

**Proposed Temporary Public Vehicle Park  
with Electric Vehicle Charging Facilities and  
Filling of Land for a Period of 3 Years,  
Various Lots in DD7, Kau Lung Hang,  
Tai Po, New Territories**

**Traffic Impact Assessment  
Final Report  
December 2025**

**Prepared by: CKM Asia Limited**

**Prepared for: Wing Lee (Kong Shum) Transportation Limited**

# **Proposed Temporary Public Vehicle Park with Electric Vehicle Charging Facilities and Filling of Land for a Period of 3 Years, Various Lots in DD7, Kau Lung Hang, Tai Po, New Territories**

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**Proposed Temporary Public Vehicle Park with Electric Vehicle Charging  
Facilities and Filling of Land for a Period of 3 Years,  
Various Lots in DD7, Kau Lung Hang, Tai Po, New Territories**

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**Proposed Temporary Public Vehicle Park with Electric Vehicle Charging  
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Various Lots in DD7, Kau Lung Hang, Tai Po, New Territories**

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## 1.0 INTRODUCTION

### Background

- 1.1 The application site is located at various lots in D.D. 7 at Kau Lung Hang, in Tai Po. The location of the application site is shown in **Figure 1.1**.
- 1.2 CKM Asia Limited, a traffic and transportation planning consultancy firm, was commissioned by the Applicant to prepare a traffic assessment in connection with the S16 application for a temporary public vehicle park with 205 car parking spaces and 6 parking spaces shared-use for HGV and coach for a period of 3 years (the "Proposed Temporary Public Vehicle Park"). Access to the Proposed Temporary Public Vehicle Park is via its existing vehicular access, which is provided at Tai Wo Service Road West, some 600m north of its junction with Hong Lok Yuen Road.
- 1.3 This report describes the traffic assessment undertaken for the Proposed Temporary Public Vehicle Park.

### Structure of the Report

- 1.4 The report is structured as follows:

Chapter One	- Gives the background of the project;
Chapter Two	- Describes the existing situation;
Chapter Three	- Presents the Proposed Temporary Public Vehicle Park;
Chapter Four	- Describes the traffic impact analysis; and
Chapter Five	- Gives the overall conclusion.

## 2.0 THE EXISTING SITUATION

### The Application Site

- 2.1 The application site is currently used as a plant nursery with some temporary shelters and ancillary storage area. It fronts onto Tai Wo Service Road West to the east, some 600m north of its junction with Hong Lok Yuen Road.

### The Road Network

- 2.2 Tai Wo Service Road West is classified as rural road, and is of single carriageway 2-lane standard. It connects with Wo Hing Road to the north, and with Hong Lok Yuen Road, Fanling Highway and Lam Kam Road Interchange to the south.
- 2.3 Lam Kam Road is classified as a rural road, and is of single carriageway 2-lane standard. It connects with the Lam Kam Road Interchange and Tolo Highway to the north and with Route Twisk, Kam Sheung Road and Kam Tin Road to the south.

### Manual Classified Traffic Counts

- 2.4 To quantify the traffic flows in the vicinity of the application site, manual classified counts were conducted on Wednesday, 19<sup>th</sup> June 2024 during the AM and PM peak periods at the following junctions:
- J1: Tai Wo Service Road West / Hong Lok Yuen Road;
  - J2: Lam Kam Road Interchange / Tai Po Road – Tai Wo; and
  - J3: Lam Kam Road Interchange.
- 2.5 The locations of these junctions are shown in **Figure 2.1** and the layouts are shown in **Figures 2.2 – 2.4** respectively.
- 2.6 From the traffic survey conducted, the AM and PM peak hours are found between 0730 – 0830 hours and 1715 – 1815 hours respectively. The existing AM and PM peak hour flows are presented in **Figures 2.5**.

### Existing Junction Performance

- 2.7 The existing operating performance of the surveyed junctions is calculated based on the existing traffic flows, and the analysis was undertaken using the method found in the Transport Planning and Design Manual (“TPDM”). The results are summarised in **Table 2.1**, and detailed calculations are presented in the **Appendix A**.

TABLE 2.1 EXISTING JUNCTION PERFORMANCE

Ref	Junction	Type of Junction (Parameter)	AM Peak	PM Peak
J1	Tai Wo Service Road West / Hong Lok Yuen Road	Signal (RC)	65%	58%
J2	Lam Kam Road Interchange / Tai Po Road – Tai Wo	Priority (DFC)	0.581	0.484
J3	Lam Kam Road Interchange	RA (DFC)	0.484	0.631

Note: RA – roundabout RC – reserve capacity DFC - design flow/capacity ratio

- 2.8 **Table 2.1** shows that the junctions operate with capacities.

### Public Transport Services

- 2.9 At present, 10 franchised bus and 3 green minibus (“GMB”) routes operate in the vicinity of the Proposed Temporary Public Vehicle Park. Details of public transport services are presented in **Table 2.2**.

TABLE 2.2 EXISTING PUBLIC TRANSPORT SERVICES OPERATING IN THE VICINITY OF THE PROPOSED TEMPORARY PUBLIC VEHICLE PARK

Route	Routing	Headway (minutes)
KMB 73	Fanling (Wah Ming) – Tai Po Industrial Estate	20 – 30
KMB 73A	Fanling (Wah Ming) – Yu Chui Court	20 – 35
KMB 73B	Chuen On Road (Nethersole Hospital) – Sheung Shui (Circular)	25 – 60
KMB 74C	Kau Lung Hang – Kwun Tong Ferry	AM Peak
KMB 74D	Kau Lung Hang – Kwun Tong Ferry	25 – 60
KMB 271P	Kau Lung Hang – Tsim Sha Tsui (Canton Road)	AM Peak
KMB 273C	Kau Lung Hang – Tsuen Wan West Station	AM Peak
KMB 373	Sheung Shui – Central (Hong Kong Station)	AM, PM Peak
KMB N373	Fanling (Luen Wo Hui) – Central (Macau Ferry)	Overnight
KMB N73	Shatin Central – Lok Ma Chau	Overnight
GMB 502	Ching Ho Estate – Nethersole Hospital	8 – 15
GMB 25A	Tai Po Market – Nam Wa Po	5 - 10
GMB 25B	Tai Po Market – Kau Lung Hang / Yuen Leng	4 – 8

Note: KMB – Kowloon Motor Bus GMB – Green Minibus

### 3.0 THE PROPOSED TEMPORARY PUBLIC VEHICLE PARK

#### The Proposed Temporary Public Vehicle Park

- 3.1 The Proposed Temporary Public Vehicle Park provides 205 car parking spaces and 6 parking spaces shared-use for HGV and coach, and the layout plan is shown in **Figure 3.1**.

#### Swept Path Analysis

- 3.2 The CAD-based swept path analysis programme, **AUTODESK VEHICLE TRACKING**, was used to check the ease of manoeuvring of vehicles within the Proposed Temporary Public Vehicle Park, and the swept path analysis drawings are found in **Appendix B**. Vehicles are found to have no manoeuvring problems.



## 4.0 TRAFFIC ANALYSIS

### Design Year

- 4.1 The Proposed Temporary Public Vehicle Park is scheduled to commence operation in 2026 and operate until 2029. Hence, the design year adopted for traffic analysis is 2029.

### Traffic Forecasting

- 4.2 Year 2029 peak hour traffic flows for the junction capacity analysis is produced (i) with reference to existing traffic flows; (ii) estimated traffic growth rate from 2024 to 2029; and (iii) expected net increase in traffic generation due to the Proposed Temporary Public Vehicle Park.

### Estimated Traffic Growth Rate from 2024 to 2029

- 4.3 Reference is made to the (i) the Annual Average Daily Traffic ("AADT") of the core stations which are located in the vicinity found in the Annual Traffic Census ("ATC") published by Transport Department, and (ii) the population projection for Tai Po District from the "Projections of Population Distribution 2023 – 2031" published by the Planning Department. The above information is presented in **Tables 4.1** and **4.2** respectively.

TABLE 4.1 AADT OF THE CORE STATIONS LOCATED IN THE VICINITY OF THE APPLICATION SITE

Station	5507	5461	Overall
Road	Tai Wo Service Rd W	Fanling Highway	–
From	Lam Kam Rd INT	Lam Kam Rd INT	–
To	Kau Lung Hang Flyover near Kiu Tau Rd	Kau Lung Hang Lo Wai	–
2017	5,540*	92,220*	97,760
2018	5,670*	95,160*	100,830
2019	4,570	95,760	100,330
2020	4,330	92,630	96,960
2021	4,500*	97,150*	101,650
2022	4,360*	92,840*	97,200
2023	4,470*	98,660*	103,130
Average Annual Growth (2017-2023)	-3.51%	1.13%	0.90%

Note: \* Estimated by Growth Factor

TABLE 4.2 POPULATION PROJECTIONS OF TAI PO DISTRICT

Year	Population in Tai Po
2024	331,800
2029	341,200
Average Annual Growth 2024 to 2029	0.56%

- 4.4 **Table 4.1** shows that the annual average traffic growth of 0.90%, between 2017 and 2023. **Table 4.2** shows that the annual population growth between 2024 – 2029 is 0.56%. To be conservative, an annual average traffic growth of 0.90% is adopted for year 2024 – 2029.

## Net Increase in Traffic Generation of the Proposed Temporary Public Vehicle Park

### Traffic Generation of the Existing uses

- 4.5 The traffic generation of the existing uses are estimated based on the traffic generation survey conducted at the application site during AM and PM peak of Wednesday, 19<sup>th</sup> June 2024. The survey result is presented in **Table 4.3**.

TABLE 4.3 TRAFFIC GENERATION OF EXISTING USES

Items	AM Peak		PM Peak	
	Generation	Attraction	Generation	Attraction
Traffic Generation of Existing Uses (plant nursery, ancillary storage) (pcu/hr)	17	13	18	21
	30 (2-way)		39 (2-way)	

- 4.6 **Table 4.3** shows that the existing uses generates 30 and 39 pcu (2-way) in AM and PM peak hours respectively.

### Traffic Generation of the Proposed Temporary Public Vehicle Park

- 4.7 The TPDM has no trip rates for temporary public vehicle park, hence, the traffic generation of the Proposed Temporary Public Vehicle Park is calculated based on the trip rates derived from the traffic generation survey conducted at a temporary car park at Ma Wo Road in Tai Po. The traffic generation survey was conducted on Wednesday, 19<sup>th</sup> June 2024, and the survey results, the derived trip rate and the calculated traffic generation of the Proposed Temporary Public Vehicle Park is presented in **Table 4.4**.

TABLE 4.4 TRAFFIC GENERATION OF THE PROPOSED TEMPORARY PUBLIC VEHICLE PARK

Items		Parameter	AM Peak		PM Peak	
			GEN	ATT	GEN	ATT
Skye Parking, Ma Wo Road, Tai Po (246 spaces)	Traffic Generation <sup>(1)</sup>	pcu/hr	16	15	10	30
	Derived Trip Rate <sup>(2)</sup>	pcu/space/hr	0.0650	0.0610	0.0407	0.1220
The Proposed Temporary Public Vehicle Park (Total 211 spaces: 205 for car, 6 for HGV/Coach)	Traffic Generation <sup>(1)</sup>	pcu/hr	14	13	9	26
			27 (2-way)		35 (2-way)	

GEN – Generation

ATT – Attraction

- 4.8 **Table 4.4** shows that the Proposed Temporary Public Vehicle Park is expected to generate 27 and 35 pcu (2-way) in AM and PM peak hours respectively.

### Net Increase in Traffic Generation

- 4.9 The net increase in traffic generation between the existing uses and the Proposed Temporary Public Vehicle Park is presented in **Table 4.5**.

TABLE 4.5 NET INCREASE IN TRAFFIC GENERATION

Scheme	Traffic Generation (pcu/ hr)			
	AM Peak		PM Peak	
	Generation	Attraction	Generation	Attraction
The Proposed Temporary Public Vehicle Park (from Table 4.4) [a]	14	13	9	26
Existing Uses (from Table 4.3) [b]	17	13	18	21
Net Increase [a] – [b]:	-3	+0	-9	+5
	<b>-3 (2-way)</b>		<b>-4 (2-way)</b>	

- 4.10 Compared to the existing uses, the Proposed Temporary Public Vehicle Park is expected to have net increase of -3 and -4 pcu / hour (2-way) in AM and PM peak respectively.

#### Year 2029 Peak Hour Traffic Flows

- 4.11 Year 2029 peak hour traffic flows for the following cases are derived:

*Year 2029 Without the Proposed Temporary Public Vehicle Park [A]* = *Existing Traffic Flow + estimated traffic growth between 2024 and 2029*

*Year 2029 With the Proposed Temporary Public Vehicle Park [B]* = *[A] + Net Increase in traffic generation*

- 4.12 Year 2029 peak hour traffic flows for the above two cases are shown in **Figures 4.1** and **4.2** respectively.

#### 2029 Junction Capacity Analysis

- 4.13 Year 2029 junction capacity analysis for the case without and with the Proposed Temporary Public Vehicle Park are summarised in **Table 4.6** and detailed calculations are found in the **Appendix A**.

TABLE 4.6 2029 JUNCTION PERFORMANCE

Ref	Junction	Type of Junction (Parameter)	Without the Proposed Temporary Public Vehicle Park		With the Proposed Temporary Public Vehicle Park	
			AM Peak	PM Peak	AM Peak	PM Peak
J1	Tai Wo Service Road West / Hong Lok Yuen Road	Signal (RC)	57%	51%	57%	51%
J2	Lam Kam Road Interchange / Tai Po Road – Tai Wo	Priority (DFC)	0.615	0.514	0.615	0.516
J3	Lam Kam Road Interchange	RA (DFC)	0.510	0.665	0.510	0.669

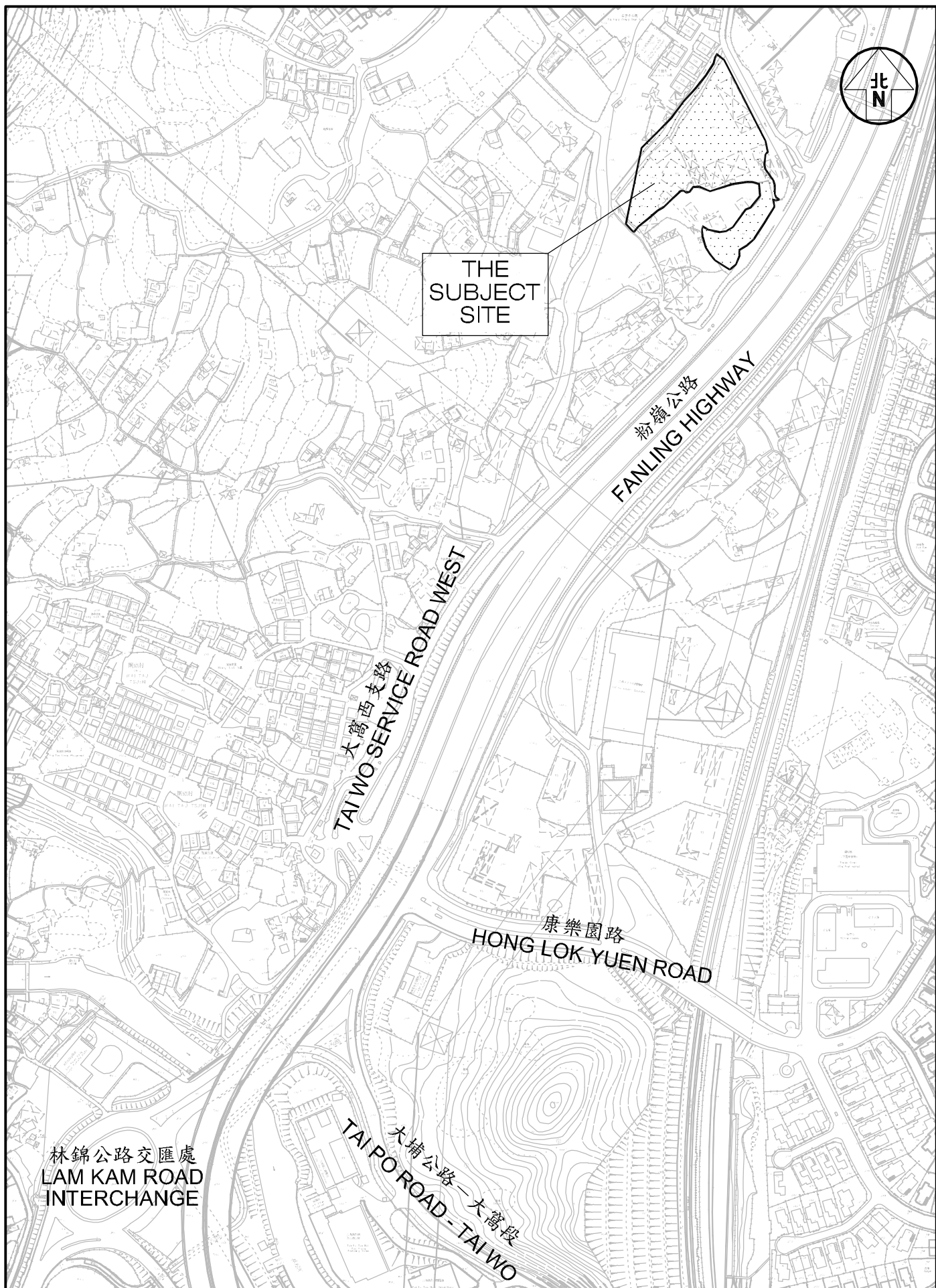
Note: RA – roundabout RC – reserve capacity DFC - design flow/capacity ratio

- 4.14 The results in **Table 4.6** indicate that the junctions analysed will operate with sufficient capacities in 2029, and the Proposed Temporary Public Vehicle Park has no adverse traffic impact.

## 5.0 SUMMARY

- 5.1 The application site is located at various lots in D.D. 7 at Kau Lung Hang, Tai Po. Access to the Proposed Temporary Public Vehicle Park is via its existing vehicular access which is provided at the Tai Wo Service Road West.
- 5.2 The Proposed Temporary Public Vehicle Park provides 205 car parking spaces and 6 parking spaces shared-use for HGV and coach for a period of 3 years.
- 5.3 Year 2029 peak hour traffic flows for the junction capacity analysis is produced (i) with reference to existing traffic flows; (ii) estimated traffic growth rate from 2024 to 2029; and (iii) expected net increase in traffic generation due to the Proposed Temporary Public Vehicle Park.
- 5.4 A comparison is made of the performance of the junctions assessed for the cases without and with the Proposed Temporary Public Vehicle Park. The traffic analysis concluded that the junctions analysed will operate with sufficient capacities in 2029, and the Proposed Temporary Public Vehicle Park has no adverse traffic impact.





Project Title  
PROPOSED TEMPORARY PUBLIC VEHICLE PARK WITH ELECTRIC VEHICLE CHARGING FACILITIES AND FILLING OF LAND FOR A PERIOD OF 3 YEARS, VARIOUS LOTS IN DD7, KAU LUNG HANG, TAI PO, NEW TERRITORIES

Job No.  
J7353

Figure No.

1.1

Scale in A4

1 : 4,000

Designed by  
L K W

Drawn by  
S C Y

Checked by  
K C

Revision  
B

Date  
03 SEP 2025

Figure Title

LOCATION OF THE APPLICATION SITE

**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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# LEGEND :



Surveyed Junction



THE  
SUBJECT  
SITE

粉嶺公路  
FANLING HIGHWAY

大窩西支路  
TAI WO SERVICE ROAD WEST

J01

康樂園路  
HONG LOK YUEN ROAD

J02

J03

林錦公路交匯處  
LAM KAM ROAD  
INTERCHANGE

大埔公路—大窩段  
TAI PO ROAD—TAI WO

Project Title  
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OF LAND FOR A PERIOD OF 3 YEARS, VARIOUS LOTS IN DD7, KAU LUNG HANG, TAI PO, NEW TERRITORIES

Job No.  
J7353

Figure No.

2.1

Scale in A4

1 : 4,000

Designed by  
L K W

Drawn by  
S C Y

Checked by  
K C

Revision  
B

Date  
03 SEP 2025

Figure Title

LOCATIONS OF SURVEYED JUNCTIONS

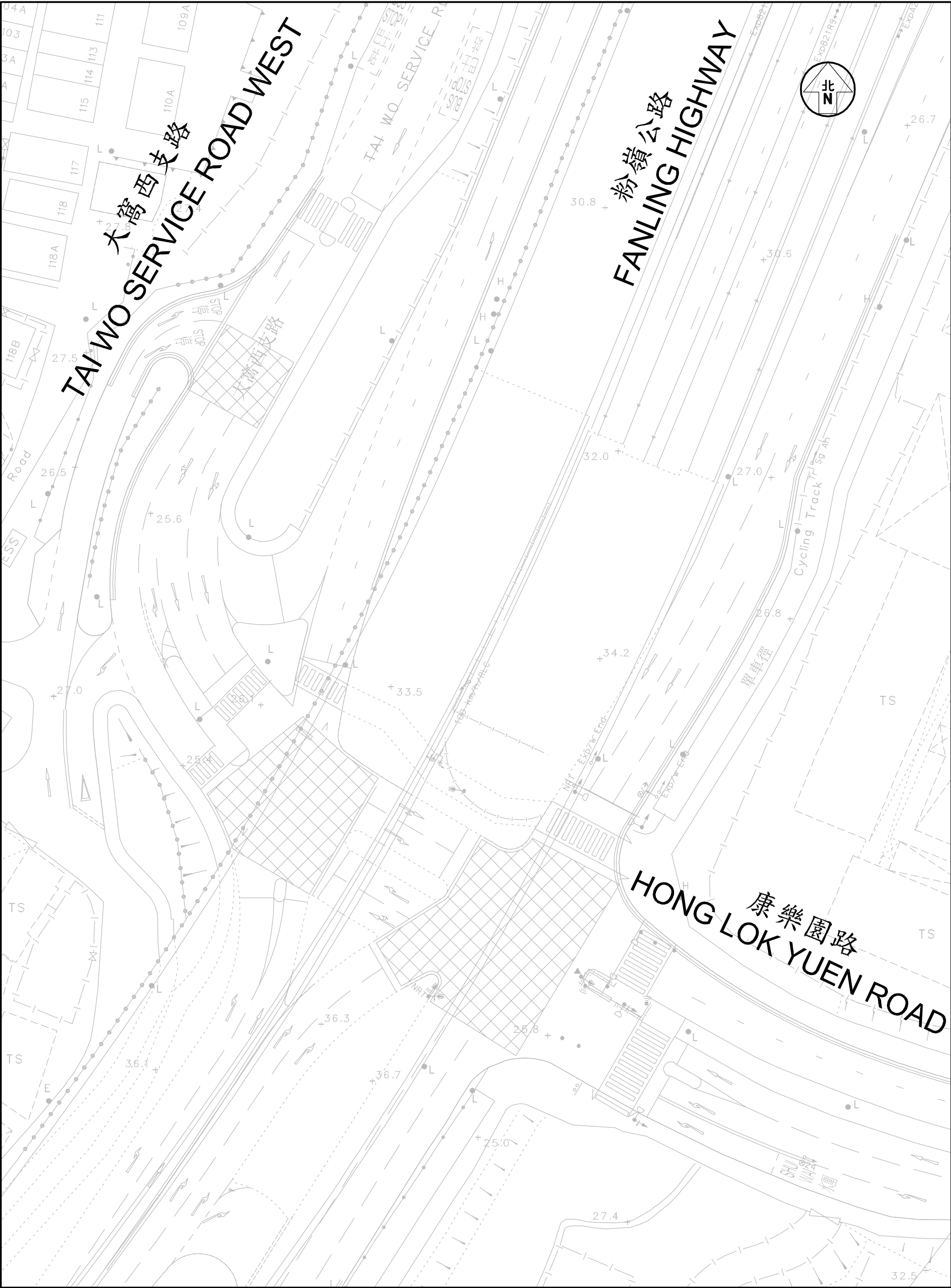
**CKM Asia Limited**

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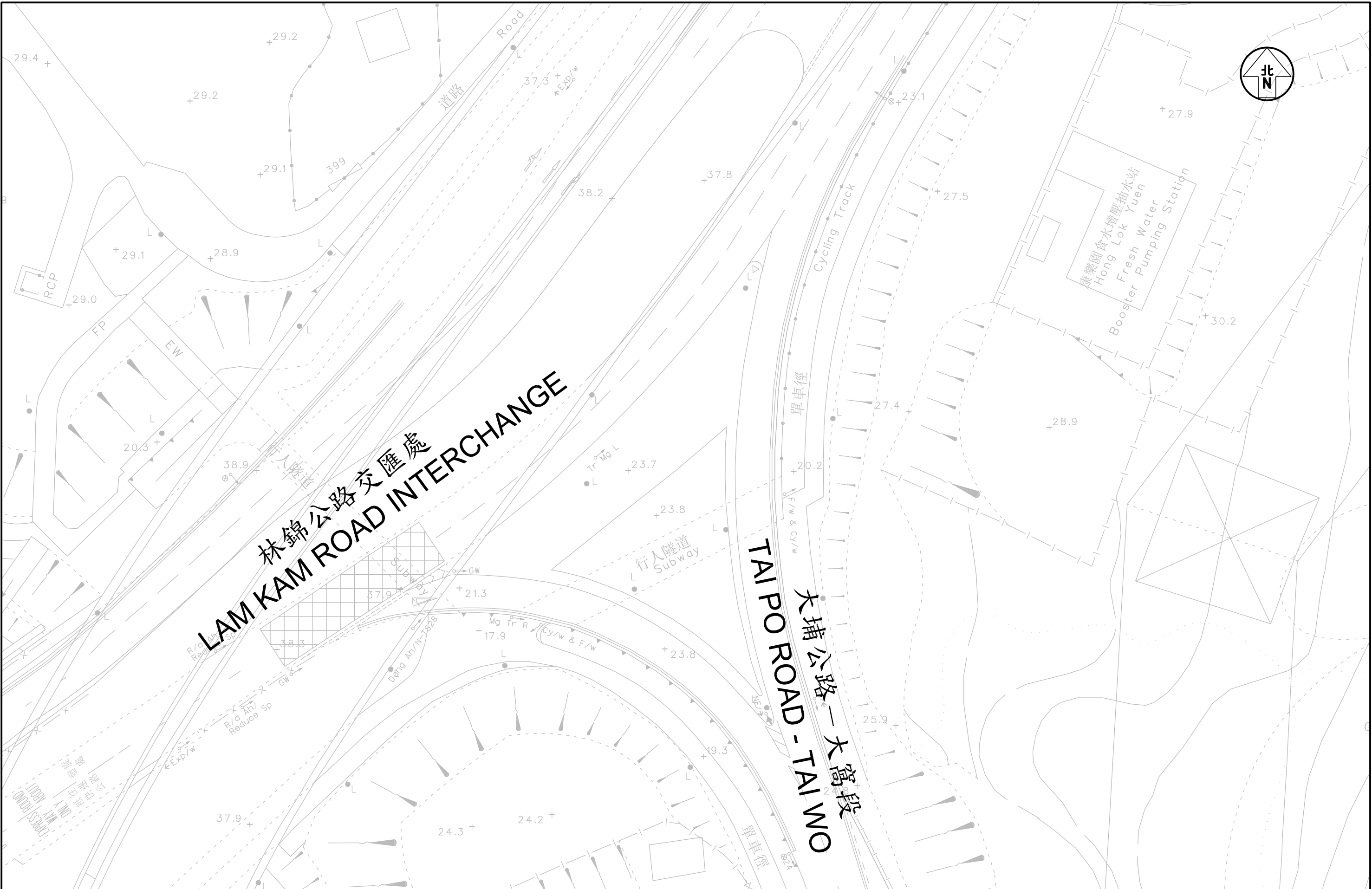
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Project Title	PROPOSED TEMPORARY PUBLIC VEHICLE PARK WITH ELECTRIC VEHICLE CHARGING FACILITIES AND FILLING OF LAND FOR A PERIOD OF 3 YEARS, VARIOUS LOTS IN DD7, KAU LUNG HANG, TAI PO, NEW TERRITORIES	Job No. J7353	Figure No. 2.2			Scale in A3 1 : 500
		Designed by L K W	Drawn by S C Y	Checked by K C	Revision B	Date 03 SEP 2025
Figure Title	LAYOUT OF TAI WO SERVICE ROAD WEST / HONG LOK YUEN ROAD	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				

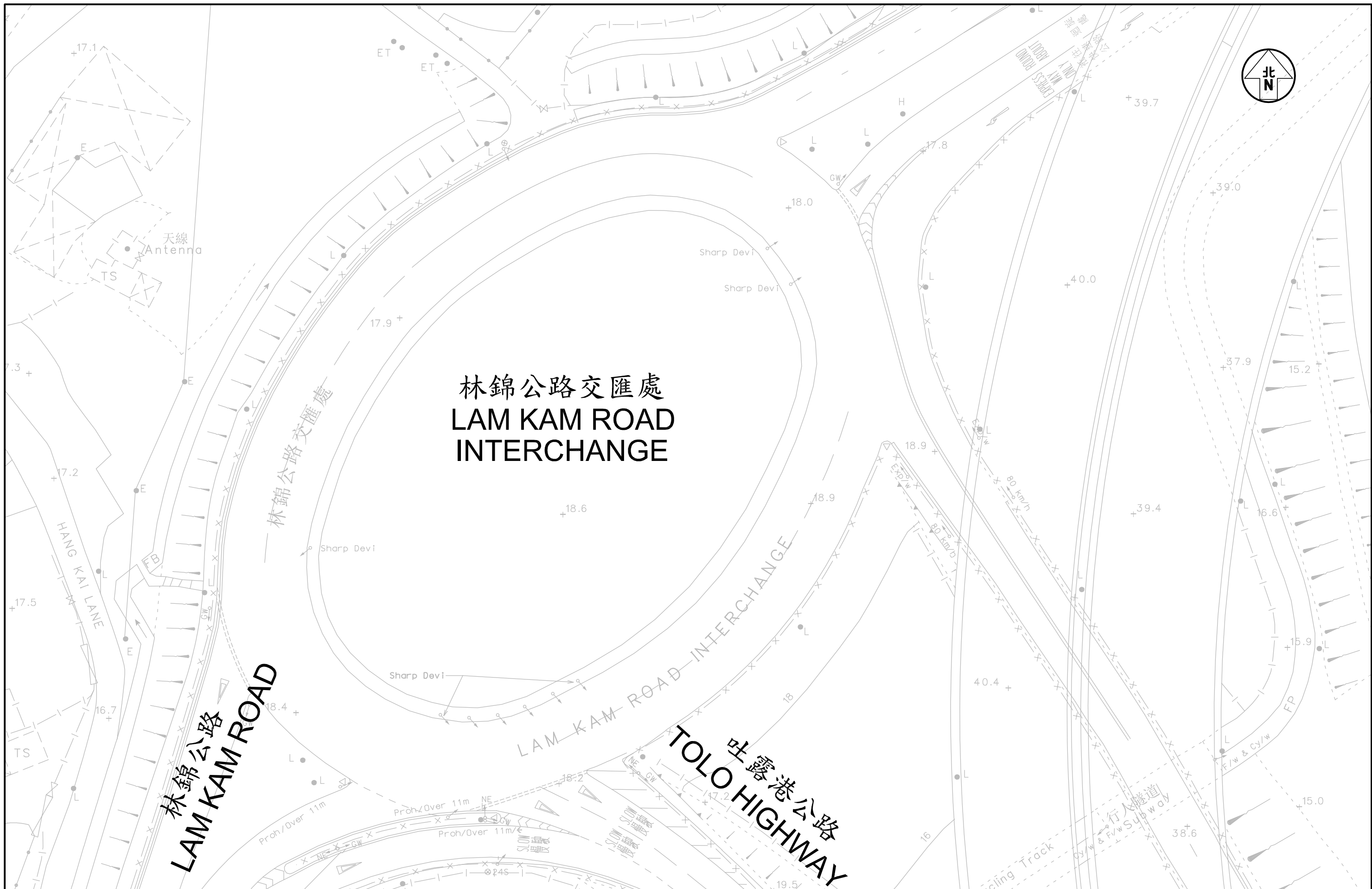
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Project Title	PROPOSED TEMPORARY PUBLIC VEHICLE PARK WITH ELECTRIC VEHICLE CHARGING FACILITIES AND FILLING OF LAND FOR A PERIOD OF 3 YEARS, VARIOUS LOTS IN DD7, KAU LUNG HANG, TAI PO, NEW TERRITORIES					J7353	Figure No. 2.3		Revision B		CKM Asia Limited 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
Figure Title	LAYOUT OF LAM KAM ROAD INTERCHANGE / TAI PO ROAD – TAI WO					J7353	Designed by L K W	Drawn by S C Y	Checked by K C		
							Scale in A3 1 : 500		Date 03 SEP 2025		

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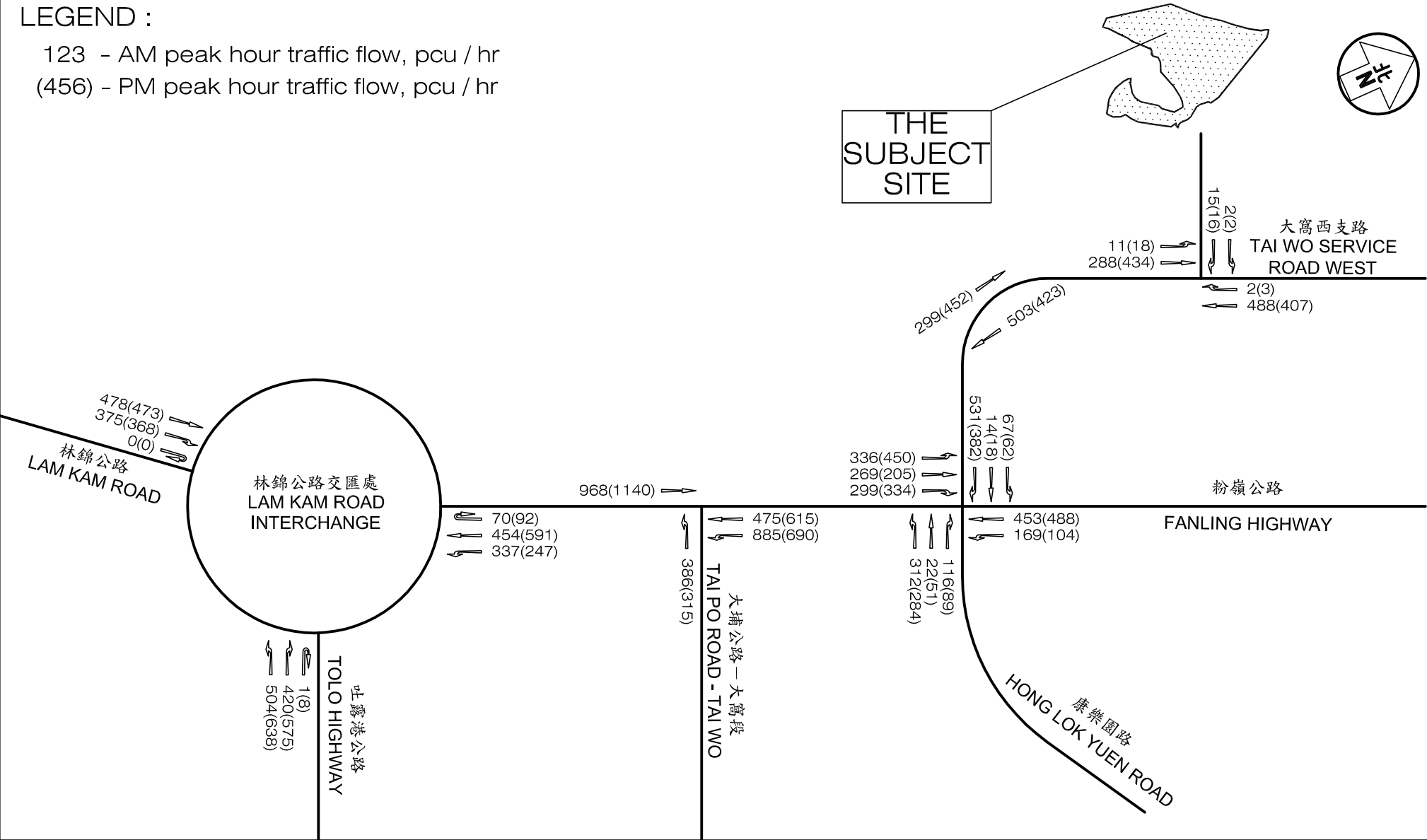


Project Title		PROPOSED TEMPORARY PUBLIC VEHICLE PARK WITH ELECTRIC VEHICLE CHARGING FACILITIES AND FILLING OF LAND FOR A PERIOD OF 3 YEARS, VARIOUS LOTS IN DD7, KAU LUNG HANG, TAI PO, NEW TERRITORIES			Figure No.	2.4	Revision	B	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road Wan Chai, Hong Kong Tel : (852) 2520 5990    Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk	
Figure Title		LAYOUT OF LAM KAM ROAD INTERCHANGE			Designed by	L K W	Drawn by	S C Y	Checked by	K C
					Scale in A3	1 : 500	Date	03 SEP 2025		

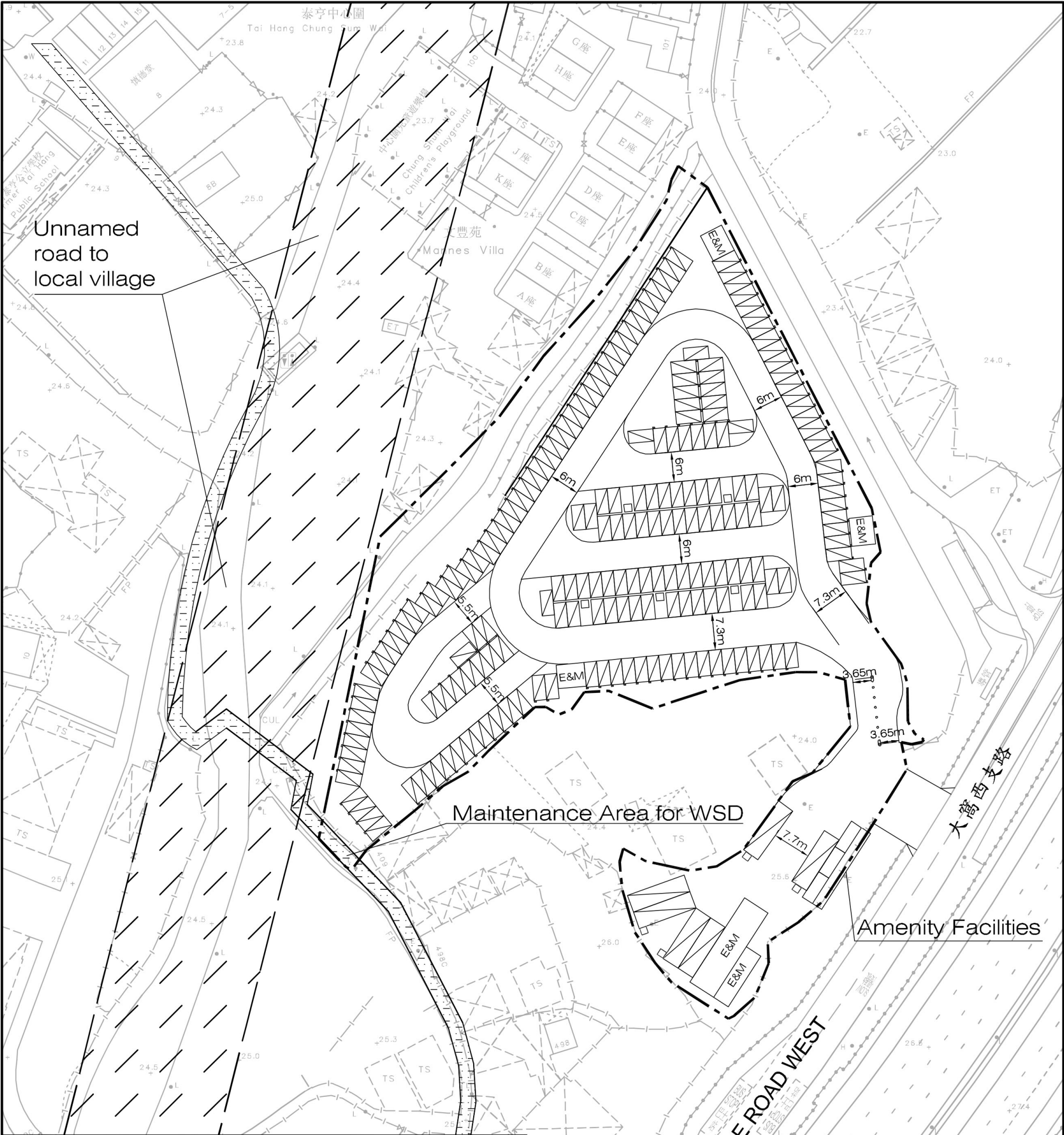
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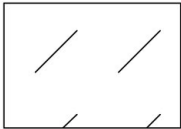
123 - AM peak hour traffic flow, pcu / hr  
(456) - PM peak hour traffic flow, pcu / hr



Project Title	PROPOSED TEMPORARY PUBLIC VEHICLE PARK WITH ELECTRIC VEHICLE CHARGING FACILITIES AND FILLING OF LAND FOR A PERIOD OF 3 YEARS, VARIOUS LOTS IN DD7, KAU LUNG HANG, TAI PO, NEW TERRITORIES					J7353	Figure No.	2.5		Revision	B	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
Figure Title	EXISTING PEAK HOUR TRAFFIC FLOWS					J7353	Designed by	Drawn by	Checked by			
							L K W	S C Y	K C			
							Scale in A4	Date				
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LEGEND :



Waterworks Reserve



Car Parking Space  
@5.0m(L) X 2.5m(W)



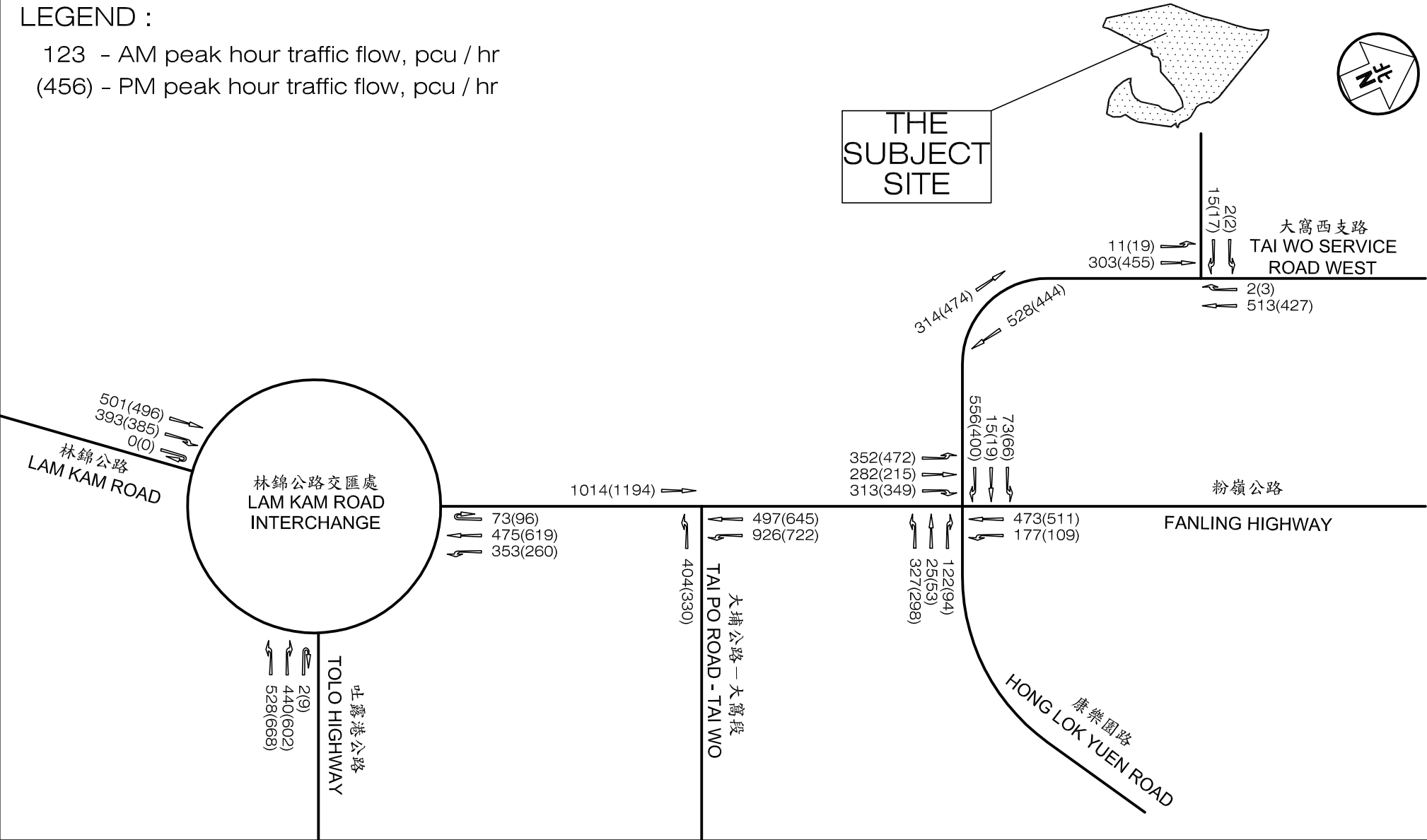
"Shared-use"  
HGV and Coach Parking Space  
@12.0m(L) X 3.5m(W)

Project Title	PROPOSED TEMPORARY PUBLIC VEHICLE PARK WITH ELECTRIC VEHICLE CHARGING FACILITIES AND FILLING OF LAND FOR A PERIOD OF 3 YEARS, VARIOUS LOTS IN DD7, KAU LUNG HANG, TAI PO, NEW TERRITORIES				Job No. J7353	Figure No. 3.1		Scale in A3 1 : 800	
					Designed by L K W	Drawn by S C Y	Checked by K C	Revision D	Date 18 DEC 2025
Figure Title					<div>CKM Asia Limited</div> <div>Traffic and Transportation Planning Consultants</div> <div>21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong</div> <div>Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk</div>				
LAYOUT PLAN OF THE PROPOSED TEMPORARY PUBLIC VEHICLE PARK									

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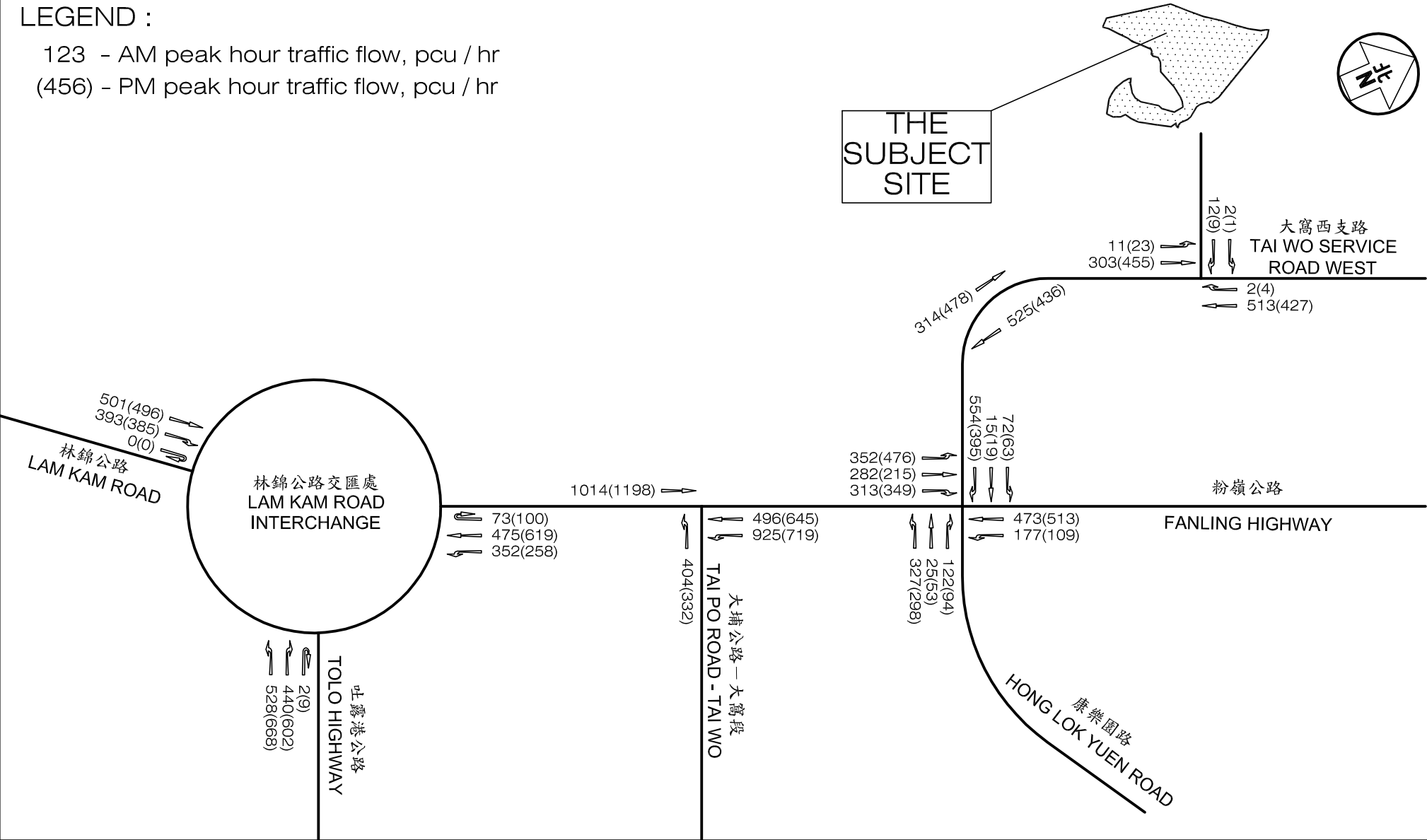
123 - AM peak hour traffic flow, pcu / hr  
(456) - PM peak hour traffic flow, pcu / hr



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Figure Title	2029 PEAK HOUR TRAFFIC FLOWS WITHOUT THE PROPOSED TEMPORARY PUBLIC VEHICLE PARK					J7353	Designed by	Drawn by		Checked by			
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							Scale in A4		Date				
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LEGEND :

123 - AM peak hour traffic flow, pcu / hr  
(456) - PM peak hour traffic flow, pcu / hr



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Figure Title	2029 PEAK HOUR TRAFFIC FLOWS WITH THE PROPOSED TEMPORARY PUBLIC VEHICLE PARK					J7353	Designed by	L K W		Drawn by	S C Y			Checked by	K C	
							Scale in A4		N.T.S.		Date			03 SEP 2025		

## **Appendix A**

### **Junction Analysis**

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# Signal Junction Analysis

Junction: Tai Wo Service Road West / Hong Lok Yuen Road

Job Number: J7353

Scenario: Existing Condition

P. 1

Design Year: 2024

Designed By: \_\_\_\_\_

Checked By: \_\_\_\_\_

Date: 8 Sep 2025

Approach <small>(Approach Name)</small>	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
Fanling Highway NB	LT	A1	1,2	3.50	25.0		100	1854	336	0.181		100	1854	450	0.243
	SA	A2	1,2	3.50				1965	269	0.137			1965	205	0.104
	RT	B1	2	3.50	30.0		100	2005	150	0.075		100	2005	168	0.084
	RT	B2	2	3.50	25.0		100	1986	149	0.075	0.075	100	1986	166	0.084
Fanling Highway SB	LT+SA	F1	1	3.50	10.0		94	1722	181	0.105	0.105	58	1808	178	0.098
	SA	F2	1	3.50				2105	221	0.105			2105	207	0.098
	SA	F3	1	3.50				2105	221	0.105			2105	207	0.098
Hong Lok Yuen Road WB	LT	C1	2,3	3.50	10.0		100	1709	147	0.086		100	1709	134	0.078
	LT	C2	2,3	3.50	15.0		100	1914	165	0.086		100	1914	150	0.078
	SA	D1	3	3.50				1965	138	0.070	0.070		1965	140	0.071
	SA+RT	E1	3	4.00	15.0		69	2016	70	0.035		29	2094	72	0.035
	RT	E2	3	4.00	15.0		100	1959	68	0.035		100	1959	68	0.035
Tai Wo Service Rd West EB	LT+SA	H1	4	4.00	10.0		24	1754	275	0.157	0.157	30	1749	207	0.118
	SA	H2	4	4.00				2155	337	0.157			2155	255	0.118
	SA+RT	G1	4	4.00	20.0		95	1881	267	0.142		91	1886	196	0.104
	RT	G2	4	4.00	15.0		100	1959	278	0.142		100	1959	204	0.104
Tai Wo Service Road West SB	SA	I1	1,2,4	4.00				2015	503	0.250			2015	423	0.210
Tai Wo Service Road West NB	SA	I2	1,2,4	4.00				2015	299	0.148			2015	452	0.224
pedestrian phase	J <sub>(P)</sub>	4			min crossing time =	7		sec GM +	7		sec FGM =	14		sec	
	K <sub>(P)</sub>	4			min crossing time =	9		sec GM +	7		sec FGM =	16		sec	
	L <sub>(P)</sub>	2,3,4			min crossing time =	7		sec GM +	12		sec FGM =	19		sec	
	M <sub>(P)</sub>	3			min crossing time =	14		sec GM +	11		sec FGM =	25		sec	
	N <sub>(P)</sub>	1,2,3			min crossing time =	7		sec GM +	9		sec FGM =	16		sec	
	O <sub>(P)</sub>	1,4			min crossing time =	7		sec GM +	10		sec FGM =	17		sec	
	P <sub>(P)</sub>	3			min crossing time =	7		sec GM +	6		sec FGM =	13		sec	

AM Traffic Flow (pcu/hr)	PM Traffic Flow (pcu/hr)	<div>S=1940+100(W-3.25)S=2080+100(W-3.25)</div> <div>S<sub>M</sub>=S÷(1+1.5f/r)S<sub>M</sub>=(S-230)÷(1+1.5f/r)</div> <table><tr><td></td><td>1+2+3+4 AM Peak</td><td>1,2+3+4 AM Peak</td><td>1+2+3+4 PM Peak</td><td>1,2+3+4 PM Peak</td></tr><tr><td>Sum y</td><td>0.407</td><td>0.408</td><td>0.372</td><td>0.432</td></tr><tr><td>L (s)</td><td>29</td><td>24</td><td>29</td><td>24</td></tr><tr><td>C (s)</td><td>114</td><td>114</td><td>100</td><td>100</td></tr><tr><td>practical y</td><td>0.671</td><td>0.711</td><td>0.639</td><td>0.684</td></tr><tr><td>R.C. (%)</td><td>65%</td><td>74%</td><td>72%</td><td>58%</td></tr></table>					1+2+3+4 AM Peak	1,2+3+4 AM Peak	1+2+3+4 PM Peak	1,2+3+4 PM Peak	Sum y	0.407	0.408	0.372	0.432	L (s)	29	24	29	24	C (s)	114	114	100	100	practical y	0.671	0.711	0.639	0.684	R.C. (%)	65%	74%	72%	58%	Note:
	1+2+3+4 AM Peak	1,2+3+4 AM Peak	1+2+3+4 PM Peak	1,2+3+4 PM Peak																																
Sum y	0.407	0.408	0.372	0.432																																
L (s)	29	24	29	24																																
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practical y	0.671	0.711	0.639	0.684																																
R.C. (%)	65%	74%	72%	58%																																
<p>Approach flows: 336 (up), 269 (right), 299 (down), 312 (left). Junction flows: 22 (up), 116 (right), 545 (down), 531 (left), 14 (down), 138 (up), 453 (left), 169 (down).</p>	<p>Approach flows: 450 (up), 205 (right), 334 (down), 284 (left). Junction flows: 452 (up), 62 (right), 400 (down), 382 (left), 18 (down), 488 (left), 104 (down).</p>																																			

1	2	3	4	5
AM	G = I/G = 6	G = I/G = 5	G = I/G = 13	G = I/G = 9
	G = I/G =	G = I/G =	G = I/G =	G = I/G =
PM	G = I/G = 6	G = I/G = 5	G = I/G = 13	G = I/G = 9
	G = I/G =	G = I/G =	G = I/G =	G = I/G =



# Signal Junction Analysis

Junction: Tai Wo Service Road West / Hong Lok Yuen Road Job Number: J7353  
 Scenario: Without the the Proposed Temporary Public Vehicle Park P. 2  
 Design Year: 2029 Designed By: \_\_\_\_\_ Checked By: \_\_\_\_\_ Date: 8 Sep 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	
Fanling Highway NB	LT	A1	1,2	3.50	25.0		100	1854	352	0.190		100	1854	472	0.255	
	SA	A2	1,2	3.50				1965	282	0.144			1965	215	0.109	
	RT	B1	2	3.50	30.0		100	2005	157	0.078		100	2005	175	0.087	
	RT	B2	2	3.50	25.0		100	1986	156	0.078	0.078	100	1986	174	0.087	0.087
Fanling Highway SB	LT+SA	F1	1	3.50	10.0		94	1722	189	0.110	0.110	59	1805	186	0.103	0.103
	SA	F2	1	3.50				2105	231	0.110			2105	217	0.103	
	SA	F3	1	3.50				2105	231	0.110			2105	217	0.103	
Hong Lok Yuen Road WB	LT	C1	2,3	3.50	10.0		100	1709	154	0.090		100	1709	141	0.082	
	LT	C2	2,3	3.50	15.0		100	1914	173	0.090		100	1914	157	0.082	
	SA	D1	3	3.50				1965	147	0.075	0.075		1965	147	0.075	0.075
	SA+RT	E1	3	4.00	15.0		67	2020	75	0.037		30	2092	76	0.036	
	RT	E2	3	4.00	15.0		100	1959	72	0.037		100	1959	71	0.036	
Tai Wo Service Road West EB	LT+SA	H1	4	4.00	10.0		25	1752	289	0.165	0.165	30	1740	217	0.125	0.125
	SA	H2	4	4.00				2155	355	0.165			2155	268	0.125	
	SA+RT	G1	4	4.00	20.0		95	1881	280	0.149		91	1886	206	0.109	
	RT	G2	4	4.00	15.0		100	1959	291	0.149		100	1959	213	0.109	
Tai Wo Service Road West SB	SA	I1	1,2,4	4.00				2015	528	0.262			2015	444	0.220	
Tai Wo Service Road West NB	SA	I2	1,2,4	4.00				2015	314	0.156			2015	474	0.235	
pedestrian phase	J <sub>(P)</sub>	4			min crossing time =	7		sec GM +	7		sec FGM =	14		sec		
	K <sub>(P)</sub>	4			min crossing time =	9		sec GM +	7		sec FGM =	16		sec		
	L <sub>(P)</sub>	2,3,4			min crossing time =	7		sec GM +	12		sec FGM =	19		sec		
	M <sub>(P)</sub>	3			min crossing time =	14		sec GM +	11		sec FGM =	25		sec		
	N <sub>(P)</sub>	1,2,3			min crossing time =	7		sec GM +	9		sec FGM =	16		sec		
	O <sub>(P)</sub>	1,4			min crossing time =	7		sec GM +	10		sec FGM =	17		sec		
	P <sub>(P)</sub>	3			min crossing time =	7		sec GM +	6		sec FGM =	13		sec		

AM Traffic Flow (pcu/hr)	PM Traffic Flow (pcu/hr)	$S=1940+100(W-3.25)$ $S_m=S \div (1+1.5f/r)$ $S=2080+100(W-3.25)$ $S_m=S \div (1+1.5f/r)$				Note:
		1+2+3+4 AM Peak	1,2+3+4 AM Peak	1+2+3+4 PM Peak	1,2+3+4 PM Peak	
Sum y		0.428	0.430	0.390	0.454	
L (s)		29	24	29	24	
C (s)		114	114	100	100	
practical y		0.671	0.711	0.639	0.684	
R.C. (%)		57%	65%	64%	51%	

1	2	3	4	5
AM	G = I/G = 6	G = I/G = 5	G = I/G = 13	G = I/G = 9
	G = I/G =	G = I/G = 5	G = I/G = 13	G = I/G = 9
PM	G = I/G = 6	G = I/G = 5	G = I/G = 13	G = I/G = 9
	G = I/G =	G = I/G = 5	G = I/G = 13	G = I/G = 9

# Signal Junction Analysis

Junction: Tai Wo Service Road West / Hong Lok Yuen Road

Job Number: J7353

Scenario: With the the Proposed Temporary Public Vehicle Park

P. 3

Design Year: 2029

Designed By: \_\_\_\_\_

Checked By: \_\_\_\_\_

Date: 8 Sep 2025

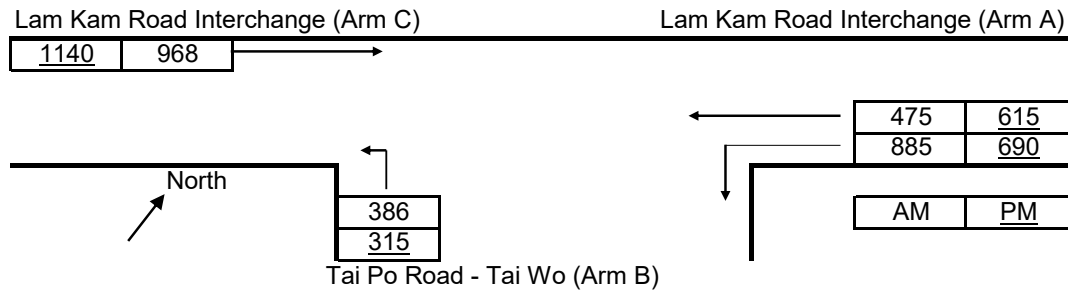
Approach	Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak					
						Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	
Fanling Highway NB	LT	A1	1,2	3.50	25.0		100	1854	352	0.190		100	1854	476	0.257	
	SA	A2	1,2	3.50				1965	282	0.144			1965	215	0.109	
	RT	B1	2	3.50	30.0		100	2005	157	0.078		100	2005	175	0.087	
	RT	B2	2	3.50	25.0		100	1986	156	0.078	0.078	100	1986	174	0.087	0.087
Fanling Highway SB	LT+SA	F1	1	3.50	10.0		94	1722	189	0.110	0.110	58	1808	187	0.103	0.103
	SA	F2	1	3.50				2105	231	0.110			2105	218	0.103	
	SA	F3	1	3.50				2105	231	0.110			2105	218	0.103	
Hong Lok Yuen Road WB	LT	C1	2,3	3.50	10.0		100	1709	154	0.090		100	1709	141	0.082	
	LT	C2	2,3	3.50	15.0		100	1914	173	0.090		100	1914	157	0.082	
	SA	D1	3	3.50				1965	147	0.075	0.075		1965	147	0.075	0.075
	SA+RT	E1	3	4.00	15.0		67	2020	75	0.037		30	2092	76	0.036	
	RT	E2	3	4.00	15.0		100	1959	72	0.037		100	1959	71	0.036	
Tai Wo Service Road West EB	LT+SA	H1	4	4.00	10.0		25	1752	287	0.164	0.164	30	1740	213	0.122	0.122
	SA	H2	4	4.00				2155	354	0.164			2155	264	0.122	
	SA+RT	G1	4	4.00	20.0		95	1881	279	0.148		91	1886	203	0.108	
	RT	G2	4	4.00	15.0		100	1959	290	0.148		100	1959	211	0.108	
Tai Wo Service Road West SB	SA	I1	1,2,4	4.00				2015	525	0.261			2015	436	0.216	
Tai Wo Service Road West NB	SA	I2	1,2,4	4.00				2015	314	0.156			2015	478	0.237	
pedestrian phase	J <sub>(P)</sub>	4			min crossing time =	7		sec GM +	7		sec FGM =	14		sec		
	K <sub>(P)</sub>	4			min crossing time =	9		sec GM +	7		sec FGM =	16		sec		
	L <sub>(P)</sub>	2,3,4			min crossing time =	7		sec GM +	12		sec FGM =	19		sec		
	M <sub>(P)</sub>	3			min crossing time =	14		sec GM +	11		sec FGM =	25		sec		
	N <sub>(P)</sub>	1,2,3			min crossing time =	7		sec GM +	9		sec FGM =	16		sec		
	O <sub>(P)</sub>	1,4			min crossing time =	7		sec GM +	10		sec FGM =	17		sec		
	P <sub>(P)</sub>	3			min crossing time =	7		sec GM +	6		sec FGM =	13		sec		

AM Traffic Flow (pcu/hr)	PM Traffic Flow (pcu/hr)	$S=1940+100(W-3.25)$ $S_m=S \div (1+1.5f/r)$ $S=2080+100(W-3.25)$ $S_m=S \div (1+1.5f/r)$				Note:
		1+2+3+4 AM Peak	1,2+3+4 AM Peak	1+2+3+4 PM Peak	1,2+3+4 PM Peak	
		Sum y	0.427	0.429	0.388	0.454
		L (s)	29	24	29	24
		C (s)	114	114	100	100
		practical y	0.671	0.711	0.639	0.684
		R.C. (%)	57%	66%	65%	51%

1	2	3	4	5
AM	G = I/G = 6	G = I/G = 5	G = I/G = 13	G = I/G = 9
	G = I/G =	G = I/G = 5	G = I/G = 13	G = I/G = 9
PM	G = I/G = 6	G = I/G = 5	G = I/G = 13	G = I/G = 9
	G = I/G =	G = I/G = 5	G = I/G = 13	G = I/G = 9

## Priority Junction Analysis

Junction:	Lam Kam Interchange / Tai Po Road – Tai Wo		
Design Year:	2024	Job Number:	J7353
Scenario:	Existing Condition	Date:	8 Sep 2025
			P. 4



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	14.40	V-rBA		w-BA		D	0.5332
	W-CR	9.00	V-lBA		w-BC	4.70	E	1.1185
			V-rBC	140	w-CB		F	0.5860
			V-rCB				Y	0.5032

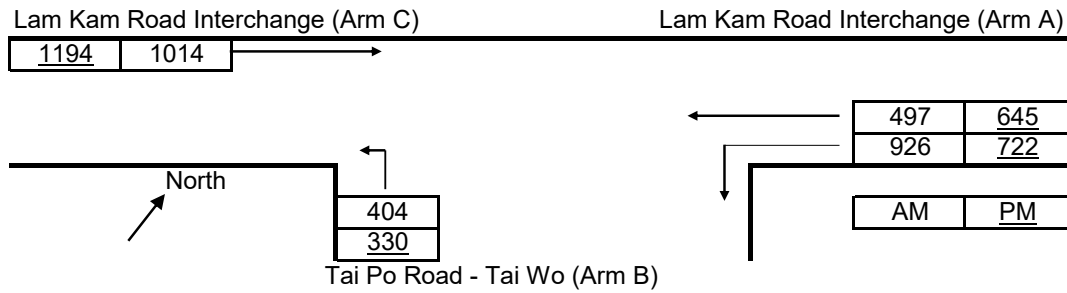
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	968	1140	Q-BA	261	245
q-CB	0	0	Q-BC	664	651
q-AB	885	690	Q-CB	291	296
q-AC	475	615	Q-BAC	664	651
q-BA	0	0			
q-BC	386	315			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.581	0.484
C-B	0.000	0.000

## Priority Junction Analysis

Junction:	Lam Kam Interchange / Tai Po Road – Tai Wo		
Design Year:	2029	Job Number:	J7353
Scenario:	Without the Proposed Temporary Public Vehicle Park		Date: 8 Sep 2025
			P. 5



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	14.40	V-rBA		w-BA		D	0.5332
	W-CR	9.00	V-lBA		w-BC	4.70	E	1.1185
			V-rBC	140	w-CB		F	0.5860
			V-rCB				Y	0.5032

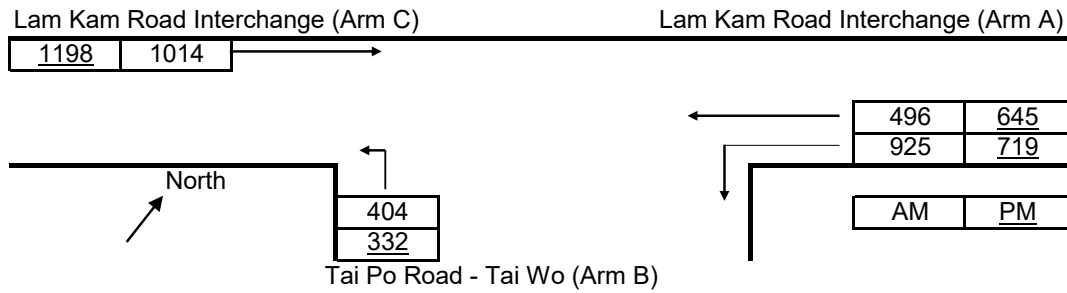
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	1014	1194	Q-BA	255	237
q-CB	0	0	Q-BC	656	643
q-AB	926	722	Q-CB	284	290
q-AC	497	645	Q-BAC	656	643
q-BA	0	0			
q-BC	404	330			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.615	0.514
C-B	0.000	0.000

## Priority Junction Analysis

Junction:	Lam Kam Interchange / Tai Po Road – Tai Wo		
Design Year:	2029	Job Number:	J7353
Scenario:	With the Proposed Temporary Public Vehicle Park		Date: 8 Sep 2025
			P. 6



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:

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

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

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

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

Geometry :	Input		Input		Input		Calculated	
	W	14.40	V-rBA		w-BA		D	0.5332
	W-CR	9.00	V-IBA		w-BC	4.70	E	1.1185
			V-rBC	140	w-CB		F	0.5860
			V-rCB				Y	0.5032

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	1014	1198	Q-BA	255	237
q-CB	0	0	Q-BC	657	643
q-AB	925	719	Q-CB	284	290
q-AC	496	645	Q-BAC	657	643
q-BA	0	0			
q-BC	404	332			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.615	0.516
C-B	0.000	0.000

# Roundabout Analysis

Location	Lam Kam Interchange		
Scenario	Existing Condition		
Design Year	2024	Job Number	J7353
		Date	08 Sep 2025

## AM Peak

Arm	To A	To B	To C	To D	To E	To F	To G	To H	Total	q <sub>c</sub>
From A	0	478	375						853	491
From B	454	70	0						524	376
From C	0	420	1						421	524
From D										
From E										
From F										
From G										
From H										
Total	454	968	376						1798	

## PM Peak

Arm	To A	To B	To C	To D	To E	To F	To G	To H	Total	q <sub>c</sub>
From A	0	473	368						841	675
From B	591	92	0						683	376
From C	0	575	8						583	683
From D										
From E										
From F										
From G										
From H										
Total	591	1140	376						2107	

## Legend

Arm	Road (in clockwise order)
A	Lam Kam Road
B	Lam Kam Road Interchange
C	Slip Road to Tolo Highway
D	
E	
F	
G	
H	

## Geometric Parameters

Arm	e (m)	v (m)	r (m)	L (m)	D (m)	∅ (°)	S
From A	7.0	6.0	100.0	14.5	78	18	0.1
From B	4.5	4.0	33.5	9.5	78	60	0.1
From C	8.5	7.0	42.3	9.5	78	22	0.3
From D							
From E							
From F							
From G							
From H							

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

Q <sub>E</sub>	Entry Capacity
q <sub>c</sub>	Circulating Flow across the Entry
K	= 1-0.00347(∅-30)-0.978[(1/r)-0.05]
F	= 303x <sub>2</sub>
f <sub>c</sub>	= 0.210t <sub>D</sub> (1+0.2x <sub>2</sub> )
t <sub>D</sub>	= 1+0.5/(1+M)
M	= exp[(D-60)/10]
x <sub>2</sub>	= 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)

Arm							Q <sub>E</sub>		Entry Flow		RFC	
	x <sub>2</sub>	M	t <sub>D</sub>	K	F	f <sub>c</sub>	AM	PM	AM	PM	AM	PM
From A	6.819	6.050	1.071	1.081	2066	0.532	1951	1845	853	841	0.437	0.456
From B	4.428	6.050	1.071	0.916	1342	0.424	1082	1082	524	683	0.484	0.631
From C	7.997	6.050	1.071	1.055	2423	0.585	2234	2136	421	583	0.188	0.273
From D												
From E												
From F												
From G												
From H												

# Roundabout Analysis

Location	Lam Kam Interchange						
Scenario	Without the Proposed Temporary Public Vehicle Park						Page 8
Design Year	2028	Job Number	J7353	Date	08 Sep 2025		

## AM Peak

Arm	To A	To B	To C	To D	To E	To F	To G	To H	Total	q <sub>c</sub>
From A	0	501	393						894	515
From B	475	73	0						548	395
From C	0	440	2						442	548
From D										
From E										
From F										
From G										
From H										
Total	475	1014	395						1884	

## PM Peak

Arm	To A	To B	To C	To D	To E	To F	To G	To H	Total	q <sub>c</sub>
From A	0	496	385						881	707
From B	619	96	0						715	394
From C	0	602	9						611	715
From D										
From E										
From F										
From G										
From H										
Total	619	1194	394						2207	

## Legend

Arm	Road (in clockwise order)
A	Lam Kam Road
B	Lam Kam Road Interchange
C	Slip Road to Tolo Highway
D	
E	
F	
G	
H	

## Geometric Parameters

Arm	e (m)	v (m)	r (m)	L (m)	D (m)	∅ (°)	S
From A	7.0	6.0	100.0	14.5	78	18	0.1
From B	4.5	4.0	33.5	9.5	78	60	0.1
From C	8.5	7.0	42.3	9.5	78	22	0.3
From D							
From E							
From F							
From G							
From H							

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

Q <sub>E</sub>	Entry Capacity
q <sub>c</sub>	Circulating Flow across the Entry
K	= 1-0.00347(∅-30)-0.978[(1/r)-0.05]
F	= 303x <sub>2</sub>
f <sub>c</sub>	= 0.210t <sub>D</sub> (1+0.2x <sub>2</sub> )
t <sub>D</sub>	= 1+0.5/(1+M)
M	= exp[(D-60)/10]
x <sub>2</sub>	= 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)

Arm							Q <sub>E</sub>		Entry Flow		RFC	
	x <sub>2</sub>	M	t <sub>D</sub>	K	F	f <sub>c</sub>	AM	PM	AM	PM	AM	PM
From A	6.819	6.050	1.071	1.081	2066	0.532	1937	1827	894	881	0.461	0.482
From B	4.428	6.050	1.071	0.916	1342	0.424	1075	1075	548	715	0.510	0.665
From C	7.997	6.050	1.071	1.055	2423	0.585	2219	2116	442	611	0.199	0.289
From D												
From E												
From F												
From G												
From H												

# Roundabout Analysis

Location	Lam Kam Interchange						
Scenario	With the Proposed Temporary Public Vehicle Park						
Design Year	2028	Job Number	J7353	Date	08 Sep 2025		

## AM Peak

Arm	To A	To B	To C	To D	To E	To F	To G	To H	Total	q <sub>c</sub>
From A	0	501	393						894	515
From B	475	73	0						548	395
From C	0	440	2						442	548
From D										
From E										
From F										
From G										
From H										
Total	475	1014	395						1884	

## PM Peak

Arm	To A	To B	To C	To D	To E	To F	To G	To H	Total	q <sub>c</sub>
From A	0	496	385						881	711
From B	619	100	0						719	394
From C	0	602	9						611	719
From D										
From E										
From F										
From G										
From H										
Total	619	1198	394						2211	

## Legend

Arm	Road (in clockwise order)
A	Lam Kam Road
B	Lam Kam Road Interchange
C	Slip Road to Tolo Highway
D	
E	
F	
G	
H	

## Geometric Parameters

Arm	e (m)	v (m)	r (m)	L (m)	D (m)	∅ (°)	S
From A	7.0	6.0	100.0	14.5	78	18	0.1
From B	4.5	4.0	33.5	9.5	78	60	0.1
From C	8.5	7.0	42.3	9.5	78	22	0.3
From D							
From E							
From F							
From G							
From H							

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

Q <sub>E</sub>	Entry Capacity
q <sub>c</sub>	Circulating Flow across the Entry
K	= 1-0.00347(∅-30)-0.978[(1/r)-0.05]
F	= 303x <sub>2</sub>
f <sub>c</sub>	= 0.210t <sub>D</sub> (1+0.2x <sub>2</sub> )
t <sub>D</sub>	= 1+0.5/(1+M)
M	= exp[(D-60)/10]
x <sub>2</sub>	= 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)

Arm							Q <sub>E</sub>		Entry Flow		RFC	
	x <sub>2</sub>	M	t <sub>D</sub>	K	F	f <sub>c</sub>	AM	PM	AM	PM	AM	PM
From A	6.819	6.050	1.071	1.081	2066	0.532	1937	1825	894	881	0.461	0.483
From B	4.428	6.050	1.071	0.916	1342	0.424	1075	1075	548	719	0.510	0.669
From C	7.997	6.050	1.071	1.055	2423	0.585	2219	2113	442	611	0.199	0.289
From D												
From E												
From F												
From G												
From H												



## **Appendix B**

### **Swept Path Analysis**

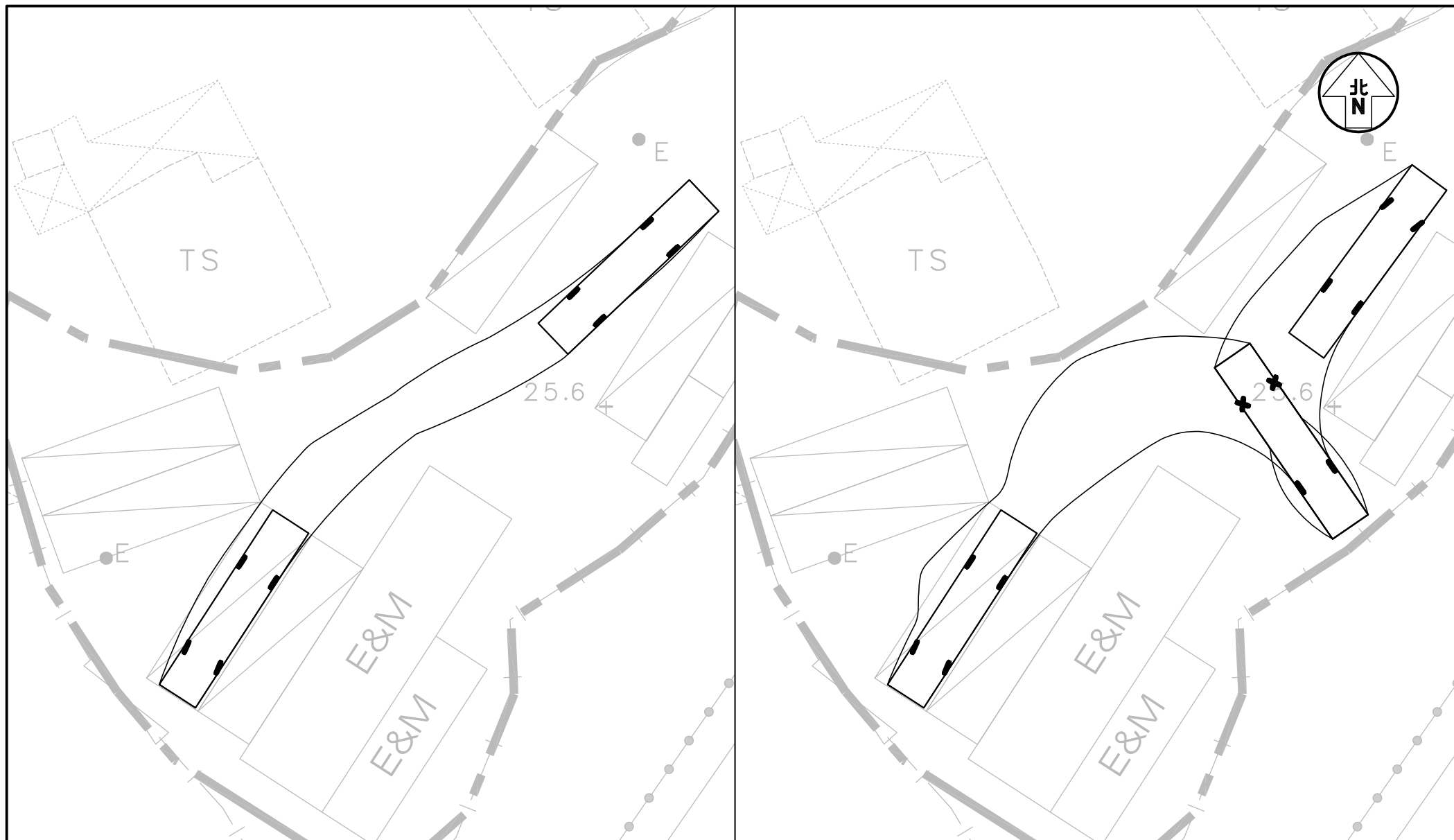
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Project Title		PROPOSED TEMPORARY PUBLIC VEHICLE PARK WITH ELECTRIC VEHICLE CHARGING FACILITIES AND FILLING OF LAND FOR A PERIOD OF 3 YEARS, VARIOUS LOTS IN DD7, KAU LUNG HANG, TAI PO, NEW TERRITORIES			Figure No.		Revision		CKM Asia Limited Traffic 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			
Figure Title		SWEPT PATH OF COACH  ENTERING & LEAVING THE "SHARED-USE" HGV AND COACH PARKING SPACE			J7353		SP1				D	
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							L K W		S C Y		K C	
							Scale in A4		Date			
							1 : 300		18 DEC 2025			



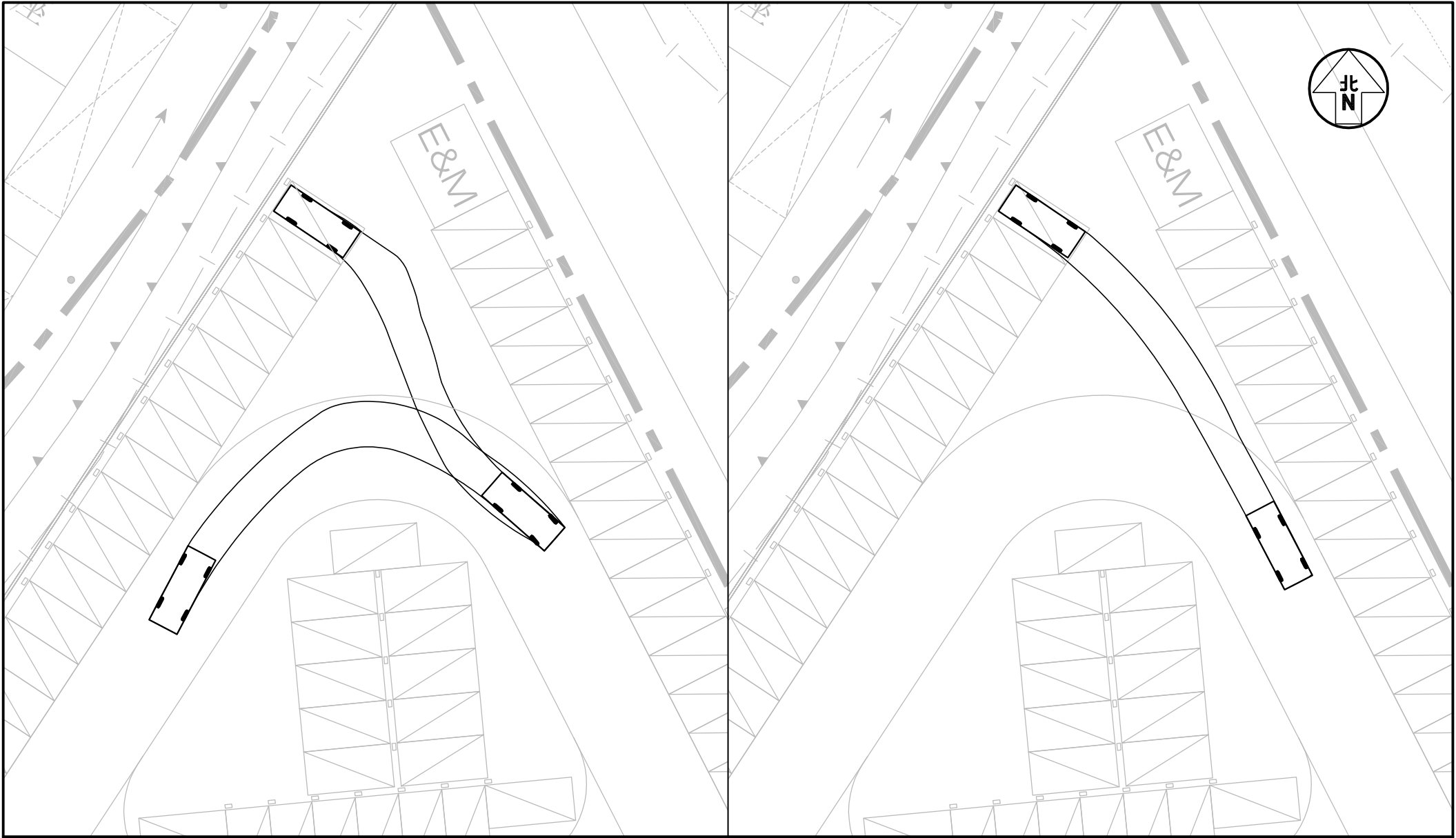
Project Title		PROPOSED TEMPORARY PUBLIC VEHICLE PARK WITH ELECTRIC VEHICLE CHARGING FACILITIES AND FILLING OF LAND FOR A PERIOD OF 3 YEARS, VARIOUS LOTS IN DD7, KAU LUNG HANG, TAI PO, NEW TERRITORIES				Figure No.		Revision		CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990    Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk			
Figure Title		SWEPT PATH OF COACH  ENTERING & LEAVING THE "SHARED-USE" HGV AND COACH PARKING SPACE				J7353		SP2				D	
						Designed by		Drawn by				Checked by	
						L K W		S C Y		K C			
						Scale in A4		Date					
						1 : 300		18 DEC 2025					



Project Title	PROPOSED TEMPORARY PUBLIC VEHICLE PARK WITH ELECTRIC VEHICLE CHARGING FACILITIES AND FILLING OF LAND FOR A PERIOD OF 3 YEARS, VARIOUS LOTS IN DD7, KAU LUNG HANG, TAI PO, NEW TERRITORIES	Figure No.		SP3		Revision		D		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
Figure Title	SWEPT PATH OF COACH ENTERING & LEAVING THE "SHARED-USE" HGV AND COACH PARKING SPACE	Designed by		Drawn by		Checked by		J7353		
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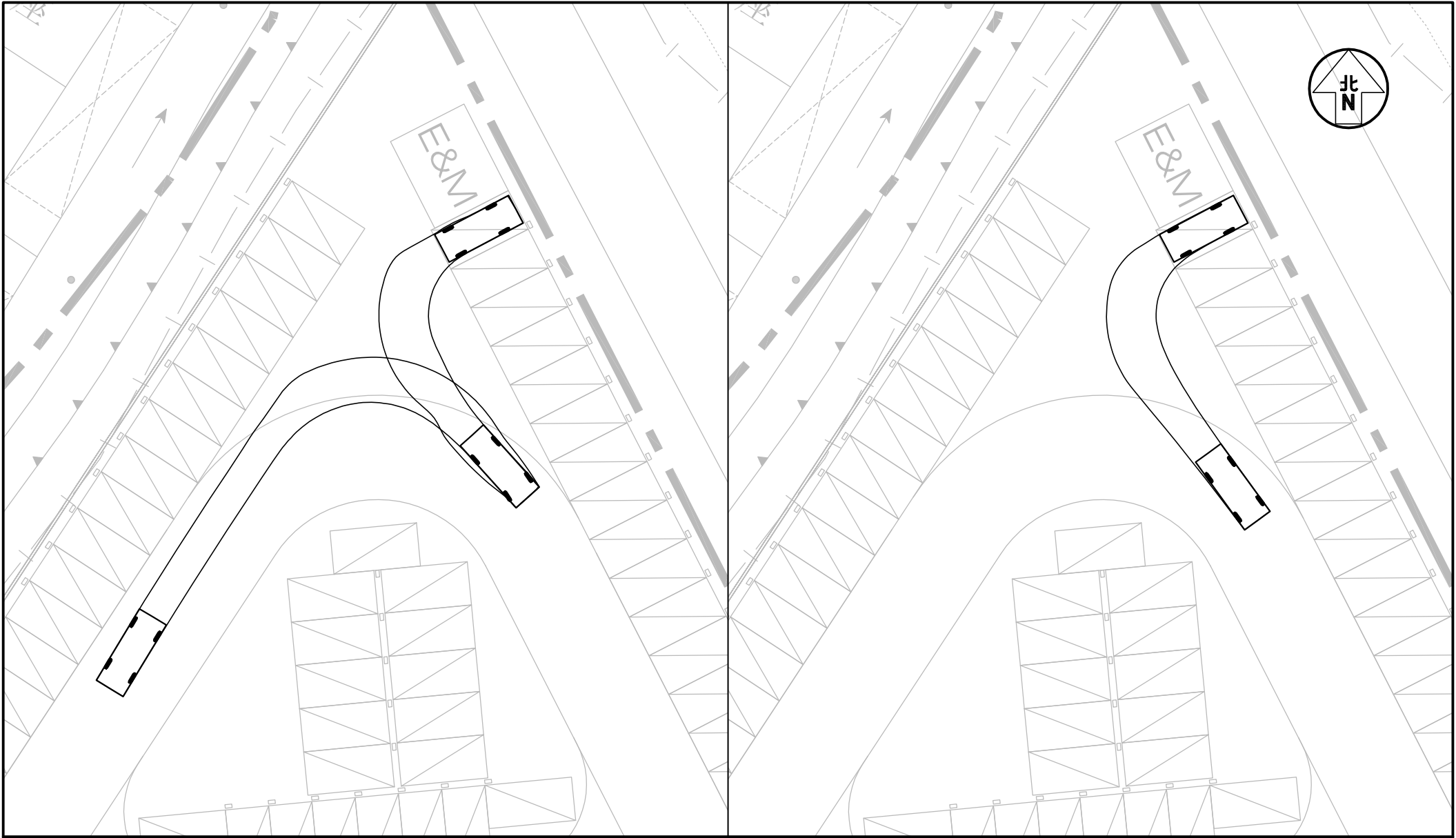


Project Title		PROPOSED TEMPORARY PUBLIC VEHICLE PARK WITH ELECTRIC VEHICLE CHARGING FACILITIES AND FILLING OF LAND FOR A PERIOD OF 3 YEARS, VARIOUS LOTS IN DD7, KAU LUNG HANG, TAI PO, NEW TERRITORIES			Figure No.		Revision		CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990    Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk	
		J7353			SP4		D			
Figure Title		SWEPT PATH OF COACH ENTERING & LEAVING THE "SHARED-USE" HGV AND COACH PARKING SPACE			Designed by		Drawn by			Checked by
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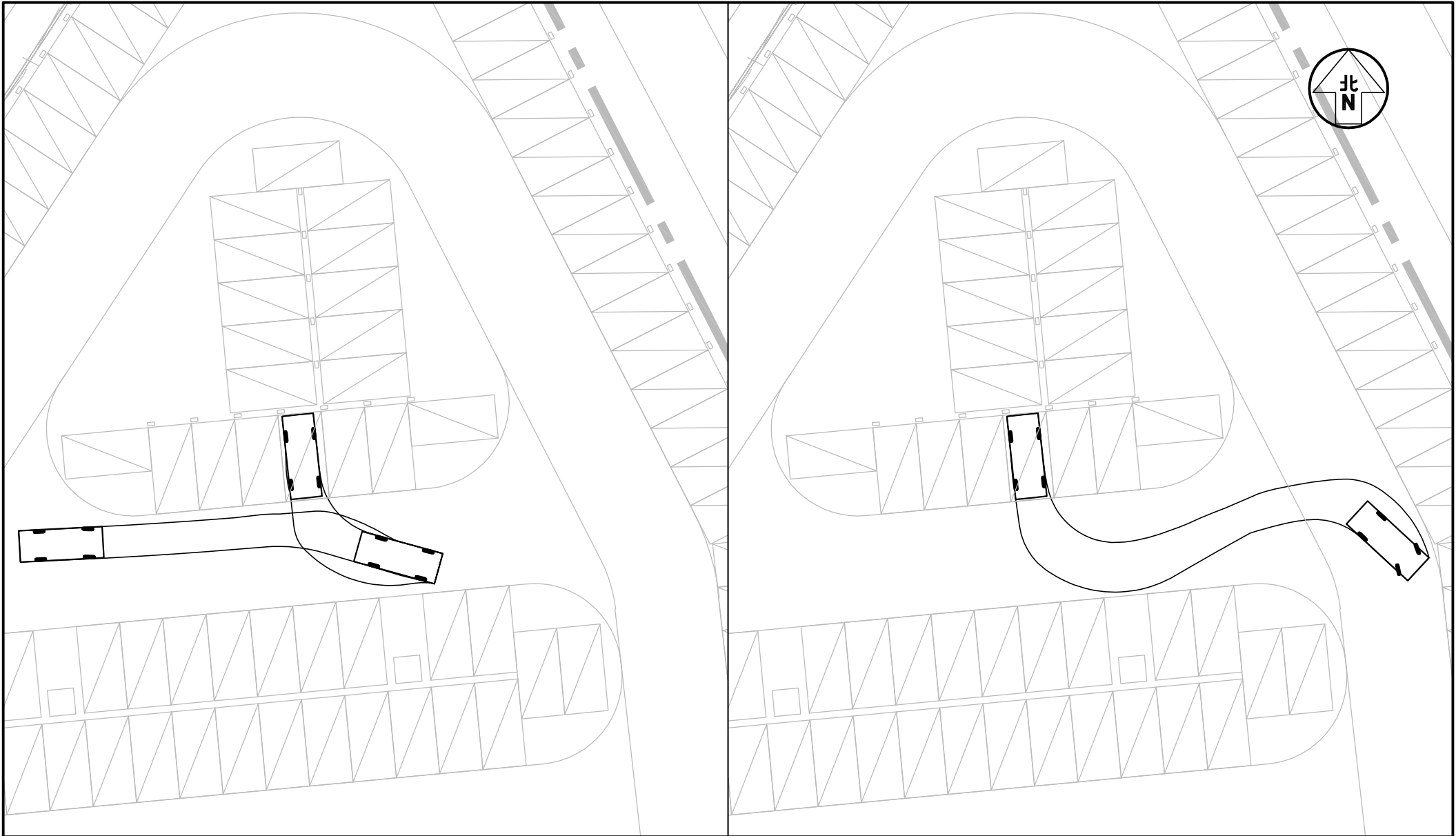
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Figure Title		SWEPT PATH OF PRIVATE CAR ENTERING & LEAVING THE CAR PARKING SPACE				Designed by L K W		Drawn by S C Y		Checked by K C	
						Scale in A4 1 : 300		Date 18 DEC 2025		Traffic and Transportation Planning Consultants 21st Floor, Methodist 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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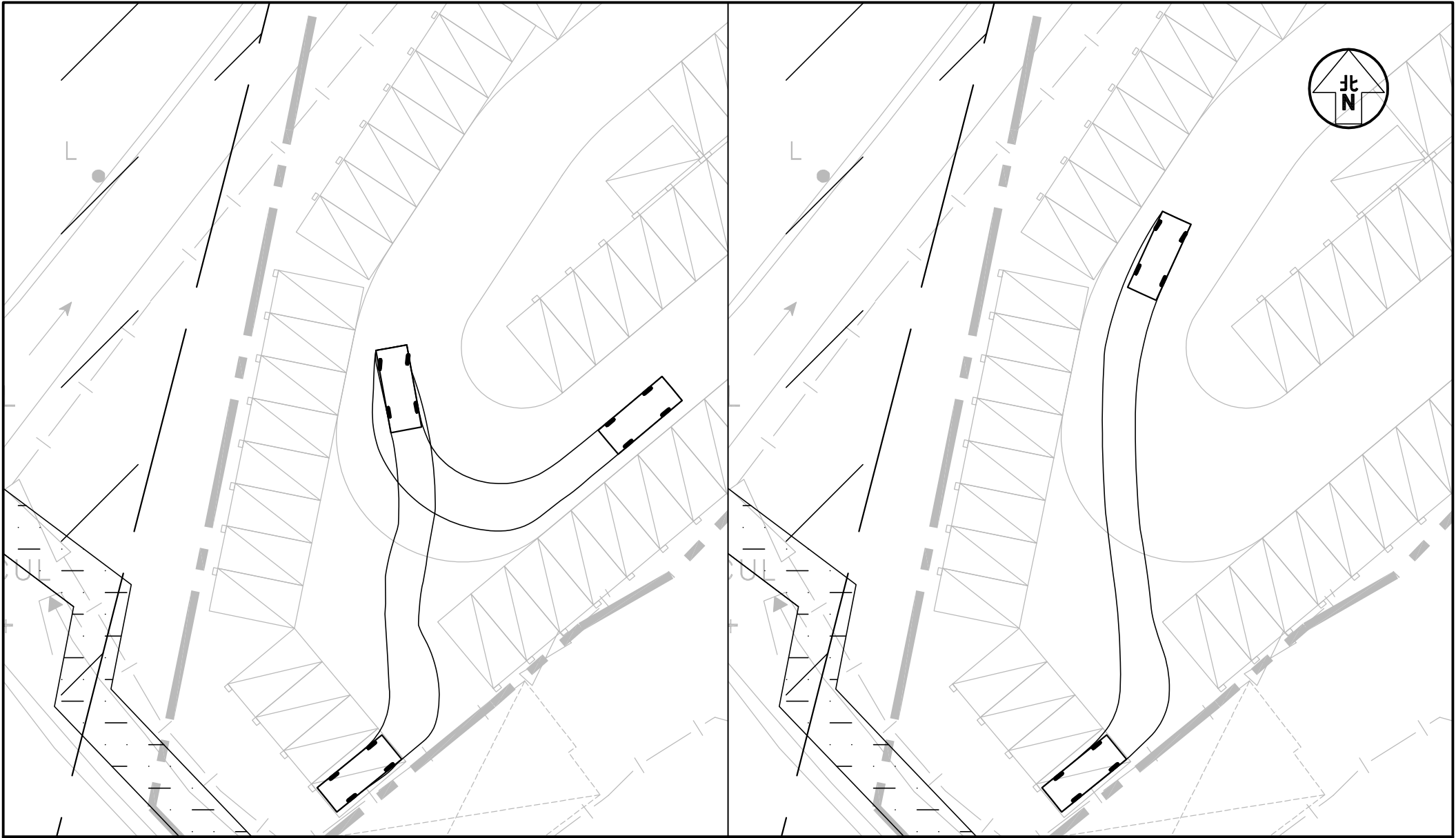
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Figure Title		SWEPT PATH OF PRIVATE CAR ENTERING & LEAVING THE CAR PARKING SPACE				Designed by L K W		Drawn by S C Y		Checked by K C	
						Scale in A4 1 : 300		Date 18 DEC 2025		Traffic and Transportation Planning Consultants 21st Floor, Methodist 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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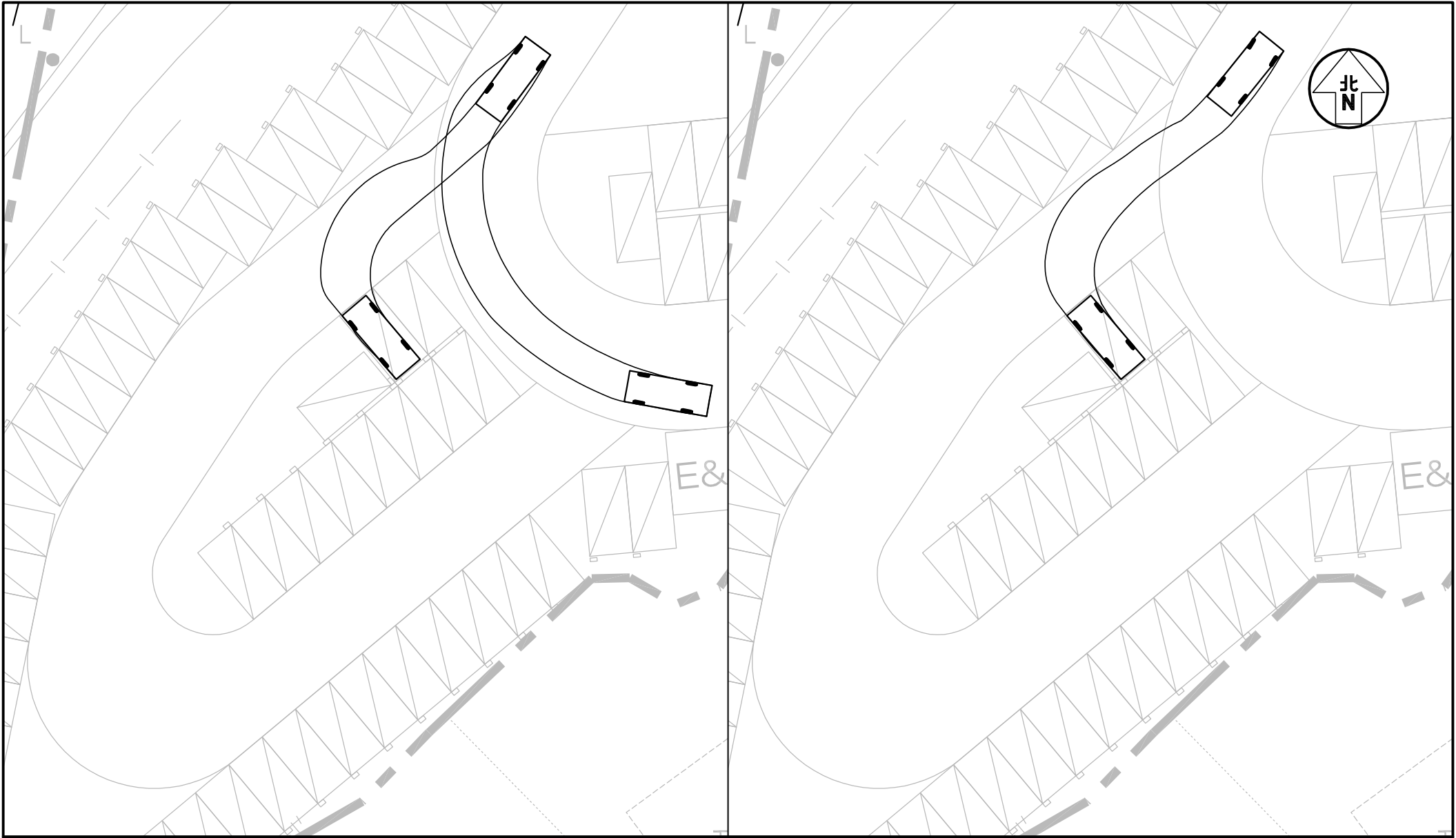
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Figure Title	SWEPT PATH OF PRIVATE CAR ENTERING & LEAVING THE CAR PARKING SPACE						Designed by L K W		Drawn by S C Y			Checked by K C	
							Scale in A4 1 : 300		Date 18 DEC 2025				





Project Title	PROPOSED TEMPORARY PUBLIC VEHICLE PARK WITH ELECTRIC VEHICLE CHARGING FACILITIES AND FILLING OF LAND FOR A PERIOD OF 3 YEARS, VARIOUS LOTS IN DD7, KAU LUNG HANG, TAI PO, NEW TERRITORIES	Figure No. <b>SP8</b>	Revision <b>D</b>
Figure Title	<b>SWEPT PATH OF PRIVATE CAR ENTERING &amp; LEAVING THE CAR PARKING SPACE</b>	Designed by <b>L K W</b> Scale in A4 <b>1 : 300</b>	Checked by <b>K C</b> Date <b>18 DEC 2025</b>
		<b>CKM Asia Limited</b> 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 TEMPORARY PUBLIC VEHICLE PARK WITH ELECTRIC VEHICLE CHARGING FACILITIES AND FILLING OF LAND FOR A PERIOD OF 3 YEARS, VARIOUS LOTS IN DD7, KAU LUNG HANG, TAI PO, NEW TERRITORIES	Figure No. <b>SP9</b>	Revision <b>D</b>
Figure Title	<b>SWEPT PATH OF PRIVATE CAR ENTERING &amp; LEAVING THE CAR PARKING SPACE</b>	Designed by <b>L K W</b> Scale in A4 <b>1 : 300</b>	Checked by <b>K C</b> Date <b>18 DEC 2025</b>

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