Appendix 4

Traffic Impact Assessment

Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT

Traffic Impact Assessment
Final Report

15th August, 2025

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Prepared for: Sime Darby Motor Services Limited
c/o KTA Planning Limited

Proposed EV Mobility City
with Ancillary Staff Quarters and Talent Accommodation
at Various Lots in D.D. 51 and Adjoining Government Land
Wo Hing Road / Tai Wo Service Road West,
Fanling, NT

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1.0 INTRODUCTION

Background

1.1 The Subject Site is located near Wo Hop Shek Village to the south of Wo Hing Road / Tai Wo Service Road West in Fanling, and its location is shown in **Figure 1.1**.

1.2 The Applicant, i.e. Sime Darby Motor Services Limited ("SDMS"), is a well-established motor vehicle dealer and distributor in Hong Kong, and has over 50 years of history in retail, distribution, assembly, servicing, and car rental businesses.

1.3 SDMS intends to develop the Subject Site, which is currently occupied by warehouses, into a Research and Development ("R&D") centre focusing on electric vehicle ("EV") technology, namely the "EV Mobility City" (hereinafter "Proposed EV Mobility City").

1.4 According to the Approved Fanling / Sheung Shui Outline Zoning Plan No. S/FSS/28 ("Approved OZP"), the Subject Site is zoned "Government, Institution or Community." To facilitate future development of the Subject Site, s12A Rezoning Application is being submitted.

1.5 Against this background, CKM Asia Limited, a traffic and transportation planning consultancy firm, was commissioned to conduct a Traffic Impact Assessment ("TIA") for the Proposed EV Mobility City in support of the s12A Rezoning Application.

Structure of Report

1.6 After this introduction, the remaining chapters contain the following:

Chapter 2 - Describes the existing situation;
Chapter 3 - Provides details on the Proposed EV Mobility City;
Chapter 4 - Describes the traffic impact analysis; and
Chapter 5 - Gives the overall conclusion.

2.0 EXISTING SITUATION

The Subject Site

2.1 The Subject Site is located to the south of Wo Hing Road / Tai Wo Service Road West near Wo Hop Shek Village in Fanling. It has a site area of approximately 5,480m^2, and is now being occupied by warehouses. The existing vehicular access to the Subject Site is from Wo Hing Road.

The Road Network

2.2 Wo Hing Road is a Local Distributor which runs between the roundabout of Wah Ming Road / Lui Ming Road / Ming Yin Road / Wo Hing Road in the west, and continues as Tai Wo Service Road West in the east. It is a single carriageway 2 lane road.

2.3 Tai Wo Service Road West is a Rural Road which runs between Wo Hing Road to the north, and continues south towards Hong Lok Yuen Road. It is a single carriageway 2 lane road.

2.4 Wah Ming Road is a District Distributor which runs between the northern and southern junctions with Pak Ro Road. It is a single carriageway road with 3 to 4 traffic lanes between Pak Wo Road and the roundabout of Wah Ming Road / Lui Ming Road / Ming Yin Road / Wo Hing Road.

2.5 Pak Wo Road is a District Distributor which runs from Sheung Shui in the north, and Fanling in the south. It is generally a dual carriageway 2 lane road. It connects Fanling Highway at the Wo Hop Shek Interchange near the Subject Site providing regional access.

Pedestrian and Cycling Facilities

2.6 Footpaths are provided along the southern side of Tai Wo Service Road West fronting the Subject Site, and along both sides of other nearby roads, such as Wo Hing Road, Pak Wo Road and Wah Ming Road.

2.7 At-grade pedestrian crossings are provided along Wo Hing Road. Signalised pedestrian crossings, and grade separated crossings are provided across Pak Wo Road, Wah Ming Road and Fanling Highway.

2.8 Cycle track is provided along Wo Hing Road fronting the Subject Site connecting with Pak Wo Road and the network within Fanling, Sheung Shui, and to Tai Po.

Existing Traffic Flows

2.9 To quantify the existing traffic flows, manual classified counts were conducted during the AM and PM peak periods, i.e. from 0800 to 1000 hours and 1700 to 1900 hours, at selected junctions and road links found within the Area of Influence ("AOI") on Monday, 26th May 2025, and Tuesday, 27th May 2025. Table 2.1 presents the surveyed junctions and road links.

TABLE 2.1 SURVEYED JUNCTINONS AND ROAD LINKS

Ref.	Survey Locations
	Junctions
J01	Junction of Tai Wo Service West / Kiu Tau Road
J02	Junction of Wo Hing Road / Unnamed Road
J03	Roundabout of Wah Ming Road / Lui Ming Road / Ming Yin Road / Wo Hing Road
J04	Southern Junction of Pak Wo Road / Yat Ming Road / Wah Ming Road
J05	Northern Junction of Pak Wo Road / Yat Ming Road / Wah Ming Road
J06	Wo Hop Shek Interchange
J07	Wo Hing Road / Existing Site Access
	Road Links
L01	Tai Wo Service Road West (Wo Hing Road – Kiu Tau Road)
L02	Wo Hing Road (Pak Wo Road – Tai Wo Service Road West)
L03	Pak Wo Road (Wo Hop Shek Interchange – Wah Ming Road)
L04	Unnamed Road (Pak Wo Road – Wo Hing Road

2.10 **Figure 2.1** shows the Area of Influence ("AOI") and the locations of the surveyed junctions and road links. **Figures 2.2 – 2.7** shows the existing junction layouts.

2.11 The traffic counts were classified by vehicle type to enable traffic flows in passenger car units ("pcu") to be calculated. The AM peak hour is found to be 0730 to 0830 hours, and the PM peak hour is found to be 1730 to 1830 hours respectively. **Figure 2.8** presents the existing AM and PM peak hour traffic flow established in pcu/hour.

Performance of the Surveyed Junctions

2.12 Performance of the surveyed junctions were calculated based on the existing traffic flows, and the analyses were undertaken using the methods outlined in Volume 2 of Transport Planning and Design Manual ("TPDM"), which is published by the Transport Department. Table 2.2 summarises the analysis results, and the detailed calculations are found in **Appendix A**.

TABLE 2.2 EXISTING JUNCTION PERFORMANCE

Ref.	Junctions	Type of Junction	Parameter	AM Peak Hour	PM Peak Hour
J01	Tai Wo Service West / Kiu Tau Road	Priority	RFC	0.033	0.038
J02	Wo Hing Road / Unnamed Road	Priority	RFC	0.373	0.268
J03	Wah Ming Road / Lui Ming Road / Ming Yin Road / Wo Hing Road	Roundabout	RFC	0.306	0.253
J04	Pak Wo Road / Yat Ming Road / Wah Ming Road (Southern Junction)	Signal	RC	53%	77%
J05	Pak Wo Road / Yat Ming Road / Wah Ming Road (Northern Junction)	Signal	RC	63%	119%
J06	Wo Hop Shek Interchange	Signal	RC	32%	50%
J07	Wo Hing Road / Site Access	Priority	RFC	0.000	0.000

Note: RFC - Ratio of Flow to Capacity RC – Reserve Capacity

2.13 The above results indicate the surveyed junctions operate with capacities.

Performance of the Surveyed Road Links

2.14 Performance of the surveyed road links, in terms of Peak Hourly Flows / Design Flow Ratio ("P/Df") is calculated, and the analysis results are summarized in Table 2.3.

TABLE 2.3 EXISTING P/Df OF SURVEYED ROAD LINKS

Ref.	Road Link	Config.	Direction	Design Flow (pcu/hr)	P/Df	
					AM Peak Hour	PM Peak Hour
L01	Tai Wo Service Road West (Wo Hing Road – Kiu Tau Road)	Single-2	Northbound	1,160	0.146	0.145
			Southbound	1,160	0.138	0.136
L02	Wo Hing Road (Pak Wo Road – Tai Wo Service Road West)	Single-2	Northbound	1,000	0.249	0.178
			Southbound	1,400	0.396	0.255
L03	Pak Wo Road (Wo Hop Shek Interchange – Wah Ming Road)	Dual-2	Northbound	3,050	0.372	0.305
			Southbound	3,050	0.275	0.242
L04	Unnamed Road (Pak Wo Road – Wo Hing Road	Single-2	Eastbound	1,000	0.209	0.151
			Westbound	1,000	0.564	0.336

Existing Public Transport Services

2.15 The Subject Site is located close to public transport services, including franchised bus and green mini-bus ("GMB") routes operate along Tai Wo Service Road West, Wo Hing Road, Pak Wo Road and Lui Ming Road. Table 2.4 presents the details.

TABLE 2.4 ROAD–BASED PUBLIC TRANSPORT SERVICES OPERATING IN VICINITY OF THE SUBJECT SITE

Route	Origin - Destination	
KMB 61S	Tuen Mun City Centre ↔ Wo Hop Shek (Kiu Tau Road)	(c)
KMB 70K	Fanling (Wah Ming) ↺ Ching Ho	
KMB 70S	Hung Hom Station ↔ Wo Hop Shek	(c)
KMB 73	Fanling (Wah Ming) ↔ Tai Po Industrial Estate	
	Fanling (Wah Ming) ↔ Tai Po Central	(a)
KMB 73A	Fanling (Wah Ming) ↔ Yu Chui Court	
KMB 73B	Chuen On Road (Nethersole Hospital) ↺ Sheung Shui	
KMB 73S	Fanling Station ↔ Wo Hop Shek (Kiu Tau Road)	(c)
KMB 74S	Ping Tin ↔ Wo Hop Shek	(c)
KMB 76S	Fanling Station ↔ Wo Hop Shek	(c)
KMB 78	Sha Tau Kok → Sheung Shui (Tai Ping)	(a)
KMB 78B	Queen's Hill → Sheung Shui (Choi Yuen)	(a)
	Sheung Shui (Choi Yuen) → Queen's Hill	(a)
KMB 78S	Shueng Shui → Sha Tau Kok	(a)
	Sha Tau Kok → Shueng Shui	(a)
KMB 261X	Fanling (Cheung Wah) ↔ So Kwun Wat	(a)
KMB 264R	Tin Yiu ↔ Tai Po Market Station	(a)
KMB 270A	Sheung Shui ↔ Tsim Sha Tsui East (Mody Road)	
KMB 270B	Sheung Shui ↔ Olympic Station	
	Sheung Shui → Charming Garden	(a)
	Charming Garden → Sheung Shui	(a)
KMB 270C	Fanling (Luen Wo Hui) → Tsim Sha Tsu East (Mody Road)	(a)
	Tsim Sha Tsu East (Mody Road) → Fanling (Luen Wo Hui)	(a)
KMB 270D	Fanling (Luen Wo Hui) → Sham Shui Po	(a)
	Sham Shui Po (Yen Chow Street) → Fanling (Luen Wo Hui)	(a)
KMB 270P	Sheung Shui → Kowloon Station	(a)
KMB 270R	Hong Kong Coliseum → Fanling (Luen Wo Hui)	(c)
KMB 270S	Tsim Sha Tsui East (Mody Road) → Fanling (Luen Wo Hui)	(a)

TABLE 2.4 ROAD–BASED PUBLIC TRANSPORT SERVICES OPERATING IN VICINITY OF THE SUBJECT SITE (CONT'D)

Route	Origin - Destination	
KMB 273	Fanling (Wah Ming) ↺ Fanling Station	
KMB 273A	Sheung Shui (Choi Yuen) ↺ Fanling (Wah Ming)	
KMB 273D	Sheung Shui ↺ Fanling (Wah Ming)	
KMB 273S	Fanling (Fai Ming Road) → Fanling Station	(a)
	Fanling Station → Fanling (Wah Ming)	(a)
KMB 274	Sheung Shui→ Wu Kai Sha Station	(a)
KMB 276C	Tin Shui Wai Station ↔ Fanling (Cheung Wah)	(a)
KMB 277A	Sha Tau Kok ↔ Lam Tin Station	(a)
KMB 277E	Sheung Shui (Tin Ping) ↔ Lam Tin Station	
KMB 277P	Sheung Shui (Tin Ping) → Lam Tin Station	(a)
	Lam Tin Station → Sheung Shui (Tin Ping)	(a)
KMB 278A	Queen's Hill ↔ Tsuen Wan (Nina Tower)	
KMB 278P	Sheung Shui (Tin Ping) → Tsuen Wan (Nina Tower	(a)
KMB 278X	Sheung Shui ↔ Tsuen Wan (Nina Tower)	
KMB 279S	Tsing Yi (Cheung Ching Estate) ↔ Wo Hop Shek	(c)
KMB 279X	Fanling (Luen Wo Hui) ↔ Tsing Yi Station	
KMB 373	Fanling (Luen Wo Hui) → Central (Hong Kong Station)	(a)
	Central (Hong Kong Station) → Fanling (Luen Wo Hui)	(a)
KMB 673A	Sheung Shui → Central (Rumsey Street)	(a)
	Central (Rumsey Street) →Sheung Shui	(a)
KMB 673P	Sheung Shui → Central (Rumsey Street)	(a)
KMB/CTB 678	Sheung Shui → Causeway Bay (Eastern Hospital Road)	(a)
	Causeway Bay (Eastern Hospital Road) → Sheung Shui	(a)
KMB 978	Fanling (Wah Ming) ↔ Exibition Centre Station	
KMB W3	Sheung Shui ↔ Jordan (West Kowloon Station)	
KMB T270	Fanling (Cheung Wah) → Tsim Sha Tsui East (Mody Road)	(a)
	Tsim Sha Tsui East (Mody Road) → Fanling (Cheung Wah)	(a)
KMB T277	Sheung Shui → Lam Tin Station	(a)
	Lam Tin Station → Sheung Shui	(a)
KMB SP7	Kai Tak Sports Park → Sheung Shui	(c)
KMB N73	Shatin Central ↔ Lok Ma Chau	(b)
KMB N273	Sheung Shui (Choi Yuen) ↺ Fanling (Wah Ming)	(b)
KMB N373	Fanling (Luen Wo Hui) ↔ Central (Macau Ferry)	(b)
LWB A43	Fanling (Luen Wo Hui) ↔ Airport (Ground Transportation Centre)	
LWB E43	Fanling (Wah Ming) → Tung Chung Development Pier	(a)
	Tung Chung Development Pier → Fanling (Wah Ming)	(a)
LWB X43	Asiaworld Expo → Fanling (Luen Wo Hui)	(c)
LWB N42A	Fanling (Luen Wo Hui) ↔ Tung Chung Station	(b)
LWB NA43	Fanling (Luen Wo Hui) ↔ HZMB Hong Kong Port	(b)
CTB B7	Sheung Shui Po Wan Road ↔ Heung Yuen Wai Port	
GMB 55K	Sha Tau Kok → Sheung Shui Station	(a)
GMB 501A	Yung Shing Court ↺ Luen Wo Hui	(a)
GMB 501C	Yung Shing Court ↺ Luen Wo Hui	
GMB 501S	Sheung Shui (Luen Wo Hui)↔ Kwun Tong (Yue Man Square)	(b)
GMB 502	Ching Ho Estate ↔ Alice Ho Miu Ling Nethersole Hospital	
GMB 505	Sheung Shui Station↔ Yu Chui Court	
GMB 506	Chi Fuk Circuit ↺ Ma Sik Road	
GMB 616S	Mong Kok ↔ Lok Ma Chau Control Point	(b)
RMB	Mong Kok ↔ Sheung Shui	(b)

Note: KMB – Kowloon Motor Bus CTB – Citybus LWB – Long Win Bus
GMB – Green Minibus RMB – Red Minibus

(a) Regular special services during peak period.
(b) Overnight services.
(c) Special services on specific days only.

Historic Traffic Growth

2.16 Annual averages daily traffic ("AADT") between 2016 and 2023 of roads located near the Subject Site was obtained from the Annual Traffic Census ("ATC") published by Transport Department, and are summarized in Table 2.5.

TABLE 2.5 HISTORIC TRAFFIC INFORMATION FROM THE ATC

Station	5302	5501	5702	6084	6206	Overall
Road	Wo Hing Road	Pak Wo Road	Tai Wo Service Road West	Fanling Highway	Jockey Club Road	
From	Unnamed Road	Yat Ming Road	Kau Lung Hang Flyover near Kiu Tau Road	Wo Hop Shek Intercahnge	Lok Yip Street	
To	Ming Yin Road	Wo Hop Shek Interchange	Wo Hing Road	Kau Lung Hang Lo Wai	Wo Hop Shek Interchange	
Year	Average Annual Daily Traffic ("AADT")					
2016	5,680	16,270	3,930	109,350	41,900	177,130
2017	5,590	16,010	3,870	101,920	38,380	165,770
2018	5,760	16,410	3,960	106,100	41,730	173,960
2019	6,580	17,280	3,940	110,310	37,440	175,550
2020	*6,310*	*19,060*	*3,400*	*105,020*	*36,370*	*170,160*
2021	*6,560*	*19,820*	*3,630*	*110,130*	*37,380*	*177,520*
2022	*6,360*	*19,210*	*3,520*	*100,940*	*36,240*	*166,270*
2023	6,580	19,670	3,600	114,310	34,840	179,000
Average Annual Growth (2016 – 2023) =						+0.2%

Note: * - Estimated by Growth Factor

2.17 Table 2.5 shows that the traffic growth in vicinity is +0.2% per annum. It should be noted that the AADT for years 2020, 2021 and 2022 are disregarded due to the impact of the COVID-19 pandemic, but shown for reference only.

3.0 THE PROPOSED EV MOBILITY CITY

Proposed EV Mobility City

3.1 The Proposed EV Mobility City include EV R&D centre, showrooms, sales offices, after-sales servicing, training and testing units, ancillary offices, training centre, and other EV Related Business. In addition, ancillary staff quarter and residential institution, referred to as "talent housing" for qualified working staff and employees will also be provided.

3.2 Table 3.1 summarises development parameters of the Proposed EV Mobility City.

TABLE 3.1 PARAMETERS OF THE PROPOSED EV MOBILITY CITY

Use	Development Parameters
Staff Quarter (7/F – 12/F)	Gross Floor Area = 1,920m^2 Number of Units = 48 nos. Average Unit Size = About 40m^2
Residential Institution (7/F – 18/F)	Gross Floor Area = 6,300m^2 Number of Units = 90 nos. Average Unit Size = About 70m^2 Domestic Plot Ratio = 1.15
Conference / Seminars / Training Course / Administration & Accounting Office ("C/S/TC/AAO") (6/F)	Gross Floor Area = 2,340m^2
EV Related Business (G/F – 5/F)	Gross Floor Area = About 14,040m^2

Proposed Internal Transport Facilities

3.3 The internal transport facilities provided for the proposed uses comply with the recommendation of the Hong Kong Planning Standards and Guidelines ("HKPSG"). As for bicycle parking spaces, reference is made to the Transport Department's Guideline.

3.4 Staff Quarter is subsidized accommodation by the Applicant to support the development of the Proposed EV Mobility City. Hence, internal transport facilities are provided in accordance to the HKPSG recommendation for "*Subsidised Housing*", and the details are summarized in Table 3.2.

3.5 Residential Institution is accommodation for employees and personnel affiliated with the Applicant, and the average flat size is 70m^2 per unit. Hence, the HKPSG recommendation for "*Private Housing* - 70m^2" is adopted. Details are summarized in Table 3.3.

3.6 Conference / Seminars / Training Course / Administration & Accounting Office is assumed to be "*office*" space. Hence, the HKPSG recommendation for "*Office*" is adopted, and the details are summarized in Table 3.4.

3.7 EV Related Business is similar to "*Vehicle Repair Workshops"* defined in the HKPSG, and parking spaces are provided accordingly. For loading / unloading bays, the provision is as per HKPSG recommendation for "*General Industrial Use*". Table 3.5 summarises the details.

TABLE 3.2 PROVISION OF INTERNAL TRANSPORT FACILITIES FOR STAFF QUARTER

Internal Transport Facilities	HKPSG / TD Recommendations	Proposed Provision
Car Parking Space (Residential)	HKPSG Recommendation: Global Parking Standard ("GPS") = 1 space per 4 – 7 flats Demand Adjustment Ratio ("R1") = 0.52 Accessibility Adjustment Ratio ("R2") = 1.0 for Outside a 500m-radius of rail station Parking Requirement = GPS x R1 x R2 [see Note 1] For 48 flats with 3 persons/flat: Minimum: 48 ÷ 7 x 0.52 x 1.0 = 3.6, say 4 nos. Maximum: 48 ÷ 4 x 0.52 x 1.0 = 6.2, say **7 nos.**	7 nos. =HKPSG Maximum, OK
Car Parking Space (Visitor)	HKPSG Recommendation: Up to 5 spaces per block For 1 block: Maximum: 1 x 5 = **5 nos.**	5 nos. =HKPSG Maximum, OK
Motorcycle Parking Space	HKPSG Recommendation: 1 space per 110 – 250 flats [see Note 1] For 48 flats with 3 persons/flat: Minimum: 48 ÷ 250 = 0.2, say 1 no. Maximum: 48 ÷ 110 = 0.4, say **1 no.**	1 no. =HKPSG Maximum, OK
"Shared-use" Light Goods Vehicle and Light Bus Parking Space	HKPSG Recommendation: 1 space per 260 flats [see Note 1] For 48 flats with 3 persons/flat: 48 ÷ 260 = 0.2, say **1 no.**	1 no. =HKPSG, OK
"Shared-use" Medium / Heavy Goods Vehicle and Coach Parking Space / Loading / Unloading Bay	HKPSG Recommendation: 2 spaces around each residential blocks For 1 block: 1 x 2 = **2 nos.**	2 nos. =HKPSG, OK
Bicycle Parking Space	Transport Department Guideline: 1 space per 5 flat for residents, and 1 space per 45 flat for visitors For 48 flats: For Residents: 48 ÷ 5 = 9.6, say 10 nos. For Visitors: 48 ÷ 45 = 1.1, say 2 nos. TOTAL: 10 + 2 = **12 nos**.	12 nos. = TD Guideline, OK

Note 1: "One person / two persons" flats, if any, can be excluded from the calculation of the overall parking provision of private car, motorcycle parking spaces and shared-use spaces for LGV and light bus.

TABLE 3.3 PROVISION OF INTERNAL TRANSPORT FACILITIES FOR RESIDENTIAL INSTITUTION

Internal Transport Facilities	HKPSG / TD Recommendations	Proposed Provision
Car Parking Space (Residential)	HKPSG Recommendation: Global Parking Standard ("GPS") = 1 space per 4 – 7 flats Demand Adjustment Ratio ("R1") = 1.2 for 40 < Flat Size ≤ 70 m^2 GFA Accessibility Adjustment Ratio ("R2") = 1.0 for Outside a 500m-radius of rail station Development Intensity Adjustment Ratio ("R3") = 1.1 for 1.00 < Plot Ratio ≤ 2.00 Parking Requirement = GPS x R1 x R2 x R3 For 90 flats @ 70m^2 GFA and Plot Ratio =1.15: Maximum: 90 ÷ 7 x 1.2 x 1.0 x 1.1 = 17.0, say 17 nos Maximum: 90 ÷ 4 x 1.2 x 1.0 x 1.1 = 29.7, **say 30 nos.**	30 nos. = HKPSG Maximum, OK
Car Parking Space (Visitor)	HKPSG Recommendation: 5 spaces per block with more than 75 units per block For 1 block 1 x 5 = **5 nos.**	5 nos. = HKPSG Maximum, OK
Motorcycle Parking Space	HKPSG Recommendation: 1 space per 100 – 150 flats For 90 flats Minimum: 90 ÷ 150 = 0.6, say 1 no. Maximum: 90 ÷ 100 = 0.9, **say 1 no.**	1 no. = HKPSG Maximum, OK
Goods Vehicle Loading / Unloading Bay	HKPSG Recommendation: Minimum 1 loading / unloading bay for goods vehicles for every 800 flats or part thereof. For 1 block: 1 x 1 = **1 no.**	1 no. = HKPSG, OK
Bicycle Parking Space	Transport Department Guideline: 1 space per 5 flat for residents, and 1 space per 45 flat for visitors For 90 flats: For Residents: 90 ÷ 5 = 18 nos. For Visitors: 90 ÷ 45 = 2 nos. TOTAL: 18 + 2 = **20 nos**.	20 nos. = TD Guideline, OK

TABLE 3.4 PROVISION OF INTERNAL TRANSPORT FACILITIES FOR CONFERENCE / SEMINARS / TRAINING COURSE / ADMINISTRATION & ACCOUNTING OFFICE

Internal Transport Facilities	HKPSG / TD Recommendations	Proposed Provision
Car Parking Space	HKPSG Recommendation: For the first 15,000 m^2 GFA: 1 space per 150 – 200 m^2 For 2,340 m^2 GFA: Minimum: 2,340 ÷ 200 = 11.7, say 12 nos. Maximum: 2,340 ÷ 150 = 15.6, **say 16 nos.**	16 nos. =HKPSG Maximum, OK
Motorcycle Parking Space	HKPSG Recommendation: 5% - 10% of car parking spaces For 31 car parking spaces: Minimum: 16 x 5% = 0.8, say 1 nos. Maximum: 16 x 10% = 1.6, **say 2 nos.**	2 nos. =HKPSG Maximum, OK
Goods Vehicle Loading / Unloading Bay	HKPSG Recommendation: 1 loading / unloading bay for goods vehicles for every 2,000 – 3,000 m^2 GFA For 2,340 m^2 GFA: Minimum: 2,340 ÷ 3,000 = 0.8, say 1 nos. 35% HGV = 1 x 35% = 0.35, say 1 no. 65% LGV = 1 – 1 = 0 no. Maximum: 2,340 ÷ 2,000 = 1.2, say **2 nos.** 35% HGV = 2 x 35% = 0.7, say **1 no.** 65% LGV = 2 – 1 = **1 nos.**	2 nos., including 1 HGV & 1 LGV =HKPSG Maximum, OK
Bicycle Parking Space	Transport Department Guideline: 1 space per 500 – 600m^2 GFA For 2,340 m^2 GFA: Minimum: 2,340 ÷ 600 = 3.9, say 4 nos. Maximum: 2,340 ÷ 500 = 4.7, **say 5 nos.**	5 nos. = TD Guideline Maximum, OK

TABLE 3.5 PROVISION OF INTERNAL TRANSPORT FACILITIES FOR EV RELATED BUSINESS

Internal Transport Facilities	HKPSG / TD Recommendations	Proposed Provision
Parking Space	HKPSG Recommendation: Minimum of 2 spaces for each workshop unit, **or** 0.75 space per workspace, **or** 150m^2 of GFA whichever is higher. (*"Vehicle Repair Workshops," Ch12, HKPSG)* Proposed EV Mobility City with 14,040m^2 GFA Number of workshop unit and workspace are yet to be determined; hence, provision is calculated based on GFA. For G/F with around 1,200m^2 GFA serving large commercial vehicles (HGV and Coach): 1,200 ÷ 150 = 8.0, **say 8 nos.** @ 12.0m (L) x 3.5m (W) x Min. 4.7m (H) (Shared-Use by HGV & Coach) For remaining GFA = 14,040 – 1,200 = 12,840m^2 for light commercial vehicles, and light vehicles: 12,840 ÷ 150 = 85.6, **say 86 nos.** @ 8.0m (L) x 3.5m (W) x Min. 3.8m (H) (Shared-Use by LGV, Light Bus, Taxi and Private Car)	8 nos. for HGV / Coach, and 86 nos. for LGV / Light Bus / Taxi / Private Car = HKPSG, OK
Goods Vehicle Loading / Unloading & Parking	HKPSG Recommendation: 1 goods vehicle bay per 700 - 900 m^2 GFA, 50% of which should be for parking of goods vehicles, and is divided into 65% LGV and 35% HGV *(General Industrial Use (GIU)– Industrial (I), Ch8, HKPSG)* Proposed EV Mobility City with 14,040m^2 GFA Minimum: 14,040 ÷ 900 = 15.6, **say 16 nos.** 35% HGV = 16 x 35% = 5.6, say **6 nos.** 65% LGV = 16 – 6 = 10 **nos.** Maximum: 14,040 ÷ 700 = 20.1, **say 21 nos.** 35% HGV = 21 x 35% = 7.4, say **8 nos.** 65% LGV = 21 – 8 = **13 nos.**	21 nos., with 8 HGV, and 13 LGV = HKPSG maximum, OK
Bicycle Parking Space	Transport Department Guideline: 1 space per 2,500 – 2,700m^2 GFA For 14,040 m^2 GFA: Minimum: 14,040 ÷ 2,700 = 5.2, say 6 nos. Maximum: 14,040 ÷ 2,500 = 5.6 say **6 nos.**	6 nos. = TD Guideline Maximum, OK

Overall Provision of Internal Transport Facilities

3.8 Table 3.6 summarises the overall provision of internal transport facilities, which meets the high-end recommendation of the HKPSG and the Transport Department's Guideline.

TABLE 3.6 OVERALL PROVISION OF INTERNAL TRANSPORT FACILITIES

Internal Transport Facilities	TOTAL	Number of Spaces			
		Staff Quarter	Residential Institution	C/S/TC/AAO	EV Related Business Use
Car Parking Space (Residential) @ 5.0m (L) x 2.5m (W) x Min. 2.4m (H)	**53** (Note 1)	7	30	16	/
Car Parking Space (Visitors) @ 5.0m (L) x 2.5m (W) x Min. 2.4m (H)	**10** (Note 1)	5	5	/	/
Motorcycle Parking Space @ 2.4m (L) x 1.0m (W) x Min. 2.4m (H)	**4**	1	1	2	/
"Shared-use" LGV / Light Bus Parking Space @ 8.0m (L) x3.5m (W) x Min. 3.6m (H)	**87**	1	/	/	86
"Shared-use" M/HGV & Coach Parking Space @ 12.0m (L) x3.5m (W) x Min. 4.7m (H)	**8**	/	/	/	8
"Shared-use" M/HGV & Coach Parking Space / L/UL Bay @ 12.0m (L) x3.5m (W) x Min. 4.7m (H)	**2**	2	/	/	/
LGV L/UL Bay-@ 7.0m (L) x3.5m (W) x Min. 3.6m (H)	**14**	/	/	1	13
HGV L/UL Bay-@ 11.0m (L) x 3.5m (W) x Min. 4.7m (H)	**10**	/	1	1	8
Bicycle Parking Space	**33**	12	10	5	6

Note 1: Out the total of 63 car parking spaces, 2 nos. are accessible type @ 5.0m (L) x 3.5m (W) x Min. 2.4m (H)
C/S/TC/AAO - Conference / Seminars / Training Course / Administration & Accounting Office

Vehicular Access

3.9 The existing vehicular access on Wo Hing Road serving the Subject Site will remain unchanged. **Figure 3.1** shows location of the vehicular access, and visibility assessment meeting the requirement as stipulated in the TPDM.

Internal Transport Layout

3.10 The indicative internal transport layout is presented in **Figures 3.2 – 3.8**.

Traffic Generation

3.11 Traffic generation for various uses within the Proposed EV Mobility City is estimated based on (i) trip rates obtained from the TPDM, and (ii) trip rate derived from traffic survey at similar existing developments. Details are described in below paragraphs.

Staff Quarter, Residential Institution and Conference / Seminars / Training Course / Administration & Accounting Office

3.12 Table 3.7 presents the trips rate for staff quarter, residential institution and conference / seminars / training course / administration & accounting office from the TPDM.

TABLE 3.7 ADOPTED TPDM TRIP RATES

Proposed Use	TPDM Category	Unit	Adopted Trip Rates			
			AM Peak Hour		PM Peak Hour	
			Generation	Attraction	Generation	Attraction
Staff Quarter	Subsidised Housing (40m^2)	pcu/hr/flat	0.0432	0.0326	0.0237	0.0301
Residential Institution	Private Housing (70m^2)	pcu/hr/flat	0.0888	0.0515	0.0356	0.048
C/S/TC/AAO	Office	pcu/hr/100m^2	0.2361	0.3257	0.1928	0.151

Note: C/S/TC/AAO - Conference / Seminars / Training Course / Administration & Accounting Office

3.13 For staff quarter and residential institution, the mean trip rates of TPDM are adopted in view that the residents are employees and does not involve external commuting. Hence, the use of mean trip rates is considered conservative. For conference / seminars / training course / administration & accounting office, to be conservative, the upper limit trip rates of TPDM are adopted.

EV Related Business

3.14 Since the TPDM does not provide trip rates for uses similar to the EV Related Business, or "*Vehicle Repair Workshops*", traffic generation surveys were conducted at selected existing standalone service centres ("SSC") operated by the Applicant, and the results are used to derive the appropriate trip rates. These existing service centres consist of showrooms, office, vehicle service centre etc. which are similar to the proposed EV Related Business. Table 3.8 summarizes the details of these surveyed standalone service centres.

TABLE 3.8 DETAILS OF THE SURVEYED STANDALONE SERVICE CENTRES

Address	Vehicle Type Served	Approximate Gross Floor Area	Operation Hours (Monday – Friday)
374 Castle Peak Road – Tsuen Wan, Tsuen Wan ("TWSSC")	Light Vehicles (Private Cars)	13,663m^2	0800 – 1900
33 & 96 Kam Pok Road, Yuen Long ("YLSSC")	Commercial Vehicles (LGV, HGV, Light Buses and Coaches)	6,032m^2	0845 - 1915

3.15 In view that the TWSSC is located in Tsuen Wan town centre where there is good public transport service, its convenient location is a key attraction to car owners bringing their vehicles in for service, and it TWSSC has similar size to the EV Related Business.

3.16 The YLSSC is located in an area similar to the Subject Site, and is alike the EV Related Business.

3.17 Hence, the 2 surveyed locations are considered suitable reference to derive the trip rates for the EV Related Business. Table 3.9 summarizes the survey results, and the derived trip rates.

TABLE 3.9 RESULTS OF TRAFFIC GENERATION SURVEYS AND DERIVED TRIP RATES

Survey Location	Approximate GFA	Observed Number of Trips (pcu/hr)			
		AM Peak Hour		PM Peak Hour	
		Generation	Attraction	Generation	Attraction
TWSSC	13,663m^2	4	23	26	20
YLSSC	6,032m^2	4	10	13	10
TOTAL	**19,695m^2**	**8**	**33**	**39**	**30**
Derived Trip Rates (pcu/hr/100 m^2)		**0.0406**	**0.1676**	**0.1980**	**0.1523**

Overall Traffic Generation

3.18 Based on the development parameters presented in Table 3.1, and the trip rates presented in Tables 3.7 and 3.9, the estimated traffic generation for the Proposed EV Mobility City is summarised in Table 3.10.

TABLE 3.10 ESTIMATED TRAFFIC GENERATION OF THE PROPOSED EV MOBILITY CITY

Use	Parameters	Estimated Traffic Generation (pcu/hr)			
		AM Peak Hour		PM Peak Hour	
		Generation	Attraction	Generation	Attraction
Staff Quarter	48 units	2	2	1	1
Residential Institution	90 units	8	5	3	4
C/S/TC/AAO	2,340m^2	6	8	5	4
EV Business Related	14,040m^2	6	24	28	21
TOTAL		**22**	**39**	**37**	**30**
		61 (2-way)		**67 (2-way)**	

Note: C/S/TC/AAO - Conference / Seminars / Training Course / Administration & Accounting Office

4.0 TRAFFIC IMPACT

Design Year

4.1 The Proposed EV Mobility City is expected to be completed in 2031. Hence, the design year adopted is 2034, i.e. 3 years after completion.

Traffic Forecasting

4.2 Year 2034 traffic flows used for the capacity analysis are derived based on the following:

(i) the 2025 existing traffic flow,
(ii) with reference to the 2031 traffic flows from the NTE1 Base District Traffic Model ("BDTM") which is produced by Transport Department,
(iii) the estimated traffic growths from 2031 to 2034,
(iv) the expected traffic generation associated with other known planned / committed major developments,
(v) the planned traffic improvement works to be carried by other projects, and
(vi) the expected traffic generation associated to the Proposed EV Mobility City

4.3 Traffic growth from 2031 to 2034 are derived with reference to the "*Hong Kong Population Projections*" published by the Census and Statistics Department ("C&SD") available in the public domain and is presented in Table 4.1.

TABLE 4.1 POPULATION PROJECTIONS BY C&SD

Year	HK Resident Population (in Thousands)
2031	7,820.2
2034	7,945.1
Average Annual Growth (2031 – 2034)	**0.5%**

4.4 Table 4.1 shows an annual growth rate of 0.5% and this is adopted to develop the 2034 traffic model which is used to produce the 2034 traffic flows.

Other Known Planned / Committed Major Developments in the Vicinity

4.5 Traffic generated by other known planned / committed major developments which are obtained from the available public domain including "*Monthly Digest*" published by Buildings Department, and the Town Planning Board's Statutory Planning Portal 3 by Planning Department, etc. included in the design year traffic flows. These developments are presented in Table 4.2.

TABLE 4.2 LIST OF OTHER KNOWN PLANNED / COMMITTED MAJOR DEVELOPMENTS

Ref.	Developments	Development Parameters (Approx.)
A.	Fanling North New Development Area (including Proposed Minor Relaxation of Plot Ratio and Building Height approved under TPB No. A/KTN/54, A/FLN/28, & A/FLN/30) [(1)]	Public Housing: 15,939 flats Private Housing: 8,990 flats G/IC: 32,837 m^2 GFA Other non-domestic use (e.g. retail, kindergarten etc.): 129,657 m^2 GFA Primary and Secondary Schools: 8 nos.
B.	Proposed Public Housing Development at Queen's Hill Extension [(2)]	Public Housing: 4,000 flats G/IC
C.	New Territories East Cultural Centre in Area 11, Sha Tau Kok Road – Lung Yeuk Tau, Fanling [(3)]	67,000 m^2 CFA with 2,500 seats Public Vehicle Park

TABLE 4.2 LIST OF OTHER KNOWN PLANNED / COMMITTED MAJOR DEVELOPMENTS (CONT'D)

Ref.	Developments	Development Parameters (Approx.)
D.	Public Housing Development at San Wan Road [4]	Public Housing: 450 flats G/IC, Kindergarten, Primary School and Secondary School
E.	Mixed Housing Development Project at Pak Wo Road (TPB No. A/FSS/254) [5][8]	Public Housing: 510 flats Subsidized Sale Flat: 696 flats Elderly Housing: 261 flats RCHE: 210 beds Retail: 6,500 m^2 GFA Public Vehicle Park
F.	Public Housing Development at Fanling Area 17 [7]	Public Housing: 8,300 flats G/IC, Social Welfare Facilities, Kindergarten, Community Hall, Retail, Market
G.	Subsidized Sale Flats at Jockey Club Road [5][7]	Subsidized Sale Flat: 644 flats Retail: 3,000 m^2 CFA Public Vehicle Park
H.	Public Housing Development at Sheung Shui Areas 4 and 30 Site 1 & 2 (including Proposed Minor Relaxation of Plot Ratio and Building Height approved under TPB No. A/FSS/280) [7][8]	Public Housing: 3,644 flats Retail: 1,100 m^2 CFA G/IC Public Vehicle Park
I.	Public Housing Development at Po Shek Wu Road [7]	Public Housing: 1,800 flats Retail: 3,000 m^2 CFA Kindergarten
J.	Proposed Flat Development and Social Welfare Facility (Residential Care Home for the Elderly) at Ma Sik Road, Fanling (TPB No. A/FSS/294) [8]	Private Housing: 1,898 Flats RCHE: 120 beds [9] Public Vehicle Park
K.	Proposed Social Welfare Facility (Residential Care Home for the Elderly) and Flat at Tin Ping Road, Sheung Shui (TPB No. A/FSS/279) [8]	RCHE: 143 beds Private Housing: 28 flats
L.	Proposed Minor Relaxation of Domestic PR Restriction for Permitted Residential Development with Commercial Uses at 1 Luen Fat Street, Fanling (TPB No. A/FSS/282) [8]	Private Housing: 119 flats Commercial: 161 m^2 GFA
M.	Proposed Shop and Services (Showroom) and Office (Wholesale Conversion of an Existing Industrial Building) at 5 Lok Yip Road, Fanling (TPB No. A/FSS/283) [8]	Retail: 4,075 m^2 GFA
N.	Proposed Shop and Services, Eating Place and Other Uses at 33 On Lok Mun Street, Fanling (TPB No. A/FSS/284) [8]	Retail: 2,392 m^2 GFA
O.	Public Housing Development at Ching Hiu Road [9]	Private Housing: 620 flats G/IC, & Social Welfare Facilities
P.	Public Housing Development at Fanling Area 48 (TPB No. A/FSS/295) [8][10]	Public Housing: 4,620 flats Primary School Social Welfare Facilities, and Retail
Q.	Wo Hop Shek Cemetery Phases 2, 3 and 4 Columbarium, and Wo Hop Shek Crematorium Expansion [11]	Columbarium: 280,000 niches Cremators: 10 nos.

Source:

(1) Rural and New Town Planning Committee ("RNTPC") Paper No. A/FLN/30
(2) North Committees Meetings Discussion Paper 9/2022. *"Proposed Public Housing Development at Queen's Hill Extension"*. Dated 15 May 2022. North District Council.
(3) LC Paper No. CB(2)614/2022(01). Legislative Council.
(4) Planning Brief. Hong Kong Housing Authority.
<https://www.pland.gov.hk/pland_en/access/pec/planning_brief/San%20Wan%20Road%20PB.pdf>
(5) HKHS Annual Report 2022. Hong Kong Society.

(6) Paper 2/2023. "粉嶺第 17 區公營房屋發展計劃". Dated 16 January 2023. North District Council.
(7) North Committees Meetings Discussion Paper 5/2019. "Public Housing Development Programmes at Sites 1 and 2 in Sheung Shui Areas 4 and 30, a Site to the North of Po Shek Wu Road and a Site on Jockey Club Road, Fanling, and Proposed Amendments to the Approved Fanling/Sheung Shui Outline Zoning Plan No. S/FSS/22." Dated 21 January 2019. North District Council.
(8) Statutory Planning Portal 2. Town Planning Board.
(9) Paper 4/2023. "上水清曉路公營房屋發展之工地平整及基礎設施工程." Dated 16 January 2023. North District Council.
(10) LC Paper No. CB(1)158/2022(03). Legislative Council.
(11) Paper 24/2024. "和合石墳場興建火葬場、骨灰安置所第二期和第三期計劃及相關道路改善和排污設 施工程 (工務計劃項目第 5874TH 號)." Dated 9 July 2024. North District Council

Future Road Network

4.6 Traffic improvement works have been planned for implementation within the AOI by the Government, and those identified are summarized in **Table 4.3**.

TABLE 4.3 PLANNED TRAFFIC IMPROVEMENT WORKS WITHIN THE AOI

Planned Traffic Improvements	Status
Fanling Bypass Eastern Section [(1)]	Under Construction
Realignment and upgrading of Tai Wo Service Road West [(1)(2)]	Under Construction
Improvement at Southern Junction of Pak Wo Road / Yat Ming Road / Wah Ming Road (J04) [(3)]	Under Planning

(1) Project Number 7835CL. "*Remaining Phase of Site Formation and Engineering Infrastructure Works at Kwu Tung North and Fanling North New Development Area - Detailed Design and Site Investigation*" Civil Engineering and Development Department. <https://www.cedd.gov.hk/eng/our-projects/major-projects/index-id-87.html>
(2) A/FSS/295. "*Proposed Minor Relaxation of Maximum Gross Floor Area and Building Heigth for Proposed Public Housing Development at Fanling Area 48.*" Town Planning Board.
(3) PWP Item No. 5874H. *"Road Improvement Works at Wo Hop Shek Cemetery for Phases 2 and 3 Columbarium Development."* Civil Engineering and Development Department.

4.7 The above listed traffic improvements are expected to be implemented prior to completion of the Proposed EV Mobility City, and are adopted in the 2034 traffic model. Information of the above traffic improvement works are found in **Appendix B**.

2034 Traffic Flows

4.8 Year 2034 traffic flows with the Proposed EV Mobility City are derived as follows:

2034 Traffic Flows with the Proposed EV Mobility City = *2034 Traffic Flows without the Proposed EV Mobility City + Traffic Generated by the Proposed EV Mobility City*

4.9 **Figures 4.1 and 4.2** show the 2034 AM and PM peak hour traffic flows for the scenarios without and with the Proposed EV Mobility City respectively.

2034 Junction Capacity Analysis

4.10 Year 2034 junction capacity analysis for the scenarios without and with the Proposed EV Mobility City are summarised in Table 4.4 and detailed calculations are found in the **Appendix A**.

TABLE 4.4 2034 JUNCTION PERFORMANCE

Ref.	Junction	Type of Junction	Parameter	Without the Proposed EV Mobility City		With the Proposed EV Mobility City	
				AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
J01	Tai Wo Service West / Kiu Tau Road	Priority	RFC	0.035	0.184	0.035	0.184
J02	Wo Hing Road / Unnamed Road	Priority	RFC	0.557	0.413	0.587	0.438
J03	Wah Ming Road / Lui Ming Road / Ming Yin Road / Wo Hing Road	Round-about	RFC	0.415	0.348	0.428	0.356
J04	Pak Wo Road / Yat Ming Road / Wah Ming Road (Southern Junction)	Signal (Note 1)	RC	25%	31%	22%	28%
J05	Pak Wo Road / Yat Ming Road / Wah Ming Road (Northern Junction)	Signal	RC	24%	67%	23%	65%
J06	Wo Hop Shek Interchange	Signal	RC	9%	24%	6%	21%
J07	Wo Hing Road / Site Access	Priority	RFC	0.000	0.000	0.050	0.055

Note 1: With planned traffic improvement works to be implemented by Others.
RFC - Ratio of Flow to Capacity RC – Reserve Capacity

4.11 Table 4.4 shows that, except for J06 during the AM peak hour, the junctions analyzed have capacity to accommodate the expected traffic growth to 2034, and the traffic generated by the Proposed EV Mobility City.

4.12 For J06, it is expected to operate unsatisfactory during the AM peak hour for both scenarios without and with the Proposed EV Mobility City.

Proposed Traffic Improvement at J06

4.13 To improve the operational condition of J06, local traffic improvement is proposed, and is shown in **Figure 4.3**. Table 4.5 shows results of the junction capacity analyses for J06 with the proposed traffic improvement implemented for the scenario with the Proposed EV Mobility City.

TABLE 4.5 2034 JUNCTION PERFORMANCE FOR J06 WITH LOCAL TRAFFIC IMPROVEMENT

Ref.	Junction	Type of Junction	Parameter	With the Proposed EV Mobility City	
				AM Peak Hour	PM Peak Hour
J06	Wo Hop Shek Interchange	Signal	RC	16%	21%

2034 Road Link Capacity Analysis

4.14 Year 2034 road link capacity analysis for the scenarios without and with the Proposed EV Mobility City are summarised in Table 4.6.

TABLE 4.6 YEAR 2034 P/Df OF ROAD LINKS

Ref.	Road Link	Config.	Direction	Design Flow (pcu/hr)	P/Df			
					Without the Proposed EV Mobility City		With the Proposed EV Mobility City	
					AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
L01	Tai Wo Service Road West (Wo Hing Road – Kiu Tau Road)	Single-2	Northbound	1,160	0.332	0.265	0.351	0.297
			Southbound	1,160	0.287	0.276	0.320	0.302
L02	Wo Hing Road (Pak Wo Road – Tai Wo Service Road West)	Single-2	Northbound	1,000	0.334	0.234	0.341	0.245
			Southbound	1,400	0.514	0.358	0.531	0.371
L03	Pak Wo Road (Wo Hop Shek Interchange – Wah Ming Road)	Dual-2	Northbound	3,050	0.431	0.353	0.435	0.356
			Southbound	3,050	0.296	0.267	0.296	0.267
L04	Unnamed Road (Pak Wo Road – Wo Hing Road	Single-2	Eastbound	1,000	0.295	0.227	0.309	0.239
			Westbound	1,000	0.774	0.474	0.789	0.500

Config. – Configuration

4.15 Table 4.6 shows that the road links analyzed have capacity to accommodate the expected traffic growth to 2034, and the traffic generated by the Proposed EV Mobility City.

5.0 SUMMARY

5.1 The Subject Site is located at Various Lots in D.D. 51 and Adjoining Government Lot in Fanling near Wo Hop Shek Village. It is currently occupied by warehouses.

5.2 The Applicant is a well-established vehicle dealer and distributor in Hong Kong, who intends to develop the Subject Site into a research and development centre focusing on electric vehicle technology, i.e. Proposed EV Mobility City, which also includes staff quarter, residential institution, ancillary office and training centre.

5.3 The proposed internal transport provision follows the high-end recommendation of the HKPSG, and TD's Guideline include the following:

i) 53 residential car parking spaces,
ii) 10 visitor car parking spaces,
iii) 4 motorcycle parking spaces,
iv) 87 "shared-use" LGV / light bus parking spaces,
v) 8 "shared-use" M/HGV / coach parking spaces,
vi) 2 "shared-use" M/HGV / coach parking spaces / loading / unloading bays,
vii) 14 LGV loading / unloading bays,
viii) 10 HGV loading / unloading bays, and
ix) 33 bicycle parking spaces.

5.4 Manual classified counts were conducted in May 2025 at selected junctions and road links located in the AOI to establish the existing traffic flows during the AM and PM peak hours. The design year 2034 traffic flows were derived with reference to the BDTM, and have also taken into account the traffic generation and planned traffic improvement works associated with other known planned / committed major developments located in the vicinity.

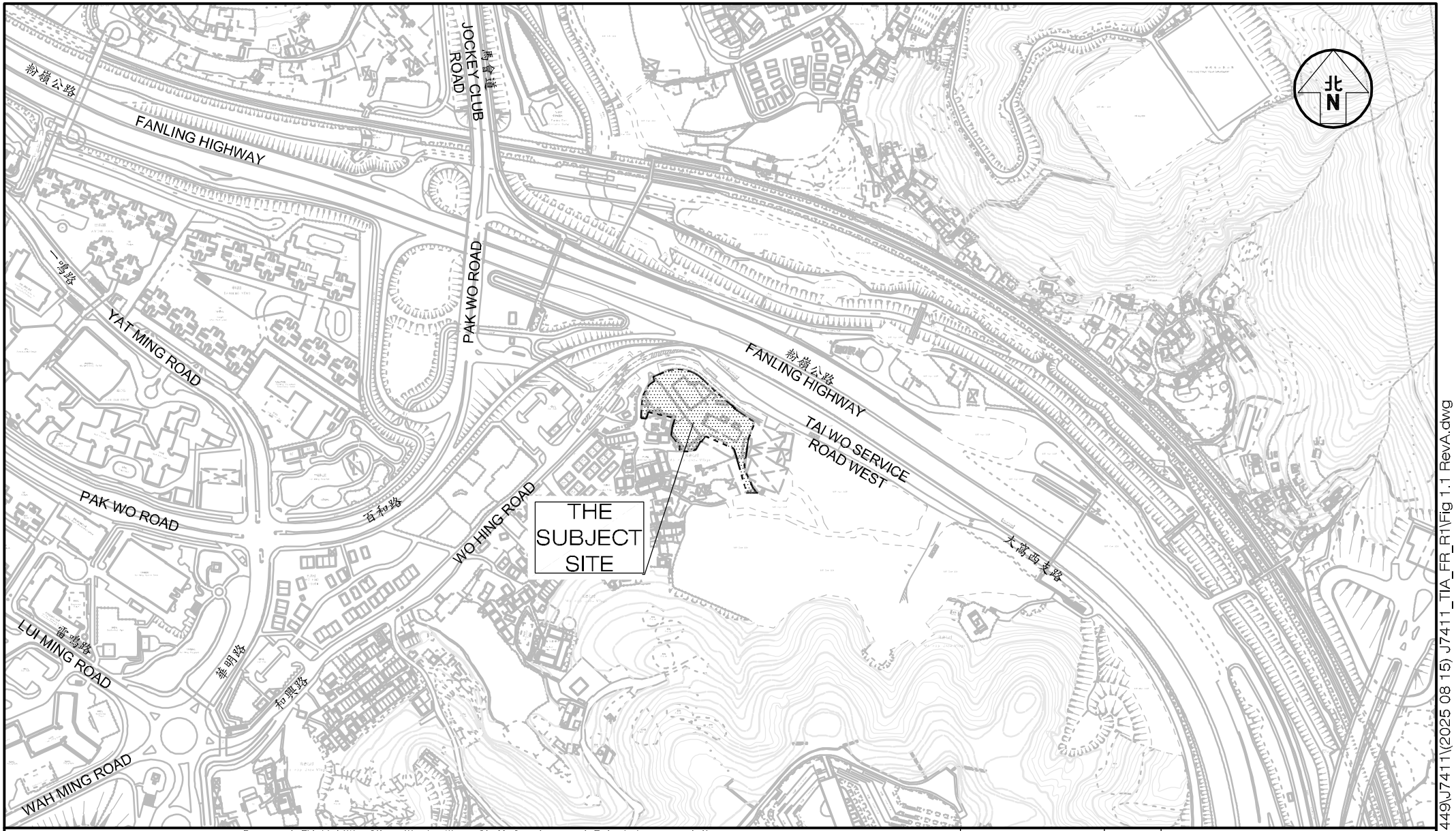
5.5 Traffic generation for the Proposed EV Mobility City is calculated based on the trip rates adopted from the TPDM, and derived trip rates from traffic generation surveys at referenced developments. The Proposed EV Mobility City is expected to generate some 61 and 67 pcu (2-way) during the AM and PM peak hours respectively.

5.6 The traffic analysis found the surveyed junctions and road links currently operate with capacity, and will have sufficient capacity to accommodate the expected traffic growth to 2034 and the traffic generated by the Proposed EV Mobility City, except Wo Hop Shek Interchange (J06).

5.7 The Wo Hop Shek Interchange (J06) is expected to operate unsatisfactorily in 2034 during the AM peak hour in both scenarios without and with the Proposed EV Mobility City. Traffic improvement is proposed which will enhance the operational condition to a satisfactory level.

5.8 In view of the above, it is concluded that the Proposed EV Mobility City is acceptable from traffic engineering viewpoint.

FIGURES



Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	J7411	Figure No. 1.1 / Revision A
Figure Title	LOCATION OF THE SUBJECT SITE		Designed by M C Y / Drawn by S C Y / Checked by K C
			Scale in A4 1 : 5,000 / Date 15 AUG 2025

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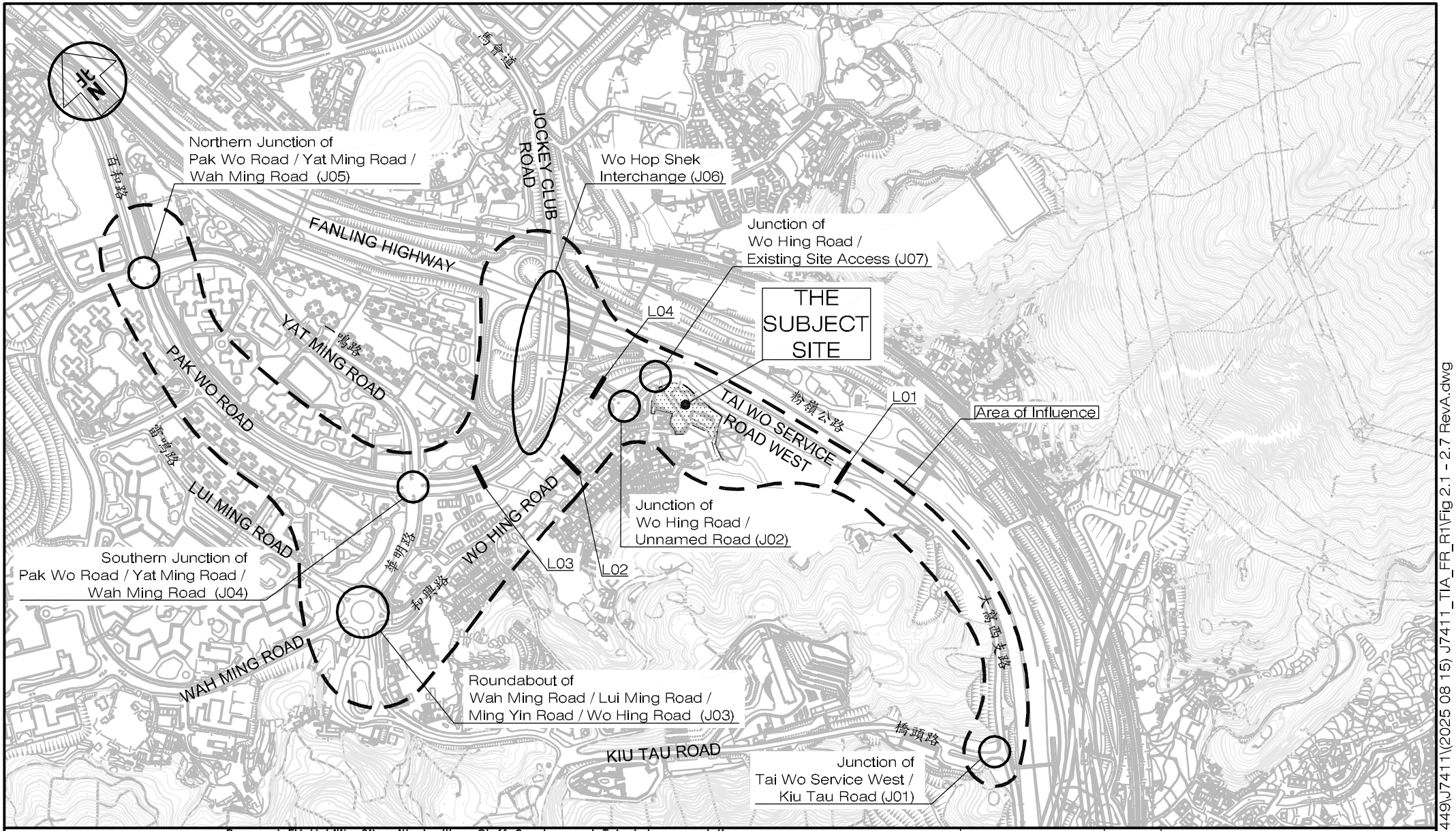

Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	J7411	Figure No. 2.1 / Revision A
Figure Title	AREA OF INFLUENCE ("AOI") AND LOCATION OF SURVEYED JUNCTIONS AND ROAD LINKS		Designed by W C H / Drawn by S C Y / Checked by K C
			Scale in A4 1 : 8,000 / Date 15 AUG 2025

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Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	J7411	Figure No. 2.2 / Revision A
Figure Title	EXISTING JUNCTION LAYOUT – TAI WO SERVICE WEST / KIU TAU ROAD (J01)		Designed by W C H / Drawn by S C Y / Checked by K C
			Scale in A4 1 : 800 / Date 15 AUG 2025

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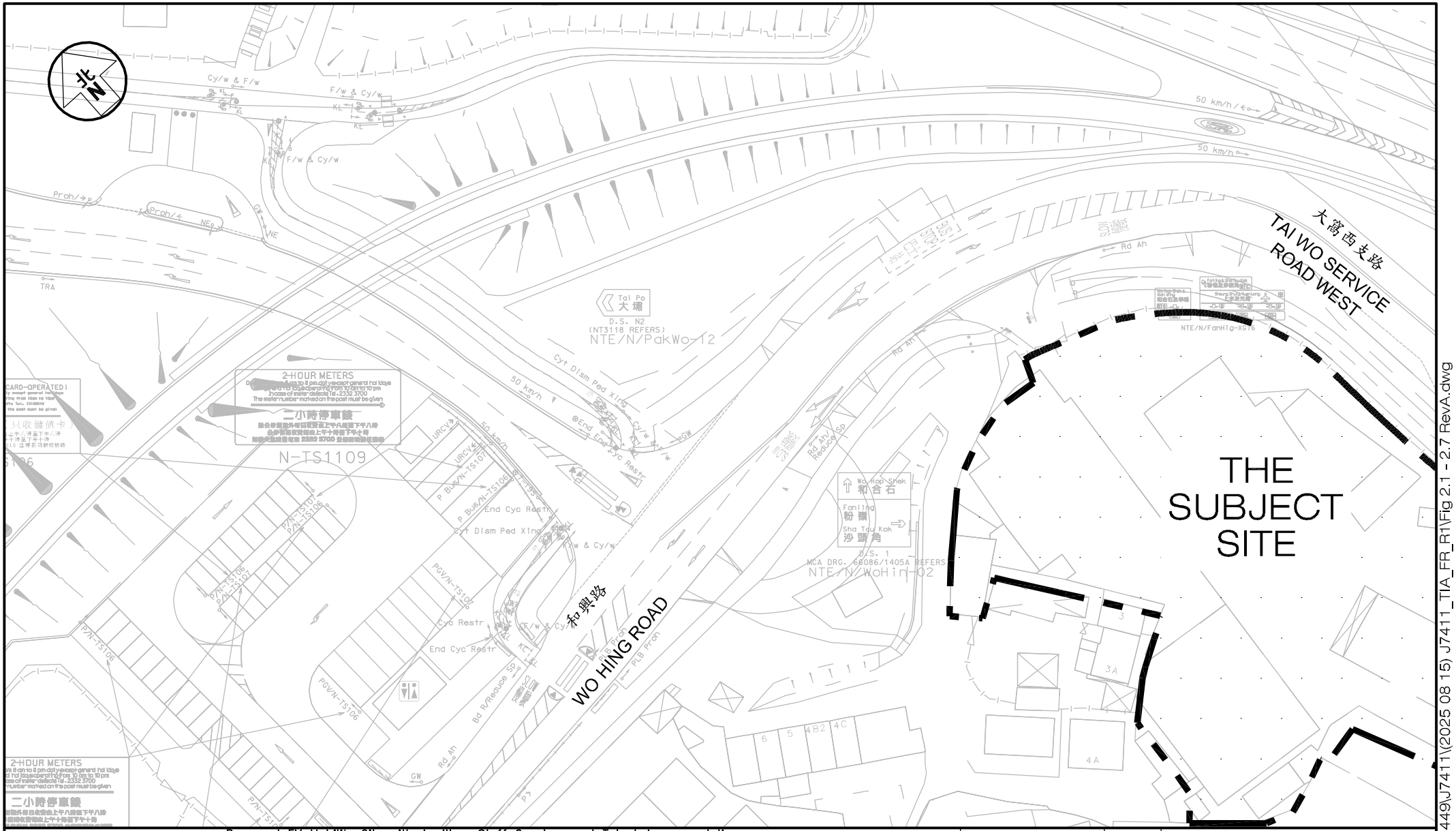

Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	J7411	Figure No. 2.3	Revision A
Figure Title	EXISTING JUNCTION LAYOUT – WO HING ROAD / UNNAMED ROAD (J02) AND WO HING ROAD / EXISTING SITE ACCESS (J07)		Designed by W C H / Drawn by S C Y / Checked by K C	
			Scale in A4 1 : 800	Date 15 AUG 2025

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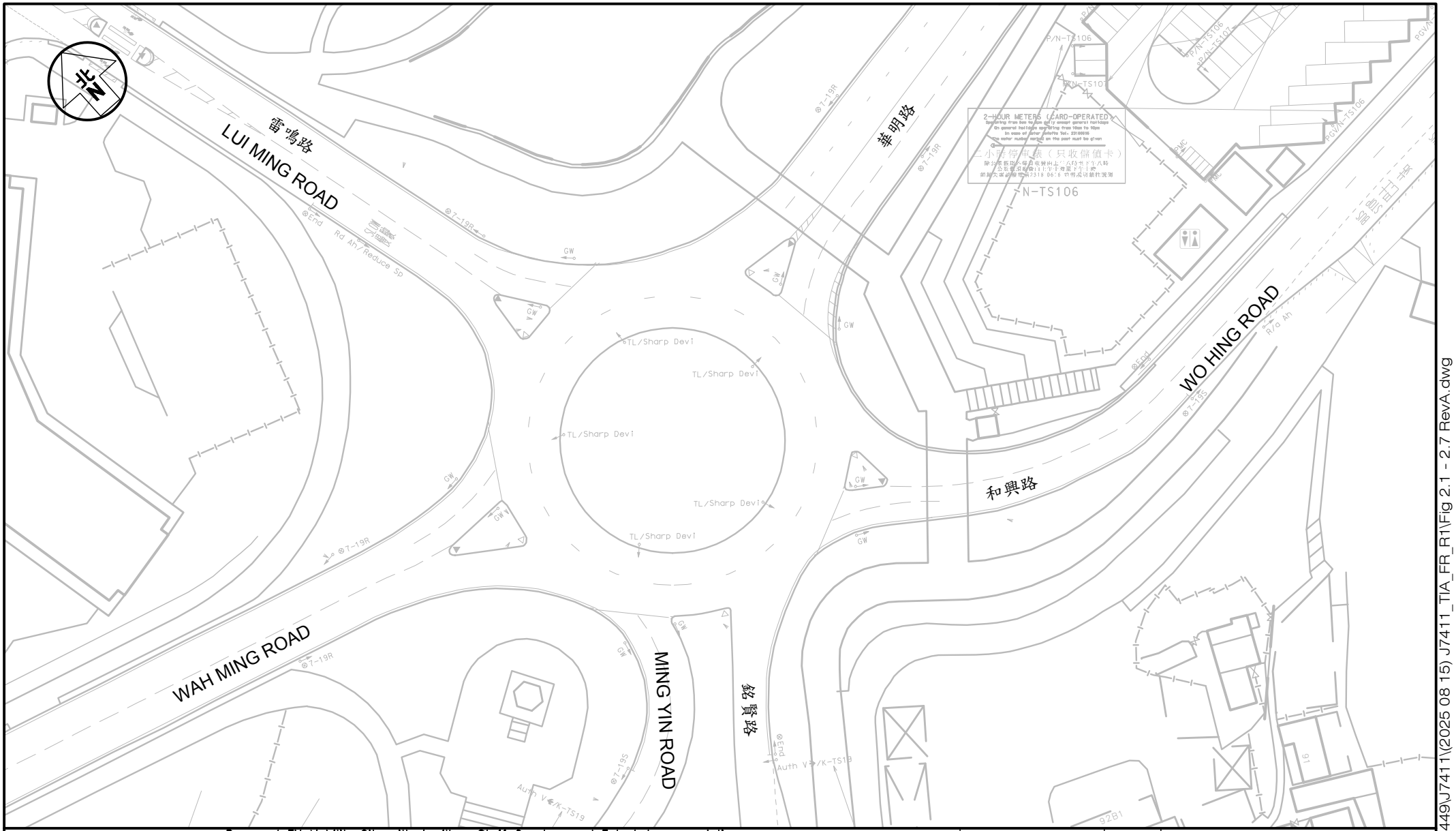

Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	J7411	Figure No. 2.4	Revision A
Figure Title	EXISTING JUNCTION LAYOUT – WAH MING ROAD / LUI MING ROAD / MING YIN ROAD / WO HING ROAD (J03)		Designed by W C H / Drawn by S C Y / Checked by K C	
			Scale in A4 1 : 800 / Date 15 AUG 2025	

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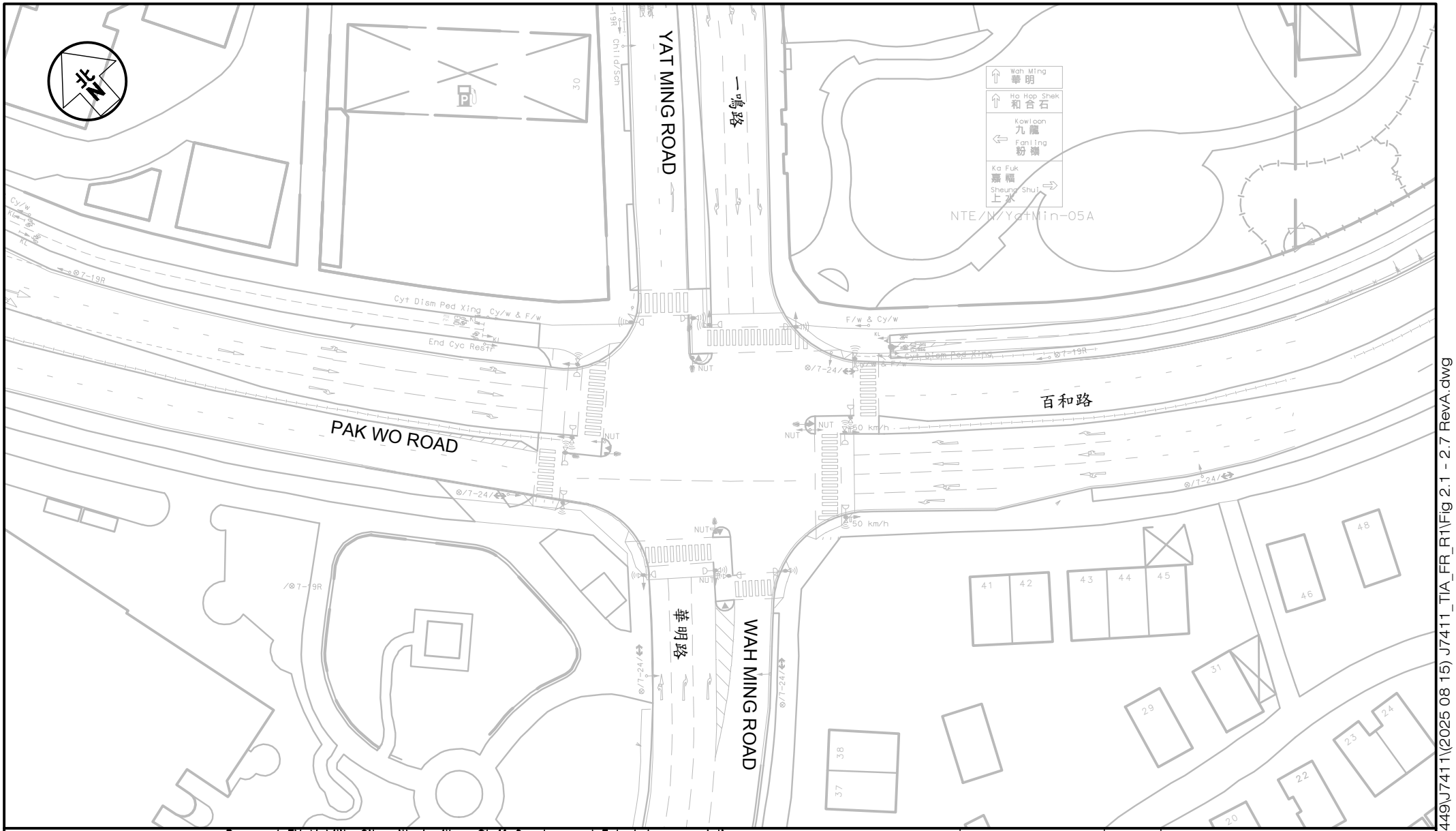

Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	J7411	
Figure Title	EXISTING JUNCTION LAYOUT – PAK WO ROAD / YAT MING ROAD / WAH MING ROAD (SOUTHERN JUNCTION) (J04)	Figure No. 2.5	Revision A
		Designed by W C H / Drawn by S C Y / Checked by K C	
		Scale in A4 1 : 800	Date 15 AUG 2025

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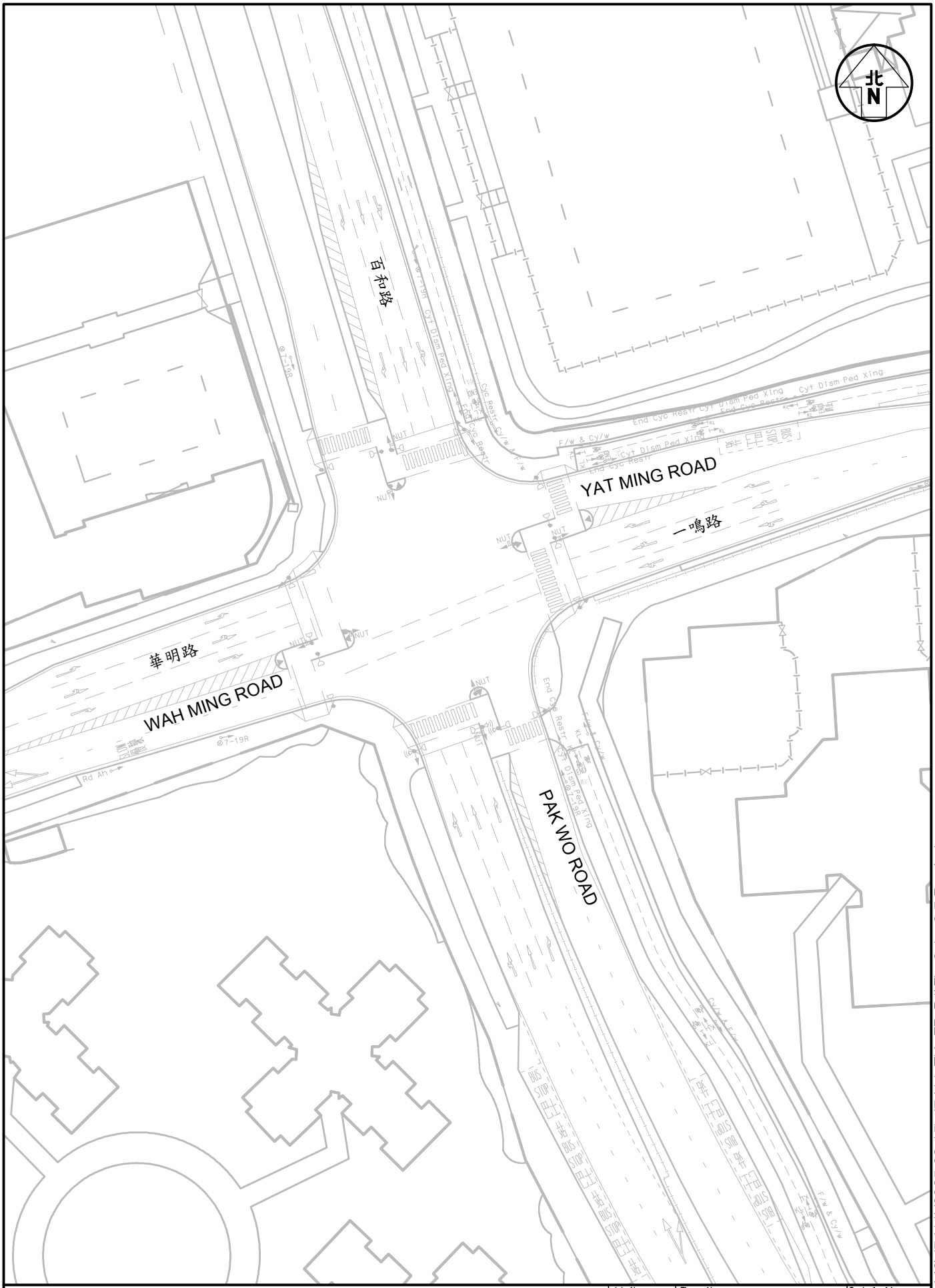
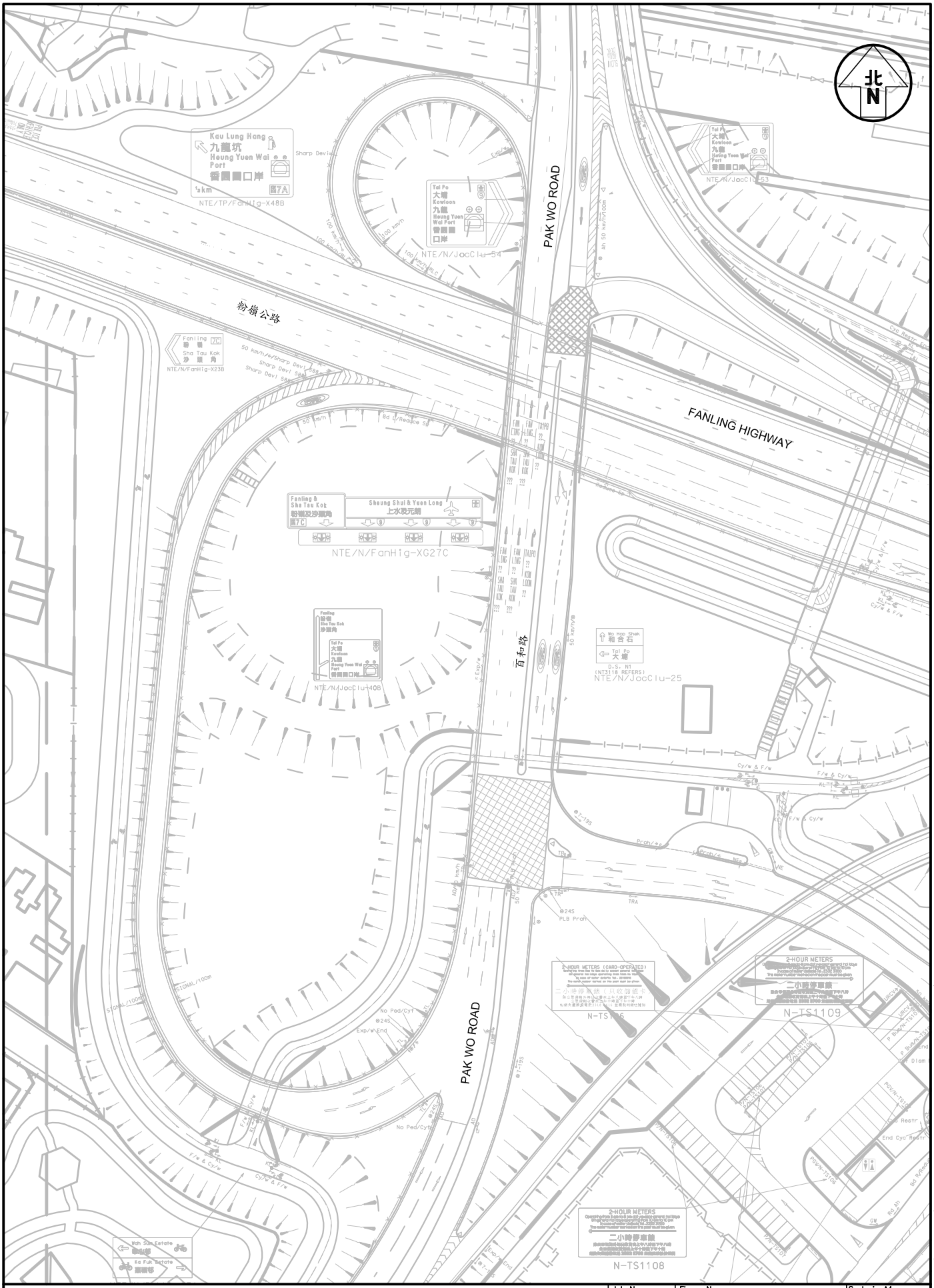


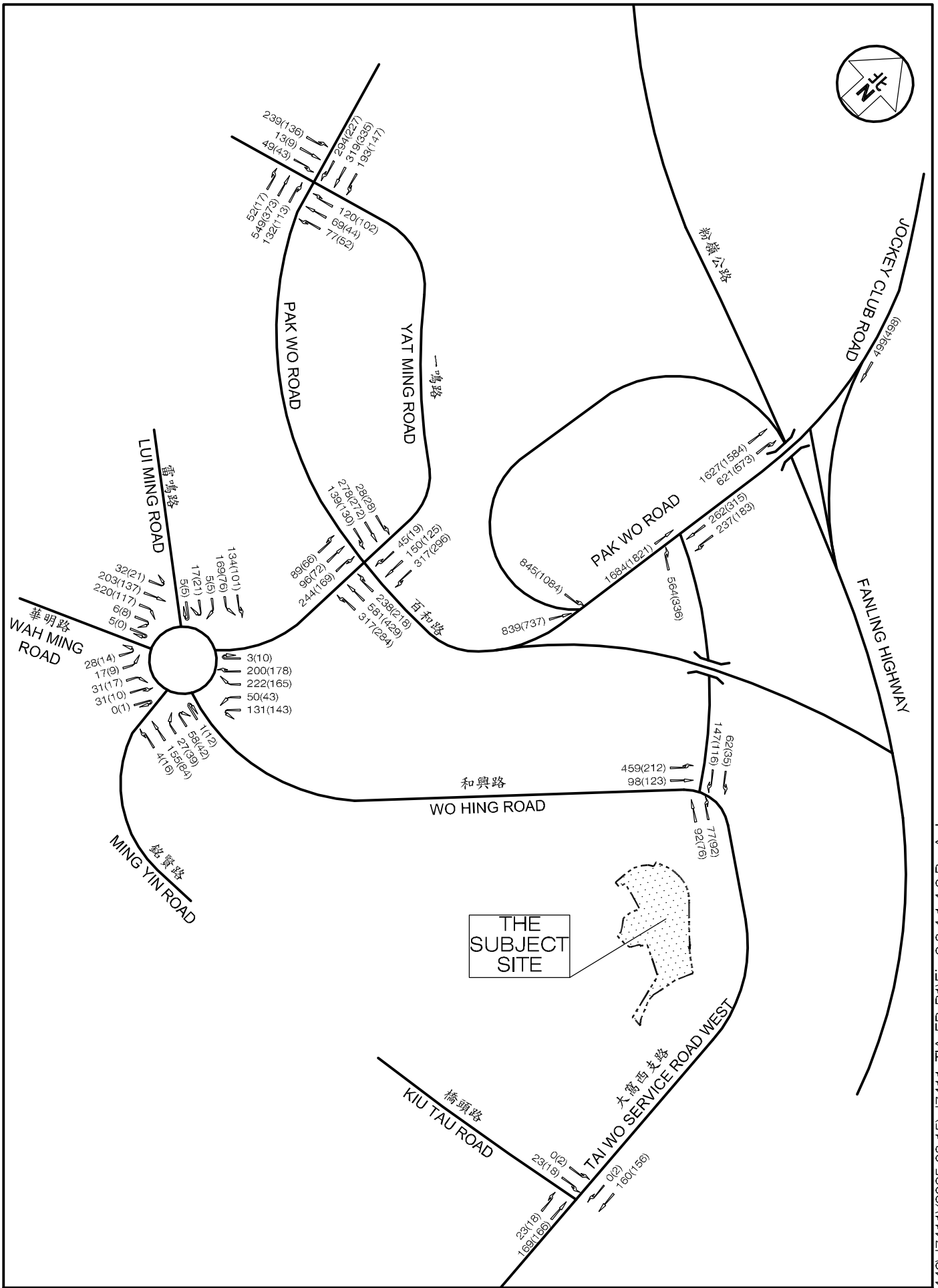
Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	Job No. J7411	Figure No. 2.6		Scale in A4 1 : 800
		Designed by W C H	Drawn by S C Y	Checked by K C	Revision A	Date 15 AUG 2025
Figure Title	EXISTING JUNCTION LAYOUT - PAK WO ROAD / YAT MING ROAD / WAH MING ROAD (NORTHERN JUNCTION) (J05)	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk			

T:\JOBS\7400-7449\7411\(2025 08 15) J7411_TIA_FR_R1\Fig 2.1 - 2.7 RevA.dwg



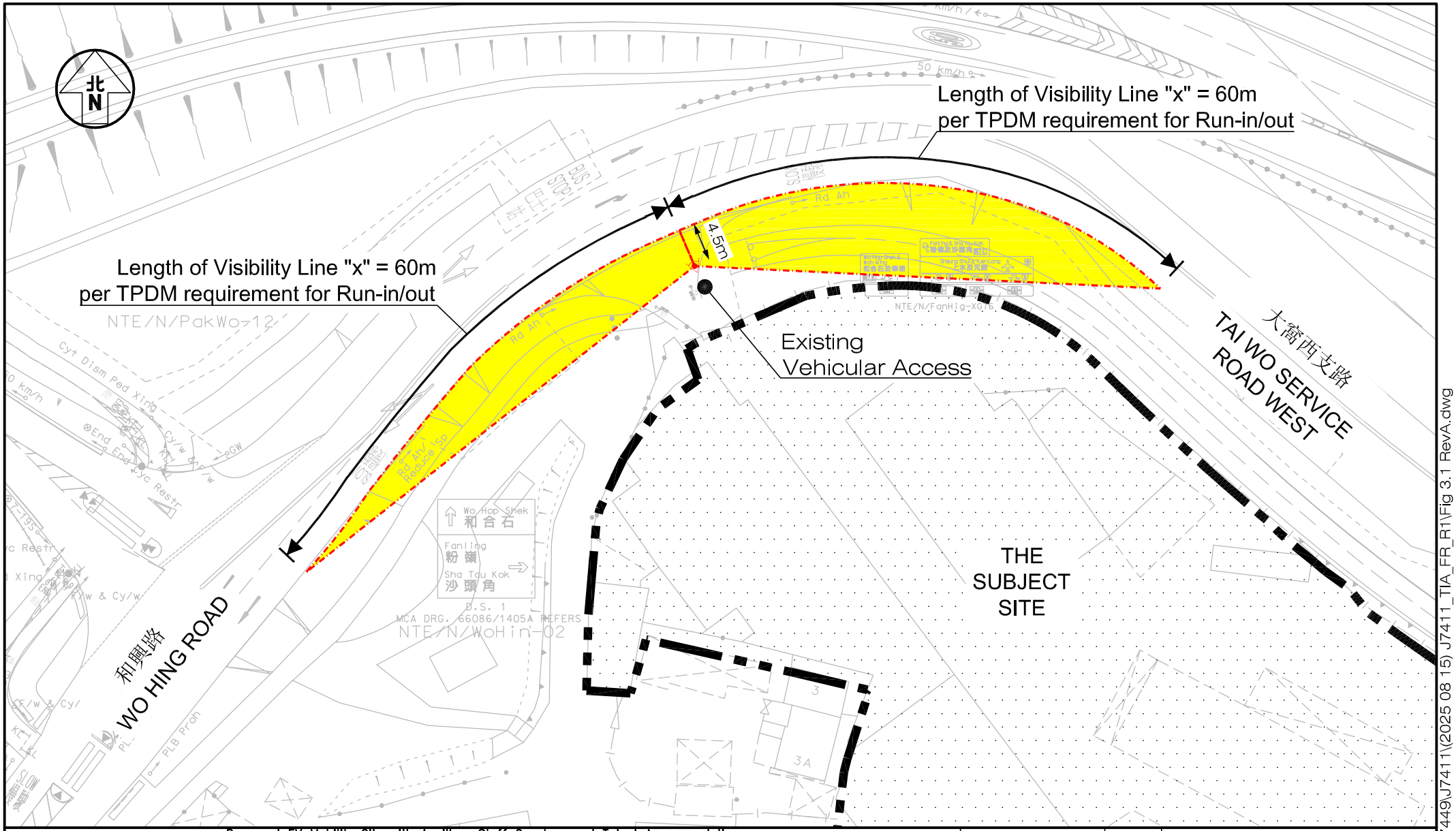
Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	Job No. J7411	Figure No. 2.7		Scale in A4 1 : 800
		Designed by W C H	Drawn by S C Y	Checked by K C	Revision A	Date 15 AUG 2025
Figure Title	EXISTING JUNCTION LAYOUT – WO HOP SHEK INTERCHANGE (J06)	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk			

T:\JOB\J7400-J7449\J7411\(2025 08 15) J7411_TIA_FR_R1\Fig 2.1 - 2.7 RevA.dwg



Project Title: Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	Job No. J7411	Figure No. 2.8			Scale in A4 N.T.S.
	Designed by M C Y	Drawn by S C Y	Checked by K C	Revision A	Date 15 AUG 2025
Figure Title: EXISTING PEAK HOUR TRAFFIC FLOW	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk				

T:\JOB\J7400-J7449\J7411\(2025 08 15) J7411_TIA_FR_R1\Fig 2.8 4.1 4.2 RevA.dwg



Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	J7411	Figure No. 3.1	Revision A
Figure Title	VISIBILITY ASSESSMENTS AT EXISTING VEHICULAR ACCESSES ON WO HING ROAD		Designed by W C H / Drawn by S C Y / Checked by K C	
			Scale in A4 1 : 500 / Date 15 AUG 2025	

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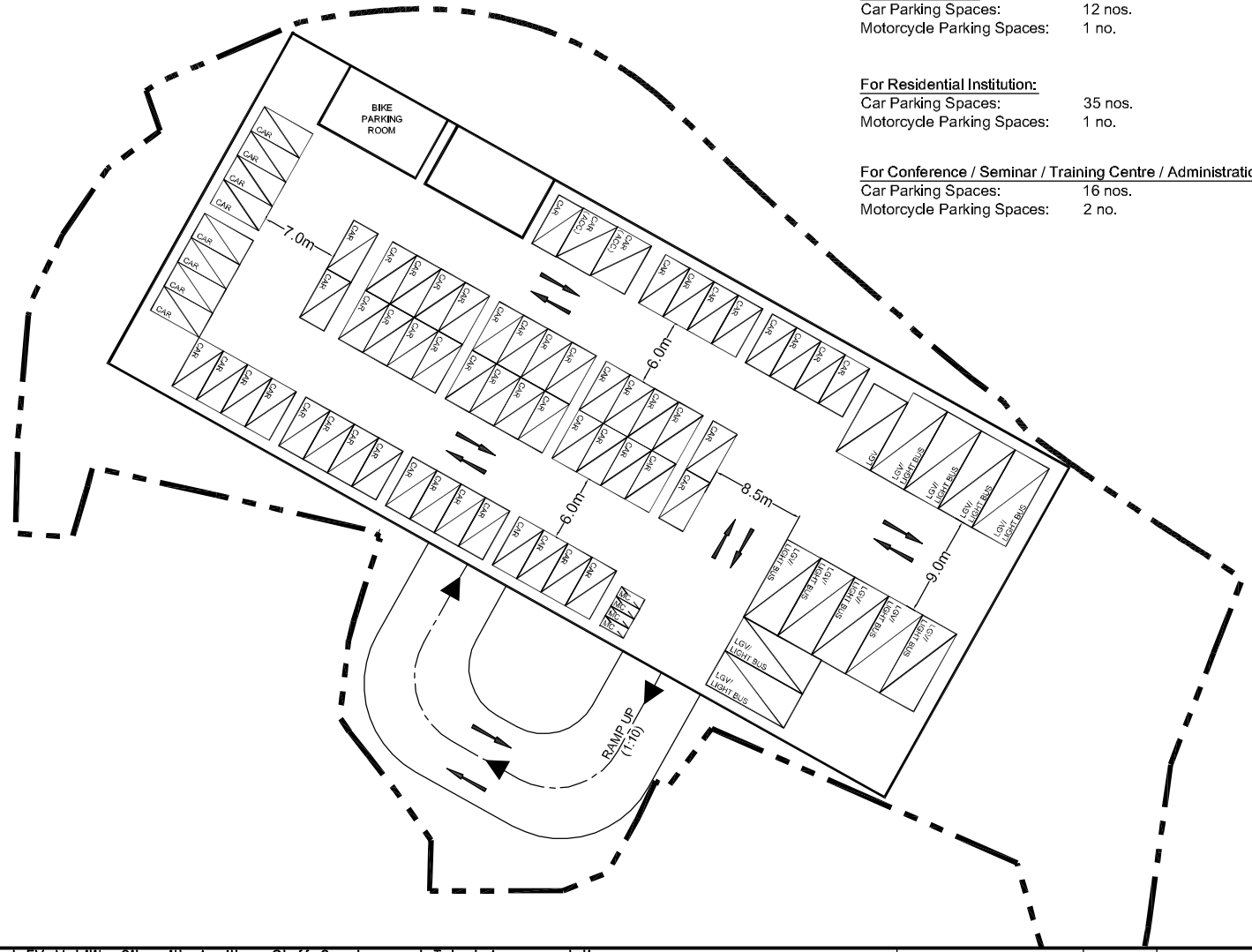
For EV Mobility City:
LGV / LB Parking Spaces: 10 nos.

For Staff Quarter:
Car Parking Spaces: 12 nos.
Motorcycle Parking Spaces: 1 no.

For Residential Institution:
Car Parking Spaces: 35 nos.
Motorcycle Parking Spaces: 1 no.

For Conference / Seminar / Training Centre / Administration & Accounting Office
Car Parking Spaces: 16 nos.
Motorcycle Parking Spaces: 2 no.



Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	J7411	Figure No. 3.2	Revision A
Figure Title	INDICATIVE INTERNAL TRANSPORT LAYOUT BASEMENT FLOOR (B/F)		Designed by W C H / Drawn by S C Y / Checked by K C	
			Scale in A4 1 : 600 / Date 15 AUG 2025	

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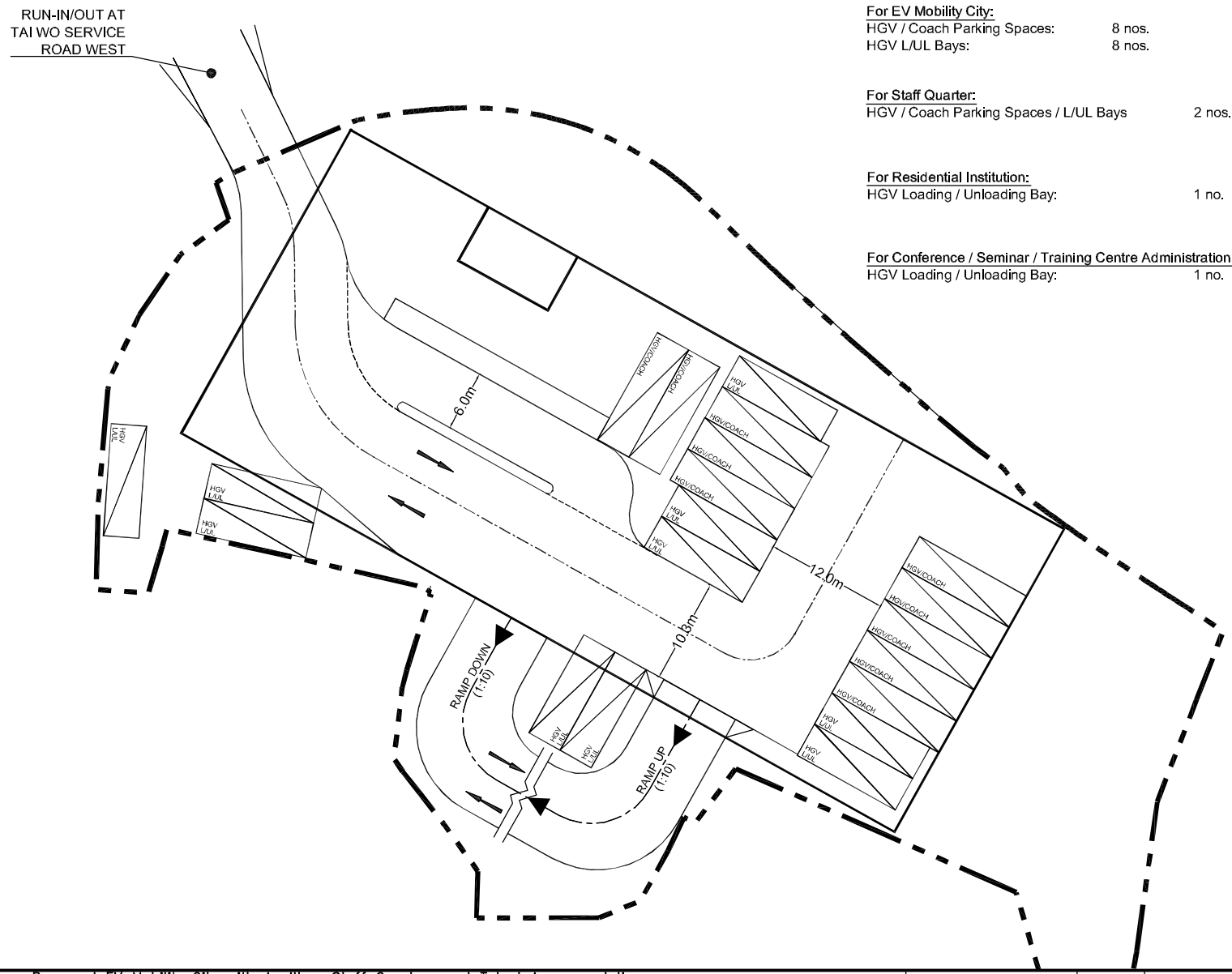
T:\JOB\J7400-J7449\J7411\ (2025 08 15) J7411_TIA_FR_R1\Fig 3.2 - 3.6 RevA.dwg



For EV Mobility City:

HGV / Coach Parking Spaces:	8 nos.
HGV L/UL Bays:	8 nos.

For Staff Quarter:

HGV / Coach Parking Spaces / L/UL Bays	2 nos.

For Residential Institution:

HGV Loading / Unloading Bay:	1 no.

For Conference / Seminar / Training Centre Administration & Accounting Office

HGV Loading / Unloading Bay:	1 no.

Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	J7411	Figure No. 3.3 / Revision A
Figure Title	INDICATIVE INTERNAL TRANSPORT LAYOUT GROUND FLOOR (G/F)		Designed by W C H / Drawn by S C Y / Checked by K C / Scale in A4 1 : 600 / Date 15 AUG 2025

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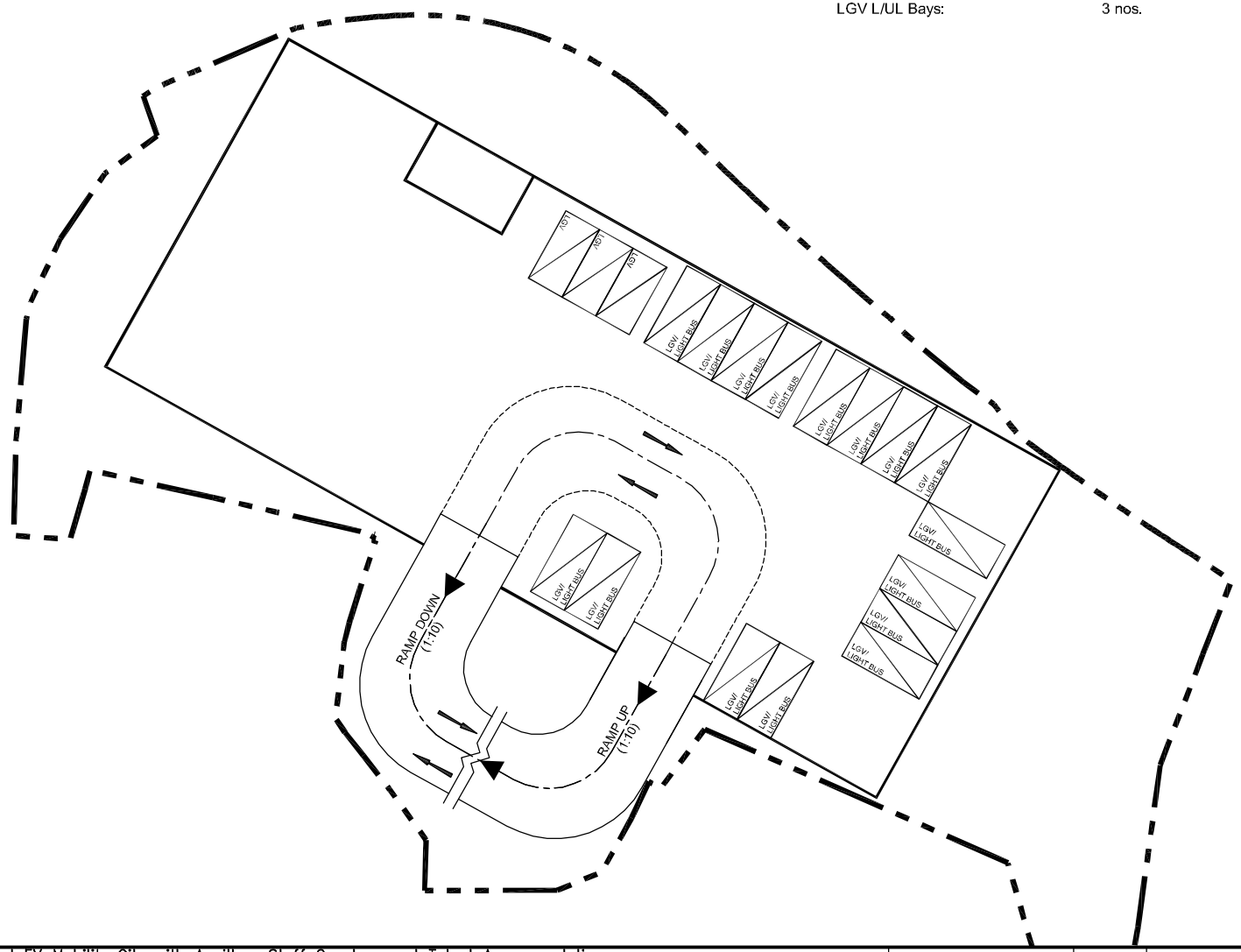
For EV Mobility City

LGV / LB Parking Spaces:	16 nos.
LGV L/UL Bays:	3 nos.



Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	J7411	Figure No. 3.4	Revision A
Figure Title	INDICATIVE INTERNAL TRANSPORT LAYOUT FIRST FLOOR (1/F)		Designed by W C H / Drawn by S C Y / Checked by K C	
			Scale in A4 1 : 600 / Date 15 AUG 2025	

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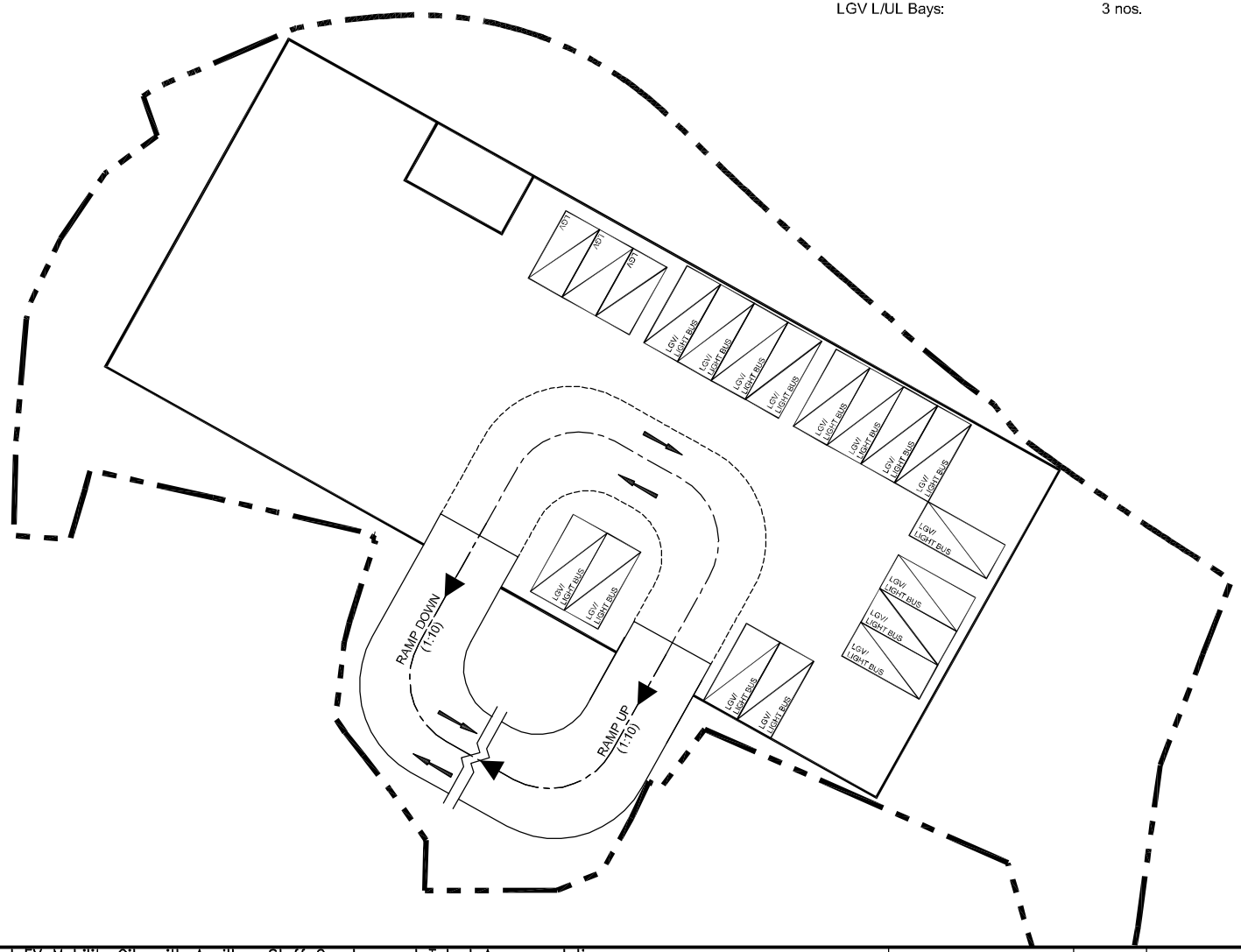
For EV Mobility City

LGV / LB Parking Spaces:	16 nos.
LGV L/UL Bays:	3 nos.



Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	J7411	Figure No. 3.5	Revision A
Figure Title	INDICATIVE INTERNAL TRANSPORT LAYOUT SECOND FLOOR (2/F)		Designed by W C H / Drawn by S C Y / Checked by K C	
			Scale in A4 1 : 600 / Date 15 AUG 2025	

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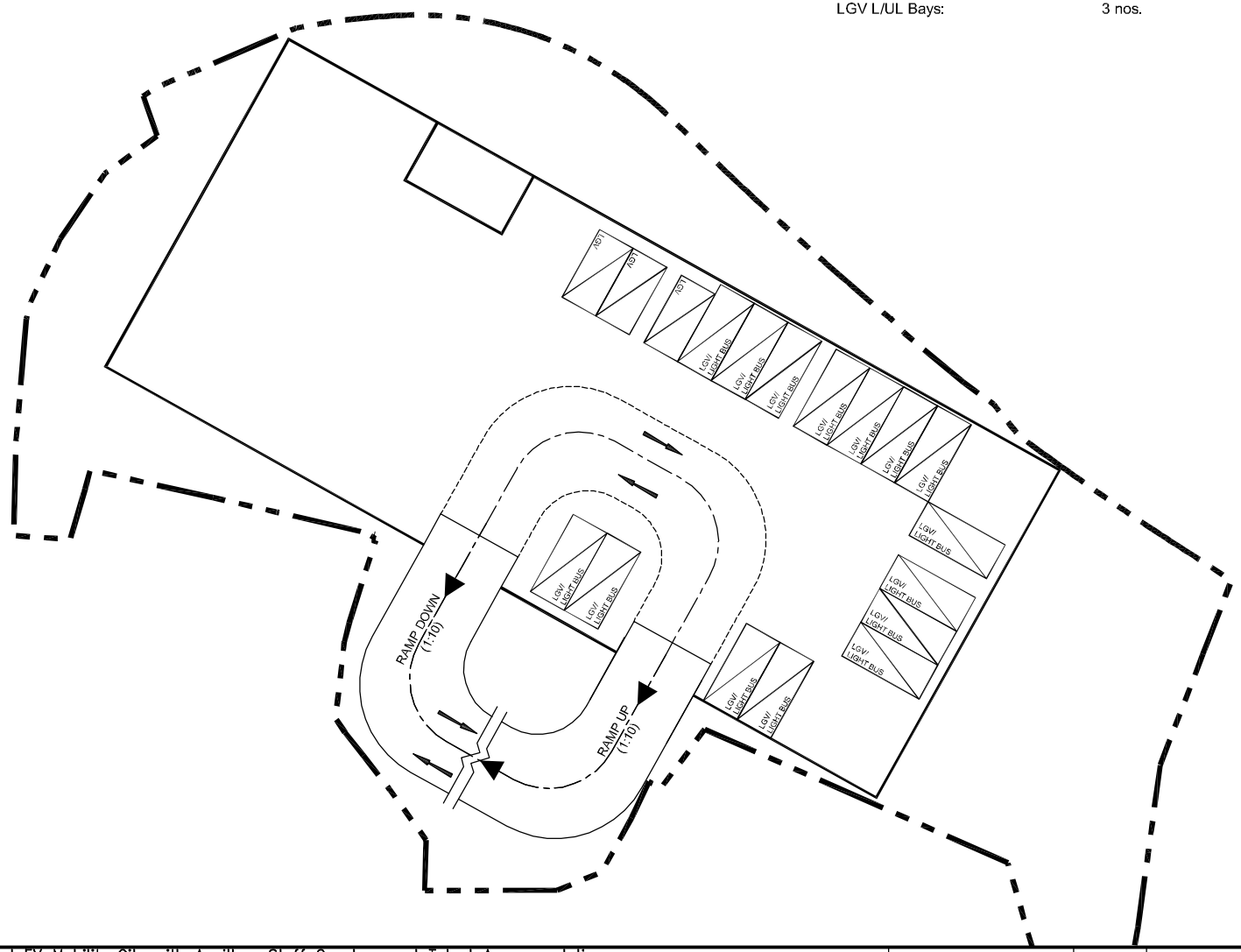
For EV Mobility City

LGV / LB Parking Spaces:	15 nos.
LGV L/UL Bays:	3 nos.



Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	J7411	Figure No. 3.6	Revision A
Figure Title	INDICATIVE INTERNAL TRANSPORT LAYOUT THIRD FLOOR (3/F)		Designed by W C H / Drawn by S C Y / Checked by K C	
			Scale in A4 1 : 600 / Date 15 AUG 2025	

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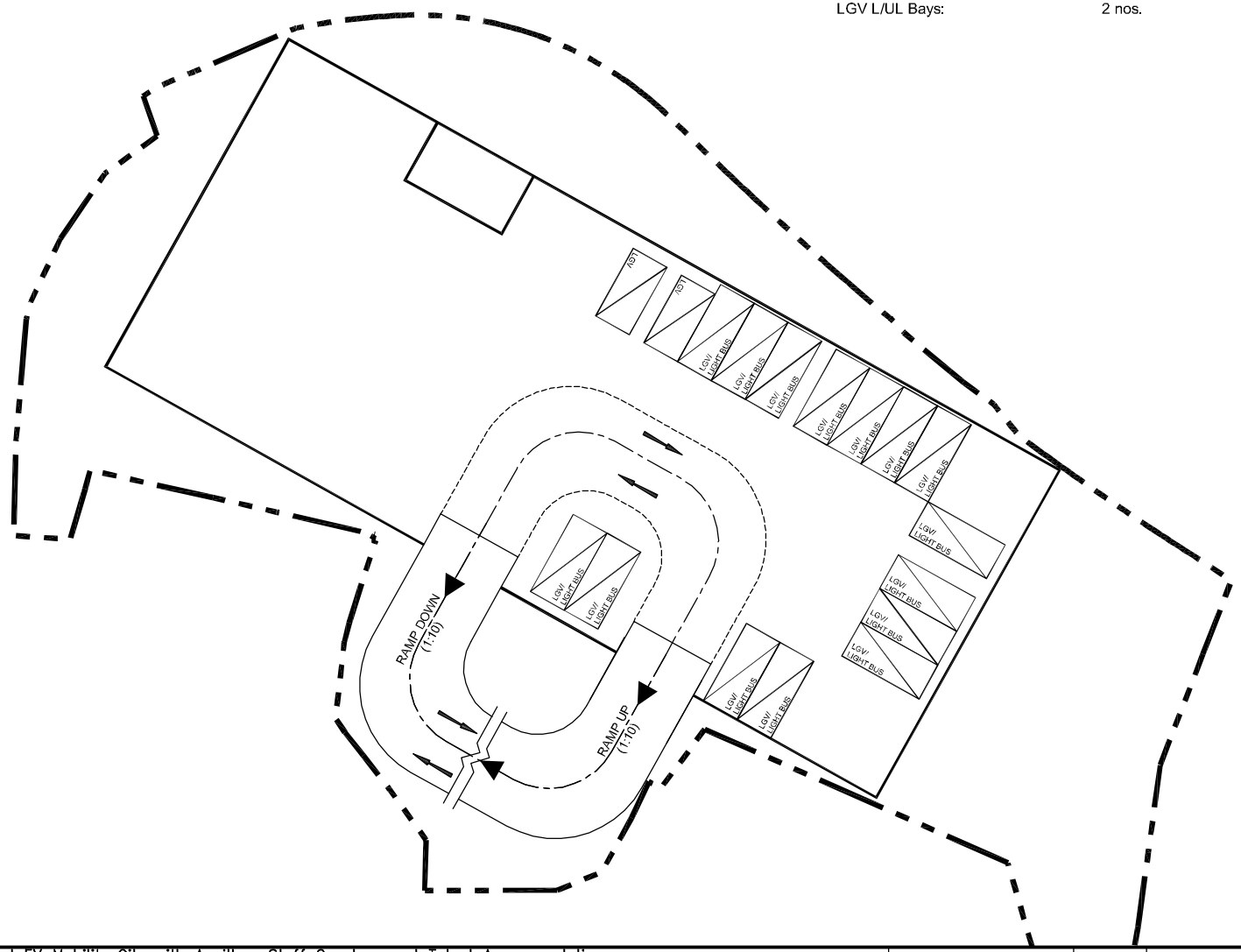
For EV Mobility City

LGV / LB Parking Spaces:	15 nos.
LGV L/UL Bays:	2 nos.



Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	J7411	Figure No. 3.7	Revision A
Figure Title	INDICATIVE INTERNAL TRANSPORT LAYOUT FOURTH FLOOR (4/F)		Designed by W C H / Drawn by S C Y / Checked by K C	
			Scale in A4 1 : 600 / Date 15 AUG 2025	

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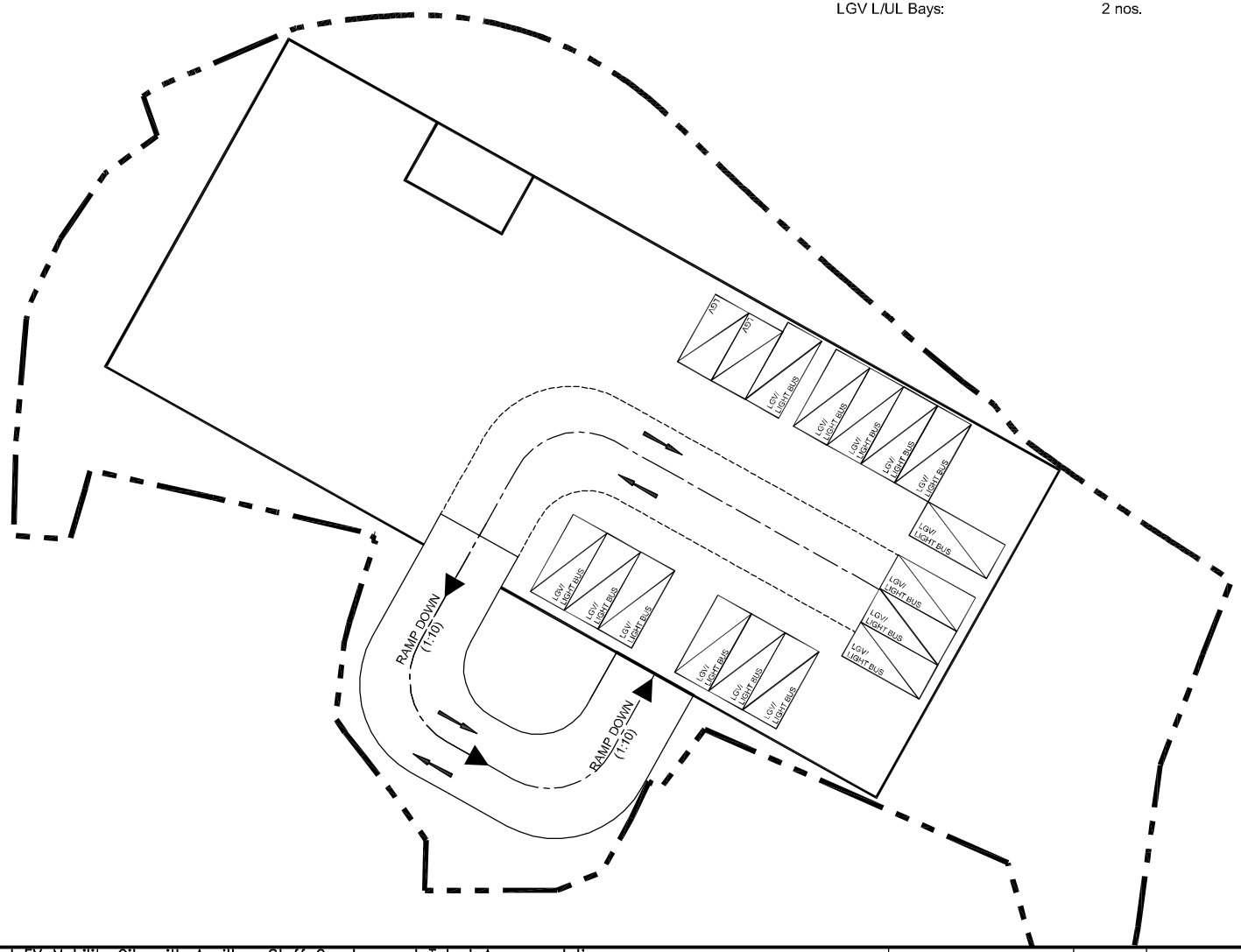
For EV Mobility City

LGV / LB Parking Spaces:	15 nos.
LGV L/UL Bays:	2 nos.



Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	J7411	Figure No. 3.8 / Revision A
Figure Title	INDICATIVE INTERNAL TRANSPORT LAYOUT FIFTH FLOOR (5/F)		Designed by W C H / Drawn by S C Y / Checked by K C / Scale in A4 1 : 600 / Date 15 AUG 2025

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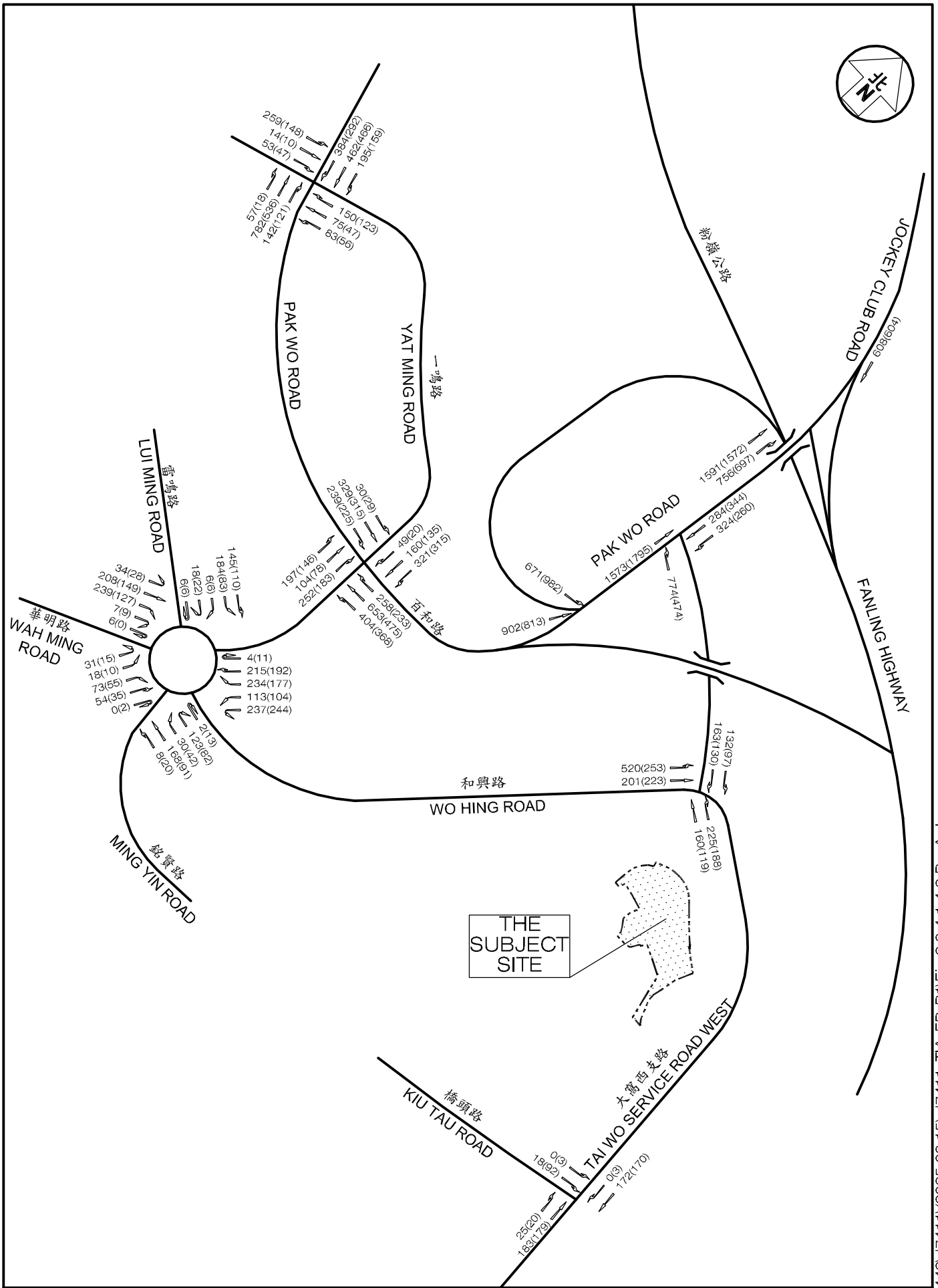

Project Title: Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land, Wo Hing Road / Tai Wo Service Road West, Fanling, NT	Job No. J7411	Figure No. 4.1			Scale in A4 N.T.S.
	Designed by M C Y	Drawn by S C Y	Checked by K C	Revision A	Date 15 AUG 2025

Figure Title

YEAR 2034 PEAK HOUR TRAFFIC FLOW WITHOUT THE PROPOSED EV MOBILITY CITY

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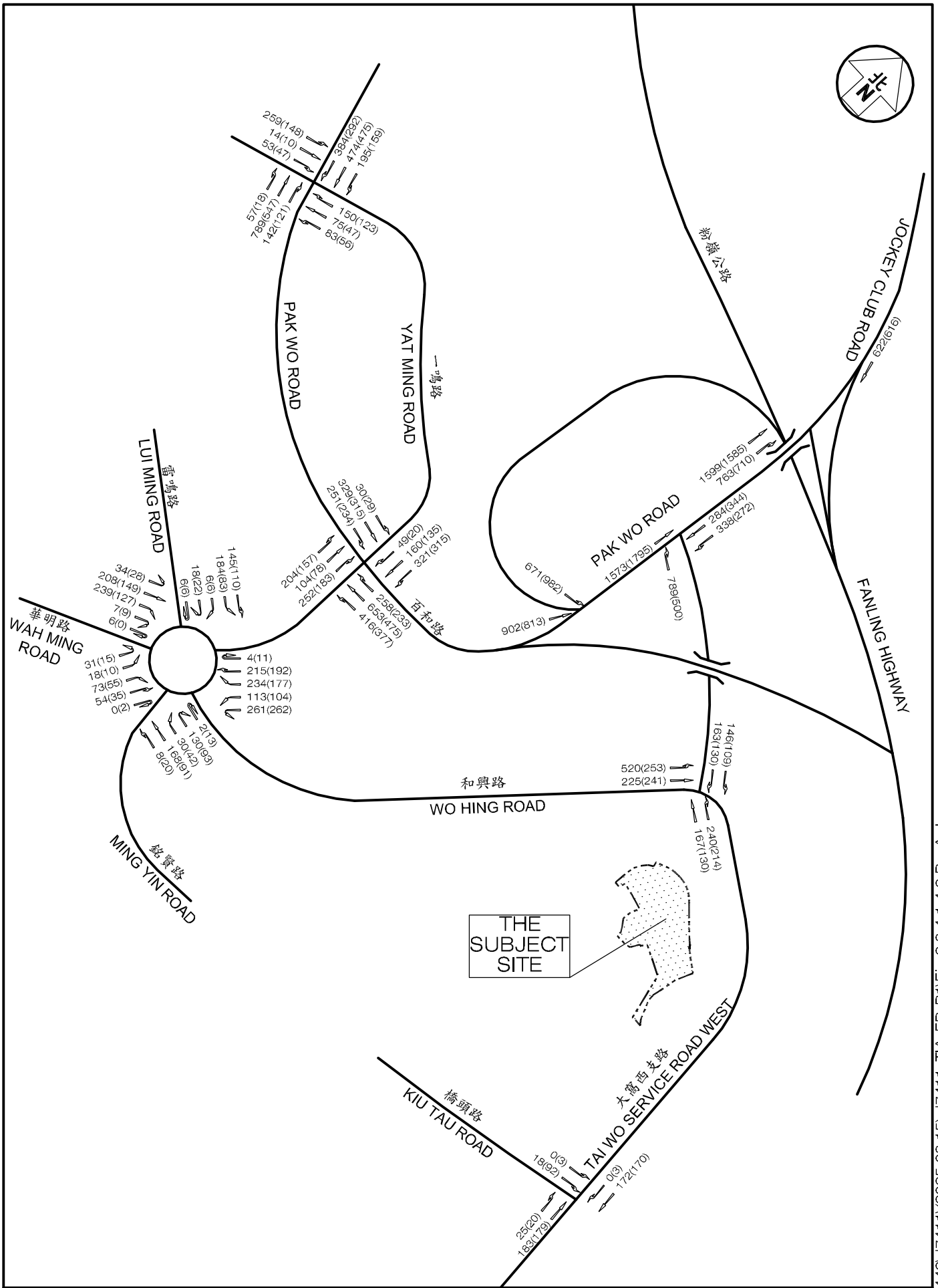

Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	Job No. J7411	Figure No. 4.2		Scale in A4 N.T.S.
		Designed by M C Y	Drawn by S C Y	Checked by K C	Revision A	Date 15 AUG 2025
Figure Title	YEAR 2034 PEAK HOUR TRAFFIC FLOW WITH THE PROPOSED EV MOBILITY CITY	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk			

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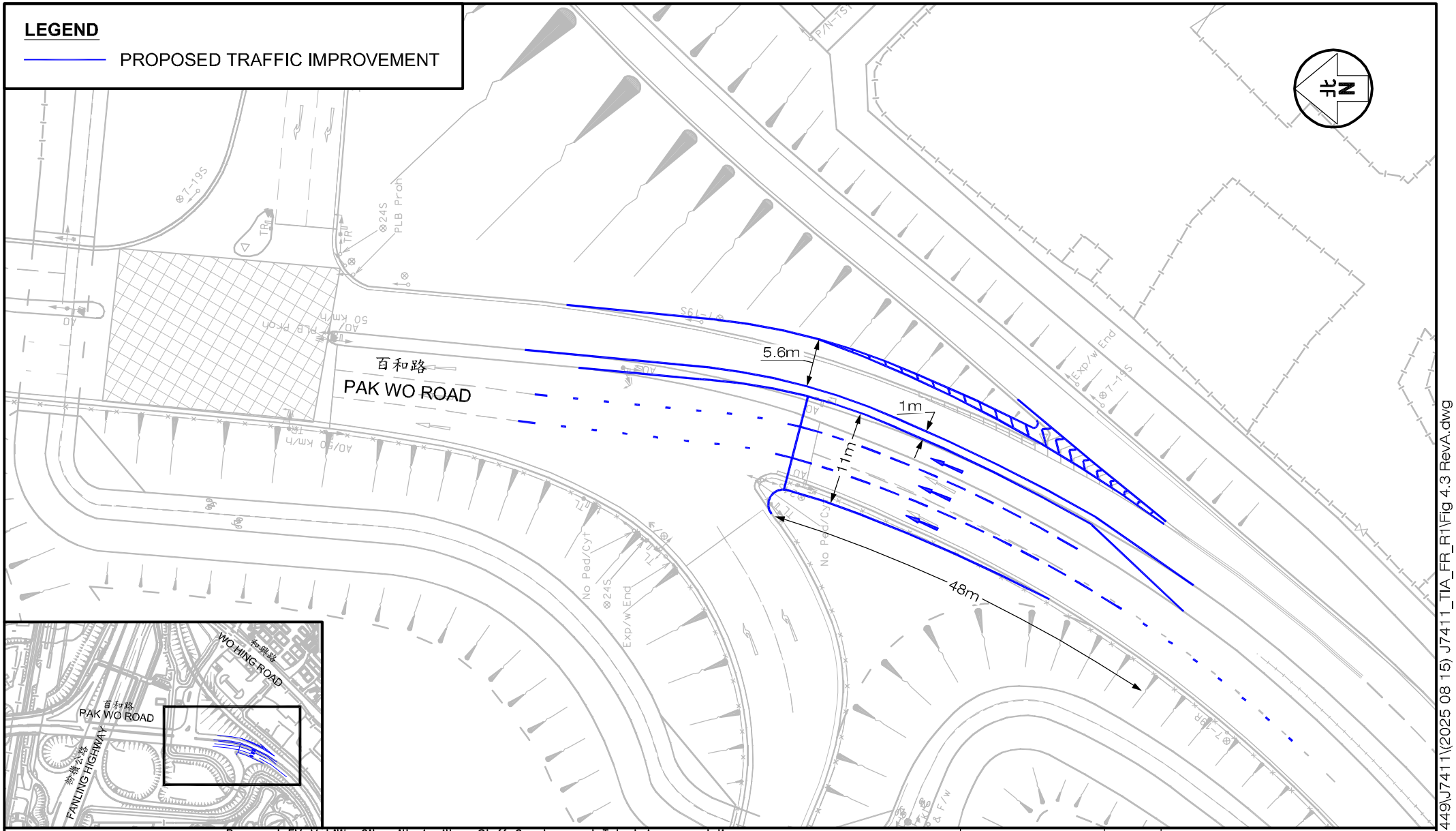

Project Title	Proposed EV Mobility City with Ancillary Staff Quarters and Talent Accommodation at Various Lots in D.D. 51 and Adjoining Government Land Wo Hing Road / Tai Wo Service Road West, Fanling, NT	J7411	
Figure Title	PROPOSED TRAFFIC IMPROVEMENT AT WO HOP SHEK INTERCHNAGE (J06)	Figure No. 4.3	Revision A
		Designed by W C H / Drawn by S C Y / Checked by K C	
		Scale in A4 1 : 500	Date 15 AUG 2025

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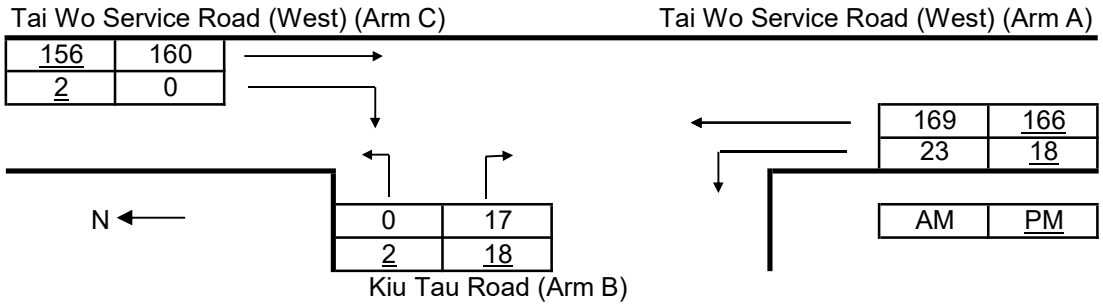
APPENDIX A -
Junction Capacity Analysis

Priority Junction Analysis

Junction:	Tai Wo Service Road (West) / Kiu Tau Road			Job Number:	J7411
Scenario:	Existing Condition				J1 - P. 1
Design Year:	2025	Designed By: MCY	Checked By: WCH	Date:	15 August 2025



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	7.3	V-rBA	50	w-BA	3.8	D	0.8932
	W-CR	0.0	V-lBA	50	w-BC	3.8	E	0.9502
			V-rBC	50	w-CB	0.0	F	0.6392
			V-rCB	90			Y	0.4963

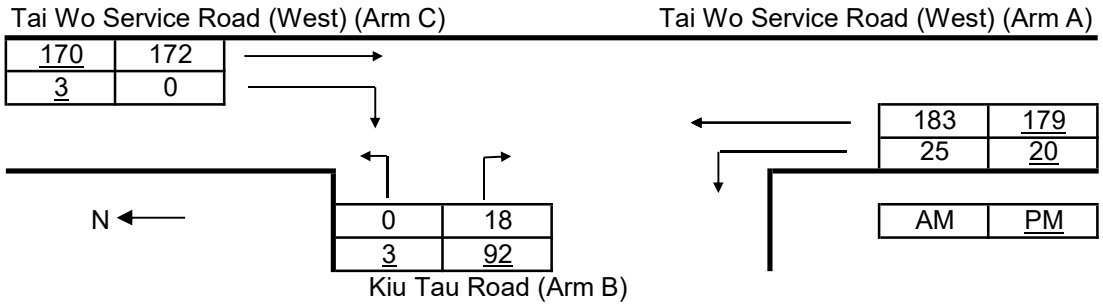
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	160	156	Q-BA	515	516
q-CB	0	2	Q-BC	677	678
q-AB	23	18	Q-CB	454	455
q-AC	169	166	Q-BAC	515	528
q-BA	17	18			
q-BC	0	2			
f	0.000	0.100			

Ratio-of-flow to Capacity	AM	PM
B-A	0.033	0.035
B-C	0.000	0.003
C-B	0.000	0.004
B-AC	0.033	0.038

Priority Junction Analysis

Junction:	Tai Wo Service Road (West) / Kiu Tau Road			Job Number:	J7411
Scenario:	Without Proposed EV Mobility City				J1 - P. 2
Design Year:	2034	Designed By: MCY	Checked By: WCH	Date:	15 August 2025



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	7.30	V-rBA	50	w-BA	3.80	D	0.8932
	W-CR	0.00	V-lBA	50	w-BC	3.80	E	0.9502
			V-rBC	50	w-CB	0.00	F	0.6392
			V-rCB	90			Y	0.4963

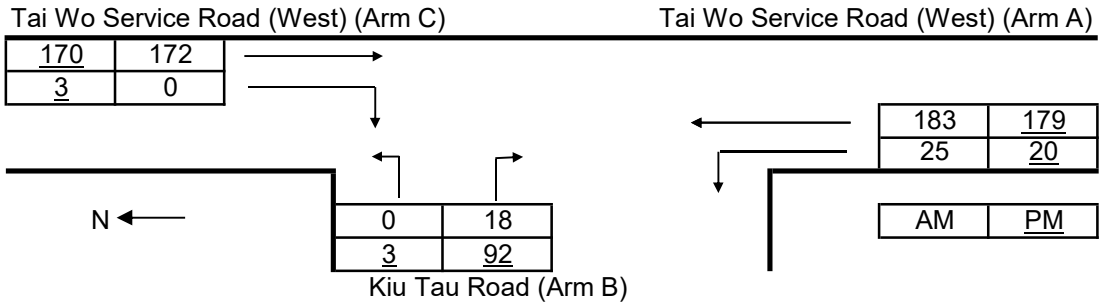
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	172	170	Q-BA	511	512
q-CB	0	3	Q-BC	675	676
q-AB	25	20	Q-CB	452	453
q-AC	183	179	Q-BAC	511	516
q-BA	18	92			
q-BC	0	3			
f	0.000	0.032			

Ratio-of-flow to Capacity	AM	PM
B-A	0.035	0.180
B-C	0.000	0.004
C-B	0.000	0.007
B-AC	0.035	0.184

Priority Junction Analysis

Junction:	Tai Wo Service Road (West) / Kiu Tau Road			Job Number:	J7411
Scenario:	With Proposed EV Mobility City				J1 - P. 3
Design Year:	2034	Designed By: MCY	Checked By: WCH	Date:	15 August 2025



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	7.30	V-rBA	50	w-BA	3.80	D	0.8932
	W-CR	0.00	V-lBA	50	w-BC	3.80	E	0.9502
			V-rBC	50	w-CB	0.00	F	0.6392
			V-rCB	90			Y	0.4963

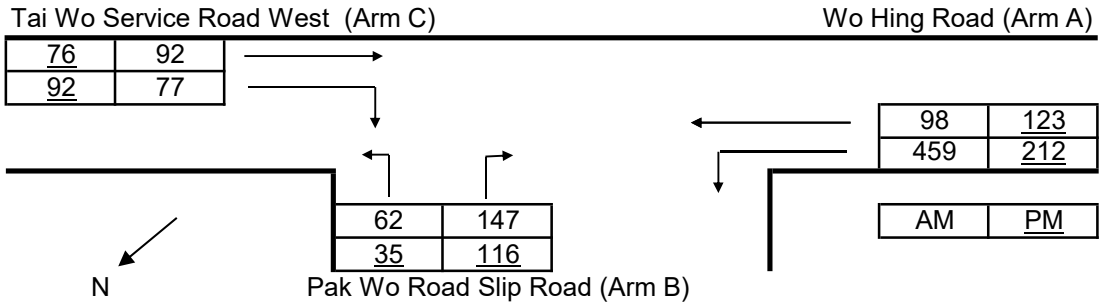
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	172	170	Q-BA	511	512
q-CB	0	3	Q-BC	675	676
q-AB	25	20	Q-CB	452	453
q-AC	183	179	Q-BAC	511	516
q-BA	18	92			
q-BC	0	3			
f	0.000	0.032			

Ratio-of-flow to Capacity	AM	PM
B-A	0.035	0.180
B-C	0.000	0.004
C-B	0.000	0.007
B-AC	0.035	0.184

Priority Junction Analysis

Junction:	Wo Hing Road / Tai Wo Service Road West			Job Number:	J7411
Scenario:	Existing Condition				J2 - P. 1
Design Year:	2025	Designed By: MCY	Checked By: WCH	Date:	15 August 2025



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	8.30	V-rBA	50	w-BA	3.70	D	0.8849
	W-CR	3.70	V-lBA	50	w-BC	3.70	E	0.9414
			V-rBC	50	w-CB	3.70	F	1.1222
			V-rCB	250			Y	0.4963

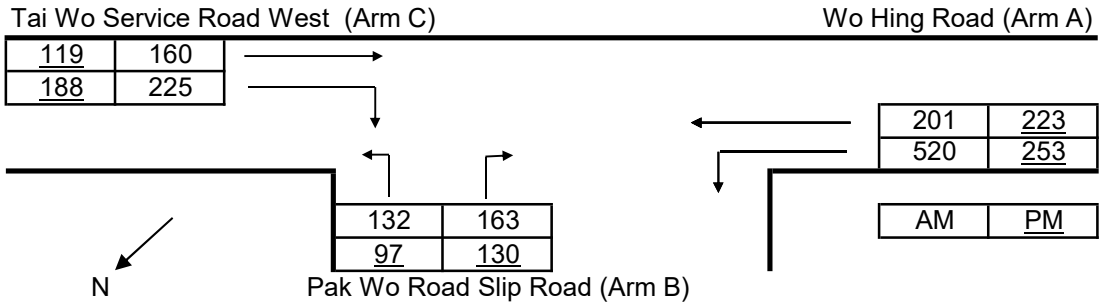
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	92	76	Q-BA	529	539
q-CB	77	92	Q-BC	654	666
q-AB	459	212	Q-CB	723	768
q-AC	98	123	Q-BAC	561	564
q-BA	147	116			
q-BC	62	35			
f	0.297	0.232			

Ratio-of-flow to Capacity	AM	PM
B-A	0.278	0.215
B-C	0.095	0.053
C-B	0.106	0.120
B-AC	0.373	0.268

Priority Junction Analysis

Junction:	Wo Hing Road / Tai Wo Service Road West			Job Number:	J7411
Scenario:	Without Proposed EV Mobility City				J2 - P. 2
Design Year:	2034	Designed By: MCY	Checked By: WCH	Date:	15 August 2025



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	8.30	V-rBA	50	w-BA	3.70	D	0.8849
	W-CR	3.70	V-lBA	50	w-BC	3.70	E	0.9414
			V-rBC	50	w-CB	3.70	F	1.1222
			V-rCB	250			Y	0.4963

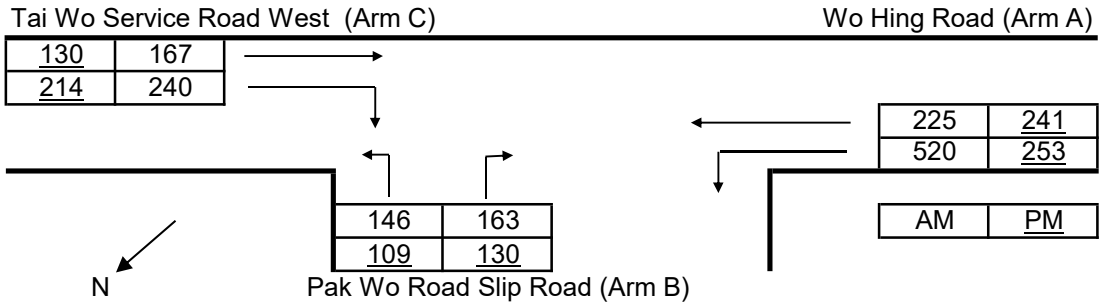
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	160	119	Q-BA	468	494
q-CB	225	188	Q-BC	632	646
q-AB	520	253	Q-CB	690	740
q-AC	201	223	Q-BAC	530	549
q-BA	163	130			
q-BC	132	97			
f	0.447	0.427			

Ratio-of-flow to Capacity	AM	PM
B-A	0.348	0.263
B-C	0.209	0.150
C-B	0.326	0.254
B-AC	0.557	0.413

Priority Junction Analysis

Junction:	Wo Hing Road / Tai Wo Service Road West			Job Number:	J7411
Scenario:	With Proposed EV Mobility City				J2 - P. 3
Design Year:	2034	Designed By:	MCY	Checked By: WCH	Date: 15 August 2025



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	8.30	V-rBA	50	w-BA	3.70	D	0.8849
	W-CR	3.70	V-lBA	50	w-BC	3.70	E	0.9414
			V-rBC	50	w-CB	3.70	F	1.1222
			V-rCB	250			Y	0.4963

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	167	130	Q-BA	460	484
q-CB	240	214	Q-BC	628	643
q-AB	520	253	Q-CB	685	736
q-AC	225	241	Q-BAC	527	546
q-BA	163	130			
q-BC	146	109			
f	0.472	0.456			

Ratio-of-flow to Capacity	AM	PM
B-A	0.354	0.268
B-C	0.232	0.169
C-B	0.350	0.291
B-AC	0.587	0.438

Roundabout Analysis

Junction: Wah Ming Road Roundabout — Job Number: J7411
Scenario: Existing Condition — J3 - P. 1
Design Year: 2025 — Designed By: MCY — Checked By: WCH — Date: 15 August 2025

AM Peak

Arm	To A	To B	To C	To D	To E	To F	To G	To H	Total	q_c
From A	3	131	50	222	200				606	459
From B	58	1	4	155	27				245	513
From C	31	31	0	28	17				107	693
From D	203	220	6	5	32				466	373
From E	134	169	5	17	5				330	558
From F										
From G										
From H										
Total	429	552	65	427	281				1754	

PM Peak

Arm	To A	To B	To C	To D	To E	To F	To G	To H	Total	q_c
From A	10	143	43	165	178				539	255
From B	42	12	16	84	39				193	436
From C	17	10	1	14	9				51	556
From D	137	117	8	0	21				283	772
From E	101	76	5	21	5				208	851
From F										
From G										
From H										
Total	307	358	73	284	252				1274	

Legend

Arm	Road (in clockwise order)
A	Wah Ming Road SB
B	Wo Hing Road
C	Ming Yin Road
D	Wah Ming Road EB
E	Lui Ming Road
F	
G	
H	

Geometric Parameters

Arm	e (m)	v (m)	r (m)	L (m)	D (m)	∅ (°)	S
From A	9.0	7.0	42.0	8.0	45	54	0.4
From B	7.5	4.0	21.5	6.0	45	54	0.9
From C	8.0	8.0	15.0	7.5	45	61	0.0
From D	8.0	6.0	22.0	11.0	45	50	0.3
From E	8.5	5.0	22.0	9.0	45	38	0.6
From F							
From G							
From H							

Predictive Equation $Q_E = K(F - f_c q_c)$

Q_E	Entry Capacity
q_c	Circulating Flow across the Entry
K	= 1-0.00347(∅-30)-0.978[(1/r)-0.05]
F	= $303x_2$
f_c	= $0.210t_D(1+0.2x_2)$
t_D	= 1+0.5/(1+M)
M	= exp[(D-60)/10]
x_2	= v+(e-v)/(1+2S)
S	= 1.6(e-v)/L

Limitation

e	Entry Width	4.0 - 15.0 m
v	Approach Half Width	2.0 - 7.3 m
r	Entry Radius	6.0 - 100.0 m
L	Effective Length of Flare	1.0 - 100.0 m
D	Inscribed Circle Diameter	15 - 100 m
∅	Entry Angle	10° - 60°
S	Sharpness of Flare	0.0 - 3.0

Ratio-of-Flow to Capacity (RFC)

							Q_E		Entry Flow		RFC	
Arm	x_2	M	t_D	K	F	f_c	AM	PM	AM	PM	AM	PM
From A	8.111	0.223	1.409	0.942	2458	0.776	1980	2130	606	539	0.306	0.253
From B	5.221	0.223	1.409	0.920	1582	0.605	1170	1213	245	193	0.209	0.159
From C	8.000	0.223	1.409	0.876	2424	0.769	1657	1749	107	51	0.065	0.029
From D	7.264	0.223	1.409	0.935	2201	0.726	1805	1534	466	283	0.258	0.184
From E	6.559	0.223	1.409	0.977	1988	0.684	1568	1373	330	208	0.210	0.152
From F												
From G												
From H												

Roundabout Analysis

Junction: Wah Ming Road Roundabout — Job Number: J7411
Scenario: Without Proposed EV Mobility City — J3 - P. 2
Design Year: 2034 — Designed By: MCY — Checked By: WCH — Date: 15 August 2025

AM Peak

Arm	To A	To B	To C	To D	To E	To F	To G	To H	Total	q_c
From A	4	237	113	234	215				803	522
From B	123	2	8	168	30				331	609
From C	73	54	0	31	18				176	806
From D	208	239	7	6	34				494	525
From E	145	184	6	18	6				359	716
From F										
From G										
From H										
Total	553	716	134	457	303				2163	

PM Peak

Arm	To A	To B	To C	To D	To E	To F	To G	To H	Total	q_c
From A	11	244	104	177	192				728	303
From B	82	13	20	91	42				248	529
From C	55	35	2	15	10				117	636
From D	149	127	9	0	28				313	935
From E	110	83	6	22	6				227	967
From F										
From G										
From H										
Total	407	502	141	305	278				1633	

Legend

Arm	Road (in clockwise order)
A	Wah Ming Road SB
B	Wo Hing Road
C	Ming Yin Road
D	Wah Ming Road EB
E	Lui Ming Road
F	
G	
H	

Geometric Parameters

Arm	e (m)	v (m)	r (m)	L (m)	D (m)	∅ (°)	S
From A	9.0	7.0	42.0	8.0	45	54	0.4
From B	7.5	4.0	21.5	6.0	45	54	0.9
From C	8.0	8.0	15.0	7.5	45	61	0.0
From D	8.0	6.0	22.0	11.0	45	50	0.3
From E	8.5	5.0	22.0	9.0	45	38	0.6
From F							
From G							
From H							

Predictive Equation $Q_E = K(F - f_c q_c)$

Q_E	Entry Capacity
q_c	Circulating Flow across the Entry
K	= 1-0.00347(∅-30)-0.978[(1/r)-0.05]
F	= $303x_2$
f_c	= $0.210t_D(1+0.2x_2)$
t_D	= 1+0.5/(1+M)
M	= exp[(D-60)/10]
x_2	= v+(e-v)/(1+2S)
S	w

Limitation

e	Entry Width	4.0 - 15.0 m
v	Approach Half Width	2.0 - 7.3 m
r	Entry Radius	6.0 - 100.0 m
L	Effective Length of Flare	1.0 - 100.0 m
D	Inscribed Circle Diameter	15 - 100 m
∅	Entry Angle	10° - 60°
S	Sharpness of Flare	0.0 - 3.0

Ratio-of-Flow to Capacity (RFC)

							Q_E		Entry Flow		RFC	
Arm	x_3	M	t_D	K	F	f_c	AM	PM	AM	PM	AM	PM
From A	8.111	0.223	1.409	0.942	2458	0.776	1934	2094	803	728	0.415	0.348
From B	5.221	0.223	1.409	0.920	1582	0.605	1117	1161	331	248	0.296	0.214
From C	8.000	0.223	1.409	0.876	2424	0.769	1581	1695	176	117	0.111	0.069
From D	7.264	0.223	1.409	0.935	2201	0.726	1702	1424	494	313	0.290	0.220
From E	6.559	0.223	1.409	0.977	1988	0.684	1463	1295	359	227	0.245	0.175
From F												
From G												
From H												

Roundabout Analysis

Junction: Wah Ming Road Roundabout — Job Number: J7411
Scenario: With Proposed EV Mobility City — J3 - P. 3
Design Year: 2034 — Designed By: MCY — Checked By: WCH — Date: 15 August 2025

AM Peak

Arm	To A	To B	To C	To D	To E	To F	To G	To H	Total	q_c
From A	4	261	113	234	215				827	522
From B	130	2	8	168	30				338	609
From C	73	54	0	31	18				176	813
From D	208	239	7	6	34				494	532
From E	145	184	6	18	6				359	723
From F										
From G										
From H										
Total	560	740	134	457	303				2194	

PM Peak

Arm	To A	To B	To C	To D	To E	To F	To G	To H	Total	q_c
From A	11	262	104	177	192				746	303
From B	93	13	20	91	42				259	529
From C	55	35	2	15	10				117	647
From D	149	127	9	0	28				313	946
From E	110	83	6	22	6				227	967
From F										
From G										
From H										
Total	418	520	141	305	278				1662	

Legend

Arm	Road (in clockwise order)
A	Wah Ming Road SB
B	Wo Hing Road
C	Ming Yin Road
D	Wah Ming Road EB
E	Lui Ming Road
F	
G	
H	

Geometric Parameters

Arm	e (m)	v (m)	r (m)	L (m)	D (m)	∅ (°)	S
From A	9.0	7.0	42.0	8.0	45	54	0.4
From B	7.5	4.0	21.5	6.0	45	54	0.9
From C	8.0	8.0	15.0	7.5	45	61	0.0
From D	8.0	6.0	22.0	11.0	45	50	0.3
From E	8.5	5.0	22.0	9.0	45	38	0.6
From F							
From G							
From H							

Predictive Equation $Q_E = K(F - f_c q_c)$

Q_E	Entry Capacity
q_c	Circulating Flow across the Entry
K	= 1-0.00347(∅-30)-0.978[(1/r)-0.05]
F	= $303x_2$
f_c	= $0.210t_D(1+0.2x_2)$
t_D	= 1+0.5/(1+M)
M	= exp[(D-60)/10]
x_2	= v+(e-v)/(1+2S)
S	= 1.6(e-v)/L

Limitation

e	Entry Width	4.0 - 15.0 m
v	Approach Half Width	2.0 - 7.3 m
r	Entry Radius	6.0 - 100.0 m
L	Effective Length of Flare	1.0 - 100.0 m
D	Inscribed Circle Diameter	15 - 100 m
∅	Entry Angle	10° - 60°
S	Sharpness of Flare	0.0 - 3.0

Ratio-of-Flow to Capacity (RFC)

							Q_E		Entry Flow		RFC	
Arm	x_4	M	t_D	K	F	f_c	AM	PM	AM	PM	AM	PM
From A	8.111	0.223	1.409	0.942	2458	0.776	1934	2094	827	746	0.428	0.356
From B	5.221	0.223	1.409	0.920	1582	0.605	1117	1161	338	259	0.303	0.223
From C	8.000	0.223	1.409	0.876	2424	0.769	1576	1688	176	117	0.112	0.069
From D	7.264	0.223	1.409	0.935	2201	0.726	1697	1416	494	313	0.291	0.221
From E	6.559	0.223	1.409	0.977	1988	0.684	1458	1295	359	227	0.246	0.175
From F												
From G												
From H												

Signal Junction Analysis

Junction: Pak Wo Road / Yat Ming Road / Wah Ming Road — Job Number: J7411

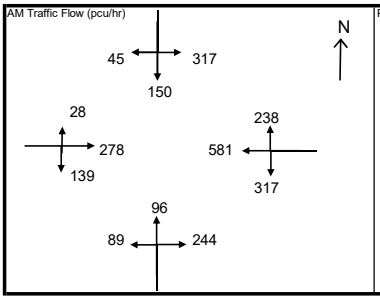
Scenario: Existing Condition — J4 - P. 1

Design Year: 2025 — Designed By: MCY — Checked By: WCH — Date: 15 August 2025

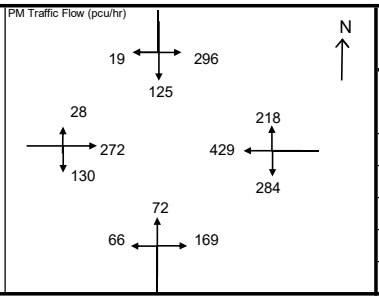
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Pak Wo Road EB	LT+SA	A1	1	3.40	15.0		16	1924	147	0.076	0.076	23	1911	143	0.075	
	SA	A2	1	3.30				2085	159	0.076			2085	157	0.075	
	RT	A3	1	3.30	15.0		100	1895	139	0.073		100	1895	130	0.069	0.069
Pak Wo Road WB	LT	B1	2	3.00	15.0		100	1741	317	0.182	0.182	100	1741	284	0.163	0.163
	SA	B2	2	3.00				2055	282	0.137			2055	223	0.109	
	SA+RT	B3	2	3.00	20.0		0	2055	299	0.145		7	2044	222	0.109	
	RT	B4	2	3.00	15.0		100	1868	238	0.127		100	1868	202	0.108	
Yat Ming Road SB	LT	C1	3	3.40	15.0		100	1777	218	0.123	0.123	100	1777	196	0.110	0.110
	LT+SA	C2	3	3.30	20.0		40	2024	249	0.123		32	2036	225	0.111	
	RT	C3	3	3.30	15.0		100	1895	45	0.024		100	1895	19	0.010	
Wah Ming Road NB	LT+SA	D1	4	3.40	15.0		65	1836	136	0.074	0.074	68	1831	97	0.053	0.053
	SA+RT	D2	4	3.30	25.0		67	2004	149	0.074		62	2010	107	0.053	
	RT	D3	4	3.30	20.0		100	1940	144	0.074		100	1940	103	0.053	

pedestrian phase	E(p)	1		min crossing time =	6	sec GM +	12	sec FGM =	18	sec		
	F(p)	2,3,4		min crossing time =	6	sec GM +	12	sec FGM =	18	sec		
	G(p)	3		min crossing time =	5	sec GM +	8	sec FGM =	13	sec		
	H(p)	1,2,4		min crossing time =	8	sec GM +	15	sec FGM =	23	sec		
	I(p)	2		min crossing time =	5	sec GM +	7	sec FGM =	12	sec		
	J(p)	1,3,4		min crossing time =	9	sec GM +	17	sec FGM =	26	sec		
	K(p)	4		min crossing time =	5	sec GM +	6	sec FGM =	11	sec		
	L(p)	1,2,3		min crossing time =	5	sec GM +	10	sec FGM =	15	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

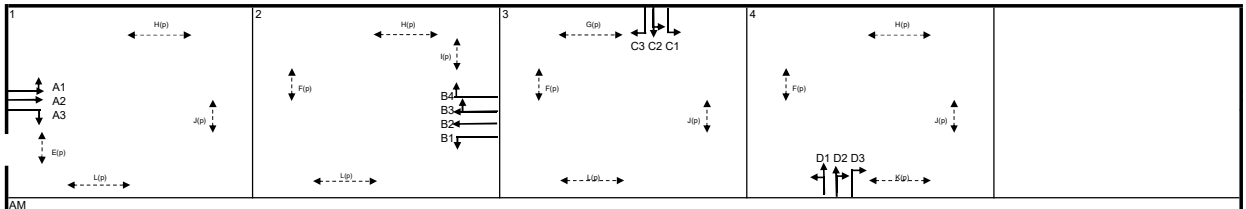


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)+(1+1.5f/r)$

Note:

	AM Peak Hour		PM Peak Hour	
	1+2+3+4		1+2+3+4	
Sum y	0.455		0.395	
L (s)	27		27	
C (s)	120		120	
practical y	0.698		0.698	
R.C. (%)	53%		77%	



AM G=	I/G =	9	G =	I/G =	6	G =	I/G =	7	G =	I/G =	9	G =	I/G =						
PM G=	I/G =	9	G =	I/G =	6	G =	I/G =	7	G =	I/G =	9	G =	I/G =						

Signal Junction Analysis

Junction: Pak Wo Road / Yat Ming Road / Wah Ming Road — Job Number: J7411

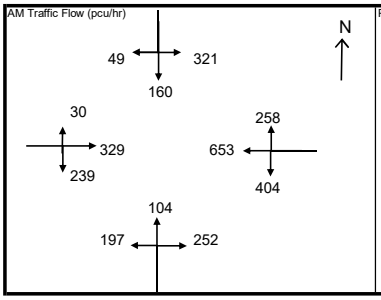
Scenario: Without Proposed EV Mobility City — J4 - P. 2

Design Year: 2034 — Designed By: MCY — Checked By: WCH — Date: 15 August 2025

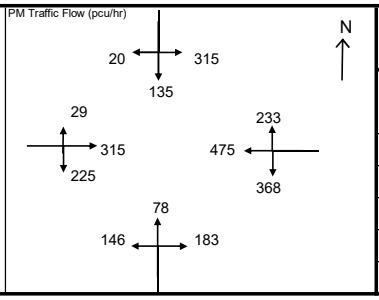
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Pak Wo Road EB	LT+SA	A1	1	3.40	15.0		15	1926	172	0.089	0.089	21	1915	165	0.086	
	SA	A2	1	3.30	0.0			2085	187	0.090			2085	179	0.086	
	RT	A3	1	3.30	15.0		100	1895	239	0.126		100	1895	225	0.119	0.119
Pak Wo Road WB	LT	B1	2	3.00	15.0		100	1741	404	0.232	0.232	100	1741	368	0.211	0.211
	SA	B2	2	3.00				2055	313	0.152			2055	244	0.119	
	SA+RT	B3	2	3.00	20.0		0	2055	340	0.165		7	2044	248	0.121	
	RT	B4	2	3.00	15.0		100	1868	258	0.138		100	1868	216	0.116	
Yat Ming Road SB	LT	C1	3	3.40	15.0		100	1777	225	0.127	0.127	100	1777	210	0.118	0.118
	LT+SA	C2	3	3.30	20.0		40	2024	256	0.126		33	2035	240	0.118	
	RT	C3	3	3.30	15.0		100	1895	49	0.026		100	1895	20	0.011	
Wah Ming Road NB	LT+SA	D1	4	3.40	15.0		100	1777	197	0.111	0.111	100	1777	146	0.082	0.082
	SA+RT	D2	4	3.30	25.0		48	2027	195	0.096		46	2029	144	0.071	
	RT	D3	4	3.30	20.0		100	1940	161	0.083		100	1940	117	0.060	

pedestrian phase	E(P)	1		min crossing time =	6	sec GM +	12	sec FGM =	18	sec
	F(P)	2,3,4		min crossing time =	6	sec GM +	12	sec FGM =	18	sec
	G(P)	3		min crossing time =	5	sec GM +	8	sec FGM =	13	sec
	H(P)	1,2,4		min crossing time =	8	sec GM +	15	sec FGM =	23	sec
	I(P)	2		min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	J(P)	1,3,4		min crossing time =	9	sec GM +	17	sec FGM =	26	sec
	K(P)	4		min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	L(P)	2,3,4		min crossing time =	5	sec GM +	10	sec FGM =	15	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

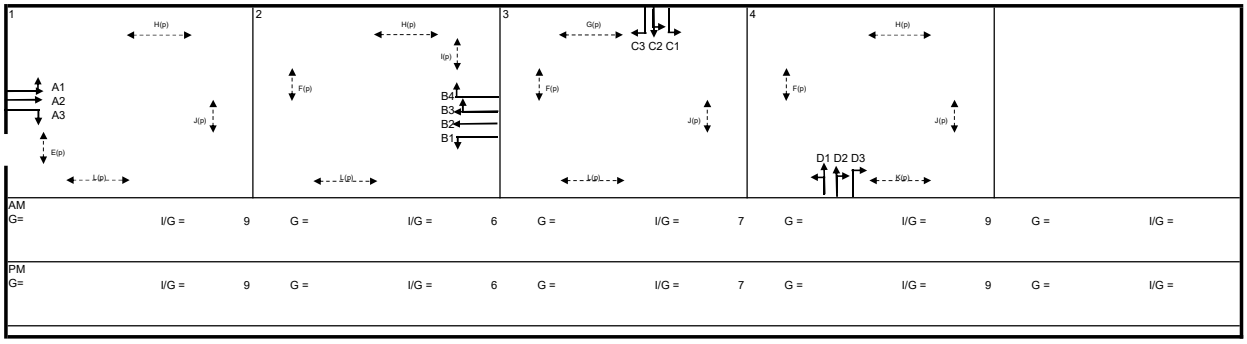


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)+(1+1.5f/r)$

Note:

	AM Peak Hour		PM Peak Hour	
	1+2+3+4		1+2+3+4	
Sum y	0.559		0.530	
L (s)	27		27	
C (s)	120		120	
practical y	0.698		0.698	
R.C. (%)	25%		31%	



AM G=		I/G =	9	G =		I/G =	6	G =		I/G =	7	G =		I/G =	9	G =		I/G =	
PM G=		I/G =	9	G =		I/G =	6	G =		I/G =	7	G =		I/G =	9	G =		I/G =	

Signal Junction Analysis

Junction: Pak Wo Road / Yat Ming Road / Wah Ming Road — Job Number: J7411

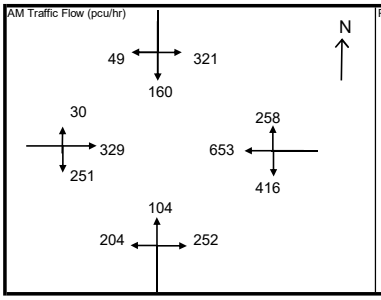
Scenario: With Proposed EV Mobility City — J4 - P. 3

Design Year: 2034 — Designed By: MCY — Checked By: WCH — Date: 15 August 2025

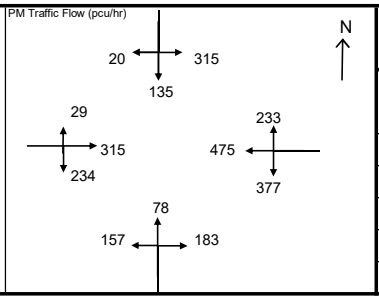
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Pak Wo Road EB	LT+SA	A1	1	3.40	15.0		15	1926	172	0.089		21	1915	165	0.086	
	SA	A2	1	3.30	0.0			2085	187	0.090	0.090		2085	179	0.086	
	RT	A3	1	3.30	15.0		100	1895	251	0.132		100	1895	234	0.123	0.123
Pak Wo Road WB	LT	B1	2	3.00	15.0		100	1741	416	0.239	0.239	100	1741	377	0.217	0.217
	SA	B2	2	3.00				2055	313	0.152			2055	244	0.119	
	SA+RT	B3	2	3.00	20.0		0	2055	340	0.165		7	2044	248	0.121	
	RT	B4	2	3.00	15.0		100	1868	258	0.138		100	1868	216	0.116	
Yat Ming Road SB	LT	C1	3	3.40	15.0		100	1777	225	0.127	0.127	100	1777	210	0.118	0.118
	LT+SA	C2	3	3.30	20.0		40	2024	256	0.126		33	2035	240	0.118	
	RT	C3	3	3.30	15.0		100	1895	49	0.026		100	1895	20	0.011	
Wah Ming Road NB	LT+SA	D1	4	3.40	15.0		100	1777	204	0.115	0.115	100	1777	157	0.088	0.088
	SA+RT	D2	4	3.30	25.0		48	2027	198	0.098		47	2028	148	0.073	
	RT	D3	4	3.30	20.0		100	1940	158	0.081		100	1940	113	0.058	

pedestrian phase	E(P)	1		min crossing time =	6	sec GM +	12	sec FGM =	18	sec
	F(P)	2,3,4		min crossing time =	6	sec GM +	12	sec FGM =	18	sec
	G(P)	3		min crossing time =	5	sec GM +	8	sec FGM =	13	sec
	H(P)	1,2,4		min crossing time =	8	sec GM +	15	sec FGM =	23	sec
	I(P)	2		min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	J(P)	1,3,4		min crossing time =	9	sec GM +	17	sec FGM =	26	sec
	K(P)	4		min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	L(P)	2,3,4		min crossing time =	5	sec GM +	10	sec FGM =	15	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

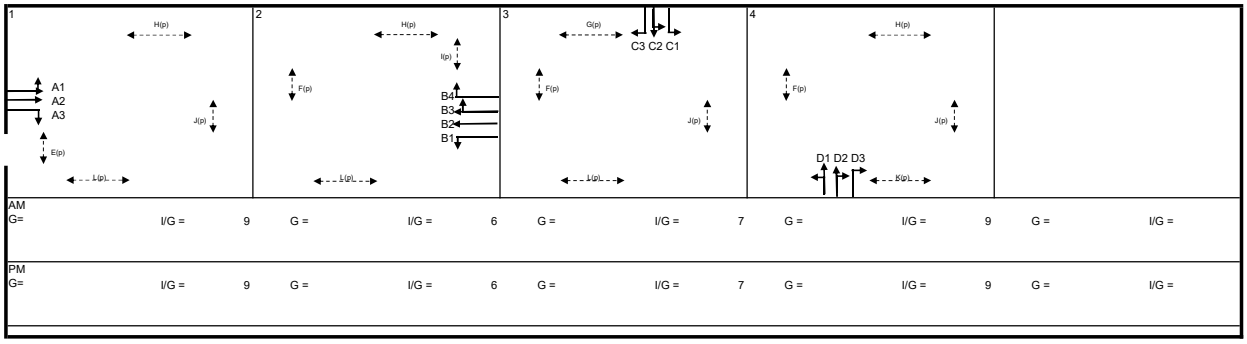


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)+(1+1.5f/r)$

Note:

	AM Peak Hour		PM Peak Hour	
	1+2+3+4		1+2+3+4	
Sum y	0.570		0.547	
L (s)	27		27	
C (s)	120		120	
practical y	0.698		0.698	
R.C. (%)	22%		28%	



AM G=	I/G =	9	G =	I/G =	6	G =	I/G =	7	G =	I/G =	9	G =	I/G =			
PM G=	I/G =	9	G =	I/G =	6	G =	I/G =	7	G =	I/G =	9	G =	I/G =			

Signal Junction Analysis

Junction: Pak Wo Road / Yat Ming Road / Wah Ming Road — Job Number: J7411

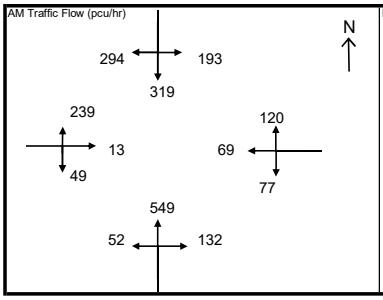
Scenario: Existing Condition — J5 - P. 1

Design Year: 2025 — Designed By: MCY — Checked By: WCH — Date: 15 August 2025

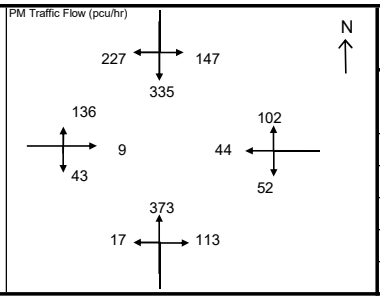
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Pak Wo Road SB	LT+SA	A1	1	3.50	15.0		61	1852	291	0.157	0.157	61	1852	266	0.144	0.144
	SA	A2	1	3.00				2055	322	0.157			2055	296	0.144	
	RT	A3	1	3.00	20.0		100	1912	294	0.154		100	1912	227	0.119	
Pak Wo Road NB	LT+SA	B1	2	3.50	15.0		18	1930	288	0.149	0.149	9	1947	188	0.097	0.097
	SA	B2	2	3.40				2095	313	0.149			2095	202	0.096	
	RT	B3	2	3.40	20.0		100	1949	132	0.068		100	1949	113	0.058	
Yat Ming Road WB	LT+SA	C1	3	3.50	15.0		92	1799	84	0.047	0.047	83	1814	63	0.035	0.035
	SA+RT	C2	3	3.00	25.0		34	2014	94	0.047		52	1993	69	0.035	
	RT	C3	3	3.00	20.0		100	1912	88	0.046		100	1912	66	0.035	
Wah Ming Road EB	LT	D1	4	3.40	15.0		100	1777	121	0.068	0.068	100	1777	70	0.039	0.039
	LT+SA	D2	4	3.30	15.0		90	1913	131	0.068		88	1916	75	0.039	
	RT	D3	4	3.30	20.0		100	1940	49	0.025		100	1940	43	0.022	

pedestrian phase	E(p)	1		min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	F(p)	2,3,4		min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	G(p)	3		min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	H(p)	1,2,4		min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	I(p)	2		min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	J(p)	1,3,4		min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	K(p)	4		min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	L(p)	1,2,3		min crossing time =	5	sec GM +	10	sec FGM =	15	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

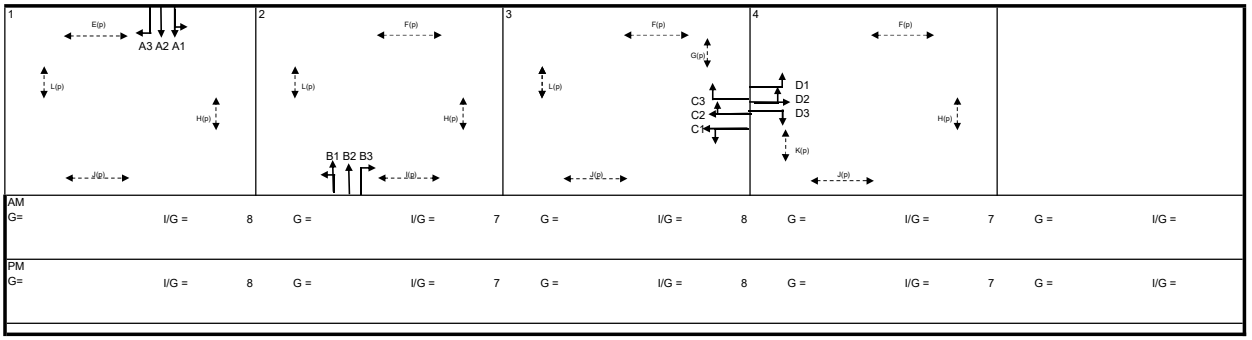


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

Note:

	AM Peak Hour		PM Peak Hour	
	1+2+3+4		1+2+3+4	
Sum y	0.421		0.314	
L (s)	26		26	
C (s)	110		110	
practical y	0.687		0.687	
R.C. (%)	63%		119%	



AM	G=		I/G =	8	G =		I/G =	7	G =		I/G =	8	G =		I/G =	7	G =		I/G =
PM	G=		I/G =	8	G =		I/G =	7	G =		I/G =	8	G =		I/G =	7	G =		I/G =

Signal Junction Analysis

Junction: Pak Wo Road / Yat Ming Road / Wah Ming Road — Job Number: J7411

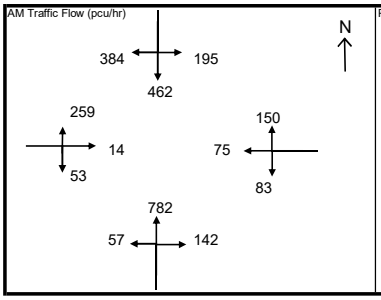
Scenario: Without Proposed EV Mobility City — J5 - P. 2

Design Year: 2034 — Designed By: MCY — Checked By: WCH — Date: 15 August 2025

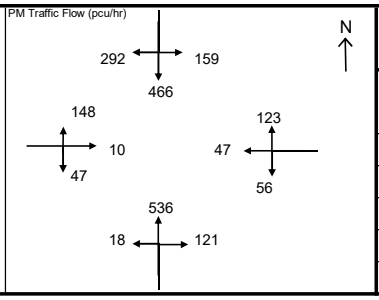
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Pak Wo Road SB	LT+SA	A1	1	3.50	15.0		48	1852	401	0.217	0.217	47	1877	362	0.193	0.193
	SA	A2	1	3.00				2055	445	0.217			2055	396	0.193	
	RT	A3	1	3.00	20.0		100	1912	384	0.201		100	1912	292	0.153	
Pak Wo Road NB	LT+SA	B1	2	3.50	15.0		14	1938	403	0.208	0.208	7	1951	267	0.137	0.137
	SA	B2	2	3.40				2095	436	0.208			2095	287	0.137	
	RT	B3	2	3.40	20.0		100	1949	142	0.073		100	1949	121	0.062	
Yat Ming Road WB	LT+SA	C1	3	3.50	15.0		86	1809	97	0.054		78	1823	72	0.039	
	SA+RT	C2	3	3.00	25.0		44	2002	108	0.054		60	1984	78	0.039	
	RT	C3	3	3.00	20.0		100	1912	103	0.054	0.054	100	1912	76	0.040	0.040
Wah Ming Road EB	LT	D1	4	3.40	13.0		100	1753	131	0.075	0.075	100	1753	75	0.043	0.043
	LT+SA	D2	4	3.30	15.0		90	1913	142	0.074		88	1916	83	0.043	
	RT	D3	4	3.30	20.0		100	1940	53	0.027		100	1940	47	0.024	

pedestrian phase	E(p)	1		min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	F(p)	2,3,4		min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	G(p)	3		min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	H(p)	1,2,4		min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	I(p)	2		min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	J(p)	1,3,4		min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	K(p)	4		min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	L(p)	1,2,3		min crossing time =	5	sec GM +	10	sec FGM =	15	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

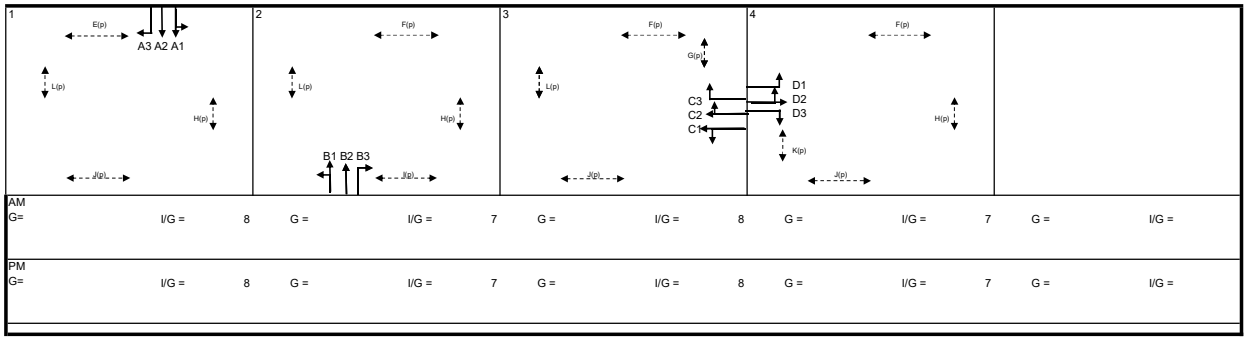


S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

Note:

	AM Peak Hour		PM Peak Hour	
	1+2+3+4		1+2+3+4	
Sum y	0.553		0.412	
L (s)	26		26	
C (s)	110		110	
practical y	0.687		0.687	
R.C. (%)	24%		67%	



AM	G=		I/G =	8	G =		I/G =	7	G =		I/G =	8	G =		I/G =	7	G =		I/G =
PM	G=		I/G =	8	G =		I/G =	7	G =		I/G =	8	G =		I/G =	7	G =		I/G =

Signal Junction Analysis

Junction: Pak Wo Road / Yat Ming Road / Wah Ming Road — Job Number: J7411

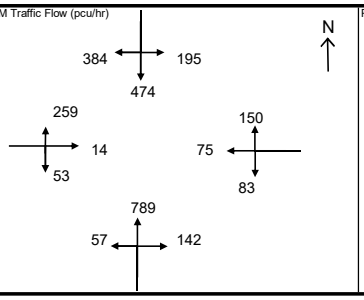
Scenario: With Proposed EV Mobility City — J5 - P. 3

Design Year: 2034 — Designed By: MCY — Checked By: WCH — Date: 15 August 2025

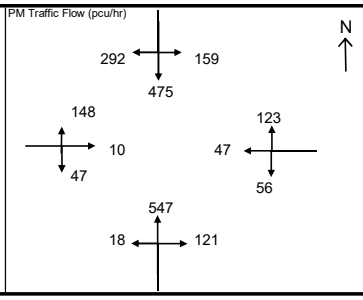
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Pak Wo Road SB	LT+SA	A1	1	3.50	15.0		48	1852	407	0.220	0.220	46	1879	366	0.195	0.195
	SA	A2	1	3.00				2055	451	0.219			2055	401	0.195	
	RT	A3	1	3.00	20.0		100	1912	384	0.201		100	1912	292	0.153	
Pak Wo Road NB	LT+SA	B1	2	3.50	15.0		14	1938	407	0.210	0.210	7	1951	272	0.139	0.139
	SA	B2	2	3.40				2095	439	0.210			2095	293	0.140	
	RT	B3	2	3.40	20.0		100	1949	142	0.073		100	1949	121	0.062	
Yat Ming Road WB	LT+SA	C1	3	3.50	15.0		86	1809	97	0.054		78	1823	72	0.039	
	SA+RT	C2	3	3.00	25.0		44	2002	108	0.054		60	1984	78	0.039	0.039
	RT	C3	3	3.00	20.0		100	1912	103	0.054	0.054	100	1912	76	0.040	
Wah Ming Road EB	LT	D1	4	3.40	13.0		100	1753	131	0.075	0.075	100	1753	75	0.043	0.043
	LT+SA	D2	4	3.30	15.0		90	1913	142	0.074		88	1916	83	0.043	
	RT	D3	4	3.30	20.0		100	1940	53	0.027		100	1940	47	0.024	

pedestrian phase	E(p)	1		min crossing time =	5	sec GM +	9	sec FGM =	14	sec	
	F(p)	2,3,4		min crossing time =	5	sec GM +	10	sec FGM =	15	sec	
	G(p)	3		min crossing time =	5	sec GM +	6	sec FGM =	11	sec	
	H(p)	1,2,4		min crossing time =	5	sec GM +	10	sec FGM =	15	sec	
	I(p)	2		min crossing time =	5	sec GM +	6	sec FGM =	11	sec	
	J(p)	1,3,4		min crossing time =	5	sec GM +	10	sec FGM =	15	sec	
	K(p)	4		min crossing time =	5	sec GM +	6	sec FGM =	11	sec	
	L(p)	1,2,3		min crossing time =	5	sec GM +	10	sec FGM =	15	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

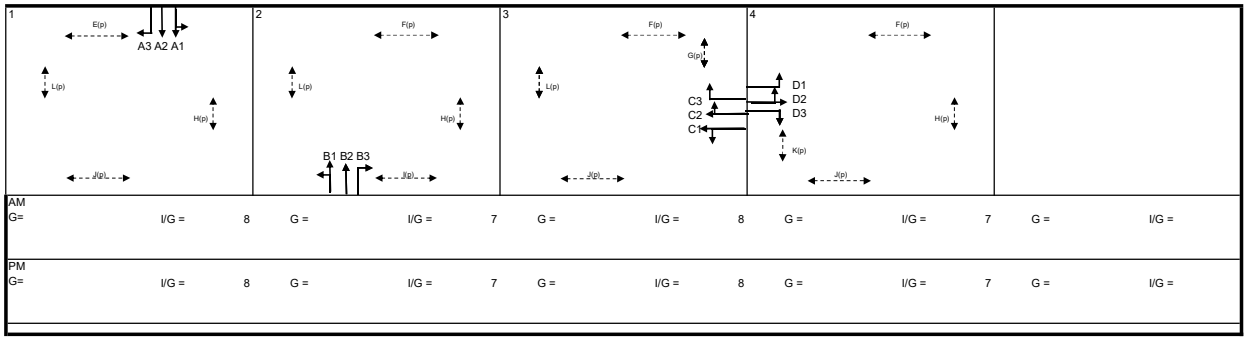


S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

Note:

	AM Peak Hour 1+2+3+4		PM Peak Hour 1+2+3+4	
Sum y	0.558		0.416	
L (s)	26		26	
C (s)	110		110	
practical y	0.687		0.687	
R.C. (%)	23%		65%	



AM G=	I/G =	8	G =	I/G =	7	G =	I/G =	8	G =	I/G =	7	G =	I/G =
PM G=	I/G =	8	G =	I/G =	7	G =	I/G =	8	G =	I/G =	7	G =	I/G =

Signal Junction Analysis

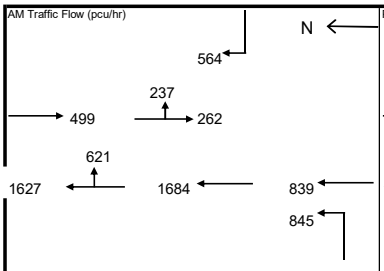
Junction: Wo Hop Shek Interchange — Job Number: J7411

Scenario: Existing Condition — J6 - P. 1

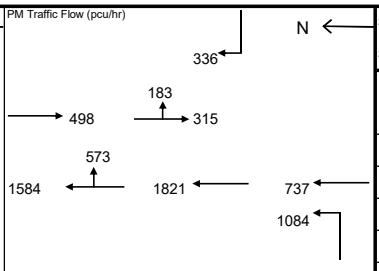
Design Year: 2025 — Designed By: MCY — Checked By: WCH — Date: 15 August 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Pak Wo Road NB	SA	A1	1	3.30				1945	404	0.208			1945	355	0.183	
	SA	A2	1	3.40				2095	435	0.208			2095	382	0.182	
Fanling Highway	LT	B1	2,3	4.00	30.0		100	1919	407	0.212		100	1919	522	0.272	
Slip Road NB	LT	B2	2,3	4.00	35.0		100	2066	438	0.212		100	2066	562	0.272	
Pak Wo Road NB	SA	C1	1,2	3.00				1915	535	0.279			1915	579	0.302	
	SA	C2	1,2	3.00				2055	574	0.279			2055	621	0.302	
	SA	C3	1,2	3.00				2055	575	0.280			2055	621	0.302	
Pak Wo Road NB	RT	D3	1,3	3.00	15.0		100	1868	621	0.332	0.332	100	1868	573	0.307	0.307
Jockey Club Road SB	SA	E1	2	4.50				2065	499	0.242	0.242		2065	498	0.241	0.241
Pak Wo Road SB	LT	F1	1,2	3.40	20.0		100	1819	237	0.130		100	1819	183	0.101	
	SA	F2	1,2	3.30				2085	262	0.126			2085	315	0.151	
Wo Hing Road WB	RT	G1	3	3.30	20.0		100	1809	275	0.152		100	1809	164	0.091	
	RT	G2	3	3.30	15.0		100	1895	289	0.153		100	1895	172	0.091	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

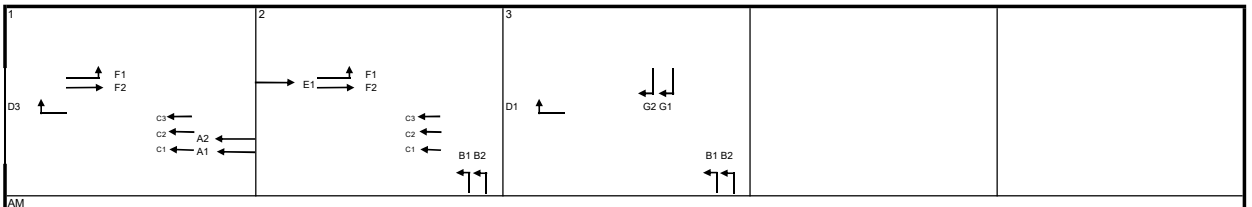


$S_M = S \div (1+1.5f/r)$ S=1940+100(W–3.25)

$S_M = (S-230) \div (1+1.5f/r)$ S=2080+100(W–3.25)

Note:

	AM Peak Hour		PM Peak Hour	
	1,3+2	1+2+3	1,3+2	1+2+3
Sum y	0.574	0.601	0.548	0.514
L (s)	12	17	12	17
C (s)	140	140	140	140
practical y	0.823	0.791	0.823	0.791
R.C. (%)	43%	32%	50%	54%



AM																
G=	I/G =	8	G =	I/G =	6	G =	I/G =		G =	I/G =		G =	I/G =			
AMG=	I/G =	8	G =	I/G =	6	G =	I/G =	6	G =	I/G =		G =	I/G =			
PM																
G=	I/G =	8	G =	I/G =	6	G =	I/G =		G =	I/G =		G =	I/G =			
G =	I/G =	8	G =	I/G =	6	G =	I/G =	6	G =	I/G =		G =	I/G =			

Signal Junction Analysis

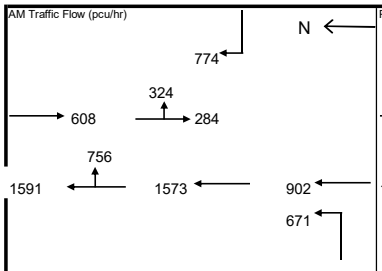
Junction: Wo Hop Shek Interchange — Job Number: J7411

Scenario: Without Proposed EV Mobility City — J6 - P. 2

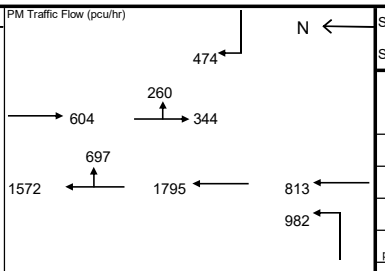
Design Year: 2034 — Designed By: MCY — Checked By: WCH — Date: 15 August 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Pak Wo Road NB	SA	A1	1	3.30				1945	434	0.223			1945	391	0.201	
	SA	A2	1	3.40				2095	468	0.223			2095	422	0.201	
Fanling Highway	LT	B1	2,3	4.00	30.0		100	1919	323	0.168		100	1919	473	0.246	
Slip Road NB	LT	B2	2,3	4.00	35.0		100	2066	348	0.168		100	2066	509	0.246	
Pak Wo Road NB	SA	C1	1,2	3.00				1915	500	0.261			1915	571	0.298	
	SA	C2	1,2	3.00				2055	537	0.261			2055	612	0.298	
	SA	C3	1,2	3.00				2055	536	0.261			2055	612	0.298	
Pak Wo Road NB	RT	D3	1,3	3.00	15.0		100	1868	756	0.405	0.405	100	1868	697	0.373	0.373
Jockey Club Road SB	SA	E1	2	4.50				2065	608	0.294	0.294		2065	604	0.292	0.292
Pak Wo Road SB	LT	F1	1,2	3.40	20.0		100	1819	324	0.178		100	1819	260	0.143	
	SA	F2	1,2	3.30				2085	284	0.136			2085	344	0.165	
Wo Hing Road WB	RT	G1	3	3.30	20.0		100	1809	378	0.209		100	1809	231	0.128	
	RT	G2	3	3.30	15.0		100	1895	396	0.209		100	1895	243	0.128	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

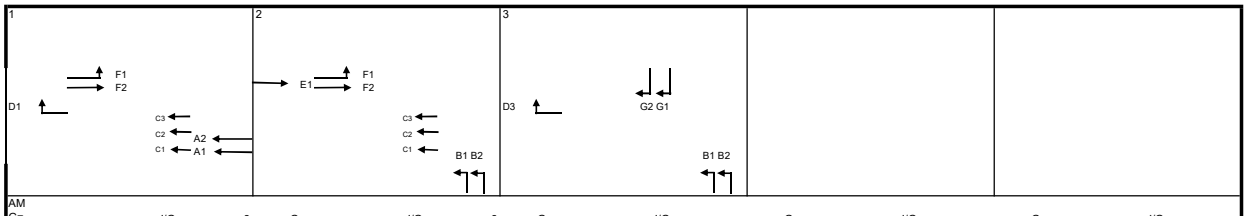


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)+(1+1.5f/r)$

Note:

	AM Peak Hour 1,3+2	AM Peak Hour 1+2+3	PM Peak Hour 1,3+2	PM Peak Hour 1+2+3
Sum y	0.699	0.727	0.666	0.622
L (s)	12	17	12	17
C (s)	140	140	140	140
practical y	0.823	0.791	0.823	0.791
R.C. (%)	18%	9%	24%	27%



AM																			
G=	I/G =	8	G =	I/G =	6	G =	I/G =		G =	I/G =		G =	I/G =						
G =	I/G =	8	G =	I/G =	6	G =	I/G =	6	G =	I/G =		G =	I/G =						
PM																			
G=	I/G =	8	G =	I/G =	6	G =	I/G =		G =	I/G =		G =	I/G =						
G =	I/G =	8	G =	I/G =	6	G =	I/G =	6	G =	I/G =		G =	I/G =						

Signal Junction Analysis

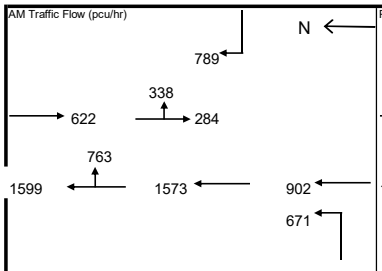
Junction: Wo Hop Shek Interchange — Job Number: J7411

Scenario: With Proposed EV Mobility City — J6 - P. 3

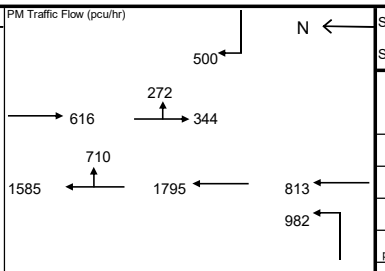
Design Year: 2034 — Designed By: MCY — Checked By: WCH — Date: 15 August 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Pak Wo Road NB	SA	A1	1	3.30				1945	434	0.223			1945	391	0.201	
	SA	A2	1	3.40				2095	468	0.223			2095	422	0.201	
Fanling Highway	LT	B1	2,3	4.00	30.0		100	1919	323	0.168		100	1919	473	0.246	
Slip Road NB	LT	B2	2,3	4.00	35.0		100	2066	348	0.168		100	2066	509	0.246	
Pak Wo Road NB	SA	C1	1,2	3.00				1915	500	0.261			1915	571	0.298	
	SA	C2	1,2	3.00				2055	537	0.261			2055	612	0.298	
	SA	C3	1,2	3.00				2055	536	0.261			2055	612	0.298	
Pak Wo Road NB	RT	D3	1,3	3.00	15.0		100	1868	763	0.408	0.408	100	1868	710	0.380	0.380
Jockey Club Road SB	SA	E1	2	4.50				2065	622	0.301	0.301		2065	616	0.298	0.298
Pak Wo Road SB	LT	F1	1,2	3.40	20.0		100	1819	338	0.186		100	1819	272	0.150	
	SA	F2	1,2	3.30				2085	284	0.136			2085	344	0.165	
Wo Hing Road WB	RT	G1	3	3.30	15.0		100	1768	390	0.221		100	1768	247	0.140	
	RT	G2	3	3.30	10.0		100	1813	399	0.220		100	1813	253	0.140	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

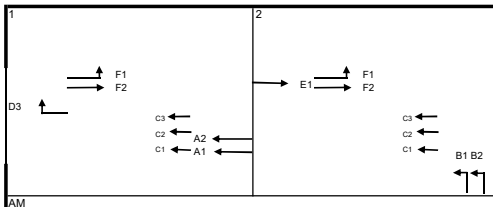


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)+(1+1.5f/r)$

Note:

	AM Peak Hour 1,3+2	AM Peak Hour 1+2+3	PM Peak Hour 1,3+2	PM Peak Hour 1+2+3
Sum y	0.710	0.745	0.678	0.639
L (s)	12	17	12	17
C (s)	140	140	140	140
practical y	0.823	0.791	0.823	0.791
R.C. (%)	16%	6%	21%	24%



AM G=	I/G =	8	G =	I/G =	6	G =	I/G =		G =	I/G =		G =	I/G =						
G =	I/G =	8	G =	I/G =	6	G =	I/G =	6	G =	I/G =		G =	I/G =						
PM G=	I/G =	8	G =	I/G =	6	G =	I/G =		G =	I/G =		G =	I/G =						
G =	I/G =	8	G =	I/G =	6	G =	I/G =	6	G =	I/G =		G =	I/G =						

Signal Junction Analysis

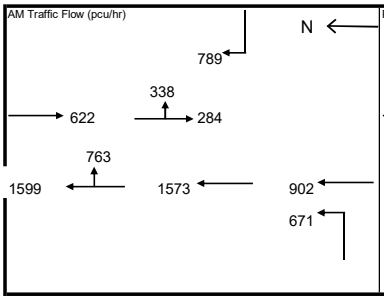
Junction: Wo Hop Shek Interchange — Job Number: J7411

Scenario: With Proposed EV Mobility City (With Traffic Improvement) — J6 - P. 4

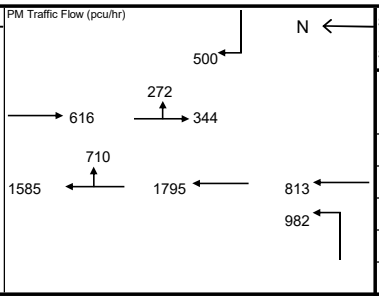
Design Year: 2034 — Designed By: MCY — Checked By: WCH — Date: 15 August 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Pak Wo Road NB	SA	A1	1	3.75				1990	288	0.145			1990	260	0.131	
	SA	A2	1	3.65				2120	307	0.145			2120	277	0.131	
	SA	A3	1	3.65				2120	307	0.145			2120	276	0.130	
Fanling Highway	LT	B1	2,3	4.00	30.0		100	1919	323	0.168		100	1919	473	0.246	
Slip Road NB	LT	B2	2,3	4.00	35.0		100	2066	348	0.168		100	2066	509	0.246	
Pak Wo Road NB	SA	C1	1,2	3.00				1915	500	0.261			1915	571	0.298	
	SA	C2	1,2	3.00				2055	537	0.261			2055	612	0.298	
	SA	C3	1,2	3.00				2055	536	0.261			2055	612	0.298	
Pak Wo Road NB	RT	D3	1,3	3.00	15.0		100	1868	763	0.408	0.408	100	1868	710	0.380	0.380
Jockey Club Road SB	SA	E1	2	4.50				2065	622	0.301	0.301		2065	616	0.298	0.298
Pak Wo Road SB	LT	F1	1,2	3.40	20.0		100	1819	338	0.186		100	1819	272	0.150	
	SA	F2	1,2	3.40				2095	284	0.136			2095	344	0.164	
Wo Hing Road WB	RT	G1	3	3.30	15.0		100	1768	390	0.221		100	1768	247	0.140	
	RT	G2	3	3.30	10.0		100	1813	399	0.220		100	1813	253	0.140	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

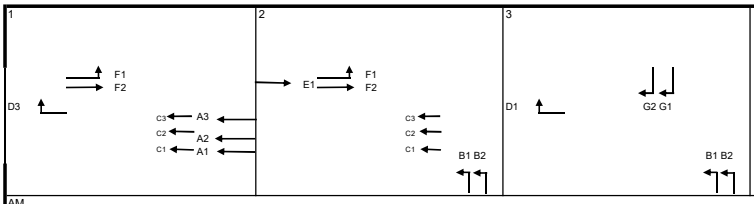


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

Note:

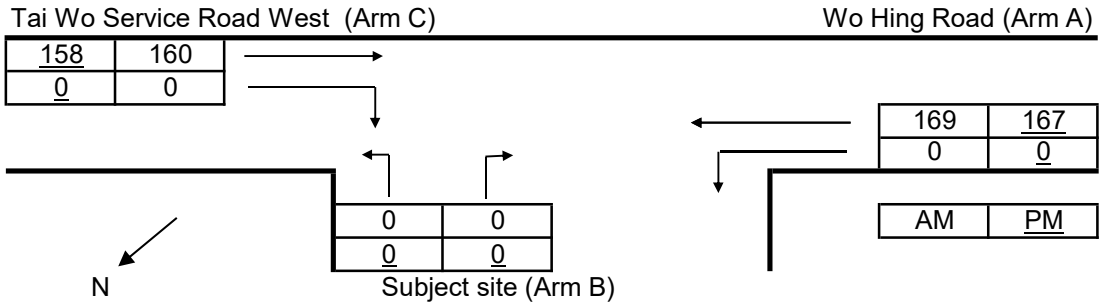
	AM Peak Hour 1,3+2	AM Peak Hour 1+2+3	PM Peak Hour 1,3+2	PM Peak Hour 1+2+3
Sum y	0.710	0.667	0.678	0.569
L (s)	12	17	12	17
C (s)	140	140	140	140
practical y	0.823	0.791	0.823	0.791
R.C. (%)	16%	19%	21%	39%



AM G=	I/G =	8	G =	I/G =	6	G =	I/G =		G =	I/G =		G =	I/G =						
AM G=	I/G =	8	G =	I/G =	6	G =	I/G =	6	G =	I/G =		G =	I/G =						
PM G=	I/G =	8	G =	I/G =	6	G =	I/G =		G =	I/G =		G =	I/G =						
G =	I/G =	8	G =	I/G =	6	G =	I/G =	6	G =	I/G =		G =	I/G =						

Priority Junction Analysis

Junction:	Wo Hing Road / Tai Wo Service Road West			Job Number:	J7411
Scenario:	Existing Condition				J7 - P. 1
Design Year:	2025	Designed By: MCY	Checked By: WCH	Date:	15 August 2025



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	8.50	V-rBA	60	w-BA	7.30	D	1.2020
	W-CR	4.00	V-lBA	60	w-BC	7.30	E	1.2706
			V-rBC	60	w-CB	3.70	F	0.9504
			V-rCB	60			Y	0.4963

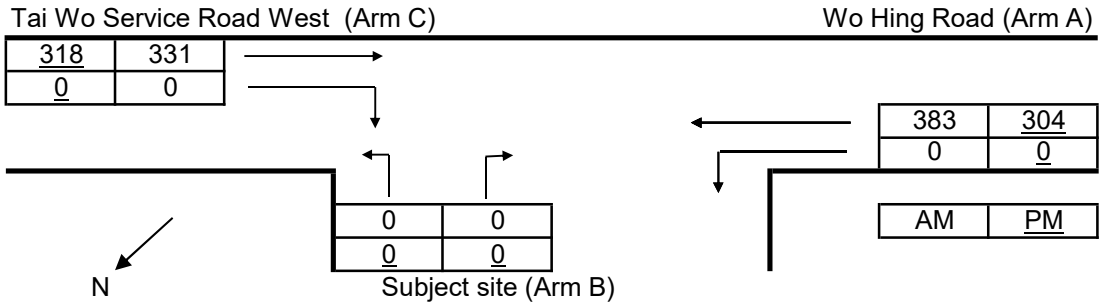
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	160	158	Q-BA	762	763
q-CB	0	0	Q-BC	908	908
q-AB	0	0	Q-CB	679	679
q-AC	169	167	Q-BAC	762	763
q-BA	0	0			
q-BC	0	0			
f	0.000	0.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.000	0.000
C-B	0.000	0.000
B-AC	0.000	0.000

Priority Junction Analysis

Junction:	Wo Hing Road / Tai Wo Service Road West			Job Number:	J7411
Scenario:	Without Proposed EV Mobility City				J7 - P. 2
Design Year:	2034	Designed By: MCY	Checked By: WCH	Date:	15 August 2025



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	8.50	V-rBA	60	w-BA	3.00	D	0.8402
	W-CR	4.00	V-lBA	60	w-BC	3.00	E	0.8882
			V-rBC	60	w-CB	3.70	F	0.9504
			V-rCB	60			Y	0.4963

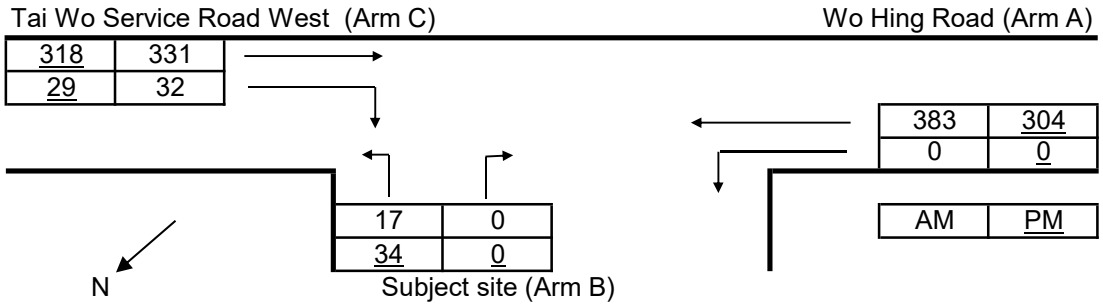
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	331	318	Q-BA	484	497
q-CB	0	0	Q-BC	600	613
q-AB	0	0	Q-CB	642	656
q-AC	383	304	Q-BAC	484	497
q-BA	0	0			
q-BC	0	0			
f	0.000	0.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.000	0.000
C-B	0.000	0.000
B-AC	0.000	0.000

Priority Junction Analysis

Junction:	Wo Hing Road / Tai Wo Service Road West			Job Number:	J7411
Scenario:	With Proposed EV Mobility City				J7 - P. 3
Design Year:	2034	Designed By: MCY	Checked By: WCH	Date:	15 August 2025



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	8.50	V-rBA	60	w-BA	3.00	D	0.8402
	W-CR	4.00	V-lBA	60	w-BC	3.00	E	0.8882
			V-rBC	60	w-CB	3.70	F	0.9504
			V-rCB	60			Y	0.4963

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	331	318	Q-BA	477	491
q-CB	32	29	Q-BC	600	613
q-AB	0	0	Q-CB	642	656
q-AC	383	304	Q-BAC	600	613
q-BA	0	0			
q-BC	17	34			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.028	0.055
C-B	0.050	0.044
B-AC	0.028	0.055

APPENDIX B -
Planned Traffic Improvement by Others

JOCKEY CLUB ROAD

EXISTING PT SERVICES PRESUMED TO STOP AT FUTURE BBI:
227E, 227P, 227X, 264R, 265S, 270A, 270B, 270P, 278P,
278X, 673, 678, N42A, N42P, T277

(3) PROPOSED BUS LAY-BY
(TO TAI PO)

PROPOSED SIGNALISED
PEDESTRIAN CROSSING

PROPOSED RUN-IN ACCESS
FOR PROPOSED DEVELOPMENT

FANLING HIGHWAY

TAI WO SERVICE
ROAD WEST

(1) PROPOSED FEEDER
SERVICE LAY-BY

(4) RELOCATED BUS STOP

(5) PROPOSED TAXI STAND

(2) PROPOSED BUS LAY-BY
(TO FANLING / SHEUNG SHUI)

27.4m
15m
10m
20m
11m
13.8m
10m
10m
414m
10m
20m
30m
13m
20m

PROPOSED EVA FOR
PROPOSED DEVELOPMENT

PROPOSED SEPERATE RUN-IN
FOR ACCESS TO SCHOOL

(7) PROPOSED GENERAL LAY-BY

(6) PROPOSED PUBLIC
CUL-DE-SAC

TAI WO SERVICE ROAD EAST

和合石村
Wo Hop Shek Village

0 10 20 30 40 50
METRES
1 : 2000

LEGEND :

SITE BOUNDARY

FUTURE TRAFFIC ARRANGEMENT

Rev	Description	By	Date
B	GENERAL AMENDMENT	WTL	02/23
A	GENERAL AMENDMENT	WTL	11/22

Consultant

wsp

Project title

AGREEMENT NO.CE47/2020 (CE)
TERM CONSULTANCY FOR SITE FORMATION AND INFRASTRUCTURE WORKS FOR PROPOSED HOUSING DEVELOPMENTS IN ZONE 2 (2021 - 2024) - FEASIBILITY STUDY

Drawing title

PROPOSED TRAFFIC ARRANGEMENT FOR PROPOSED SITE

Drawing no.	Rev.
CE47/T04/TTIA/302	B

Drawn	Date	Checked	Approved
WTL	MAY 2023	-	DC

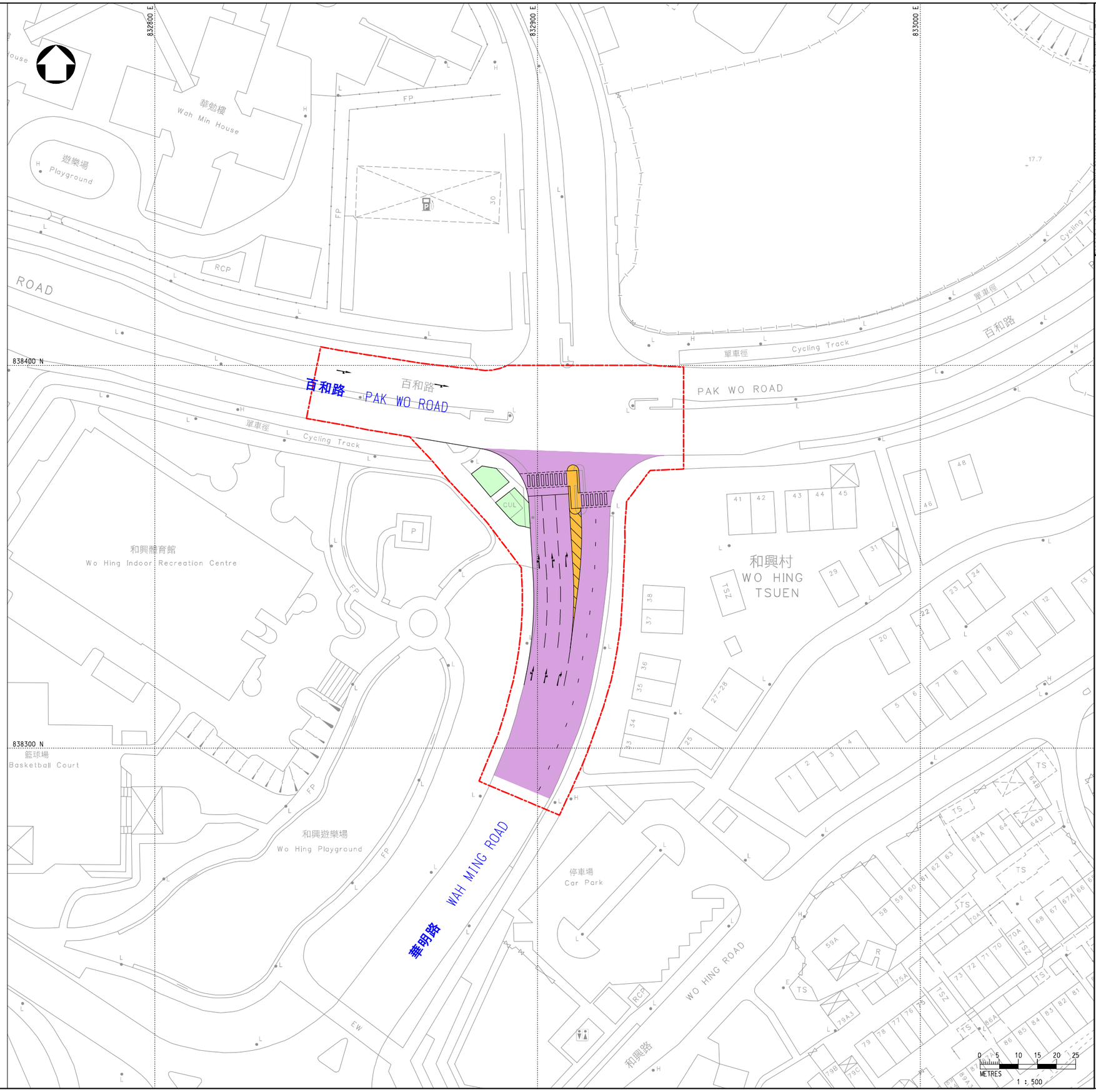
Scale	Status
1:2000 (A3)	-

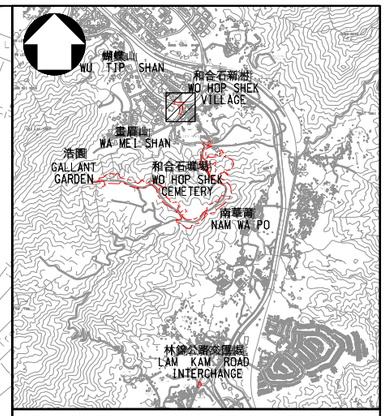
土木工程拓展署
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT
土木工程處
CIVIL ENGINEERING OFFICE

Date : 6/6/2023
Filename : \\hkkwn200dat13\T&N\Library\Traffic\06 CAD Drawings\251219A (CE47 CEDD TERM ZONE2 21-24)\T04 (AREA 48)\Drawing\20230403 (TTIA)\CE47_T04_TTIA_302.dgn

圖例:
LEGEND:

- 施工區界限 LIMIT OF WORKS AREA
- 擬建行車道 PROPOSED CARRIAGEWAY
- 擬建行人路 PROPOSED FOOTPATH
- 擬建中央分隔帶/安全島 PROPOSED CENTRAL MEDIAN/ REFUGE ISLAND
- 擬建美化市容地帶 PROPOSED AMENITY AREA
- 擬建行人過路處 PROPOSED PEDESTRIAN CROSSING





索引圖 KEY PLAN

比例 SCALE 1:30000

註釋
NOTES:

1. 現有行車道的部份路段/範圍將會分階段暫時封閉。
   SECTIONS OF THE EXISTING CARRIAGEWAYS WILL BE TEMPORARILY CLOSED IN PHASES.
2. 如有需要，施工區界限內之現有行車道、行人路和中央分隔帶/安全島的部份路段/範圍或會分階段暫時封閉。
   SECTIONS OF THE EXISTING CARRIAGEWAYS, FOOTPATHS AND CENTRAL RESERVES/REFUGE ISLANDS WITHIN THE LIMIT OF WORKS AREA MAY BE TEMPORARILY CLOSED IN PHASES AS AND WHEN REQUIRED.

Consultant

wsp

Client

土木工程拓展署
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT
土木工程處 土地工程部
LAND WORKS DIVISION
CIVIL ENGINEERING OFFICE

Project title

合約編號：CE58/2018(HY)

和合石墳場第二期及第三期骨灰安置所發展相關的道路改善工程 - 勘察研究、設計及建造

AGREEMENT NO.CE58/2018 (HY)

ROAD IMPROVEMENT WORKS AT WO HOP SHEK CEMETERY FOR PHASE 2 AND 3 COLUMBARIUM DEVELOPMENT - INVESTIGATION, DESIGN AND CONSTRUCTION

Drawing title

擬建工程平面圖
三張之第二張
LOCATION PLAN FOR PROPOSED WORKS (SHEET 2 OF 3)

Scale	
1 : 500	
Original Size	
A1	
Drawing no. CE58/DC/011	Rev. -

Date : 2024-07-04
Filename : X:\2514322A (CE58-2018 WHS)\02_Drawing\Report\DC\CE58_DC_011.dgn