1. EXISTING TRAFFIC AND TRANSPORT CONDITIONS

1.1. Existing Road Network

1.1.1. As shown in Figure 2-1, the Application Site is located at the Eastern Portion of Lin Ma Hang Road to the West. Current condition of the connecting carriageway is described as follows:

1.1.2. Lin Ma Hang Road extends west from the application site to the Heung Yuen Wai Bus Terminal. This portion of Lin Ma Hang Road is a single-track rural road, acting as single carriageway with 1-lane-2-way operation, and passing areas are generally identified along the carriageway, while serving a low volume of traffic. The design capacity of 100pcu is used for this portion, based on TPDM Vol 3 Chapter 3.11.3.1.

1.1.3. Extending West from the Heung Yuen Wai Bus Terminal, Lin Ma Hang Road becomes a 2-land 2-way operation, connects to the Heung Yuen Wai Highway, and all the way to Man Kam To Road. The design capacity of this portion is estimated to be 600pcu, according to the Note of Traffic Forecast Review (Western Section) dated March 2019.

1.2. Traffic Surveys

1.2.1. As the proposed use is for temporary warehouse storage, with no outside vehicle, traffic generation is expected to be very minimal. It is anticipated that the proposed use will not incur adverse traffic impact.

1.2.2. In order to assess the existing traffic conditions, the key road link was identified as the portion of Lin Ma Hang Road where it is a single-track rural road, and a vehicle count survey was conducted between 7:00am to 10:00 and 16:00 to 19:00 on 23 February, 2024 (FRI). Flow counts are recorded at 15-minute intervals; and converted to Passenger Car Unit (pcu) values. The highest total 60 minute traffic volume is used as the peak hour traffic volume.

1.2.3. The location of where the vehicle count survey was conducted is shown in the map in Appendix I.

1.2.4. The morning and afternoon peak times for the network are determined to be 8:00am to 9:00am and 4:00pm to 5:00pm respectively.

1.2.5. Based on the existing traffic flows, the peak hour performances of the key road link in the vicinity of the Application Site is assessed and the results are indicated in Table 1.1. The raw data are shown in Appendix II. The Volume to Capacity (V/C) ratio represents the proportion of road capacity used by traffic flow during peak hours. Higher V/C ratios for roads indicate greater use of road connection problems. A V/C ratio of 0.85 or less indicates that there is sufficient capacity available and vehicles are not expected to experience significant queues and delays.

Table 1.1 2023 Pak hour Road Link Capacity Assessment

Location	Direction	Design[(1)] Capacity (Veh/hr)	Observed Flow		V/C	
			AM	PM	AM	PM
Lin Ma Hang Road (east of Heung Yuen Wai Bus Terminal)	2-way	100	30	23	0.30	0.23

Notes: (1) TPDM Vol 3 Chapter 3.11.3.1

1.2.6. The results reveal that the key road link, Lin Ma Hang Road, operates within capacity during the peak hours.

2. Traffic Impact Assessment

2.1. Design Year

2.1.1. This application is seeking temporary permission for a period of 3 years only, which targets to commence by the end of 2024.

2.2. Methodology

2.2.1. In forecasting the future traffic flows on the road network in the Study Area, due considerations are given to the following information and factors:

- Projections of Population Distribution 2021-2029 published by the Planning Department
- Committed and planned developments in the Study Area

2.2.2. The following steps are undertaken to derive the 2027 Peak Hour Reference Flows (i.e. without the Application Site) and Design Flows (i.e. with the Application Site).

2027 Background Flow = 2024 Observed Flow x annual growth factors $(1 + 8.9\%)^1$

2027 Reference Flows = 2027 Background Flow + additional traffic by planned developments

2027 Design Flow = 2027 Reference Flow + Development Flow of this Application

2.3. Future Year Reference Traffic Flows

2.3.1. According to the Projections of Population Distribution 2021-2029 published by the Planning Department, the projected population in North District in 2024 and 2027 are 361,600 and 393,900 respectively. Thus, a growth rate of 8.9% is adopted over the 3 year period

2.4. Planned and Committed Developments

2.4.1. An approved application, A/NE-TKLN/58, is identified in the area, and making reference to their application, the estimated trip generation and attraction is listed in Table 2.1.

Table 2.1 Planned and Committed Developments

	Generation		Attraction	
	AM	PM	AM	PM
A/NE-TKLN/58	4	3	3	3

2.5. Development Flow of this Application

2.5.1. The operation is expected to remain the same at the application site. Thus, the traffic generation and attraction is estimated based on the operations at the applicant's previous location at Ma Tso Lung is shown Table 2.2.

Table 2.2 Expected Trip Generation and Attraction

Time Period	Trip Generation and Attraction				
	PC		MGV		2- Way Total
	In	Out	In	Out	
Trips at AM peak per hour (08:00-10:00)	2	0	1	0	3
Trips at PM peak per hour (17:00-19:00)	0	2	0	1	3
Traffic trip per hour (average) (10:00-17:00)	0.25	0.25	1	1	2.5

2.6. Future Year Link Capacity Assessment

2.6.1. The link capacity assessment results under the 2027 reference and design scenarios are summarised in Table 2.3

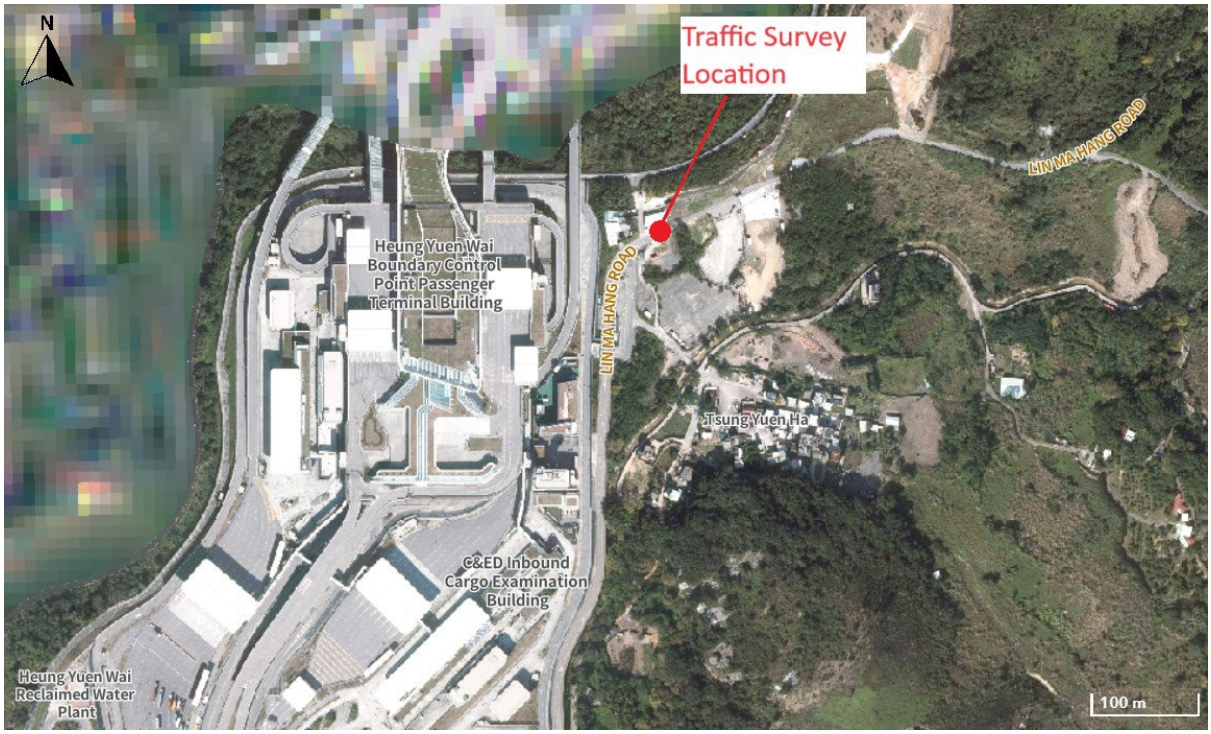
Table 2.3 2027 Traffic Assessment

Road Link	Link Capacity (veh/hr)	Reference Flow (veh/hr)		Reference V/C Ratio		Design Flow (veh/hr)		Desing V/C Ratio	
		AM	PM	AM	PM	AM	PM	AM	PM
Lin Ma Hang Raod	100	30 x 1.089 + 4 =37	23 x 1.089 +3 =28	0.37	0.28	37 + 3 = 40	28 + 3 = 31	0.40	0.31

2.6.2. As shown in the table above, the capacity of the key road link would be performing satisfactorily during the peak periods for both Reference and Design Scenarios. No adverse traffic impact is anticipated.

2.6.3. With only 3 trips per hour generated from the application, it is expected that there will not be significant negative impacts regarding the safety of road users and the traffic network of the area concerned.

Appendix I: Location of Traffic Survey



Appendix II: Traffic Survey Raw Data

Time	Private Car 私家車	Mini Bus 小巴	LGV 輕型貨車	MGV/HGV 中型貨車/ 重型貨車
7:00-7:15	0	2	1	0
7:15-7:30	0	0	0	0
7:30-7:45	1	1	1	1
7:45-8:00	2	1	1	1
8:00-8:15	3	1	2	2
8:15-8:30	0	1	1	0
8:30-8:45	4	1	0	0
8:45-9:00	4	1	3	0
9:00-9:15	5	1	0	0
9:15-9:30	2	1	1	1
9:30-9:45	0	1	0	0
9:45-10:00	0	1	0	0
16:00-16:15	4	1	1	1
16:15-16:30	1	1	1	0
16:30-16:45	0	1	1	0
16:45-17:00	2	1	1	1
17:00-17:15	2	1	0	1
17:15-17:30	2	1	0	0
17:30-17:45	2	1	1	0
17:45-17:00	0	1	0	0
18:00-18:15	1	1	1	0
18:15-18:30	2	1	0	0
18:30-18:45	1	1	0	0
18:45-19:00	0	1	0	0