Annex 2

Traffic Impact Assessment



Traffic Impact Assessment Report – Proposed Temporary Open Storage of Construction Materials and Machinery with Ancillary Facilities and Associated Filling of Land









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Traffic Impact Assessment Report – Proposed Temporary Open Storage of Construction Materials and Machinery with Ancillary Facilities and Associated Filling of Land

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1.0 INTRODUCTION

1.1 General

1.1.1. Mannings (Asia) Consultants Ltd (MANN) was commissioned by Sum Wui Investment Limited to undertake the Traffic Impact Assessment (TIA) study for the Proposed Temporary Open Storage of Construction Materials and Machinery with Ancillary Facilities and Associated Filling of Land at DD128 Lot 477 (Part), 492 (Part), 504 (Part), 505 RP (Part), 506 (Part) and Adjoining Government Land, Pak Nai, Yuen Long, New Territories ("Project Site") in support of the planning application.

1.2 Project Descriptions

- 1.2.1 The Project Site occupies an area of approximately 14,072 m². The area comprises three separated open storage operations, vehicle parking and loading/unloading (L/UL) spaces and circulation area.
- 1.2.2 The Site is accessible via a local access road, Deep Bay Road, Kai Pak Ling Road, and a temporary road constructed by another CEDD contract, which connects to the at-grade road network of Kong Shum Western Highway. The operation hours of the proposed development are Monday to Saturday from 09:00 to 19:00. There is no operation on Sunday and public holidays.
- 1.2.3 Considering the potential increase in traffic generated by the Project Site, this TIA study has been conducted to evaluate the effects on the surrounding road network.

1.3 Study Objectives

- 1.3.1 The main objectives of this Traffic Impact Assessment ("TIA") Study are to:
 - To evaluate the current vehicular traffic and transport conditions at the Project Site and to assess the potential impacts of the proposed development on the surrounding road network and pedestrian facilities during its operation;
 - Identify any existing and potential traffic and transport issues, recommend appropriate mitigation measures and propose any necessary traffic arrangements to support the development.; and
 - To evaluate and recommend suitable traffic mitigation measures for the Project Site, if required.

1.4 Report Structure

- 1.4.1 After the introductory chapter, the report is structured as follows:
 - Chapter 2 describes the Project Site;
 - Chapter 3 summarizes current traffic conditions near the Project Site;
 - Chapter 4 explains the methodology for estimating visitor flows and vehicular traffic generated by the proposed development;
 - Chapter 5 details the traffic forecast and summarizes of traffic impact assessment;
 - Chapter 6 a summary of the TIA study's findings and conclusion



2.0 DESCRIPTIONS OF THE PROJECT SITE

2.1 Site Location and Study Area

2.1.1 Drawing No. **Figure 1** of Location Plan in **Appendix A** show the location of the Project Site, located at Ngau Hom Sha and accessed via a northern access road to Deep Bay Road.

2.2 Development Parameters for the Project Site

2.2.1 Based on the latest information, the Project Site involves a Temporary Open Storage development with a site area of approximately 14,072 m².

2.3 Parking and Loading/Unloading Facilities

2.3.1 As shown in **Table 1**, which summarizes the internal transport facilities to be provided within the Project Site, there are no specific parking or loading/unloading requirements for temporary open storage developments under the HKPSG. Therefore, ancillary transport facilities are arranged based on users' operational needs and requirements.

Table 1 - Ancillary Transport Facilities based on user's requirements

Type of Ancillary Transport Facilities	Provision based on User's Requirement
Private Car Parking Space	4
Total Parking Facilities	4
L/UL Spaces for HGV	2
Total L/UL Facilities	2

2.3.2 As presented by R-Riches Property Consultant's Limited, the conceptual layout plan of the Project Site is included in **Appendix A** for easy reference.

2.4 Vehicular and Pedestrian Access Arrangements

2.4.1 Vehicular access to the Project Site is located at the northern boundary, connecting to a short section of local access road before entering Deep Bay Road. The location of the ingress/egress point is shown on Drawing No. Figure 1 of Location Plan in Appendix A. Pedestrian provision within the Site boundary is minimal; pedestrian movements will be managed within the Site during the operation period.



2.5 Adjacent Committed Development

Committed Developments – Site A

2.5.1 Adjacent to the Project Site is a known committed development under planning permission No. A/YL-HTF/1193 which proposed a temporary open storage site at Lots 505 RP (Part), 506 (Part), 507 (Part), 508, 509 (Part) and 510 (Part) in D.D. 128, Pak Nai, Yuen Long, New Territories ("Committed Development - Site A"). The site with approximately area of 9,938 m² is immediately adjacent to the Project Site and includes committed upgrading works for Road Section 1 (Deep Bay Road). With reference to the recent TIA study prepared by Mannings (Asia) Consultants Limited reference no. W1037/TIA/001/DBR Issue 2, the agreed traffic flow is 1 vehicle per hour (equivalent to 3 PCU per hour) per direction during peak hour. These upgrading works have been incorporated into the existing road network configuration and the agreed traffic flows generated by the Committed Developments – Site A have been included in the 2029 reference traffic flows used in this assessment are presented in **Table 2**.

Table 2 - The Committed Developments Traffic Flows

	Parameter	•	Vehicular Trips			
	for the Site	Trip Generation	Weekday AM		Weekday PM	
	(approx.)		In	Out	In	Out
Committed Development — Site A	Site Area = 9,938 m ²	veh/hr (pcu/hr) ⁽¹⁾	1 (3)(2)	1 (3)(2)	1 (3)(2)	1 (3)(2)

Note: (1) For conservative approach, it is assumed that all vehicles are heavy vehicles with pcu factor 2.5.

(2) Adjacent to the Project Site, the committed development – Site A (Planning permission No. A/YL-HTF/1193) includes upgrading works for Deep Bay Road and the agreed traffic flow adopted in this Study is sourced from the TIA prepared by Mannings (Asia) Consultants Limited reference no. W1037/TIA/001/DBR Issue 2.



3.0 EXISTING TRAFFIC AND TRANSPORT CONDITIONS

3.1 Existing Road Network

3.1.1. Under the operation stage, the Site is accessible via a local access road, Deep Bay Road, Kai Pak Ling Road and a temporary road constructed by another CEDD contract, which connects to the at-grade road network of Kong Shum Western Highway. This is the proposed delivery route to the Site and mainly divided into three road section. The specifics of the delivery route and the details of three road sections are presented in Drawings No. **Figure 2** of Delivery Route Plan in **Appendix A**.

Road Section 1

- 3.1.2. Regarding Road Section 1, the existing condition of Deep Bay Road between the Site and Kai Pak Ling Road shows a carriageway width of approximately 3.0 meters, as measured from the Lands Department basemap. Observations and on-site measurements indicate that vehicles make use of the verge area, resulting in an effective vehicular width exceeding 3.5 meters. Nevertheless, this section is identified as a substandard single-track access road, primarily due to the absence of intervisible passing bays.
- 3.1.3. Referring to **Section 2.5.1**, upon completion of the proposed road upgrading works under planning permission No. A/YL-HTF/1193 ("Committed Development Site A"), Road Section 1 of Deep Bay Road will be upgraded to meet the standard for a single-track access road. The upgrading works include widening of the carriageway to achieve a consistent single-track width, provision of adequately spaced and intervisible passing bays at intervals consistent with TPDM requirements, and associated traffic control measures such as signing and delineation. These passing bays are designed to allow safe two-way operation by enabling vehicles to wait and give way at designated points. The upgraded section therefore addresses the current deficiencies identified in **Section 3.1.2** and ensures that traffic generated by the Project Site can be accommodated without adverse impacts along the delivery route. The proposed passing bay locations are shown in **Figure 7** Passing Bays Plan in **Appendix A**.

Road Section 2

3.1.4. Regarding Road Section 2, Kai Pak Ling Road which lies between Deep Bay Road and a temporary road constructed under a separate CEDD contract. This section of Kai Pak Ling Road is a standard single-track access road. It features an approximate road width of 3.5 meters and includes passing bays that are intervisible, ensuring adequate provision for vehicles.



Road Section 3

3.1.5. Regarding Road Section 3, the temporary road built by another CEDD contract, situated between Kai Pak Ling Road and the at-grade road network of Kong Shum Western Highway, this section of temporary road partially utilizes the permanent road configuration for public use during its construction phase. The road width of this temporary road is approximately 7 meters which is a single carriageway. Under the CEED contract, the permanent road directly connects with the existing roundabout of the at-grade road network of Kong Shum Western Highway.

3.2 Traffic Surveys

3.2.1. A manual classified traffic count survey in the study area were carried out on 3 November 2025 (Monday) from 07:00 to 20:00 in order to collect the most updated traffic flow volume of the affected junctions / road sections and to access the feasibility of the proposed works as shown in **Table 6** and the survey locations are indicated in Drawing No. **Figure 1** in **Appendix A.**

Table 6 - Affected Junctions and Road Sections

Street



3.3 Existing Vehicle Traffic Conditions

3.3.1 All vehicle flows recorded during the traffic surveys have been converted into passenger car units (PCUs) using the PCU factors specified in Table 2.3.1.1 of Volume 2 of the Transport Planning and Design Manual (TPDM), as indicated in **Table 7**.

Table 7 - Passenger Car Unit Conversion Factors

Vahiala Typa	PCU Conversion Factor ⁽¹⁾
Vehicle Type	Priority junction / Roundabout
Car / Taxi	1.00
Public Light Bus / Minibus	1.50
Light Goods Vehicle	1.50
Medium / Heavy Goods Vehicle	1.75
Bus / Coach	2.00

Note (1): Table 2.3.1.1, Chapter 2.3, Volume 2, TPDM-2021

3.3.2 According to the survey results, the peak hour of the affected junctions and road sections are different during the survey period. The peak hour flows are summarized in **Table 8**.

Table 8 - Peak Hour Flow of the Affected Junctions / Road Sections

	Affected Junctions	AM	PM
	Affected Junctions	PEAK	PEAK
J1	The priority junction of Deep Bay Road with Kai Pak Ling	07:30-	16:30-
JI	Road	08:30	17:30
J2	The roundabout of Deep Bay Road with Lau Fau Shan Road /	07:30-	17:15-
JZ	Shan Tung Street	08:30	18:15
		A 3. //	DM (
	Affected Road Sections	AM	PM
	Timeted Road Sections	PEAK	PEAK
R1	Deep Bay Road	07:45-	16:30-
KI	Deep day Road	08:45	17:30
R2	Voi Dale Ling Dood		16:30-
K2	Kai Pak Ling Road	08:30	17:30
R3	Tomporory road	07:30-	16:30-
KS	Temporary road	08:30	17:30

3.3.3 The peak hour flow at each affected junctions / road sections varies from 07:30 to 08:45 (AM PEAK) and 16:30 to 18:15 (PM PEAK). In order to present the peak hour flow at each affected junctions / road sections for the most critical scenario, we have used the flow data at the peak hours of each affected junctions / road sections and assemble them together in one traffic flownet as shown in **Figure 3** of 2025 Existing Traffic Flownet in **Appendix A**.



4.0 ESTIMATION OF DEVELOPMENT FLOWS

4.1 Peak Hour Vehicular Flows

- 4.1.1 To estimate the vehicular trips generated from the Project Site, trip rate derived from the TIA Final Report prepared by CKM Asia Limited under planning permission No. A/YL-HTF/1133 for the use of "Proposed Temporary Open Storage of New Vehicles (Private Cars), Construction Materials, Machineries, Equipment and Storage of Tools and Parts with Ancillary Site Office for a Period of 3 Years and Filling of Land at Various Lots in D.D. 128 and Adjoining Government Land, Ha Tsuen, Yuen Long, New Territories" (hereinafter called "Previous CKM Study") is adopted in this Study.
- 4.1.2 Adopted trip rate and projected additional traffic flow by the Project Site are presented in **Table 9** and **Table 10** respectively.

Table 9 - Adopted Daily Trip Rate from TIA Report under Previous CKM Study

	1
Development Type	Daily Trips Rate
Open storage	0.00036 veh/m^2

4.1.3 Referring the TIA Final Report under Previous CKM Study, 25% of traffic is generated during the AM and PM Peak periods. The corresponding additional peak hour traffic generation by the Project Site is summarized in **Table 10**.

Table 10 - Additional Traffic Flows by the Project Site

Development Type	Parameter		Vehicular Trips				
	for the Site (approx.)	Trip Generation	Weekd	ay AM	Weekd	ay PM	
			In	Out	In	Out	
I lnon ctorogo	Site Area =	veh/hr	2	2	2	2	
	14,072 m ²	pcu/hr ⁽¹⁾	5	5	5	5	

Note (1): For conservative approach, it is assumed that all vehicles are heavy vehicles with pcu factor 2.5.

4.1.4 The calculated peak hour development traffic flow for the Site is expected to be 5 pcu's (equivalent to 2 veh.) per direction for both AM and PM peak hours.



5.0 TRAFFIC IMPACT ASSESSMENT

5.1 Design Year

5.1.1 According to the preliminary plan, the Project Site is expected to be completed by 2026 and operate for a period of three years. However, for the purpose of traffic impact assessment, the study conservatively adopts 2029 as the design year, representing the year immediately following the full operational period. This approach ensures that traffic projections account for cumulative growth and planned developments in the vicinity. Accordingly, traffic flows during the operational phase should be projected based on conditions in 2029.

5.2 Methodology

- 5.2.1 In forecasting future traffic flows within the Study Area's road network, due consideration has been given to the following information and influencing factors:
 - The observed traffic survey assessment;
 - The Annual Average Daily Traffic (AADT) data of the latest five years;
 - The 2019-Based Territorial Population and Employment Data Matrices (2019 TPEDM) published by Planning Department;
 - Committed development in the Study Area.
- 5.2.2 The following steps have been undertaken to derive the 2029 Design Flows (i.e. with the Project Site).
 - 2029 Background Flows = 2025 Flows x annual growth factors
 - 2029 Reference Flows = 2029 Background Flows + Additional Traffic by the Committed Development Site A (refer to **Section 2.4.2**)
 - 2029 Design Flows = 2029 Reference Flows + Additional Traffic by the Project Site
- 5.2.3 The traffic impact induced by the Project Site is assessed by comparing the Peak Hour Reference Traffic Flows with the Design Traffic Flows for both design years.



5.3 Future Year Reference Traffic Flows

Historical Traffic Growth

5.3.1 To understand historical traffic growth trends on the nearby road network, relevant traffic data from 2019 to 2024 have been extracted from the Annual Traffic Census (ATC) Reports for ATC stations within the Study Area. The location of the nearby ATC station (Ping Ha Road and Lau Fau Shan Road) and presents the corresponding traffic data are presented in **Table 11**.

Table 11 - Annual Traffic Census (ATC) Data

Location	Stn No.	from	to	o AADT (veh / day)					Annual Growth	
				2019	2020	2021	2022	2023	2024	
Ping Ha Rd & Fau Shan Rd	5858	Tin Ha Rd	Deep Bay Rd	12,590	12,070	10,310	8,390	8,590	8,610	-7.32%

5.3.2 As indicated in **Table 11**, traffic volumes on the road network within the study area decreased at an average annual rate of 7.32% over the period from 2019 to 2024.

2019-Based TPEDM

5.3.3 **Table 12** presented the population and employment data for the Northwest New Territories for 2019 and 2026 from 2019-based Territorial Population and Employment Data Matrices (TPEDM) provided by Planning Department.

Table 12 - Territorial Population and Employment Data Matrix (TPEDM)

			,	·
Cotogory	T	Annual		
Category	2019	2023 ⁽¹⁾	2026	Growth
Population	222,800	232,200	239,250	1.02%
Employment	58,400	68,943	76,850	4.00%
Total	281,200	301,143	316,100	1.69%

Source: 2019-based TPEDM published by Planned Department

Note (1): 2023 population and employment places are calculated by interpolation

- 5.3.4 It is anticipated that the population and employment places in Northwest New Territories would be increased by 1.02% and 4.00% p.a. respectively, i.e. an overall increase of 1.69% per annum.
- 5.3.5 The traffic and population growth rates over successive years are presented in **Table 11** and **Table 12** respectively. The purpose of forecasting traffic flow for the year 2029 is to support traffic impact assessments during both the construction and operational phases as well as to anticipate future conditions. A negative annual growth rate of -7.32% is identified in **Table 11**, whereas an annual growth rate of 1.69% is shown in **Table 12**. Therefore, to adopt a conservative approach, the higher annual growth rate of 1.69% has been used for forecasting traffic flow in 2029.



2029 Reference Flows

5.3.6 Taking into account of the above factors to summarize, the following steps are undertaken to derive the 2029 Reference Flows (i.e. without Project Site):

2029 Background Flows = 2025 Flows x annual growth factors (1+1.69%)⁴

2029 Reference Flows = 2029 Background Flows + Additional Traffic by the Committed Development - Site A (refer to **Section 2.4.2**)

5.3.7 The 2029 Reference Traffic Flownet is shown in **Figure 4** in **Appendix A**.

5.4 Future Year Design Peak Hour Traffic Flows

- 5.4.1 The additional development traffic presented in **Table 10** has been assigned to the nearby road network based on the existing traffic distribution pattern within the Study Area. The resulting peak hour development traffic flows are illustrated in **Figure 5** in **Appendix A**.
- 5.4.2 By adding the development flows illustrated in **Figure 5** to the 2029 reference traffic flow (i.e. without the Project Site) shown in **Figure 4**, the 2029 design traffic flow (i.e. with the Project Site) are derived and presented in **Figure 6**.

5.5 Future Year Junction Capacity Assessments

5.5.1 The junction capacity assessments for year 2029 Reference and Design Scenario were carried out and the results are presented in **Table 13**. The detailed calculation sheets are shown in **Appendix B**.

Table 13 - Summary of Future Junction Capacity Assessment

Junction	Location	Tymo	Capacity	2029 Re	ference	2029 Design	
		Type	Index	AM	PM	AM	PM
J1	Deep Bay Rd/ Kai Pak Ling Rd	Priority	DFC	0.02	0.02	0.03	0.02

5.5.2 Referring to the results in **Table 13**, Junction of Deep Bay Road with Kai Pak Ling Road is expected to be operating within capacity during peak hours under both 2029 Reference Scenario (Without the Site) and Design Scenario (with the Site).



5.5.3 Although the proposed delivery route does not pass through Junction J2, a conservative assumption has been adopted to account for possible deviations in vehicle movements. It is assumed that approximately 10% of delivery vehicles may inadvertently enter Junction J2. Therefore, J2 has also been included in the capacity assessment to ensure the robustness and completeness of the evaluation and the results are presented in **Table 14**. Detailed junction capacity assessments are provided in **Appendix B**.

Table 14 – Junction Capacity Assessment for Affected Roundabout

Junction	Location	Туре	Capacity Index	2029 Re	ference	2029 Design		
				AM	PM	AM	PM	
J2	Deep Bay Rd/ Lau Fau Shan Rd	Roundabout	DFC	0.45	0.36	0.45	0.36	

5.5.4 Referring to the results in **Table 14**, the roundabout of Deep Bay Road with Lau Fau Shan Road is expected to be operating within capacity during peak hours for both 2029 Reference Scenario (Without the Site) and Design Scenario (with the Site).

5.6 Future Year Link Capacity Assessments

- 5.6.1 In order to determine the utilization level of the affected, the Vehicle Capacity (VC) has been adopted. To estimate the traffic flow generated from the Project Site, it is assumed that 5 pcu's (equivalent to 2 veh.) per direction for both AM and PM peak hours
- 5.6.2 The link capacity assessments for year 2029 Reference and Design Scenario carried out and the results are presented in **Table 15**.

Table 15 - Summary of Future Link Capacity Assessment

Road Section	Location	Dir.	Design Capacity	2029 Reference				2029 Design			
				AM		PM		AM		PM	
				Flows (veh/hr)	P/Df ⁽¹⁾						
R1	Deep Bay Road	2-way	100	68	0.68	62	0.62	72	0.72	66	0.66
R2	Kai Pak Ling Road	2-way	100	41	0.41	34	0.34	45	0.45	38	0.38
R3	Temporary road	2-way	800	71	0.09	46	0.06	75	0.09	50	0.06

Notes: (1) P/Df = Peak Hourly Flows/ Design Flow Ratios for road links

5.6.3 The results in **Table 15** indicate that all the concerned road links in the Study Area operate satisfactorily during the peak hours under the 2029 Reference Scenario (Without the Site) and Design Scenario (with the Site).



6.0 SUMMARY AND CONCLUSION

6.1 Summary

- 6.1.1 Mannings (Asia) Consultants Ltd (MANN) was commissioned by Sum Wui Investment Limited to undertake this Traffic Impact Assessment (TIA) in support of the planning application for the proposed Temporary Open Storage development at Pak Nai, Yuen Long. The study was prepared to evaluate existing traffic conditions, forecast future traffic demands, and assess the potential impacts of the development on the surrounding road network.
- 6.1.2 During the operational stage, the Project Site will be accessed via a local access road, Deep Bay Road, Kai Pak Ling Road, and a temporary road constructed under a separate CEDD contract, which together connect to the at-grade road network of Kong Shum Western Highway. The designated delivery route is divided into three road sections.
- 6.1.3 In order to appraise the existing traffic condition, a manual traffic count survey was conducted on 3 November 2025 (Monday) from 07:00 to 20:00. These observed traffic flow data were subsequently used for undertaking the assessment of the proposed TTA schemes in 2025.
- 6.1.4 Traffic forecasts were prepared with reference to the 2019-Based Territorial Population and Employment Data Matrices (TPEDM) and the Annual Average Daily Traffic (AADT) records. To ensure a conservative approach, an annual growth rate of 1.69% was adopted for projecting background flows to the design year 2029. In addition to background growth, traffic flows from the Committed Development Site A was incorporated into the Reference Scenario. By incorporating this development into the 2029 Reference traffic flows, the cumulative impacts of nearby development is fully accounted for in this assessment.
 - Committed Development Site A (Planning permission No. A/YL-HTF/1193) is a committed temporary open storage site (about 9,938 m²) next to the Project Site. It includes road upgrading works at Deep Bay Road and adds about 1 vehicle per hour (3 PCU/hour) per direction during peak hour.
- 6.1.5 The assessment results confirm that all affected junctions and road sections will continue to operate within capacity under both the Reference Scenario (without the Project Site) and the Design Scenario (with the Project Site). In addition, the committed upgrading works for Road Section 1 (Deep Bay Road) will provide a consistent carriageway width and adequately spaced, intervisible passing bays, thereby improving existing deficiencies and ensuring safe two-way operation.



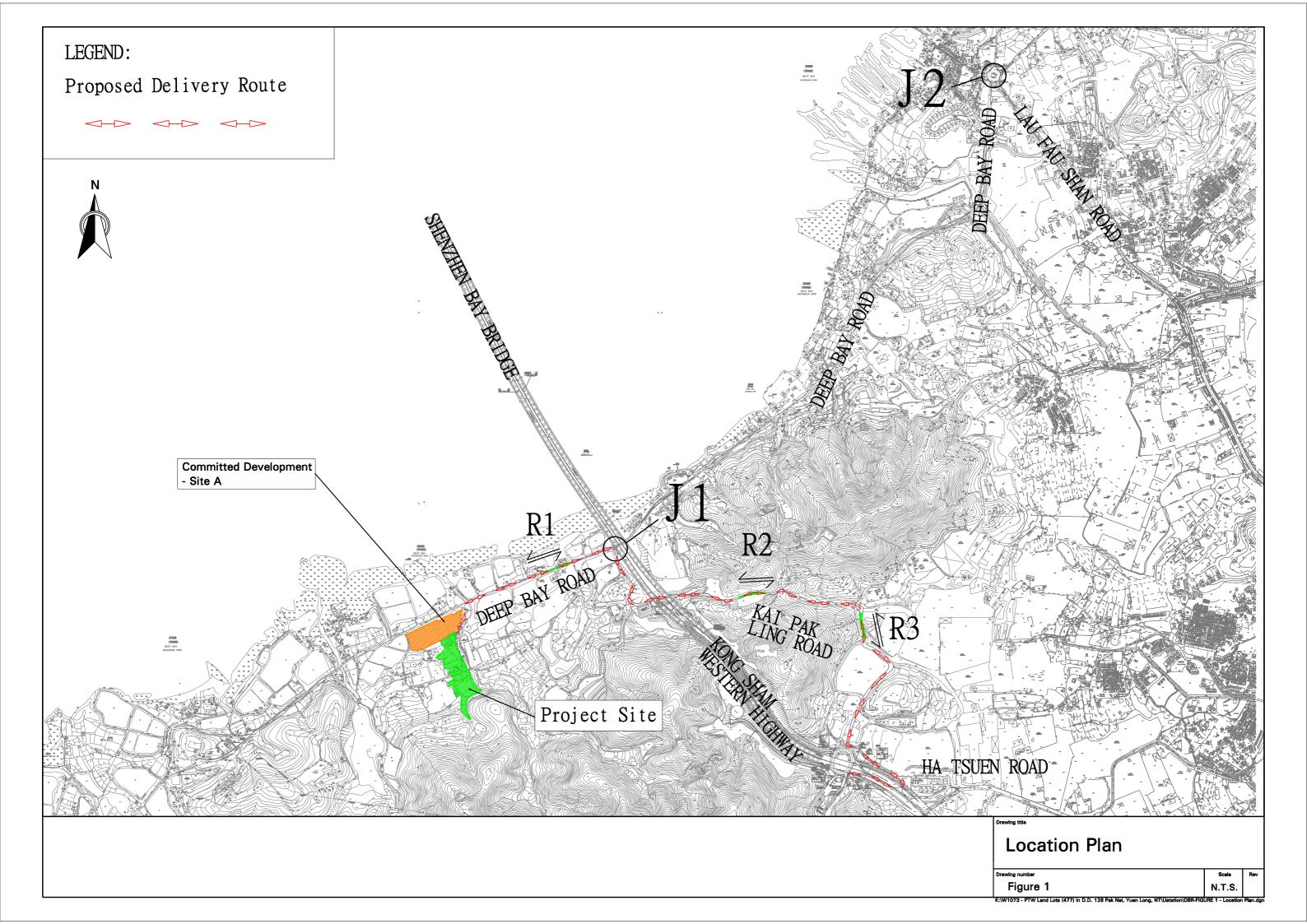
6.2 Conclusion

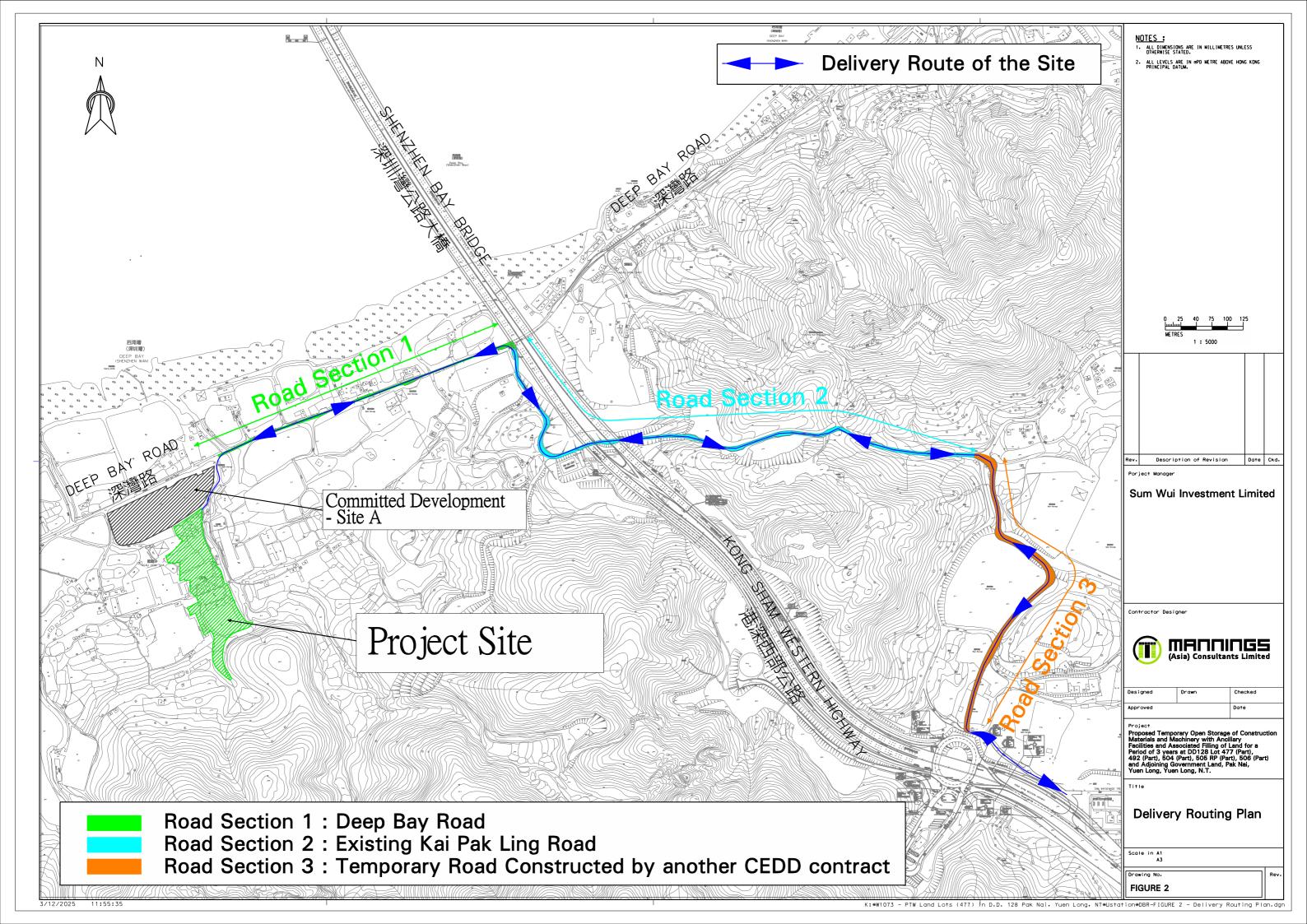
6.2.1 In conclusion, the findings of this Traffic Impact Assessment demonstrate that the proposed Temporary Open Storage development can be accommodated by the surrounding road network without causing adverse traffic impacts. With the committed upgrading works for Road Section 1 (Deep Bay Road) in place, together with adequately spaced intervisible passing bays, appropriate signing and lighting along the delivery route in accordance with the relevant Codes of Practice, and securing required land clearance and statutory approvals prior to commencement of operations, the designated delivery route will provide sufficient carriageway width and facilities to support safe two-way operation. Therefore, it is acceptable from a traffic point of view.

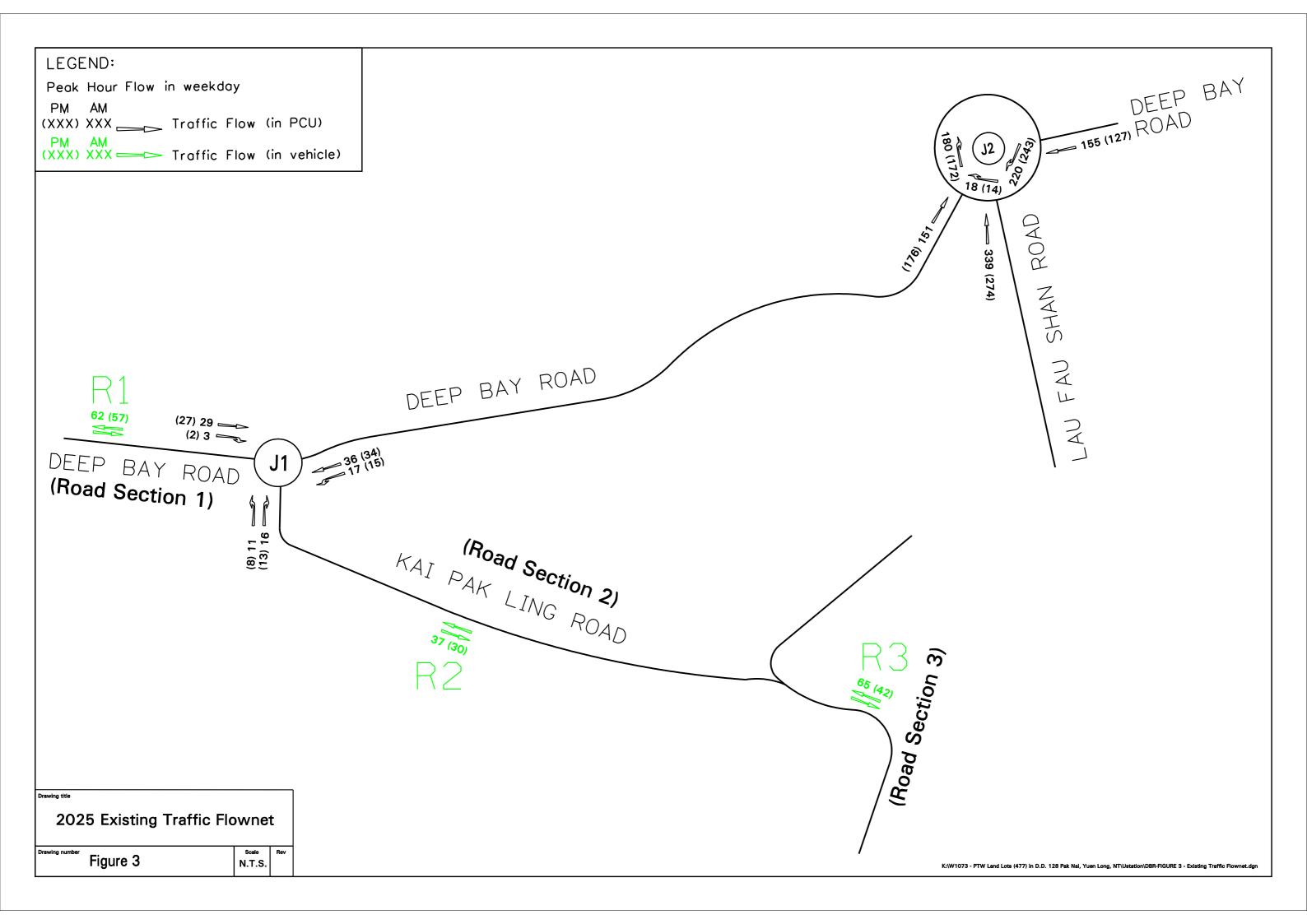


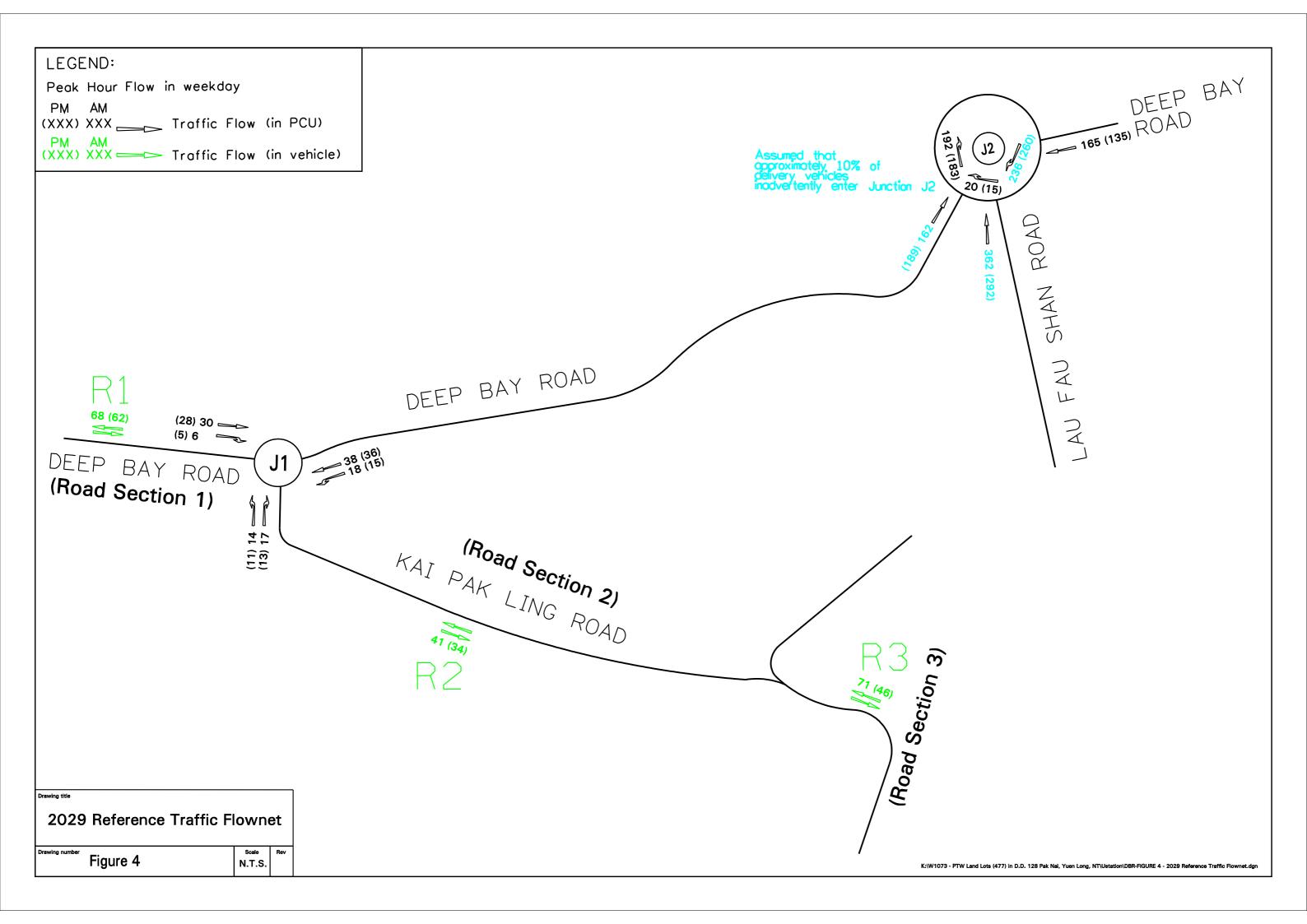
APPENDIX A

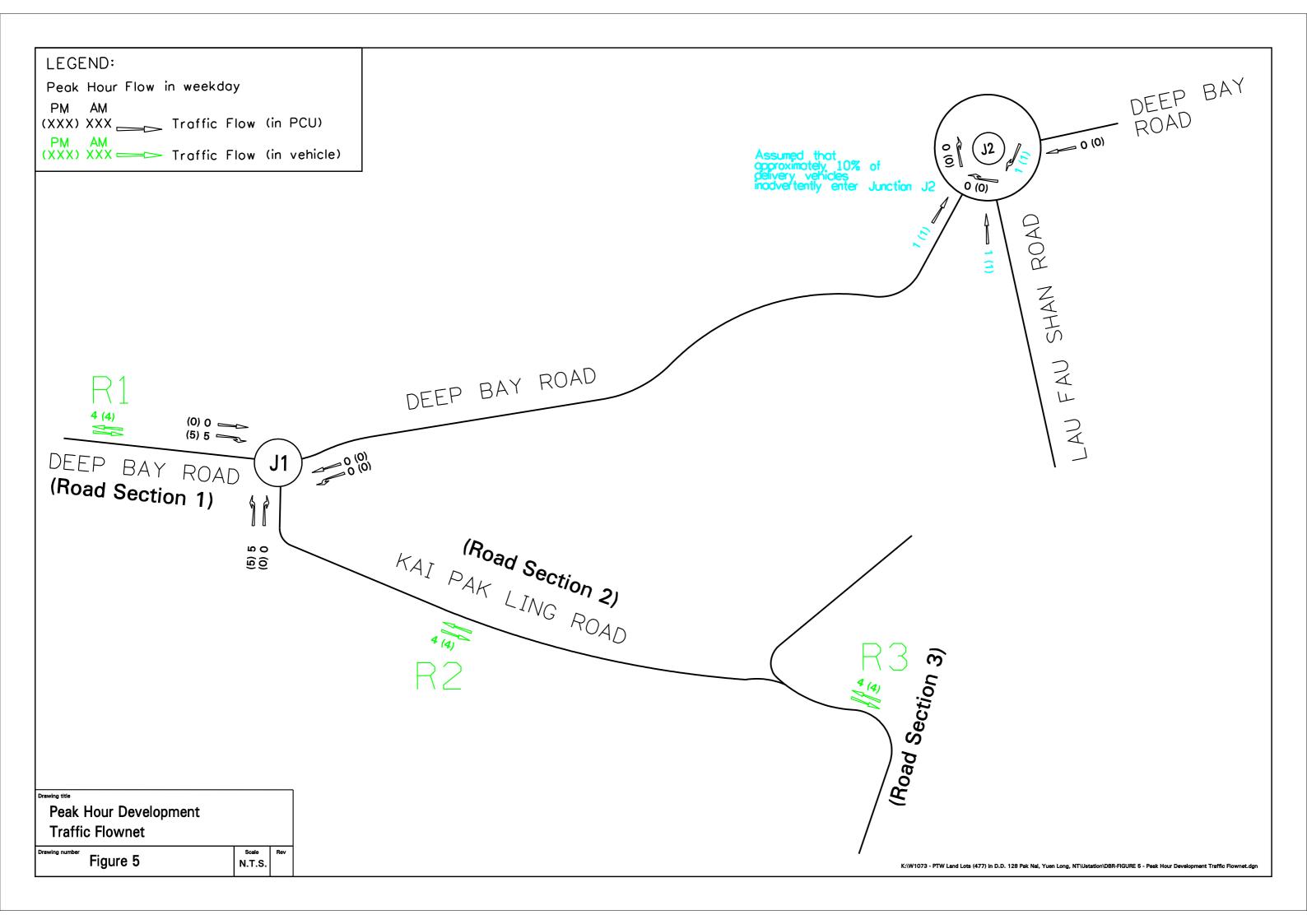
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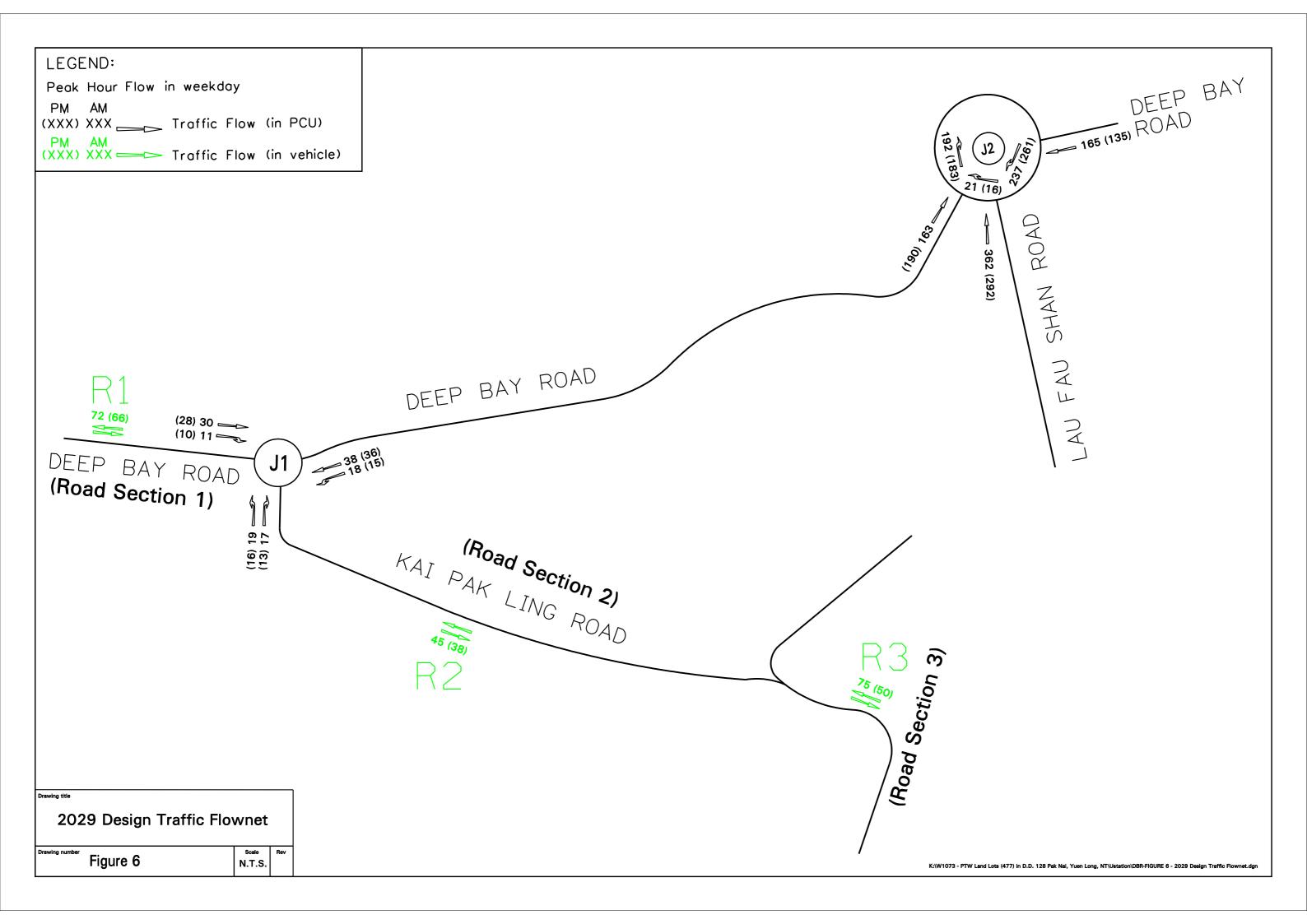


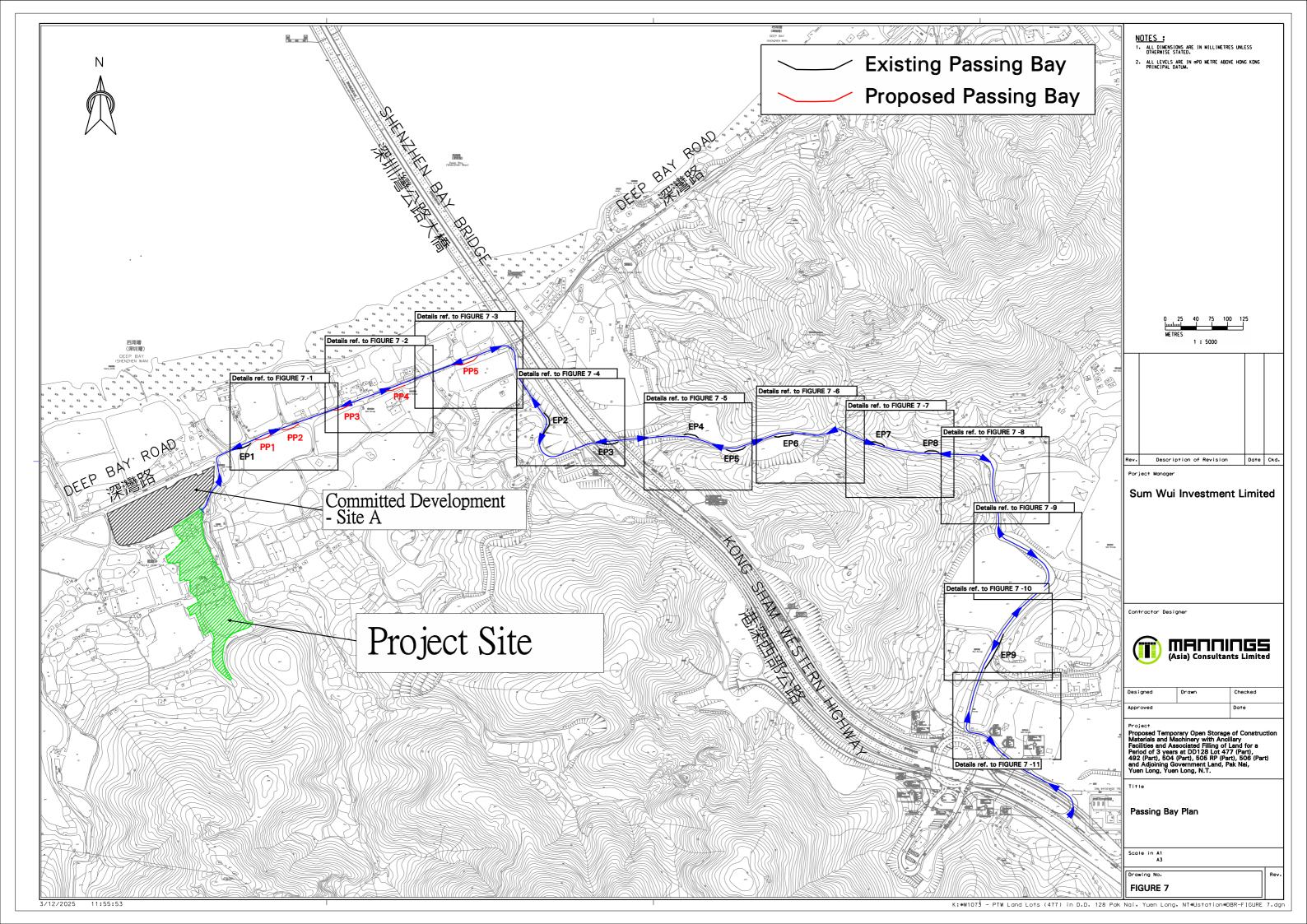


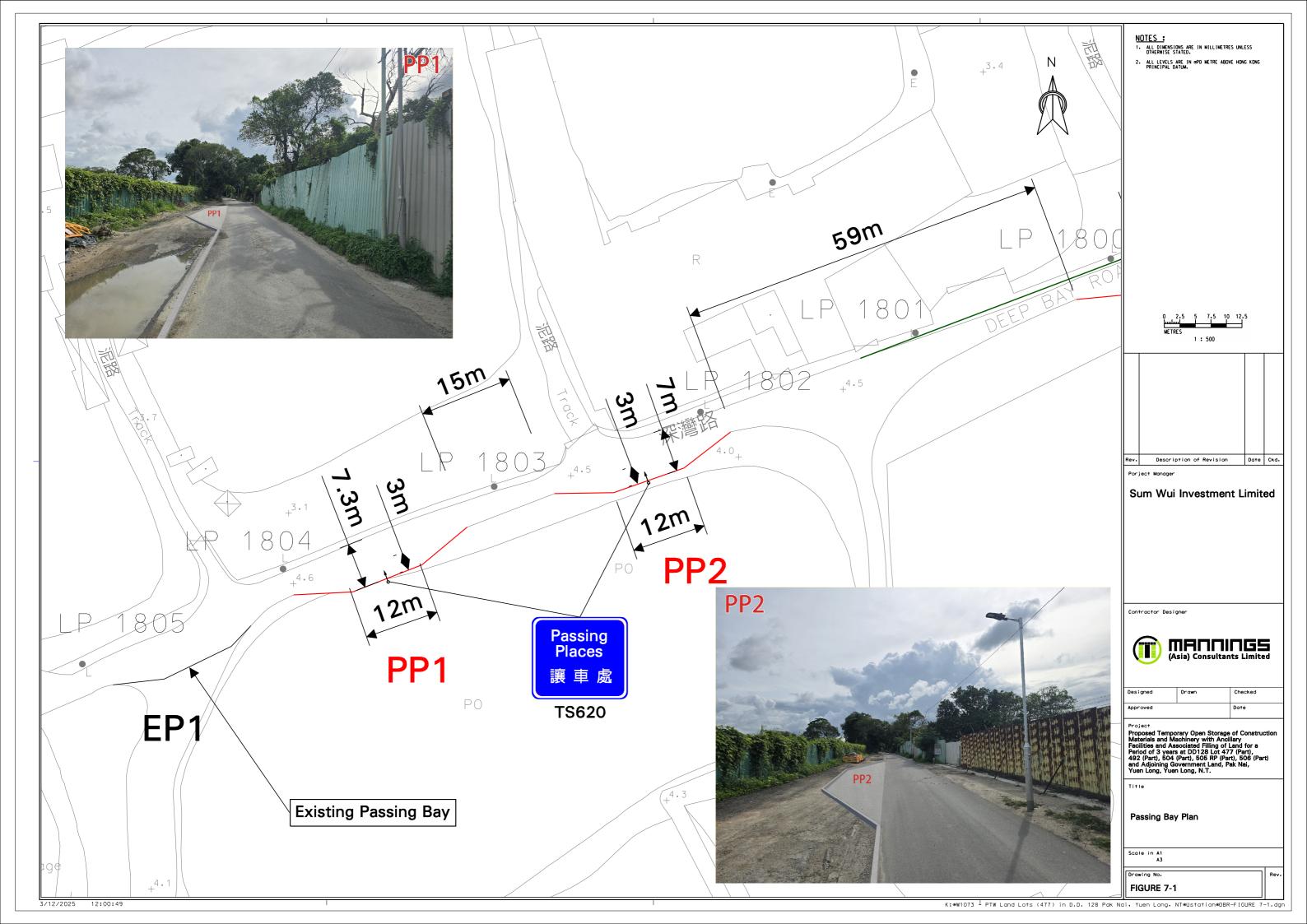




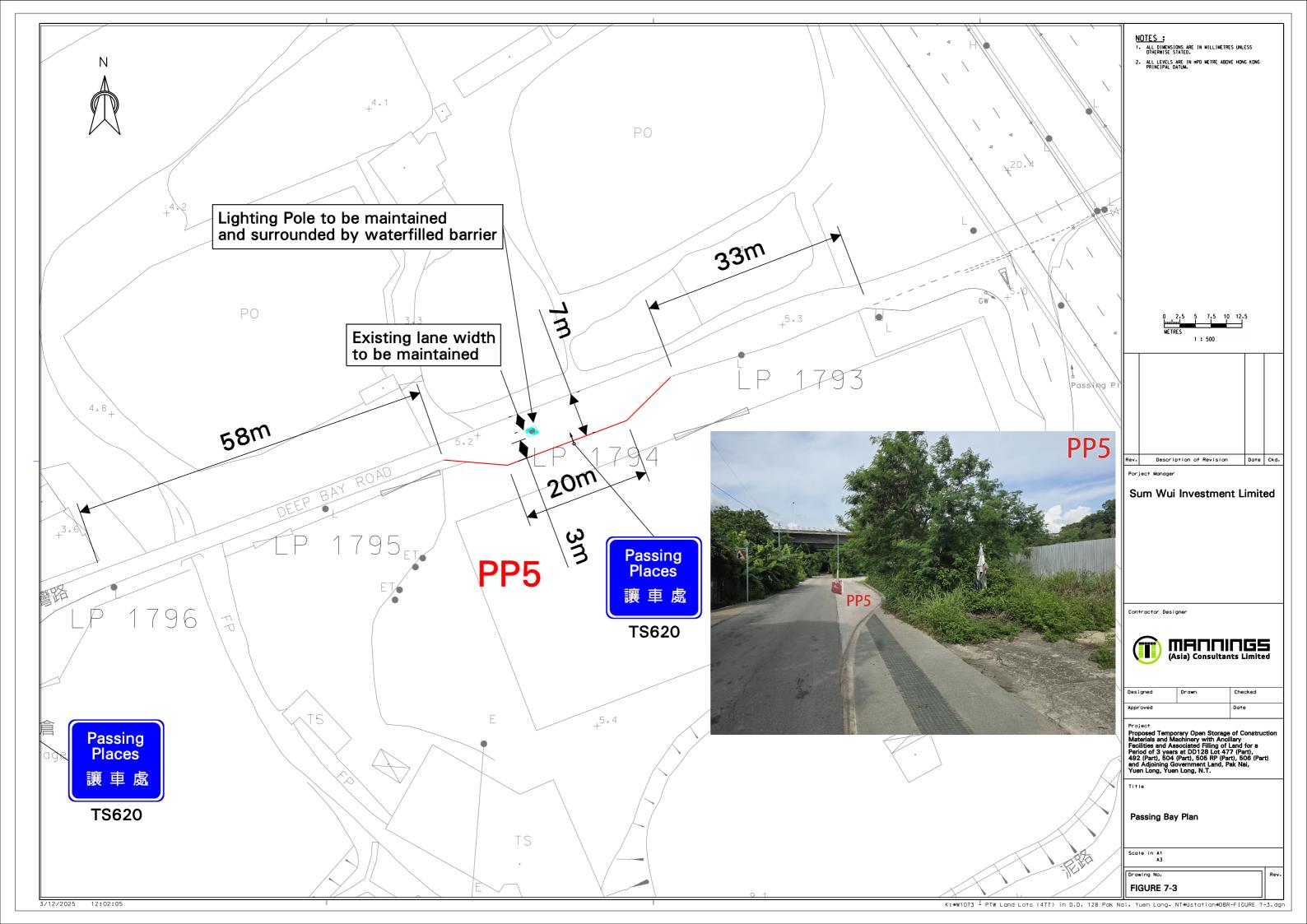


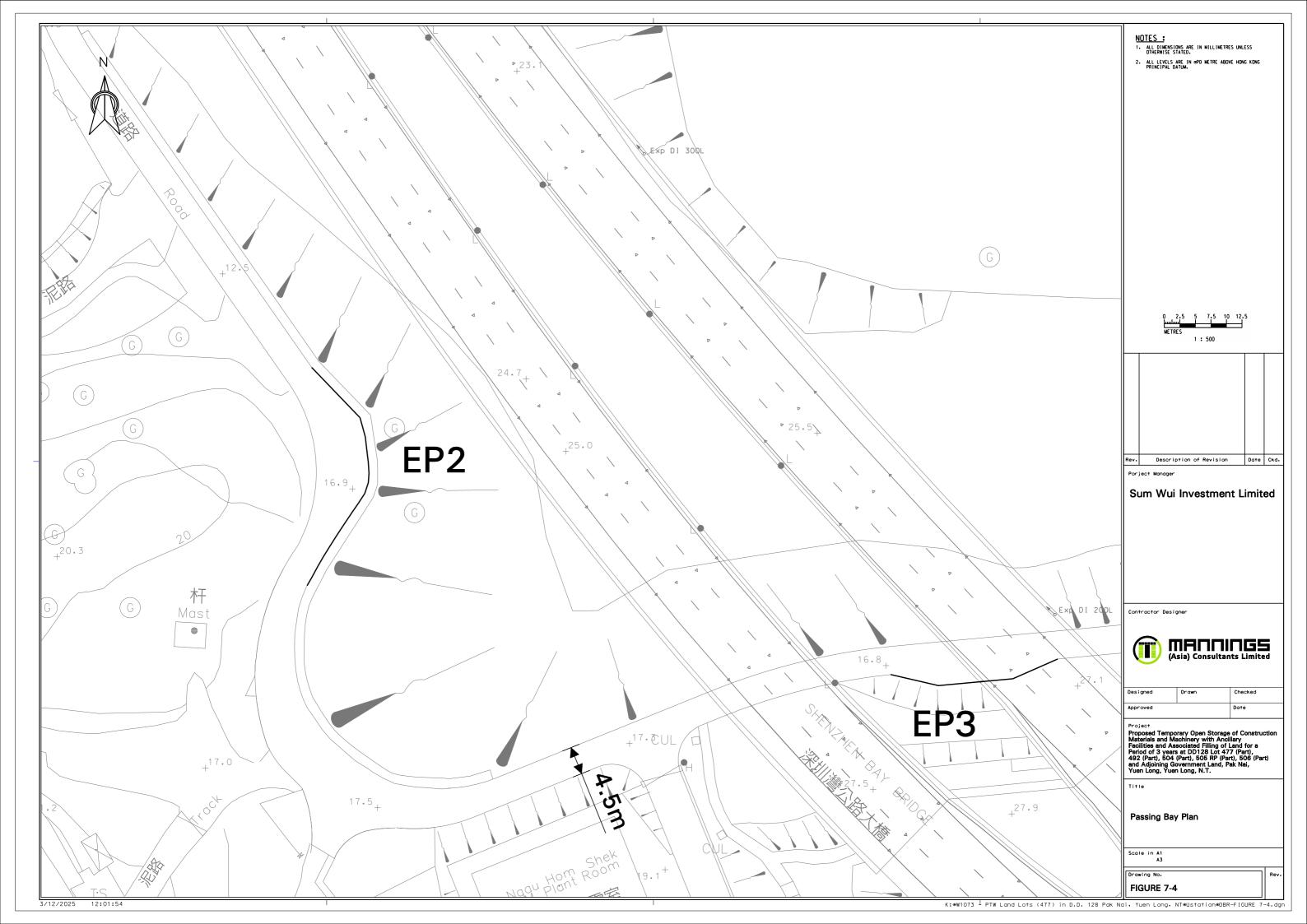


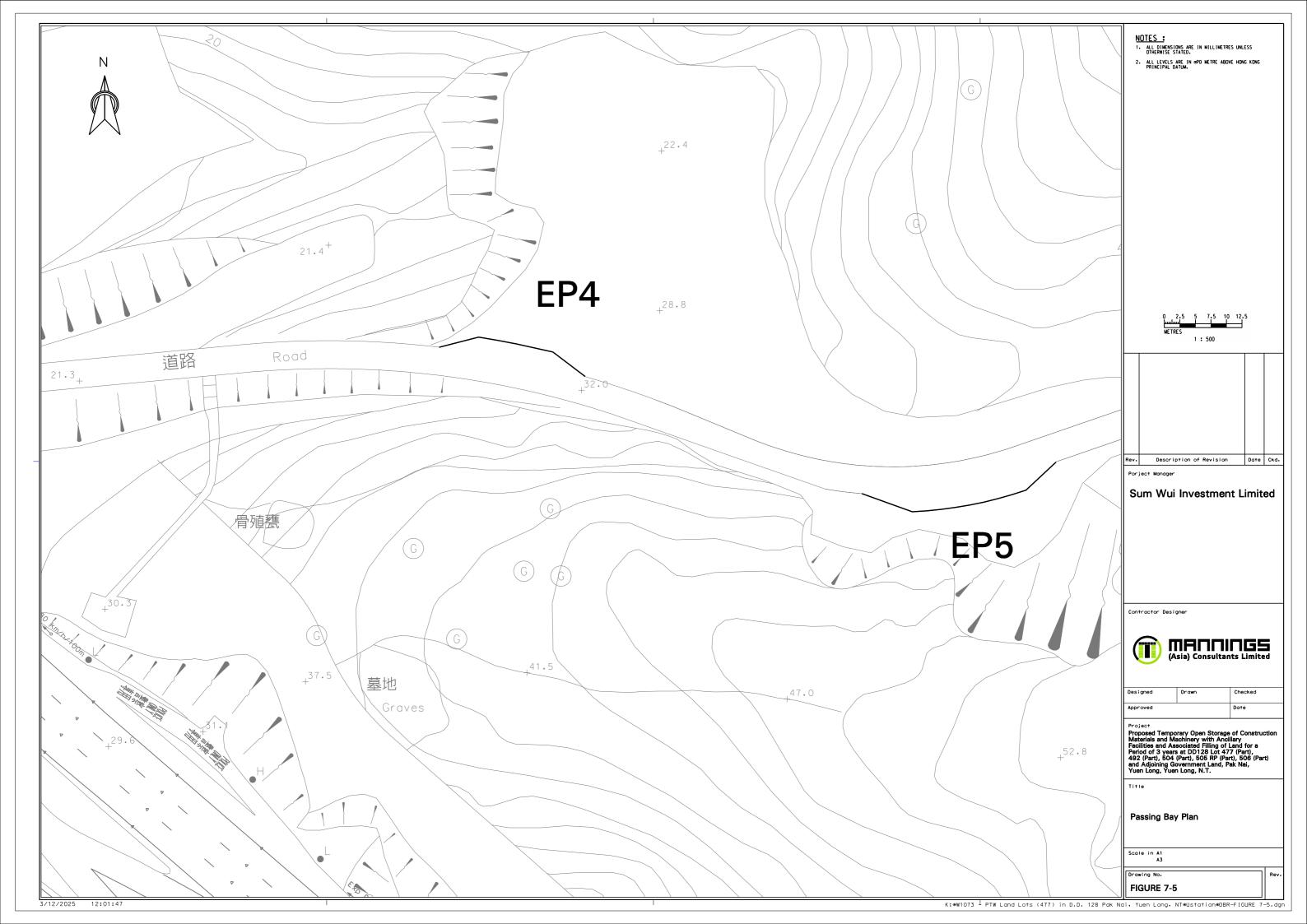


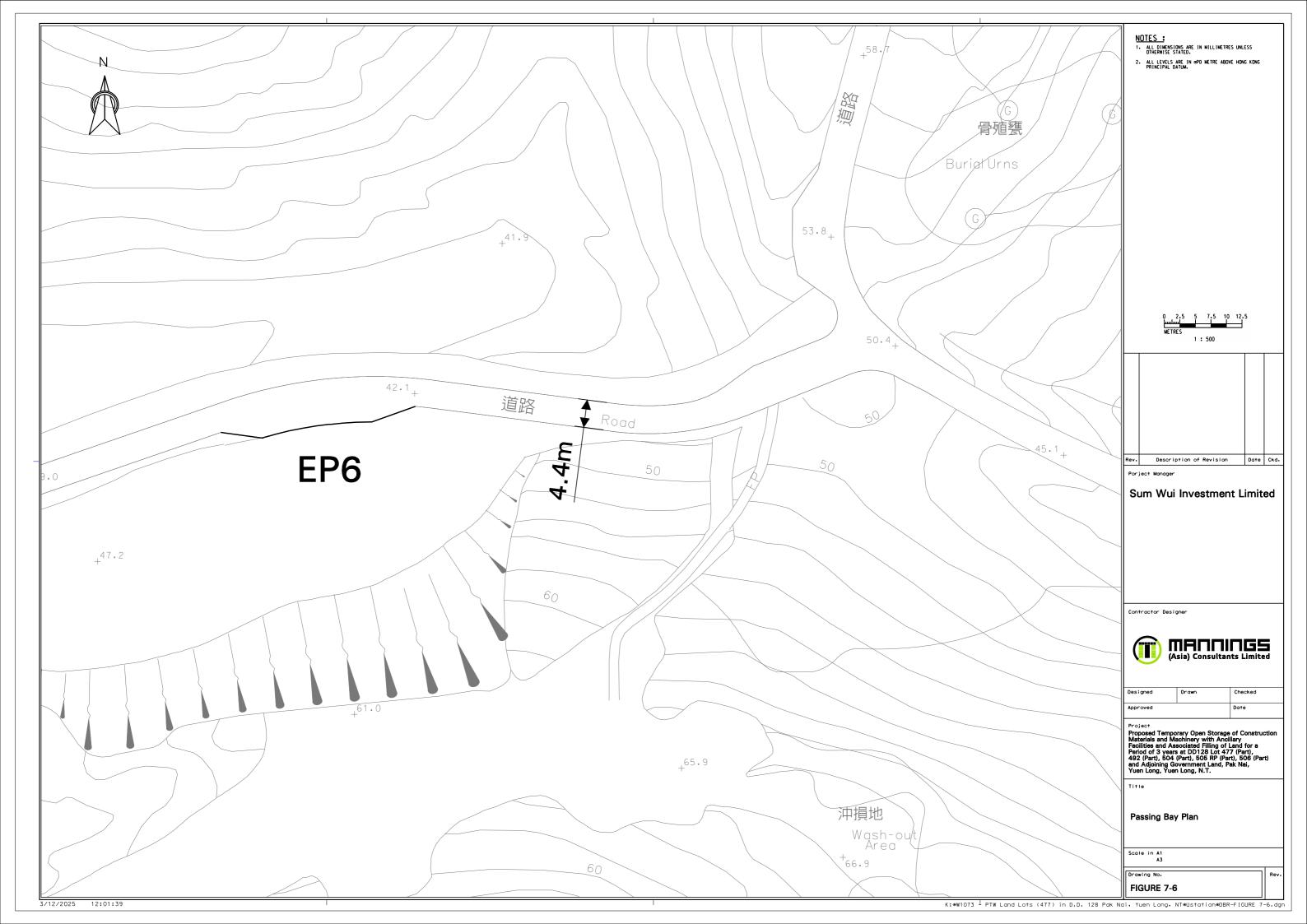


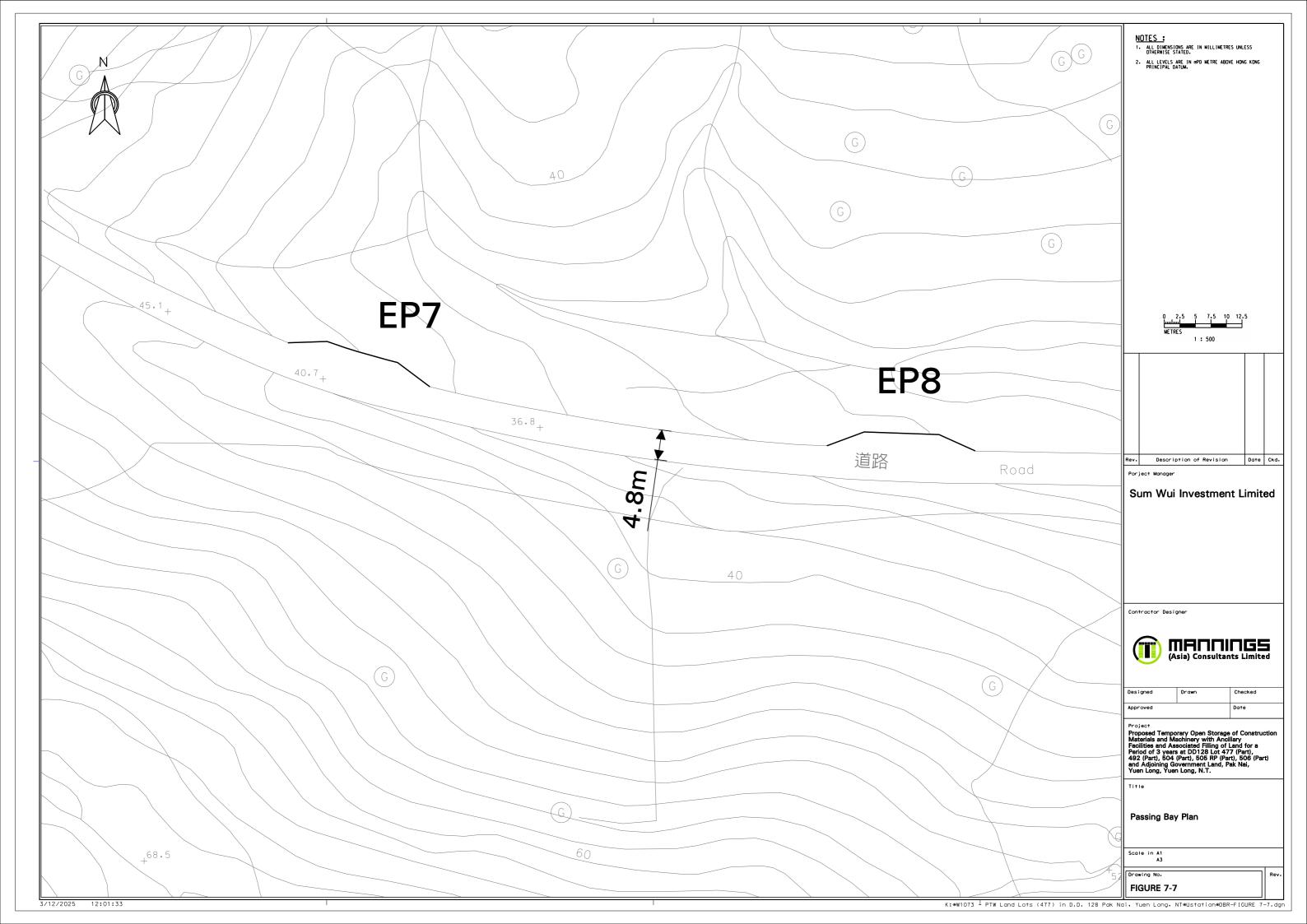


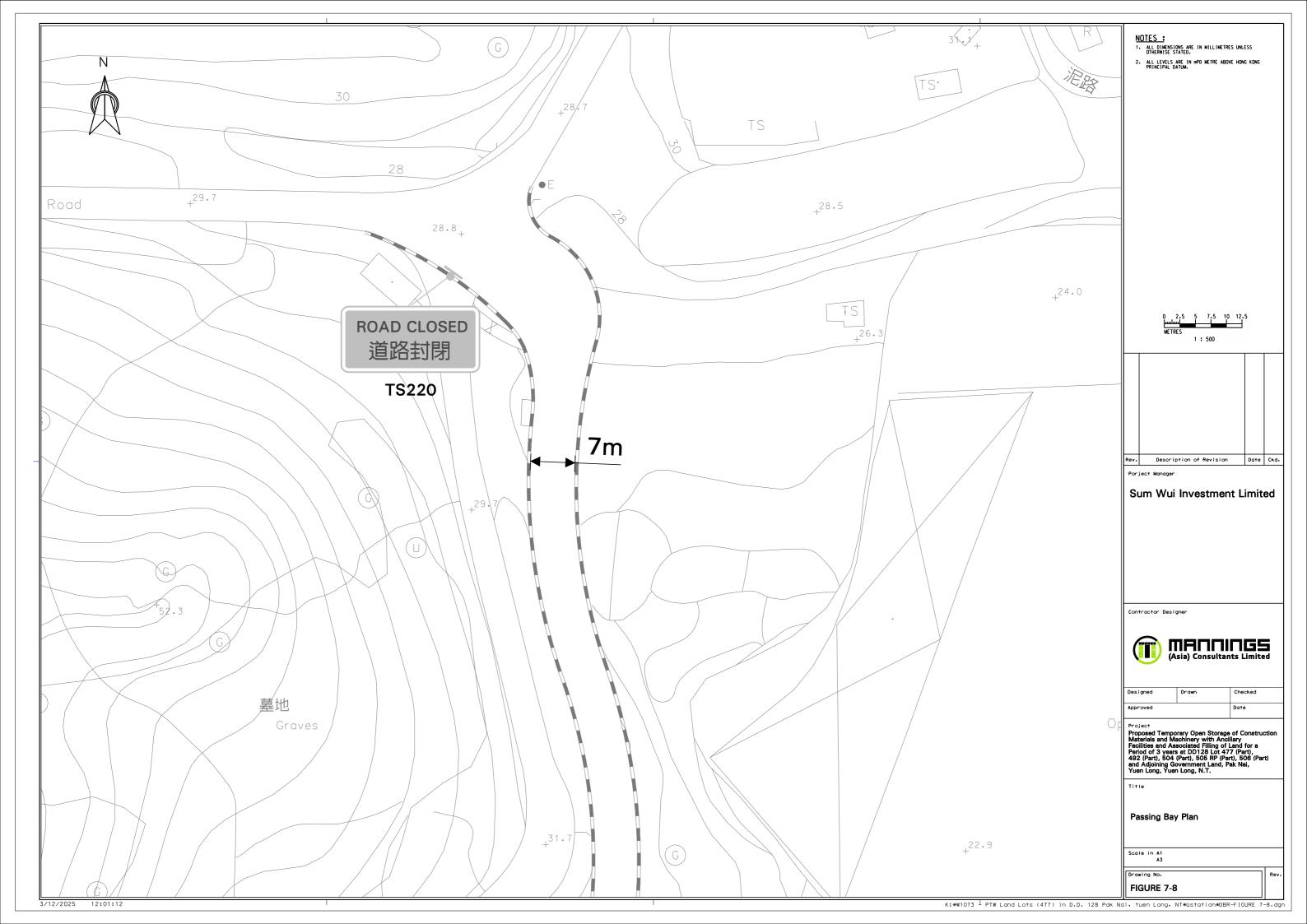


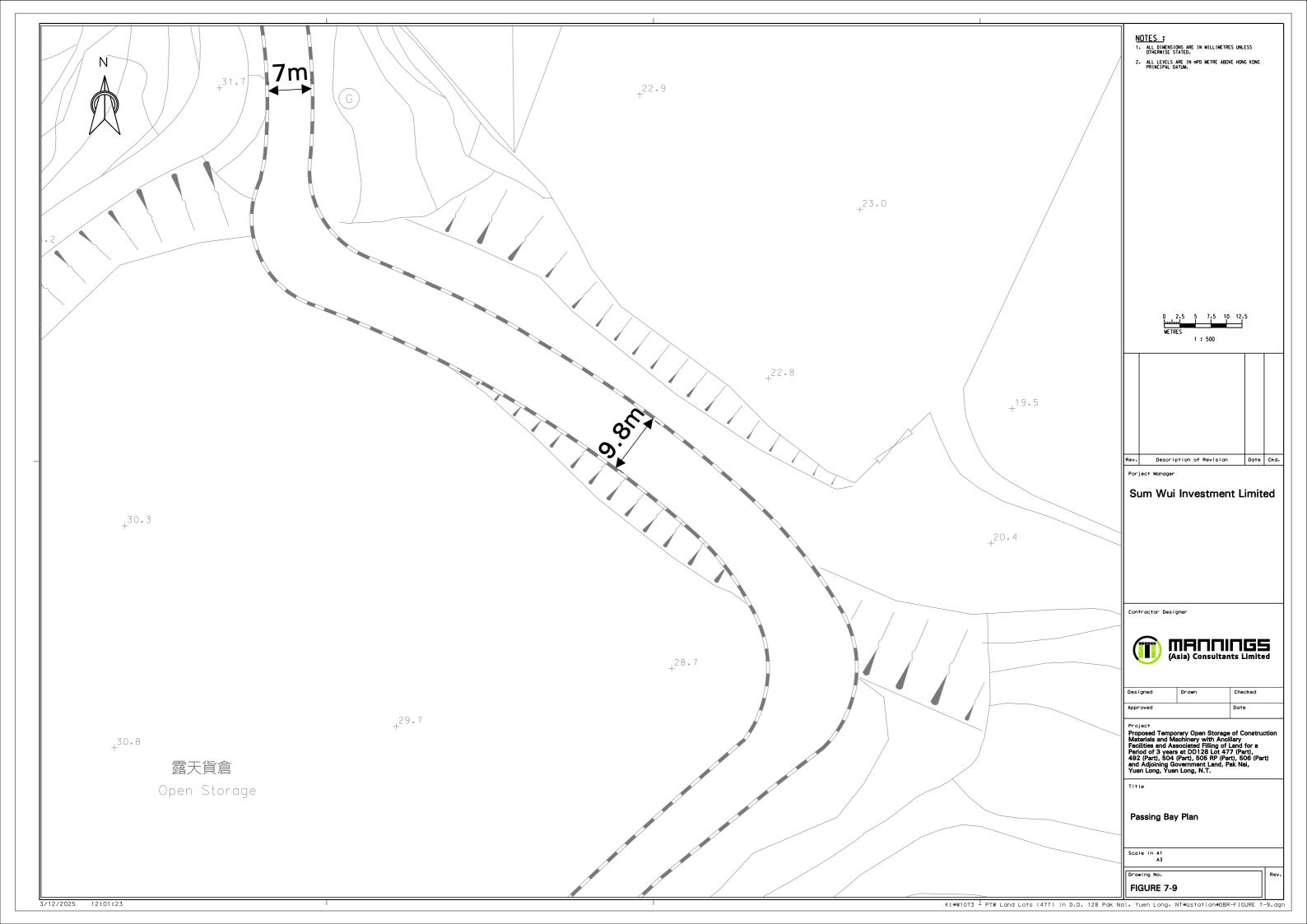


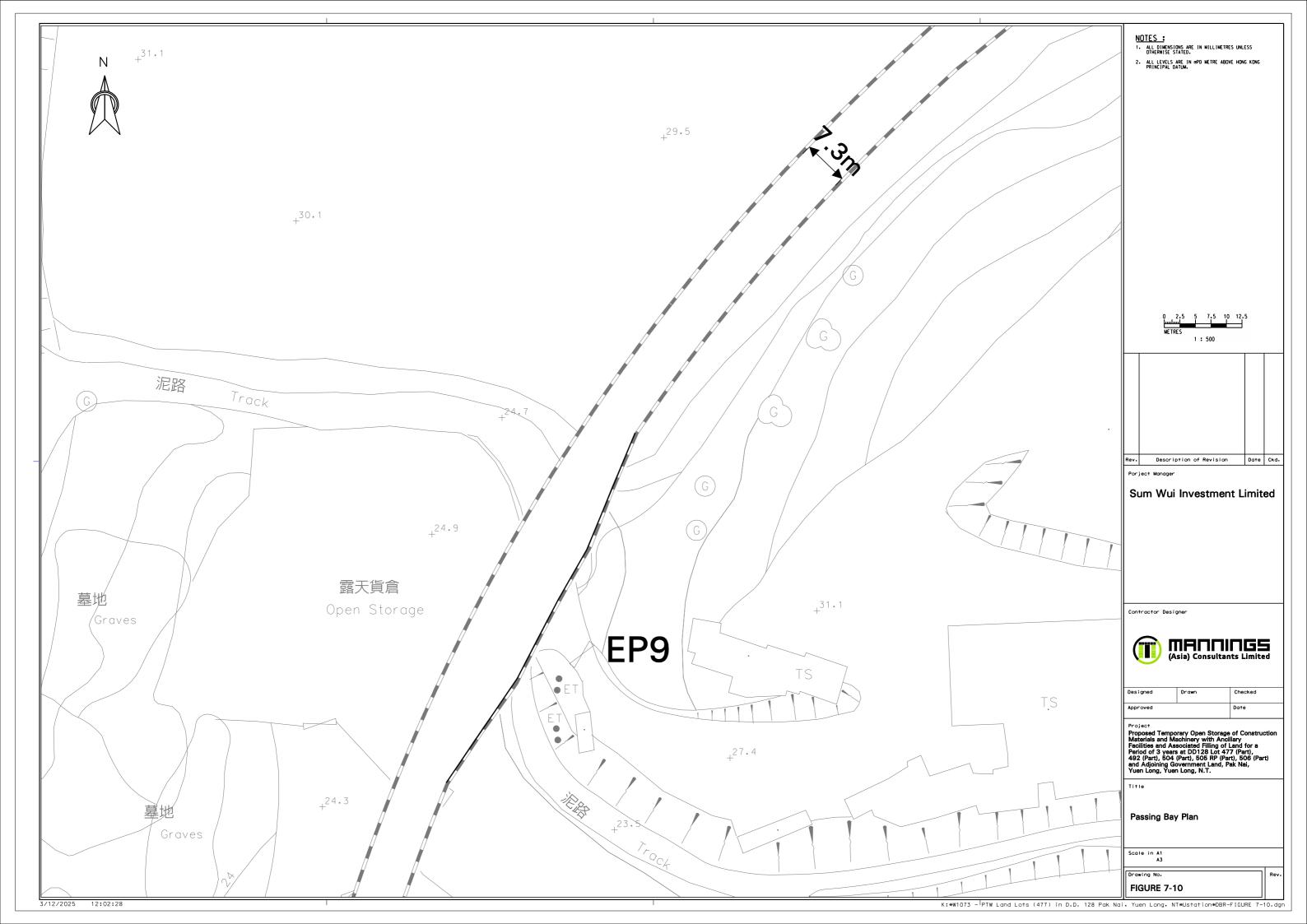


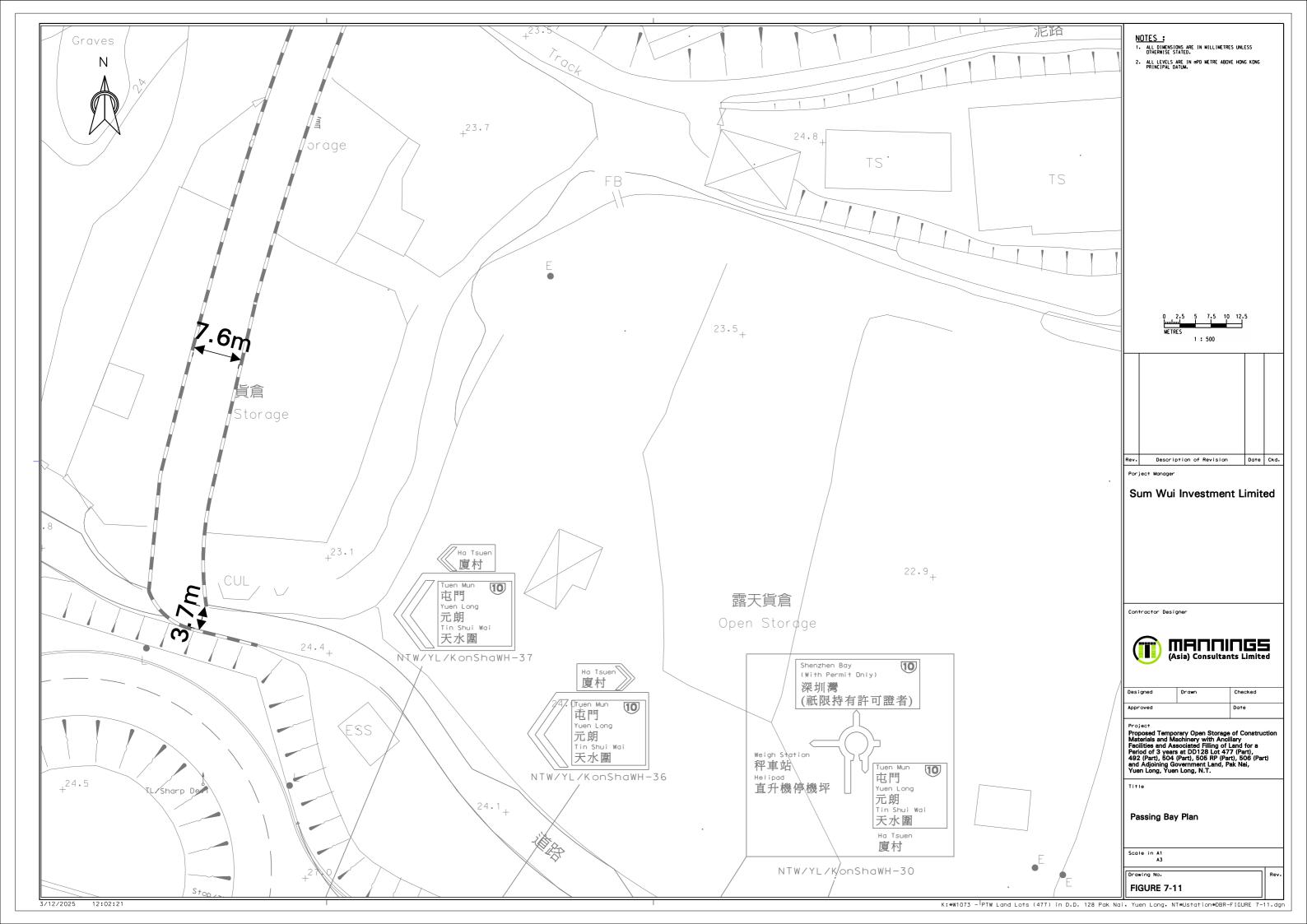


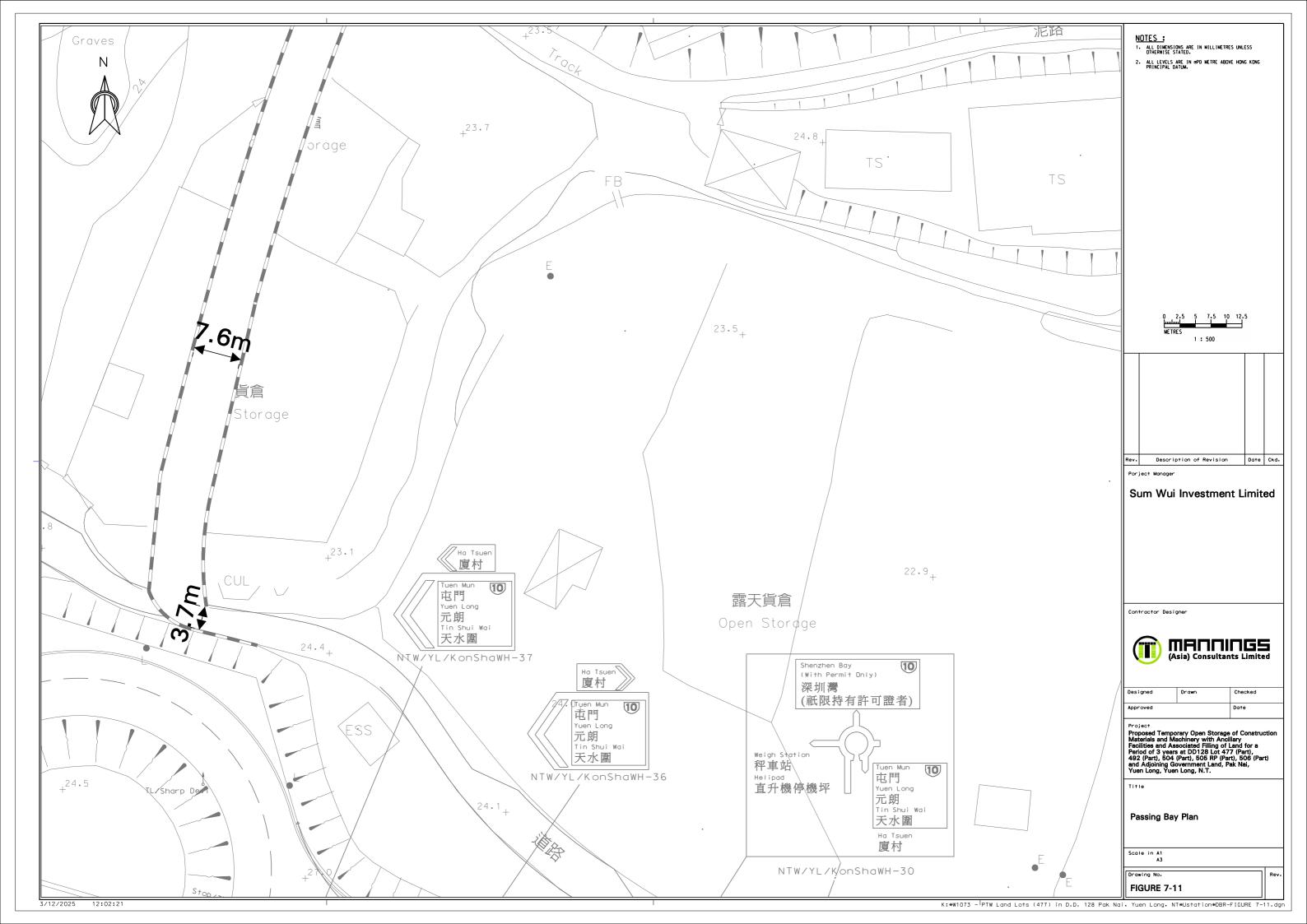












DEVELOPMENT PARAMETERS COVERED BUILDING STRUCTURE USE GROSS AREA FLOOR AREA APPLICATION SITE AREA : 14,072 m² : 950 m² : 13,122 m² (ABOUT) 30 m² (ABOUT) 230 m² (ABOUT) 230 m² (ABOUT) 230 m² (ABOUT) 230 m² (ABOUT) 60 m² (ABOUT) 230 m² (ABOUT) 230 m² (ABOUT) 230 m² (ABOUT) 230 m² (ABOUT) COVERED AREA UNCOVERED AREA (ABOUT) (ABOUT) 7 m (ABOUT)(2-STOREY) 12 m (ABOUT)(1-STOREY) 12 m (ABOUT)(1-STOREY) 12 m (ABOUT)(1-STOREY) 12 m (ABOUT)(1-STOREY) SITE OFFICE AND WASHROOM WAREHOUSE (EXCL. D.G.G.) WAREHOUSE (EXCL. D.G.G.) WAREHOUSE (EXCL. D.G.G.) В1 B2 B3 B4 B5 PLOT RATIO SITE COVERAGE : 0.07 : 7 % (ABOUT) (ABOUT) WAREHOUSE (EXCL. D.G.G.) NO. OF STRUCTURE 950 m² (ABOUT) 980 m² (ABOUT) DOMESTIC GFA NON-DOMESTIC GFA TOTAL GFA : NOT APPLICABLE : 980 m² (A : 980 m² (A (ABOUT) (ABOUT) BUILDING HEIGHT NO. OF STOREY : 7 m - 12 m : 1 - 2 (ABOUT) OPEN STORAGE AREA STACKING HEIGHT : 7,150 m^2 (ABOUT) : NOT MORE THAN 3 m INGRESS / EGRESS 11 m (ABOUT)(W) AREA DESIGNATED FOR OPEN STORAGE OF CONSTRUCTION MATERIALS AND MACHINERY APPLICATION SITE AREA DESIGNATED FOR OPEN STORAGE OF CONSTRUCTION MATERIALS AND MACHINERY PARKING PROVISIONS LEGEND NO. OF PRIVATE CAR PARKING SPACE DIMENSION OF PARKING SPACE : 4 : 5 m (L) X 2.5 m (W) APPLICATION SITE STRUCTURE LOADING/UNLOADING PROVISIONS OPEN STORAGE AREA PARKING SPACE (PRIVATE CAR) NO. OF L/UL SPACE FOR HEAVY GOODS VEHICLE DIMENSION OF L/UL SPACE : 2 : 11 m (L) X 3.5 m (W) L/UL SPACE (HEAVY GOODS VEHICLE) ► INGRESS / EGRESS

VARIOUS LOTS IN D.D. 128 AND ADJOINING GOVERNMENT LAND, PAK NAI, YUEN LONG, NEW TERRITORIES

1 : 1500 @ A4

MN

27.10.2025

LAYOUT PLAN

001

PLAN 9

*SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY.

-RICHES

PROJECT Proposed Temporary Open Storage of Construction Materials and Machinery with Ancillary Facilities and Associated Filling of Land for a Period of 3 years at DD128 Lot 477 (Part), 492 (Part), 504 (Part), 505 RP (Part), 506 (Part) and Adjoining Government Land, Pak Nai, Yuen Long, Yuen Long, N.T.

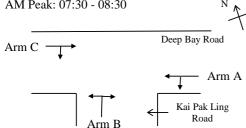


Proposed Temporary Open Storage of Construction Materials and Machinery with Ancillary Facilities and Associated Filling of Land for a Period of 3 years at DD128 Lot 477 (Part), 492 (Part), 504 (Part), 505 RP (Part), 506 (Part) and Adjoining Government Land, Pak Nai, Yuen Long, Yuen Long, N.T.

APPENDIX B

Traffic Analysis

Job No.	W1073	File Name	W1073_DFC_DBR_KPLR	Page	1 of 2
Client	Sum Wui Investment Limited	Calculated	НС	Date	11/11/2025
Subject		Checked	KW		
	Junnciton Capacity Analysis of the junction of Deep Bay Road with Kai Pak Ling Road				
	Existing Traffic Condition From 07:00-20:00 Weekday (AM Peak)	Drg. Ref.			
AM Deal	07:20 09:20 N				



Wcr — Central reserve width

Wc-a — Lane width available to veh. waiting in stream c-a

Wc-b — Lane width available to veh. waiting in stream c-b

Vr c-a— Visibility to the right for veh. waiting in stream c-a

VI b-a— Visibility to the left for veh. waiting in stream b-a

GEOMETRIC DETAILS:

W	=	4 m						
Wcr	=	0 m						
q a-b	=	17 pcu/hr						
q a-c	=	36 pcu/hr						
q c-a	=	29 pcu/hr	Wc-a	=	4 m	Vr b-a	=	70 m
q c-b	=	3 pcu/hr	Wc-b	=	4 m	Vr b-c	=	70 m
q b-a	=	16 pcu/hr	Wb-a	=	4 m	Vr c-b	=	70 m
q b-c	=	11 pcu/hr	Wb-c	=	4 m	Vl b-a	=	70 m

GEOMETRIC PARAMETERS:

D = 0.9391 pcu/hr E = 0.9864 pcu/hr F = 0.9864 pcu/hr Y = 0.8620 pcu/hr

CAPACITY OF MOVEMENT:

Q b-a = 570 Q b-c = 722 Q c-b = 718

RATIO OF DESIGN FLOW TO CAPACITY FOR EACH APPROACH:

Job No.	W1073	File Name	W1073_DFC_DBR_KPLR	Page	2 of 2
Client	Sum Wui Investment Limited	Calculated	НС	Date	11/11/2025
Subject		Checked	KW		
	Junnciton Capacity Analysis of the junction of Deep Bay Road with Kai Pak Ling Road				
	Existing Traffic Condition From 07:00-20:00 Weekday (PM Peak)	Drg. Ref.			
	15 00 15 00 N				



— Major road width Wcr — Central reserve width

Wc-a — Lane width available to veh. waiting in stream c-a Wc-b — Lane width available to veh. waiting in stream c-b

Vr c-a— Visibility to the right for veh. waiting in stream c-a

Vl b-a— Visibility to the left for veh. waiting in stream b-a

Arm A Kai Pak Ling

GEOMETRIC DETAILS:

W	=	4 m						
Wcr	=	0 m						
q a-b	=	15 pcu/hr						
q a-c	=	34 pcu/hr						
q c-a	=	27 pcu/hr	Wc-ad	=	4 m	Vr b-a	=	70 m
q c-b	=	2 pcu/hr	Wc-b	=	4 m	Vr b-c	=	70 m
q b-a	=	13 pcu/hr	Wb-ad	=	4 m	Vr c-b	=	70 m
q b-c	=	8 pcu/hr	Wb-c	=	4 m	Vl b-a	=	70 m

GEOMETRIC PARAMETERS:

0.9391 pcu/hr 0.9864 pcu/hr 0.9864 pcu/hr Y 0.8620 pcu/hr

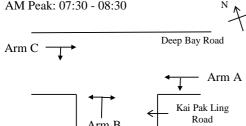
CAPACITY OF MOVEMENT:

Q b-ad 571 Q b-c = 723 Q c-b = 720

RATIO OF DESIGN FLOW TO CAPACITY FOR EACH APPROACH:

R b-c 0.01 0.02 R c-a R c-b 0.00

Job No.	W1073	File Name	W1073_DFC_DBR_KPLR	Page	1 of 2
Client	Sum Wui Investment Limited	Calculated	НС	Date	11/11/2025
Subject		Checked	KW		
	Junnciton Capacity Analysis of the junction of Deep Bay Road with Kai Pak Ling Road				
	2029 Background Flows From 07:00-20:00 Weekday (AM Peak)	Drg. Ref.			
	OF 20 00 20		•		



Wcr — Central reserve width

Wc-a — Lane width available to veh. waiting in stream c-a

Wc-b — Lane width available to veh. waiting in stream c-b

Vr c-a— Visibility to the right for veh. waiting in stream c-a

VI b-a— Visibility to the left for veh. waiting in stream b-a

GEOMETRIC DETAILS:

W	=	4 m						
Wcr	=	0 m						
q a-b	=	18 pcu/hr						
q a-c	=	38 pcu/hr						
q c-a	=	30 pcu/hr	Wc-a	=	4 m	Vr b-a	=	70 m
q c-b	=	3 pcu/hr	Wc-b	=	4 m	Vr b-c	=	70 m
q b-a	=	17 pcu/hr	Wb-a	=	4 m	Vr c-b	=	70 m
q b-c	=	11 pcu/hr	Wb-c	=	4 m	Vl b-a	=	70 m

GEOMETRIC PARAMETERS:

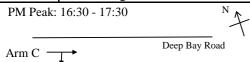
D = 0.9391 pcu/hr E = 0.9864 pcu/hr F = 0.9864 pcu/hr Y = 0.8620 pcu/hr

CAPACITY OF MOVEMENT:

Q b-a = 569 Q b-c = 721 Q c-b = 718

RATIO OF DESIGN FLOW TO CAPACITY FOR EACH APPROACH:

Job No.	W1073	File Name	W1073_DFC_DBR_KPLR	Page	2 of 2
Client	Sum Wui Investment Limited	Calculated	НС	Date	11/11/2025
Subject		Checked	KW		
	Junnciton Capacity Analysis of the junction of Deep Bay Road with Kai Pak Ling Road				
	2029 Background Flows From 07:00-20:00 Weekday (PM Peak)	Drg. Ref.			
DM D 1	16.20 17.20 N				



W — Major road widthWcr — Central reserve width

Arm A

Kai Pak Ling

Read

Wc-a — Lane width available to veh. waiting in stream c-a Wc-b — Lane width available to veh. waiting in stream c-b Vr c-a— Visibility to the right for veh. waiting in stream c-a Vl b-a— Visibility to the left for veh. waiting in stream b-a

GEOMETRIC DETAILS:

W	=	4 m						
Wcr	=	0 m						
q a-b	=	15 pcu/hr						
q a-c	=	36 pcu/hr						
q c-a	=	28 pcu/hr	Wc-ad	=	4 m	Vr b-a	=	70 m
q c-b	=	2 pcu/hr	Wc-b	=	4 m	Vr b-c	=	70 m
q b-a	=	13 pcu/hr	Wb-ad	=	4 m	Vr c-b	=	70 m
q b-c	=	8 pcu/hr	Wb-c	=	4 m	Vl b-a	=	70 m

GEOMETRIC PARAMETERS:

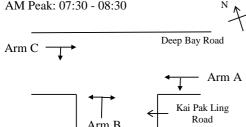
D = 0.9391 pcu/hr E = 0.9864 pcu/hr F = 0.9864 pcu/hr Y = 0.8620 pcu/hr

CAPACITY OF MOVEMENT:

Q b-ad = 570 Q b-c = 722 Q c-b = 719

RATIO OF DESIGN FLOW TO CAPACITY FOR EACH APPROACH:

Job No.	W1073	File Name	W1073_DFC_DBR_KPLR	Page	1 of 2
Client	Sum Wui Investment Limited	Calculated	НС	Date	11/11/2025
Subject		Checked	KW		
	Junnciton Capacity Analysis of the junction of Deep Bay Road with Kai Pak Ling Road				
	2029 Reference Flows From 07:00-20:00 Weekday (AM Peak)	Drg. Ref.			
	05.00.00.00	•	•		



Wcr — Central reserve width

Wc-a — Lane width available to veh. waiting in stream c-a

Wc-b — Lane width available to veh. waiting in stream c-b

Vr c-a— Visibility to the right for veh. waiting in stream c-a

VI b-a— Visibility to the left for veh. waiting in stream b-a

GEOMETRIC DETAILS:

W	=	4 m						
Wcr	=	0 m						
q a-b	=	18 pcu/hr						
q a-c	=	38 pcu/hr						
q c-a	=	30 pcu/hr	Wc-a	=	4 m	Vr b-a	=	70 m
q c-b	=	6 pcu/hr	Wc-b	=	4 m	Vr b-c	=	70 m
q b-a	=	17 pcu/hr	Wb-a	=	4 m	Vr c-b	=	70 m
q b-c	=	14 pcu/hr	Wb-c	=	4 m	Vl b-a	=	70 m

GEOMETRIC PARAMETERS:

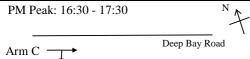
D = 0.9391 pcu/hr E = 0.9864 pcu/hr F = 0.9864 pcu/hr Y = 0.8620 pcu/hr

CAPACITY OF MOVEMENT:

Q b-a = 567 Q b-c = 721 Q c-b = 718

RATIO OF DESIGN FLOW TO CAPACITY FOR EACH APPROACH:

Job No.	W1073	File Name	W1073_DFC_DBR_KPLR	Page	2 of 2
Client	Sum Wui Investment Limited	Calculated	НС	Date	11/11/2025
Subject		Checked	KW		
	Junnciton Capacity Analysis of the junction of Deep Bay Road with Kai Pak Ling Road				
	2029 Reference Flows From 07:00-20:00 Weekday (PM Peak)	Drg. Ref.			
DM D 1	16.20 17.20 N				



Wcr — Central reserve width
Wc-a — Lane width available to veh. waiting in stream c-a

Wc-b — Lane width available to veh. waiting in stream c-b

Vr c-a— Visibility to the right for veh. waiting in stream c-a

VI b-a— Visibility to the left for veh. waiting in stream b-a

Arm A Kai Pak Ling Road

GEOMETRIC DETAILS:

W	=	4 m						
Wcr	=	0 m						
q a-b	=	15 pcu/hr						
q a-c	=	36 pcu/hr						
q c-a	=	28 pcu/hr	Wc-ad	=	4 m	Vr b-a	=	70 m
q c-b	=	5 pcu/hr	Wc-b	=	4 m	Vr b-c	=	70 m
q b-a	=	13 pcu/hr	Wb-ad	=	4 m	Vr c-b	=	70 m
q b-c	=	11 pcu/hr	Wb-c	=	4 m	Vl b-a	=	70 m

GEOMETRIC PARAMETERS:

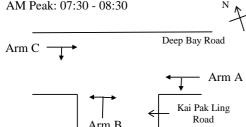
D = 0.9391 pcu/hr E = 0.9864 pcu/hr F = 0.9864 pcu/hr Y = 0.8620 pcu/hr

CAPACITY OF MOVEMENT:

Q b-ad = 569 Q b-c = 722 Q c-b = 719

RATIO OF DESIGN FLOW TO CAPACITY FOR EACH APPROACH:

Job No.	W1073	File Name	W1073_DFC_DBR_KPLR	Page	1 of 2
Client	Sum Wui Investment Limited	Calculated	НС	Date	11/11/2025
Subject		Checked	KW		
	Junnciton Capacity Analysis of the junction of Deep Bay Road with Kai Pak Ling Road				
	2029 Design Flows From 07:00-20:00 Weekday (AM Peak)	Drg. Ref.			
AM D 1	07.20 00.20 N				



Wcr — Central reserve width

Wc-a — Lane width available to veh. waiting in stream c-a

Wc-b — Lane width available to veh. waiting in stream c-b

Vr c-a— Visibility to the right for veh. waiting in stream c-a

VI b-a— Visibility to the left for veh. waiting in stream b-a

GEOMETRIC DETAILS:

W	=	4 m						
Wcr	=	0 m						
q a-b	=	18 pcu/hr						
q a-c	=	38 pcu/hr						
q c-a	=	30 pcu/hr	Wc-a	=	4 m	Vr b-a	=	70 m
q c-b	=	11 pcu/hr	Wc-b	=	4 m	Vr b-c	=	70 m
q b-a	=	17 pcu/hr	Wb-a	=	4 m	Vr c-b	=	70 m
q b-c	=	19 pcu/hr	Wb-c	=	4 m	Vl b-a	=	70 m

GEOMETRIC PARAMETERS:

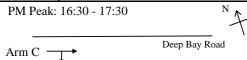
D = 0.9391 pcu/hr E = 0.9864 pcu/hr F = 0.9864 pcu/hr Y = 0.8620 pcu/hr

CAPACITY OF MOVEMENT:

Q b-a = 565 Q b-c = 721 Q c-b = 718

RATIO OF DESIGN FLOW TO CAPACITY FOR EACH APPROACH:

Job No.	W1073	File Name	W1073_DFC_DBR_KPLR	Page	2 of 2
Client	Sum Wui Investment Limited	Calculated	НС	Date	11/11/2025
Subject		Checked	KW		
	Junnciton Capacity Analysis of the junction of Deep Bay Road with Kai Pak Ling Road				
	2029 Design Flows From 07:00-20:00 Weekday (PM Peak)	Drg. Ref.			
DM D 1	16.20 17.20 N				



Wcr — Central reserve width

Wc-a — Lane width available to veh. waiting in stream c-a Wc-b — Lane width available to veh. waiting in stream c-b

Vr c-a— Visibility to the right for veh. waiting in stream c-a

Vl b-a— Visibility to the left for veh. waiting in stream b-a

Arm A Kai Pak Ling Road

GEOMETRIC DETAILS:

W	=	4 m						
Wcr	=	0 m						
q a-b	=	15 pcu/hr						
q a-c	=	36 pcu/hr						
q c-a	=	28 pcu/hr	Wc-ad	=	4 m	Vr b-a	=	70 m
q c-b	=	10 pcu/hr	Wc-b	=	4 m	Vr b-c	=	70 m
q b-a	=	13 pcu/hr	Wb-ad	=	4 m	Vr c-b	=	70 m
q b-c	=	16 pcu/hr	Wb-c	=	4 m	Vl b-a	=	70 m

GEOMETRIC PARAMETERS:

D = 0.9391 pcu/hr E = 0.9864 pcu/hr F = 0.9864 pcu/hr Y = 0.8620 pcu/hr

CAPACITY OF MOVEMENT:

Q b-ad = 567 Q b-c = 722 Q c-b = 719

RATIO OF DESIGN FLOW TO CAPACITY FOR EACH APPROACH:

Job No.	W1073								File Name	W1073_DFC_DBR_LFSR_SHTS	Page	1 of 1
Client	Sum Wui In	vestment	t Limited						Calculated	HC	Date	11/11/2025
Subject	Signal calcu	lation fo	or the junction of Deep Bay Road with Lau Fau	Shan Road / Shan Tung Street - J2					Checked	KW	Date	
3			ndition From 07:00-20:00 Weekday (AM Peak)								1	
	AM Peak: 07:								•	-		
		Deep Ba	y Road Arm C	Arm A Deep Bay Road Arm B Lau Fau Shan Road	d		Deep Bay Roa	220 d	155 180 Arm C	Arm A Deep Bay Road Arm B Lau Fau Shan Road	d	
	Design Para	meters:	Proposed Roundabout Layou	t				Traffic F	Flow Within the Roundabou	l.		
					Arm A	Arm B	Arm C					
	e	=	entry width (m)	=	4.1	4.2	3.9					
	v	=	approach half width (m)	=	2.5	2.6	2.5					
	L	=	effective length of flare (m)	=	12.8	4.8	6.9					
	s	=	sharpness of flare	=	0.20	0.53	0.32					
	ф	=	entry angle (°)	=	51	53	41					
	D	=	inscribed circle diameter (m)	=	20	20	20					
	r	=	entry radius (m)	=	73	5.5	7.9					
	Calculation:				Arm A	Arm B	Arm C					
	q_c	=	circulating flow across entry	=	220	18	180					
	K	=	1-0.00347(f-30)-0.978(1/r-0.05)	=	0.96	0.79	0.89					
	x ₂	=	v+((e-v)/(1+2s))	=	3.64	3.37	3.35					
	M	=	exp((D-60)/10)	=	0.02	0.02	0.02					
	F	=	303x ₂	=	1103.79	1022.38	1014.70					
	t _D	=	1+0.5/(1+M)	=	1.49	1.49	1.49					
	f ·	=	$0.21t_{\rm D}(1+0.2x_2)$	=	0.54	0.52	0.52					
	*c	_	0.2.10(1.0.242)	=	0.54	0.52	0.02					

817

0.18

802

0.42

948

0.16

= $K(F-f_cq_c)$

= traffic flow into the roundabout/Q_E

DFC

Job No.	W1073								File Name	W1073_DFC_DBR_LFSR_SHTS	n	1 of 1
	Sum Wui Inv	rooten o t	T imited						Calculated		Page Date	
Client Subject			: Limited : the junction of Deep Bay Road with Lau Fau Shan Road	/ Shon Tuno Street 12					Checked	HC KW	Date	11/11/2025
subject			r the junction of Deep Bay Road with Lau Fau Shan Road dition From 07:00-20:00 Weekday (PM Peak)	/ Shan Tung Street - J2					Спескеи	ΚW	Date	
	PM Peak: 17:											
	PM Peak: 17:	13 - 16:13	,					N \				
			N .	Arm A				N N	\	Arm A		
			+ \	Deep Bay Road					127	 Deep Bay Road 		
			, , ,						10//			
			10\						701/			
				Arm B				243		Arm B		
				Lau Fau Shan Road) \	Lau Fau Shan Road	t	
				/				(/14			
				>				/*/		>		
		Deep Ba	ay Road				Deep Bay Road		172	274		
		-						176				
			Arm C					176	Arm C			
			l									
			Proposed Roundabout Layout					<u>Iraffic F</u>	Flow Within the Roundabout			
	Design Parar	neters:										
					Arm A	Arm B	Arm C					
	e	=	entry width (m)	=	4.1	4.2	3.9					
	v	=	approach half width (m)	=	2.5	2.6	2.5					
	L	=	effective length of flare (m)	=	12.8	4.8	6.9					
	S	=	sharpness of flare	=	0.20	0.53	0.32					
	ф	=	entry angle (°)	=	51	53	41					
	D	=	inscribed circle diameter (m)	=	20	20	20					
	r	=	entry radius (m)	=	73	5.5	7.9					
	Calculation:											
					Arm A	Arm B	Arm C					
	\mathbf{q}_{c}	=	circulating flow across entry	=	243	14	172					
	K	=	1-0.00347(f-30)-0.978(1/r-0.05)	=	0.96	0.79	0.89					
	\mathbf{x}_2	=	v+((e-v)/(1+2s))	=	3.64	3.37	3.35					
	M	=	exp((D-60)/10)	=	0.02	0.02	0.02					
	F	=	$303x_2$	=	1103.79	1022.38	1014.70					
	$t_{\rm D}$	=	1+0.5/(1+M)	=	1.49	1.49	1.49					
	f_c	=	$0.21t_D(1+0.2x_2)$	=	0.54	0.52	0.52					
	Q_{E}	=	$K(F-f_cq_c)$	=	936	803	820					
	DFC	=	traffic flow into the roundabout/QE	=	0.14	0.34	0.21					

W1073								File Name	W1073_DFC_DBR_LFSR_SHTS	Page	1 of 1
Sum Wui Inv								Calculated	HC	Date	11/11/2025
		r the junction of Deep Bay Road with Lau Fau Shan R						Checked	KW	Date	
		ak Hour Flow From 07:00-20:00 Weekday (AM Peak))								
AM Peak: 07:	30 - 08:30	0									
	Deep Ba	ay Road Arm C	Arm A Deep Bay Road Arm B Lau Fau Shan Road			Deep Bay Road -	233	165 192 Arm C	Arm A Deep Bay Road Arm B Lau Fau Shan Road		
		Proposed Roundabout Layout					Traffic Fl	low Within the Roundabou	t		
Design Paran	neters:										
				Arm A	Arm B	Arm C					
e	=	entry width (m)	=	4.1	4.2	3.9					
v	=	approach half width (m)	=	2.5	2.6	2.5					
L	=	effective length of flare (m)	=	12.8	4.8	6.9					
S	=	sharpness of flare	=	0.20	0.53	0.32					
ф	=	entry angle (°)	=	51	53	41					
D	=	inscribed circle diameter (m)	=	20	20	20					
r	=	entry radius (m)	=	73	5.5	7.9					
Calculation:											
				Arm A	Arm B	Arm C					
q_c	=	circulating flow across entry	=	235	19	192					
Ч _с К	=	1-0.00347(f-30)-0.978(1/r-0.05)	= =	0.96	0.79	0.89					
	=	v+((e-v)/(1+2s))	=	3.64	3.37	3.35					
x ₂ M	=	$\exp((D-60)/10)$	=	0.02	0.02	0.02					
F	=	303x ₂	=	1103.79	1022.38	1014.70					
	=	1+0.5/(1+M)	=	1.49	1.49	1.49					
t_{D} f_{c}		$0.21t_D(1+0.2x_2)$	=	0.54	0.52	0.52					
-	=	$0.21t_D(1+0.2x_2)$ K(F-f _c q _c)	=	940	801	0.52 811					
Q_E											

No.	W1073			-					File Name	W1073_DFC_DBR_LFSR_SHTS	Page	1 of 1
ent	Sum Wui Inv	estment	t Limited						Calculated	HC	Date	11/11/2025
oject	Signal calcul	ation for	r the junction of Deep Bay Road with Lau Fau Shan Road	I / Shan Tung Street - J2					Checked	KW	Date	
	2029 Backgr	ound Pe	eak Hour Flow From 07:00-20:00 Weekday (PM Peak)									
	PM Peak: 17:	15 - 18:1:	5									
		Deep B	Say Road Amn C	Arm A Deep Bay Road Arm B Lau Fau Shan Road			Deep Bay Road 🦳	259	135 135 14 Arm C	Arm A Deep Bay Road Arm B Lau Fau Shan Road	ı	
	Design Parar	matawa	Proposed Roundabout Layout					,	low Within the Roundabout			
	Design Farai	neters.			Arm A	Arm B	Arm C					
	e	=	entry width (m)	=	4.1	4.2	3.9					
	v	=	approach half width (m)	=	2.5	2.6	2.5					
	L	=	effective length of flare (m)	=	12.8	4.8	6.9					
	s	=	sharpness of flare	=	0.20	0.53	0.32					
	ф	=	entry angle (°)	=	51	53	41					
	Ď	=	inscribed circle diameter (m)	=	20	20	20					
	r	=	entry radius (m)	=	73	5.5	7.9					
	Calculation:				Arm A	Arm B	Arm C					
	q_c	=	circulating flow across entry	=	259	14	183					
	K	=	1-0.00347(f-30)-0.978(1/r-0.05)	=	0.96	0.79	0.89					
	\mathbf{x}_2	=	v+((e-v)/(1+2s))	=	3.64	3.37	3.35					
	M	=	exp((D-60)/10)	=	0.02	0.02	0.02					
	F	=	$303x_2$	=	1103.79	1022.38	1014.70					
	$t_{\rm D}$	=	1+0.5/(1+M)	=	1.49	1.49	1.49					
	f_c	=	$0.21t_D(1+0.2x_2)$	=	0.54	0.52	0.52					
	Q_E	=	$K(F-f_cq_c)$	=	928	803	815					
	DFC	=	traffic flow into the roundabout/Q _E	=	0.15	0.36	0.23					

ob No.	W1073								File Name	W1073_DFC_DBR_LFSR_SHTS	Page	1 of 1
lient	Sum Wui In	vestment	t Limited						Calculated	HC	Date	11/11/2025
ubject			r the junction of Deep Bay Road with Lau Fau Shan Roa	d / Shan Tung Street - J2					Checked	KW	Date	<u> </u>
			Hour Flow From 07:00-20:00 Weekday (AM Peak)									
	AM Peak: 07:	30 - 08:3	30									
		Deep B	yay Road Arm C	Arm A Deep Bay Road Arm B Lau Fau Shan Road			Deep Bay Road	236	165 20 Arm C	Arm A Deep Bay Road Arm B Lau Fau Shan Road		
	Design Para	natars	Proposed Roundabout Layout					,	ow Within the Roundabout	Ė		
	resign rata	neters.			Arm A	Arm B	Arm C					
	e	=	entry width (m)	=	4.1	4.2	3.9					
	v	=	approach half width (m)	=	2.5	2.6	2.5					
	L	=	effective length of flare (m)	=	12.8	4.8	6.9					
	s	=	sharpness of flare	=	0.20	0.53	0.32					
	ф	=	entry angle (°)	=	51	53	41					
	D	=	inscribed circle diameter (m)	=	20	20	20					
	r	=	entry radius (m)	=	73	5.5	7.9					
	Calculation:											
					Arm A	Arm B	Arm C					
	q_c	=	circulating flow across entry	=	236	20	192					
	K	=	1-0.00347(f-30)-0.978(1/r-0.05)	=	0.96	0.79	0.89					
	x ₂	=	v+((e-v)/(1+2s))	=	3.64	3.37	3.35					
	M	=	exp((D-60)/10)	=	0.02	0.02	0.02					
	F	=	303x ₂	=	1103.79	1022.38	1014.70					
	t _D	=	1+0.5/(1+M)	=	1.49	1.49	1.49					
	f_c	=	$0.21t_D(1+0.2x_2)$	=	0.54	0.52	0.52					
	Q_E	=	$K(F-f_cq_c)$	=	940	801	811					
	DFC	=	traffic flow into the roundabout/QE	=	0.18	0.45	0.20					

ect Sig	29 Referen 1 Peak: 17:1	ation for ce Peak	r the junction of Deep Bay Road with Lau Fau Shan Road : Hour Flow From 07:00-20:00 Weekday (PM Peak)	Arm A Deep Bay Road Arm B Lau Fau Shan Road			Davis David David	N 260	File Name Calculated Checked	M1073_DFC_DBR_LFSR_SHTS HC KW Arm A Deep Bay Road Arm B Lau Fau Shan Roac	Page Date Date	1 of 1 11/11/202:
ect Sig 202	gnal calcula 29 Referen 1 Peak: 17:1	ation for ce Peak 5 - 18:15	r the junction of Deep Bay Road with Lau Fau Shan Road : Hour Flow From 07:00-20:00 Weekday (PM Peak)	Arm A Deep Bay Road Arm B			Dura Davi David	260	Checked	Arm A Deep Bay Road Arm B	Date	11/11/202
202	29 Referen 1 Peak: 17:1	<u>ce Peak</u> 5 - 18:15	S Hour Flow From 07:00-20:00 Weekday (PM Peak)	Arm A Deep Bay Road Arm B			Dua Bu bad	260	135	Arm A Deep Bay Road Arm B		
	1 Peak: 17:1	5 - 18:15	N N N N N N N N N N N N N N N N N N N	– Deep Bay Road Arm B			Dura Bru Bru	260	0	— Deep Bay Road Arm B	1	
PN			The state of the s	– Deep Bay Road Arm B			Dura Bru Brad	260	0	— Deep Bay Road Arm B	d	
		Deep Ba	+	– Deep Bay Road Arm B			Dura Davi David	260	0	— Deep Bay Road Arm B	d	
			Arm C				Deep Bay Road	189	Arm C	292		
D.	-i D		Proposed Roundabout Layout					Traffic Flov	w Within the Roundabout	t.		
De	esign Param	neters:			Arm A	Arm B	Arm C					
	e	=	entry width (m)	=	4.1	4.2	3.9					
	v	_	approach half width (m)	_	2.5	2.6	2.5					
	L	=	effective length of flare (m)	=	12.8	4.8	6.9					
	s	=	sharpness of flare	=	0.20	0.53	0.32					
	ф	=	entry angle (°)	=	51	53	41					
	D	=	inscribed circle diameter (m)	=	20	20	20					
	r	=	entry radius (m)	=	73	5.5	7.9					
Ca	lculation:		,		Arm A	Arm B	Arm C					
	q_c	=	circulating flow across entry	=	260	15	183					
	Ч _с К	=	1-0.00347(f-30)-0.978(1/r-0.05)	=	0.96	0.79	0.89					
		=	v+((e-v)/(1+2s))	=	3.64	3.37	3.35					
	X ₂ M	=	$\exp((D-60)/10)$	=	0.02	0.02	0.02					
	F	=	303x ₂	=	1103.79	1022.38	1014.70					
	t _D	=	1+0.5/(1+M)	=	1.49	1.49	1.49					
	f _c	=	$0.21t_D(1+0.2x_2)$	=	0.54	0.52	0.52					
	Q _E	=	$K(F-f_cq_c)$	=	927	803	815					
	DFC	=	$K(1^{-1}e^{Q_C})$ traffic flow into the roundabout/ Q_E	=	0.15	0.36	0.23					

. W1073								File Name	W1073_DFC_DBR_LFSR_SHTS	Page	1 of 1
Sum Wui It	nvestmen	t Limited						Calculated	HC	Date	11/11/202:
		r the junction of Deep Bay Road with Lau Fau Shan Road / S	Shan Tung Street - J2					Checked	KW	Date	-
2029 Desig	n Peak H	our Flows From 07:00-20:00 Weekday (AM Peak)									
AM Peak: 07	7:30 - 08:3	30						•			
	Deep B	Say Road Arm C	Arm A Deep Bay Road Arm B Lau Fau Shan Road			Deep Bay Road	237	21	Arm A Deep Bay Road Arm B Lau Fau Shan Roac		
Design Para	ameters:	Proposed Roundabout Layout					•	Flow Within the Roundabout			
		111 / N		Arm A	Arm B	Arm C					
e	=	entry width (m) approach half width (m)	= =	4.1 2.5	4.2 2.6	3.9 2.5					
v L	=	effective length of flare (m)	= =	12.8	4.8	6.9					
_	=	sharpness of flare		0.20	0.53	0.32					
s d	=	entry angle (°)	= =	51	53	0.32 41					
φ D	=	inscribed circle diameter (m)			20						
		* *	=	20 73	5.5	20 7.9					
r	=	entry radius (m)	=	/3	5.5	1.9					
Calculation	:				A	4					
		1.1.0		Arm A	Arm B	Arm C					
q _c	=	circulating flow across entry	=	237	21	192					
K	=	1-0.00347(f-30)-0.978(1/r-0.05)	=	0.96	0.79	0.89					
x ₂	=	v+((e-v)/(1+2s))	=	3.64	3.37	3.35					
M	=	exp((D-60)/10)	=	0.02	0.02	0.02					
F	=	303x ₂	=	1103.79	1022.38	1014.70					
t _D	=	1+0.5/(1+M)	=	1.49	1.49	1.49					
f_c Q_E	=	$0.21t_D(1+0.2x_2)$	=	0.54	0.52	0.52					
	=	$K(F-f_cq_c)$	=	939	800	811					

0.18 0.45 0.20

DFC = traffic flow into the roundabout/ Q_E

o. W107	73								File Name	W1073_DFC_DBR_LFSR_SHTS	Page	1 of 1
	Wui Inve	estment	Limited						Calculated	НС	Date	11/11/2025
			the junction of Deep Bay Road with Lau Fau Shan F	Road / Shan Tung Street - J2					Checked	KW	Date	
			our Flows From 07:00-20:00 Weekday (PM Peak)	6				-		<u> </u>		
	Peak: 17:1:									-		
		Deep Ba	ay Road Arm C	Arm A Deep Bay Road Arm B Lau Fau Shan Road			Deep Bay Road -	261	135 16 Arm C	Arm A Deep Bay Road Arm B Lau Fau Shan Road	ı	
Desig	gn Param	neters:	Proposed Roundabout Layout					,	w Within the Roundabou	į.		
					Arm A	Arm B	Arm C					
	e	=	entry width (m)	≡	4.1	4.2	3.9					
,	v	=	approach half width (m)	=	2.5	2.6	2.5					
I	L	=	effective length of flare (m)	=	12.8	4.8	6.9					
2	s	=	sharpness of flare	≡	0.20	0.53	0.32					
(ф	=	entry angle (°)	≡	51	53	41					
I	D	=	inscribed circle diameter (m)	=	20	20	20					
1	r	=	entry radius (m)	=	73	5.5	7.9					
Calcu	ulation:				Arm A	Arm B	Arm C					
	q_c	=	circulating flow across entry	=	261	16	183					
	чc К	=	1-0.00347(f-30)-0.978(1/r-0.05)	=	0.96	0.79	0.89					
		=	v+((e-v)/(1+2s))	=	3.64	3.37	3.35					
	X ₂ M	=	$\exp((D-60)/10)$	= =	0.02	0.02	0.02					
	F	=	303x ₂	= =	1103.79	1022.38	1014.70					
	t _D	=	1+0.5/(1+M)	=	1.49	1.49	1.49					
ų 4	ъ f	=	$0.21t_D(1+0.2x_2)$	=	0.54	0.52	0.52					
	1 _C		$0.211_D(1+0.2x_2)$ K(F-f _c q _c)	= =	927	802	815					
1	Q_E	=										