

Annex 4

Traffic Consideration

1 Traffic Consideration

Operation Mode

- 1.1 While the subject carpark is proposing a flexible mode, it is anticipated that the proposed temporary vehicle park will not incur adverse traffic impact. With most of the end user would be cross-boundary travellers, they may park their cars in the Application site and stay in the Mainland for one day or more.
- 1.2 In order to assess the existing traffic conditions, a vehicle count survey was conducted at the Lin Ma Hang Road from 8:00 am to 7:00 pm on 16 July 2025. Flow counts are recorded at 60-minute intervals; and converted to Passenger Car Unit (pcu) values. The highest 60-minute traffic volume is used as the peak hour traffic volume. Location of conducting the vehicle count survey is shown in **Diagram 1**.

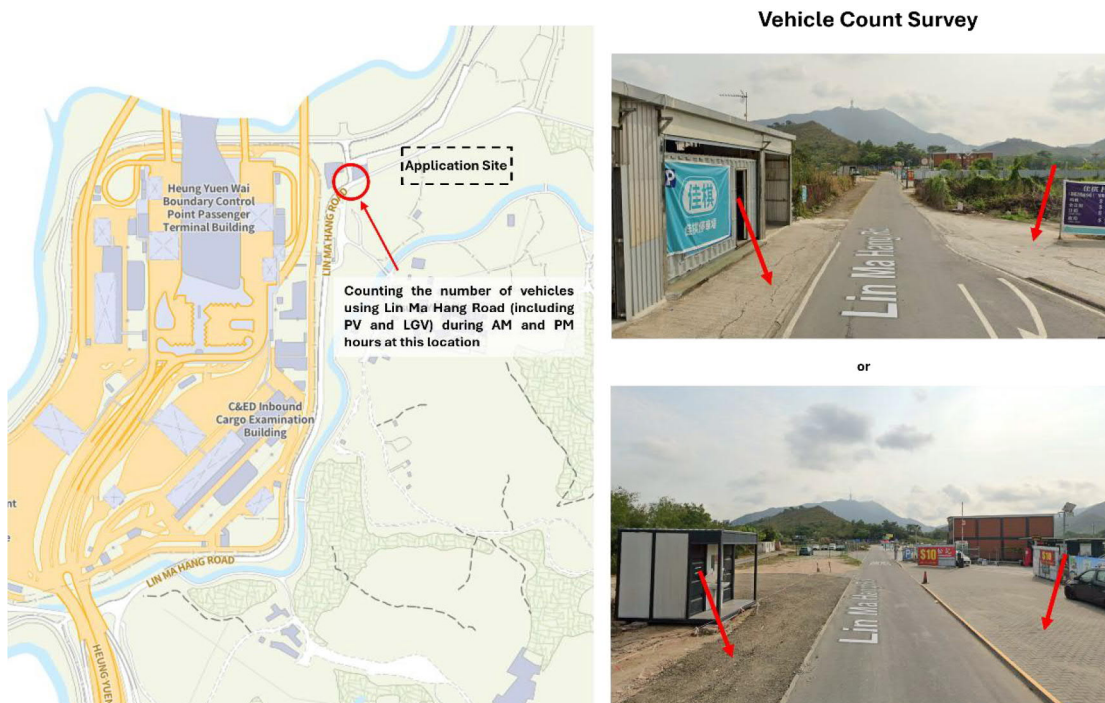


Diagram 1. Location for Traffic Estimation

- 1.3 The morning and afternoon peak times for the network are determined to be 11:00am to 12:00pm and 5:00pm to 6:00pm respectively. The traffic flow observed in the study area is demonstrated in the following table.

Existing Traffic Capacity

- 1.4 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.

| No. | Road Link (Direction) | Link Capacity (veh/hr) | Observed Flow | | V/C Ratio | |
|-----|------------------------------|------------------------|---------------|----|-----------|------|
| | | | AM | PM | AM | PM |
| L1 | Lin Ma Hang Road (Eastbound) | 600 ⁽¹⁾ | 96 | 55 | 0.16 | 0.09 |
| L2 | Lin Ma Hang Road (Westbound) | 600 ⁽¹⁾ | 81 | 80 | 0.14 | 0.13 |

(1) According to the Note of Traffic Forecast Review (Western Section) dated March 2019, the design capacity of Lin Ma Hang Road is about 600 veh/hr

Source: <https://www.legco.gov.hk/yr18-19/chinese/fc/pwsc/papers/pwsc20190213pwsc-157-1-c.pdf>

Development Traffic Generation and Attraction

- 1.5 A vehicle count survey was conducted at two existing public vehicle parks (Application No. A/NE-TKLN/57 and 58) from 8:00 am to 7:00 pm on 16 July 2025. The traffic flow of the existing public vehicle parks at the peak hours is recorded and shown below:

| | No. of Parking Space | AM (11 am – 12 pm) (pcu/hr) | | PM (5 pm – 6 pm) (pcu/hr) | |
|--------------|----------------------|-----------------------------|------------|---------------------------|------------|
| | | Generation | Attraction | Generation | Attraction |
| A/NE-TKLN/57 | 24 CPS | 4 | 3 | 12 | 3 |
| A/NE-TKLN/58 | 26 CPS | 3 | 8 | 7 | 7 |

- 1.6 Flow counts are recorded at 60-minute intervals; and converted to Passenger Car Unit (pcu) values. The highest 60-minute traffic volume is used as the peak hour traffic volume. According to the previous records, the usage of the carpark during peak hours of Weekends and Public Holiday is approximately 30% more than that in Weekdays. To estimate the worst case scenario, we have applied 30% on the traffic flow generation. A summary of the result is as follow:

| Public Vehicle Park | | Generation | | Attraction | |
|----------------------------------|--------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| | | AM | PM | AM | PM |
| No. of Spaces | | Traffic flow (pcu) | | | |
| A/NE-TKLN/57 | 24 CPS | (4+3) × 1.3 | (5+8) × 1.3 | (12+7) × 1.3 | (3+7) × 1.3 |
| A/NE-TKLN/58 | 26 CPS | | | | |
| Total | 50 CPS | | | | |
| Trip rate (pcu/hr/parking space) | | | | | |
| | | = 10/50 = 0.20 | =17/50 = 0.34 | = 25/50 = 0.50 | = 13/50 = 0.26 |
| Trips in veh/hr (pcu/hr) | | | | | |
| Proposed Parking Facilities | | = 0.20 × 115 ⁽¹⁾ = 23 | = 0.36 × 115 ⁽¹⁾ = 42 | = 0.50 × 115 ⁽¹⁾ = 58 | = 0.26 × 115 ⁽¹⁾ = 30 |
| Existing Shop and Services | | 2 | 2 | 2 | 2 |
| Total | | 25 | 44 | 60 | 32 |

(1) The total number of parking spaces for this application is 115.

(2) Additional +30% is applied on the traffic flow count to reflect the worst case scenario, i.e., weekends and public holidays.

Traffic Assessment

- 1.7 This application is seeking temporary permission for a maximum period of 3 years only, which targets to commence by the end of 2025. Thus, to estimate

the worst-case scenario, a growth factor will be applied to the end of this application, i.e., 2028 to demonstrate the traffic impact.

- 1.8 Besides, although the development under planning application No. A/NE-TKLN/90 is yet to be commenced, the 2028 Reference flow has also been considered in this approved application.

| Public Vehicle Park | Generation | | Attraction | |
|---|------------|----|------------|----|
| | AM | PM | AM | PM |
| A/NE-TKLN/90 (from TIA report of the planning application) | 11 | 13 | 11 | 13 |

$$2028 \text{ Reference Flow} = 2025 \text{ Observed Flow} \times (1 + 14.3\%)^1$$

$$2028 \text{ Design Flow} = 2028 \text{ Reference Flow} + \text{Development Flow of this Application} \\ + \text{Traffic Flow from A/NE-TKLN/90}$$

- 1.9 The link capacity assessment results under the 2028 reference and design scenarios are summarised in table below:

2028 Traffic Assessment

| No. | Road Link (Direction) | Link Capacity (veh/hr) | Reference Flow (veh/hr) | | Reference V/C Ratio | | Design Flow (veh/hr) | | Design V/C Ratio | |
|-----|------------------------------------|------------------------------|----------------------------|-------------------------|------------------------|------|------------------------------|-----------------------------|---------------------|------|
| | | | AM | PM | AM | PM | AM | PM | AM | PM |
| L1 | Lin Ma Hang Road (Eastbound) | 600 | 96 x (1.143) = 110 | 55 x (1.143) = 63 | 0.18 | 0.11 | 110 + 60 + 11 = 181 | 63 + 32 + 13 = 108 | 0.30 | 0.18 |
| L2 | Lin Ma Hang Road (Westbound) | 600 | 81 x (1.143) = 93 | 80 x (1.143) = 92 | 0.16 | 0.15 | 93 + 25 + 11 = 123 | 92 + 44 + 13 = 149 | 0.21 | 0.25 |

- 1.10 As shown in table above, the capacity of the Lin Ma Hang Road would be performing satisfactorily during the peak periods for both Reference and Design Scenarios. No adverse traffic impact is anticipated.
- 1.11 Traffic management measures proposed in section 2.10.5 of the planning statement would be fully implemented. 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.

¹ According to the Highways Department Agreement No. CE 51/2013 (HY) Widening of Western Section and Eastern Section of Lin Ma Hang Road – Design and Construction Note of Traffic Forecast Review (Western Section), the steady traffic growth rate of 0.6% p.a. is anticipated. However, based on the Projected Population Distribution 2023-2031 published by the Planning Department, the projected population in North District in 2025 and 2028 are 347,400 and 397,000 respectively. Thus, a growth rate of 14.3% is adopted all over the 3 years period.