ARUP

Appendix C

Traffic Impact Assessment

DOCUMENT STATUS CONTROL RECORD

Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung

Traffic Impact Assessment Report

Originating Organisation : LLA Consultancy Limited Unit 610, 6/F, Island Place Tower, 510 King's Road, North Point, Hong Kong	Prepared by: SKL	SKL	Date: 14 August 2025
	Approved by: SLN		Date: 14 August 2025
	Revision No.: -		Date of Issue: 14 August 2025

1 INTRODUCTION

1.1 Background

1.1.1 The Applicant intends to develop the Site into a residential development at various lots in D.D.210, Pak Wai, Sai Kung ("the Site").

1.1.2 The Site is currently zoned as "Green Belt" ("GB") and "Road" under the Draft Ho Chung Outline Zoning Plan (OZP) No. S/SK-HC/12. The Applicant proposes amendments to the Draft Ho Chung Outline Zoning Plan (OZP) No. S/SK-HC/12 by rezoning the Application Site from "Green Belt" ("GB") and area shown as "Road" to "Residential (Group C)5" ("R(C)5"), with a maximum plot ratio of 0.6 and maximum building heights (BH) of 4 storeys (excluding basements) to facilitate the proposed residential development.

1.1.3 LLA Consultancy Limited was commissioned to carry out a traffic impact assessment study for the proposal to assess the potential traffic impact on its adjacent road network, in support of the planning application. This report presents the finding of the study.

1.2 Objectives

1.2.1 The objectives of the traffic impact assessment study are as follows:

- to review the existing traffic conditions in the surrounding road network;
- to estimate the potential traffic generation due to the proposed development;
- to assess the future traffic situation in the surrounding road network;
- to appraise the potential traffic impact of the proposed development; and
- to recommend the transport facilities provisions for the proposed development.

2 THE PROPOSED DEVELOPMENT

2.1 The Site

2.1.1 As shown in **Figure 2.1**, the Site is located near the J/O Hiram's Highway/Hing Keng Shek Road. The Site area is about 12,692 m^2.

2.2 Development Schedule

2.2.1 The Site will comprise of 4 residential towers with 120 residential units. The development parameters are summarized in **Table 2.1**.

Table 2.1 Proposed Development Schedule

Item	Parameter
Site Area	About 12,692 m^2
Plot Ratio	About 0.6
Total GFA	About 7,615.2 m^2
Domestic GFA	About 7,615.2 m^2
Number of Residential Blocks	4 blocks
Number of Residential Units	120 units
Estimated Residential Population	360

3 EXISTING TRAFFIC SITUATION

3.1 Existing Traffic Conditions

3.1.1 Hing Keng Shek Road serves as a local road connecting to Hiram's Highway. It is a single carriageway with few accesses for the low-density developments and villages nearby.

3.1.2 Hiram's Highway is a major road in the eastern part of New Territories connecting Sai Kung with Clear Water Bay Road. The section of Hiram's Highway between Clear Water Bay Road and Po Tung Road carried an AADT of 24,460 vehicles in 2021.

3.2 Existing Junction Capacity Assessment

3.2.1 In order to assess the existing traffic conditions, a traffic count survey was carried out at the following locations in the vicinity of the Site on 1 December 2023 (Friday) during 07:30 – 09:30 and 17:30 – 19:30 and 2 December 2023 (Saturday) form 12:00 to 19:00. The locations of the surveyed junctions are presented in **Figure 3.1**.

- Hiram's Highway/Hing Keng Shek Road Roundabout
- Hiram's Highway/Ho Chung Road

3.2.2 The identified weekday AM, weekday PM and weekend peak hours were 08:00 – 09:00, 17:30 – 18:30 and 17:00 – 18:00, respectively and the surveyed traffic flows are presented in **Figure 3.2**.

3.3 Existing Junction Capacity Assessment

3.3.1 Based on the existing traffic flows, the performances of the key junctions during the peak hour were assessed. The results are summarized and presented in **Table 3.1** and the detailed junction capacity calculation sheets are attached in **Appendix A**.

Table 3.1 Existing Junction Performance

No.	Junction Location	Type/ Capacity Index(1)	Junction Performance		
			Weekday AM Peak	Weekday PM Peak	Weekend Peak
J1	Hiram's Highway/Hing Keng Shek Road Roundabout	Roundabout /DFC	0.52	0.43	0.53
J2	Hiram's Highway/Ho Chung Road	Signalized/RC	115%	92%	70%

Note: (1) RC = Reserve Capacity; DFC = Design Flow to Capacity ratio

3.4 Existing Link Capacity Assessment

3.4.1 The Volume to Capacity (V/C) Ratios of Hiram's Highway were assessed and the results are presented in **Table 3.2**.

Table 3.2 Link Capacity Assessment

Direction	Bound	Capacity (pcu/hr) (1)	Traffic Flow (pcu/hr)			V/C Ratio		
			AM	PM	WN	AM	PM	WN
Hiram's Highway(2)	EB	1,020	801	997	1,055	0.79	0.98	1.03
	WB	1,020	1,054	872	1,082	1.03	0.85	1.06
Hiram's Highway(3)	NB	3,120	817	1,003	1,077	0.26	0.32	0.35
	SB	3,120	1,086	853	1,088	0.35	0.27	0.35
Hiram's Highway(4)	NB	3,120	783	1,073	1,226	0.25	0.34	0.39
	SB	3,120	1,092	957	1,124	0.35	0.31	0.36
Hiram's Highway(5)	NB	3,120	840	1,162	1,329	0.27	0.37	0.43
	SB	3,120	1,219	1,039	1,214	0.39	0.33	0.39
Hing Keng Shek Road	2-way	120	70	56	96	0.58	0.47	0.80

Notes: AM – Weekday AM Peak Hour; PM – Weekday PM Peak Hour; WN – Weekend Peak Hour
(1) Capacity refers to TPDM Vol.2 Ch. 2.4. A factor of 1.2 (based on the traffic count survey result) is adopted to convert the capacity from veh/hr to pcu/hr.
(2) The section between Hing Keng Shek Road and Pak Sha Wan Street.
(3) The section between access of Luk Cheung Road and Hing Keng Shek Road.
(4) The section between Ho Chung Road and Luk Mei Tsuen Road.
(5) The section between Nam Pin Wai Road and Ho Chung Road.

3.4.2 As shown in **Table 3.2**, the concerned road sections are operating with spare capacity during weekday AM, weekday PM and weekend peak hours, except the section of Hiram's Highway between Hing Keng Shek Road and Pak Sha Wan Street which is operating at its capacity.

3.5 Public Transport Services

3.5.1 At present, there are few franchised bus and green minibus routes travelling along Hiram's Highway and the details of these routes. The nearby bus stops of the Site are listed out in **Table 3.3** and shown in **Figure 3.3**, respectively.

Table 3.3 Existing Public Transport Services

Mode	Route No.	Terminating Points	Frequency (min)
Bus	92	Sai Kung – Diamond Hill Station	15 – 30
	96R(1)	Wong Shek Pier – Diamond Hill Station	25 – 30
	292P	Sai Kung – Kwun Tong (Yue Man Square)	07:30
	792M	Sai Kung – Tseung Kwan O Station	15 – 30
GMB	1	Sai Kung – Kowloon Bay (Telford Gardens)	8 – 20
	1A	Sai Kung – Diamond Hill (Choi Hung Road) Public Transport Interchange	4
	1S(2)	Sai Kung – Diamond Hill (Choi Hung Road) Public Transport Interchange	10 – 15
	2	Sai Kung – Ho Chung	15 – 30
	12	Sai Kung – Po Lam	10 – 15

Mode	Route No.	Terminating Points	Frequency (min)
	101M	Sai Kung – Hang Hau Station (via Sai Kung North Public Transport Interchange)	3 – 30

Note: (1) Service on Saturdays, Sundays and Holidays.
(2) Overnight Service.

3.5.2 An on-site observation was carried out to identify the occupancy of the franchised bus and green minibus services in the AM peak hour and the results are summarized in **Table 3.4**.

Table 3.4 Occupancy of Existing Franchised Bus and Green Minibus Services during AM Peak Hour

Route No.	Observed Vehicular Trips	Passenger Capacity (1)	Passengers on Bus upon Arrival	Total No. of passengers		Passengers on Bus upon Leave	Occupancy
				Boarding	Alighting		
		[a]	[b]	[c]	[d]	[e] = [b]+[c]-[d]	[f] = [e] / [a]
Sai Kung Bound							
Bus 92	3	360	80	0	4	76	21%
Bus 792M	3	360	50	0	0	50	14%
GMB 1	7	112	56	2	0	58	52%
GMB 1A	22	352	229	3	5	227	64%
GMB 2	3	48	23	0	0	23	48%
GMB 12	4	64	20	0	0	20	31%
GMB 101M	20	320	178	0	2	176	55%
Total	**62**	**1616**	**636**	**5**	**11**	**630**	**39%**
Kowloon Bound							
Bus 92	2	240	90	2	1	91	38%
Bus 792M	2	240	90	5	0	95	40%
GMB 1	4	64	64	0	0	64	100%
GMB 1A	23	368	361	2	0	363	99%
GMB 2	2	32	16	0	0	16	50%
GMB 12	2	32	32	0	0	32	100%
GMB 101M	17	272	272	0	0	272	100%
Total	**52**	**1248**	**925**	**9**	**1**	**933**	**75%**

Note: (1) Assume the capacity of each franchised bus and green minibus is 120 pax and 16 pax, respectively.

4 FUTURE TRAFFIC SITUATION

4.1 Design Year

4.1.1 The completion year of the proposed development is expected to be 2031. As a result, the design year of the traffic impact assessment should be three years after the completion year, i.e., 2034.

4.2 Traffic Forecast

ATC Historical Data

4.2.1 Reference was made to the 2017 to 2021 Annual Traffic Census Reports, published by the Transport Department, to determine the traffic growth. The traffic data recorded at the counting stations in the vicinity of the Development Site is shown in **Table 4.1**.

Table 4.1 Annual Traffic Census Data

Stn. No.	Road Section			AADT(1)					Average Growth%
	Road	From	To	2017	2018	2019	2020	2021	
5017	Clear Water Bay Rd	On Sau Rd	Hiram's Highway	26,910	28,450 (5.7%)	28,980 (1.9%)	28,900 (-0.3%)	29,100 (0.7%)	2.0%
5466	Clear Water Bay Rd	Hang Hau Rd	Hiram's Highway	18,650	18,950 (1.6%)	20,240 (6.8%)	19,110 (-5.6%)	20,020 (4.8%)	1.8%
6055	Hiram's Highway	Clear Water Bay Rd	Po Tung Rd	24,050	24,450 (1.7%)	24,280 (-0.7%)	23,360 (-3.8%)	24,460 (4.7%)	0.4%
Total				**69,610**	**71,850 (3.2%)**	**73,500 (2.3%)**	**71,370 (-2.9%)**	**73,580 (3.1%)**	**1.4%**

Note: (1) Figures in bracket indicated the % increase between two years.

4.2.2 **Table 4.1** shows that the AADT at the concerned ATC stations has an overall annual growth of +1.4% in between the years 2017 to 2021.

Territorial Population and Employment Data Matrix (TPEDM) Projection Data

4.2.3 Reference was also made to the 2019–based TPEDM published by the Planning Department. The population and employment data of year 2019 and 2031 in the Southeast New Territories (Other Area) are summarized in **Table 4.2**.

Table 4.2 Population and Employment Data in Southeast New Territories (Other Area)

Year	2019	2026	2031
Population	68,900	65,800	59,750
Employment	27,250	27,750	28,100
Total	96,150	93,550	87,850
Average Annual Growth %		**-0.4% (2019 to 2026)**	**-1.2% (2026 to 2031)**

4.2.4 As shown in **Table 4.2**, the projected average annual growth rates of the population and employment total number under the TPEDM in Southeast New Territories (Other Area) are negative 0.4% and negative 1.2% between the years 2019 – 2026 and 2026 – 2031, respectively. Having considered the rates derived from ATC and TPEDM data, to be conservative, the larger growth rate of +1.4% will be adopted for the subsequent traffic forecast.

4.3 Traffic Generation of the Proposed Development

4.3.1 Reference was also made to the latest set of traffic generation and attraction rates documented in Chapter 3 "Transport Considerations of Town Plans" of the TPDM, for the estimation of the traffic generated by the proposed development. The traffic generation and attraction numbers were shown in **Table 4.3**

Table 4.3 Development Traffic Generation

Proposed Use	Unit / Content	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekend Peak Hour (1)		
		Gen.	Att.	Total	Gen.	Att.	Total	Gen.	Att.	Total
Mean Trip rates from TPDM										
Residential – 70m^2	pcu/hr/flat	0.0888	0.0515	-	0.0356	0.0480	-	0.0356	0.0480	-
Traffic Generation/Attraction										
Proposed Development	120 flats	11	7	18	5	6	11	5	6	11

Note: Gen. – Generation; Att. – Attraction.
(1) The trip rates for PM peak hour are adopted for the weekend peak hour.

4.3.2 In view of the above, the proposed development would generate two-way traffic flows of 18 pcu/hr in the weekday AM peak hour, 11 pcu/hr in the weekday PM peak hour and 11 pcu/hr in the weekend peak hour. The traffic distribution is shown diagrammatically in **Figure 4.1**.

4.4 Planned and Approved Developments

4.4.1 To estimate the future traffic flows generated and attracted by the nearby planned and approved developments, updated information has been obtained from available information regarding the planned and approved developments in the vicinity of the proposed development site, the details of these developments are listed in **Table 4.4**.

Table 4.4 Planned and Approved Developments

Ref.	Location	Use	Development Parameters
A	Various Lot in D.D. 210, Ho Chung	Residential	2,422 m^2 GFA (15 flats)
B	Lot 1003 in D.D. 214, Ho Chung	Residential	5,344 m^2 GFA (90 flats)
C	Lot 2189 in D.D. 244, Nam Pin Wai	Residential	8,320 m^2 GFA (139 flats)
D	Various Lots in D.D. 244 and Adjoining Government Land, Ho Chung, Sai Kung	Residential	13,719 m^2 GFA (58 flats)
E	Various Lots in D.D. 210 and 244 and Adjoining Government Land, Ho Chung, Sai Kung	Residential	2,393 m^2 GFA (8 flats)

4.4.2 Reference is made to Volume 1 of the TPDM published by the TD on the trip rates of the foregoing developments to estimate their traffic generation and attraction. The total traffic generation and attraction by these adjacent planned/committed developments are summarized in **Table 4.5**.

Table 4.5 Traffic Generation of the Planned and Approved Developments

Use	Use / Content	AM Peak Hour			PM Peak Hour			Weekend Peak Hour (1)		
		Gen.	Att.	Total	Gen.	Att.	Total	Gen.	Att.	Total
Adopted TPDM Mean Trip Rates										
Residential – 60m^2	pcu/hr/flat	0.0718	0.0425	-	0.0286	0.0370	-	0.0286	0.0370	-
Residential – 180m^2	pcu/hr/flat	0.2772	0.1769	-	0.1635	0.2394	-	0.1635	0.2394	-
Residential – 240m^2	pcu/hr/flat	0.3012	0.2189	-	0.2235	0.3234	-	0.2235	0.3234	-
Residential – 300m^2	pcu/hr/flat	0.3252	0.2609	-	0.2835	0.4074	-	0.2835	0.4074	-
Traffic Generation										
Site A	15 flats	5	3	8	3	4	7	3	4	7
Site B	90 flats	7	4	11	3	4	7	3	4	7
Site C	139 flats	10	6	16	4	6	10	4	6	10
Site D	58 flats	18	13	31	13	19	32	13	19	32
Site E	8 flats	3	3	6	3	4	7	3	4	7
Total		**43**	**29**	**72**	**26**	**37**	**63**	**26**	**37**	**63**

Note: Gen. – Generation; Att. – Attraction.
(1) The trip rates for PM peak hour are adopted for weekend peak hour.

4.4.3 As shown in **Table 4.5**, the planned/committed developments will generate a total two-way traffic of 72, 63 and 63 pcu/hr during weekday AM, weekday PM peak hour and weekend peak hour respectively. The estimated traffic generation will be assumed to be travelling in the local road network in the same proportions as the existing traffic demands when traffic forecast is prepared in this Study.

4.5 Reference and Design Flows

4.5.1 The 2034 Reference Flows, i.e. the traffic flows in the vicinity without the proposed development, were estimated based on the following equation.

2034 Reference Flows = 2023 Existing Traffic Flows x $(1 + 1.4\%)^{11}$

4.5.2 The 2034 Design Flows, i.e. the traffic flows in the local road network with the traffic generated by the proposed residential development, were estimated based on the following equation:

2034 Design Flows = 2034 Reference Flows + Traffic Flows Generated by the Proposed Development

4.5.3 The 2034 Reference and Design Flows are shown in **Figures 4.2** and **4.3**, respectively.

4.6 Junction Capacity Assessment

4.6.1 Junction capacity analysis was carried out for the assessment year 2034. The assessment results are shown in **Table 4.6** and the detailed calculation sheets are attached in **Appendix B**.

Table 4.6 2034 Junction Capacity Assessments

No.	Junction Location	Type/ Index(1)	Reference			Design		
			AM	PM	WN	AM	PM	WN
J1	Hiram's Highway/Hing Keng Shek Road Roundabout	Roundabout /DFC	0.61	0.50	0.63	0.61	0.50	0.63
J2	Hiram's Highway/Ho Chung Road	Signalized /RC	83%	64%	44%	82%	63%	44%

Notes: AM – Weekday AM Peak Hour; PM – Weekday PM Peak Hour; WN – Weekend Peak Hour.
(1) RC = Reserved Capacity; DFC = Design Flow to Capacity Ratio.

4.6.2 As shown in **Table 4.6**, all the concerned junctions will perform with spare capacity for both the Reference and Design Scenarios in 2034. Therefore, the adjacent road network will be able to cope with the traffic generated by the proposed development.

4.7 Link Capacity Assessment

4.7.1 The V/C Ratios of Hiram's Highway were assessed and the results are presented in **Table 4.7**.

Table 4.7 Year 2034 Link Capacity Assessments

Direction	Bound	Capacity (pcu/hr) (1)	Traffic Flow (pcu/hr)			V/C Ratio		
			AM	PM	WN	AM	PM	WN
2034 Reference Scenario								
Hiram's Highway(2)(3)	EB	3,120	937	1,164	1,231	0.30	0.37	0.39
	WB	3,120	1,230	1,019	1,264	0.39	0.33	0.41
Hiram's Highway(4)	NB	3,120	955	1,171	1,257	0.31	0.38	0.40
	SB	3,120	1,267	997	1,271	0.41	0.32	0.41
Hiram's Highway(5)	NB	3,120	921	1,260	1,439	0.30	0.40	0.46
	SB	3,120	1,279	1,121	1,316	0.41	0.36	0.42
Hiram's Highway(6)	NB	3,120	1,072	1,358	1,548	0.34	0.44	0.50
	SB	3,120	1,430	1,219	1,424	0.46	0.39	0.46
Hing Keng Shek Road	2-way	120	81	66	112	0.68	0.55	0.93
2034 Design Scenario								
Hiram's Highway(2)(3)	EB	3,120 (3)	938	1,164	1,231	0.30	0.37	0.39
	WB	3,120 (3)	1,231	1,020	1,265	0.39	0.33	0.41
Hiram's Highway(4)	NB	3,120	961	1,176	1,262	0.31	0.38	0.40
	SB	3,120	1,277	1,002	1,276	0.41	0.32	0.41

Direction	Bound	Capacity (pcu/hr) (1)	Traffic Flow (pcu/hr)			V/C Ratio		
			AM	PM	WN	AM	PM	WN
Hiram's Highway(5)	NB	3,120	927	1,265	1,444	0.30	0.41	0.46
	SB	3,120	1,289	1,126	1,321	0.41	0.36	0.42
Hiram's Highway(6)	NB	3,120	1,078	1,363	1,553	0.35	0.44	0.50
	SB	3,120	1,440	1,224	1,429	0.46	0.39	0.46
Hing Keng Shek Road	2-way	960(7)	99	77	123	0.10	0.08	0.13

Notes: AM – Weekday AM Peak Hour; PM – Weekday PM Peak Hour; WN – Weekend Peak Hour
(1) Capacity refers to TPDM Vol.2 Ch. 2.4. A factor of 1.2 (based on the traffic count survey result) is adopted to convert the capacity from veh/hr to pcu/hr.
(2) The section between Hing Keng Shek Road and Pak Sha Wan Street.
(3) The section of Hiram's Highway will be widened to dual two-lane carriageway under Hiram's Highway Improvement Stage 2.
(4) The section between access of Luk Cheung Road and Hing Keng Shek Road.
(5) The section between Ho Chung Road and Luk Mei Tsuen Road.
(6) The section between Nam Pin Wai Road and Ho Chung Road.
(7) The section between proposed vehicular access and Hiram's Highway will be widened (discussed in **Section 5.1** below).

4.7.2 As shown in **Table 4.6**, all the concerned road sections will operate with capacity during weekday AM, weekday PM and weekend peak hours in both reference and design scenarios.

4.8 Review of Public Transport Facilities

4.8.1 Based on the tentative flat mix, the overall population of the proposed development is about 360. Reference has been made to the published "Travel Characteristics Survey (TCS) 2011 Final Report". According to the Report, the daily mechanized trip rate per population is 1.83 trips (two-way) and the morning peak hour accounted for about 12% of the daily trips for the two-way trips. It is assumed that 90% of the trips are in outbound direction in the AM peak hour. Based on the above and most of residents would use public transport services, the estimated public transport demand of the proposed development in outbound direction in AM peak hour is about 72 pax/hr (i.e. 360 x 1.83 x 0.12 x 0.9).

4.8.2 The public transport demand induced by the planned developments mentioned in **Section 4.4** is also considered. According to "Hong Kong Annual Digest of Statistics" published by the Census and Statistic Department, the average household size for the territory in year 2022 is 2.7, this figure is adopted for estimating the population of these developments. By following the methodology described in the aforesaid paragraph, the estimated public transport demand of the planned developments in outbound direction in AM peak hour is about 166 pax/hr (i.e. (15+90+139+58+8) x 2.7 x 1.83 x 0.12 x 0.9).

4.8.3 Based on the existing public transport vacancy (as estimated in **Table 3.3**) and the above projected demand, the existing bus/green minibus services will still operate with capacity after accommodating the future demand induced by the proposed development and the planned developments.

5 PROVISION OF TRANSPORT FACILITIES

5.1 Access Arrangement

5.1.1 The vehicular access of the proposed development will be located at Hing Keng Shek Road. It is proposed to widen the existing section of Hing Keng Shek Road between the proposed vehicular access and Hiram's Highway to 6.0m for a 2-lane single carriageway. A 2.0m wide footpath will be also provided within the Site connecting the proposed development and Hiram's Highway and the footpath will also be opened for public use. The proposed traffic arrangement is shown in **Figure 5.1**. The project proponent will be responsible for implementing the improvement works and will undertake the management and maintenance responsibility for the footpath within the Site.

5.1.2 Swept path analysis is conducted to demonstrate the manoevruing of vehicles entering and leaving the Site via the proposed vehicular access and shown in **Figures 5.2 – 5.3**. To ensure sufficient sightline is provided for the proposed run-out, a sightline analysis is conducted and presented in **Figure 5.4**.

5.2 Internal Transport Facilities

5.2.1 The internal transport facilities for the proposed development will be provided in accordance with the Hong Kong Planning Standards and Guidelines (HKPSG). The required and the proposed provisions for the proposed development are shown in **Table 5.1**.

Table 5.1 Proposed Car Parking and Loading/Unloading Facilities

<table>
<tr><th>Type</th><th colspan="6">HKPSG's Requirements</th><th>Required Provision</th><th>Proposed Provision</th></tr>
<tr><td colspan="9">Proposed Residential Development (120 flats)</td></tr>
<tr><td rowspan="5">Car Parking Space</td><td colspan="6"><u>For Residents</u>
Parking Requirements = GPS x R1 x R2 x R3 where</td><td rowspan="4">14 – 24

27 – 47</td><td rowspan="4">24

47</td></tr>
<tr><td>Unit Size</td><td>No. of Unit</td><td>GPS</td><td>R1</td><td>R2</td><td>R3</td></tr>
<tr><td>40 m^2 <FS ≤ 70 m^2</td><td>60</td><td rowspan="2">1 space per 4 – 7 units</td><td>1.2</td><td>1</td><td>1.3</td></tr>
<tr><td>70 m^2 < FS ≤ 100 m^2</td><td>60</td><td>2.4</td><td>1</td><td>1.3</td></tr>
<tr><td colspan="6"><u>For Visitors</u>
Visitor car parking for private residential developments with more than 75 units per block should be provided at 5 visitor spaces per block in addition to the requirements, or as determined by the Authority. For private residential developments with 75 units or less per block, the visitor car parking provision will be determined by TD on a case-by-case basis.</td><td>8</td><td>8</td></tr>
<tr><td colspan="6">TOTAL CAR PARKING</td><td>49 – 79</td><td>79</td></tr>
<tr><td>Motorcycle Parking Space</td><td colspan="6">1 space per 100 - 150 flats</td><td>1 – 2</td><td>2</td></tr>
<tr><td>Loading / Unloading Bay</td><td colspan="6">1 bay per residential block or as determined by the Authority.</td><td>4</td><td>4</td></tr>
</table>

5.2.2 **Table 5.2** lists out a summary of the numbers and the dimensions required for each type of spaces in the proposed development. The proposed car park layout plan is enclosed in **Appendix C**.

Table 5.2 Summary of Overall Transport Facilities Provision

Facilities	Dimensions	Proposed Provision
Car Parking Space	2.5m (W) x 5.0m (L) x 2.4 (H)	77
Disable Car Parking Space	3.5m (W) x 5.0m (L) x 2.4 (H)	2
Goods Vehicle Loading and Unloading Bay	3.5m (W) x 11.0m (L) x 4.7m(H)	4
Motorcycle Parking Space	1.0m (W) x 2.4m (L) x 2.4 (H)	2

6 SUMMARY AND CONCLUSION

6.1 Summary

6.1.1 The Applicant intends to develop the Site into a residential development at various lots in D.D.210, Pak Wai, Sai Kung. The proposal will have about 120 residential units.

6.1.2 Traffic count surveys were carried out on 1 December 2023 (Friday) during 07:30 – 09:30 and 17:30 – 19:30 and 2 December 2023 (Saturday) form 12:00 to 19:00. The identified weekday AM, weekday PM and weekend peak hours were 08:00 – 09:00, 17:30 – 18:30 and 17:00 – 18:00, respectively. Junction and link capacity assessment based on the observed flows shows that all concerned junctions and road links are performing satisfactorily during weekday AM, weekday PM and weekend peak hours, except the section of Hiram's Highway between Hing Keng Shek Road and Pak Sha Wan Street which is operating at its capacity.

6.1.3 The proposed development would generate two-way traffic flows of 18 pcu/hr in the weekday AM peak hour, 11 pcu/hr in the weekday PM peak hour and 11 pcu/hr in the weekend peak hour. By assigning the additional development traffic to the 2034 Reference Flows, the 2034 Design Flows were obtained.

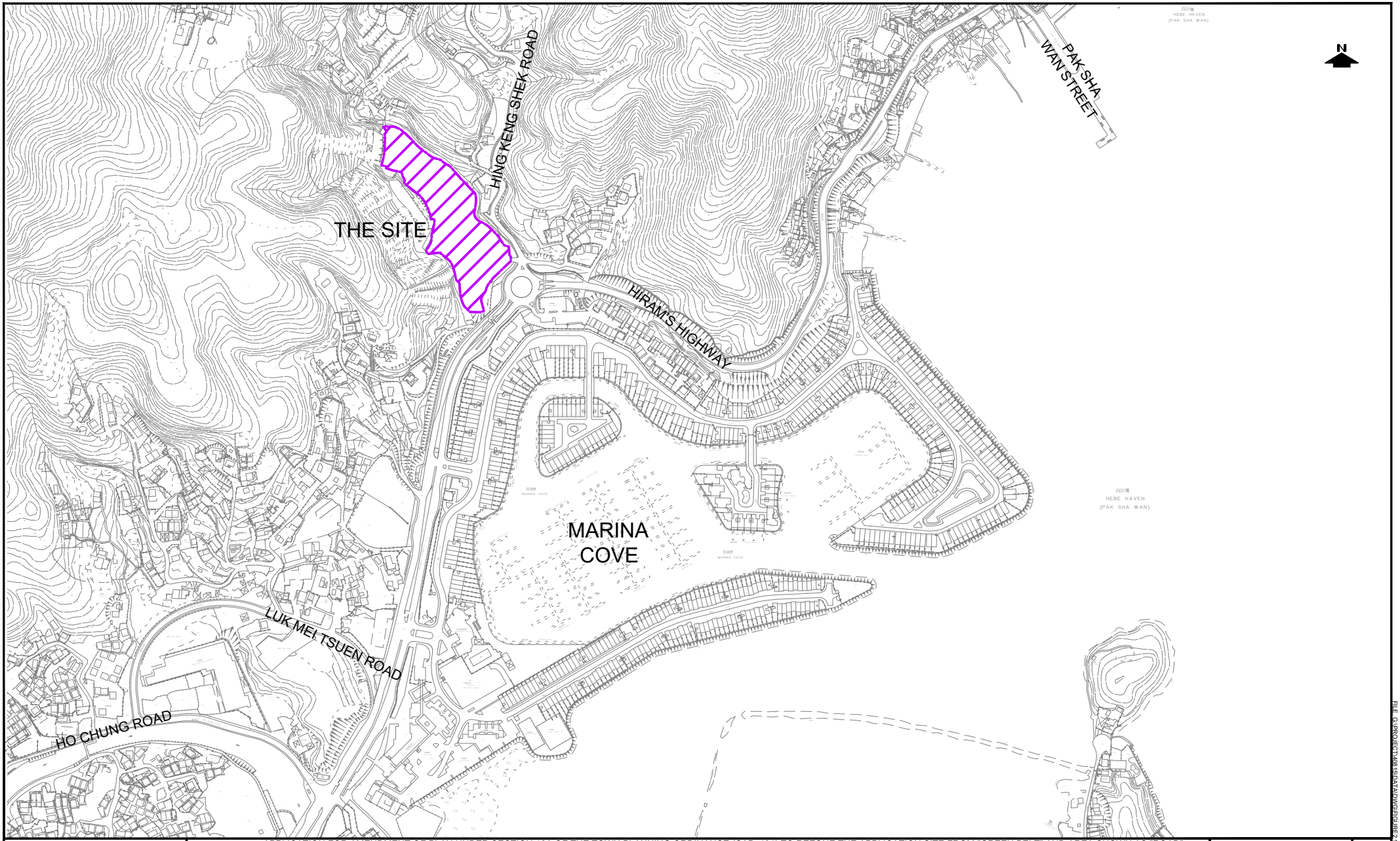
6.1.4 Junction and link capacity assessments were carried out for the key junctions and road links in the vicinity for the year 2034. The results indicated that all junctions and road links will operate satisfactorily for both reference and design scenarios. Therefore, it is anticipated that the proposed development will not induce significant traffic impact to the surrounding road network.

6.1.5 The vehicular access of the proposed development will be located at Hing Keng Shek Road. It is proposed to widen the existing section of Hing Keng Shek Road between the proposed vehicular access and Hiram's Highway to 6.0m for a 2-lane single carriageway. A 2.0m wide footpath will be also provided within the Site connecting the proposed development and Hiram's Highway and the footpath will also be opened for public use. The project proponent will be responsible for implementing the improvement works and will undertake the management and maintenance responsibility for the footpath within the Site.

6.1.6 The internal transport facilities of the proposed development will be provided in accordance with the recommendations in the HKPSG. The proposed development will provide a total of 79 private car parking spaces (including 2 nos. of parking space for disabled users), 2 motorcycle parking spaces and 4 goods vehicle loading / unloading bays.

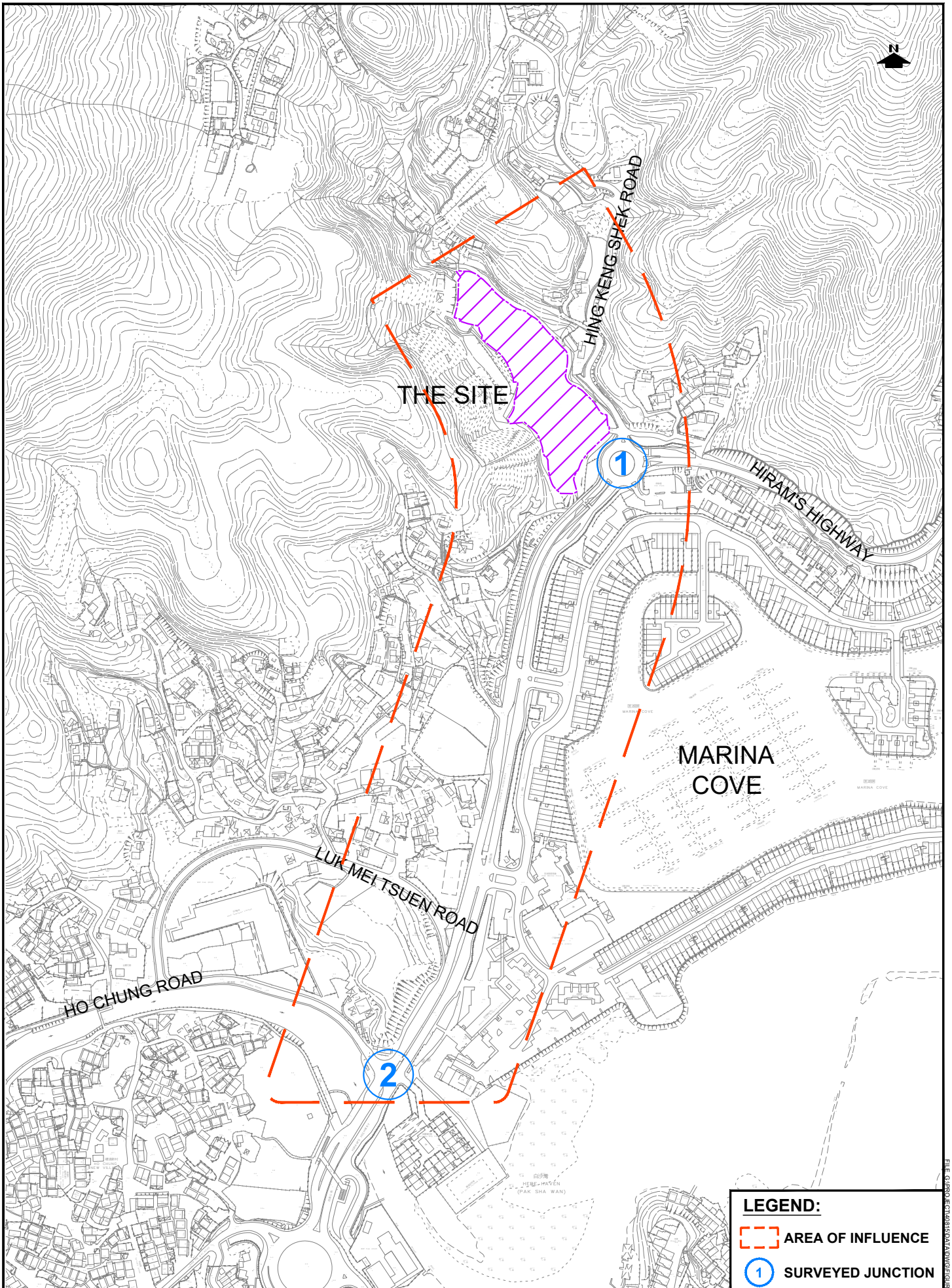
6.2 Conclusion

6.2.1 The findings of the traffic impact assessment impact assessment indicated that the road network in the vicinity of the Site would be able to cope with the proposed development and the project is considered acceptable in traffic viewpoint.



PROJECT NO. 40815	PROJECT TITLE: APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) TO REZONE THE APPLICATION SITE FROM "GREEN BELT" AND AREA SHOWN AS "ROAD" TO "RESIDENTIAL (GROUP C)5" FOR PROPOSED RESIDENTIAL DEVELOPMENT AT VARIOUS LOTS IN D.D. 210 AND ADJOINING GOVERNMENT LAND, PAK WAI, SAI KUNG	DRAWING NO. FIGURE 2.1	REV. B
DESIGNED SLN / DRAWN CLL / CHECKED SLN; DATE JUL 2025; SCALE 1:6000	DRAWING TITLE: LOCATION PLAN	LLA 顧問有限公司 Consultancy Limited	

FILE: G:\PROJECT\40815\DATA\DWG\FIGURE2.1B.DWG PLOT SCALE : 1 = 1



PROJECT NO. 40815	PROJECT TITLE: APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) TO REZONE THE APPLICATION SITE FROM "GREEN BELT" AND AREA SHOWN AS "ROAD" TO "RESIDENTIAL (GROUP C)5" FOR PROPOSED RESIDENTIAL DEVELOPMENT AT VARIOUS LOTS IN D.D. 210 AND ADJOINING GOVERNMENT LAND, PAK WAI, SAI KUNG	DRAWING NO. FIGURE 3.1	REV. B
DESIGNED SLN / DATE JUL 2025	DRAWING TITLE: LOCATION OF SURVEYED JUNCTIONS		
DRAWN CLL / SCALE 1:5000			
CHECKED SLN		LLA 顧問有限公司 Consultancy Limited	

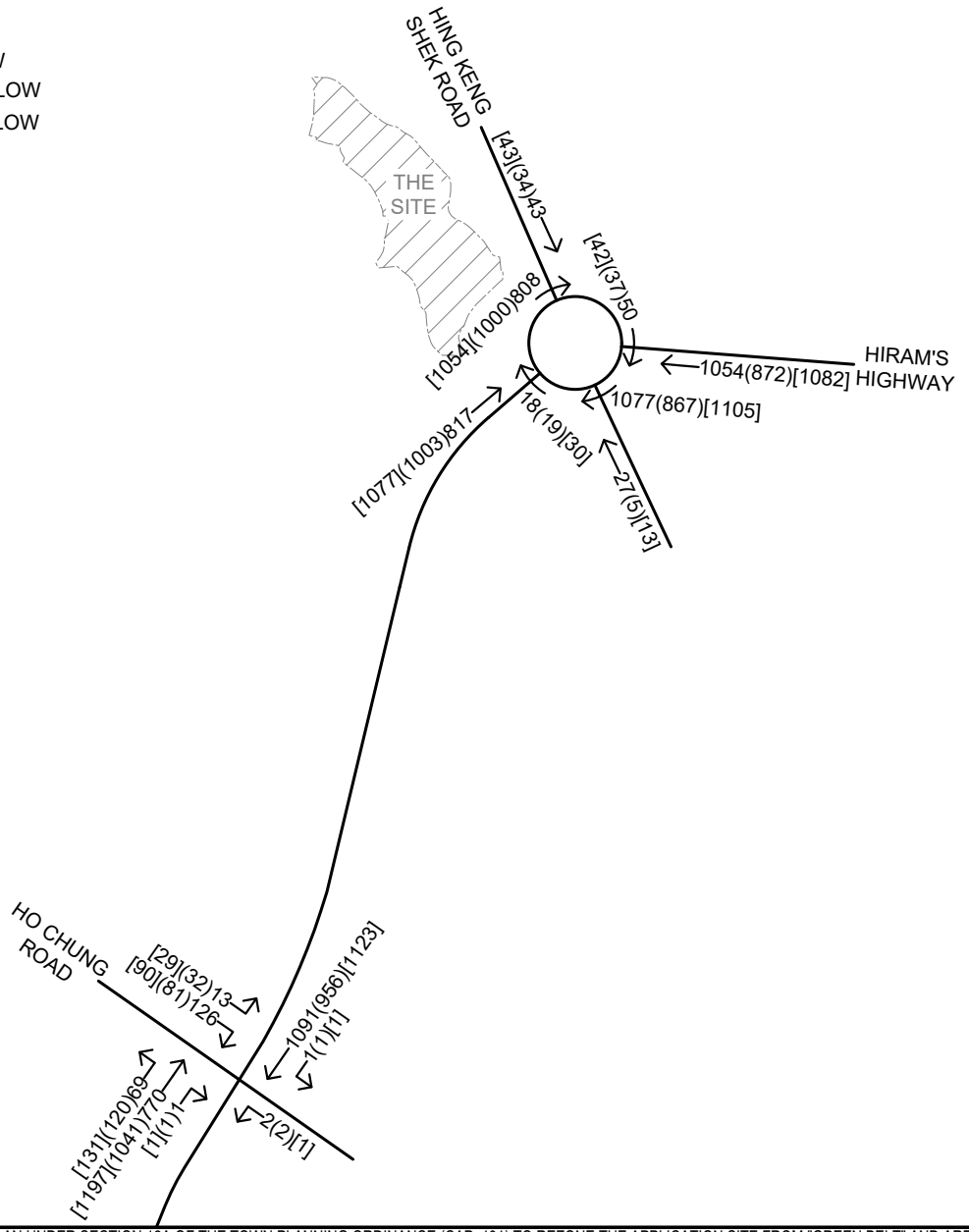
FILE: G:\PROJECT\40815\DATA\DWG\FIGURE3.1B.DWG PLOT SCALE : 1 = 1

LEGEND:

312(158)[361] ← WEEKEND PEAK HOUR TRAFFIC FLOW
WEEKDAY PM PEAK HOUR TRAFFIC FLOW
WEEKDAY AM PEAK HOUR TRAFFIC FLOW

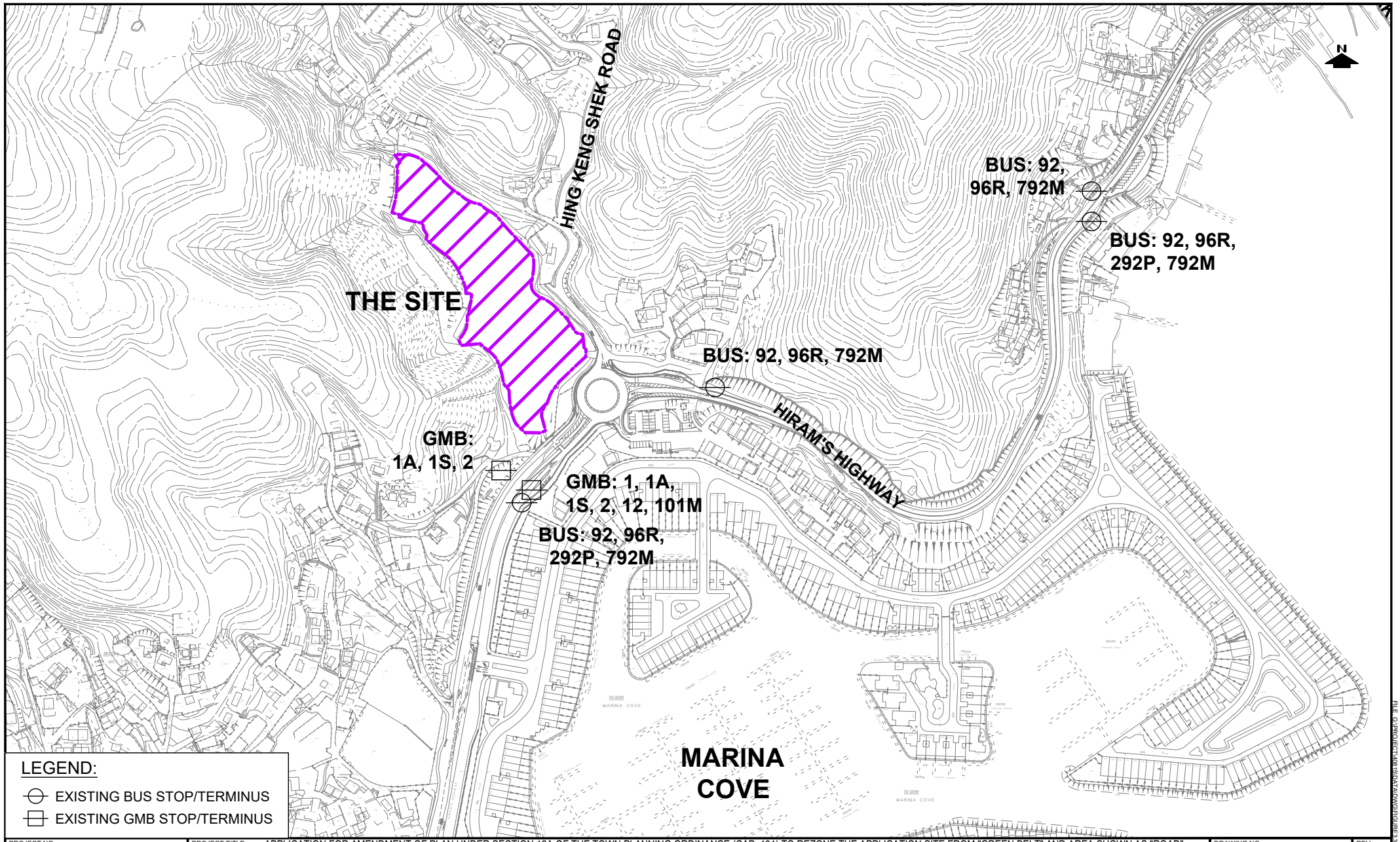
NOTE:

1. ALL TRAFFIC FLOWS ARE IN PCU/HOUR
2. MINOR ROADS ARE NOT SHOWN FOR CLARITY



PROJECT NO. 40815	PROJECT TITLE: APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) TO REZONE THE APPLICATION SITE FROM "GREEN BELT" AND AREA SHOWN AS "ROAD" TO "RESIDENTIAL (GROUP C)5" FOR PROPOSED RESIDENTIAL DEVELOPMENT AT VARIOUS LOTS IN D.D. 210 AND ADJOINING GOVERNMENT LAND, PAK WAI, SAI KUNG	DRAWING NO. FIGURE 3.2	REV. C
DESIGNED SLN / DRAWN CLL / CHECKED SLN; DATE JUL 2025; SCALE N.T.S.	DRAWING TITLE: 2023 EXISTING TRAFFIC FLOWS	LLA 顧問有限公司 Consultancy Limited	

FILE: G:\PROJECT\40815\DATA\DWG\FIGURE3.2C.DWG PLOT SCALE : 1 = 1



PROJECT NO. 40815	PROJECT TITLE: APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) TO REZONE THE APPLICATION SITE FROM "GREEN BELT" AND AREA SHOWN AS "ROAD" TO "RESIDENTIAL (GROUP C)5" FOR PROPOSED RESIDENTIAL DEVELOPMENT AT VARIOUS LOTS IN D.D. 210 AND ADJOINING GOVERNMENT LAND, PAK WAI, SAI KUNG	DRAWING NO. FIGURE 3.3	REV. B
DESIGNED SLN / DRAWN CLL / CHECKED SLN	DATE JUL 2025 / SCALE 1:4000	DRAWING TITLE: PUBLIC TRANSPORT FACILITIES IN THE VICINITY	LLA 顧問有限公司 Consultancy Limited

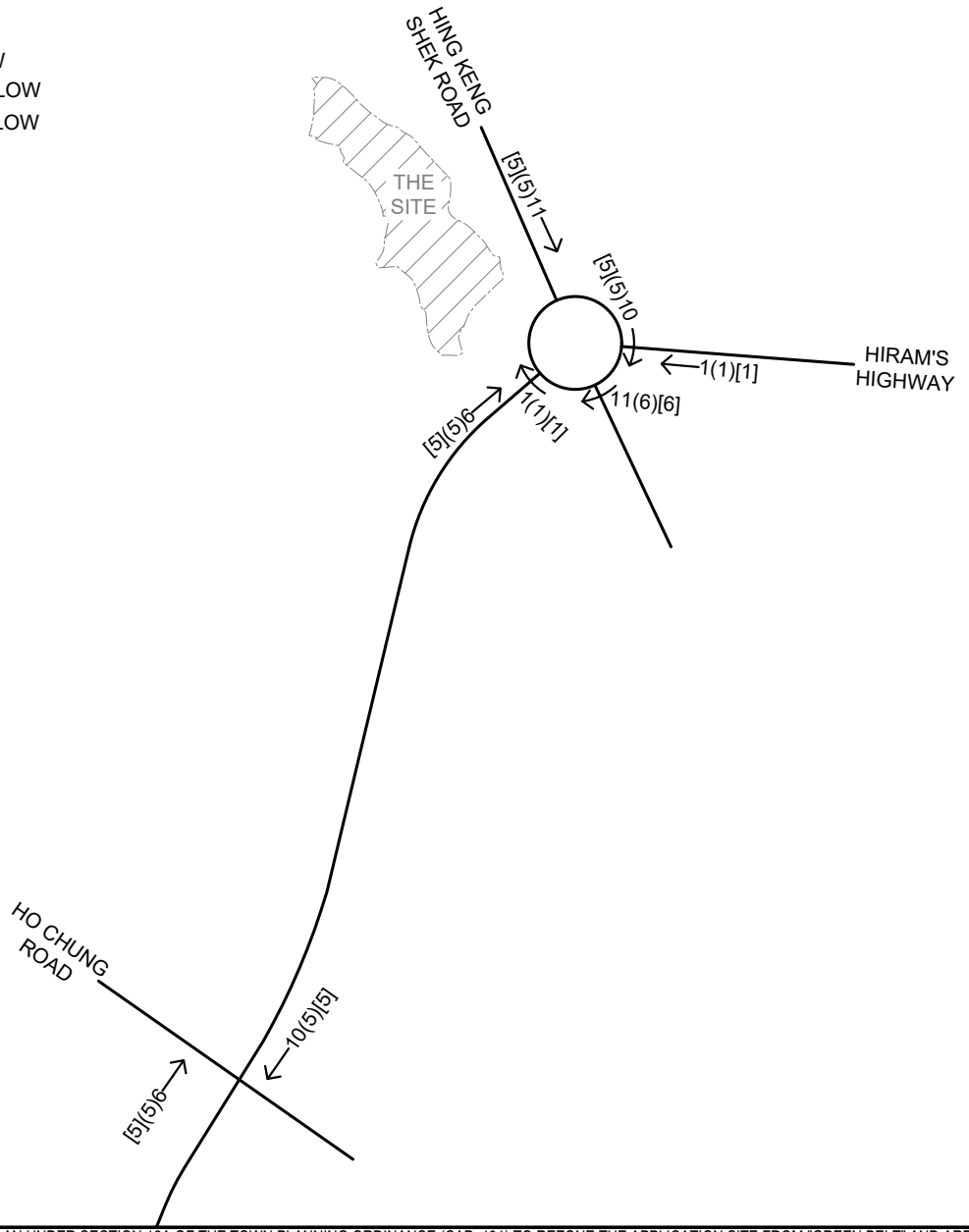
FILE: G:\PROJECT\40815\DATA\DWG\FIGURE3.3B.DWG PLOT SCALE : 1 = 1

LEGEND:

312(158)[361] ← WEEKEND PEAK HOUR TRAFFIC FLOW
← WEEKDAY PM PEAK HOUR TRAFFIC FLOW
← WEEKDAY AM PEAK HOUR TRAFFIC FLOW

NOTE:

1. ALL TRAFFIC FLOWS ARE IN PCU/HOUR
2. MINOR ROADS ARE NOT SHOWN FOR CLARITY



PROJECT NO. 40815	PROJECT TITLE APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) TO REZONE THE APPLICATION SITE FROM "GREEN BELT" AND AREA SHOWN AS "ROAD" TO "RESIDENTIAL (GROUP C)5" FOR PROPOSED RESIDENTIAL DEVELOPMENT AT VARIOUS LOTS IN D.D. 210 AND ADJOINING GOVERNMENT LAND, PAK WAI, SAI KUNG	DRAWING NO. FIGURE 4.1	REV. D
DESIGNED SLN / DATE JUL 2025	DRAWING TITLE DEVELOPMENT TRAFFIC FLOWS	LLA 顧問有限公司 Consultancy Limited	
DRAWN CLL / SCALE N.T.S.			
CHECKED SLN			

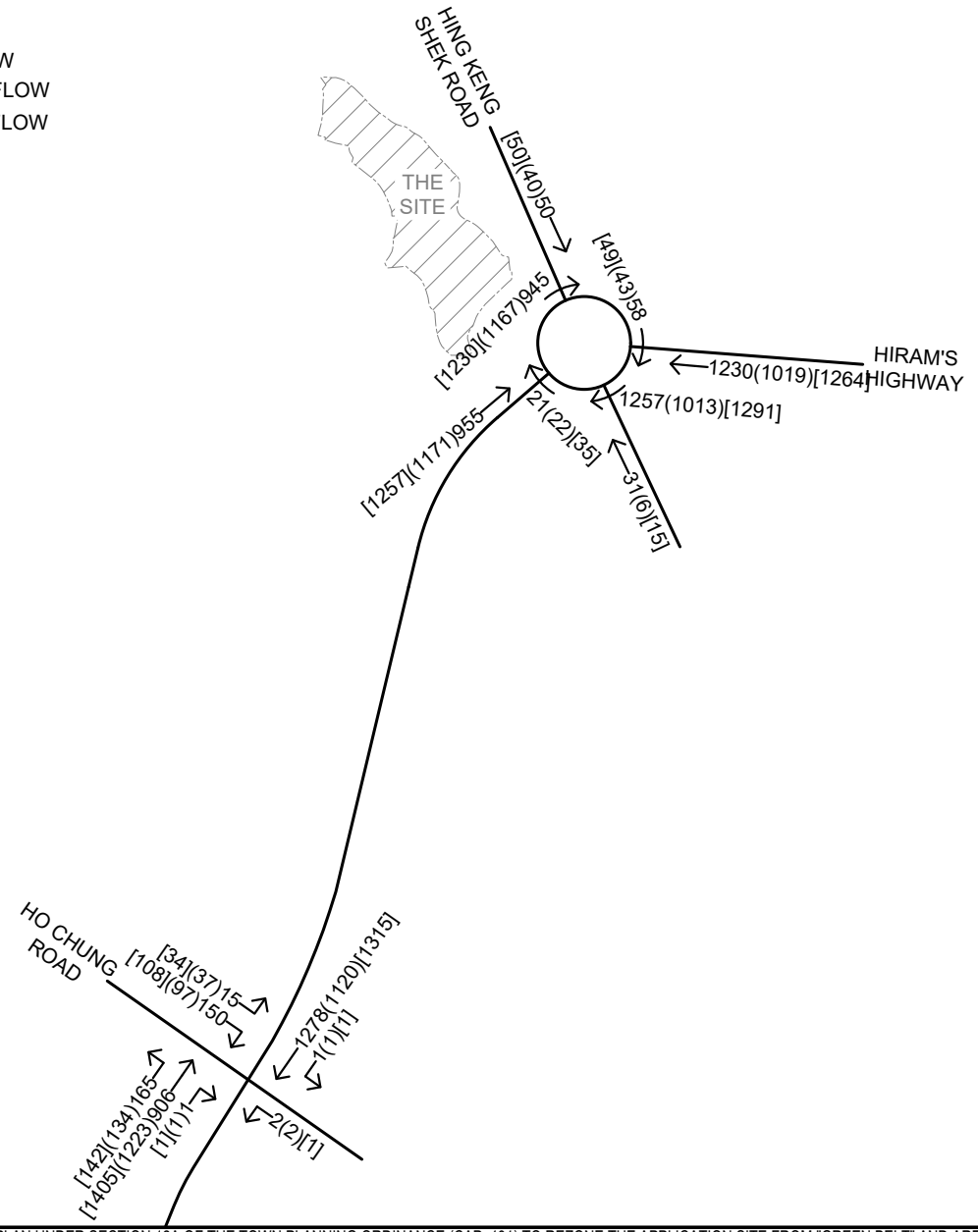
FILE: G:\PROJECT\40815\DATA\DWG\FIGURE4.1D.DWG PLOT SCALE : 1 = 1

LEGEND:

312(158)[361] ← WEEKEND PEAK HOUR TRAFFIC FLOW
WEEKDAY PM PEAK HOUR TRAFFIC FLOW
WEEKDAY AM PEAK HOUR TRAFFIC FLOW

NOTE:

1. ALL TRAFFIC FLOWS ARE IN PCU/HOUR
2. MINOR ROADS ARE NOT SHOWN FOR CLARITY



PROJECT NO. 40815	PROJECT TITLE APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) TO REZONE THE APPLICATION SITE FROM "GREEN BELT" AND AREA SHOWN AS "ROAD" TO "RESIDENTIAL (GROUP C)5" FOR PROPOSED RESIDENTIAL DEVELOPMENT AT VARIOUS LOTS IN D.D. 210 AND ADJOINING GOVERNMENT LAND, PAK WAI, SAI KUNG	DRAWING NO. FIGURE 4.2	REV. D
DESIGNED SLN / DATE JUL 2025	DRAWING TITLE 2034 REFERENCE TRAFFIC FLOWS	LLA 顧問有限公司 Consultancy Limited	
DRAWN CLL / SCALE N.T.S.			
CHECKED SLN			

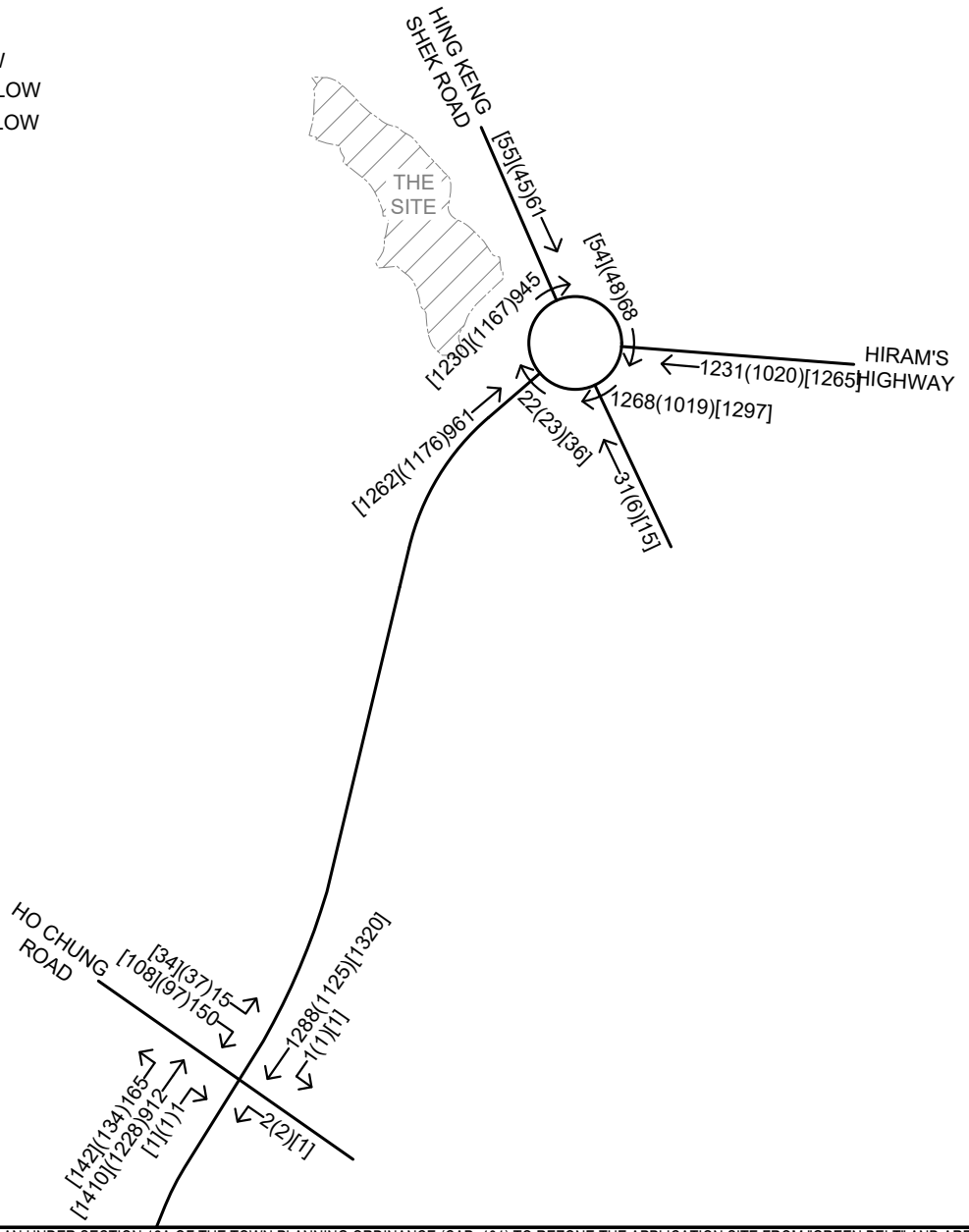
FILE: G:\PROJECT\40815\DATA\DWG\FIGURE4.2D.DWG PLOT SCALE : 1 = 1

LEGEND:

312(158)[361] ← WEEKEND PEAK HOUR TRAFFIC FLOW
WEEKDAY PM PEAK HOUR TRAFFIC FLOW
WEEKDAY AM PEAK HOUR TRAFFIC FLOW

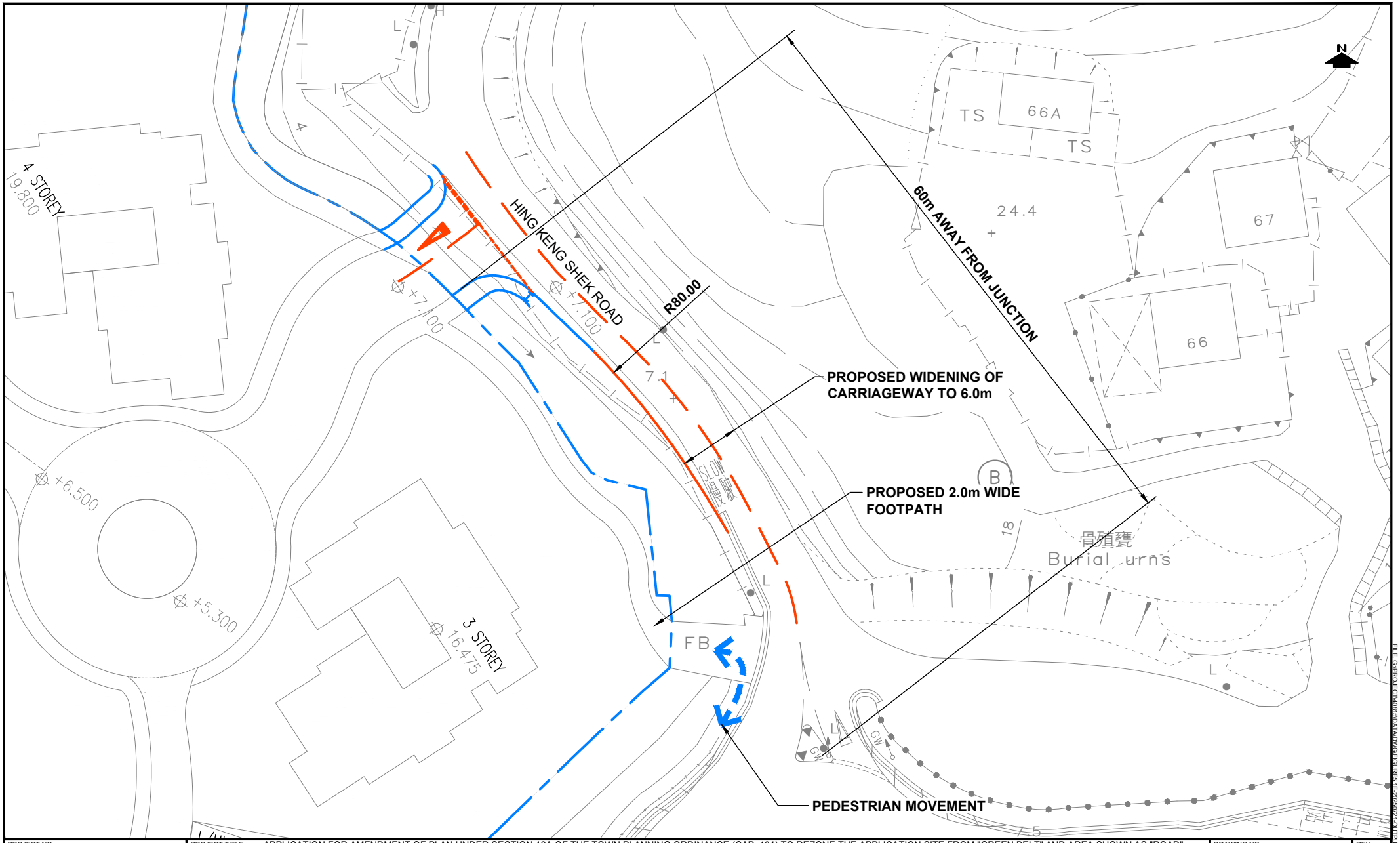
NOTE:

1. ALL TRAFFIC FLOWS ARE IN PCU/HOUR
2. MINOR ROADS ARE NOT SHOWN FOR CLARITY

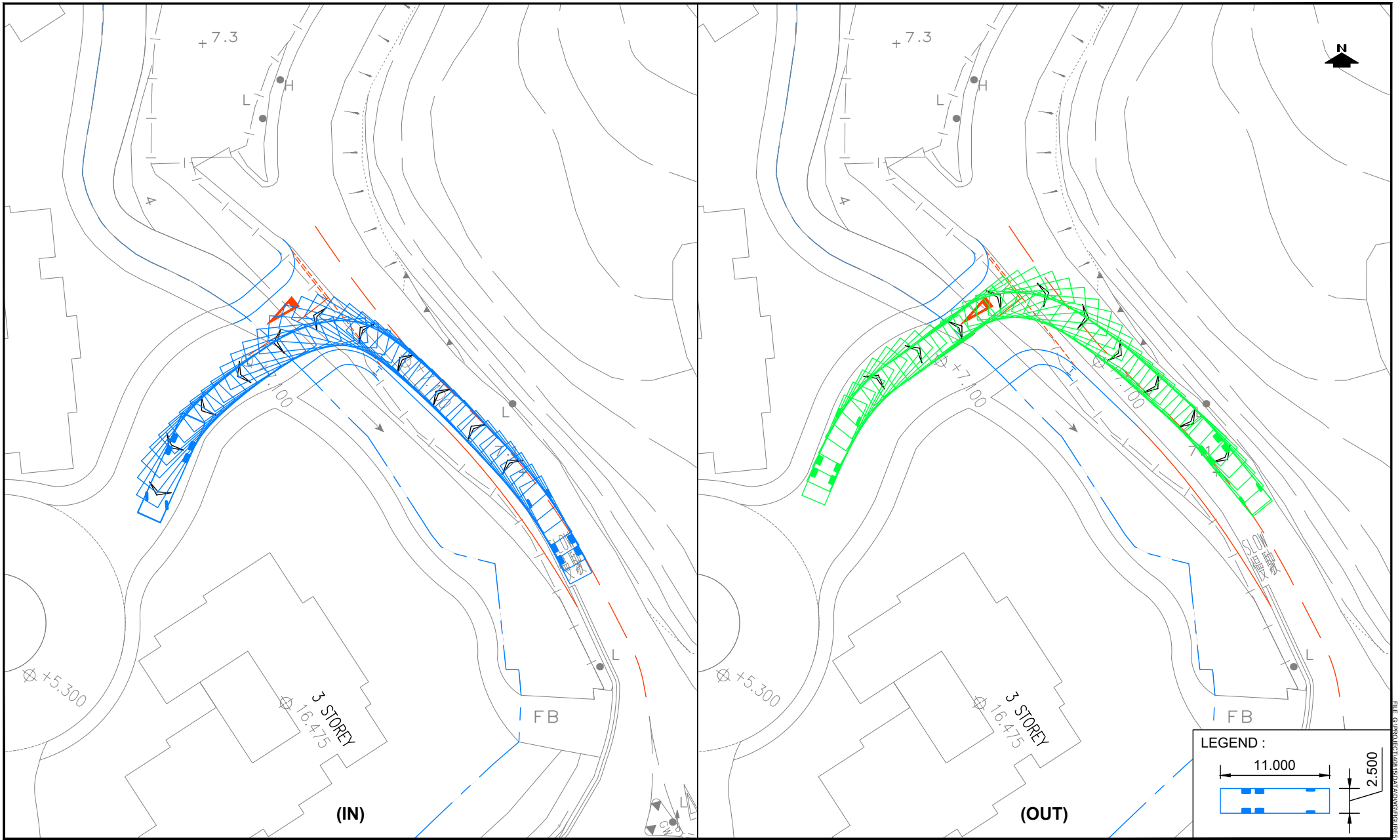


PROJECT NO. 40815	PROJECT TITLE APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) TO REZONE THE APPLICATION SITE FROM "GREEN BELT" AND AREA SHOWN AS "ROAD" TO "RESIDENTIAL (GROUP C)5" FOR PROPOSED RESIDENTIAL DEVELOPMENT AT VARIOUS LOTS IN D.D. 210 AND ADJOINING GOVERNMENT LAND, PAK WAI, SAI KUNG	DRAWING NO. FIGURE 4.3	REV. E
DESIGNED SLN / DATE JUL 2025	DRAWING TITLE 2034 DESIGN TRAFFIC FLOWS	LLA 顧問有限公司 Consultancy Limited	
DRAWN CLL / SCALE N.T.S.			
CHECKED SLN			

FILE: G:\PROJECT\40815\DATA\DWG\FIGURE4.3E.DWG PLOT SCALE : 1 = 1

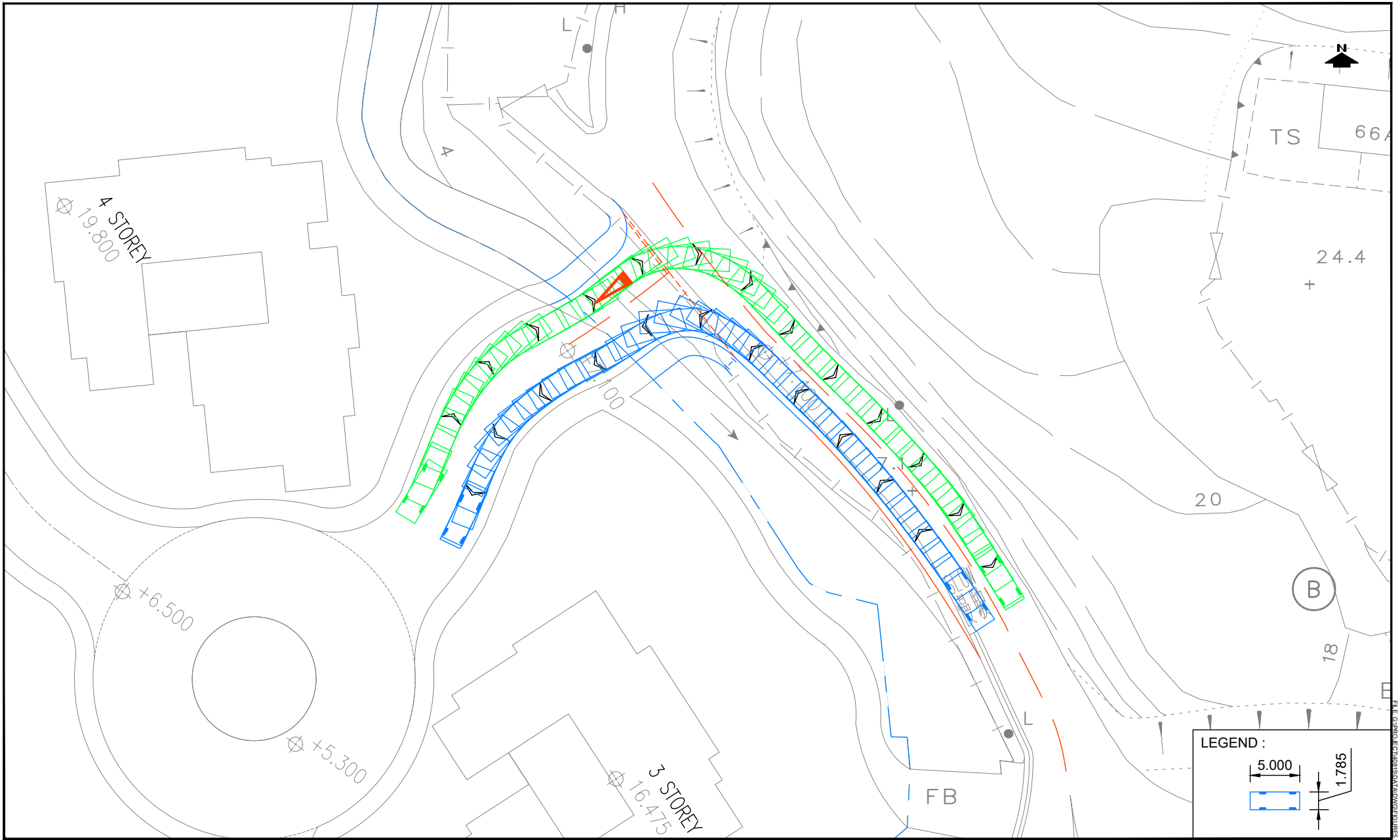


PROJECT NO. 40815	PROJECT TITLE: APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) TO REZONE THE APPLICATION SITE FROM "GREEN BELT" AND AREA SHOWN AS "ROAD" TO "RESIDENTIAL (GROUP C)5" FOR PROPOSED RESIDENTIAL DEVELOPMENT AT VARIOUS LOTS IN D.D. 210 AND ADJOINING GOVERNMENT LAND, PAK WAI, SAI KUNG	DRAWING NO. FIGURE 5.1	REV. E
DESIGNED SLN / DRAWN CLL / CHECKED SLN; DATE JUL 2025; SCALE 1:500	DRAWING TITLE: PROPOSED TRAFFIC ARRANGEMENT	LLA 顧問有限公司 Consultancy Limited	



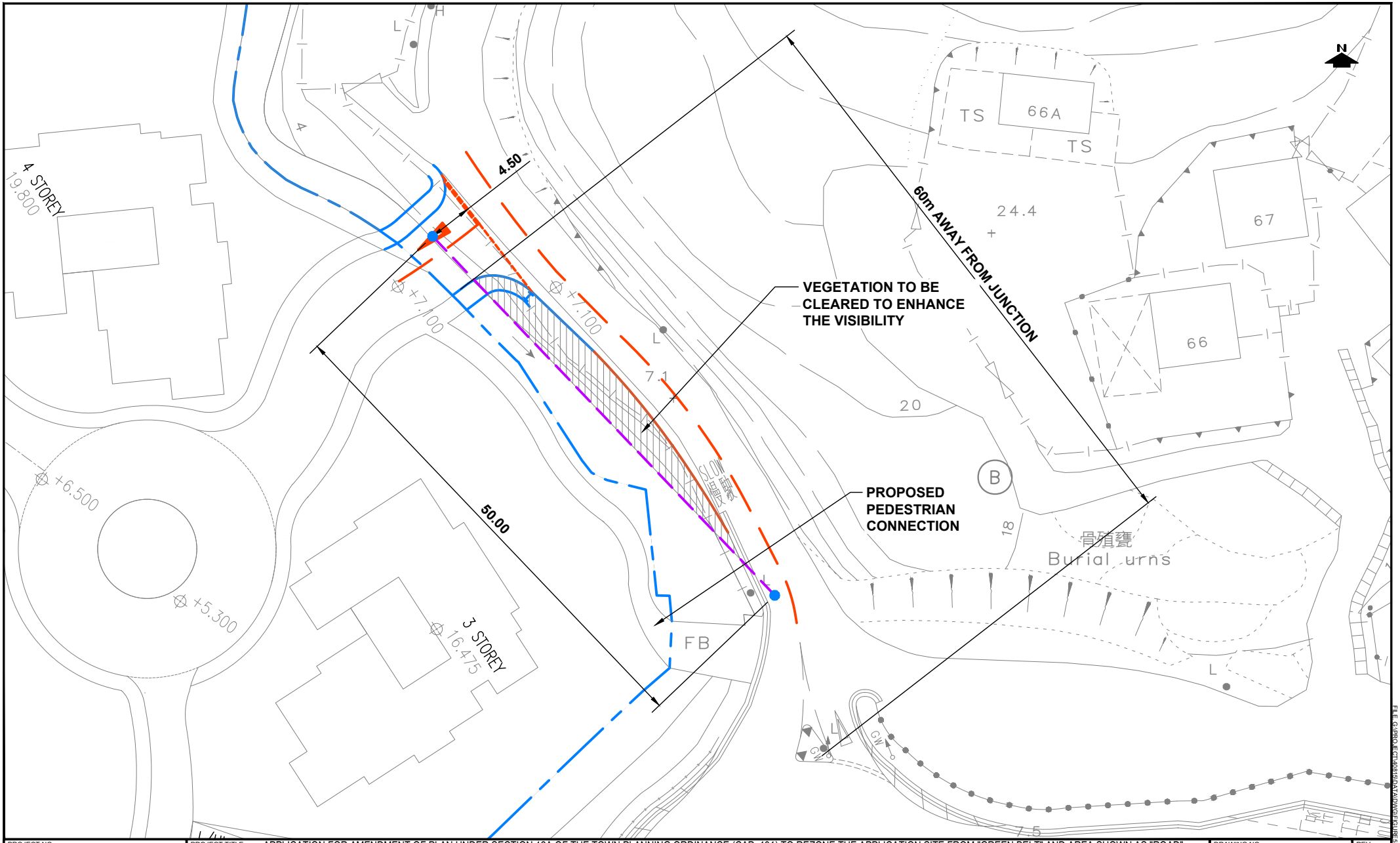
PROJECT NO. 40815	PROJECT TITLE APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) TO REZONE THE APPLICATION SITE FROM "GREEN BELT" AND AREA SHOWN AS "ROAD" TO "RESIDENTIAL (GROUP C)5" FOR PROPOSED RESIDENTIAL DEVELOPMENT AT VARIOUS LOTS IN D.D. 210 AND ADJOINING GOVERNMENT LAND, PAK WAI, SAI KUNG	DRAWING NO. FIGURE 5.2	REV. B
DESIGNED SLN / DRAWN CLL / CHECKED SLN; DATE JUL 2025; SCALE 1:500	DRAWING TITLE **SWEPT PATH ANALYSIS - HGV**	LLA 顧問有限公司 Consultancy Limited	

FILE: G:\PROJECT\40815\DATA\DWG\FIGURE5.2B.DWG PLOT SCALE : 1 = 1



PROJECT NO. 40815	PROJECT TITLE: APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) TO REZONE THE APPLICATION SITE FROM "GREEN BELT" AND AREA SHOWN AS "ROAD" TO "RESIDENTIAL (GROUP C)5" FOR PROPOSED RESIDENTIAL DEVELOPMENT AT VARIOUS LOTS IN D.D. 210 AND ADJOINING GOVERNMENT LAND, PAK WAI, SAI KUNG	DRAWING NO. FIGURE 5.3	REV. C
DESIGNED SLN / DRAWN CLL / CHECKED SLN	DATE AUG 2025 / SCALE 1:500	DRAWING TITLE: SWEPT PATH ANALYSIS - PRIVATE CARS TRAVEL SIMULTANEOUSLY	LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\40815\DATA\DWG\FIGURE5.3C.DWG PLOT SCALE : 1 = 1



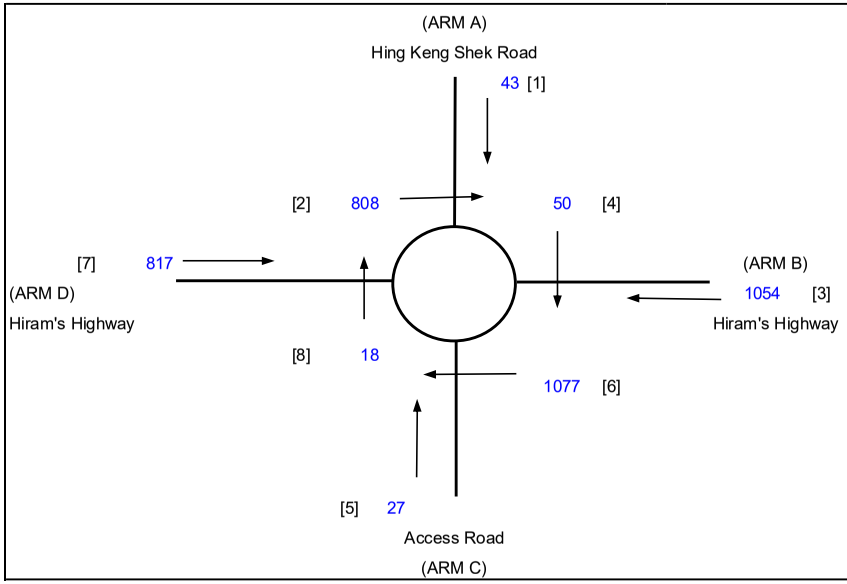
PROJECT NO. 40815	PROJECT TITLE: APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP. 131) TO REZONE THE APPLICATION SITE FROM "GREEN BELT" AND AREA SHOWN AS "ROAD" TO "RESIDENTIAL (GROUP C)5" FOR PROPOSED RESIDENTIAL DEVELOPMENT AT VARIOUS LOTS IN D.D. 210 AND ADJOINING GOVERNMENT LAND, PAK WAI, SAI KUNG	DRAWING NO. FIGURE 5.4	REV. -
DESIGNED SLN / DATE AUG 2025	DRAWING TITLE: SIGHTLINE ANALYSIS OF PROPOSED VEHICULAR ACCESS		
DRAWN CLL / SCALE 1:500		LLA 顧問有限公司 Consultancy Limited	
CHECKED SLN			

FILE: G:\PROJECT\40815\DATA\DWG\FIGURE5.4.DWG PLOT SCALE : 1 = 1

Appendix A

Junction Capacity Assessment – Existing Scenario

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung	**2023 Existing AM**	PROJECT NO.: 40815	PREPARED BY:	SKL	Jul-25
		FILENAME : J1_HH_HKSR.xlsx	CHECKED BY:	SLN	Jul-25
J1 Hiram's Highway/Hing Keng Shek Road Roundabout		REFERENCE NO.:	REVIEWED BY:	SLN	Jul-25

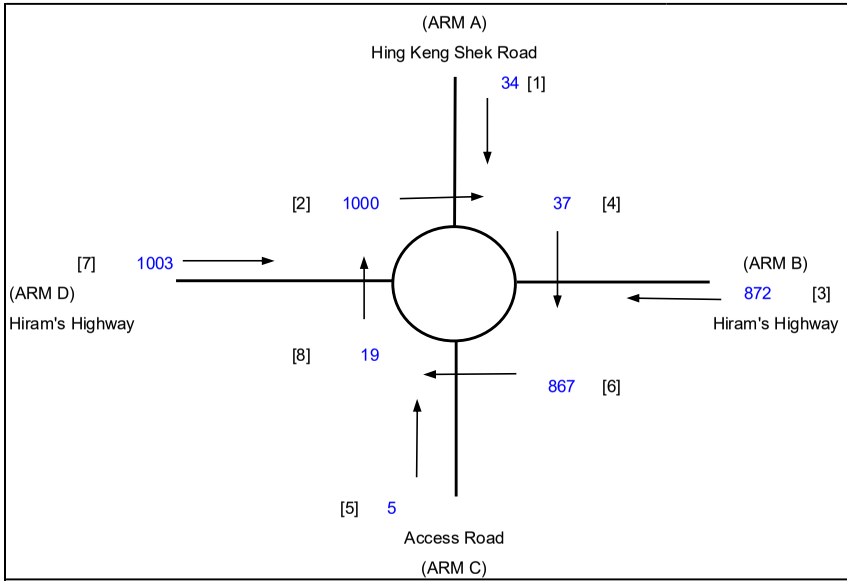


ARM			A	B	C	D
INPUT PARAMETERS:						
V	=	Approach half width (m)	2.50	3.65	3.50	8.00
E	=	Entry width (m)	4.50	8.00	3.50	8.00
L	=	Effective length of flare (m)	9.00	50.00	1.00	1.00
R	=	Entry radius (m)	24.00	20.00	12.50	21.00
D	=	Inscribed circle diameter (m)	46.00	46.00	46.00	46.00
A	=	Entry angle (degree)	27.00	41.00	40.00	35.00
Q	=	Entry flow (pcu/h)	43	1054	27	817
Qc	=	Circulating flow across entry (pcu/h)	808	50	1077	18
OUTPUT PARAMETERS:						
S	=	Sharpness of flare = 1.6(E-V)/L	0.36	0.14	0.00	0.00
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.02	0.96	0.94	0.98
X2	=	V + ((E-V)/(1+2S))	3.67	7.05	3.50	8.00
M	=	EXP((D-60)/10)	0.25	0.25	0.25	0.25
F	=	303*X2	1112	2137	1061	2424
Td	=	1+(0.5/(1+M))	1.40	1.40	1.40	1.40
Fc	=	0.21*Td(1+0.2*X2)	0.51	0.71	0.50	0.76
Qe	=	K(F-Fc*Qc) *	712	2021	488	2374
DFC	=	Design flow/Capacity = Q/Qe	0.06	0.52	0.06	0.34

Total In Sum = 1941 PCU

DFC of Critical Approach = 0.52

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung	**2023 Existing PM**	PROJECT NO.: 40815	PREPARED BY:	SKL	Jul-25
		FILENAME : J1_HH_HKSR.xlsx	CHECKED BY:	SLN	Jul-25
J1 Hiram's Highway/Hing Keng Shek Road Roundabout		REFERENCE NO.:	REVIEWED BY:	SLN	Jul-25

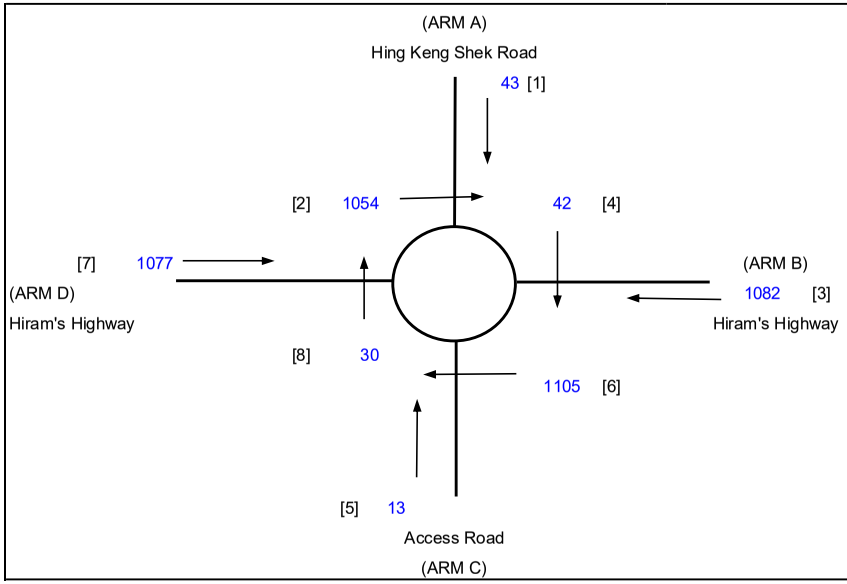


ARM			A	B	C	D
INPUT PARAMETERS:						
V	=	Approach half width (m)	2.50	3.65	3.50	8.00
E	=	Entry width (m)	4.50	8.00	3.50	8.00
L	=	Effective length of flare (m)	9.00	50.00	1.00	1.00
R	=	Entry radius (m)	24.00	20.00	12.50	21.00
D	=	Inscribed circle diameter (m)	46.00	46.00	46.00	46.00
A	=	Entry angle (degree)	27.00	41.00	40.00	35.00
Q	=	Entry flow (pcu/h)	34	872	5	1003
Qc	=	Circulating flow across entry (pcu/h)	1000	37	867	19
OUTPUT PARAMETERS:						
S	=	Sharpness of flare = 1.6(E-V)/L	0.36	0.14	0.00	0.00
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.02	0.96	0.94	0.98
X2	=	V + ((E-V)/(1+2S))	3.67	7.05	3.50	8.00
M	=	EXP((D-60)/10)	0.25	0.25	0.25	0.25
F	=	303*X2	1112	2137	1061	2424
Td	=	1+(0.5/(1+M))	1.40	1.40	1.40	1.40
Fc	=	0.21*Td(1+0.2*X2)	0.51	0.71	0.50	0.76
Qe	=	K(F-Fc*Qc) *	613	2030	587	2373
DFC	=	Design flow/Capacity = Q/Qe	0.06	0.43	0.01	0.42

Total In Sum = 1914 PCU

DFC of Critical Approach = 0.43

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung	**2023 Existing WN**	PROJECT NO.: 40815	PREPARED BY:	SKL	Jul-25
		FILENAME : J1_HH_HKSR.xlsx	CHECKED BY:	SLN	Jul-25
J1 Hiram's Highway/Hing Keng Shek Road Roundabout		REFERENCE NO.:	REVIEWED BY:	SLN	Jul-25



ARM			A	B	C	D
INPUT PARAMETERS:						
V	=	Approach half width (m)	2.50	3.65	3.50	8.00
E	=	Entry width (m)	4.50	8.00	3.50	8.00
L	=	Effective length of flare (m)	9.00	50.00	1.00	1.00
R	=	Entry radius (m)	24.00	20.00	12.50	21.00
D	=	Inscribed circle diameter (m)	46.00	46.00	46.00	46.00
A	=	Entry angle (degree)	27.00	41.00	40.00	35.00
Q	=	Entry flow (pcu/h)	43	1082	13	1077
Qc	=	Circulating flow across entry (pcu/h)	1054	42	1105	30
OUTPUT PARAMETERS:						
S	=	Sharpness of flare = 1.6(E-V)/L	0.36	0.14	0.00	0.00
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.02	0.96	0.94	0.98
X2	=	V + ((E-V)/(1+2S))	3.67	7.05	3.50	8.00
M	=	EXP((D-60)/10)	0.25	0.25	0.25	0.25
F	=	303*X2	1112	2137	1061	2424
Td	=	1+(0.5/(1+M))	1.40	1.40	1.40	1.40
Fc	=	0.21*Td(1+0.2*X2)	0.51	0.71	0.50	0.76
Qe	=	K(F-Fc*Qc) *	585	2027	475	2365
DFC	=	Design flow/Capacity = Q/Qe	0.07	0.53	0.03	0.46

Total In Sum = 2215 PCU

DFC of Critical Approach = 0.53

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

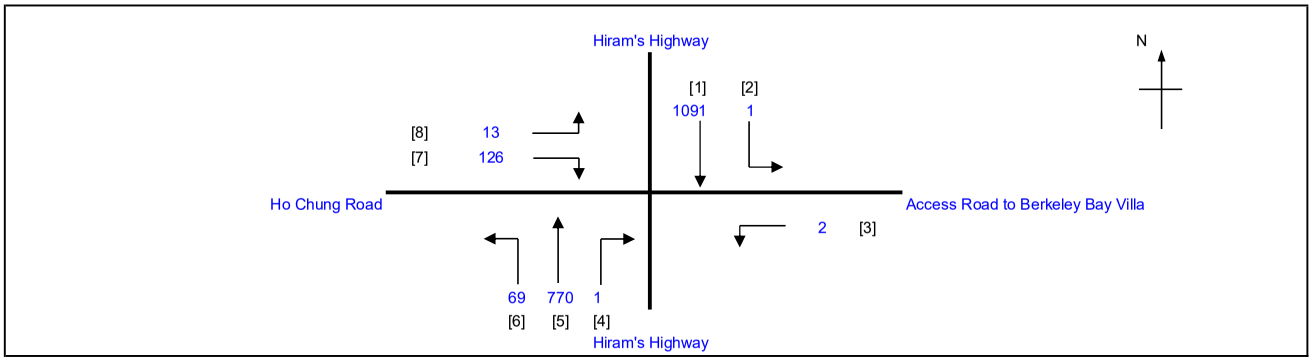
	INITIALS	DATE
Prepared By:	SKL	Jul-25
Checked By:	SLN	Jul-25
Reviewed By:	SLN	Jul-25

Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung

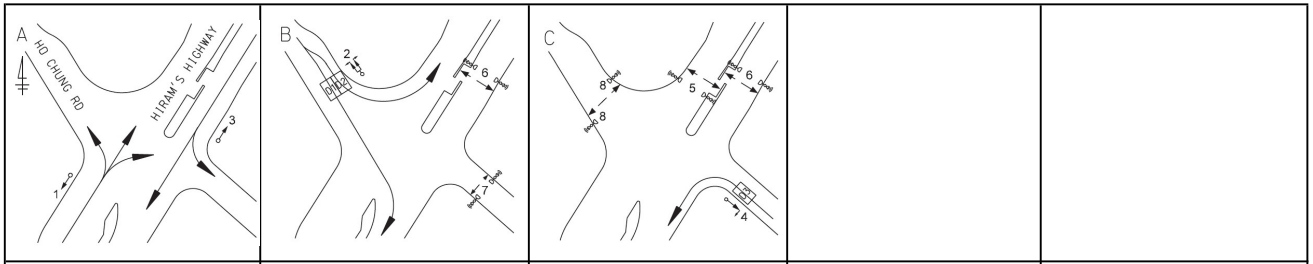
J2 Hiram's Highway/Ho Chung Road

2023 Existing AM

PROJECT NO.: 40815
FILENAME : J2_HH_HCR.xlsx



No. of stages per cycle	N =	3
Cycle time	C =	135 sec
Sum(y)	Y =	0.335
Loss time	L =	27 sec
Total Flow	=	2073 pcu
Co = (1.5*L+5)/(1-Y)	=	68.4 sec
Cm = L/(1-Y)	=	40.6 sec
Yult	=	0.698
R.C.ult = (Yult-Y)/Y*100%	=	108.4 %
Cp = 0.9*L/(0.9-Y)	=	43.0 sec
Ymax = 1-L/C	=	0.800
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**115 %**



Stage 1	G=	87	Stage 2	G=	19
	Int =	5		Int =	3
Stage 3	G=	19			
	Int =	2			

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		10	8	0	13	8
P2	2,3		13	12	8	23	12
P3	2		8	7	4	11	7
P4	3		8	7	4	10	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							8					
1,2	1	3.20	1	15		N	1935	1	526		527	0.00	1935							1935	0.272	0.272		88	88	0.418	36	11
1	1	3.20	1				2075		565		565	0.00	2075							2075	0.272			88	88	0.418	42	11
5,6	1	3.50	1	12		N	1965	69	386		455	0.15	1928	18	123					2051	0.222			72	88	0.418	48	18
4,5	1	3.50	1	12	O	N	1965		384	1	385	0.00	1734							1734	0.222			72	88	0.418	36	18
7,8	2	3.50	1	12			2105	13		126	139	1.00	1871	12	360					2231	0.062	0.062		20	20	0.418	24	50
3	3	3.30	1	15		N	1945	2			2	1.00	1768							1768	0.001			0	19	0.418	0	304
PED	3																						19					

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

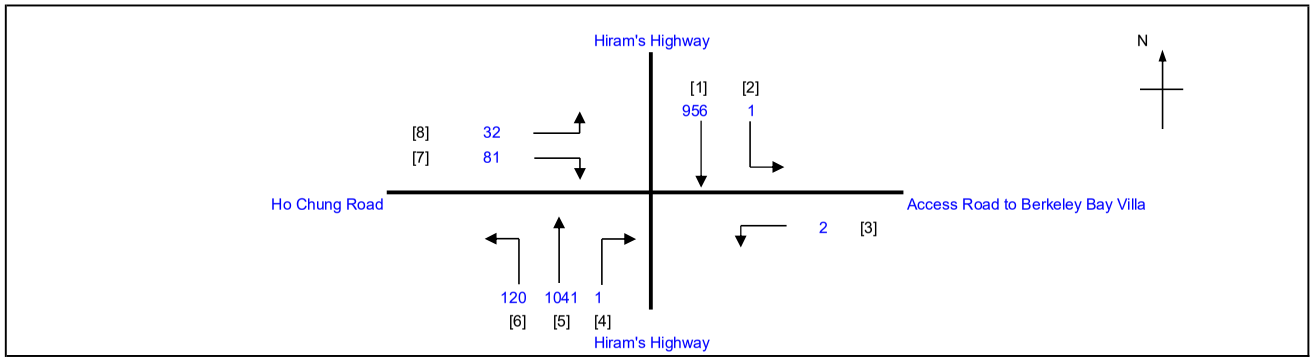
	INITIALS	DATE
Prepared By:	SKL	Jul-25
Checked By:	SLN	Jul-25
Reviewed By:	SLN	Jul-25

Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung

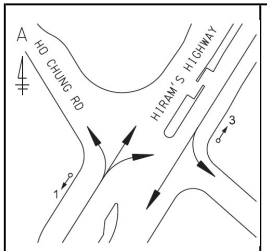
J2 Hiram's Highway/Ho Chung Road

2023 Existing PM

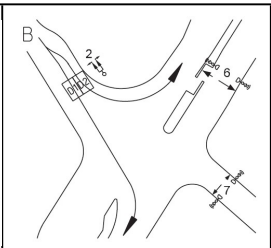
PROJECT NO.: 40815
FILENAME : J2_HH_HCR.xlsx



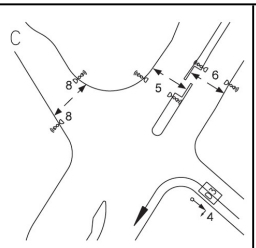
No. of stages per cycle	N =	3
Cycle time	C =	130 sec
Sum(y)	Y =	0.357
Loss time	L =	31 sec
Total Flow	=	2234 pcu
Co = (1.5*L+5)/(1-Y)	=	80.1 sec
Cm = L/(1-Y)	=	48.2 sec
Yult	=	0.668
R.C.ult = (Yult-Y)/Y*100%	=	86.9 %
Cp = 0.9*L/(0.9-Y)	=	51.4 sec
Ymax = 1-L/C	=	0.762
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**92 %**



Stage 1 G= 84 Int = 5



Stage 2 G= 17 Int = 3



Stage 3 G= 19 Int = 2

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		10	8	0	13	8
P2	2,3		13	12	8	21	12
P3	2		8	7	4	9	7
P4	3		8	7	4	10	7

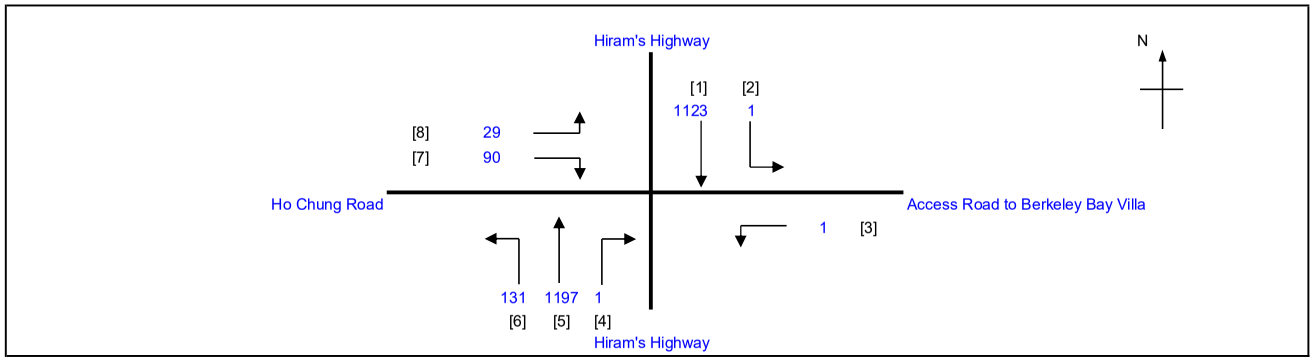
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							8					
1,2	1	3.20	1	15		N	1935	1	461		462	0.00	1935							1935	0.239			66	85	0.469	48	20
1	1	3.20	1				2075		495		495	0.00	2075							2075	0.239			66	85	0.469	48	20
5,6	1	3.50	1	12		N	1965	120	509		629	0.19	1919	18	127					2046	0.307	0.307		85	85	0.469	42	11
4,5	1	3.50	1	12	O	N	1965		532	1	533	0.00	1735							1735	0.307			85	85	0.469	36	11
7,8	2	3.50	1	12			2105	32		81	113	1.00	1871	12	400					2271	0.050	0.050	4	14	18	0.469	18	55
3	3	3.30	1	15		N	1945	2			2	1.00	1768							1768	0.001			0	19	0.469	0	394
PED	3																						19					

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

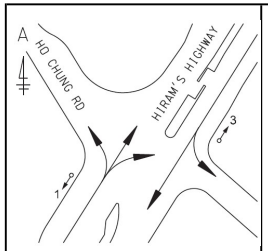
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

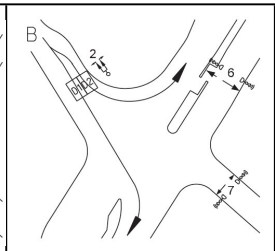
		INITIALS	DATE
Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung			
J2 Hiram's Highway/Ho Chung Road	**2023 Existing WN**	PROJECT NO.: 40815 / FILENAME : J2_HH_HCR.xlsx	Prepared By: SKL Jul-25
			Checked By: SLN Jul-25
			Reviewed By: SLN Jul-25



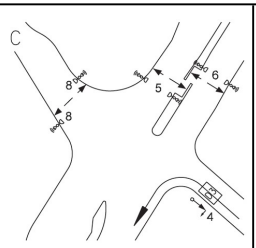
No. of stages per cycle	N =	3
Cycle time	C =	130 sec
Sum(y)	Y =	0.404
Loss time	L =	31 sec
Total Flow	=	2573 pcu
Co = (1.5*L+5)/(1-Y)	=	86.4 sec
Cm = L/(1-Y)	=	52.0 sec
Yult	=	0.668
R.C.ult = (Yult-Y)/Y*100%	=	65.4 %
Cp = 0.9*L/(0.9-Y)	=	56.2 sec
Ymax = 1-L/C	=	0.762
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**70 %**



Stage 1 G= 85 Int = 5



Stage 2 G= 16 Int = 3



Stage 3 G= 19 Int = 2

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		10	8	0	13	8
P2	2,3		13	12	8	20	12
P3	2		8	7	4	8	7
P4	3		8	7	4	10	7

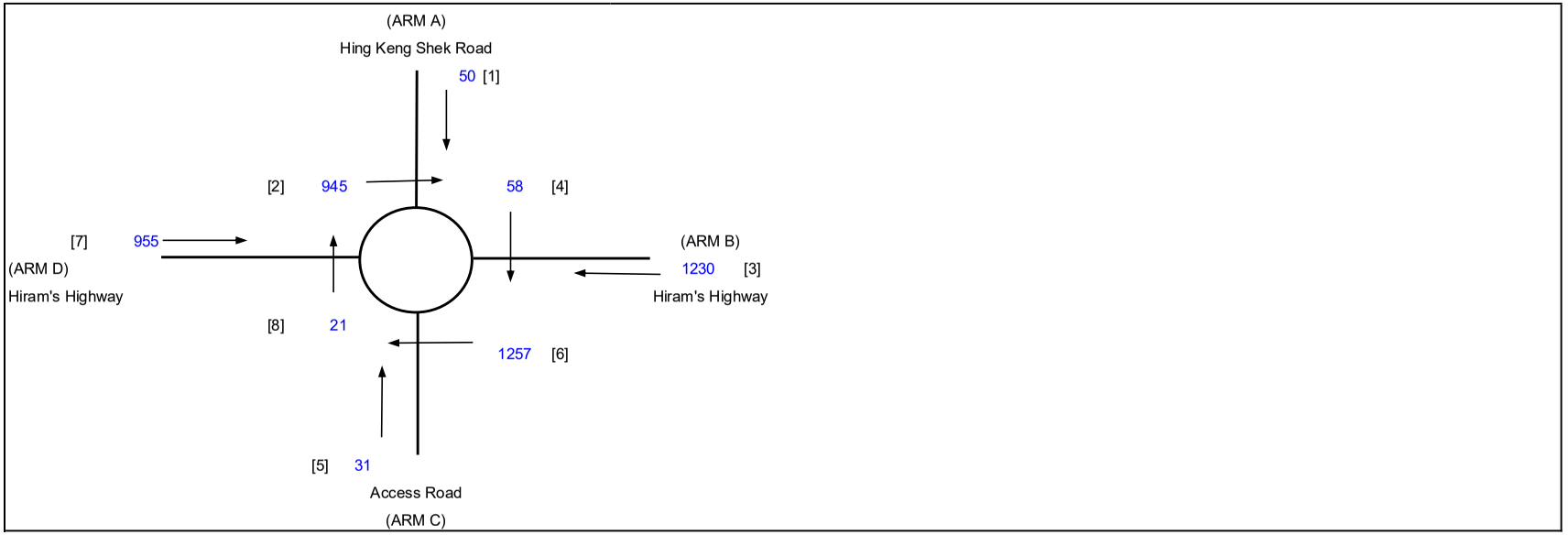
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							8					
1,2	1	3.20	1	15		N	1935	1	541		542	0.00	1935							1935	0.280			69	86	0.530	54	20
1	1	3.20	1				2075		582		582	0.00	2075							2075	0.280			69	86	0.530	54	20
5,6	1	3.50	1	12		N	1965	131	589		720	0.18	1921	18	126					2047	0.352	0.352		86	86	0.530	48	12
4,5	1	3.50	1	12	O	N	1965		608	1	609	0.00	1735							1735	0.351			86	86	0.530	42	12
7,8	2	3.50	1	12			2105	29		90	119	1.00	1871	12	424					2295	0.052	0.052	4	13	17	0.530	18	58
3	3	3.30	1	15		N	1945	1			1	1.00	1768							1768	0.001			0	19	0.530	0	1027
PED	3																						19					

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

Appendix B

Junction Capacity Assessment – Reference & Design Scenarios

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung	**2034 Reference AM**	PROJECT NO.: 40815	PREPARED BY:	SKL	Jul-25
		FILENAME : J1_HH_HKSR.xlsx	CHECKED BY:	SLN	Jul-25
J1 Hiram's Highway/Hing Keng Shek Road Roundabout		REFERENCE NO.:	REVIEWED BY:	SLN	Jul-25

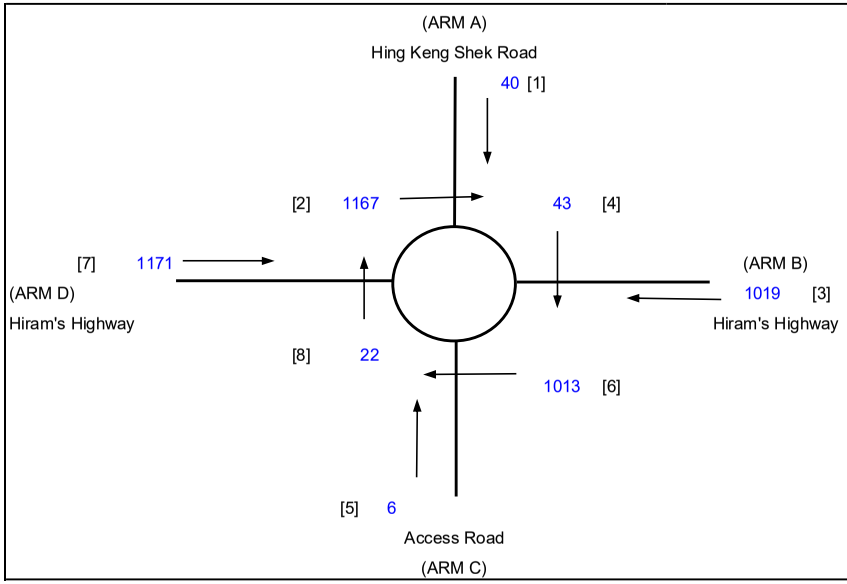


ARM			A	B	C	D
INPUT PARAMETERS:						
V	=	Approach half width (m)	2.50	3.65	3.50	8.00
E	=	Entry width (m)	4.50	8.00	3.50	8.00
L	=	Effective length of flare (m)	9.00	50.00	1.00	1.00
R	=	Entry radius (m)	24.00	20.00	12.50	21.00
D	=	Inscribed circle diameter (m)	46.00	46.00	46.00	46.00
A	=	Entry angle (degree)	27.00	41.00	40.00	35.00
Q	=	Entry flow (pcu/h)	50	1230	31	955
Qc	=	Circulating flow across entry (pcu/h)	945	58	1257	21
OUTPUT PARAMETERS:						
S	=	Sharpness of flare = 1.6(E-V)/L	0.36	0.14	0.00	0.00
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.02	0.96	0.94	0.98
X2	=	V + ((E-V)/(1+2S))	3.67	7.05	3.50	8.00
M	=	EXP((D-60)/10)	0.25	0.25	0.25	0.25
F	=	303*X2	1112	2137	1061	2424
Td	=	1+(0.5/(1+M))	1.40	1.40	1.40	1.40
Fc	=	0.21*Td(1+0.2*X2)	0.51	0.71	0.50	0.76
Qe	=	K(F-Fc*Qc) *	641	2016	404	2372
DFC	=	Design flow/Capacity = Q/Qe	0.08	0.61	0.08	0.40

Total In Sum = 2266 PCU

DFC of Critical Approach = 0.61

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung	**2034 Reference PM**	PROJECT NO.: 40815	PREPARED BY:	SKL	Jul-25
		FILENAME : J1_HH_HKSR.xlsx	CHECKED BY:	SLN	Jul-25
J1 Hiram's Highway/Hing Keng Shek Road Roundabout		REFERENCE NO.:	REVIEWED BY:	SLN	Jul-25

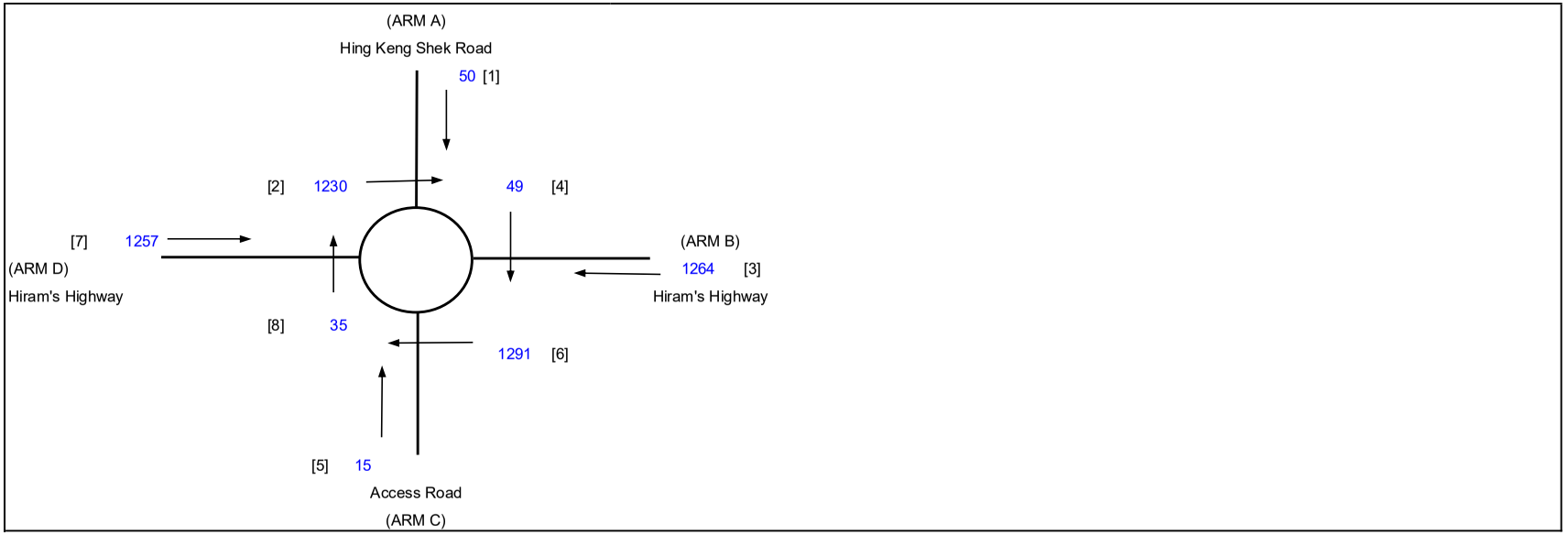


ARM			A	B	C	D
INPUT PARAMETERS:						
V	=	Approach half width (m)	2.50	3.65	3.50	8.00
E	=	Entry width (m)	4.50	8.00	3.50	8.00
L	=	Effective length of flare (m)	9.00	50.00	1.00	1.00
R	=	Entry radius (m)	24.00	20.00	12.50	21.00
D	=	Inscribed circle diameter (m)	46.00	46.00	46.00	46.00
A	=	Entry angle (degree)	27.00	41.00	40.00	35.00
Q	=	Entry flow (pcu/h)	40	1019	6	1171
Qc	=	Circulating flow across entry (pcu/h)	1167	43	1013	22
OUTPUT PARAMETERS:						
S	=	Sharpness of flare = 1.6(E-V)/L	0.36	0.14	0.00	0.00
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.02	0.96	0.94	0.98
X2	=	V + ((E-V)/(1+2S))	3.67	7.05	3.50	8.00
M	=	EXP((D-60)/10)	0.25	0.25	0.25	0.25
F	=	303*X2	1112	2137	1061	2424
Td	=	1+(0.5/(1+M))	1.40	1.40	1.40	1.40
Fc	=	0.21*Td(1+0.2*X2)	0.51	0.71	0.50	0.76
Qe	=	K(F-Fc*Qc) *	526	2026	518	2371
DFC	=	Design flow/Capacity = Q/Qe	0.08	0.50	0.01	0.49

Total In Sum = 2236 PCU

DFC of Critical Approach = 0.50

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung	**2034 Reference WN**	PROJECT NO.: 40815	PREPARED BY:	SKL	Jul-25
		FILENAME : J1_HH_HKSR.xlsx	CHECKED BY:	SLN	Jul-25
J1 Hiram's Highway/Hing Keng Shek Road Roundabout		REFERENCE NO.:	REVIEWED BY:	SLN	Jul-25

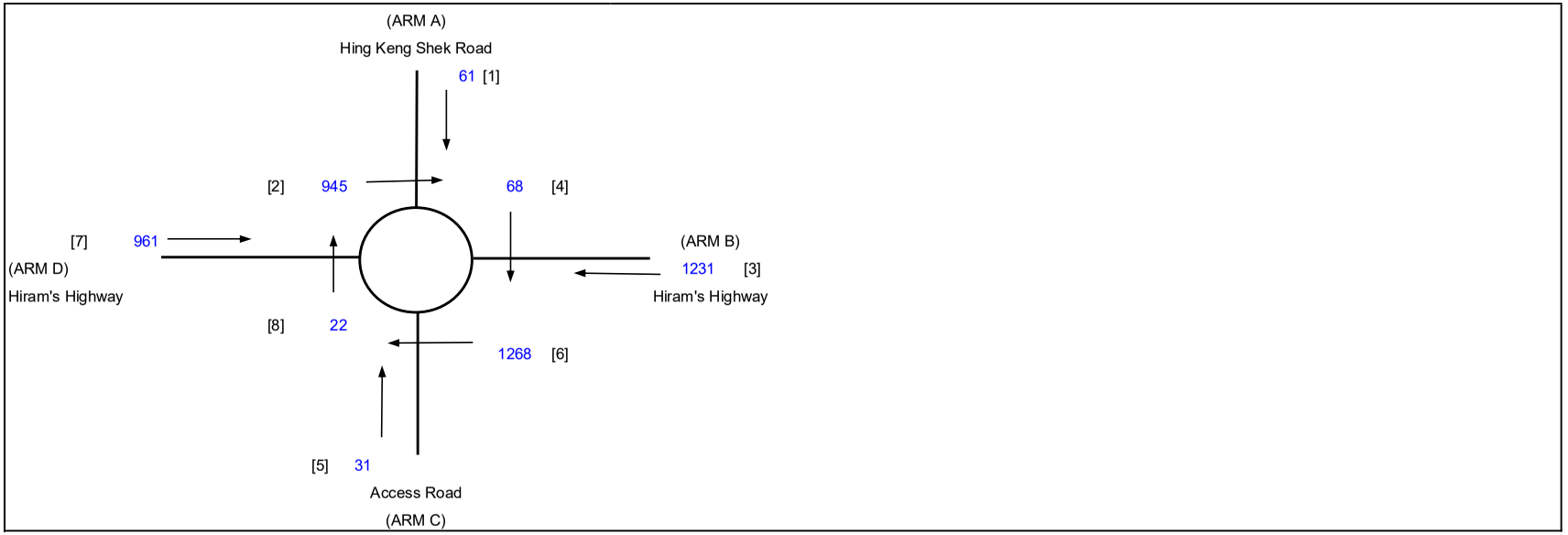


ARM			A	B	C	D
INPUT PARAMETERS:						
V	=	Approach half width (m)	2.50	3.65	3.50	8.00
E	=	Entry width (m)	4.50	8.00	3.50	8.00
L	=	Effective length of flare (m)	9.00	50.00	1.00	1.00
R	=	Entry radius (m)	24.00	20.00	12.50	21.00
D	=	Inscribed circle diameter (m)	46.00	46.00	46.00	46.00
A	=	Entry angle (degree)	27.00	41.00	40.00	35.00
Q	=	Entry flow (pcu/h)	50	1264	15	1257
Qc	=	Circulating flow across entry (pcu/h)	1230	49	1291	35
OUTPUT PARAMETERS:						
S	=	Sharpness of flare = 1.6(E-V)/L	0.36	0.14	0.00	0.00
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.02	0.96	0.94	0.98
X2	=	V + ((E-V)/(1+2S))	3.67	7.05	3.50	8.00
M	=	EXP((D-60)/10)	0.25	0.25	0.25	0.25
F	=	303*X2	1112	2137	1061	2424
Td	=	1+(0.5/(1+M))	1.40	1.40	1.40	1.40
Fc	=	0.21*Td(1+0.2*X2)	0.51	0.71	0.50	0.76
Qe	=	K(F-Fc*Qc) *	493	2022	388	2361
DFC	=	Design flow/Capacity = Q/Qe	0.10	0.63	0.04	0.53

Total In Sum = 2586 PCU

DFC of Critical Approach = 0.63

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung	**2034 Design AM**	PROJECT NO.: 40815	PREPARED BY:	SKL	Jul-25
		FILENAME : J1_HH_HKSR.xlsx	CHECKED BY:	SLN	Jul-25
J1 Hiram's Highway/Hing Keng Shek Road Roundabout		REFERENCE NO.:	REVIEWED BY:	SLN	Jul-25

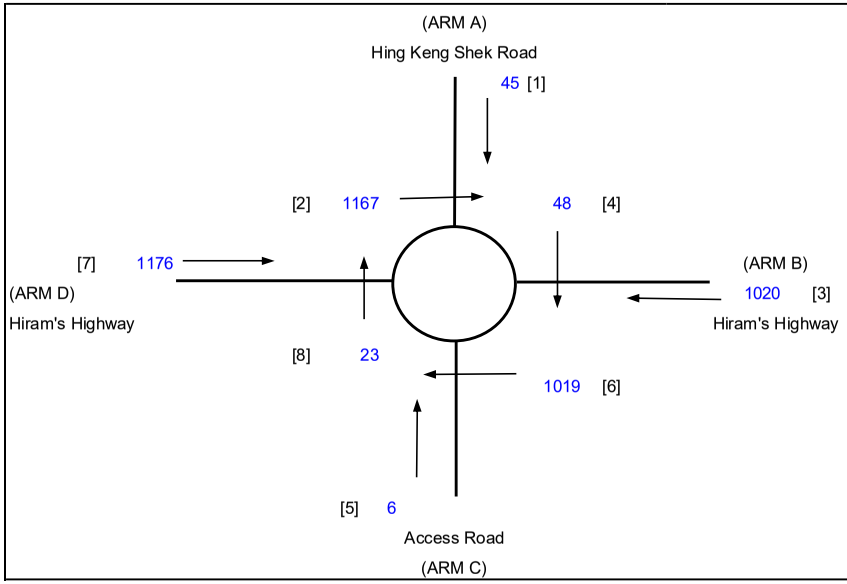


ARM			A	B	C	D
INPUT PARAMETERS:						
V	=	Approach half width (m)	2.50	3.65	3.50	8.00
E	=	Entry width (m)	4.50	8.00	3.50	8.00
L	=	Effective length of flare (m)	9.00	50.00	1.00	1.00
R	=	Entry radius (m)	24.00	20.00	12.50	21.00
D	=	Inscribed circle diameter (m)	46.00	46.00	46.00	46.00
A	=	Entry angle (degree)	27.00	41.00	40.00	35.00
Q	=	Entry flow (pcu/h)	61	1231	31	961
Qc	=	Circulating flow across entry (pcu/h)	945	68	1268	22
OUTPUT PARAMETERS:						
S	=	Sharpness of flare = 1.6(E-V)/L	0.36	0.14	0.00	0.00
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.02	0.96	0.94	0.98
X2	=	V + ((E-V)/(1+2S))	3.67	7.05	3.50	8.00
M	=	EXP((D-60)/10)	0.25	0.25	0.25	0.25
F	=	303*X2	1112	2137	1061	2424
Td	=	1+(0.5/(1+M))	1.40	1.40	1.40	1.40
Fc	=	0.21*Td(1+0.2*X2)	0.51	0.71	0.50	0.76
Qe	=	K(F-Fc*Qc) *	641	2009	399	2371
DFC	=	Design flow/Capacity = Q/Qe	0.10	0.61	0.08	0.41

Total In Sum = 2284 PCU

DFC of Critical Approach = 0.61

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung	**2034 Design PM**	PROJECT NO.: 40815	PREPARED BY:	SKL	Jul-25
		FILENAME : J1_HH_HKSR.xlsx	CHECKED BY:	SLN	Jul-25
J1 Hiram's Highway/Hing Keng Shek Road Roundabout		REFERENCE NO.:	REVIEWED BY:	SLN	Jul-25

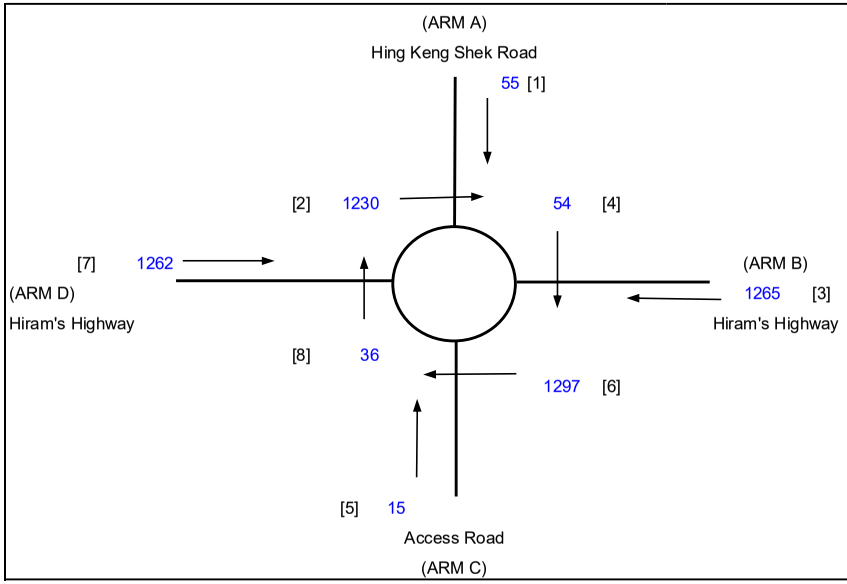


ARM			A	B	C	D
INPUT PARAMETERS:						
V	=	Approach half width (m)	2.50	3.65	3.50	8.00
E	=	Entry width (m)	4.50	8.00	3.50	8.00
L	=	Effective length of flare (m)	9.00	50.00	1.00	1.00
R	=	Entry radius (m)	24.00	20.00	12.50	21.00
D	=	Inscribed circle diameter (m)	46.00	46.00	46.00	46.00
A	=	Entry angle (degree)	27.00	41.00	40.00	35.00
Q	=	Entry flow (pcu/h)	45	1020	6	1176
Qc	=	Circulating flow across entry (pcu/h)	1167	48	1019	23
OUTPUT PARAMETERS:						
S	=	Sharpness of flare = 1.6(E-V)/L	0.36	0.14	0.00	0.00
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.02	0.96	0.94	0.98
X2	=	V + ((E-V)/(1+2S))	3.67	7.05	3.50	8.00
M	=	EXP((D-60)/10)	0.25	0.25	0.25	0.25
F	=	303*X2	1112	2137	1061	2424
Td	=	1+(0.5/(1+M))	1.40	1.40	1.40	1.40
Fc	=	0.21*Td(1+0.2*X2)	0.51	0.71	0.50	0.76
Qe	=	K(F-Fc*Qc) *	526	2023	516	2370
DFC	=	Design flow/Capacity = Q/Qe	0.09	0.50	0.01	0.50

Total In Sum = 2247 PCU

DFC of Critical Approach = 0.50

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung	**2034 Design WN**	PROJECT NO.: 40815	PREPARED BY:	SKL	Jul-25
		FILENAME : J1_HH_HKSR.xlsx	CHECKED BY:	SLN	Jul-25
J1 Hiram's Highway/Hing Keng Shek Road Roundabout		REFERENCE NO.:	REVIEWED BY:	SLN	Jul-25



ARM			A	B	C	D
INPUT PARAMETERS:						
V	=	Approach half width (m)	2.50	3.65	3.50	8.00
E	=	Entry width (m)	4.50	8.00	3.50	8.00
L	=	Effective length of flare (m)	9.00	50.00	1.00	1.00
R	=	Entry radius (m)	24.00	20.00	12.50	21.00
D	=	Inscribed circle diameter (m)	46.00	46.00	46.00	46.00
A	=	Entry angle (degree)	27.00	41.00	40.00	35.00
Q	=	Entry flow (pcu/h)	55	1265	15	1262
Qc	=	Circulating flow across entry (pcu/h)	1230	54	1297	36
OUTPUT PARAMETERS:						
S	=	Sharpness of flare = 1.6(E-V)/L	0.36	0.14	0.00	0.00
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.02	0.96	0.94	0.98
X2	=	V + ((E-V)/(1+2S))	3.67	7.05	3.50	8.00
M	=	EXP((D-60)/10)	0.25	0.25	0.25	0.25
F	=	303*X2	1112	2137	1061	2424
Td	=	1+(0.5/(1+M))	1.40	1.40	1.40	1.40
Fc	=	0.21*Td(1+0.2*X2)	0.51	0.71	0.50	0.76
Qe	=	K(F-Fc*Qc) *	493	2019	385	2360
DFC	=	Design flow/Capacity = Q/Qe	0.11	0.63	0.04	0.53

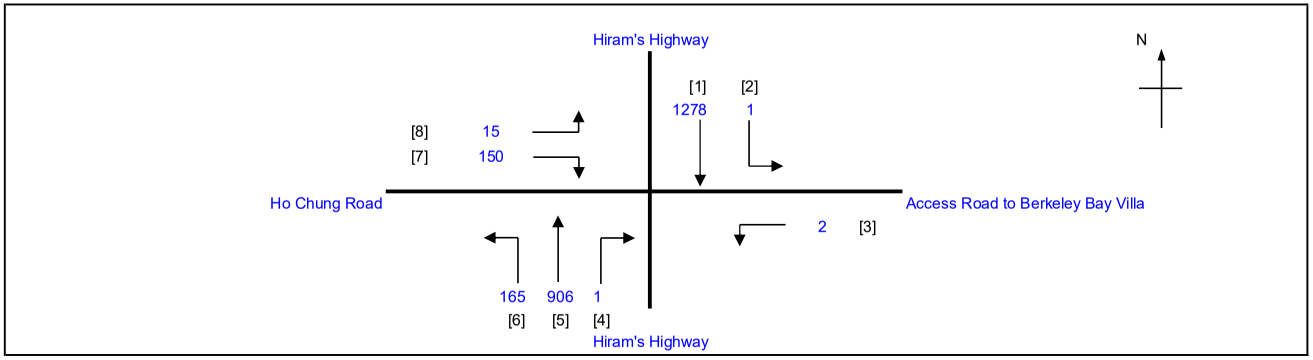
Total In Sum = 2597 PCU

DFC of Critical Approach = 0.63

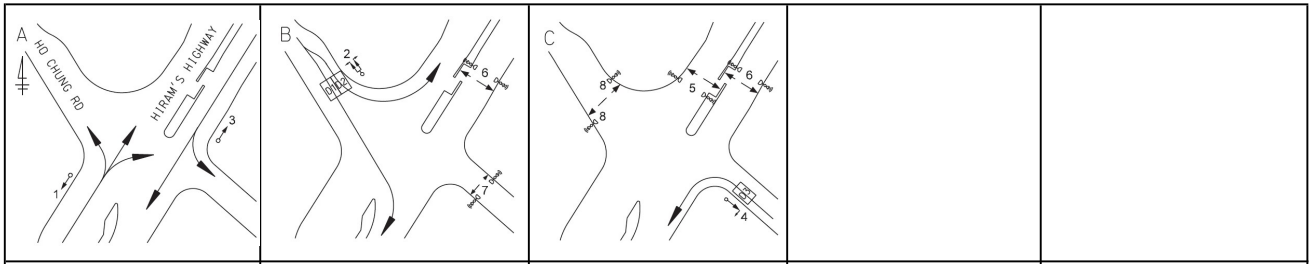
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung	PROJECT NO.: 40815	Prepared By:	SKL	Jul-25
2034 Reference AM	FILENAME : J2_HH_HCR.xlsx	Checked By:	SLN	Jul-25
J2 Hiram's Highway/Ho Chung Road		Reviewed By:	SLN	Jul-25



No. of stages per cycle	N =	3
Cycle time	C =	135 sec
Sum(y)	Y =	0.393
Loss time	L =	27 sec
Total Flow	=	2518 pcu
Co = (1.5*L+5)/(1-Y)	=	75.0 sec
Cm = L/(1-Y)	=	44.5 sec
Yult	=	0.698
R.C.ult = (Yult-Y)/Y*100%	=	77.5 %
Cp = 0.9*L/(0.9-Y)	=	47.9 sec
Ymax = 1-L/C	=	0.800
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**83 %**



Stage 1	G= 87	Int = 5	
Stage 2	G= 19	Int = 3	
Stage 3	G= 19	Int = 2	

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		10	8	0	13	8
P2	2,3		13	12	8	23	12
P3	2		8	7	4	11	7
P4	3		8	7	4	10	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							8					
1,2	1	3.20	1	15		N	1935	1	616		617	0.00	1935							1935	0.319			88	88	0.491	48	12
1	1	3.20	1				2075		662		662	0.00	2075							2075	0.319	0.319		88	88	0.491	48	12
5,6	1	3.50	1	12		N	1965	165	411		576	0.29	1897	18	123					2020	0.285			78	88	0.491	54	16
4,5	1	3.50	1	12	O	N	1965		495	1	496	0.00	1735							1735	0.286			79	88	0.491	42	16
7,8	2	3.50	1	12			2105	15		150	165	1.00	1871	12	360					2231	0.074	0.074		20	20	0.491	30	52
3	3	3.30	1	15		N	1945	2			2	1.00	1768							1768	0.001			0	19	0.491	0	445
PED	3																						19					

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

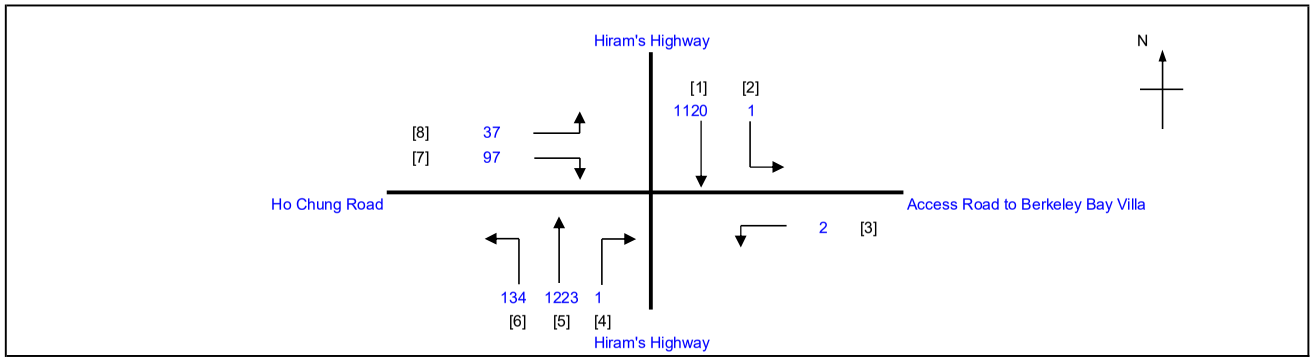
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

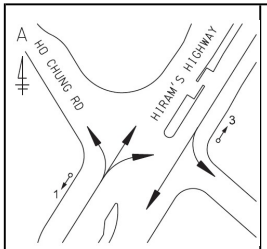
	INITIALS	DATE
Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung		
J2 Hiram's Highway/Ho Chung Road		

2034 Reference PM

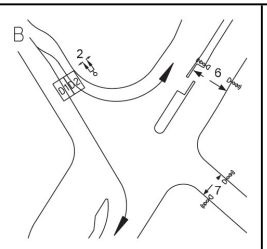
PROJECT NO.:	40815	Prepared By:	SKL	Jul-25
FILENAME :	J2_HH_HCR.xlsx	Checked By:	SLN	Jul-25
		Reviewed By:	SLN	Jul-25



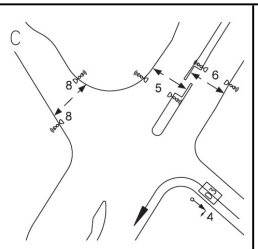
No. of stages per cycle	N =	3
Cycle time	C =	130 sec
Sum(y)	Y =	0.418
Loss time	L =	31 sec
Total Flow	=	2615 pcu
Co = (1.5*L+5)/(1-Y)	=	88.5 sec
Cm = L/(1-Y)	=	53.3 sec
Yult	=	0.668
R.C.ult = (Yult-Y)/Y*100%	=	59.6 %
Cp = 0.9*L/(0.9-Y)	=	57.9 sec
Ymax = 1-L/C	=	0.762
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**64 %**



Stage 1 G= 84 Int = 5



Stage 2 G= 17 Int = 3



Stage 3 G= 19 Int = 2

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		10	8	0	13	8
P2	2,3		13	12	8	21	12
P3	2		8	7	4	9	7
P4	3		8	7	4	10	7

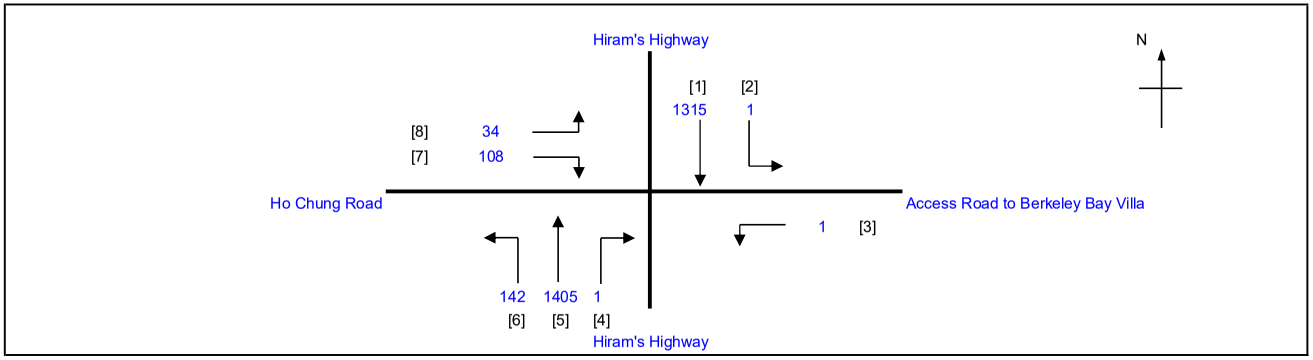
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							8					
1,2	1	3.20	1	15		N	1935	1	540		541	0.00	1935							1935	0.280			66	85	0.549	54	22
1	1	3.20	1				2075		580		580	0.00	2075							2075	0.280			66	85	0.549	60	21
5,6	1	3.50	1	12		N	1965	134	601		735	0.18	1921	18	127					2048	0.359			85	85	0.549	54	12
4,5	1	3.50	1	12	O	N	1965		622	1	623	0.00	1735							1735	0.359	0.359		85	85	0.549	42	13
7,8	2	3.50	1	12			2105	37		97	134	1.00	1871	12	400					2271	0.059	0.059	4	14	18	0.549	24	58
3	3	3.30	1	15		N	1945	2			2	1.00	1768							1768	0.001			0	19	0.549	0	600
PED	3																						19					

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

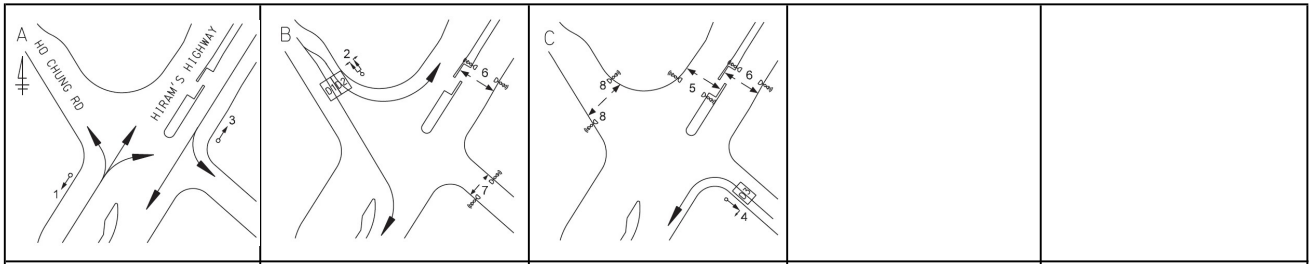
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung	PROJECT NO.: 40815	Prepared By:	SKL	Jul-25
2034 Reference WN	FILENAME : J2_HH_HCR.xlsx	Checked By:	SLN	Jul-25
J2 Hiram's Highway/Ho Chung Road		Reviewed By:	SLN	Jul-25



No. of stages per cycle	N =	3
Cycle time	C =	130 sec
Sum(y)	Y =	0.472
Loss time	L =	32 sec
Total Flow	=	3007 pcu
Co = (1.5*L+5)/(1-Y)	=	100.3 sec
Cm = L/(1-Y)	=	60.6 sec
Yult	=	0.660
R.C.ult = (Yult-Y)/Y*100%	=	40.0 %
Cp = 0.9*L/(0.9-Y)	=	67.2 sec
Ymax = 1-L/C	=	0.754
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**44 %**



Stage 1	G= 84	Stage 2	G= 17	Stage 3	G= 19
	Int = 5		Int = 3		Int = 2

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		10	8	0	13	8
P2	2,3		13	12	8	21	12
P3	2		8	7	4	9	7
P4	3		8	7	4	10	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							8					
1,2	1	3.20	1	15		N	1935	1	634		635	0.00	1935							1935	0.328			68	85	0.625	60	22
1	1	3.20	1				2075		681		681	0.00	2075							2075	0.328			68	85	0.625	66	22
5,6	1	3.50	1	12		N	1965	142	697		839	0.17	1924	18	127					2051	0.409	0.409		85	85	0.625	60	14
4,5	1	3.50	1	12	O	N	1965		708	1	709	0.00	1735							1735	0.409			85	85	0.625	48	14
7,8	2	3.50	1	12			2105	34		108	142	1.00	1871	12	400					2271	0.063	0.063	5	13	18	0.625	24	62
3	3	3.30	1	15		N	1945	1			1	1.00	1768							1768	0.001			0	19	0.625	0	1751
PED	3																						19					

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

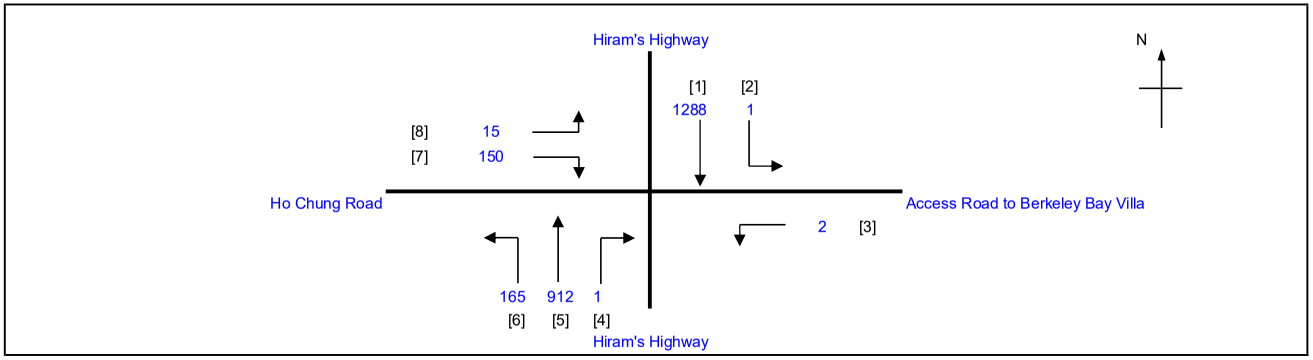
	INITIALS	DATE
Prepared By:	SKL	Jul-25
Checked By:	SLN	Jul-25
Reviewed By:	SLN	Jul-25

Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung

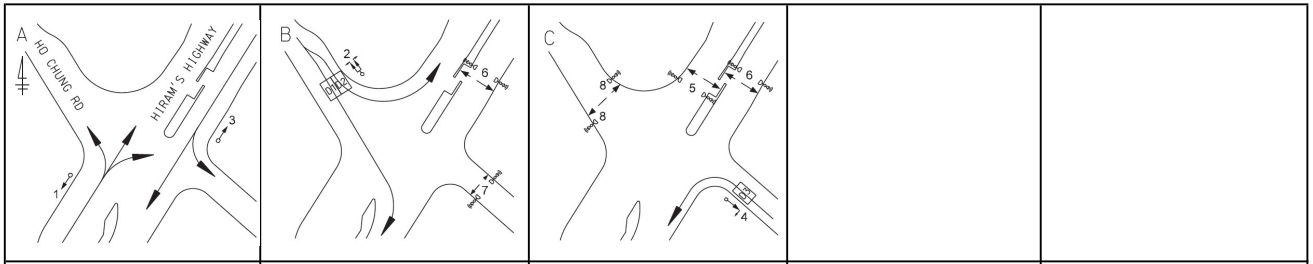
J2 Hiram's Highway/Ho Chung Road

2034 Design AM

PROJECT NO.: 40815
FILENAME : J2_HH_HCR.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	135 sec
Sum(y)		Y =	0.395
Loss time		L =	27 sec
Total Flow		=	2534 pcu
Co	= (1.5*L+5)/(1-Y)	=	75.3 sec
Cm	= L/(1-Y)	=	44.7 sec
Yult		=	0.698
R.C.ult	= (Yult-Y)/Y*100%	=	76.4 %
Cp	= 0.9*L/(0.9-Y)	=	48.2 sec
Ymax	= 1-L/C	=	0.800
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**82 %**



Stage 1	G=	87	Stage 2	G=	19
	Int =	5		Int =	3
Stage 3	G=	19			
	Int =	2			

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		10	8	0	13	8
P2	2,3		13	12	8	23	12
P3	2		8	7	4	11	7
P4	3		8	7	4	10	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							8					
1,2	1	3.20	1	15		N	1935	1	621		622	0.00	1935							1935	0.321	0.321		88	88	0.494	48	12
1	1	3.20	1				2075		667		667	0.00	2075							2075	0.321			88	88	0.494	48	12
5,6	1	3.50	1	12		N	1965	165	415		580	0.28	1898	18	123					2020	0.287			78	88	0.494	54	16
4,5	1	3.50	1	12	O	N	1965		497	1	498	0.00	1735							1735	0.287			78	88	0.494	42	17
7,8	2	3.50	1	12			2105	15		150	165	1.00	1871	12	360					2231	0.074	0.074		20	20	0.494	30	52
3	3	3.30	1	15		N	1945	2			2	1.00	1768							1768	0.001			0	19	0.494	0	452
PED	3																						19					

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

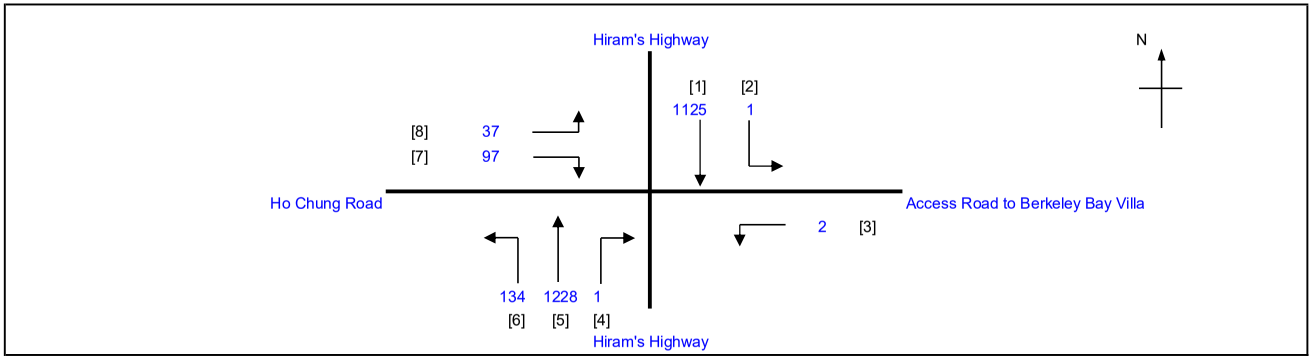
	INITIALS	DATE
Prepared By:	SKL	Jul-25
Checked By:	SLN	Jul-25
Reviewed By:	SLN	Jul-25

Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung

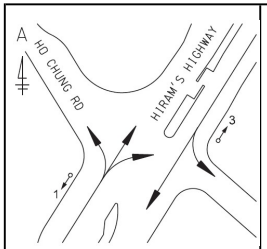
J2 Hiram's Highway/Ho Chung Road

2034 Design PM

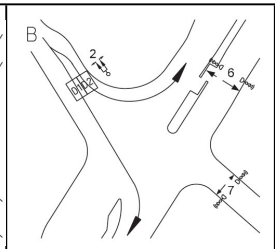
PROJECT NO.: 40815
FILENAME : J2_HH_HCR.xlsx



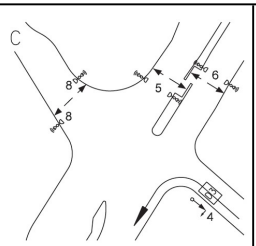
No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.419
Loss time		L =	31 sec
Total Flow		=	2625 pcu
Co	= (1.5*L+5)/(1-Y)	=	88.7 sec
Cm	= L/(1-Y)	=	53.4 sec
Yult		=	0.668
R.C.ult	= (Yult-Y)/Y*100%	=	59.2 %
Cp	= 0.9*L/(0.9-Y)	=	58.0 sec
Ymax	= 1-L/C	=	0.762
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**63 %**



Stage 1 G= 84 Int = 5



Stage 2 G= 17 Int = 3



Stage 3 G= 19 Int = 2

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		10	8	0	13	8
P2	2,3		13	12	8	21	12
P3	2		8	7	4	9	7
P4	3		8	7	4	10	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							8					
1,2	1	3.20	1	15		N	1935	1	542		543	0.00	1935							1935	0.281			66	85	0.551	54	22
1	1	3.20	1				2075		583		583	0.00	2075							2075	0.281			66	85	0.551	60	21
5,6	1	3.50	1	12		N	1965	134	604		738	0.18	1921	18	127					2048	0.360			85	85	0.551	54	12
4,5	1	3.50	1	12	O	N	1965		624	1	625	0.00	1735							1735	0.360	0.360		85	85	0.551	42	13
7,8	2	3.50	1	12			2105	37		97	134	1.00	1871	12	400					2271	0.059	0.059	4	14	18	0.551	24	58
3	3	3.30	1	15		N	1945	2			2	1.00	1768							1768	0.001			0	19	0.551	0	605
PED	3																						19					

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

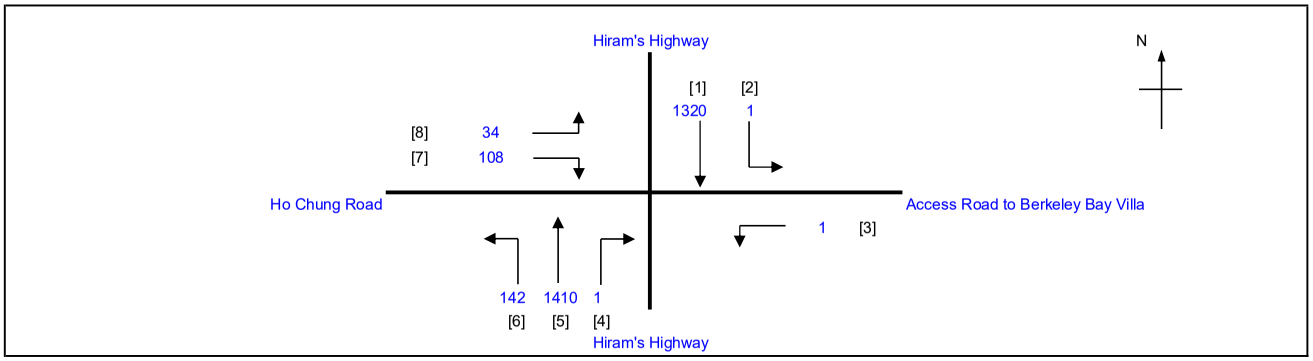
	INITIALS	DATE
Prepared By:	SKL	Jul-25
Checked By:	SLN	Jul-25
Reviewed By:	SLN	Jul-25

Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area Shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung

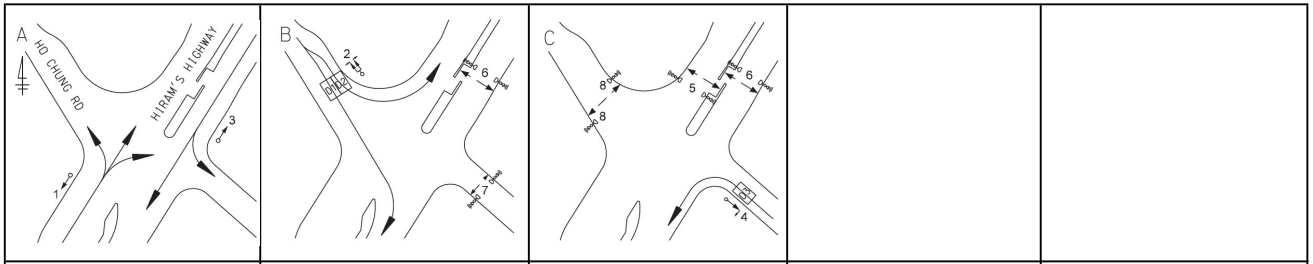
J2 Hiram's Highway/Ho Chung Road

2034 Design WN

PROJECT NO.: 40815
FILENAME : J2_HH_HCR.xlsx



No. of stages per cycle	N =	3
Cycle time	C =	130 sec
Sum(y)	Y =	0.473
Loss time	L =	32 sec
Total Flow	=	3017 pcu
Co = (1.5*L+5)/(1-Y)	=	100.6 sec
Cm = L/(1-Y)	=	60.7 sec
Yult	=	0.660
R.C.ult = (Yult-Y)/Y*100%	=	39.5 %
Cp = 0.9*L/(0.9-Y)	=	67.4 sec
Ymax = 1-L/C	=	0.754
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**43 %**



Stage 1	G=	84	Stage 2	G=	17
	Int =	5		Int =	3
Stage 3	G=	19			
	Int =	2			

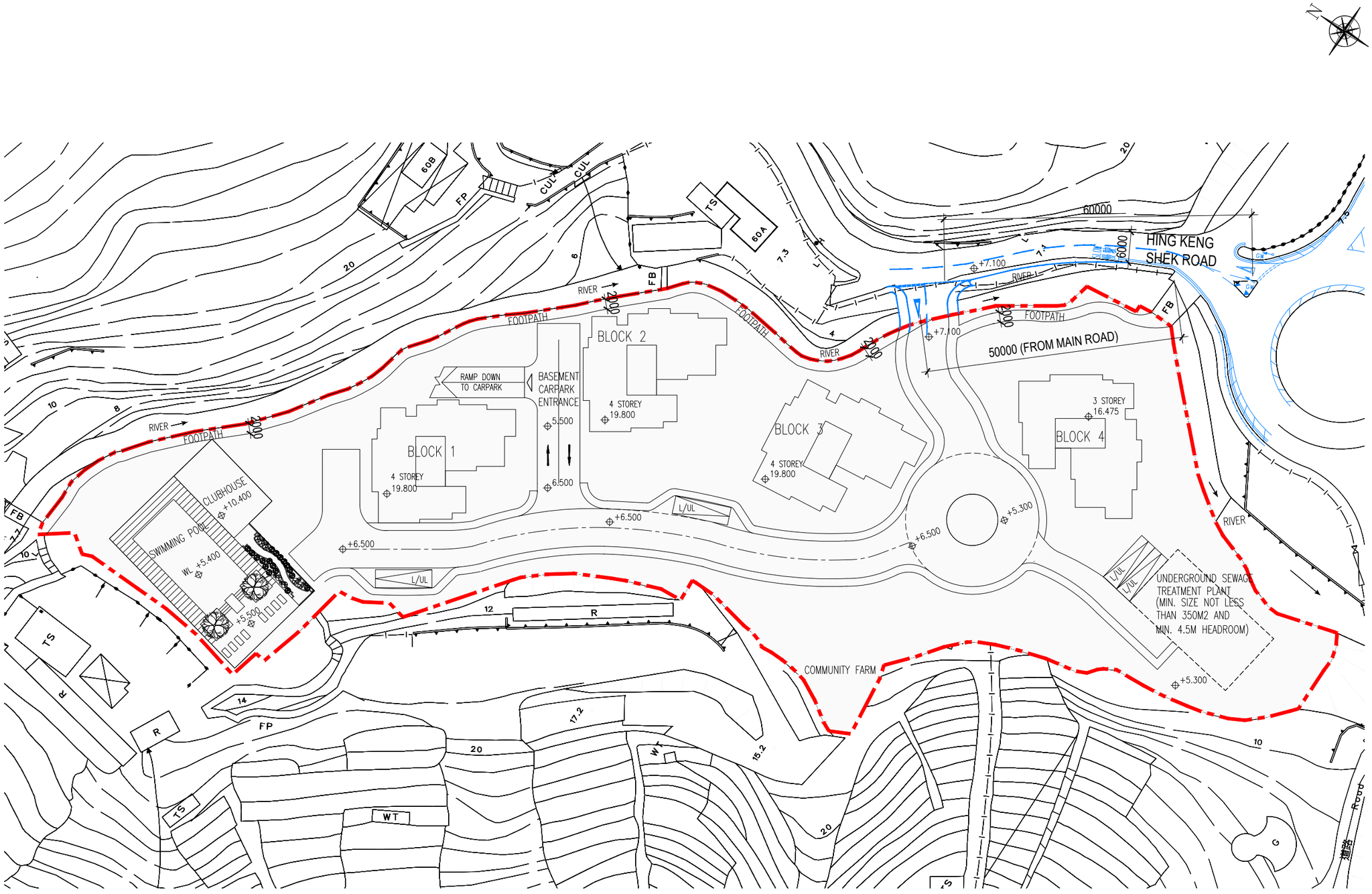
Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		10	8	0	13	8
P2	2,3		13	12	8	21	12
P3	2		8	7	4	9	7
P4	3		8	7	4	10	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							8					
1,2	1	3.20	1	15		N	1935	1	637		638	0.00	1935							1935	0.330			68	85	0.627	60	22
1	1	3.20	1				2075		683		683	0.00	2075							2075	0.329			68	85	0.627	66	22
5,6	1	3.50	1	12		N	1965	142	699		841	0.17	1924	18	127					2051	0.410			85	85	0.627	60	14
4,5	1	3.50	1	12	O	N	1965		711	1	712	0.00	1735							1735	0.410	0.410		85	85	0.627	48	14
7,8	2	3.50	1	12			2105	34		108	142	1.00	1871	12	400					2271	0.063	0.063	5	13	18	0.627	24	63
3	3	3.30	1	15		N	1945	1			1	1.00	1768							1768	0.001			0	19	0.627	0	1770
PED	3																						19					

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

Appendix C

Proposed Layout Plan



Rev.	Date	Amendment	Purpose

K & W Architects Ltd.
關黃建築師有限公司

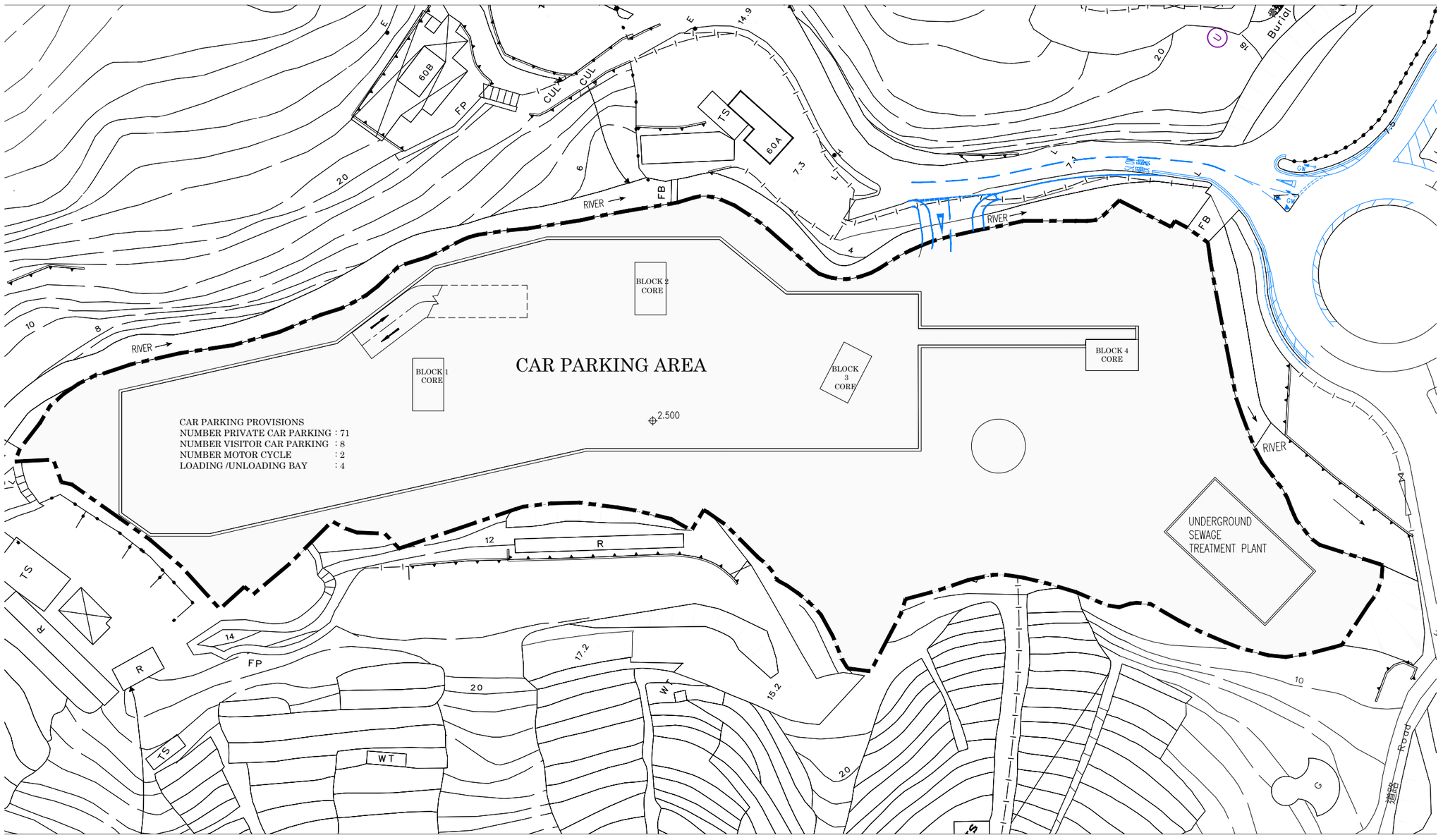
K&W

Client

Project
Application for Amendment of Plan Under Section 12A of the Town Planning Ordinance (Cap. 131) to Rezone the Application Site from "Green Belt" and Area shown as "Road" to "Residential (Group C)5" for Proposed Residential Development at Various Lots in D.D. 210 and Adjoining Government Land, Pak Wai, Sai Kung

Drawing Title
MASTER LAYOUT PLAN

Job No.	Drawing No.	Revision No.
D1186	MLP-01	N
Scale	Date	CAD Ref.
1:800	09/06/2025	
Drawn	Checked	Approved
SF	SF	



Rev.	Date	Amendment	Purpose

K & W Architects Ltd.
關 黃 建 築 師 有 限 公 司

K&W

Client

Project
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Drawing Title
BASEMENT PLAN

Job No.	Drawing No.	Revision No.
D1186	FL-02	L
Scale	Date	CAD Ref.
1:500	23/08/2023	
Drawn	Checked	Approved
PC	PC	