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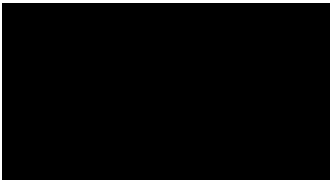
Revised Traffic Impact Assessment

Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from “Open Space” to “Residential (Group A)11”, for Proposed Residential Development with Social Welfare Facilities, Religious Institution, and Shop and Services at Sha Tin Town Lot 310 in D.D. 184, Sha Tin, New Territories
(Planning Application No. Y/ST/63)

DOCUMENT STATUS CONTROL RECORD

**Application for Amendment of Plan under S12A of the
Town Planning Ordinance (Cap. 131), to Rezone the Application Site
from “Open Space” to “Residential (Group A) 11” at
Sha Tin Town Lot 310 in D.D. 184, Sha Tin**

Traffic Impact Assessment Report

Originating Organisation : 	Prepared by: SKL	SKL	Date: 23 September 2026
	Approved by: SLN	SLN	Date: 23 September 2026
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1 INTRODUCTION

1.1 Background

- 1.1.1 The owner of the lot in STTL 310 (hereafter referred to "the Site") at Lion Rock Tunnel Road, Sha Tin, intends to develop the Site into a residential development. **Figure 1.1** shows the location of the Site.
- 1.1.2 The Site is zoned as "Open Space" ("O") on the Draft Sha Tin Outline Zoning Plan No. S/ST/39. It is necessary to submit a S12A planning application for the proposed residential development and a traffic impact assessment study is necessary to support the application.
- 1.1.3 LLA Consultancy Limited has been commissioned by the applicant to undertake a Traffic Impact Assessment (TIA) study in support of this rezoning application. This report presents the findings 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 vicinity of the Site;
 - to estimate the traffic generation and attraction of the proposed development;
 - to project the future traffic situation in the surrounding road network;
 - to appraise the potential traffic impact of the proposed development and to consider traffic improvement proposals, if required; and
 - to recommend the internal transport facilities for the proposed development.

2 THE PROPOSED DEVELOPMENT

2.1 The Site

2.1.1 The Site is located at STTL 310, Lion Rock Tunnel Road, Sha Tin. It is bounded by Lion Rock Tunnel Road to the west, Shing Mun River to the north and other private lots to the east with some low-rise buildings. At present, the existing building on the Site is a religious institute with living quarters.

2.2 The Proposed Development Parameters

2.2.1 **Table 2.1** summarizes the key development parameters of the proposed rezoning scheme.

Table 2.1 Key Development Parameters

Item	Parameter
Site Area	5,225 m ²
Domestic Use	
• GFA	26,125 m ²
• Plot Ratio	5.0
• Number of Residential Blocks	2
• Number of Residential Flats	About 450
Non-Domestic Use	6,680 m ²
• GFA (Reprovision of Hong Kong Bible Research and Education Centre)	About 2,900 m ²
• GFA (100-place RCHE)	About 2,980 m ²
• GFA (Retail)	About 562 m ²
• GFA (Parents/Relative Resource Centre (PRC))	About 238 m ²
• Plot Ratio (Reprovision of Hong Kong Bible Research and Education Centre)	0.56
• Plot Ratio (100-place RCHE)	0.57
• Plot Ratio (Retail)	0.11
• Plot Ratio (Parents/Relative Resource Centre (PRC))	0.05

3 EXISTING TRAFFIC SITUATION

3.1 Existing Road Network

- 3.1.1 Lion Rock Tunnel Road is a primary distributor linking Tai Po Road - Tai Wai and Sha Tin Centre Street with Lion Rock Tunnel. The section of Lion Rock Tunnel Road fronting the Site is a dual 2-lane carriageway with flare lanes at the approach to the signal junctions. It forms a left-in/left-out priority junction with the existing access road to the Site.
- 3.1.2 Tai Chung Kiu Road is dual 3-lane primary distributor running along the eastern side of the Shing Mun River Channel. It connects with Tate's Cairn Highway to the east and Che Kung Miu Road to the west.

3.2 Traffic Count Survey

- 3.2.1 A traffic count survey was carried out on 11 February 2025 (Tuesday) during the peak hour period from 07:00 to 9:00 and 17:00 to 19:00 at the following junctions. The locations of the key junctions and area of influence (AOI) are shown in **Figure 3.1**.

- J1 – Lion Rock Tunnel Road / Tai Po Road - Tai Wai / Sha Tin Centre Street
- J2 – Lion Rock Tunnel Road / Tai Chung Kiu Road / Che Kung Miu Road
- J3 – Tai Chung Kiu Road / Sha Kok Street
- J4 – Tai Chung Kiu Road / Sha Tin Wai Road / Sha Tin Rural Committee Road
- J5 – Yuen Wo Road / Sha Tin Rural Committee Road
- J6 – Che Kung Miu Road / Mei Tin Road / Hung Mui Kuk Road
- J7 – Sha Tin Tau Road / Che Kung Miu Road
- J8 – Chui Tin Street / Che Kung Miu Road
- J9 – Sha Tin Centre Street / Pak Hok Ting Street

- 3.2.2 The identified AM and PM peak hours were 07:30 – 08:30 and 17:45 – 18:45, respectively and the surveyed traffic flows are presented in **Figure 3.2**.

3.3 Existing Junction Capacity Assessment

- 3.3.1 Based on the surveyed traffic flows, the performance of the key junctions were assessed. The assessment results are tabulated in **Table 3.1** and detailed junction capacity calculation sheets are presented in **Appendix A**.

Table 3.1 Existing Junction Performance

No.	Junction	Junction Type/Index ⁽¹⁾	AM Peak	PM Peak
J1	Lion Rock Tunnel Road / Tai Po Road - Tai Wai / Sha Tin Centre Street	Signalized /RC	19%	111%
J2	Lion Rock Tunnel Road / Tai Chung Kiu Road / Che Kung Miu Road	Signalized /RC	28%	43%
J3	Tai Chung Kiu Road / Sha Kok Street	Signalized /RC	47%	130%
J4	Tai Chung Kiu Road / Sha Tin Wai Road / Sha Tin Rural Committee Road	Signalized /RC	12%	52%
J5	Yuen Wo Road / Sha Tin Rural Committee Road	Signalized /RC	29%	21%

No.	Junction	Junction Type/Index ⁽¹⁾	AM Peak	PM Peak
J6	Che Kung Miu Road / Mei Tin Road / Hung Mui Kuk Road	Roundabout/DFC	0.60	0.56
J7	Sha Tin Tau Road / Che Kung Miu Road	Signalized /RC	94%	167%
J8	Chui Tin Street / Che Kung Miu Road	Signalized /RC	96%	93%
J9	Sha Tin Centre Street / Pak Hok Ting Street	Priority/DFC	0.38	0.72

Note: (1) RC = Reserve Capacity for signalized junction; DFC = Design Flow to Capacity ratio for priority junction.

3.3.2 It can be seen from **Table 3.2** that all concerned junctions performed satisfactorily during AM and PM peak hours, except J4 is near its capacity during AM peak hour.

3.4 Existing Public Transport Facilities

3.4.1 MTR Che Kung Temple Station is located within 300m from the Site. The MTR Station could be easily accessed via the existing pedestrian subway. Numerous franchised bus and scheduled minibus (GMB) routes operate in the vicinity of the Site along Lion Rock Tunnel Road, Che Kung Miu Road and Tai Chung Kiu Road. **Table 3.2 and Figure 3.3** show the existing bus and minibus routes running in the vicinity of the Site.

Table 3.2 Existing Public Transport Services

Mode	Route No.	Origin-Destination	Frequency (min)
Bus	47X	Chun Shek – Kwai Shing (East)	6 – 25
	72A	Tai Wai Station – Tai Po Industrial Estate	20 – 35
	74A	Tai Po (Tai Wo) – Kai Yip	60
	79	Tai Wai Station – Queen's Hill Fanling	10 – 30
	80X	Chun Shek – Kwun Tong Ferry	10 – 30
	81C	Yiu On – Tsim Sha Tsui East (Mody Road)	10 – 60
	81K	Sun Tin Wai – Sui Wo Court	8 – 25
	82K	Mei Tin – Yu Chui Court	30 – 40
	85A	Kwong Yuen – Kowloon City Ferry	25 – 30
	85B	Chun Shek – Kowloon City Ferry	1 trip per day
	86	Wong Nai Tau – Mei Foo	15 – 25
	86A	Shatin Wai – Cheung Sha Wan (Kom Tsun Street)	20 – 30
	86C	Lee On – Cheung Sha Wan	20 – 30
	87B	Sun Tin Wai – Island Harbourview	15 – 30
	89	Lek Yuen – Kwun Tong (Tsui Ping North Estate)	15 – 30
	89B	Shatin Wai – Ngau Tau Kok	25 – 30
	170	Shatin Station – Wah Fu (Central)	15 – 30
	182	Yu Chui Court – Central (Macau Ferry)	15 – 30
	182X	Central (Macau Ferry) – Yu Chui Court	6 trips per day
	240X	Wong Nai Tau – Kwai Hing Station	12 trips per day

Mode	Route No.	Origin-Destination	Frequency (min)
	249X	Pok Hong – Tsing Yi Station	15 – 30
	281	Tai Wai Station – Sun Tin Wai (Circular)	15 – 25
	281B	Shek Mun Estate – Tsim Sha Tsui East (Mody Road)	20 – 30
	282	Sha Tin Central – Sun Tin Wai (Circular)	10 – 25
	286A	Shatin Wai – Cheung Sha Wan (Circular)	15 – 30
	287P	Shui Chuen O – Yau Ma Tei	3 trips per day
	287X	Shui Chuen O – Jordan (Circular)	9 – 25
	288	Shui Chuen O (Upper) – Sha Tin Central (Circular)	7 – 20
	288C	Shui Chuen O – Hin Keng	2 trips per day
	T80	Mei Tin – Kowloon Bay	3 trips per day
	982C	Shek Mun Estate – Sai Wan Ho	2 trips per day
	982X	Yu Chui Court – Wan Chai (Fleming Road)	13 trips per day
	986	Sha Tin Wai – Sai Wan Ho	4 trips per day
	987	Sai Wan Ho – Fo Tan (Chun Yeung Estate)	15 – 20
	A41	Shek Mun Estate – Airport (Ground Transportation Centre)	15 – 35
	A42	Wong Nai Tau – Airport (Ground Transportation Centre)	30 – 60
	B8	Tai Wai Station – Heung Yuen Wai Boundary Control Point	5 – 30
	E42	Pok Hong – Airport (Ground Transportation Centre)	8 – 20
	E42C	Pok Hong – Aircraft Maintenance Area	4 trips per day
	E42P	Fo Tan (Shan Mei Street) – Tung Chung (Yat Tung)	6 trips per day
	N42	Yiu On Bus Terminus – Tung Chung Station	3 trips per day
	N170	Shatin Central – Wah Fu (Central)	22 – 30
	N182	Kwong Yuen – Central (Macau Ferry)	20 – 30
	N271	Tai Po (Fu Heng) – Hung Hom Station	20 – 30
	N281	Kam Ying Court – Hung Hom Station	25 – 30
	N283	Tsim Sha Tsui East (Mody Road) – Wong Nai Tau	3 trips per day
	R42	Disneyland – Tai Wai Station	1 – 2 trips per day
	NA41	Shui Chuen O – HZMB Hong Kong Port	2 trips per day
GMB	65S	Wong Nai Tau – Mong Kok Station	20 – 25
	68K	Tai Wai Station Public Transport Interchange – Julimount Garden	6 – 15
	403	Shek Lei (Lei Pui Street) – Sha Tin Wai (Circular)	20
	501S	Sheung Shui Station – Yue Man Square	60
	803	Hin Keng – Lee On	5 – 15
	804	Kwong Yuen – Hin Keng	5 – 10
	812	Shui Chuen O – Hin Keng (Che Kung Miu Road)	8 – 20

4 FUTURE TRAFFIC SITUATION

4.1 Design Year

4.1.1 The tentative completion year for the proposed development is 2032. The guidelines from the Transport Department recommends that the traffic impact assessment should be conducted for three years after the completion date. Therefore, the design year adopted for the subsequent traffic analysis is 2035.

4.2 Traffic Forecast

Annual Traffic Census (ATC) – Historical Data

4.2.1 In order to establish the traffic growth rate in the vicinity of the Site, reference was made to the 2018 to 2024 Annual Traffic Census Reports published by the Transport Department, reporting on the AADT at the counting stations in the territory. The details of the counting stations in the study area and the corresponding counts are shown in **Table 4.1**.

Table 4.1 Annual Traffic Census Data

Stn. No.	Road Section			AADT ⁽¹⁾							Avg. Growth %
	Road	From	To	2018	2019	2020	2021	2022	2023	2024	
5211	Tai Chung Kiu Rd	Sha Kok St	Sha Tin Wai Rd	23,190	22,890 (-1.3%)	21,590 (-5.7%)	22,950 (6.3%)	21,510 (-6.3%)	22,580 (5%)	19,940 (-11.7%)	-2.5%
5214	Tai Po Rd - Tai Wai	Shing Ho Rd	Lion Rock Tunnel Rd	9,000	9,430 (4.8%)	8,900 (-5.6%)	9,460 (6.3%)	8,860 (-6.3%)	10,280 (16%)	9,760 (-5.1%)	1.4%
5215	Lion Rock Tunnel Rd	Che Kung Miu Rd	Sha Tin Rd	10,570	11,360 (7.5%)	10,720 (-5.6%)	11,390 (6.3%)	10,680 (-6.2%)	10,070 (-5.7%)	9,390 (-6.8%)	-2.0%
5615	Che Kung Miu Rd	Mei Tin Rd	Sha Tin Tau Rd	21,320	21,300 (-0.1%)	17,820 (-16.3%)	19,130 (7.4%)	17,930 (-6.3%)	18,560 (3.5%)	18,290 (-1.5%)	-2.5%
5815	Che Kung Miu Rd	Lion Rock Tunnel Rd	Sha Tin Tau Rd	22,290	22,260 (-0.1%)	21,000 (-5.7%)	22,900 (9%)	21,840 (-4.6%)	22,610 (3.5%)	22,280 (-1.5%)	0.0%
6011	Tai Chung Kiu Rd	Lion Rock Tunnel Rd	Sha Kok St	30,620	30,590 (-0.1%)	28,850 (-5.7%)	30,660 (6.3%)	30,500 (-0.5%)	30,730 (0.8%)	30,280 (-1.5%)	-0.2%
6015	Lion Rock Tunnel Rd	Tai Po Rd - Shatin	Che Kung Miu Rd	20,910	20,890 (-0.1%)	19,700 (-5.7%)	20,940 (6.3%)	20,350 (-2.8%)	20,610 (1.3%)	20,310 (-1.5%)	-0.5%
Total				137,900	138,720 (0.6%)	128,580 (-7.3%)	137,430 (6.9%)	131,670 (-4.2%)	135,440 (2.9%)	130,250 (-3.8%)	-0.9%

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

4.2.2 **Table 4.1** showed that the recorded average annual growth rate of the concerned counting stations is -0.9% between years 2018 to 2024.

Territorial Population and Employment Data Matrix (TPEDM) – Projection Data

- 4.2.3 Reference was also made to the 2021 based Territorial Population and Employment Data Matrix (TPEDM) published by the Planning Department. The population and employment data of year 2021 and 2031 are summarized in **Table 4.2**.

Table 4.2 Population and Employment Data in Sha Tin District

Year	2021	2026	2031
Population	692,800	687,450	667,750
Employment	222,150	230,600	220,400
Total	914,950	918,050	888,150
Average Annual Growth %		+0.1% (2021 to 2026)	-0.7% (2026 to 2031)

- 4.2.4 As shown in **Table 4.2**, the average annual growth rate for both population and employment of Sha Tin district is +0.1% and -0.7% during 2021–2026 and 2026–2031, respectively. Having considered the rates derived from ATC and TPEDM data, to be conservative, a nominal growth rate of +1.0% will be adopted for the subsequent traffic forecasting.

Future Road Network – Trunk Road T4

- 4.2.5 According to the latest information, the Trunk Road T4 scheme was gazette on 26 November 2021 under gazette number G.N. 7314. The construction works commenced in Year 2024 and to be completed by Year 2030. Elevated carriageways, footpaths, cycle tracks, underpasses and slip roads will be constructed to connect Sha Tin Road in the east and Shing Mun Tunnel Road and Tsing Sha Highway in the west. This new trunk road can provide an alternative route for traffic between Ma On Shan area and Tsuen Wan/West Kowloon area. The potential traffic implications of Trunk Road T4 are considered in the subsequent assessments. The future traffic flows were estimated by adopting growth factors to the existing traffic flows, forming the background traffic flows in the design year. The traffic implication of Trunk Road T4 (diverting some traffic from the original routing to T4) was then applied to the background traffic flows for formulating the reference traffic flows.

4.3 Planned/Committed Developments

4.3.1 To estimate the future traffic flows, updated information are being obtained from available information regarding the planned and approved developments in the vicinity of the study area. The details of these developments are given in **Table 4.3**.

Table 4.3 Planned / Committed Developments

Ref.	Reference	Location	Proposed Use	Content
1	A/ST/1008	Lot 479 S.X in D.D. 189 and Adjoining Government Land, South of Hin Keng Street, Tai Wai, New Territories	Public Vehicle Park RCHE	235 spaces 236 beds
2	A/ST/1030	Junction of Tsuen Nam Road and Chik Luk Lane, Tai Wai, New Territories	Public Housing Government Complex Public Vehicle Park	500 flats 6,805 m ² NOFA 135 spaces
3	Pavilia Farm (Phase 3) ⁽¹⁾	18 Che Kung Miu Road, Tai Wai	Private Housing	892 units ⁽²⁾
4	Y/ST/62 ⁽³⁾	Various Lots in D.D. 184 and Adjoining Government Land, Sha Tin	Hotel Retail	443 rooms 800 m ²

Notes: 1. Although the development is completed, it is noted that only 50% of the flats are sold. Therefore, it is still considered as a committed development.
2. According to Monthly Digest (Feb 2026) published by Buildings Department, the total number of units is 892 and the domestic GFA for the development is 63,758.8m². As such, average flat size of 71.4 m²(63,758.8 / 892 = 71.4) is adopted for traffic generation estimation.
3. The development is not yet approved at the time of assessment and is included for conservative assessment purposes.

4.3.2 The traffic flows that would be generated by these developments have been considered, by making reference to the trip generation rates in the Transport Planning and Design Manual ("TPDM"). The traffic generation and attraction numbers are shown in **Table 4.4**.

Table 4.4 Traffic Generation and Attraction of Planned / Committed Developments

Type / Development		Unit / Content	AM Peak Hour			PM Peak Hour		
			Gen.	Att.	2-way	Gen.	Att.	2-way
TPDM Trip Rates								
Private: High Density/R(A): 80m ²		pcu/hr/flat	0.1058	0.0605	-	0.0426	0.0590	-
Traffic Generation of the Planned Developments								
A/ST/1008	RCHE ⁽¹⁾	236 beds	9	10	19	9	9	18
	PVP ⁽¹⁾	235 spaces	27	8	35	15	40	55
A/ST/1030	Subsidised Housing ⁽¹⁾	500 units	14	13	27	10	12	22
	PVP ⁽¹⁾	135 spaces	13	7	20	8	10	18
	Government Complex ⁽¹⁾	6,805 m ²	45	45	90	45	45	90
Pavilia Farm (Phase 3)	Private Housing	892 units	95	54	149	38	53	91
Y/ST/62	Hotel ⁽¹⁾	443 rooms	59	65	124	58	69	127
	Retail ⁽¹⁾	800 m ²	2	2	4	3	3	6
Total			264	204	468	186	241	427

Notes: Gen. – Generation; Att. – Attraction
(1) Traffic generation and attraction from the TIA report of the study are adopted.

4.4 Proposed Development Traffic Generation

4.4.1 In order to examine the traffic impact of the proposed development, additional traffic generated/ attracted by the proposed development should be estimated based on the development parameters as outlined in **Table 2.1** and the trip rates documented in TPDM Volume 1 Chapter 3 – Transport Considerations of Town Plans. However, having considered that the research and education centre is re-provision and the traffic of the existing research and education centre have been reflected in the traffic count survey, it is excluded from the additional traffic estimation.

4.4.2 As there are no established trip rates published in TPDM or other relevant guidelines for the research and education centre and RCHE, trip generation surveys at existing buildings should be arranged to collect trip rates for these uses. The trip generation survey was conducted on 11 February 2025 (Tuesday) during the AM and PM peak hour period. The survey results and the trip rates derived are presented in **Table 4.5**.

Table 4.5 Survey Results at the Existing Buildings

Name	Unit / Content	AM Peak			PM Peak		
		Gen.	Att.	2-way	Gen.	Att.	2-way
Traffic Generation of Existing Research and Education Center (pcu/hr)							
Hong Kong Bible Research and Education Center	2,902 m ²	1	1	2	1	1	2
Traffic Generation of Existing RCHEs (pcu/hr)							
Caritas Harold H.W. LEE Care and Attention Home	276 places	9	10	19	10	9	19
SAGE Kwan Fong Nim Chee Home for the Elderly	204 places	7	8	15	8	7	15
Derived Trip Rates for RCHE (pcu/hr/space)							
Caritas Harold H.W. LEE Care and Attention Home		0.3261	0.3623	-	0.3623	0.3261	-
SAGE Kwan Fong Nim Chee Home for the Elderly		0.3431	0.3922	-	0.3922	0.3431	-
Adopted Trip Rates ⁽¹⁾		0.3431	0.3922	-	0.3922	0.3431	-

Note: Gen. – Generation; Att. – Attraction.

(1) The largest trip rates are adopted for conservative assessment purposes.

4.4.3 Having considered that PRC is anticipated to serve the local community which is not anticipated to generate traffic during peak hours, it is excluded from the subsequent assessment. Based on the above, the traffic generation of the proposed development has been estimated and presented in **Table 4.6**.

Table 4.6 Development Traffic Generation

Proposed Use	Unit /Content	AM Peak Hour			PM Peak Hour		
		Gen.	Att.	Total	Gen.	Att.	Total
Adopted Trip rates							
Private Housing: High-Density / R(A) (Average Flat Size: 60m ²) ⁽¹⁾	pcu/hr /flat	0.0718	0.0425	-	0.0286	0.037	-
RCHE ⁽²⁾	pcu/hr/10-place	0.3431	0.3922	-	0.3922	0.3431	-
Retail ⁽¹⁾	pcu/hr /100m ²	0.2296	0.2434	-	0.3100	0.3563	-
Estimated Traffic Generation/Attraction							
Residential	450 flats	33	20	53	13	17	30
Research and Education Center ⁽³⁾	About 2,900 m ²	1	1	2	1	1	2
RCHE	100 places	3	4	7	4	3	7
Retail	562 m ²	2	2	4	2	3	5
Total		39	27	66	20	24	44

Notes: Gen. – Generation; Att. – Attraction

(1) TPDM mean trip rates are adopted.

(2) Trip rates derived in Table 4.5.

(3) The surveyed traffic generation and attraction of the existing building in Table 4.5 is adopted for the proposed re-provision.

4.4.4 As shown in **Table 4.6**, the proposed development would generate two-way traffic flows of 66 pcu/hr and 44 pcu/hr during the AM and PM peak hours, respectively. The development traffic was distributed onto the road work with reference to surveyed traffic flows and presented in **Figure 4.1**.

4.5 Reference and Design Flows

4.5.1 The 2035 Reference Flows, i.e., the traffic flows in the vicinity **without** the traffic flows generated by the proposed development, were estimated based on the following equation.

$$\text{2035 Reference Flows} = \text{2025 Existing Flows} \times (1 + 1.0\%)^{10} + \text{Traffic implication by Trunk Road T4} + \text{Traffic Flows Generated by the Planned/Committed Developments}$$

4.5.2 The 2035 Design Flows, i.e., the traffic flows in the vicinity **with** the traffic flows generated by the proposed development, were estimated based on the following equation:

$$\text{2035 Design Flows} = \text{2035 Reference Flows} + \text{Traffic Flows Generated by the Proposed Development}$$

4.5.3 The 2035 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 2035. The assessment results are shown in **Table 4.7** and the detailed calculation sheets are presented in **Appendix B**.

Table 4.7 Year 2035 Junction Capacity Assessment

No.	Junction	Junction Type/Index ⁽¹⁾	2035 Reference		2035 Design	
			AM Peak	PM Peak	AM Peak	PM Peak
J1	Lion Rock Tunnel Road / Tai Po Road - Tai Wai / Sha Tin Centre Street	Signalized/RC	84%	91%	84%	86%
J2	Lion Rock Tunnel Road / Tai Chung Kiu Road / Che Kung Miu Road	Signalized/RC	46%	55%	44%	53%
J3	Tai Chung Kiu Road / Sha Kok Street	Signalized/RC	47% (32%) ⁽²⁾	145% (120%) ⁽²⁾	46% (31%) ⁽²⁾	143% (119%) ⁽²⁾
J4	Tai Chung Kiu Road / Sha Tin Wai Road / Sha Tin Rural Committee Road	Signalized/RC	38%	72%	36%	72%
J5	Yuen Wo Road / Sha Tin Rural Committee Road	Signalized/RC	26%	20%	26%	20%
J6	Che Kung Miu Road / Mei Tin Road / Hung Mui Kuk Road	Roundabout/DFC	0.74	0.51	0.75	0.51
J7	Sha Tin Tau Road / Che Kung Miu Road	Signalized/RC	69%	134%	69%	134%
J8	Chui Tin Street / Che Kung Miu Road	Signalized/RC	41%	71%	41%	70%
J9	Sha Tin Centre Street / Pak Hok Ting Street	Priority/DFC	0.42	0.82	0.43	0.82

Note: (1) RC = Reserve Capacity for signalized junction; DFC = Design Flow to Capacity ratio for priority junction.
(2) Figures in bracket represent the junction performance with the potential junction modification under application no. Y/ST/62.

4.6.2 As shown in **Table 4.7**, the assessed junctions will operate with capacities during the peak hours in 2035 with the expected traffic growth and the additional traffic flows generated by the proposed development.

4.7 Pedestrian Traffic Generation

- 4.7.1 To project the future pedestrian conditions, the pedestrian flows generated by the proposed development were being considered. Since there is no established pedestrian trip rate in TPDM, reference was made to other sources.

Residential Component

- 4.7.2 The pedestrian generation of the residential component of the proposed development (excluding those persons using private vehicles to leave the Site) on the surrounding footpaths is estimated based on the tentative flat mix, the overall population of the development is about 1,260. Reference has been made to the published "Travel Characteristics Survey (TCS) 2022 Final Report".
- 4.7.3 According to the Report, the daily mechanized trip rate per population is 1.69 trips (two-way) and the morning and evening peak hour accounted for about 13% and 14% of the daily trips for the two-way trips. Also, the Report stated that out of the total 12,363,000 mechanized trips, around 11,404,000 trips are home-based trips, which means that around 92% ($11,404,000 / 12,363,000 = 92\%$) are outbound trips, therefore, it is assumed that 92% of the trips are in outbound direction in the AM peak hour, the outbound and inbound trips are swapped for PM peak hour. Based on the above, the estimated outbound and inbound trips are summarized in **Table 4.8**.

Table 4.8 Estimated Pedestrian Generation for the Residential Component

Item	Total
Design Population [a]	1,260 ⁽¹⁾
Daily Mechanized Trips (2-way) [b] = [a] x 1.69	2,130
AM Peak Hour Trips (2-way) [c] = [b] x 13%	277
Outbound Trips [d] = [c] x 92%	255
Inbound Trips [e] = [c] – [d]	22
PM Peak Hour Trips (2-way) [f] = [b] x 14%	299
Outbound Trips [g] = [f] x 8%	24
Inbound Trips [h] = [f] – [g]	275

Notes: (1) 450 units (proposed number of flats) x 2.8 (population per household) = 1,260

RCHE and Retail Component

- 4.7.4 The in-house pedestrian trip generation surveys were retrieved to derive the pedestrian trip rates for each type of development. The survey result and the derived trip rates are presented in **Table 4.9**.

Table 4.9 Pedestrian Trip Rates from Surveyed Buildings

Building (Type of Building)	Address	Unit/ Content	AM Peak Hour			PM Peak Hour		
			Gen.	Att.	2-way	Gen.	Att.	2-way
Pedestrian Generation – RCHE (persons/hr)								
Caritas Harold H.W. LEE Care and Attention Home	17 Kong Pui Street, Shatin	276 places	8	79	87	59	11	70
SAGE Kwan Fong Nim Chee Home for the Elderly	27 Chap Wai Kon Street, Shatin	204 places	9	27	36	49	9	58
Pedestrian Generation – Retail (persons/hr)								
Pok Hong Shopping Centre	Sha Kok St , Shatin	3,300 m ²	126	132	258	191	199	390
Derived Trip Rates for RCHE (persons /hr/10 place)								
Caritas Harold H.W. LEE Care and Attention Home			0.29	2.86	–	2.14	0.40	–
SAGE Kwan Fong Nim Chee Home for the Elderly			0.44	1.32	–	2.40	0.44	–
Largest Trip Rates ⁽¹⁾			0.44	2.86	–	2.40	0.44	–
Derived Trip Rates for Retail (persons /hr/100 m ²)								
Pok Hong Shopping Centre			3.82	4.00	–	5.79	6.03	–

Note: Gen. – Generation; Att. – Attraction.

(1) The largest rates are adopted for conservative assessment purpose.

Research and Education Center and PRC

- 4.7.5 No pedestrian trip is observed at the existing research and education center at the time of survey, a nominal trip of 10 persons is adopted for conservative assessment purpose. Having considered that PRC is anticipated to serve the local community which is not anticipated to generate traffic during peak hours, it is excluded from the subsequent assessment.
- 4.7.6 Based on the above, pedestrian generation and attraction of the proposed development are estimated and tabulated in **Table 4.10**.

Table 4.10 Estimated Pedestrian Traffic Generation of the Proposed Development

Use	Unit/ Content	AM Peak Hour			PM Peak Hour		
		Gen.	Att.	Total	Gen.	Att.	Total
Adopted Pedestrian Trip Rates ⁽¹⁾							
RCHE	persons/hr/10 place	0.44	2.86		2.40	0.44	–
Retail	persons/hr/100m ²	3.82	4.00	–	5.79	6.03	–
Estimated Pedestrian Generation of the Proposed Development							
Residential ⁽²⁾	450 flats	255	22	277	24	275	299
Research and Education Center	About 2,900 m ²	10	10	20	10	10	20
RCHE	100 places	5	29	34	24	5	29
Retail	562 m ²	22	23	45	33	34	67
Total		292	84	376	91	324	415

Notes: Gen. – Generation; Att. – Attraction.

(1) The pedestrian trip rates derived in Table 4.9 are adopted.

(2) Pedestrian generation and attraction estimated in Table 4.8 are adopted.

4.7.7 Based on the above, the proposed development is estimated to generate 2-way pedestrian flows of 376 and 415 persons/ hour during AM and PM peak hours respectively.

4.8 Pedestrian Facilities Review

4.8.1 Pedestrians generated by the proposed development are anticipated to leave the Site via the routing shown in **Figure 4.4**. The width of footpaths is also indicated in the figure. Reference was made to TPDM, the capacities of footpaths are calculated and shown below.

Northeast footpath of Lion Rock Tunnel Road (north of the access road)

[2.8m (footpath width) – 0.5m (horizontal clearance) – 0.5m (horizontal clearance)] x 33 ped/min/m (LOS C) x 60 minutes = 3,564 ped/hr.

Northeast footpath of Lion Rock Tunnel Road (south of the access road)

[4.0m (footpath width) – 0.5m (horizontal clearance) – 0.5m (horizontal clearance)] x 33 ped/min/m (LOS C) x 60 minutes = 5,940 ped/hr.

4.8.2 For assessment purposes, it is assumed that all pedestrian trips (415 ped/hr) induced by the proposed development would only appear on both footpaths. The pedestrian trips would occupy 12% ($415 / 3,564 = 12\%$) of the footpath to the north of the access road and 7% ($415 / 5,940 = 7\%$) of the footpath to the south of the access road, which is considered minimal. Based on the above, the pedestrian facilities in the vicinity are considered sufficient to cater the demand of the proposed development.

4.9 Public Transport Services Review

4.9.1 To estimate the pedestrian flows to / from the major public transport facilities, it is assumed that all the above pedestrian flows would take the public transport services.

4.9.2 In order to establish the passenger demand for the different public transport facilities, reference was made to 2021 Population Census. The mode of transport of building groups in Sha Tin area is shown in **Table 4.11**.

Table 4.11 Mode of Transport of Building Groups in Sha Tin Area

Location	Building Group	Type	Population	Mode of Transport						
				Bus	Railway	On Foot	School Bus	Public Light Bus	Others ⁽¹⁾	Total
Sha Tin	ST0062	Work	1,558	538	793	134	-	0	93	1,558
		Study	216	35	121	41	0	-	19	216
	ST0063	Work	929	342	461	89	-	37	0	929
		Study	268	53	91	113	0	-	11	268
	ST0108	Work	1,353	228	813	20	-	16	276	1,353
		Study	547	13	200	134	127	-	73	547
	Total		4,871	1,209	2,479	531	127	53	472	4,871
Existing Split			24.8%	50.9%	10.9%	2.6%	1.1%	9.7%	100.0%	
Adjusted split for the proposed development ⁽²⁾			28.3%	58.0%	12.4%	-	1.3%	-	100.0%	

Notes: Building Group ST0062 refers to (Tai Wai) Chun Shek Estate - Shek Fai / Shek Ying / Shek Jing House (Shing Tin Street 1980's residential buildings).

Building Group ST0063 refers to (Tai Wai) Chun Shek Estate - Shek Yuk House (Shing Tin Street 1980's residential buildings).

Building Group ST0108 refers to (Tai Wai) The Riverpark (Che Kung Miu Road 2000's private residential buildings).

(1) Others includes private car, company bus/van, taxi or others (for mode of transport to place of work) and public light bus, residential coach service, private car or others (for mode of transport to place of study).

(2) For conservative assessment purpose, private transport modes are excluded and distributed among public transport modes.

4.9.3 The passenger demand induced by the proposed development of different transport modes is estimated by adopting the adjusted split and shown in **Table 4.12**.

Table 4.12 Estimated Passenger Demand for the Different Mode of Transport

Mode of Transport	Modal Split (for the Proposed Development)	Estimated Peak Hour Passenger Demand (pax. / hr)					
		AM Peak			PM Peak		
		Gen.	Att.	Total	Gen.	Att.	Total
Bus	28.3%	83	24	107	26	92	118
Railway	58.0%	169	49	218	53	188	241
On Foot	12.4%	36	10	46	11	40	51
Public Light Bus	1.3%	4	1	5	1	4	5
Total	100.00%	292	84	376	91	324	415

Note: Gen. – Generation; Att. – Attraction.

4.9.4 Based on the above, the proposed development will only generate 83 pax. and 26 pax. during AM and PM peak hour, respectively, which can be catered by additional 1 bus trip during AM and PM peak hour.

4.9.5 While the proposed development will only generate 4 pax. and 1 pax. during AM and PM peak hour, respectively, which can be catered by additional 1 minibus trip during AM and PM peak hour.

5 PROPOSED TRANSPORT FACILITIES PROVISIONS

5.1 Access Arrangement

- 5.1.1 There is an existing vehicular access located at Lion Rock Tunnel Road serving the Site and it is a left-in/left-out priority junction arrangement. The existing priority junction will be improved with standard road markings as shown in **Figure 5.1**.

5.2 Internal Transport Facilities

Residential & Retail Component

- 5.2.1 The requirements of car parking and loading/unloading facilities for the proposed residential development and retail component should be provided in accordance with the latest Hong Kong Planning Standards and Guidelines (HKPSG) as listed out in **Table 5.1**.

RCHE Component

- 5.2.2 **There** is no specific parking requirement under HKPSG for RCHE use, parking and loading/unloading facilities are proposed mainly to meet **Social Welfare Department ("SWD")'s advice below.**

"One light bus parking space measuring 8.0 metres in length and 3.0 metres in width with minimum headroom of 3.3 metres and one L/UL Bay measuring 11.0 metres in length and 3.5 metres in width with minimum headroom of 4.7 metres are preferable for the operation of the proposed RCHE."

Research and Education Centre

- 5.2.3 There is no specific parking requirement under HKPSG for research and education centre use. To meet the operational needs, it is suggested to provide 8 car parking spaces for the use.

Parents/Relative Resource Centre (PRC) Component

- 5.2.4 Having considered that PRC is anticipated to serve the local community, the visitors are anticipated travelling by public transport services during non-peak hours which will not induce internal transport facilities demand.

Table 5.1 Proposed Transport Facilities Provisions

Type	HKPSG's Requirements					Required Provision	Proposed Provision
Proposed Residential Development – 450 units							
Car Parking Space	Parking Requirements = GPS x R1 x R2 x R3 where GPS = 1 space per 4 – 7 units					9 – 15 33 – 57 13 – 23	15 57 23
	Flat Size (FS)	No. of Unit	R1	R2	R3		
	FS ≤ 40m ²	150	0.5	0.75	1.0		
	40m ² < FS ≤ 70m ²	250	1.2				
	70m ² < FS ≤ 100m ²	50	2.4				
	For Visitors (2 blocks) 5 spaces per block with more than 75 units					10	10
	TOTAL					65 – 105	105
Loading / Unloading Bay	1 bay per residential block					2	2
Motorcycle Parking Space	1 space per 100 – 150 flats					3 – 5	5
Bicycle Parking Space	1 bicycle parking space per 5 flats for residents; 1 bicycle parking space per 45 flats for visitors.					90 10	90 10
	TOTAL					100	100
Proposed Research and Education Centre							
Car Parking Space	No specific requirements under HKPSG.					-	8 ⁽¹⁾
Loading / Unloading Bay	No specific requirements under HKPSG.					-	0
Proposed RCHE (100 places)							
Loading / Unloading Bay	As preferred by SWD.					1	1
Light Bus / Ambulance Parking Space	As preferred by SWD.					1	1
Proposed Retail (About 562 m ² GFA)							
Car Parking Space	1 car space per 150 - 300m ² GFA					2 – 4	4
Loading / Unloading Bay	1 loading/ unloading bay for goods vehicles for every 800 to 1,200 m ² , or part thereof, GFA					1	1
Motorcycle Parking Space	10% of the total provision for private cars					1	1
Bicycle Parking Space	1 bicycle parking space per 200 – 300 m ² GF					2 – 3	3
Proposed Parents/Relative Resource Centre (PRC) (About 238 m ² GFA)							

Type	HKPSG's Requirements	Required Provision	Proposed Provision
Car Parking Space	No specific requirements under HKPSG.	-	0
Loading / Unloading Bay	No specific requirements under HKPSG.	-	0

Note: (1) To meet the operational needs.

5.2.5 **Table 5.2** lists out the dimensions required for each type of spaces to follow. The proposed car park layout plan is enclosed in **Appendix C**.

Table 5.2 Summary of Overall Transport Facilities Provisions

Facilities	Dimensions	Proposed Provision					
		Residential	Research and Education Centre	RCHE	Retail	PRC	Total
Car Parking Space	2.5m (W) x 5.0m (L) x 2.4m (H)	103	7	0	3	0	113
Disabled Car Parking Space	3.5m (W) x 5.0m (L) x 2.4m (H)	2	1	0	1	0	4
Motorcycle Parking Space	1.0m (W) x 2.4m (L) x 2.4m (H)	5	-	-	1	0	6
Goods Vehicle Loading / Unloading Bay	3.5m (W) x 11.0m (L) x 4.7m (H)	2	0	1	1	0	4
Light Bus Parking Space	3.0m (W) x 8.0m (L) x 3.3m (H)	-	-	1	-	0	1
Bicycle Parking Space	-	100	-	-	3	0	103

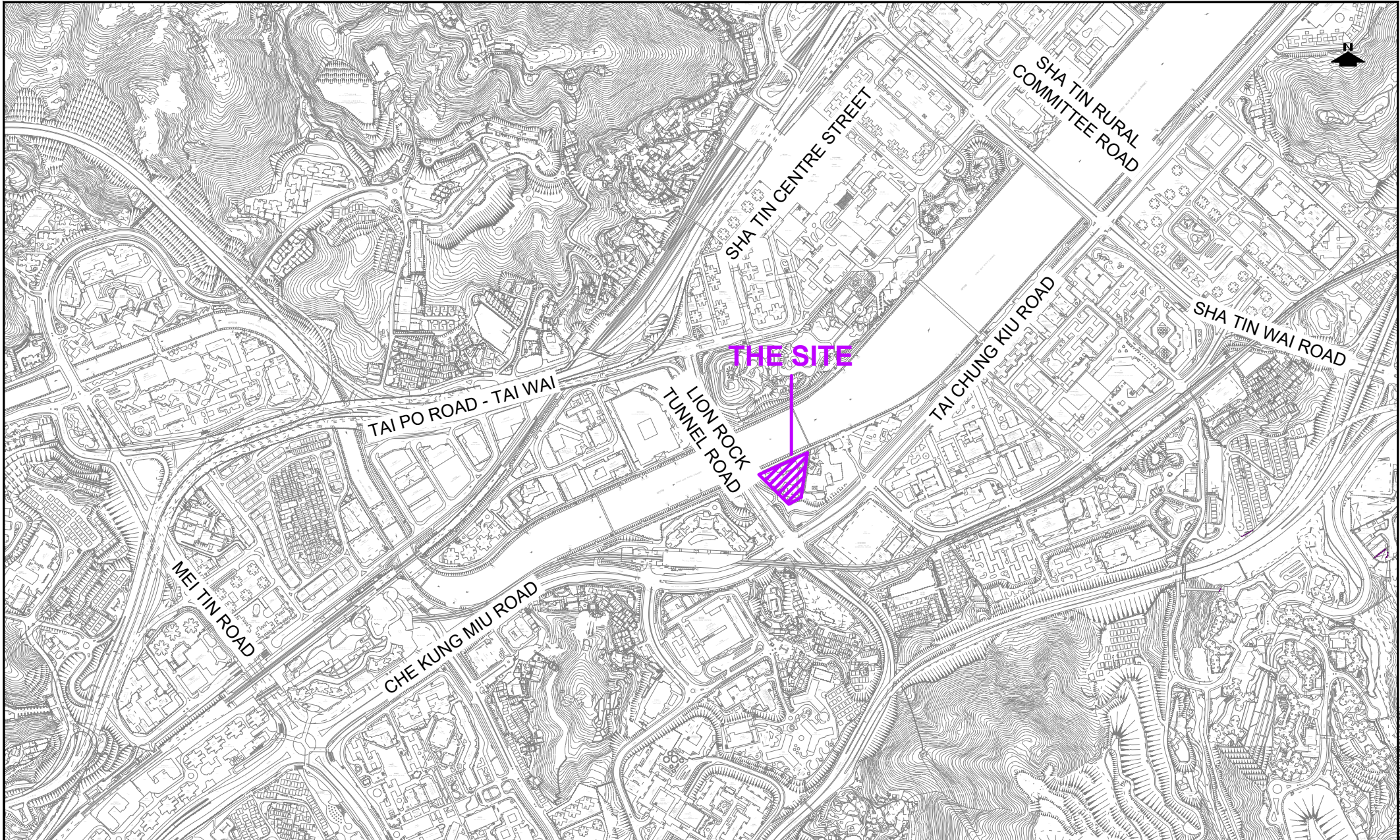
6 SUMMARY AND CONCLUSION

6.1 Summary

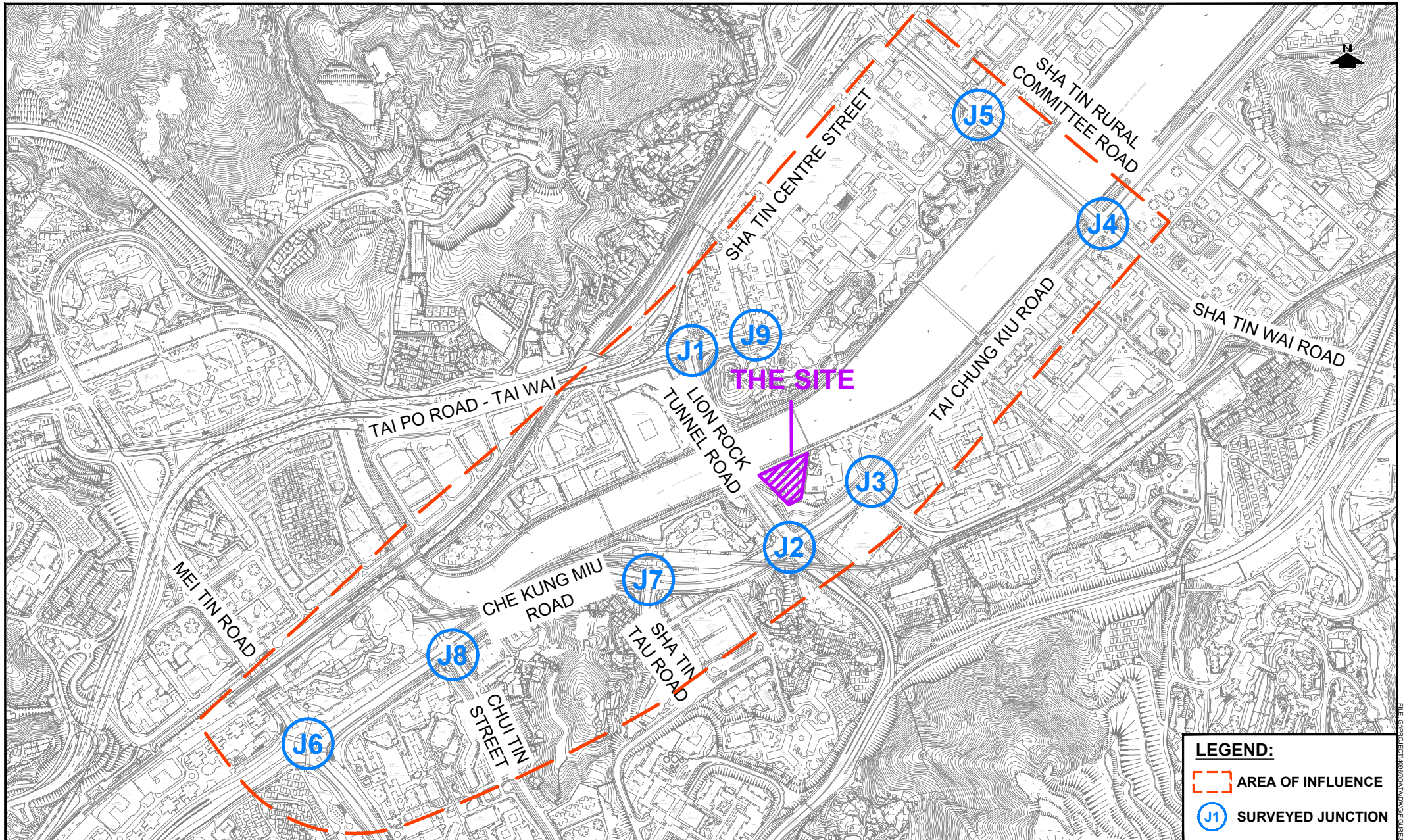
- 6.1.1 The owner of the lot in STTL 310 (hereafter referred to "the Site") at Lion Rock Tunnel Road, Sha Tin, intends to develop the Site into a residential development. The Site is zoned as "Open Space" ("O") on the Draft Sha Tin Outline Zoning Plan No. S/ST/39. It is necessary to submit a S12A planning application for the proposed residential development and a traffic impact assessment study is necessary to support the application.
- 6.1.2 A traffic count survey was carried out on 11 February 2025 (Tuesday) during the peak hour period from 07:00 to 09:00 and 17:00 to 19:00 at the identified key junctions, and the AM and PM peak hours were found to be 07:30 – 08:30 and 17:45 – 18:45, respectively. The capacity of the key junctions in the vicinity of the Site was analysed and they are operating satisfactorily, except J4 is operating near its capacity during AM peak hour.
- 6.1.3 The proposed development would generate two-way traffic flows of 66 pcu/hr in the AM peak, 44 pcu/hr in the PM peak. By assigning the additional development traffic to the 2035 Reference Flows, the 2035 Design Flows were obtained.
- 6.1.4 Junction capacity assessments were carried out at the key junctions in the vicinity for the year 2035. The results have indicated that all junctions 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 There is an existing vehicular access located at Lion Rock Tunnel Road serving the Site and it is a left-in/left-out priority junction arrangement. The existing priority junction will be slightly modified to enhance the junction operation efficiency.
- 6.1.6 It is proposed to provide a total of 117 car parking spaces (including 113 typical car parking spaces and 4 disable car parking spaces), 4 loading/unloading spaces, 6 motorcycle parking spaces, 1 light bus parking space and 103 bicycle parking spaces within the proposed development. The internal transport facilities of the proposed development can meet the requirements as set out in the latest HKPSG.

6.2 Conclusion

- 6.2.1 From the assessment results, it can be concluded that the proposed development will have no significant adverse traffic impact on the surrounding road network. The development proposal is considered acceptable from the traffic engineering point of view.



PROJECT NO. 40969		PROJECT TITLE APPLICATION FOR AMENDMENT OF PLAN UNDER S12A OF THE TOWN PLANNING ORDINANCE (CAP. 131), TO REZONE THE APPLICATION SITE FROM "OPEN SPACE" TO "RESIDENTIAL (GROUP A) 11" AT SHA TIN TOWN LOT 310 IN D.D. 184, SHA TIN		DRAWING NO. FIGURE 1.1	REV. .
DESIGNED SKL	DATE JAN 2025	DRAWING TITLE LOCATION PLAN		LLA 顧問有限公司 Consultancy Limited	
DRAWN CLL	SCALE 1:10000 @ A4				
CHECKED SLN					



LEGEND:

-  AREA OF INFLUENCE
-  SURVEYED JUNCTION

PROJECT NO.	40969	
DESIGNED	SKL	DATE JUN 2026
DRAWN	CLL	SCALE 1:10000 @ A4
CHECKED	SLN	

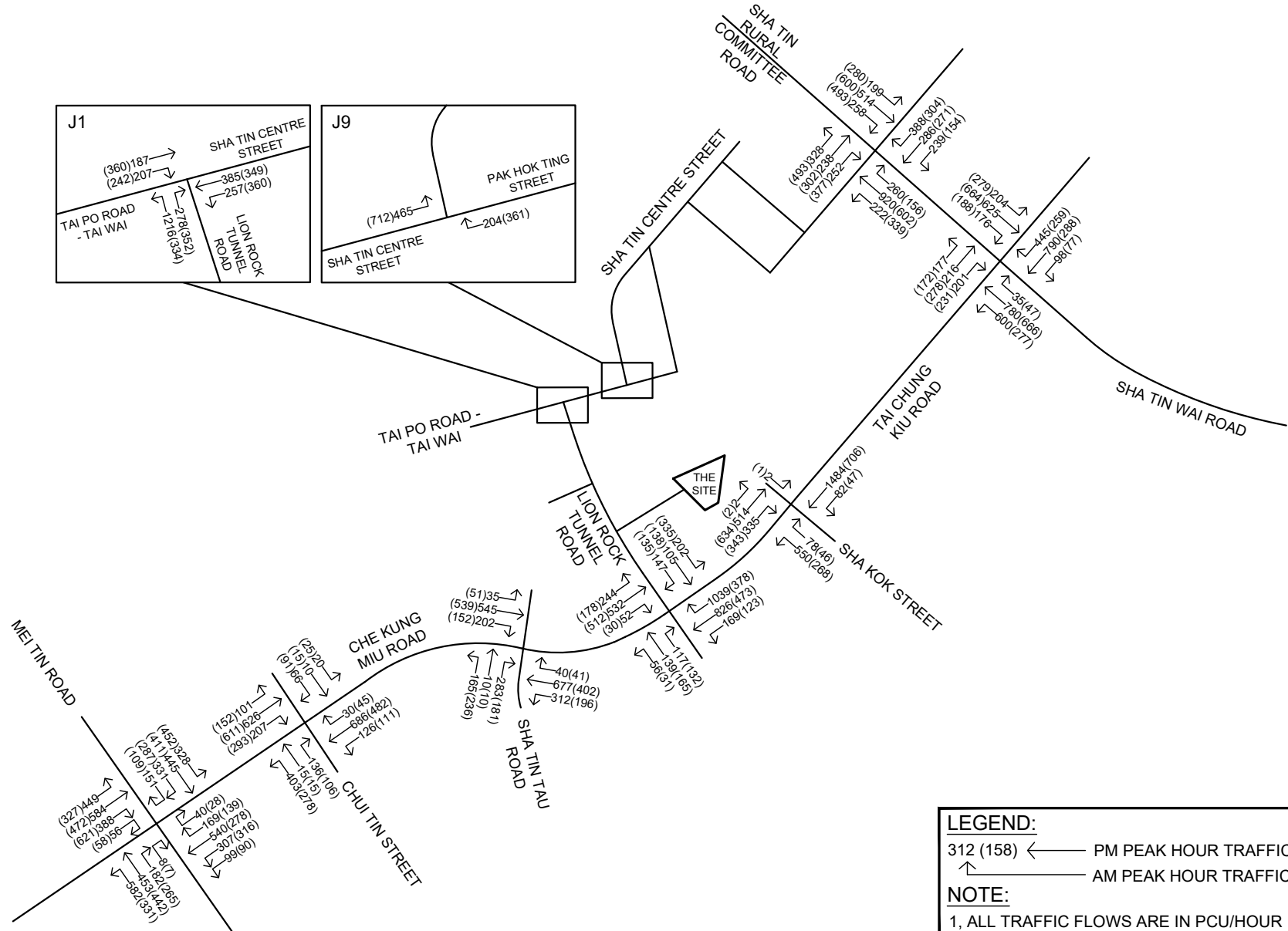
PROJECT TITLE APPLICATION FOR AMENDMENT OF PLAN UNDER S12A OF THE TOWN PLANNING ORDINANCE (CAP. 131), TO REZONE THE APPLICATION SITE FROM "OPEN SPACE" TO "RESIDENTIAL (GROUP A) 11" AT SHA TIN TOWN LOT 310 IN D.D. 184, SHA TIN

DRAWING TITLE

LOCATION OF SURVEYED JUNCTIONS AND AREA OF INFLUENCE

DRAWING NO.	FIGURE 3.1	REV.	A
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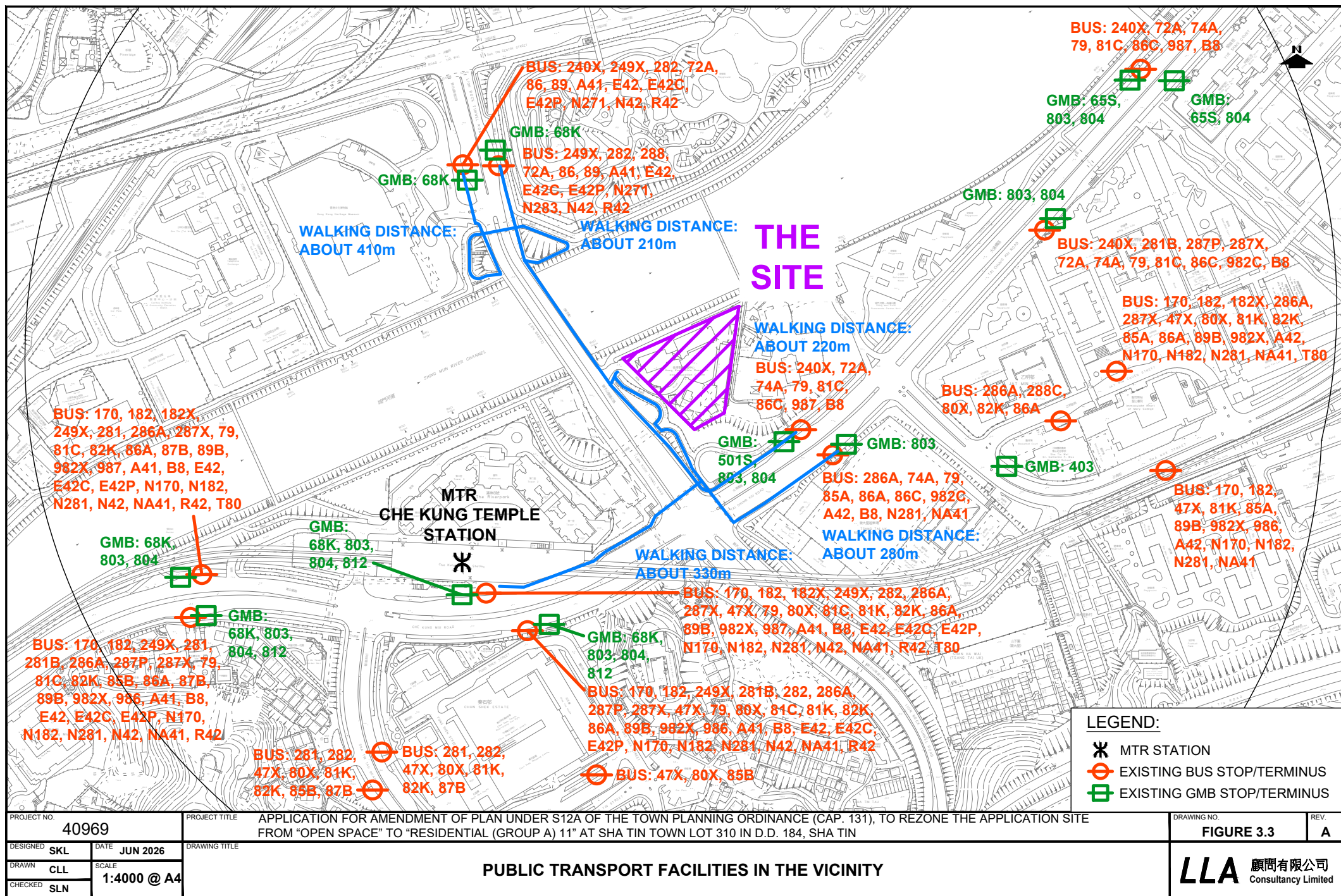
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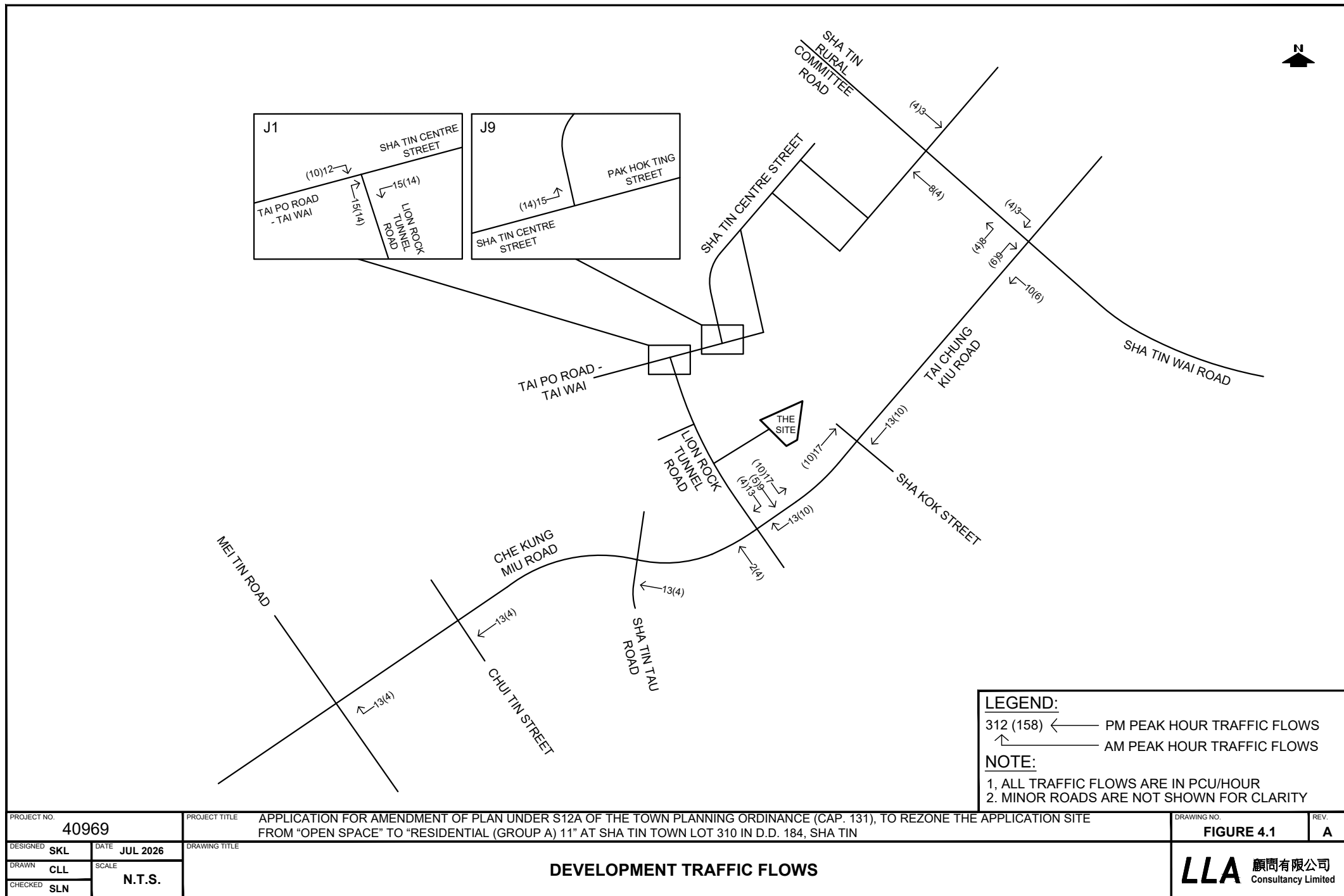


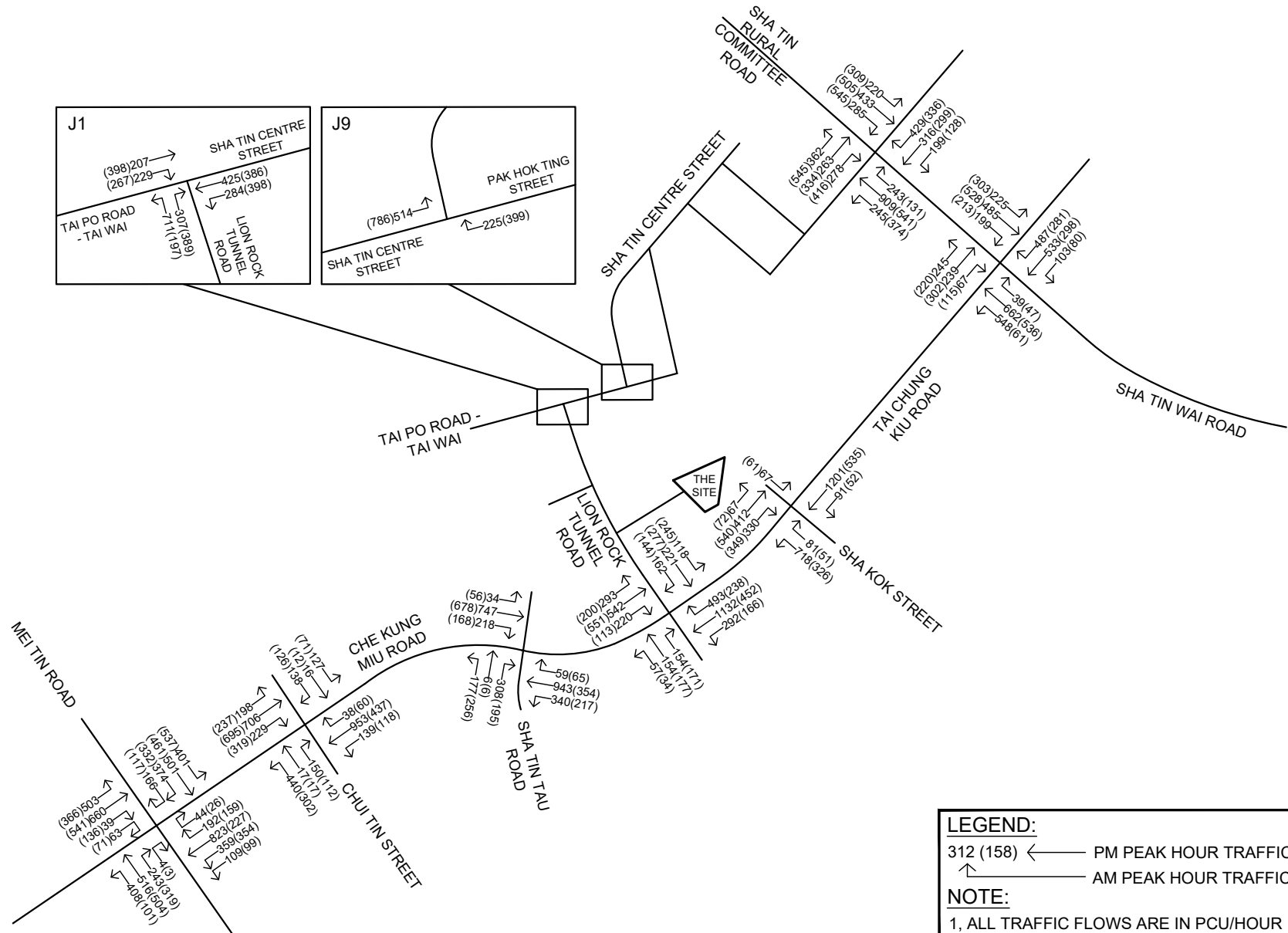
PROJECT NO.		40969
DESIGNED	SKL	DATE JUL 2026
DRAWN	CLL	SCALE
CHECKED	SLN	N.T.S.

PROJECT TITLE		APPLICATION FOR AMENDMENT OF PLAN UNDER S12A OF THE TOWN PLANNING ORDINANCE (CAP. 131), TO REZONE THE APPLICATION SITE FROM "OPEN SPACE" TO "RESIDENTIAL (GROUP A) 11" AT SHA TIN TOWN LOT 310 IN D.D. 184, SHA TIN
DRAWING TITLE		2025 EXISTING TRAFFIC FLOWS

DRAWING NO.	REV.
FIGURE 3.2	A
LLA 顧問有限公司 Consultancy Limited	



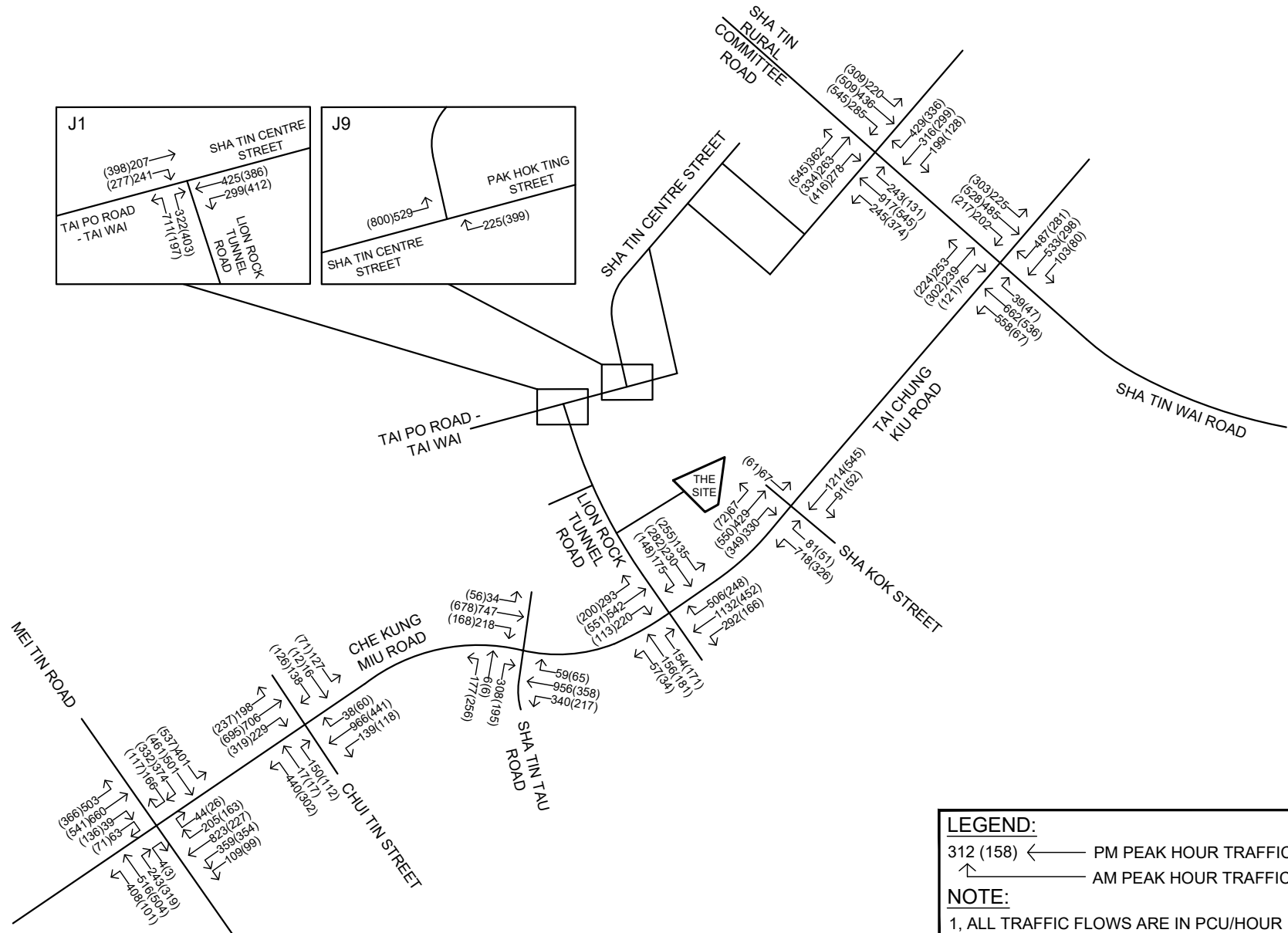




LEGEND:
312 (158) ← PM PEAK HOUR TRAFFIC FLOWS
← AM PEAK HOUR TRAFFIC FLOWS

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

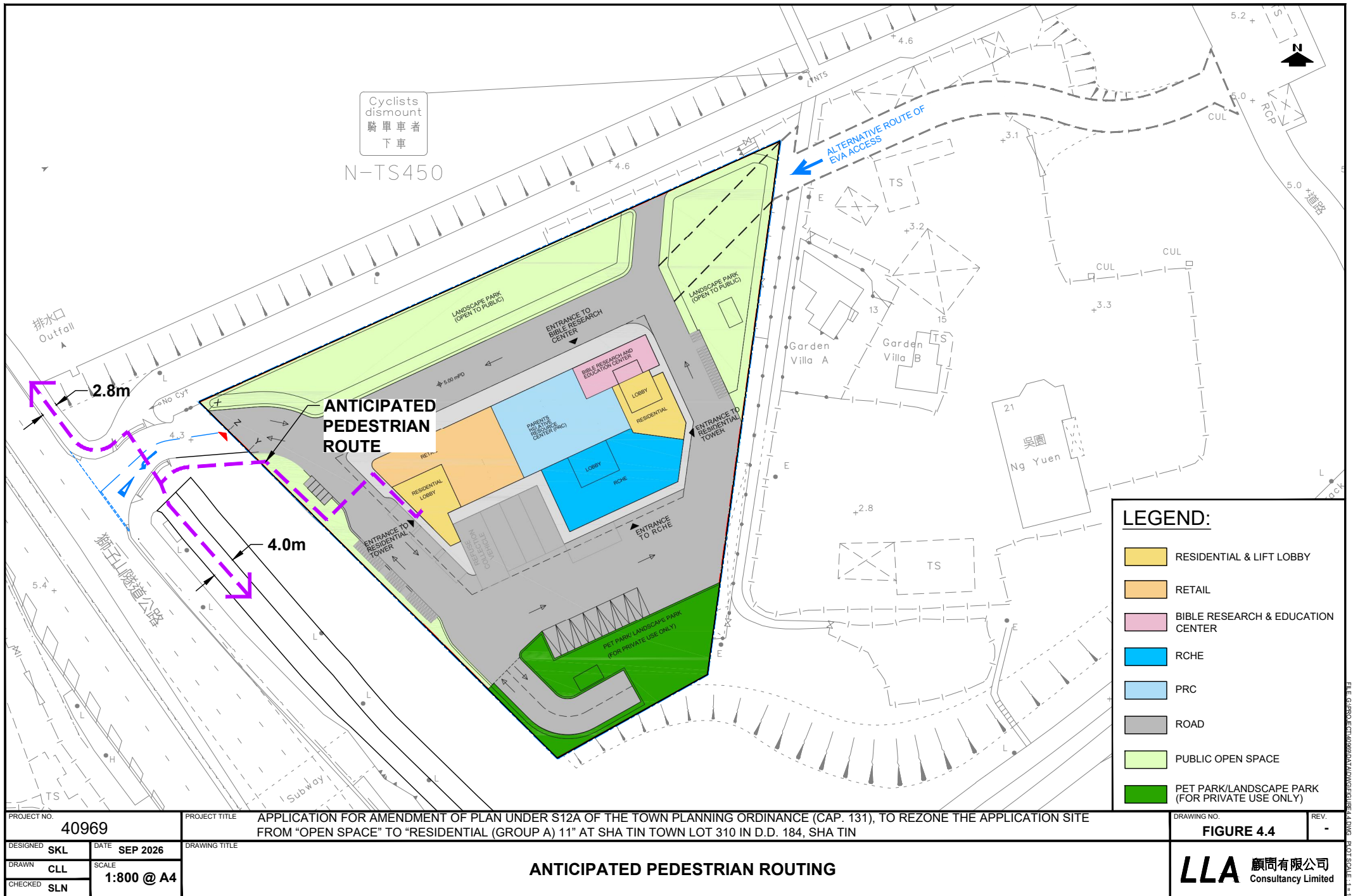
PROJECT NO. 40969		PROJECT TITLE APPLICATION FOR AMENDMENT OF PLAN UNDER S12A OF THE TOWN PLANNING ORDINANCE (CAP. 131), TO REZONE THE APPLICATION SITE FROM "OPEN SPACE" TO "RESIDENTIAL (GROUP A) 11" AT SHA TIN TOWN LOT 310 IN D.D. 184, SHA TIN		DRAWING NO. FIGURE 4.2	REV. A
DESIGNED SKL	DATE JUL 2026	DRAWING TITLE 2035 REFERENCE TRAFFIC FLOWS		LLA 顧問有限公司 Consultancy Limited	
DRAWN CLL	SCALE N.T.S.				
CHECKED SLN					



PROJECT NO.	40969
DESIGNED	SKL
DRAWN	CLL
CHECKED	SLN
DATE	JUL 2026
SCALE	N.T.S.

PROJECT TITLE	APPLICATION FOR AMENDMENT OF PLAN UNDER S12A OF THE TOWN PLANNING ORDINANCE (CAP. 131), TO REZONE THE APPLICATION SITE FROM "OPEN SPACE" TO "RESIDENTIAL (GROUP A) 11" AT SHA TIN TOWN LOT 310 IN D.D. 184, SHA TIN
DRAWING TITLE	2035 DESIGN TRAFFIC FLOWS

DRAWING NO.	FIGURE 4.3
REV.	A
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Appendix A
Junction Capacity Assessments
- Existing Scenario

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin

J1 Lion Rock Tunnel Road / Tai Po Road - Tai Wai / Sha Tin Centre Street

2025 Existing AM

40969

Prepared By:

FILENAME:	J1 LRTR TPRTW STCS.xlsx	Checked By:
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Checked By:	
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Reviewed By:

NTS

Jul	NTS
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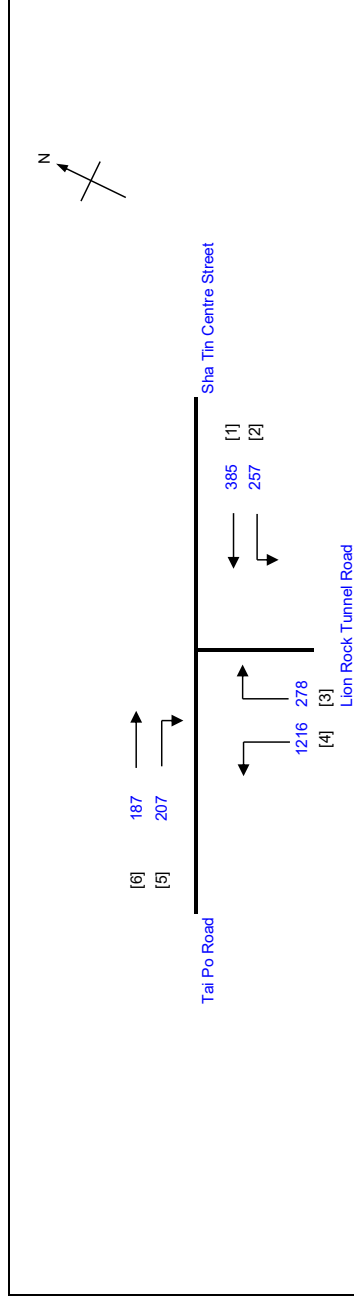
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No. of stages per cycle	N =	3
Cycle time	C =	85 sec
Sum(y)	Y =	0.668
Loss time	L =	10 sec
Total Flow		2530 pcu
Co	= $(1.5^L + 5)/(1 - Y)$	60.2 sec
Cm	= $L/(1 - Y)$	30.1 sec
Yult		0.825
R.C.ult	= $(Yult - Y)/Y * 100\%$	23.5 %
Cp	= $0.9^L L / (0.9 - Y)$	38.8 sec
Ymax	= $1 - L/C$	0.882
R.C.(C)	= $(0.9^L Ymax - Y)/Y * 100\%$	19 %

A TAI PO ROAD SHATIN CENTRE ST. LION ROCK TUNNEL RD. 5 1	B 2 4	C 3	Stage 1 G = 48 Int =	Stage 2 G = 15 Int = 5	Stage 3 G = 9 Int = 7
---	-----------------------------------	--------------------------	---	---	--

Move- ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			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)
								Left pcu/h	Straight pcu/h	Right pcu/h																		
6 5.6 5	1	3.70	1			N	1985		129	0.00	1985								1985	0.065		10	7	48	0.757	18	64	
	1	3.70	1	30			2125		134	0.57	2066								2066	0.065			7	48	0.757	18	63	
	1	3.70	1	30			2125		131	1.00	2024								2024	0.065			7	48	0.757	18	63	
4 3	1,2 2	3.70 3.70	1 1	11 15		N	1985 2125		1216 278	1.00 1.00	1747 1932	40	369						2116 1932	0.575 0.144	0.575		65 16	65 16	0.757 0.757	36 30	8 43	
	2,3 3	3.10 3.10	1 2	8 8		N	1925 4130		257 385	1.00 0.00	1621 4130								1621 4130	0.159 0.093	0.093		18 10	27 10	0.757 0.757	30 24	43 42	

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 S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969		Prepared By:		SKL	Jul-26
J1 Lion Rock Tunnel Road / Tai Po Road - Tai Wai / Sha Tin Centre Street				2025 Existing PM		Checked By:		SLN	Jul-26
						Reviewed By:		SLN	Jul-26

No. of stages per cycle Cycle time Sum(y) Loss time Total Flow Co Cm Yult R.C.ult Cp Ymax N = 3 C = 90 sec Y = 0.365 L = 13 sec = 1997 pcu = 38.6 sec = 20.5 sec = 0.803 = 119.6 % = 21.9 sec = 0.856									
R.C.(C) = (0.9*Ymax-Y)*100% = 111 %									

Pedestrian Phase	Stage	Green Time Required SG	Delay FG	Green Time Provided SG	FG

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement		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 Effect %	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)
6	1	3.70	1			N	1985	196	Left 164	196	0.00	1985						1985	0.099	0.099	13	21	21	0.427	18	29
5,6	1	3.70	1	30			2125	207	Right 43	199	0.21	2103						2103	0.098	0.098		21	21	0.427	18	29
5	1	3.70	1	30			2125	199			1.00	2024						2024	0.098	0.098		21	21	0.427	18	29
4	1,2	3.70	1	11		N	1985	334	Left 334		1.00	1747	40	407				2154	0.155	0.182		33	59	0.427	30	21
3	2	3.70	1	15			2125	352			1.00	1932						1932	0.182	0.182		38	38	0.427	30	18
2	2,3	3.10	2	8		N	3990	360	Left 360		1.00	3360						3360	0.107	0.107		23	56	0.427	18	27
1	3	3.10	2	8			4130	349	Right 349		0.00	4130						4130	0.085	0.085		18	18	0.427	18	30

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

TRAFFIC SIGNAL CALCULATION

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin

J2	Lion Rock Tunnel Road / Tai Chung Kiu Road / Che Kung Miu Road
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2025 Existing AM

40969

Prepared By:	
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FILENAME :	J2_LRTR_TCKR_CKMR.xlsx	Checked By:
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J2_LR

Reviewed By:

INITIALS

SKL

NTS

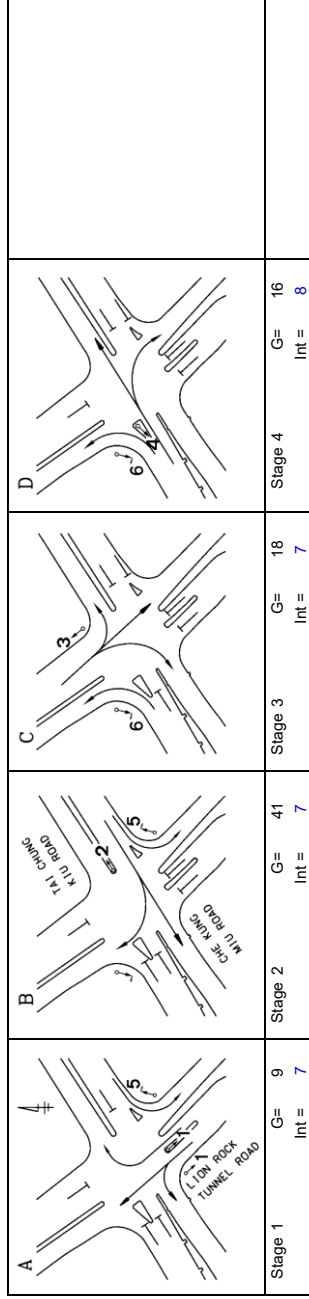
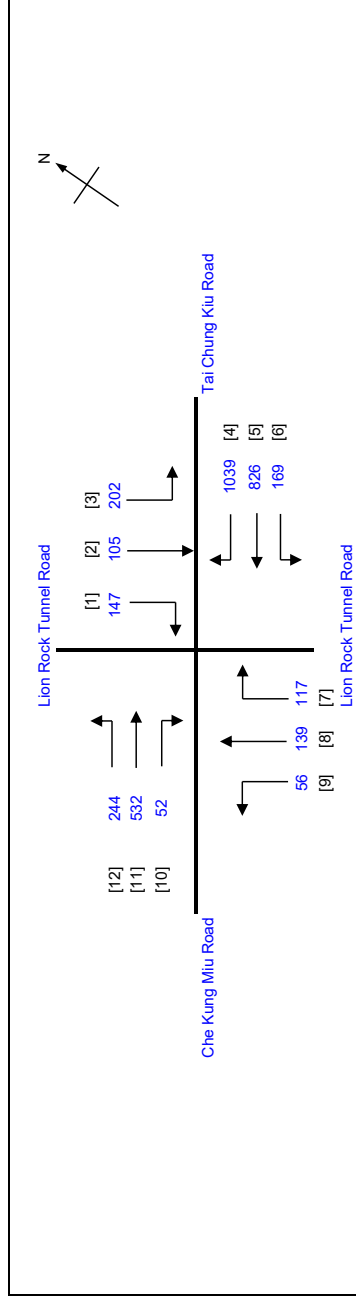
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Jul-26

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Checked By:	
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Jul-26



Move- ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			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	Queue Length (m / lane)	Average Delay (seconds)
								Left pcu/h	Straight pcu/h	Right pcu/h																		
9	1	3.40	1	12		N	1955	56		56	1.00	1738							1738	0.032			25	5	10	0.704	12	96
8	1	3.40	2				4190	139		139	0.00	4190							4190	0.033				5	10	0.704	12	67
7	1	3.10	1	18			2065		117	117	1.00	1906							1906	0.061	0.061			10	10	0.704	18	68
6	1,2	3.00	1	13		N	1915	169		169	1.00	1717							1717	0.098				16	52	0.704	24	58
5	2	3.00	2				4110			826	0.00	4110							4110	0.201				32	42	0.704	54	36
4,5	2	3.00	1	33			2055			520	1.00	1966							1966	0.265	0.265			42	42	0.704	60	32
4	2	3.00	1	33			2055			519	1.00	1966							1966	0.264				42	42	0.704	60	32
3	3	3.30	1	13		N	1945	202		202	1.00	1744							1744	0.116	0.116			19	19	0.704	30	54
2	3	3.30	2				4170			105	0.00	4170							4170	0.025				4	19	0.704	9	74
1	3	3.30	1	21			2085		147	147	1.00	1946							1946	0.076				12	19	0.704	24	62
12	3,4	3.20	2	16		N	4010	244		244	1.00	3666							3666	0.067				11	36	0.704	21	56
11	4	3.20	2				4150			439	0.00	4150							4150	0.106				17	17	0.704	33	47
10,11	4	3.20	1	16			2075		117	210	0.56	1972							1972	0.106	0.106			17	17	0.704	30	54

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 S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969				Prepared By:	SKL	Jul-26
J2 Lion Rock Tunnel Road / Tai Chung Kiu Road / Che Kung Miu Road				2025 Existing PM				Checked By:	SLN	Jul-26
				FILENAME : J2_LRTR_TOKR_CKMR.xlsx				Reviewed By:	SLN	Jul-26

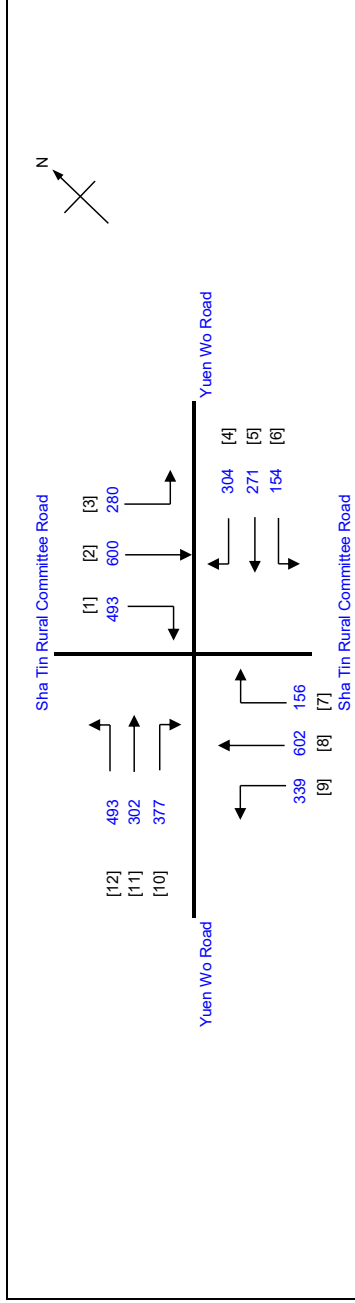
LLA CONSULTANCY LIMITED				TRAFFIC SIGNAL CALCULATION			
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969		Prepared By:	
J4 Tai Chung Kiu Road / Sha Tin Wai Road / Sha Tin Rural Committee Road				2025 Existing AM		Checked By:	
				FILENAME : J4_TCKR_STWR_STOR.xlsx		Reviewed By:	
						INITIALS	
						DATE	
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LLA CONSULTANCY LIMITED				TRAFFIC SIGNAL CALCULATION			
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969		Prepared By:	
J4 Tai Chung Kiu Road / Sha Tin Wai Road / Sha Tin Rural Committee Road				2025 Existing PM		Checked By:	
						Reviewed By:	

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin		PROJECT NO. : 40969 FILENAME : J5_YWR_STRCR.xlsx		Prepared By:	SKL	Jul-26
J5 Yuen Wo Road / Sha Tin Rural Committee Road				Checked By:	SLN	Jul-26
				Reviewed By:	SLN	Jul-26



A SHA TIN RURAL COMM. ROAD YUEN WO ROAD Stage 1 G= 21 Int= 6	B Stage 2 G= 17 Int= 5	C Stage 3 G= 38 Int= 8	D Stage 4 G= 22 Int= 7
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Move- ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			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	Queue Length (m / lane)	Average Delay (seconds)
								Left pcu/h	Straight pcu/h	Right pcu/h																		
9 8 7.8	1,4	3.00	1	11		N	1915	339		339	1.00	1685							1685	0.201		22	33	45	0.745	48	47	
	1	3.00	2				4110	514		514	0.00	4110							4110	0.125			21	22	0.745	42	51	
	1	3.00	1				2055		88	156	0.64	1945							1945	0.125	0.125	1	21	22	0.745	42	58	
5.6 5 4	2	3.10	1	15			2065	154		205	0.75	1921							1921	0.107	0.107		18	18	0.745	36	63	
	2	3.10	1				2065	220		220	0.00	2065							2065	0.107	0.107		18	18	0.745	36	61	
	2	3.10	1	19			2065			304	1.00	1914	40	1333					3247	0.094			15	18	0.745	54	58	
	3	3.20	1			N	1935	260		260	1.00	1759							1759	0.159			26	39	0.745	42	53	
2	3	3.20	1	15			2075	487		487	0.00	2075							2075	0.235	0.235		39	39	0.745	66	41	
1.2	3	3.20	1	23			2075			606	0.81	1970	40	615					2586	0.234			39	39	0.745	84	40	
12 11,12 11 10	4	3.00	1	13		N	1915	238		238	1.00	1717							1717	0.139	0.139		23	23	0.745	42	57	
	4	3.00	1	13			2055	255		255	1.00	1842							1842	0.138			23	23	0.745	42	56	
	4	3.00	2				4110	302		302	0.00	4110							4110	0.073			12	23	0.745	27	60	
	4	3.00	2	16			4110			377	1.00	3758							3758	0.100			17	23	0.745	33	55	

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

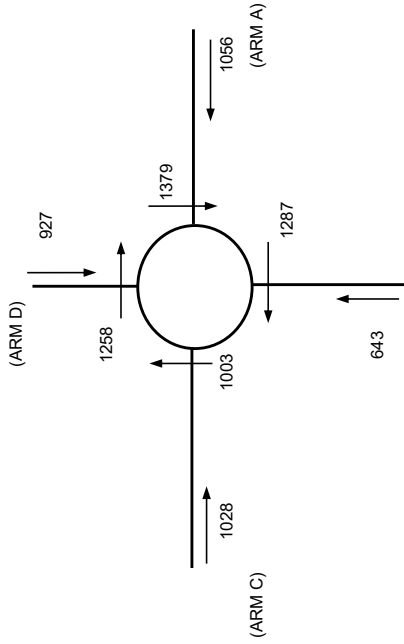
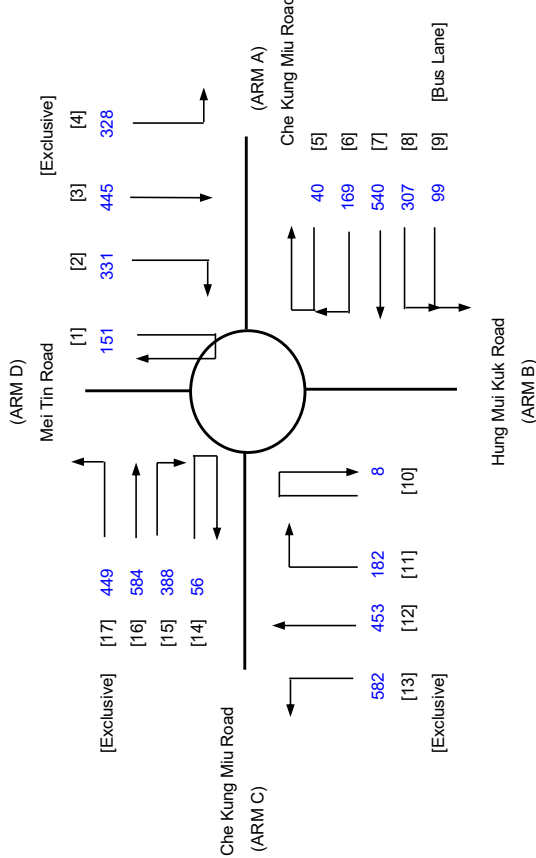
LLA CONSULTANCY LIMITED

ROUNDABOUT CALCULATION

INITIALS				DATE
PROJECT NO.: 40969				SKL
FILENAME : J6 CKMR HMKR				SLN
REFERENCE NO.:				SLN

J6	Che Kung Miu Road / Mei Tin Road / Hung Mui Kuk Road	2025 Existing AM	PREPARED BY:	40969	Jul-26
			CHECKED BY:		Jul-26
			REVIEWED BY:		Jul-26

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin



ARM

INPUT PARAMETERS:

	A	B	C	D
V = Approach half width (m)	6.90	6.60	6.75	6.30
E = Entry width (m)	9.80	9.40	9.50	9.20
L = Effective length of flare (m)	28.00	19.00	41.00	22.00
R = Entry radius (m)	41.00	55.00	37.00	36.00
D = Inscribed circle diameter (m)	66.00	66.00	66.00	66.00
A = Entry angle (degree)	42.00	46.00	35.00	39.00
Q = Entry flow (pcu/h)	1056	643	1028	927
Qc = Circulating flow across entry (pcu/h)	1379	1287	1003	1258

OUTPUT PARAMETERS:

S = Sharpness of flare = 1.6(E-V)/L	0.17	0.24	0.11	0.21
K = 1-0.00347(A-30)-0.978(1/R-0.05)	0.98	0.98	1.01	0.99
X2 = V + ((E-V)/(1+2S))	9.08	8.50	9.01	8.34
M = EXP((D-60)/10)	1.82	1.82	1.82	1.82
F = 303*X2	2751	2576	2731	2527
Td = 1+(0.5/(1+M))	1.18	1.18	1.18	1.18
Fc = 0.21*Td(1+0.2*X2)	0.70	0.67	0.69	0.66
Qe* = K(F-Fc*Qc)	1761	1675	2047	1681

DFC = Design flow/Capacity = Q/Qe

DFC of Critical Approach = 0.60

Total In Sum = 2363 PCU

LLA CONSULTANCY LIMITED

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin

J6 Che Kung Miu Road / Mei Tin Road / Hung Mui Kuk Road

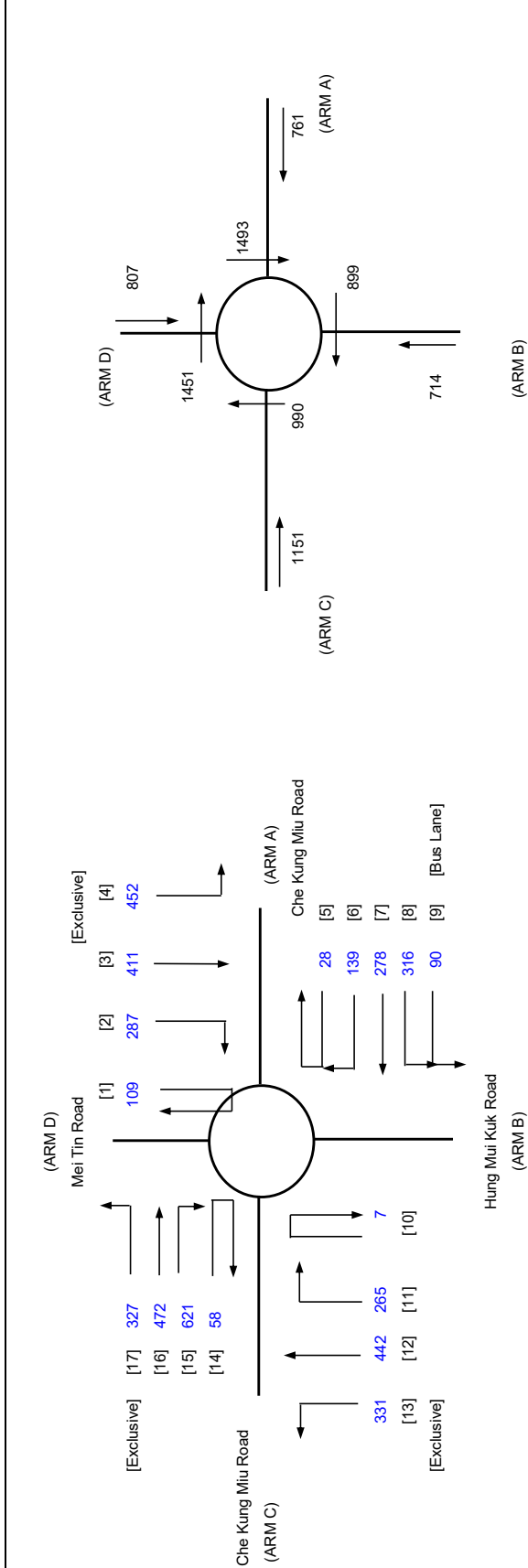
ROUNDABOUT CALCULATION

2025 Existing PM

PROJECT NO.: 40969
FILENAME : J6 CKMR HMKR
REFERENCE NO.:

PREPARED BY:
CHECKED BY:
REVIEWED BY:

INITIALS DATE
SKL Jul-26
SLN Jul-26
SLN Jul-26



ARM

INPUT PARAMETERS:

	A	B	C	D
V = Approach half width (m)	6.90	6.60	6.75	6.30
E = Entry width (m)	9.80	9.40	9.50	9.20
L = Effective length of flare (m)	28.00	19.00	41.00	22.00
R = Entry radius (m)	41.00	55.00	37.00	36.00
D = Inscribed circle diameter (m)	66.00	66.00	66.00	66.00
A = Entry angle (degree)	42.00	46.00	35.00	39.00
Q = Entry flow (pcu/h)	761	714	1151	807
Qc = Circulating flow across entry (pcu/h)	1493	899	990	1451

OUTPUT PARAMETERS:

S = Sharpness of flare = $1.6(E-V)/L$	0.17	0.24	0.11	0.21
K = $1-0.00347(A-30)-0.978(1/R-0.05)$	0.98	0.98	1.01	0.99
X2 = $V + ((E-V)/(1+2S))$	9.08	8.50	9.01	8.34
M = $EXP((D-60)/10)$	1.82	1.82	1.82	1.82
F = $303 \times X2$	2751	2576	2731	2527
Td = $1+(0.5/(1+M))$	1.18	1.18	1.18	1.18
Fc = $0.21 \times Td(1+0.2 \times X2)$	0.70	0.67	0.69	0.66
Qe* = $K(F-Fc \times Qc)$	1683	1928	2056	1555

DFC = Design flow/Capacity = Q/Qe

DFC of Critical Approach = 0.56

Total In Sum = 2368 PCU

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

Application for Amendment of Plan under S 2A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184. Sha Tin

J7 Sha Tin Tau Road / Che Kung Miu Road

2025 Existing AM

40969

Prepared By:

Checked By:	
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Reviewed By:

SKL

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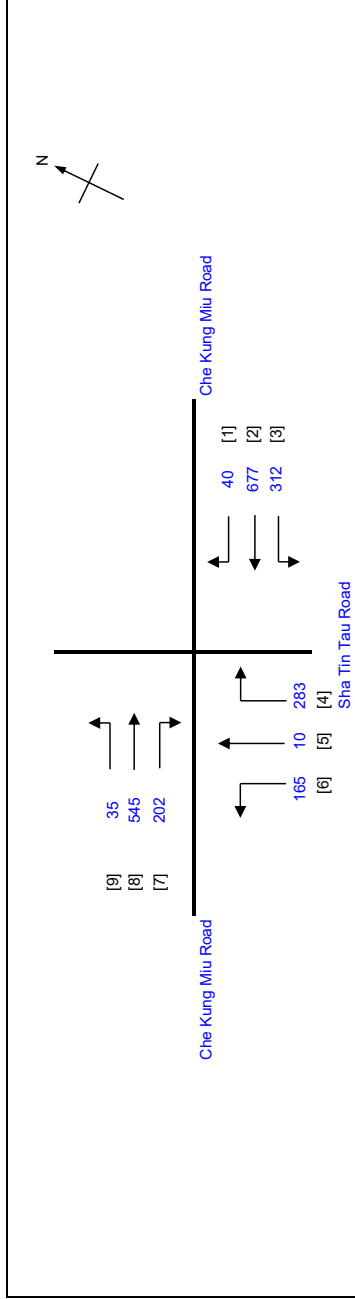
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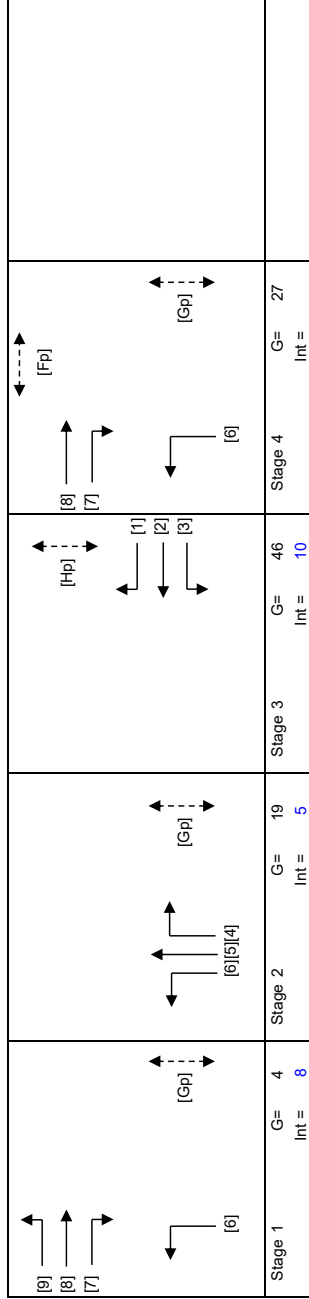
NTS

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No. of stages per cycle	N	4
Cycle time	C	120 sec
Sum(y)	Y	0.386
Loss time	L	20 sec
Total Flow		2269 pcu
Co		57.0 sec
Cm		32.6 sec
Yult		0.750
R.C.ult		94.4 %
Cp		35.0 sec
Ymax		0.833
R.C.(C)		94 %



Pedestrian Phase	Stage	Green Time Required		Green Time Provided	
		SG	FG	SG	FG
Fp	4	5	9	18	9
Gp	1,2,4	5	11	53	11
Hp	3	5	9	47	9

Movement	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			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)
								Left pcu/h	Straight pcu/h	Right pcu/h																		
9 8 7.8	1	3.08	1	17		N	1923	35		35	1.00	1767							1767	0.020		20	5	5	0.463	6	69	
	1.4	3.08	2				4126	510		510	0.00	4126							4126	0.124	0.124			32	32	0.463	36	34
	1.4	3.08	1	17			2063		202	237	0.85	1919							1919	0.124				32	32	0.463	30	36
6 4.5 4	1,2,4	3.00	2	12		N	3970	165		165	1.00	3529							3529	0.047			12	53	0.463	12	50	
	2	3.00	1	17			2055		10	150	0.93	1899							1899	0.079	0.079		20	20	0.463	24	45	
	2	3.00	1	12			2055		143	143	1.00	1827							1827	0.078			20	20	0.463	18	45	
3 2 1.2	3	3.00	1	12		N	1915	312		312	1.00	1702							1702	0.183	0.183		47	47	0.463	36	26	
	3	3.00	2				4110		481	481	0.00	4110							4110	0.117	0.117		30	47	0.463	33	35	
	3	3.00	1	17			2055		196	236	0.17	2025							2025	0.117			30	47	0.463	30	37	

NOTE :

O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

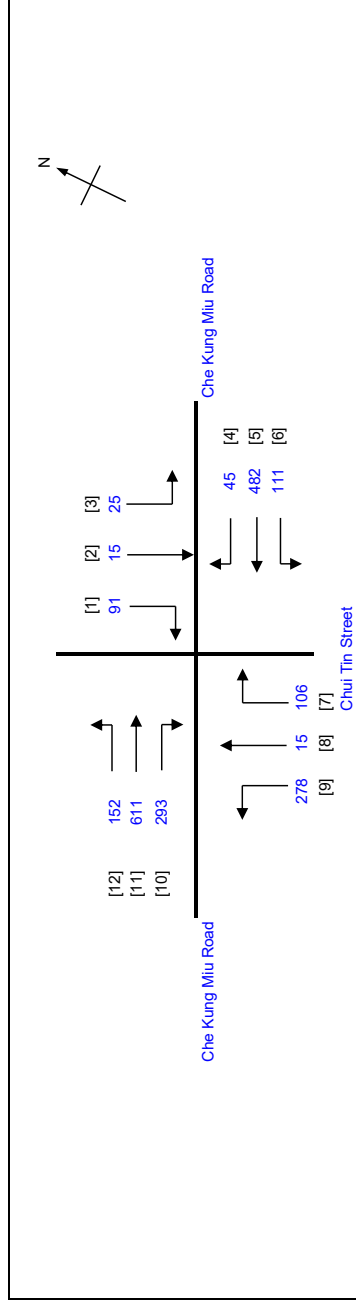
PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin	2025 Existing PM	PROJECT NO.:	40969	Prepared By:	SKL	Jul-26
		FILENAME:	J8_CTS_CKMR.xlsx	Checked By:	SLN	Jul-26
				Reviewed By:	SLN	Jul-26
J8	Chui Tin Street / Che Kung Miu Road					



No. of stages per cycle	N =	5
Cycle time	C =	120 sec
Sum(y)	Y =	0.369
Loss time	L =	25 sec
Total Flow	=	2224 pcu
Co	= $(1.5 \cdot L + 5) / (1 - Y)$	67.4 sec
Cm	= $L / (1 - Y)$	39.6 sec
Yult	=	0.713
R.C. ult	= $(Y_{ult} - Y) / Y \cdot 100\%$	93.0 %
Cp	= $0.9 \cdot L / (0.9 - Y)$	42.4 sec
Ymax	= $1 - L/C$	0.792
R.C.(C)	= $(0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$	93 %

Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	G=	Int=
					G= 8	Int= 8

Pedestrian Phase	Stage	Green Time Required			Green Time Provided		
		SG	FG	Delay	SG	FG	
Gp	1	9	7	0	12	7	

Move- ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			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)
								Left pcu/h	Straight pcu/h	Right pcu/h																		
9 7.8	3.4 4	3.50	2	10		N	4070	278		278	1.00	3539								3539	0.079		25	20	60	0.466	21	43
		3.50	1	12			2105	121		121	0.88	1897								1897	0.064	0.064			16	16	0.466	18
11,12 11	3	3.38	1	10		N	1953	152	75	227	0.67	1775								1775	0.128			33	43	0.466	30	36
		3.38	2				4186	536		536	0.00	4186								4186	0.128			33	43	0.466	36	34
10	3	3.38	1	12		N	1953			293	1.00	1736							1736	0.169	0.169		43	43	0.466	36	29	
1,2,3 1	5 5	3.50	1	11		N	1965	25	15	65	0.77	1778								1778	0.037			9	9	0.466	12	58
		3.50	1	17		N	1965	66	66		66	1.00	1806						1806	0.037	0.037		9	9	0.466	12	58	
5.6 5	1.2 2	3.30	1	10		N	1945	111	67	178	0.62	1779								1779	0.100	0.100		26	26	0.466	24	41
		3.30	2				4170	415	415		415	0.00	4170						4170	0.100	0.100		26	26	0.466	30	39	
4	2	3.50	1	16		N	1965			45	1.00	1797							1797	0.025			6	6	0.466	6	64	

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

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin

J9 Sha Tin Centre Street / Pak Hok Ting Street

PRIORITY JUNCTION CALCULATION

2025 Existing AM

PROJECT NO.:	40969
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FILENAME: J9 STCS PHTS.x

REFERENCE NO.:

INITIALS | DATE

DATE _____

SKL	Jul-26
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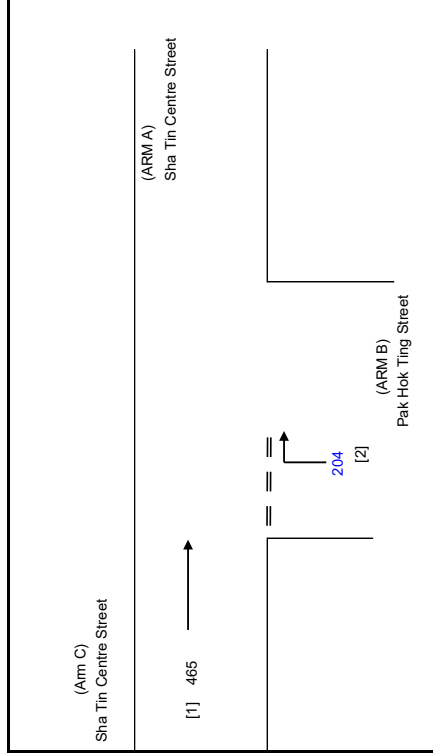
Jul-26

SLN Jul-26

Jul-26

SLN	Jul-26
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Jul-26



NOTES: (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
W b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
V b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
V b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
V c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	8.40	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	0	(pcu/hr)

D	=	0.97504
E	=	0.58595
F	=	0.58595
Y	=	0.71020

MAJOR ROAD (ARM C)

W c-b =	0.00	(metres)
Vr c-b =	0	(metres)
q c-a =	465	(pcu/hr)
q c-b =	0	(pcu/hr)

F for (Qb-ac) = 0

MINOR ROAD (ARM B)

W b-a =	5.00	(metres)
W b-c =	0.00	(metres)
V l b-a =	100	(metres)
V r b-a =	0	(metres)
V r b-c =	0	(metres)
q b-a =	204	(pcu/hr)
q b-c =	0	(pcu/hr)

THE CAPACITY OF MOVEMENT :

Q b-a =	538	
Q b-c =	437	Q b-c (O) = 395.6
Q c-b =	437	
Q b-ac =	538	

DFC b-a	=	0.3792
DFC b-c	=	0.0000
DFC c-b	=	0.0000
DFC b-ac (share lane)	=	0.3792

TOTAL FLOW	=	669	(PCU/HR)
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CRITICAL DFC = 0.38

Appendix B
Junction Capacity Assessments
- Reference & Design Scenarios

LLA CONSULTANCY LIMITED				TRAFFIC SIGNAL CALCULATION			
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969		Prepared By:	
J1 Lion Rock Tunnel Road / Tai Po Road - Tai Wai / Sha Tin Centre Street				2035 Reference AM		Checked By:	
						Reviewed By:	

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin

J1 Lion Rock Tunnel Road / Tai Po Road - Tai Wai / Sha Tin Centre Street

2035 Reference PM

40969

Prepared By:

FILENAME :

Checked By:	
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Reviewed By:

SLTS

Jul-2

SLTS

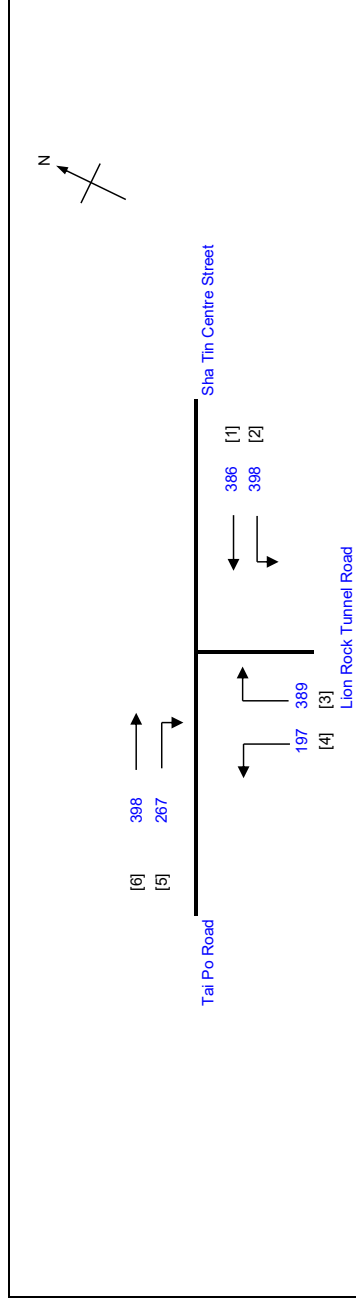
Jul-2

SLTS

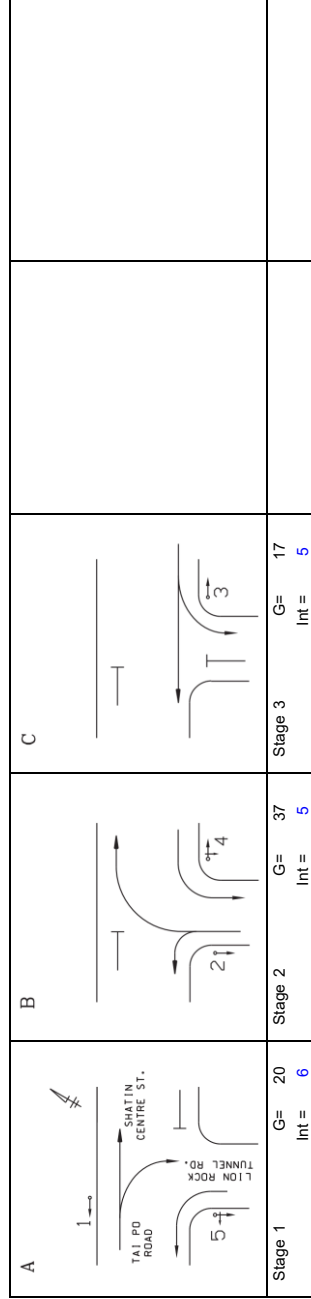
Jul-2

SLTS

Jul-2



No. of stages per cycle	N =	3
Cycle time	C =	90 sec
Sum(y)	Y =	0.404
Loss time	L =	13 sec
Total Flow	=	2035 pcu
Co	= $(1.5L+5)/(1-Y)$	41.1 sec
Cm	= $L/(1-Y)$	21.8 sec
Yult	=	0.803
R.C. ult	= $(Yult-Y)/Y*100\%$	98.8 %
Cp	= $0.9L/(0.9-Y)$	23.6 sec
Ymax	= $1-L/C$	0.856
R.C.(C)	= $(0.9*Ymax-Y)/Y*100\%$	91 %



Move- ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			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)
6	1	3.70	1			N	1985		216	216	0.00	1985								1985	0.109		13	21	21	0.472	24	30
5.6	1	3.70	1	30			2125		229	229	0.21	2103								2103	0.109	0.109		21	21	0.472	24	30
5	1	3.70	1	30			2125		220	220	1.00	2024								2024	0.109	0.109		21	21	0.472	24	30
4	1,2	3.70	1	11		N	1985		197	197	1.00	1747	40	407						2154	0.091	0.201		17	59	0.472	18	32
3	2	3.70	1	15			2125		389	389	1.00	1932								1932	0.201	0.201		38	38	0.472	30	18
2	2,3	3.10	2	8		N	3990		398	398	1.00	3360								3360	0.118			23	56	0.472	21	27
1	3	3.10	2	8			4130		386	386	0.00	4130								4130	0.093	0.093		18	18	0.472	21	30

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 S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969		Prepared By:		SKL	Jul-26
J1 Lion Rock Tunnel Road / Tai Po Road - Tai Wai / Sha Tin Centre Street				2035 Design AM		Checked By:		SLN	Jul-26
						Reviewed By:		SLN	Jul-26

No. of stages per cycle		N =	3
Cycle time	Sum(y)	C =	85 sec
Loss time		Y =	0.431
Total Flow		L =	10 sec
Co	= (1.5*L+5)/(1-Y)		2205 pcu
Cm	= L/(1-Y)		35.1 sec
Yult			17.6 sec
R.C.ult	= (Yult-Y)/Y*100%		0.825
Cp	= 0.9*L/(0.9-Y)		91.5 %
Ymax	= 1-L/C		19.2 sec
			0.882
R.C.(C) = (0.9*Ymax-Y)/Y*100%			84 %

Pedestrian Phase	Stage	Green Time Required SG	Delay FG	Green Time Provided SG	FG

Movement	Stage	Lane	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Movement Straight pcu/h	Movement 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 Effect %	Revised Sat. Flow pcu/hr	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
6	1	3.70	1			N	1985		146		146	0.00	1985						1985	0.074		10	13	28	0.488	12	35
5.6	1	3.70	1	30			2125		152	91	152	0.60	2063						2063	0.074			13	28	0.488	18	35
5	1	3.70	1	30			2125		150		150	1.00	2024						2024	0.074			13	28	0.488	18	35
4	1,2	3.70	1	11		N	1985	711			711	1.00	1747	40	421				2168	0.328	0.328		57	57	0.488	30	7
3	2	3.70	1	15			2125		322	322	322	1.00	1932						1932	0.167			29	29	0.488	30	22
2	2,3	3.10	2	8		N	3990	299			299	1.00	3360						3360	0.089			15	47	0.488	15	31
1	3	3.10	2	8			4130	425			425	0.00	4130						4130	0.103	0.103		18	18	0.488	21	28

NOTE :				O - OPPOSING TRAFFIC	N - NEAR SIDE LANE	SG - STEADY GREEN	FG - FLASHING GREEN	PEDESTRAIN WALKING SPEED = 1.2m/s		QUEUEING LENGTH = AVERAGE QUEUE * 6m	
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LLA CONSULTANCY LIMITED				TRAFFIC SIGNAL CALCULATION				INITIALS	DATE
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969		Prepared By:		SKL	Jul-26
J1 Lion Rock Tunnel Road / Tai Po Road - Tai Wai / Sha Tin Centre Street				2035 Design PM		Checked By:		SLN	Jul-26
						Reviewed By:		SLN	Jul-26

A		B		C	
Stage 1		Stage 2		Stage 3	
G= 20 Int = 6		G= 38 Int = 5		G= 16 Int = 5	

Move-ment	Stage	Lane Width m.	No. of lane	O	N	Straight-Ahead Sat. Flow	Movement			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 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)
6	1	3.70	1		N	1985	220	Left	178	220	0.00	1985						1985	0.111	0.111	13	21	21	0.483	24	30
5.6	1	3.70	1			2125	232	Right	54	232	0.23	2101						2101	0.110	0.110		21	21	0.483	24	30
5	1	3.70	1			2125	223			223	1.00	2024						2024	0.110	0.110		21	21	0.483	24	30
4	1,2	3.70	1		N	1985	197	Left		197	1.00	1747	40	400				2147	0.092	0.209		17	60	0.483	18	33
3	2	3.70	1			2125	403	Right		403	1.00	1932						1932	0.209	0.209		39	39	0.483	30	18
2	2,3	3.10	2		N	3990	412	Left		412	1.00	3360						3360	0.123	0.093		23	56	0.483	21	27
1	3	3.10	2			4130	386			386	0.00	4130						4130	0.093	0.093		17	17	0.483	21	31

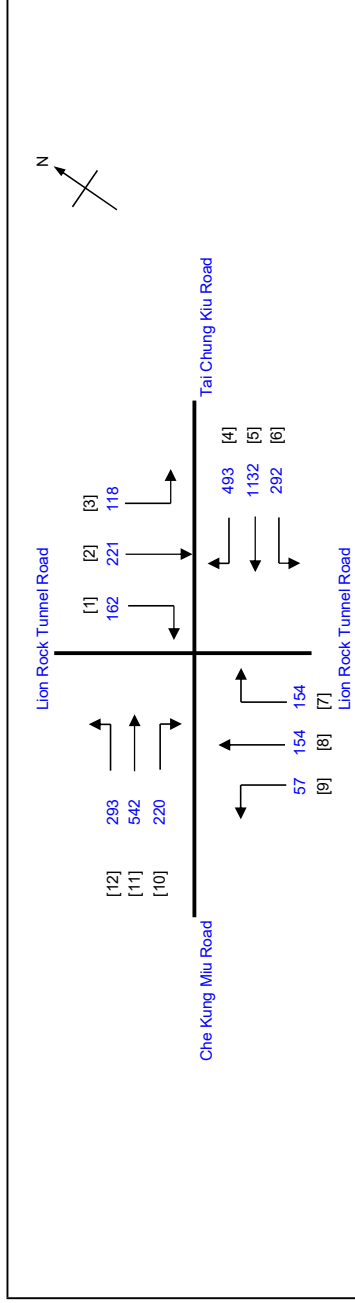
R.C.(C) = (0.9*Ymax-Y)*Y*100%		= 86 %	
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Pedestrian Phase	Stage	Green Time Required SG FG Delay	Green Time Provided SG FG

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

TRAFFIC SIGNAL CALCULATION

[illegible]

A	Stage 1 G= 14 Int= 7
B	Stage 2 G= 36 Int= 7
C	Stage 3 G= 14 Int= 7
D	Stage 4 G= 20 Int= 8

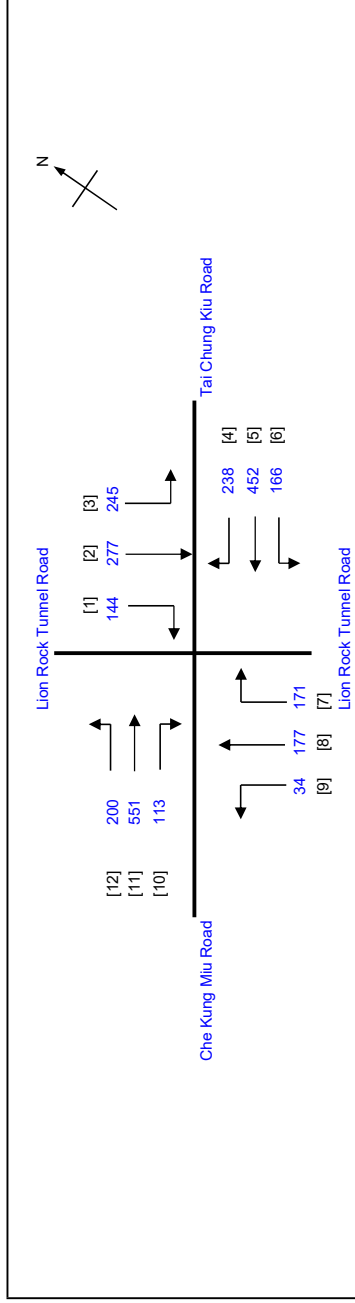
Move- ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation	Queue Length (m / lane)	Average Delay (seconds)
								Left pcu/h	Straight pcu/h	Right pcu/h																		
9	1	3.40	1	12		N	1955	57		57	1.00	1738							1738	0.033			25	6	15	0.815	12	75
8	1	3.40	2				4190	154		154	0.00	4190							4190	0.037				7	15	0.815	12	57
7	1	3.10	1	18			2065			154	1.00	1906							1906	0.081	0.081			15	15	0.815	24	52
6	1,2	3.00	1	13		N	1915	292		292	1.00	1717							1717	0.170				31	52	0.815	36	38
5	2	3.00	2				4110	824		824	0.00	4110							4110	0.200	0.200			37	37	0.815	51	31
4.5	2	3.00	1	33			2055			308	0.24	2033							2033	0.200	0.200			37	37	0.815	48	33
4	2	3.00	1	33			2055			394	1.00	1966							1966	0.200	0.200			37	37	0.815	48	33
3	3	3.30	1	13		N	1945	118		118	1.00	1744							1744	0.068				12	15	0.815	18	57
2	3	3.30	2				4170	221		221	0.00	4170							4170	0.053				10	15	0.815	18	52
1	3	3.30	1	21			2085			162	1.00	1946							1946	0.083	0.083			15	15	0.815	24	51
12	3,4	3.20	2	16		N	4010	293		293	1.00	3666							3666	0.080				15	36	0.815	24	47
11	4	3.20	2				4150	473		473	0.00	4150							4150	0.114	0.114			21	21	0.815	36	41
10,11	4	3.20	1	16			2075			69	0.69	1949							1949	0.114	0.114			21	21	0.815	30	45

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin		PROJECT NO.: 40969 FILENAME: J2_LRTR_TCKR_CKIMR.xlsx	Prepared By:	SKL	Sep-26
J2 Lion Rock Tunnel Road / Tai Chung Kiu Road / Che Kung Miu Road			Checked By:	SLN	Sep-26
			Reviewed By:	SLN	Sep-26



A	Stage 1 G= 14 Int= 7
B	Stage 2 G= 14 Int= 7
C	Stage 3 G= 23 Int= 7
D	Stage 4 G= 19 Int= 8

Move- ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			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)
								Left Sat. Flow	Left pcu/h	Straight pcu/h																		
9	1	3.40	1	12		N	1955	34		34	1.00	1738							1738	0.020		25	3	15	0.579	6	81	
8	1	3.40	2				4190	177		177	0.00	4190							4190	0.042			7	15	0.579	12	48	
7	1	3.10	1	18			2065			171	1.00	1906							1906	0.090	0.090		15	15	0.579	24	43	
6	1,2	3.00	1	13		N	1915	166		166	1.00	1717							1717	0.097			17	30	0.579	18	42	
5	2	3.00	2				4110			350	0.00	4110							4110	0.085			15	15	0.579	24	39	
4,5	2	3.00	1	33			2055			172	0.41	2018							2018	0.085			15	15	0.579	24	43	
4	2	3.00	1	33			2055			168	1.00	1966							1966	0.085	0.085		15	15	0.579	24	43	
3	3	3.30	1	13		N	1945	245		245	1.00	1744							1744	0.140	0.140		24	24	0.579	30	35	
2	3	3.30	2				4170	277		277	0.00	4170							4170	0.066			11	24	0.579	18	42	
1	3	3.30	1	21			2085			144	1.00	1946							1946	0.074			13	24	0.579	18	46	
12	3,4	3.20	2	16		N	4010	200		200	1.00	3666							3666	0.055			9	45	0.579	15	45	
11	4	3.20	2				4150			492	0.00	4150							4150	0.119			20	20	0.579	30	35	
10,11	4	3.20	1	16			2075			230	0.74	1940							1940	0.119	0.119		20	20	0.579	30	38	

NOTE:

O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

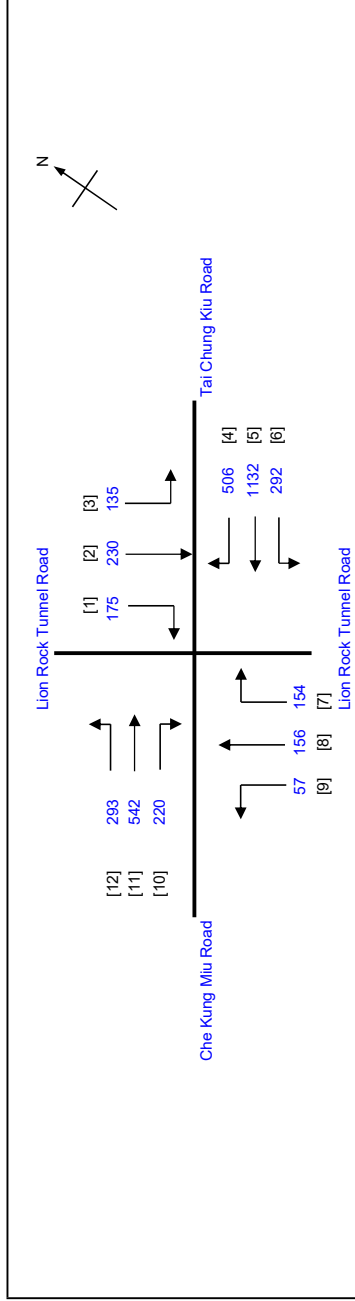
PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

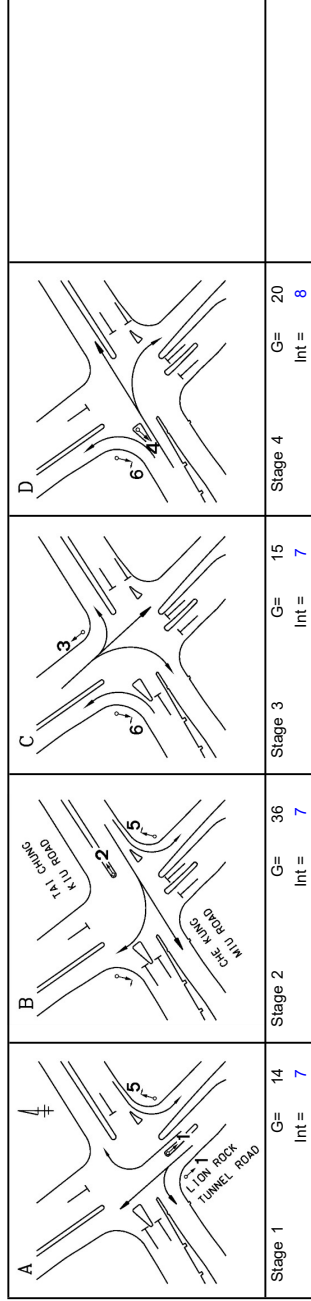
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin	2035 Design AM	PROJECT NO.: 40969	Prepared By:	SKL	Sep-26
J2		FILENAME: J2_LRTR_TOCR_CKMR.xlsx	Checked By:	SLN	Sep-26
J2 Lion Rock Tunnel Road / Tai Chung Kiu Road / Che Kung Miu Road			Reviewed By:	SLN	Sep-26



No. of stages per cycle	N =	4
Cycle time	C =	113 sec
Sum(y)	Y =	0.488
Loss time	L =	25 sec
Total Flow	=	3826 pcu
Co	= $(1.5 \cdot L + 5) / (1 - Y)$	82.9 sec
Cm	= $L / (1 - Y)$	48.8 sec
Yult	=	0.713
R.C.ult	= $(Y_{ult} - Y) / Y \cdot 100\%$	46.1 %
Cp	= $0.9 \cdot L / (0.9 - Y)$	54.6 sec
Ymax	= $1 - L/C$	0.779
R.C.(C)	= $(0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$	44 %



Move- ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			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	Queue Length (m / lane)	Average Delay (seconds)
								Left pcu/h	Straight pcu/h	Right pcu/h																		
9	1	3.40	1	12		N	1955	57		57	1.00	1738								1738	0.033		25	6	15	0.626	12	77
8	1	3.40	2				4190	156		156	0.00	4190								4190	0.037			7	15	0.626	12	58
7	1	3.10	1	18			2065		154	154	1.00	1906								1906	0.081	0.081		15	15	0.626	24	53
6	1,2	3.00	1	13		N	1915	292		292	1.00	1717								1717	0.170			31	51	0.626	36	38
5	2	3.00	2				4110	829		829	0.00	4110								4110	0.202			36	37	0.626	51	31
4,5	2	3.00	1	33			2055	411		411	0.26	2031								2031	0.202			37	37	0.626	48	33
4	2	3.00	1	33			2055	398		398	1.00	1966								1966	0.202	0.202		37	37	0.626	48	33
3	3	3.30	1	13		N	1945	135		135	1.00	1744								1744	0.077			14	16	0.626	18	55
2	3	3.30	2				4170	230		230	0.00	4170								4170	0.055			10	16	0.626	18	52
1	3	3.30	1	21			2085		175	175	1.00	1946								1946	0.090	0.090		16	16	0.626	24	51
12	3,4	3.20	2	16		N	4010	293		293	1.00	3666								3666	0.080			14	37	0.626	24	48
11	4	3.20	2				4150	473		473	0.00	4150								4150	0.114			21	21	0.626	36	42
10,11	4	3.20	1	16			2075		154	223	0.69	1949								1949	0.114	0.114		21	21	0.626	30	46

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

LLA CONSULTANCY LIMITED				TRAFFIC SIGNAL CALCULATION			
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969			
J2 Lion Rock Tunnel Road / Tai Chung Kiu Road / Che Kung Miu Road				FILENAME : J2_LRTR_TOKR_CKMR.xlsx			
				Prepared By:			
				Checked By:			
				Reviewed By:			
				INITIALS			
				DATE			
				SKL			
				SLN			
				SLN			
				Sep-26			
				Sep-26			
				Sep-26			

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin

J3 Tai Chung Kiu Road / Sha Kok Street

2035 Reference AM

40969

Prepared By:

FILENAME: J3_RC

Checked By:

Reviewed By:

INITIALS	D
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SKL	Ju
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SLN	Ju
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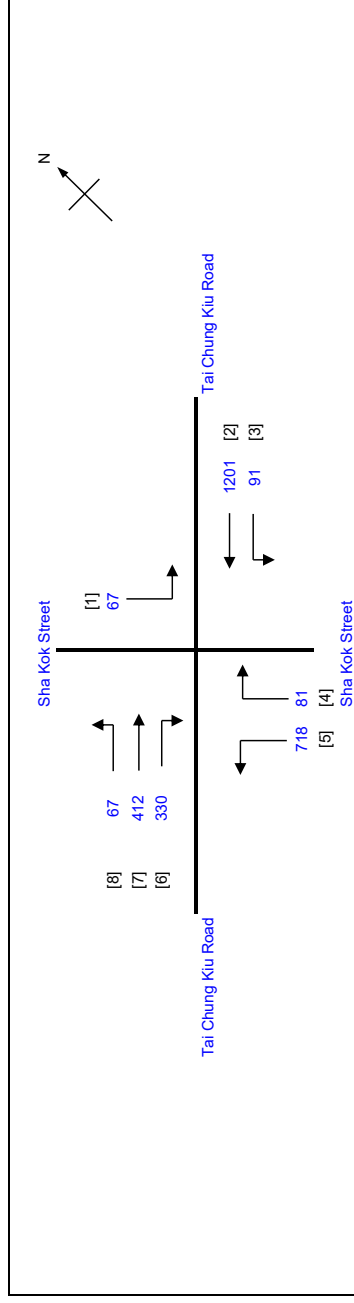
SLN	SLN
NTS	NTS

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No. of stages per cycle	N = 4
Cycle time	C = 113 sec
Sum(y)	Y = 0.413
Loss time	L = 37 sec
Total Flow	= 2967 pcu
Co	= $(1.5L + 5)/(1 - Y)$ = 103.1 sec
Cm	= $L/(1 - Y)$ = 63.0 sec
Yult	= 0.623
R.C.ult	= $(Yult - Y)/Y * 100\%$ = 50.8 %
Cp	= $0.9L/(0.9 - Y)$ = 68.4 sec
Ymax	= $1 - L/C$ = 0.673
R.C.(C)	= $(0.9 - Ymax - Y)/Y * 100\%$ = 47 %

A	B	C	D	Stage 1 G= 38 Int= 7	Stage 2 G= 16 Int=	Stage 3 G= 20 Int= 3	Stage 4 G= 27 Int= 2
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Movement	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			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)
								Left pcu/h	Straight pcu/h	Right pcu/h																		
7.8 7	1,2 1,2	3.30	1	15		N	1945	67	161	228	0.29	1889								1889	0.121		10	22	55	0.614	30	44
		2085	251				251	251	0.00	2085				0.120	2085													
2.3 2	1 1	3.20	1	13		N	1935	91	313	404	0.23	1886							1886	0.214	0.214		39	39	0.614	48	31	
		4150	888				888	888	0.00	4150				0.214	4150													
6	2	3.30	2	16			4170			330	1.00	3813							3813	0.087			16	16	0.614	24	46	
5	2,3	3.30	2	13		N	4030	718		718	1.00	3613							3613	0.199	0.199			37	37	0.614	45	31
4 1	3 3	3.30	1	15		N	2085			81	1.00	1895							1895	0.043			8	21	0.614	12	66	
		3.00	1				14			67	1.00	1730									1730		0.039		7	21	0.614	12
PED	4																					27						

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

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin

TRAFFIC SIGNAL CALCULATION

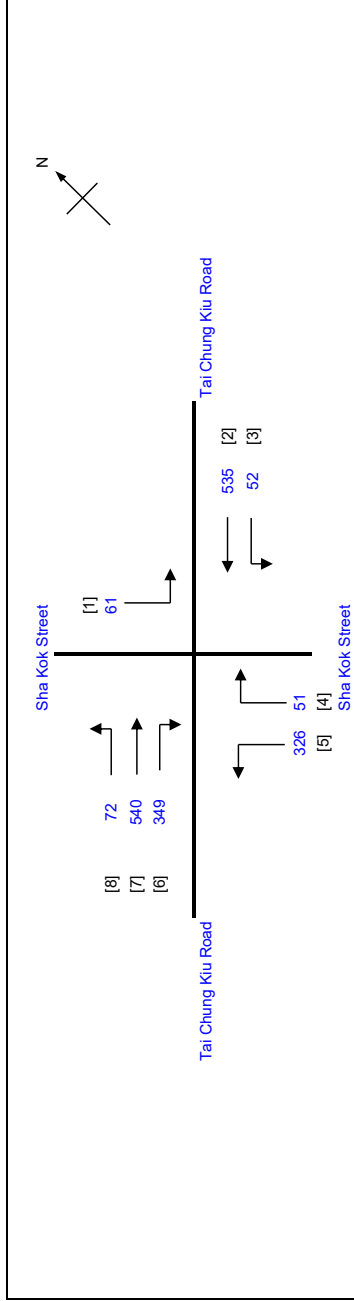
2035 Reference PM

PROJECT NO.:	40969	Prepared By:	SKL	Jul-26
FILENAME:	J3 RCKR SKS.xlsx	Checked By:	SLN	Jul-26

Reviewed By:	SLN	Jul-26
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Reviewed By:	SLN	Jul-26
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Reviewed By:	SLN	Jul-26
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A	B	C	D	<table border="1"> <thead> <tr> <th>Stage</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>G=</td> <td>26</td> <td>24</td> <td>9</td> <td>27</td> </tr> <tr> <td>Int=</td> <td>5</td> <td>5</td> <td>3</td> <td>2</td> </tr> </tbody> </table>	Stage	1	2	3	4	G=	26	24	9	27	Int=	5	5	3	2
Stage	1	2	3	4															
G=	26	24	9	27															
Int=	5	5	3	2															

Move- ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			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)
								Left pcu/h	Straight pcu/h	Right pcu/h																		
7.8 7	1,2 1,2	3.30 3.30	1 1	15		N	1945 2085	72 320		292 320	0.25 0.00	1898 2085								1898 2085	0.154 0.153		12	42 42	51 51	0.368 0.368	24 30	19 19
	2,3 2	1 1	3.20 3.20	1 2	13	N	1935 4150	52 404	131 404	183 404	0.28 0.00	1874 4150								1874 4150	0.098 0.097	0.098		27 26	27 27	0.368 0.368	18 24	29 28
6	2	3.30	2	16			4170			349	1.00	3813								3813	0.092	0.092		25	25	0.368	21	29
5	2,3	3.30	2	13		N	4030	326		326	1.00	3613								3613	0.090			25	34	0.368	18	29
4 1	3 3	3.30 3.00	1 1	15 14		N	2085 1915			51 61	1.00 1.00	1895 1730								1895 1730	0.027 0.035			7 10	10 10	0.368 0.368	6 6	47 44
PED	4																					27						

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

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin

J3 Tai Chung Kiu Road / Sha Kok Street

2035 Design AM

40969

Prepared By:

J3 RCKR SKS.xlsx

Checked By:	
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Reviewed By

NTS	
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Jul-26

Jul-26

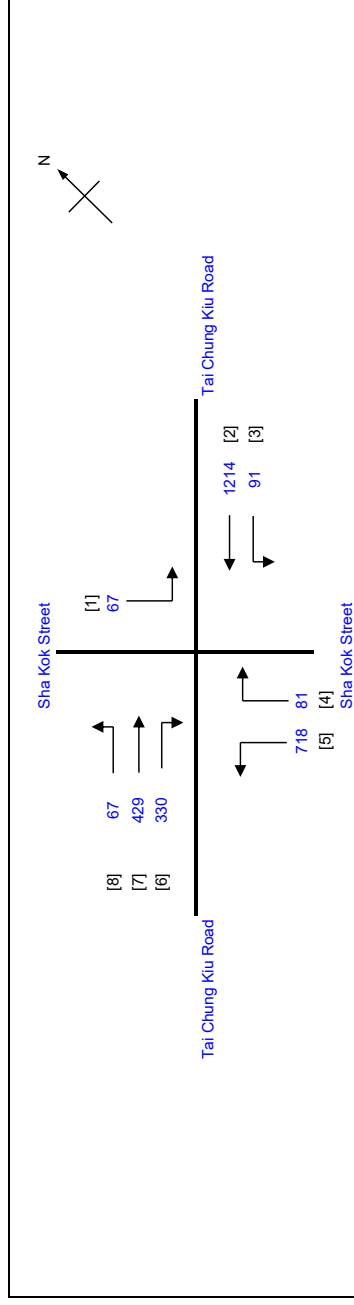
Jul-26

Jul-26

Jul-26

Jul-26

Jul-26



No. of stages per cycle	N = 4
Cycle time	C = 113 sec
Sum(y)	Y = 0.415
Loss time	L = 37 sec
Total Flow	= 2987 pcu
Co	= 103.4 sec
Cm	= 63.2 sec
Yult	= 0.623
R.C.ult	= 50.0 %
Cp	= 68.7 sec
Ymax	= 0.673
R.C.(C)	= $(0.9 \cdot Y_{max} - Y) / (Y - 100\%)$
	= 46 %

A	B	C	D	Stage 1 G = 39 Int = 7	Stage 2 G = 16 Int =	Stage 3 G = 20 Int = 3	Stage 4 G = 27 Int = 2
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Move- ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			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	Queue Length (m / lane)	Average Delay (seconds)
								Left pcu/h	Straight pcu/h	Right pcu/h																		
7.8 7	1,2 1,2	3.30	1	15		N	1945	67		236	0.28	1891								1891	0.125		10	23	55	0.617	30	44
		2085	260					260	0.00	2085	0.125	23								55	0.617			36	43			
2.3 2	1 1	3.20	1	13		N	1935	91		408	0.22	1886							1886	0.216	0.216		40	40	0.617	48	31	
		4150	897					897	0.00	4150	0.216	40							40	0.617			54	29				
6	2	3.30	2	16			4170		330	1.00	3813								3813	0.087			16	16	0.617	24	46	
5	2,3	3.30	2	13		N	4030	718		718	1.00	3613							3613	0.199	0.199		36	36	0.617	45	31	
4 1	3 3	3.30	1	15		N	2085			81	1.00	1895							1895	0.043	0.039		8	21	0.617	12	66	
		3.00	1				67	1.00	1730	0.039	7	21							0.617	12			71					
PED	4																					27						

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

Application for Amendment of Plan under S/2A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 In D.D. 184, Sha Tin

J3 Tai Chung Kiu Road / Sha Kok Street

2035 Design PM

40969

Prepared By:

FILENAME:	J3 RC
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Checked By:	
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Reviewed By:

INITIALS	
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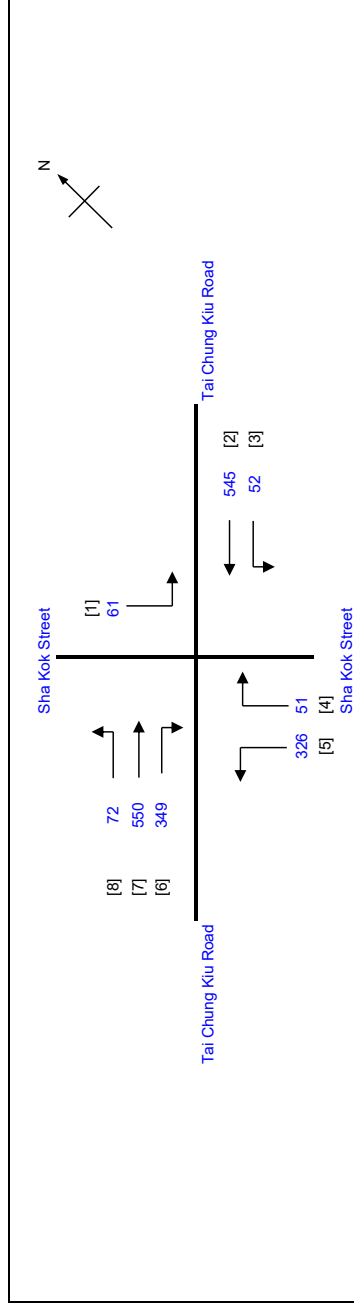
SKL	
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NTS	
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NTS	
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4



No. of stages per cycle	N = 4
Cycle time	C = 100 sec
Sum(y)	Y = 0.226
Loss time	L = 39 sec
Total Flow	= 2006 pcu
Co	= $(1.5 * L + 5) / (1 - Y)$
Cm	= $L / (1 - Y)$
Yult	= 0.608
R.C.ult	= $(Y_{ult} * Y) / Y * 100\%$
Cp	= $0.9 * L / (0.9 - Y)$
Ymax	= 1-L/C
R.C.(C)	= $(0.9 * Y_{max} - Y) / Y * 100\%$
	143 %

A	Stage 1	G= 26 Int= 5
B	Stage 2	G= 24 Int= 5
C	Stage 3	G= 9 Int= 3
D	Stage 4	G= 27 Int= 2

Move- ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			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	Queue Length (m /lane)	Average Delay (seconds)
								Left pcu/h	Straight pcu/h	Right pcu/h																		
7,8 7	1,2 1,2	3.30 3.30	1 1	15		N	1945 2085	72	225 325		297 325	0.24 0.00	1899 2085							1899 2085	0.156 0.156		12	42 42	51 51	0.371 0.371	24 30	19 19
	2,3 2	1 1	3.20 3.20	1 2	13	N	1935 4150	52	133 412		185 412	0.28 0.00	1874 4150							1874 4150	0.099 0.099	0.099		27 27	27 27	0.371 0.371	18 24	29 28
6	2	3.30	2	16			4170			349	1.00	3813								3813	0.092	0.092		25	25	0.371	21	29
5	2,3	3.30	2	13		N	4030	326		326	1.00	3613								3613	0.090			24	34	0.371	18	29
4	3	3.30	1	15			2085			51	1.00	1895								1895	0.027			7	10	0.371	6	47
1	3	3.00	1	14		N	1915	61		61	1.00	1730								1730	0.035	0.035		10	10	0.371	6	44
PED	4																					27						

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			
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				2035 Reference AM (Sensitivity)			
J3 Tai Chung Kiu Road / Sha Kok Street				PROJECT NO.: 40969	Prepared By:	INITIALS	DATE
				FILENAME : J3_RCKR_SKS.xlsx	Checked By:	SKL	Sep-26
					Reviewed By:	SLN	Sep-26
						SLN	Sep-26

No. of stages per cycle Cycle time Sum(y) Loss time Total Flow Co Cm Yult R.C.ult Cp Ymax N = 5 C = 132 sec Y = 0.456 L = 44 sec = 2978 pcu = 130.5 sec = 80.9 sec = 0.570 = 25.0 % = 89.2 sec = 1-L/C			
R.C.(C) = 0.9*Ymax-Y/Y*100% = 32 %			

Pedestrian Phase	Stage	Green Time Required SG	Delay FG	Green Time Provided SG	FG
P1	5	10	5	22	5
P2	5	13	12	15	12

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			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)
7,8 7	1,2 1,2	3.30 3.30	1 1	15		N	1945 2085	Left Straight Right	55 168 244		223 244	0.25 0.00	1898 2085							1898 2085	0.117 0.117		19	23 23	58 58	0.684 0.684	36 42	57 56
2,3 2	1 1	3.20 3.20	1 2	13		N	1935 4150	Left Straight Right	91 313 888		404 888	0.23 0.00	1886 4150							1886 4150	0.214 0.214	0.214		41 41	41 41	0.684 0.684	60 66	42 38
6	2	3.30	2	16			4170	Left Straight Right		330	330	1.00	3813							3813	0.087			17	17	0.684	30	57
5	2,3	3.30	2	13		N	4030	Left Straight Right	718		718	1.00	3613							3613	0.199	0.199		38	38	0.684	54	41
4,11 1,9,10	3 4	3.50 3.50	1 1	15 10		N	2105 1965	Left Straight Right	15 10 25		96 75	0.84 0.87	1941 1739							1941 1739	0.049 0.043	0.043	25	10 8	22 8	0.684 0.684	18 18	79 86
PED	5																											

NOTE :				O - OPPOSING TRAFFIC	N - NEAR SIDE LANE	SG - STEADY GREEN	FG - FLASHING GREEN	PEDESTRAIN WALKING SPEED = 1.2m/s		QUEUEING LENGTH = AVERAGE QUEUE * 6m	
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LLA CONSULTANCY LIMITED										TRAFFIC SIGNAL CALCULATION									
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin										PROJECT NO.: 40969									
J3 Tai Chung Kiu Road / Sha Kok Street										FILENAME : J3_RCKR_SKS.xlsx									
										Prepared By:									
										Checked By:									
										Reviewed By:									
										No. of stages per cycle									
										N = 5									
										C = 123 sec									
										Y = 0.266									
										L = 43 sec									
										Total Flow = 2003 pcu									
										Co = 94.7 sec									
										Cm = 58.6 sec									
										Yult = 0.578									
										R.C.ult = (Yult-Y)/Y*100%									
										Cp = 0.9*L/(0.9-Y)									
										Ymax = 1-L/C									
										R.C.(C) = (0.9*Ymax-Y)/Y*100%									
										= 120 %									
										Green Time Provided									
										SG FG									
										22 5									
										15 12									

LLA CONSULTANCY LIMITED										TRAFFIC SIGNAL CALCULATION									
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin										PROJECT NO.: 40969									
										FILENAME : J3_RCKR_SKS.xlsx									
										Prepared By: SKL Checked By: SLN Reviewed By: SLN									
J3 Tai Chung Kiu Road / Sha Kok Street																			
No. of stages per cycle Cycle time Sum(y) Loss time Total Flow Co Cm Yult R.C.ult Cp Ymax N = 5 C = 123 sec Y = 0.268 L = 43 sec = 2023 pcu = 94.9 sec = 58.7 sec = 0.578 = 115.7 % = 61.2 sec = 0.650 R.C.(C) = (0.9*Ymax-Y)/Y*100% = 119 %																			
Pedestrian Phase P1 P2 Stage 5 5 Green Time Required SG Delay FG 10 5 13 12 Green Time Provided SG FG 22 5 15 12																			

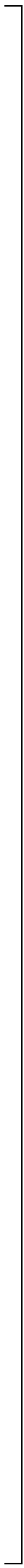
LLA CONSULTANCY LIMITED				TRAFFIC SIGNAL CALCULATION			
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969		Prepared By:	
J4 Tai Chung Kiu Road / Sha Tin Wai Road / Sha Tin Rural Committee Road				2035 Reference AM		Checked By:	
						Reviewed By:	

LLA CONSULTANCY LIMITED				TRAFFIC SIGNAL CALCULATION			
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969		Prepared By:	
J4 Tai Chung Kiu Road / Sha Tin Wai Road / Sha Tin Rural Committee Road				2035 Reference PM		Checked By:	
						Reviewed By:	

LLA CONSULTANCY LIMITED				TRAFFIC SIGNAL CALCULATION			
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969		Prepared By:	
J4 Tai Chung Kiu Road / Sha Tin Wai Road / Sha Tin Rural Committee Road				2035 Design PM		Checked By:	
						Reviewed By:	

LLA CONSULTANCY LIMITED				TRAFFIC SIGNAL CALCULATION			
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969		Prepared By:	
J5 Yuen Wo Road / Sha Tin Rural Committee Road				2035 Reference PM		Checked By:	
						Reviewed By:	
						INITIALS	
						DATE	
						SKL	
						SLN	
						SLN	
						SLN	
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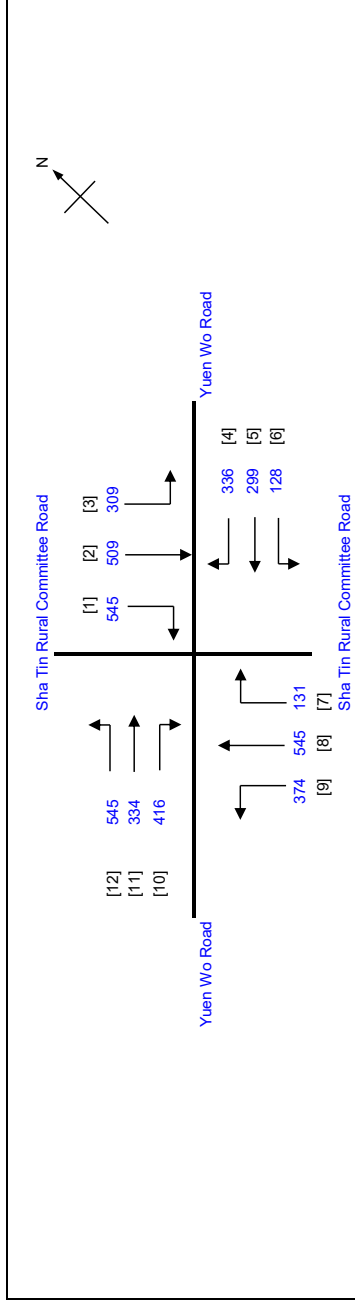
LLA CONSULTANCY LIMITED				TRAFFIC SIGNAL CALCULATION			
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969		Prepared By:	
J5 Yuen Wo Road / Sha Tin Rural Committee Road				FILENAME : J5_YWR_STROR.xlsx		Checked By:	
						Reviewed By:	
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LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

Application for Amendment of Plan under S2A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin		2035 Design PM		PROJECT NO.:	40969	Prepared By:	SKL	Jul-26
J5 Yuen Wo Road / Sha Tin Rural Committee Road				FILENAME:	J5_YWR_STRCR.xlsx	Checked By:	SLN	Jul-26
						Reviewed By:	SLN	Jul-26



No. of stages per cycle	N =	4
Cycle time	C =	123 sec
Sum(y)	Y =	0.597
Loss time	L =	25 sec
Total Flow	=	4471 pcu
Go	= $(1.5 \cdot L + 5) / (1 - Y)$	105.5 sec
Cm	= $L / (1 - Y)$	62.1 sec
Yult	=	0.713
R.C. ult	= $(Y_{ult} - Y) / Y \cdot 100\%$	19.3 %
Cp	= $0.9 \cdot L / (0.9 - Y)$	74.3 sec
Ymax	= $1 - L / C$	0.797
R.C.(C)	= $(0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$	20 %

A YUEN WU ROAD SHA TIN RURAL COMMITTEE ROAD 7 6 1	B 7 2 8	C 3 9 8	D 4 5 7	Stage 1 G= 20 Int= 6 Stage 2 G= 17 Int= 5 Stage 3 G= 36 Int= 8 Stage 4 G= 24 Int= 7
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Pedestrian Phase	Stage	Green Time Required			Green Time Provided	
		SG	FG	Delay	SG	FG
P1	1	8	9	9	8	9
P2	1,2	6	12	0	36	12
P3	2,3	10	19	0	47	19
P4	3	5	10	10	24	10

Move- ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			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)
								Left pcu/h	Straight pcu/h	Right pcu/h																		
9 8 7.8	1,4 1 1	3.00 3.00 3.00	1 2 1	11 17		N	1915 4110 2055	374 458 87		374 458 218	1.00 0.00 0.60	1685 4110 1952								1685 4110 1952	0.222 0.111 0.112		22 3	36 18 18	46 21 21	0.749 0.749 0.749	54 39 36	45 53 62
	5,6 5 4	2 2 2	3.10 3.10 3.10	1 1 1	15 19			2065 2065 2065	128 219 336		208 219 336	0.62 0.00 1.00	1945 2065 1914	40	1333					1945 2065 3247	0.107 0.106 0.103	0.107		18 17 17	18 18 18	0.749 0.749 0.749	36 36 60	63 62 57
3 2 1.2	3 3 3	3.20 3.20 3.20	1 1 1	15 15 23		N	1935 2075 2075	309 467 42		309 467 587	1.00 0.00 0.93	1759 2075 1957	40	649						1759 2075 2605	0.176 0.225 0.225			29 37 37	37 37 37	0.749 0.749 0.749	48 66 84	51 43 41
	12 11,12 11 10	4 4 4 4	3.00 3.00 3.00 3.00	1 1 2 2	13 13 16		N	1915 2055 4110 4110	263 282 334 416		263 282 334 416	1.00 1.00 0.00 1.00	1717 1842 4110 3758							1717 1842 4110 3758	0.153 0.153 0.081 0.111	0.153		25 25 13 18	25 25 25 25	0.749 0.749 0.749 0.749	42 48 30 36	55 54 59 54

NOTE: O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG-STEADY GREEN

FG - FLASHING GF

FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

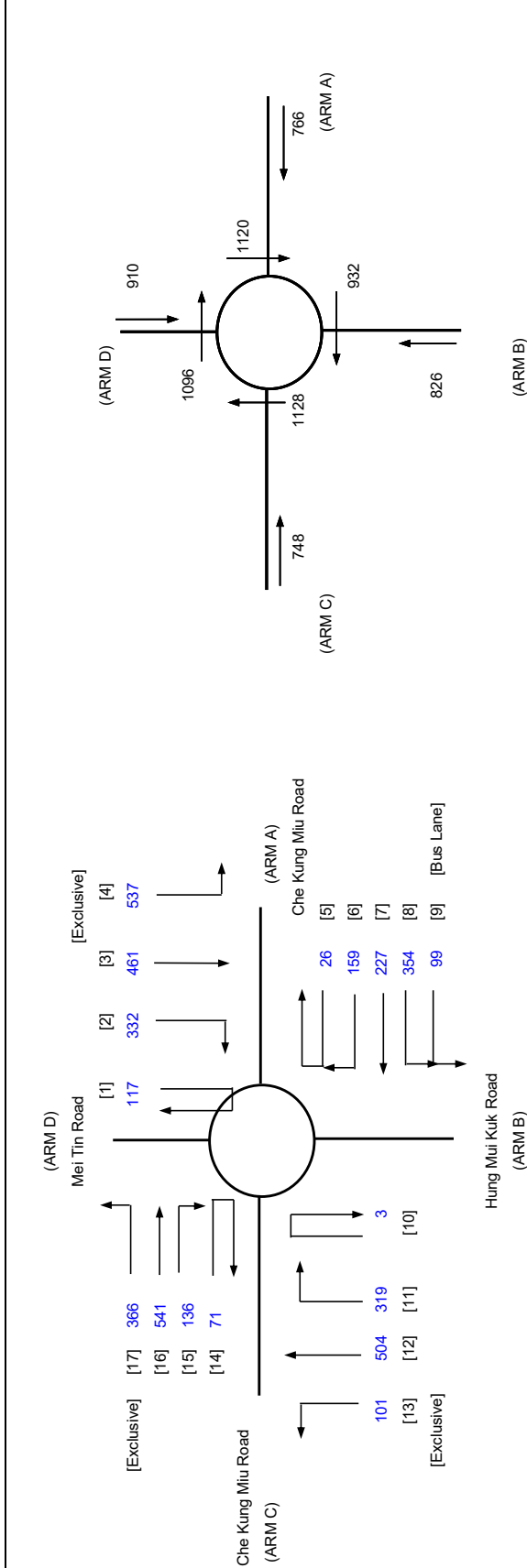
LLA CONSULTANCY LIMITED

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin

J6 Che Kung Miu Road / Mei Tin Road / Hung Mui Kuk Road

ROUNDAABOUT CALCULATION

PROJECT NO.:	40969	PREPARED BY:		INITIALS	DATE
FILENAME :	J6 CKMR HMKR	CHECKED BY:		SKL	Jul-26
REFERENCE NO.:		REVIEWED BY:		SLN	Jul-26

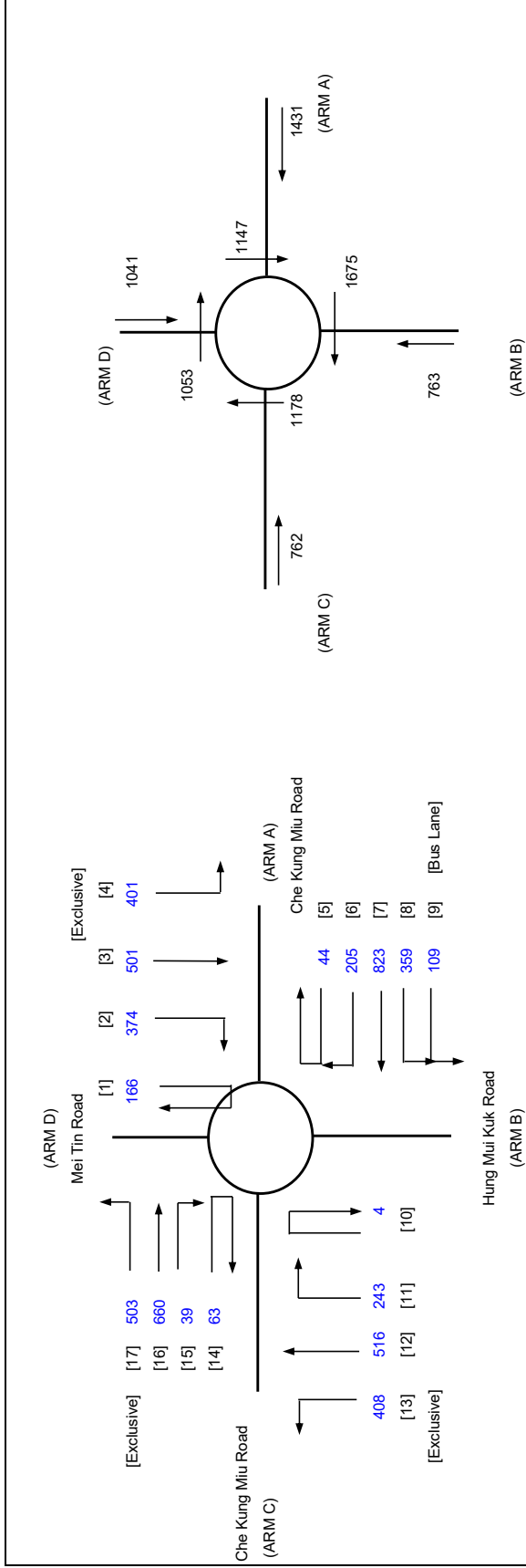


ARM	A	B	C	D
INPUT PARAMETERS:				
V = Approach half width (m)	6.90	6.60	6.75	6.30
E = Entry width (m)	9.80	9.40	9.50	9.20
L = Effective length of flare (m)	28.00	19.00	41.00	22.00
R = Entry radius (m)	41.00	55.00	37.00	36.00
D = Inscribed circle diameter (m)	66.00	66.00	66.00	66.00
A = Entry angle (degree)	42.00	46.00	35.00	39.00
Q = Entry flow (pcu/h)	766	826	748	910
Qc = Circulating flow across entry (pcu/h)	1120	932	1128	1096
OUTPUT PARAMETERS:				
S = Sharpness of flare = $1.6(E-V)/L$	0.17	0.24	0.11	0.21
K = $1-0.00347(A-30)-0.978(1/R-0.05)$	0.98	0.98	1.01	0.99
X2 = $V + ((E-V)/(1+2S))$	9.08	8.50	9.01	8.34
M = $EXP((D-60)/10)$	1.82	1.82	1.82	1.82
F = $303 \times X2$	2751	2576	2731	2527
Td = $1+(0.5/(1+M))$	1.18	1.18	1.18	1.18
Fc = $0.21 \times Td(1+0.2 \times X2)$	0.70	0.67	0.69	0.66
Qe = $K(F-Fc \times Qc)$	1938	1906	1960	1787
DFC = Design flow/Capacity = Q/Qe				
	0.40	0.43	0.38	0.51
Total In Sum =				2030 PCU
DFC of Critical Approach =				0.51

LLA CONSULTANCY LIMITED

ROUNDABOUT CALCULATION

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin			PROJECT NO.: 40969		INITIALS	DATE
J6 Che Kung Miu Road / Mei Tin Road / Hung Mui Kuk Road			2035 Design AM		SKL	Jul-26
			FILENAME : J6 CKMR HMKR	CHECKED BY:	SLN	Jul-26
			REFERENCE NO.:	REVIEWED BY:	SLN	Jul-26

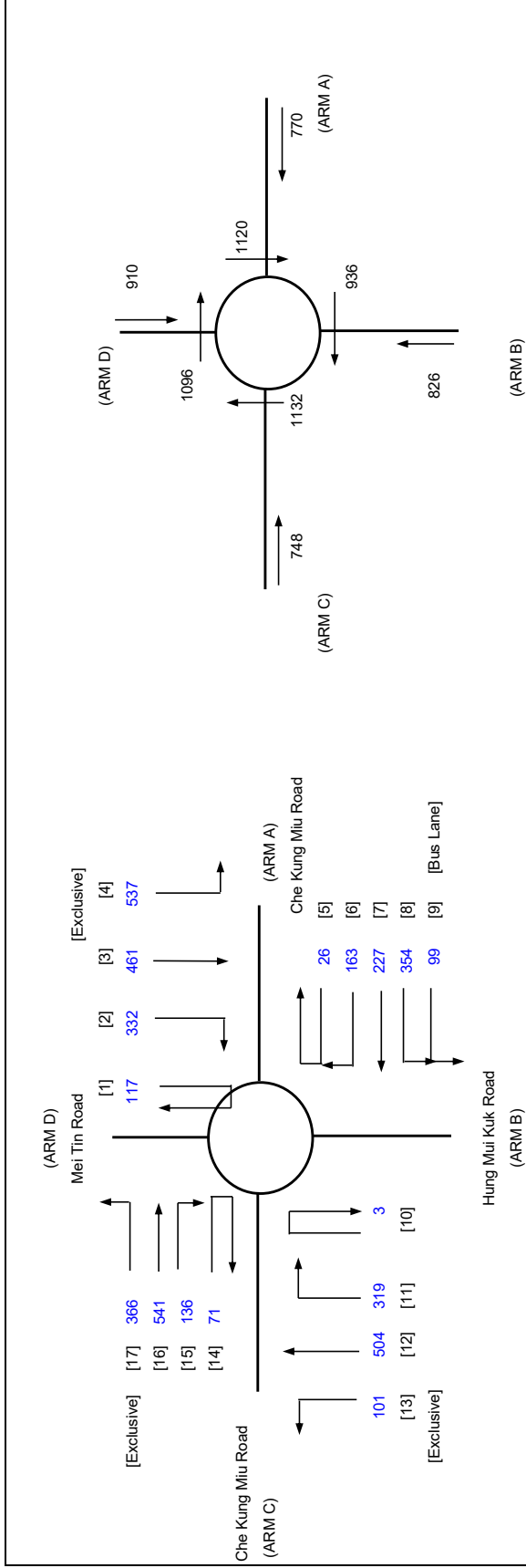


ARM		A	B	C	D
INPUT PARAMETERS:					
V	= Approach half width (m)	6.90	6.60	6.75	6.30
E	= Entry width (m)	9.80	9.40	9.50	9.20
L	= Effective length of flare (m)	28.00	19.00	41.00	22.00
R	= Entry radius (m)	41.00	55.00	37.00	36.00
D	= Inscribed circle diameter (m)	66.00	66.00	66.00	66.00
A	= Entry angle (degree)	42.00	46.00	35.00	39.00
Q	= Entry flow (pcu/h)	1431	763	762	1041
Qc	= Circulating flow across entry (pcu/h)	1147	1675	1178	1053
OUTPUT PARAMETERS:					
S	= Sharpness of flare = 1.6(E-V)/L	0.17	0.24	0.11	0.21
K	= 1-0.00347(A-30)-0.978(1/R-0.05)	0.98	0.98	1.01	0.99
X2	= V + ((E-V)/(1+2S))	9.08	8.50	9.01	8.34
M	= EXP((D-60)/10)	1.82	1.82	1.82	1.82
F	= 303*X2	2751	2576	2731	2527
Td	= 1+(0.5/(1+M))	1.18	1.18	1.18	1.18
Fc	= 0.21*Td(1+0.2*X2)	0.70	0.67	0.69	0.66
Qe	= K(F-Fc*Qc)	1920	1423	1925	1815
Total In Sum =					
				2529	PCU
DFC = Design flow/Capacity = Q/Qe					
				DFC of Critical Approach = 0.75	

LLA CONSULTANCY LIMITED

ROUNDABOUT CALCULATION

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin		PROJECT NO.: 40969		INITIALS	DATE
J6 Che Kung Miu Road / Mei Tin Road / Hung Mui Kuk Road		2035 Design PM		SKL	Jul-26
		FILENAME : J6 CKMR HMKR		SLN	Jul-26
		REFERENCE NO.:		SLN	Jul-26



ARM	A	B	C	D
INPUT PARAMETERS:				
V = Approach half width (m)	6.90	6.60	6.75	6.30
E = Entry width (m)	9.80	9.40	9.50	9.20
L = Effective length of flare (m)	28.00	19.00	41.00	22.00
R = Entry radius (m)	41.00	55.00	37.00	36.00
D = Inscribed circle diameter (m)	66.00	66.00	66.00	66.00
A = Entry angle (degree)	42.00	46.00	35.00	39.00
Q = Entry flow (pcu/h)	770	826	748	910
Qc = Circulating flow across entry (pcu/h)	1120	936	1132	1096
OUTPUT PARAMETERS:				
S = Sharpness of flare = $1.6(E-V)/L$	0.17	0.24	0.11	0.21
K = $1-0.00347(A-30)-0.978(1/R-0.05)$	0.98	0.98	1.01	0.99
X2 = $V + ((E-V)/(1+2S))$	9.08	8.50	9.01	8.34
M = $EXP((D-60)/10)$	1.82	1.82	1.82	1.82
F = $303 \times X2$	2751	2576	2731	2527
Td = $1+(0.5/(1+M))$	1.18	1.18	1.18	1.18
Fc = $0.21 \times Td(1+0.2 \times X2)$	0.70	0.67	0.69	0.66
Qe = $K(F-Fc \times Qc)$	1938	1904	1957	1787
Total In Sum = 2030 PCU				
DFC = Design flow/Capacity = Q/Qe	0.40	0.43	0.38	0.51
DFC of Critical Approach =				0.51

LLA CONSULTANCY LIMITED										TRAFFIC SIGNAL CALCULATION																																																											
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin										PROJECT NO.: 40969																																																											
										FILENAME : J7_STTR_CKMR.xlsx																																																											
J7 Sha Tin Tau Road / Che Kung Miu Road										2035 Reference AM																																																											
										No. of stages per cycle N = 4 Cycle time C = 120 sec Sum(y) Y = 0.443 Loss time L = 20 sec Total Flow = 2832 pcu Co = 62.9 sec Cm = 35.9 sec Yult = 0.750 R.C.ult = 69.1 % Cp = 39.4 sec Ymax = 0.833																																																											
										R.C.(C) = $(0.9 * Y_{max} - Y) * 100\%$ = 69 %																																																											
										Pedestrian Phase Fp Gp Hp Stage 4 1,2,4 3 Green Time Required SG 5 5 5 Delay FG 9 11 9 Green Time Provided SG 23 55 45 FG 9 11 9																																																											
Movement	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement		Total Flow	Proportion of Turning Vehicles	Sat. Flow	Flare Effect	Site Factor	Site Effect	Gradient %	Gradient Effect	Revised Sat. Flow	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)																																											
9	1	3.08	1	17		N	1923	34	657	34	1.00	1767						1767	0.019		20	4	4	0.532	6	80																																											
8	1,4	3.08	2				4126			657	0.00	4126						4126	0.159	0.159		36	36	0.532	45	33																																											
7,8	1,4	3.08	1	17			2063		90	308	0.71	1942						1942	0.159			36	36	0.532	42	35																																											
6	1,2,4	3.00	2	12		N	3970	177	6	177	1.00	3529						3529	0.050			11	55	0.532	15	52																																											
4,5	2	3.00	1	17			2055			160	0.96	1894			0.084			1894	0.084	0.084		19	19	0.532	24	48																																											
4	2	3.00	1	12			2055			154	1.00	1827			0.084			1827	0.084			19	19	0.532	24	48																																											
3	3	3.00	1	12		N	1915	340	672	340	1.00	1702			0.200			1702	0.200	0.200		45	45	0.532	42	29																																											
2	3	3.00	2				4110			672	0.00	4110			0.164			4110	0.164			37	45	0.532	45	32																																											
1,2	3	3.00	1	17			2055		271	330	0.18	2023			0.163			2023	0.163			37	45	0.532	42	34																																											
NOTE :										O - OPPOSING TRAFFIC										N - NEAR SIDE LANE										SG - STEADY GREEN										FG - FLASHING GREEN										PEDESTRAIN WALKING SPEED = 1.2m/s										QUEUEING LENGTH = AVERAGE QUEUE * 6m									

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

Application for Amendment of Plan under S 2A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184. Sha Tin

J7 Sha Tin Tau Road / Che Kung Miu Road

2035 Reference PM

40969

Prepared By:

Checked By:	
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Reviewed By:

SKL	Ju
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SLN	Jr.
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SLN	JU
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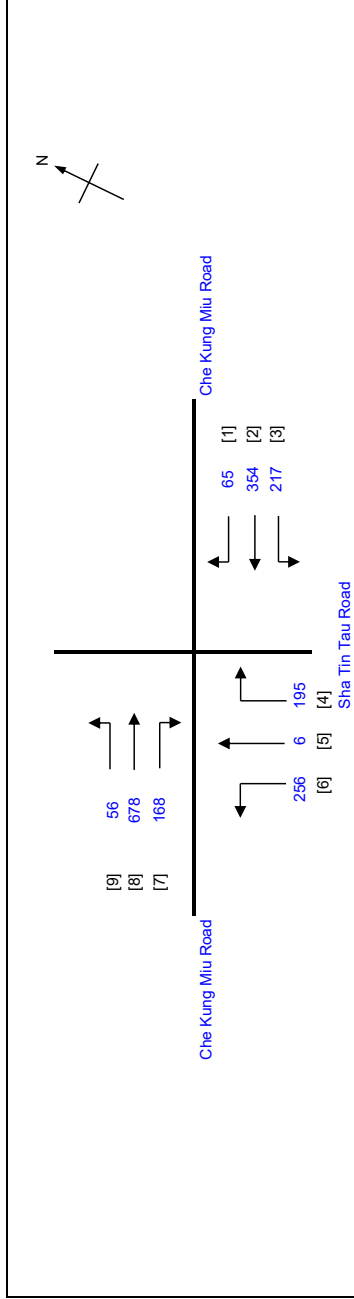
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SKL	Ju
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SLN	Jr.
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SLN	JU
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No. of stages per cycle	N	4
Cycle time	C	120 sec
Sum(y)	Y	0.321
Loss time	L	20 sec
Total Flow		1995 pcu
Co		51.5 sec
Cm		29.4 sec
Yult		0.750
R.C.ult		133.8 %
Cp		31.1 sec
Ymax		0.833
R.C.(C)		134 %

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Movement	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			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	Queue Length (m / lane)	Average Delay (seconds)
								Left pcu/h	Straight pcu/h	Right pcu/h																		
9 8 7.8	1 1,4 1,4	3.08 3.08 3.08	1 2 1	17		N	1923 4126 2063	56 574 104	 168	56 574 272	1.00 0.00 0.62	1767 4126 1956								1767 4126 1956	0.032 0.139 0.139	0.139	20	10 43 43	0.385 0.385 0.385	6 36 30	54 26 27	
	6 4.5 4	1,2,4 2 2	3.00 3.00 3.00	2 1 1	12 17 12	N	3970 2055 2055	256 6 256	 96 99	256 102 99	1.00 0.94 1.00	3529 1897 1827							3529 1897 1827	0.073 0.054 0.054	0.054		23 17 17	0.385 0.385 0.385	18 12 12	40 46 46		
	3 2 1,2	3 3 3	3.00 3.00 3.00	1 2 1	12 17	N	1915 4110 2055	217 283 71	 65	217 283 136	1.00 0.00 0.48	1702 4110 1972								1702 4110 1972	0.127 0.069 0.069	0.127		40 21 21	0.385 0.385 0.385	24 21 18	29 40 42	

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			
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969			
J7 Sha Tin Tau Road / Che Kung Miu Road				2035 Design AM			
				FILENAME : J7_STTR_CKMR.xlsx			
				Prepared By:			
				Checked By:			
				Reviewed By:			

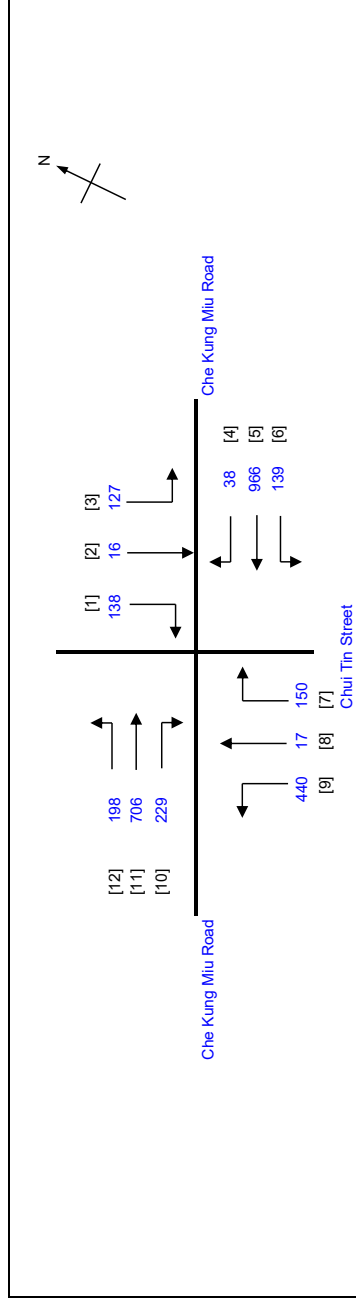
LLA CONSULTANCY LIMITED				TRAFFIC SIGNAL CALCULATION			
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969			
J8 Chui Tin Street / Che Kung Miu Road				FILENAME: J8_CTS_CKMR.xlsx			
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LLA CONSULTANCY LIMITED										TRAFFIC SIGNAL CALCULATION									
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin										PROJECT NO.: 40969									
J8 Chui Tin Street / Che Kung Miu Road										2035 Reference PM									
										FILENAME : J8_CTS_CKMIR.xlsx									
										Prepared By:									
										Checked By:									
										Reviewed By:									
										Jul-26									
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LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin		PROJECT NO. : 40969 FILENAME : J8_CTS_CKMR.xlsx		Prepared By:	SKL	Jul-26
J8	Chui Tin Street / Che Kung Miu Road			Checked By:	SLN	Jul-26
				Reviewed By:	SLN	Jul-26



No. of stages per cycle	N =	5
Cycle time	C =	120 sec
Sum(y)	Y =	0.506
Loss time	L =	25 sec
Total Flow	=	3164 pcu
Co	= $(1.5L+5)/(1-Y)$	86.1 sec
Cm	= $L/(1-Y)$	50.6 sec
Yult	=	0.713
R.C.ult	= $(Yult-Y)/Y*100\%$	40.8 %
Cp	= $0.9L/(0.9-Y)$	57.1 sec
Ymax	= $1-L/C$	0.792
R.C.(C)	= $(0.9*Ymax-Y)/Y*100\%$	41 %

Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	G= 14 Int= 8

Pedestrian Phase	Stage	Green Time Required			Green Time Provided		
		SG	FG	Delay	SG	FG	
Gp	1	9	7	0	22	7	

Move- ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			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)
9 7,8	3,4 4	3,50 3,50	2 1	10 12		N	4070 2105	440	17	150		1,00 0,90	3539 1893							3539 1893	0,124 0,088	0,088	25	23 17	45 17	0,639 0,639	33 24	44 55
	11,12 11 10	3,38 3,38 3,38	1 2 1	10 12		N N	1953 4186 1953	198 637 229	69 637 229		0,74 0,00 1,00	1758 4186 1736							1758 4186 1736	0,152 0,152 0,132	0,152		29 29 25	29 29 29	0,639 0,639 0,639	36 48 36	44 40 47	
1,2,3 1	5 5	3,50 3,50	1 1	11 17		N N	1965 1965	127	16	138	0,89 1,00	1753 1806								1753 1806	0,082 0,076	0,082		15 14	15 15	0,639 0,639	24 24	58 59
5,6 5 4	1,2 1,2 2	3,30 3,30 3,50	1 2 1	10 16		N N	1945 4170 1965	139	198 768 38	38	0,41 0,00 1,00	1832 4170 1797								1832 4170 1797	0,184 0,184 0,021	0,184		35 35 4	35 35 4	0,639 0,639 0,639	48 54 6	39 36 100

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			
Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 1" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin				PROJECT NO.: 40969			
J8 Chui Tin Street / Che Kung Miu Road				FILENAME : J8_CTS_CKMR.xlsx			
				Prepared By:			
				Checked By:			
				Reviewed By:			
				INITIALS			
				DATE			
				SKL			
				SLN			
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				SLN			
				N = 5			
				C = 120 sec			
				Y = 0.405			
				L = 28 sec			
				2510 pcu			
				= 79.0 sec			
				= 47.0 sec			
				= 0.690			
				= 70.4 %			
				= 50.9 sec			
				= 0.767			
				No. of stages per cycle			
				Cycle time			
				Sum(y)			
				Loss time			
				Total Flow			
				Co			
				Cm			
				Yult			
				R.C.ult			
				Cp			
				Ymax			
				R.C.(C) = (0.9*Ymax-Y)/Y*100%			
				= 70 %			
				Green Time Provided			
				SG			
				FG			
				Delay			
				X			
				Queue Length (m / lane)			
				Average Delay (seconds)			
				g			
				g (required)			
				L			
				Greater y			
				y			
				Revised Sat. Flow pcu/h			
				Gradient Effect pcu/hr			
				Gradient %			
				Site Effect pcu/hr			
				Site Factor			
				Flare Effect pcu/hr			
				Flare Lane m.			
				Sat. Flow pcu/h			
				Proportion of Turning Vehicles			
				Total Flow pcu/h			
				Movement			
				Left pcu/h			
				Straight pcu/h			
				Right pcu/h			
				Straight Ahead Sat. Flow			
				N			
				O			
				Radius m.			
				No. of lane			
				Lane Width m.			
				Stage			
				Move-ment			
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				Stage 3			
				Stage 4			
				Stage 5			
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				G= 12			
				Int = 8			
				G= 14			
				Int = 8			
				G= 41			
				Int = 5			
				G= 7			
				Int = 8			
				G= 17			
				Int =			
				G= 12			
				Int = 8			
				G= 14			
				Int = 8			
				G= 41			
				Int = 5			
				G= 7			
				Int = 8			
				G= 17			
				Int =			
				G= 12			
				Int = 8			
				G= 14			
				Int = 8			
				G= 41			
				Int = 5			
				G= 7			
				Int = 8			
				G= 17			
				Int =			
				G= 12			
				Int = 8			
				G= 14			
				Int = 8			
				G= 41			
				Int = 5			

LLA CONSULTANCY LIMITED

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin

J9 Sha Tin Centre Street / Pak Hok Ting Street

PRIORITY JUNCTION CALCULATION

2035 Reference AM

PROJECT NO.: 40969

FILENAME: J9 STCS PHTS.x

REFERENCE NO.:

DATE _____

INITIALS

Jul-26

PREPARED BY:

SKL

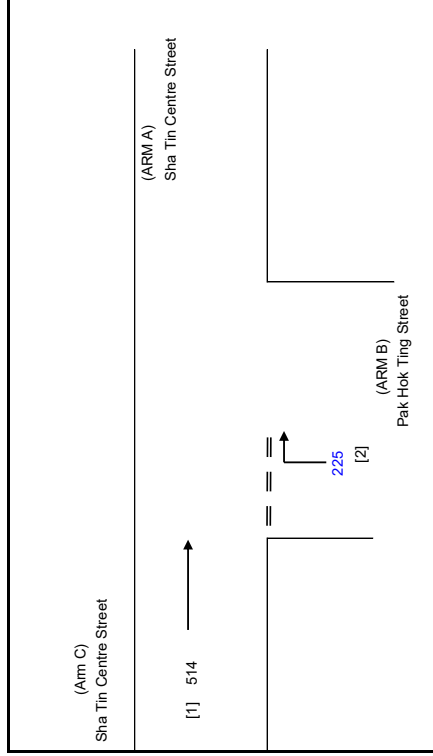
CHECKED BY:

NTS

REVIEWED BY:

NTS

Jul-26



NOTES: (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
V l-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
V l-b	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
V l-c	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-c
V r-c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	8.40	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	0	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b =	0.00	(metres)
Vr c-b =	0	(metres)
q c-a =	514	(pcu/hr)
q c-b =	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a =	5.00	(metres)
W b-c =	0.00	(metres)
V l b-a =	100	(metres)
V r b-a =	0	(metres)
V r b-c =	0	(metres)
q b-a =	225	(pcu/hr)
q b-c =	0	(pcu/hr)

D	=	0.97504
E	=	0.58595
F	=	0.58595
Y	=	0.71020

F for (Qb-ac) =

GEOMETRIC FACTORS :

Q b-a =	530
Q b-c =	437
Q c-b =	437
Q b-ac =	530

TOTAL FLOW = 739 (PCU/HR)

THE CAPACITY OF MOVEMENT :

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.4245
DFC b-c	=	0.0000
DFC c-b	=	0.0000
DFC b-ac (share lane)	=	0.4245

CRITICAL DFC = 0.42

LLA CONSULTANCY LIMITED

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin

J9

Sha Tin Centre Street / Pak Hok Ting Street

PRIORITY JUNCTION CALCULATION

PROJECT NO.: 40969

FILENAME : J9_STCS_PHTS.x

REFERENCE NO.:

PREPARED BY: SKL

CHECKED BY: SLN

REVIEWED BY: SLN

DATE

Jul-26

Jul-26

Jul-26

2035 Reference PM

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

V b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:		GEOMETRIC FACTORS :		THE CAPACITY OF MOVEMENT :		COMPARISON OF DESIGN FLOW TO CAPACITY:	
MAJOR ROAD (ARM A)							
W	= 8.40 (metres)	D	= 0.97504	Q b-a	= 487	DFC b-a	= 0.8193
W cr	= 0 (metres)	E	= 0.58595	Q b-c	= 437	DFC b-c	= 0.0000
q a-b	= 0 (pcu/hr)	F	= 0.58595	Q c-b	= 437	DFC c-b	= 0.0000
q a-c	= 0 (pcu/hr)	Y	= 0.71020	Q b-ac	= 487	DFC b-ac (share lane)	= 0.8193
MAJOR ROAD (ARM C)		F for (Qb-ac) = 0		TOTAL FLOW = 1185 (PCU/HR)			
W	c-b = 0.00 (metres)						
Vr c-b	= 0 (metres)						
q c-a	= 786 (pcu/hr)						
q c-b	= 0 (pcu/hr)						
MINOR ROAD (ARM B)							
W	b-a = 5.00 (metres)						
W b-c	= 0.00 (metres)						
Vl b-a	= 100 (metres)						
Vr b-a	= 0 (metres)						
Vr b-c	= 0 (metres)						
q b-a	= 399 (pcu/hr)						
q b-c	= 0 (pcu/hr)						
CRITICAL DFC						= 0.82	

LLA CONSULTANCY LIMITED Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin		PRIORITY JUNCTION CALCULATION		INITIALS DATE	
J9 Sha Tin Centre Street / Pak Hok Ting Street		2035 Design AM		PROJECT NO.: 40969 PREPARED BY: SKL FILENAME : J9_STCS_PHTS.x CHECKED BY: SLN REFERENCE NO.: REVIEWED BY: SLN	Jul-26 Jul-26 Jul-26
(Arm C) Sha Tin Centre Street [1] 529 (Arm A) Sha Tin Centre Street (Arm B) Pak Hok Ting Street 225 [2]		NOTES : (GEOMETRIC INPUT DATA) W = MAJOR ROAD WIDTH W cr = CENTRAL RESERVE WIDTH W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b Vi b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b D = STREAM-SPECIFIC B-A E = STREAM-SPECIFIC B-C F = STREAM-SPECIFIC C-B Y = (1-0.0345W)			
GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.40 (metres) W cr = 0 (metres) q a-b = 0 (pcu/hr) q a-c = 0 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 0.00 (metres) Vr c-b = 0 (metres) q c-a = 529 (pcu/hr) q c-b = 0 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.00 (metres) W b-c = 0.00 (metres) Vi b-a = 100 (metres) Vr b-a = 0 (metres) Vr b-c = 0 (metres) q b-a = 225 (pcu/hr) q b-c = 0 (pcu/hr)		THE CAPACITY OF MOVEMENT : Q b-a = 527 Q b-c = 437 Q c-b = 437 Q b-ac = 527 TOTAL FLOW = 754 (PCU/HR)		COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.4269 DFC b-c = 0.0000 DFC c-b = 0.0000 DFC b-ac (share lane) = 0.4269	
				CRITICAL DFC = 0.43	

LLA CONSULTANCY LIMITED

Application for Amendment of Plan under S12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from "Open Space" to "Residential (Group A) 11" at Sha Tin Town Lot 310 in D.D. 184, Sha Tin

J9 Sha Tin Centre Street / Pak Hok Ting Street

PRIORITY JUNCTION CALCULATION

2035 Design PM

PROJECT NO.: 40969

FILENAME: J9 STCS PHTS.x

REFERENCE NO.:

DATE _____

DATE _____

SKL	Jul-26
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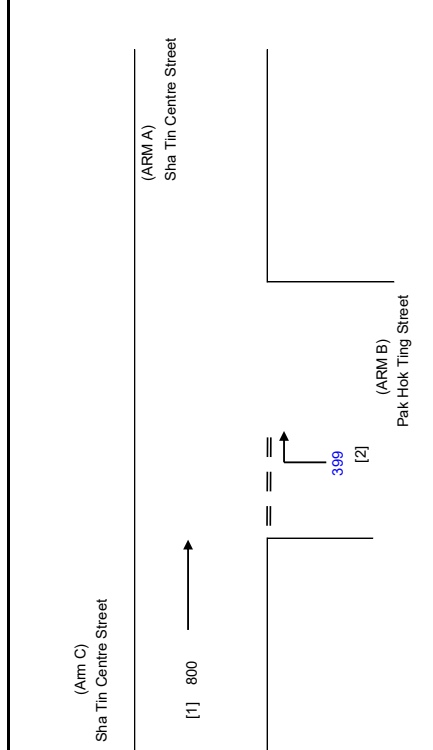
Jul-26

SLN
Jul-26

Jul-26

SLN Jul-26

Jul-26



NOTES: (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
V l-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
V l-b	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
V l-c	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-c
V r-c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	8.40	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	0	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b =	0.00	(metres)
Vr c-b =	0	(metres)
q c-a =	800	(pcu/hr)
q c-b =	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a =	5.00	(metres)
W b-c =	0.00	(metres)
V l b-a =	100	(metres)
V r b-a =	0	(metres)
V r b-c =	0	(metres)
q b-a =	399	(pcu/hr)
q b-c =	0	(pcu/hr)

D	=	0.97504
E	=	0.58595
F	=	0.58595
Y	=	0.71020

$$F \text{ for } (Qb-ac) = 0$$

GEOMETRIC FACTORS :

THE CAPACITY OF MOVEMENT :

Q b-a =	484
Q b-c =	437
Q c-b =	437
Q b-ac =	484

TOTAL FLOW = 1199 (PCU/HR)

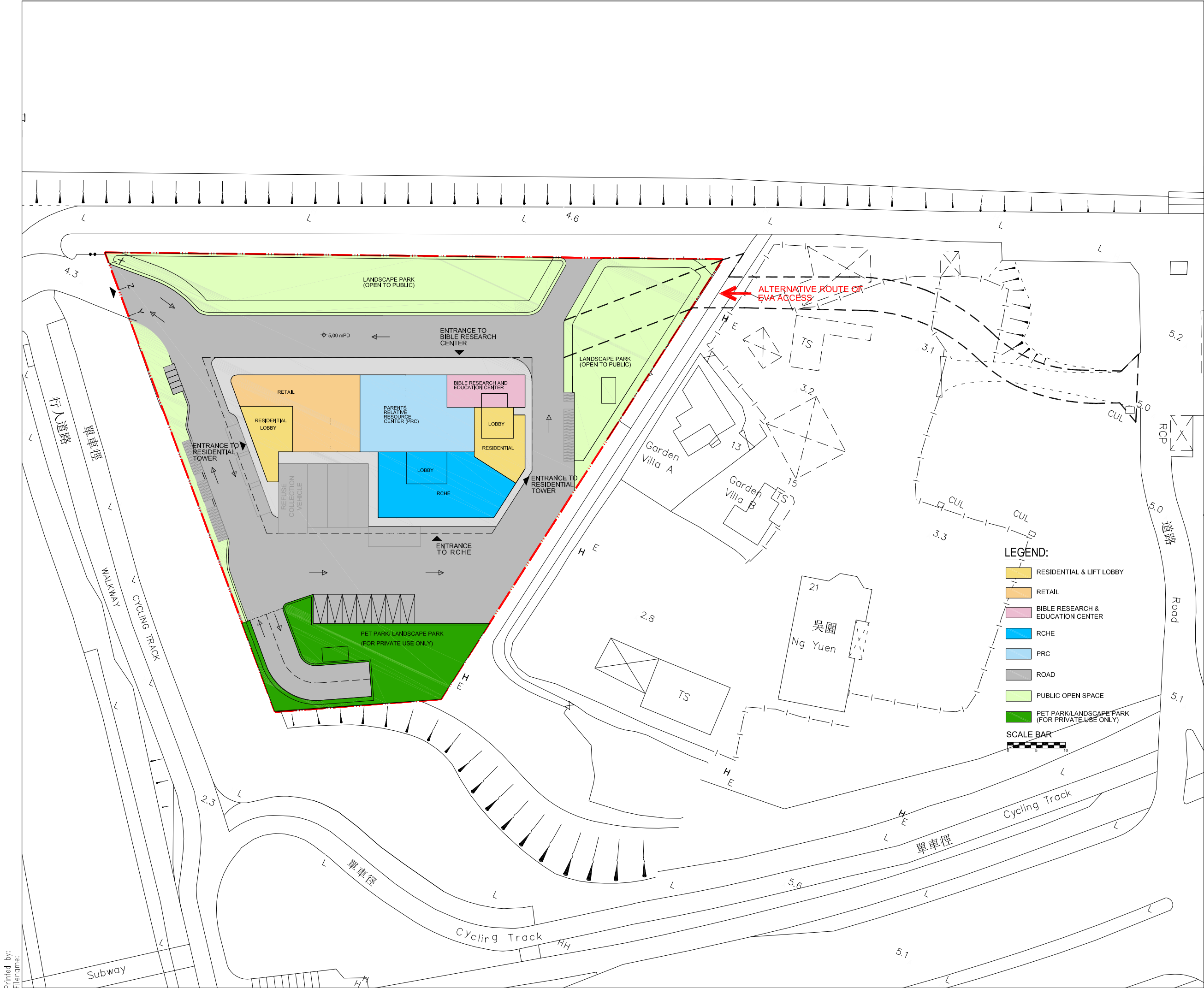
**COMPARISON OF DESIGN FLOW
TO CAPACITY:**

DFC b-a	=	0.8244
DFC b-c	=	0.0000
DFC c-b	=	0.0000
DFC b-ac (share lane)	=	0.8244

CRITICAL DFC = 0.82

Appendix C

Indicative Ground Floor Layout Plan



NOTES:
DO NOT SCALE DRAWING, FIGURED DIMENSIONS ARE TO BE FOLLOWED.
READ THIS DRAWING IN CONNECTION WITH GENERAL ARCHITECTURAL PLANS, STRUCTURAL PLANS AND OTHER RELATED DRAWINGS. THE ARCHITECT/ ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUND THEREIN.
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KEY PLAN SCALE 1:2000

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-	FIRST SUBMISSION	FH	09/25
Rev	Description	By	Date

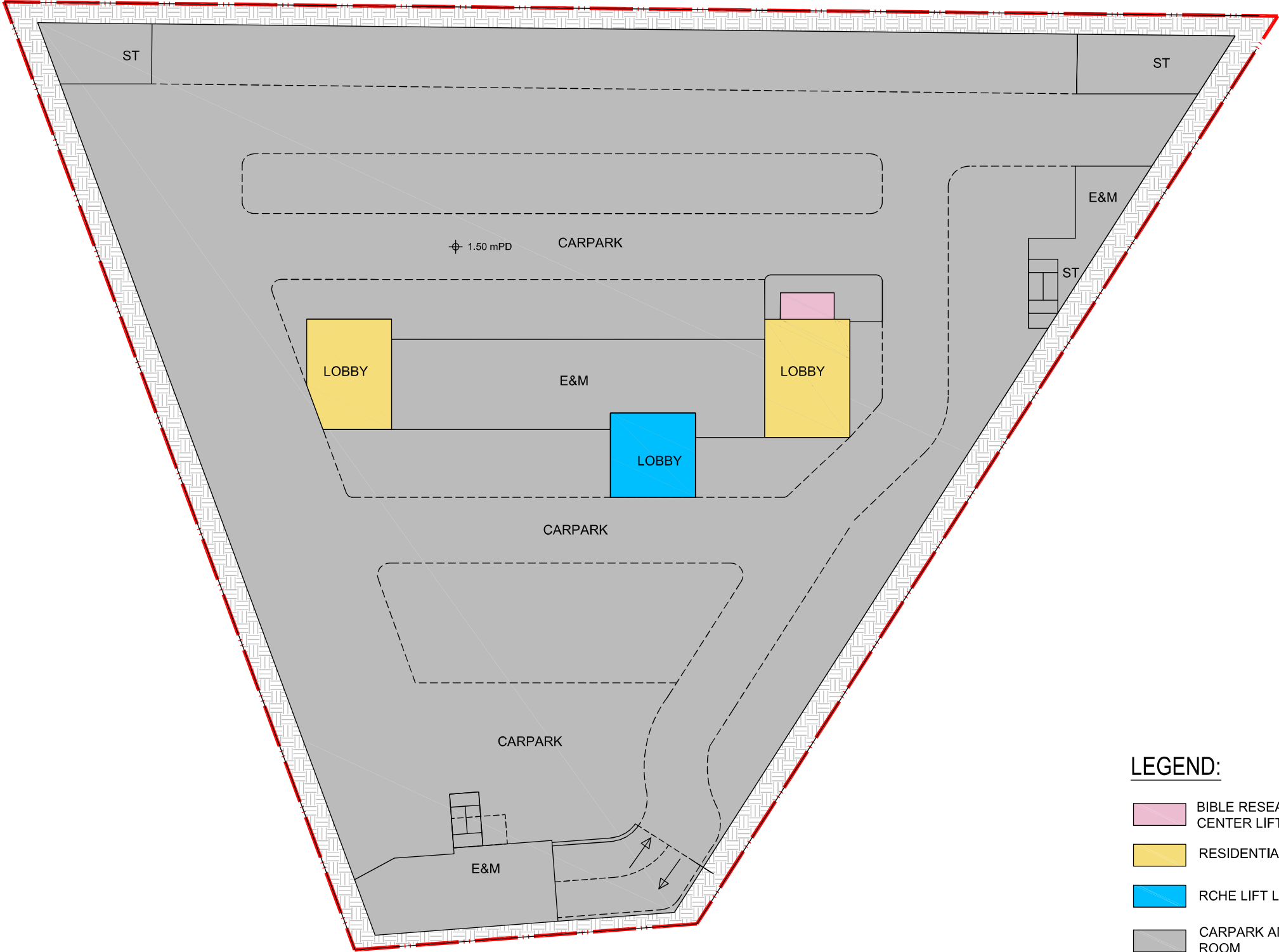
Consultant
ARUP

Contract No. and Title
SHATIN TOWN LOT 310

Drawing Title
GROUND FLOOR PLAN

Drawing no. 299123/22/S12A_1001 (2)	Rev. 01
Drawn RH	Date 07/26
Checked FY	Approved FH
Scale 1: 400	Status

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LEGEND:

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-  RESIDENTIAL LIFT LOBBY
-  RCHE LIFT LOBBY
-  CARPARK AND E&M PLANT ROOM

SCALE BAR



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KEY PLAN SCALE 1:2000

01	SECOND SUBMISSION	FH	07/26
-	FIRST SUBMISSION	FH	09/25
Rev	Description	By	Date

Consultant
ARUP

Contract No. and Title
SHATIN TOWN LOT 310

Drawing Title
BASEMENT FLOOR PLAN

Drawing no. 299123/22/S12A_1002			Rev. 01
Drawn RH	Date 07/26	Checked FY	Approved FH
Scale 1:400		Status	

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