installation of supporting equipment for environmental quality monitoring and for multi-hazard early warning systems.

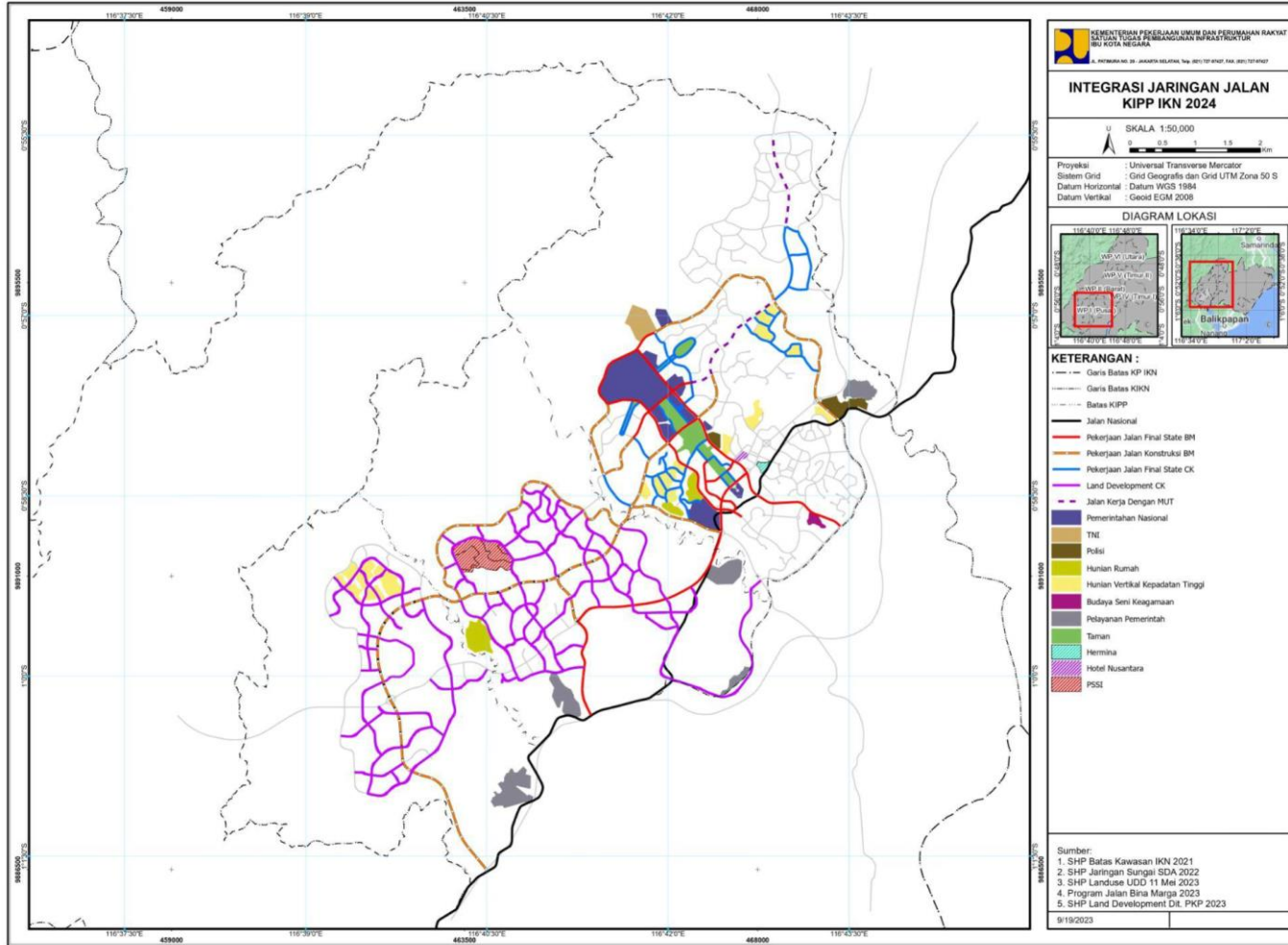
Investment information to be presented on the next slide

Development Areas | Nusantara's 9 Economic Generators

- 1 **Core Government Area**
KIPP – 6,671 Ha
- 2 **Economic and Financial Center**
West IKN – 17,206 Ha
- 3 **Renewable Energy Area**
South IKN – 6,753 Ha
- 4 **Tourism and Leisure**
East IKN 1 – 9,761 Ha
- 5 **Education Services**
North IKN – 12,067 Ha
- 6 **Innovation and Research**
East IKN 2 – 3,720 Ha
- 7 **Agro-commodities, Trade & Logistics**
Simpang Samboja – 2,986 Ha
- 8 **Agriculture Industry**
Kuala Samboja – 4,299 Ha
- 9 **Fisheries and Agricultural**
Muara Jawa – 9,084 Ha



- I The progression of development areas in IKN will require MUT as access for basic infrastructure
- II Currently, the construction process is focusing on the KIPP area, but the need for MUT will expand to the West IKN, East IKN, etc



1 Incomplete Road Network Planning

- ⊙ There are areas in **SWP 1A** that **have not been** included in road development planning by the **Ministry of PUPR**
- ⊙ **WP 2 (West IKN)** area has been identified to have parcel development plan by **investors**, but has **not been included** in the road construction planning by the **Ministry of PUPR**
- ⊙ There is no road network development plan for other WPs

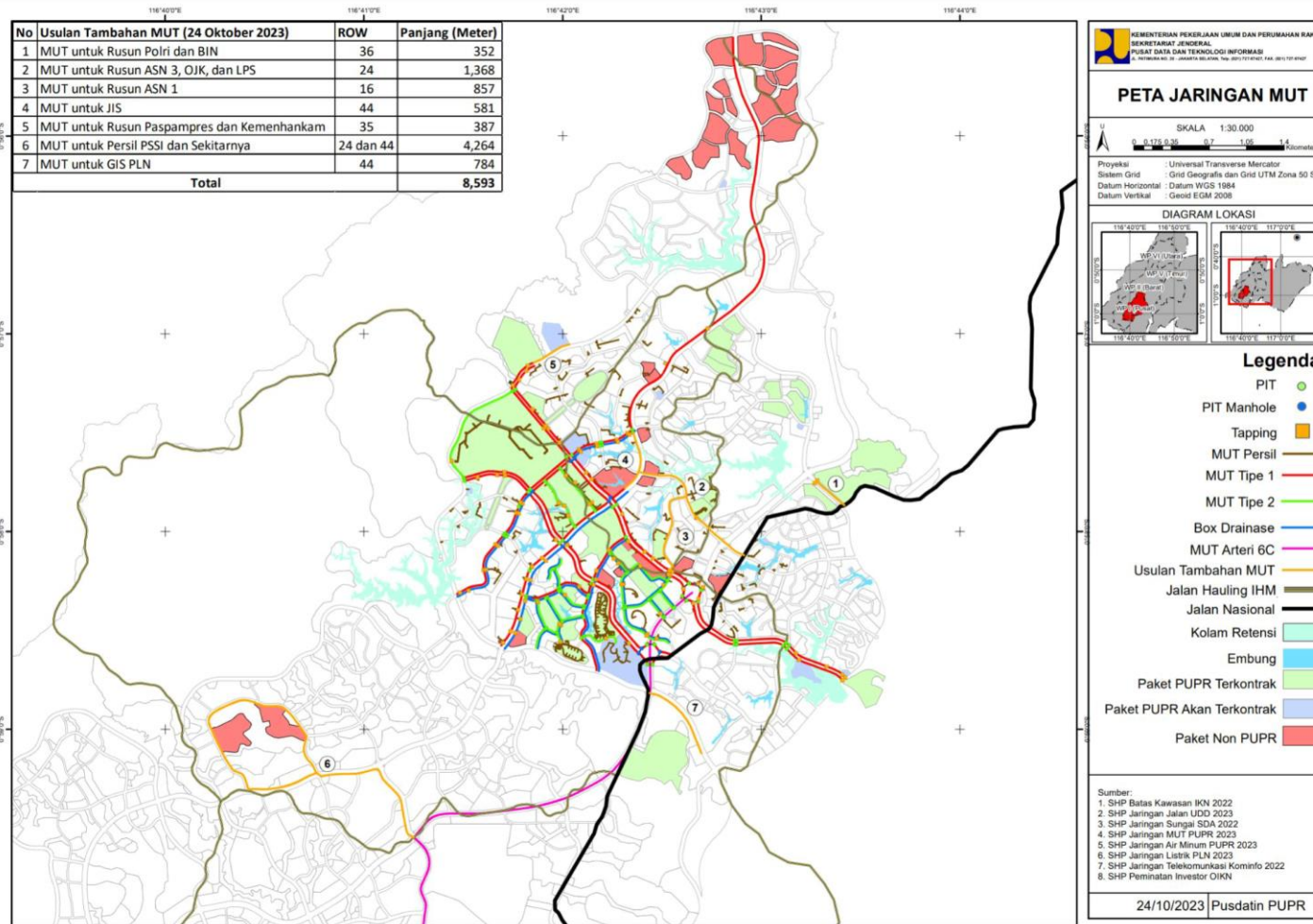
2 Condition of the Final State of Road Network that will be built are not fully adequate for urban operations

- ⊙ Most of the roads in **SWP 1B and 1C** will **not have pavement** as the planned final state are still construction access roads or land development roads

Reference: Peta Jaringan Jalan Terbangun di Tahun 2024, Kementerian PUPR

MUT Network Plan to be Built by 2024 in IKN

Confidential,
not to be cited

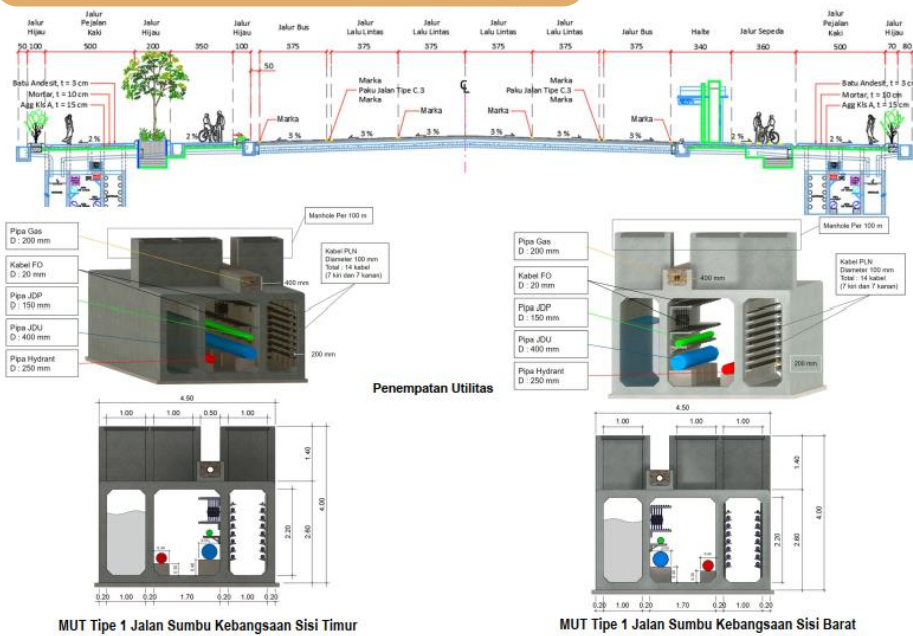


1 Incomplete planning of MUT network

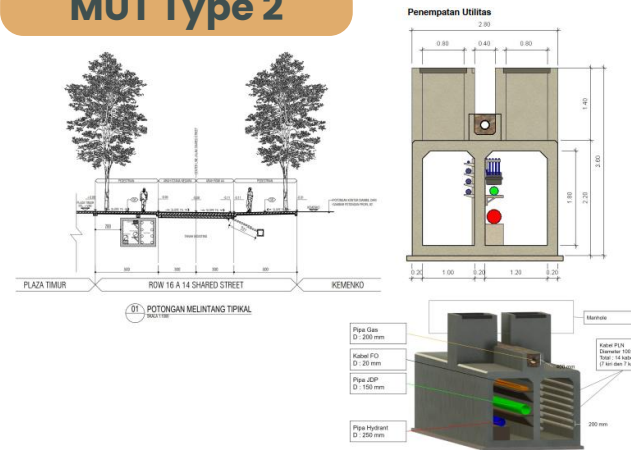
- There are areas in **SWP 1A and SWP 1B** that are still in the process of being **proposed as additional work packages**, yet until now there is **no confirmation** it will be built by the Ministry of PUPR, as listed in the table on the left side of the figure
- The development of MUT network **has not considered** a consolidated and optimised design, which takes into account the provision of **backbone and distribution/feeder networks**
- Different sizes and designs** shall be considered to take into account the type and purpose of the MUT
- There has been no planning for the development of MUT networks for other WPs

Reference: Peta Jaringan MUT yang akan Terbangun di Tahun 2024, Kementerian PUPR

MUT Type 1



MUT Type 2



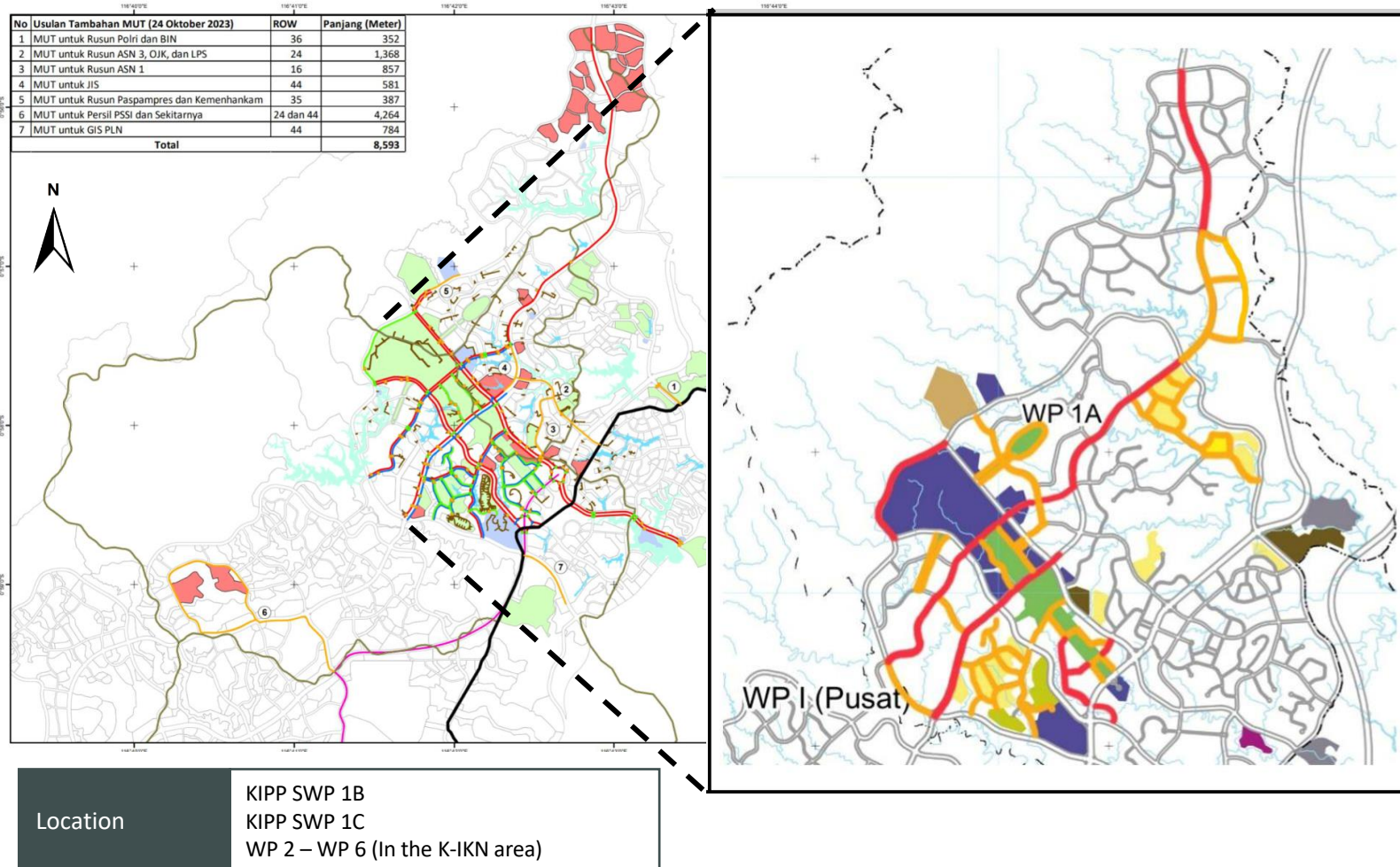
2 There are potential improvements to the current MUT design

- ⊙ Has not considered the provision of space required for **maintenance activities**
- ⊙ Has not considered **MEP Services** including **ventilation and fire protection** inside the MUT, which may affect the safety of maintenance workers
- ⊙ **The drainage compartment is potentially underutilised**, hence road drainage should not be included in the MUT compartment
- ⊙ Thickness of concrete is not sufficient, **bracket** installation may require thicker concrete
- ⊙ Has not considered **Monitoring and Control** in MUT for security, including sensors for manholes due to potential **security breach to the Presidential Palace**

3 MUT Operation and Maintenance Scheme can be developed

- ⊙ Need to **develop an efficient business scheme** for operation and maintenance of the MUT
- ⊙ Need to develop schemes that involve other related parties other than government

Master Plan/Grand Design of Road and Multi Utility Tunnel (MUT)



Financing Scheme Recommendation

Design and Build

Aim

The availability of optimal and consolidated MUT infrastructure for the entire IKN area (K-IKN)

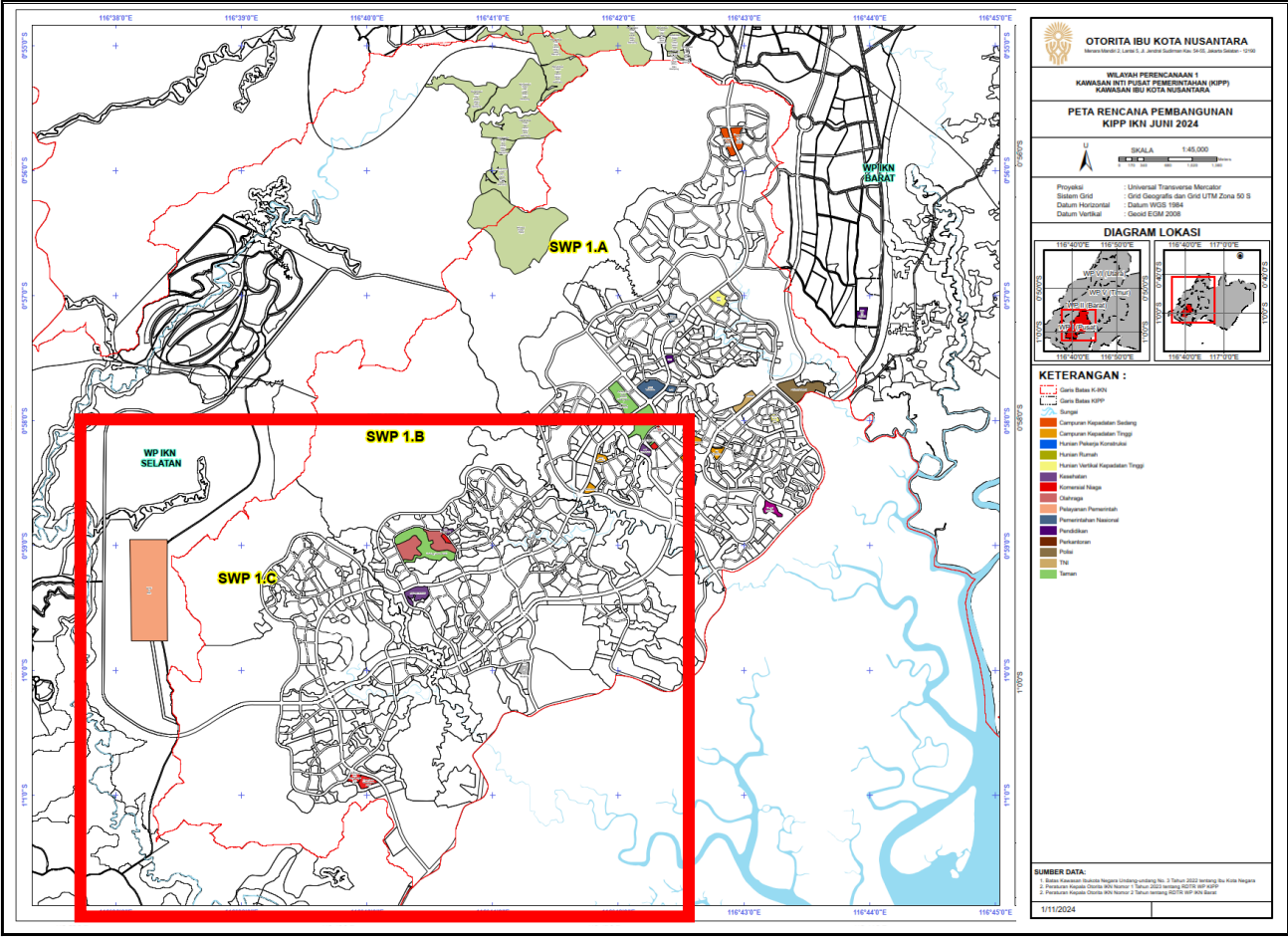
Benchmark

Common Service Tunnel Master Plan in Singapore

Scope

- Master Plan study to determine the network of backbone and distribution/feeder and its design and size
- Feasibility Study for Road and MUT construction in areas that have not been built yet
- The development of Road and MUT development, in which the work packages can be constructed in an integrated or separate manner

Construction of Road and/or Multi Utility Tunnel (MUT) at SWP 1B and 1C



Location KIPP SWP 1B
KIPP SWP 1C

Financing Scheme Recommendation

BOT & Revenue Sharing

Aim Provision of MUT infrastructure in KIPP SWP 1B and 1C

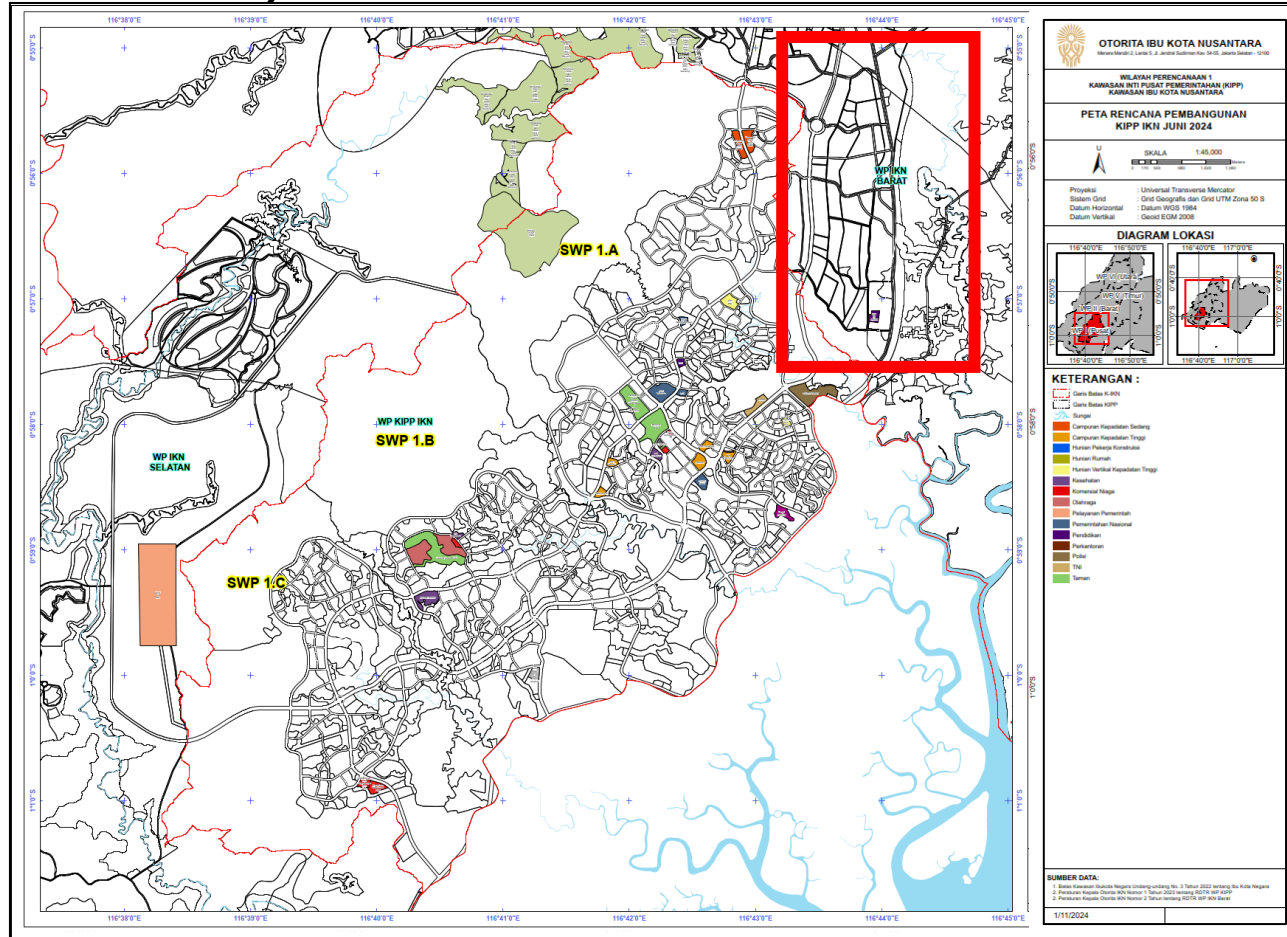
Benchmark *Common Service Tunnel Marina Bay Sands, Singapore*

Scope

- Feasibility Study for Road and MUT development in SWP 1B and SWP 1C
- Review of design criteria for Road and MUT development in SWP 1B and SWP 1C
- The development of Road and MUT development, in which the work packages can be constructed in an integrated or separate manner

Reference: Peta Rencana Pembangunan KIPP IKN Juni 2024, Otorita IKN

Construction of Road and/or Multi Utility Tunnel (MUT) at WP 2 For Priority Areas



Location	WP 2 (West IKN)
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Financing Scheme Recommendation	
BOT & Revenue Sharing	
Aim	Provision of MUT infrastructure in WP 2 (West IKN)
Benchmark	<i>Common Service Tunnel Marina Bay Sands, Singapore</i>
Scope	<ul style="list-style-type: none"> Feasibility Study for Road and MUT development in WP 2 (West IKN) Review of design criteria for Road and MUT development in WP 2 (West IKN) The development of Road and MUT development, in which the work packages can be constructed in an integrated or separate manner

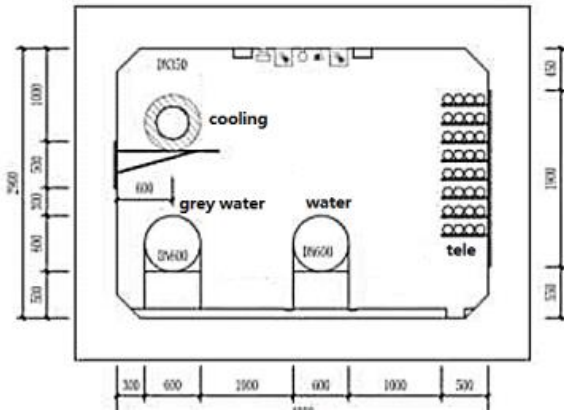
Reference: Peta Rencana Pembangunan KIPP IKN Juni 2024, Otorita IKN

- Develop of Feasibility Study (FS) Report at least cover:
 - Kajian Hukum (Legal Study)
 - Kajian Teknis (Technical Study)
 - Kajian Lingkungan & Sosial (Environmental & Social Study) - AMDAL
 - Kajian Ekonomi & Financial (Economic & Financial Study)
 - Kajian Resiko (Risk Assessment)
 - Scheme Modality Form
 - Outstanding Issue and Action Plan
 - Summary FS Reporting

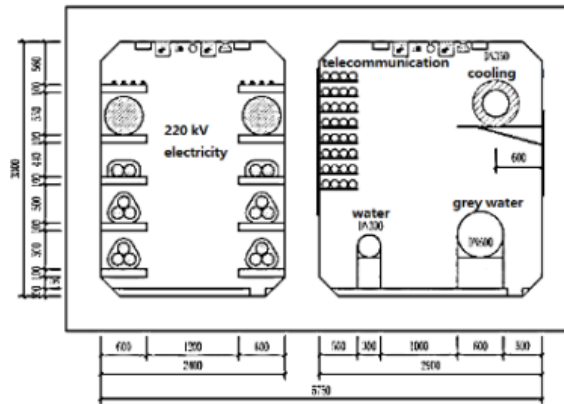
- *Masterplan/Rencana Induk IKN (Lampiran UU No 3/2022)*
- *Rincian Rencana Induk IKN (Perpres 63/2022)*
- *One Map, One Planning, One Policy (1 MPP)*
- *Rencana Detail Tata Ruang KSN IKN (Perpres 64/2023)*
- *Urban Design & Development (UDD) KIPP 1B & 1C*
- *Rencana Pengembangan Kawasan (RPK) KIPP 1A*
- *Peta Jaringan Jalan Terbangun di Tahun 2024, Kementerian PUPR*
- *Peta Ruang Lingkup Jalan Bina Marga dan Cipta Karya, Kementerian PUPR*
- *Potongan dan Detail MUT Tipe 1, 2, dan Persil, Kementerian PUPR*
- *Peta Jaringan MUT yang akan Terbangun di Tahun 2024, Kementerian PUPR*
- *Peta Rencana Pembangunan IKN 2024, Otorita IKN*

Configuration of MUT based on Best Practice

The CST configuration considers the **safety as some utilities poses risks**, such as heat from the high voltage power line, extra area needed for cable joint (joint bay), the structural design of the tunnel, safety for O&M purposes.

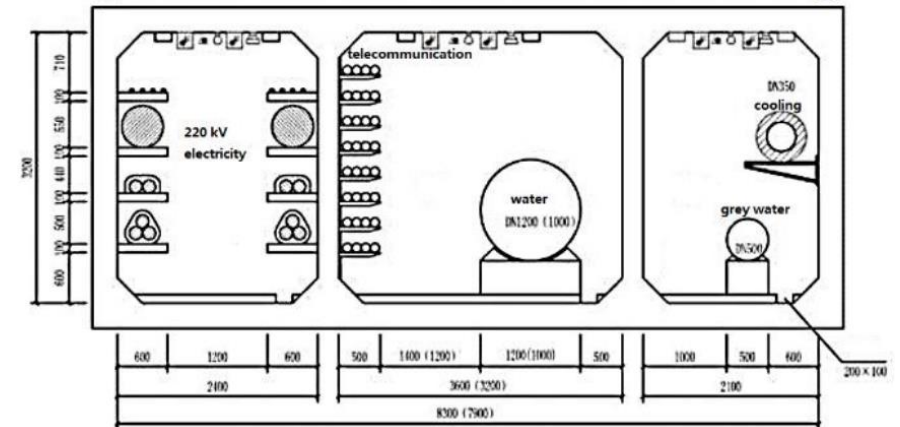


One compartment



Two compartments

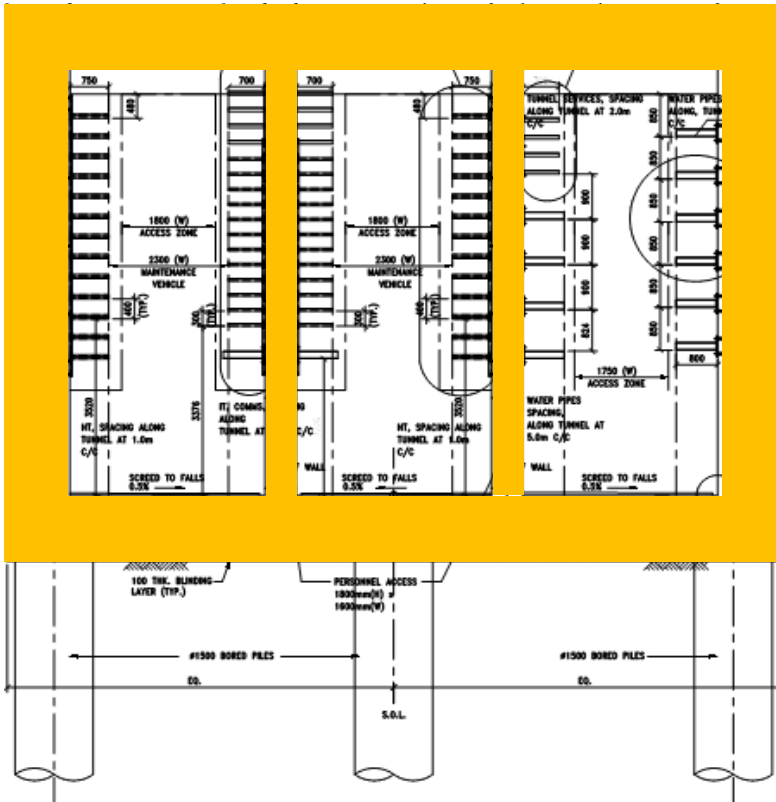
High voltage power line is separated



Three compartments

Design Criteria of MUT based on Best Practice

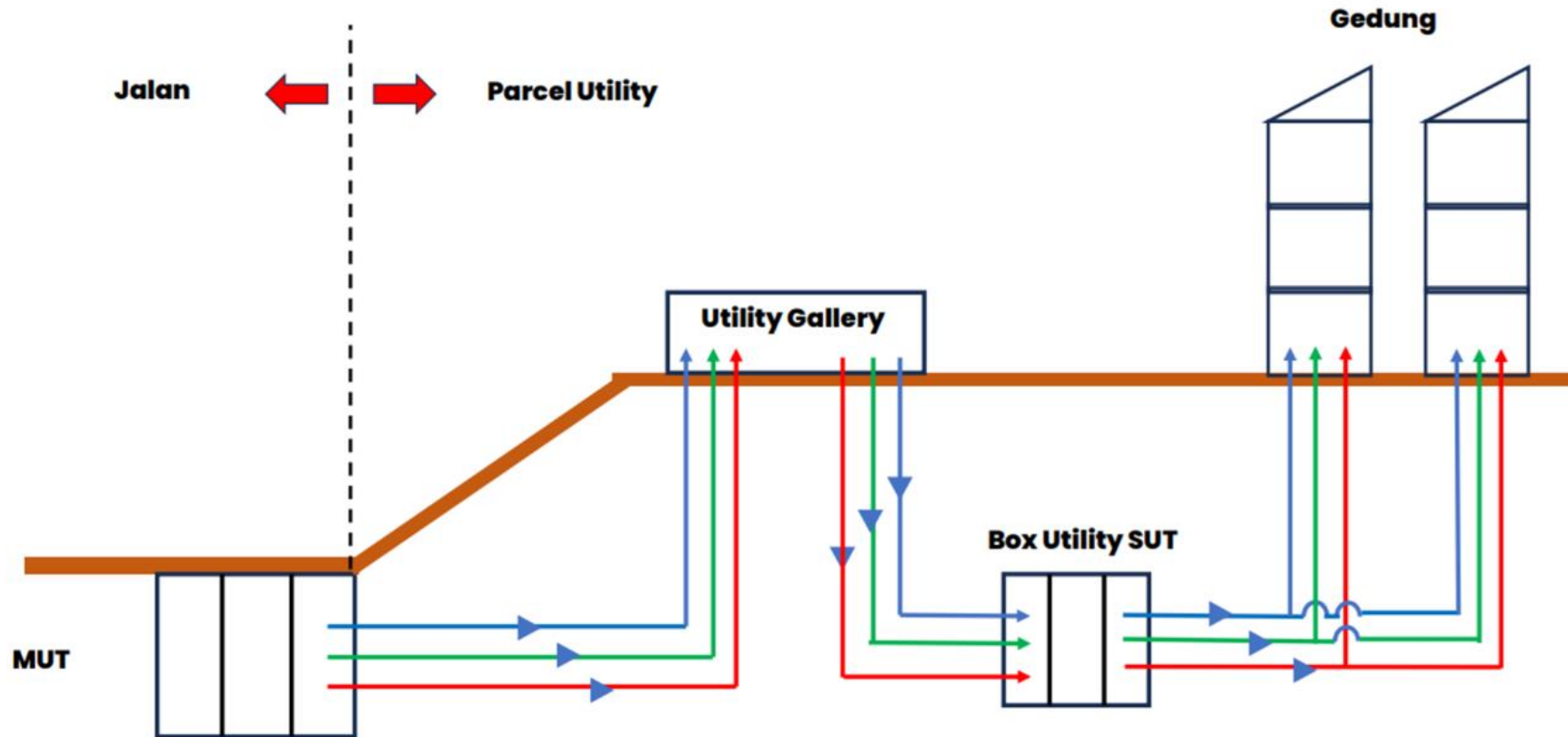
Typical considerations and design of underground services tunnel includes but not limited to the following:



- **Space proofing** of the tunnel to accommodate the required services
 - The **bracketry** vertical spacings and horizontal extent shall be adequately spaced to consider installation, maintenance and future replacement
 - **Vertical height** of the tunnel shall consider feasibility and practicality of installation, maintenance and future replacement
 - Add **lifting/hoisting beams** (if required) for the ease of installation, maintenance and future replacement
 - Adequate **corridor space between racks** for installation, maintenance and future replacement works
- **MEP** provision for tunnel
 - Lightings, ventilation, power
 - Drainage and pumps system
 - Communications systems
- **Fire and life strategy**
 - Means of escape
 - Escape doors between tunnels at intermediate distance in the event of fire to comply to prevailing codes and regulation
 - Access to ground provided in compliance to prevailing codes and regulation
 - Sprinklers, hosereel and all other necessary fire protection
- **Alignment of tunnels**
 - Consider for services and connection
 - External constraints
 - Geology
- **Security**
 - Security systems
 - Communications systems

Schematic of MUT Network between Road and Building

Skematik Jaringan MUT/SUT pada Jalan



Sumber : Draft Rencana Pengembangan Kawasan 1B - Infrastruktur, Kementerian PUPR, 2023



MUT Network between Roads and Buildings in the Area Development Plan (RPK)

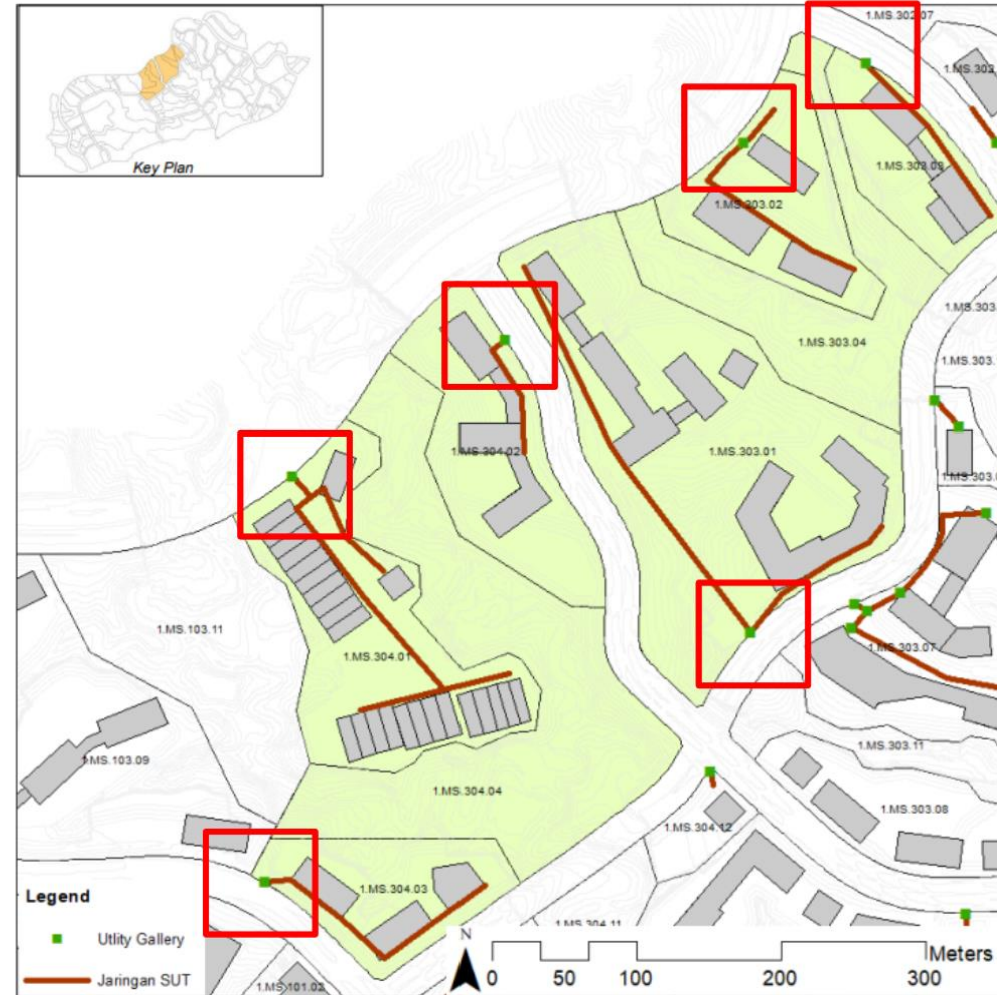
3.7.2.3 Panduan Perencanaan Detail

Perencanaan MUT Focus Area

Blok 1.MS.303 & Blok 1.MS.304

Kode Blok 1.MS.303 & 304			
ID Persil	Fungsi	Luas (Ha)	Populasi (Jiwa)
1.MS.303.01	Hunian Vertikal Kepadatan Tinggi Negara	4.47	1428
1.MS.303.02	SMTA/SMK	1.30	3005
1.MS.303.03	Hunian Vertikal Kepadatan Tinggi Negara	0.95	408
1.MS.303.04	Taman Komunitas	1.63	237
1.MS.304.01	Rumah Negara	2.29	163
1.MS.304.02	Hunian Vertikal Kepadatan Tinggi Negara	1.55	612
1.MS.304.03	Rumah Sakit	1.13	908
1.MS.304.04	Taman District	3.44	498

Panduan Perencanaan Box Utility MUT, Utility Gallery, Box Utility SUT, dan SUT	
Konsep	<ol style="list-style-type: none"> Pada setiap persil perlu disediakan Box Utility MUT, Utility Gallery, Box Utility SUT, dan jaringan SUT Box Utility MUT merupakan ruang/bangunan yang berfungsi untuk sebagai crossing utilitas dan juga mendistribusikan jaringan utilitas dari jaringan perkotaan ke persil. Box Utility MUT diletakkan di titik masuk/entrance persil. Utility Gallery merupakan ruang/bangunan yang berfungsi untuk mendistribusikan jaringan utilitas ke beberapa bangunan atau gedung yang letaknya berada di setiap persil. Jumlah Utility Gallery pada persil disesuaikan dengan kebutuhan bangunan dalam persil Box Utility SUT merupakan ruang/bangunan yang berfungsi untuk sebagai crossing utilitas dalam persil dan juga mendistribusikan jaringan utilitas ke bangunan/gedung. Penyediaan Box Utility harus memperhatikan belokan pada pipa dan letak titik tapping. Pada bending/belokan kabel jaringan telekomunikasi dan elektrikal perlu diperhitungkan radius bending kabel. Faktor bending kabel dapat dihitung antara 10 - 20 kali diameter kabel. Jaringan SUT mengikuti jalur jalan pada persil Jaringan SUT terdiri dari pipa gas, pipa air minum, pipa listrik, kabel fiber optic, dan pipa daur ulang. Saluran drainase berada pada luar SUT. Desain SUT harus mengikut Type ROW jalan pada persil
Kebutuhan Utility Gallery	8 unit
Kebutuhan Box Utility SUT	- unit
Panjang Jaringan SUT	± 1.408 m



Utility Gallery diletakkan pada titik masuk persil dan disesuaikan dengan kebutuhan bangunan pada persil.

Box Utility SUT akan menghubungkan Utility Gallery dengan gedung atau bangunan.

Sumber : Draft Rencana Pengembangan Kawasan 1B - Infrastruktur, Kementerian PUPR, 2023

05

QUESTION AND ANSWER

Terima Kasih

“Some people make things happen,
some watch things happen,
while others wonder what has happened.”

Eleanor Roosevelt

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