Appendix A: Traffic Impact Assessment

Document Status Control Record

Section 16 Planning Application for Proposed Hotel
at 16 Kimberley Road, Tsim Sha Tsui
K.I.L. 6022 s.B R.P.

Traffic Impact Assessment Report

Originating Organisation : LLA Consultancy Limited Unit 610, 6/F, Island Place Tower, 510 King's Road, North Point, Hong Kong	Prepared by: SKL	SKL	Date: 23 September 2025
	Approved by: SLN		Date: 23 September 2025
	Revision No.: -		Date of Issue: 23 September 2025

Note: © – LLA Consultancy Limited. All rights reserved. Except for the internal use by the client for whom this document is prepared by LLA Consultancy Limited. No part of this document, which contains valuable trade secrets of a confidential nature to LLA Consultancy Limited may be (1) reproduced, stored in a retrieval system, or transmitted in any format or by any means, electronic, mechanical, photocopying, recording or otherwise; or (2) disclosed to any third party, without the prior consent of LLA Consultancy Limited.

1 INTRODUCTION

1.1 Background

1.1.1 The owner of 16 Kimberley Road, Tsim Sha Tsui (hereafter, referred to as "the Site") intends to demolish the existing building and redevelop the Site into a non-domestic building for hotel use (hereafter, referred to as "the proposed hotel") with a relaxation in plot ratio. The location of the Site is shown in **Figure 1.1**.

1.1.2 LLA Consultancy Limited has been commissioned by the owner to undertake a traffic impact assessment study to support the planning application. This report presents the findings of the study.

1.2 Study Objectives

1.2.1 The objectives of this study can be summarised as follows:

- to review the existing traffic conditions in vicinity of the proposed hotel;
- to estimate the volume of traffic that will be induced by the proposed hotel;
- to assess the future traffic situation of the surrounding network in vicinity of the proposed hotel;
- to appraise the potential traffic impact of the proposed hotel;
- to quantify the internal transport facilities for the proposed hotel.

2 THE PROPOSED DEVELOPMENT

2.1 The Development Site Location

2.1.1 As shown in **Figure 1.1**, the Site is located at 16 Kimberley Road, Tsim Sha Tsui and has a site area of about 1,141m^2.

2.2 Proposed Development Content

2.2.1 It is understood that a set of GBP was approved in September 2024 for a development of 99 guestrooms hotel cum retail use (hereafter, referred to as "the approved scheme"). The development content of the approved scheme is summarized in **Table 2.1**.

Table 2.1 Development Parameters of the Approved Scheme and the Proposed Hotel

Use	Development Parameters	
	Approved Scheme	**Proposed Hotel**
Hotel	99 guestrooms	159 guestrooms
Conference and Banquet Facilities	4,123.684 m^2	5,917.629 m^2
Retail	888.403 m^2	Nil

2.2.2 The proposed hotel will be mainly for hotel use with supporting hotel facilities. Due to an increase in hotel room numbers, no retail area will be provided. **Table 2.1** also summarizes the development parameters of the proposed hotel.

3 EXISTING TRAFFIC SITUATION

3.1 Existing Traffic Conditions

3.1.1 The Application Site is located on the southern kerbside of Kimberley Road. With reference to the Annual Traffic Census (ATC) published by the Transport Department (TD) in 2023, Kimberley Road is a two-lane local distributor road connecting Nathan Road and Observatory Road. It recorded an average annual daily traffic (AADT) of 17,230 vehicles in the section between Nathan Road and Observatory Road in 2023.

3.1.2 Nathan Road is a dual three-lane primary distributor road connecting Salisbury Road and Boundary Street. It recorded an AADT of 28,220 vehicles in the section between Hillwood Road and Kimberley Road in 2023.

3.2 Traffic Count Survey

3.2.1 In order to assess the existing traffic conditions, a traffic count survey was carried out at the following locations in the vicinity of the Application Site on 18 September 2025 (Thursday) during the peak hour period, i.e., from 07:30 to 09:30 and 17:00 to 19:00. The locations of the surveyed junctions are as follows and presented in **Figure 3.1**.

J1 – Nathan Road / Kimberley Road;

J2 – Nathan Road / Austin Road;

J3 – Chatham Road South / Austin Road / Cheong Wan Road;

J4 – Chatham Road South / Observatory Road; and

J5 – Kimberley Road / Observatory Road

3.2.2 The identified AM and PM peak hours are 08:30 – 09:30 and 17:45 – 18:45, respectively. The recorded peak hour traffic flows are presented in **Figure 3.2**.

3.3 Junction Capacity Assessment

3.3.1 Junction capacity assessment was carried out to reveal the existing performance of the key junctions with the 2025 surveyed traffic flows. The assessment results are tabulated in **Table 3.1** and the detailed calculation sheets are presented in **Appendix A**.

Table 3.1 Existing Junction Performance

No.	Junction	Type/ Capacity Index(1)	AM Peak	PM Peak
J1	Nathan Road / Kimberley Road	Priority/DFC	0.11	0.16
J2	Nathan Road / Austin Road	Signalized/RC	54%	55%
J3	Chatham Road South / Austin Road / Cheong Wan Road	Signalized/RC	49%	52%
J4	Chatham Road South / Observatory Road	Priority/DFC	0.39	0.70
J5	Kimberley Road / Observatory Road	Priority/DFC	0.35	0.52

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

3.3.2 **Table 3.1** has indicated that the concerned junctions operate satisfactorily during both AM and PM peak hours.

3.4 Existing Public Transport Facilities

3.4.1 The Site enjoys extremely high accessibility to public transport facilities, including MTR and bus services. Tsim Sha Tsui MTR Station Entrance is located about 260m south of the Site. Furthermore, there are over 70 bus routes running along Nathan Road. **Table 3.2** and **Figure 3.3** show the existing bus routes serving the vicinity of the Site.

Table 3.2 Existing Public Transport Routes

Mode	Route No.	Origin - Destination	Frequency (min)
Bus	1	Chuk Yuen Estate – Star Ferry	8 – 25
	1A	Sau Mau Ping (Central) – Star Ferry	7 – 20
	1R	Hung Hom (Hung Luen Road) – Ngong Ping	3 trips per day
	2	Star Ferry – Cheung Sha Wan (So Uk Estate)	15 – 25
	3X	Tsz Wan Shan (North) – China Ferry Terminal (Via Fu Shan)	9 trips per day
	6	Star Ferry – Lai Chi Kok	8 – 25
	7	Star Ferry – Lok Fu	15 – 30
	9	Choi Fook – Tsim Sha Tsui East (Mody Road)	15 – 30
	13X	Po Tat – Tsim Sha Tsui East	10 – 30
	14X	Yau Tong (Shung Tak Wai) – Tsim Sha Tsui (Circular)	15 – 30
	26	Shun Tin – Tsim Sha Tsui East	8 – 25
	26X	Tsim Sha Tsui East – Shun Tin	4 trips per day
	35A	Kwai Chung (On Yam Estate) – Tsim Sha Tsui East	5 – 20
	35X	Kwai Chung (On Yam Estate) – Tsim Sha Tsui East	20 – 30
	36X	Lei Muk Shue – Tsim Sha Tsui East (Mody Road)	5 trips per day
	37X	Chi Fu Fa Yuen – Central (Circular)	15 – 20
	41A	Tsing Yi (Cheung On Estate) – Tsim Sha Tsui East	10 – 25
	50	Tuen Mun (Ching Tin And Wo Tin) – Tsim Sha Tsui (Kowloon Station)	20 – 30
	79P	Queen'S Hill Fanling – Hsr West Kowloon Station	4 trips per day
	81C	Yiu On – Tsim Sha Tsui East (Mody Road)	10 – 30
	87D	Kam Ying Court – Hung Hom Station	6 – 25
	87E	Nai Chung – Tsim Sha Tsui	2 trips per day
	87C	Kam Ying Court – Hung Hom Station	12 – 20
	98D	Hang Hau (North) (Tseung Kwan O Hospital) – Tsim Sha Tsui East	6 – 30
	98P	Hong Sing Garden – Tsim Sha Tsui East	5 trips per day
	203C	Sham Shui Po (Tai Hang Tung) – Tsim Sha Tsui East (Mody Road)	20 – 30
	203S	Chak On Estate – Tsim Sha Tsui East (Mody Road)	1 trip per day
	208	Broadcast Drive – Tsim Sha Tsui East	25 – 30
	213X	On Tai (South) (Hang Tai House) – Tsim Sha Tsui (Circular)	12 – 30
	219X	Laguna City – Tsim Sha Tsui(Circular)	16 – 40

Mode	Route No.	Origin - Destination	Frequency (min)
	224X	Kai Yip – Tsim Sha Tsui East (Circular)	25 – 30
	230X	Tsuen Wan (Allway Gardens) – Whampoa Garden	3 trips per day
	234P	Tsuen Wan (Bayview Garden) – Star Ferry	1 trip per day
	234X	Tsim Sha Tsui East (Mody Road) – Tsuen Wan (Bayview Garden)	15 – 25
	242X	Tsing Yi (Cheung Hang Estate) – Tsim Sha Tsui	4 trips per day
	252B	Handsome Court – Tsim Sha Tsui	3 trips per day
	259C	Sun Tuen Mun Centre – Tsim Sha Tsui	2 trips per day
	259B	Tuen Mun Pier Head – Tsim Sha Tsui	3 trips per day
	260X	Tuen Mun (Po Tin Estate) – Hung Hom Station	5 – 20
	260B	Tuen Mun Central – Tsim Sha Tsui	4 trips per day
	261B	Tuen Mun (Sam Shing Estate) – Kowloon Station	3 trips per day
	268B	Long Ping Station – Hung Hom (Hung Luen Road)	5 trips per day
	269B	Tin Shui Wai Town Centre – Hung Hom (Hung Luen Road)	12 – 30
	270A	Sheung Shui – Tsim Sha Tsui East (Mody Road)	10 – 30
	270S	Tsim Sha Tsui East (Mody Road) – Fanling (Luen Wo Hui)	4 trips per day
	270C	Fanling (Luen Wo Hui) – Tsim Sha Tsui East (Mody Road)	2 trips per day
	271	Tai Po (Fu Heng) – Jordan (West Kowloon Station)	6 – 60
	271B	Tai Po (Fu Heng) – Jordan (West Kowloon Station)	8 trips per day
	271X	Jordan (West Kowloon Station) – Tai Po (Fu Heng)	5 trips per day
	271S	Hung Hom Station – Tai Po (Tai Wo)	1 trip per day
	271P	Kau Lung Hang – Tsim Sha Tsui (Canton Road)	2 trips per day
	280X	Sui Wo Court – Tsim Sha Tsui East (Mody Road)	15 – 30
	281B	Shek Mun Estate – Tsim Sha Tsui East (Mody Road)	15 – 30
	281X	Yiu On – Tsim Sha Tsui East (Mody Road)	15 – 25
	281A	Kwong Yuen – Kowloon Station	10 – 25
	281E	Haiphong Road Tsim Sha Tsui – Kwong Yuen	2 trips per day
	287D	Hung Hom Station – Kam Ying Court	2 trips per day
	296D	Sheung Tak – Kowloon Station (Via M+)	15 – 30
	790	Oscar By The Sea – Tsim Sha Tsui (Mody Road)	20
	796P	Tseung Kwan O Station – Tsim Sha Tsui (East)	20 – 30
	A21	Hung Hom Station – Airport (Ground Transportation Centre)	8 – 30
	H2K	Central (Star Ferry) – West Kowloon Cultural (Circular)	14 trips per day
	N21	Tsim Sha Tsui (Star Ferry) – Airport (Ground Transportation Centre)	20 – 30
	N21A	Tsim Sha Tsui (Star Ferry) – Airport (Via Yat Tung Estate)	3 trips per day
	N41X	Hung Hom Station – Tsing Yi (Cheung Wang Estate)	2 trips per day
	N50	Tuen Mun (Ching Tin And Wo Tin) – Tsim Sha Tsui (Kowloon Station)	4 trips per day

Mode	Route No.	Origin - Destination	Frequency (min)
	N213	Tsim Sha Tsui East (Mody Road) – On Tai (West)	2 trips per day
	N216	Yau Tong – Hung Hom Station	25 – 30
	N241	Hung Hom Station – Tsing Yi (Cheung Wang Estate)	25 – 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
	N287	Tsim Sha Tsui East (Mody Road) – Wu Kai Sha Station	3 trips per day
	N796	Tsim Sha Tsui East (Chatham Road South) – Lohas Park	20 – 30
	NA20	Whampoa Garden – HZMB Hong Kong Port	2 trips per day

4 FUTURE TRAFFIC SITUATION

4.1 Design Year

4.1.1 It is anticipated that the proposed hotel can be operated by 2030. To consider 3 years after the planned completion of the proposed hotel, a design year of 2033 will be adopted in this study.

4.2 Traffic Generation of the Approved Scheme

4.2.1 For the approved scheme in September 2024, the traffic volume that would be induced can be estimated based on the trip rates documented in the Transport Planning Design Manual ("TPDM"), Volume 1, Chapter 3 – Transport Considerations of Town Plans and summarized in **Table 4.1**.

Table 4.1 Traffic Generation of the Approved Scheme

	Unit/Content	AM Peak Hour			PM Peak Hour		
		Gen.	Att.	2-way	Gen.	Att.	2-way
Adopted Trip Rates (1)							
Hotel (99 rooms)	pcu/hr/room	0.1329	0.1457	-	0.1290	0.1546	-
Retail (888.403 m^2 GFA)	pcu/hr/100m^2	0.2296	0.2434	-	0.3100	0.3563	-
Traffic Generation (pcu/hr)							
Hotel	99 rooms	14	15	29	13	16	29
Retail	888.403 m^2	3	3	6	3	4	7
Total		**17**	**18**	**35**	**16**	**20**	**36**

Note: Gen. – Generation; Att. – Attraction
(1) TPDM mean trip rates are adopted.

4.3 Traffic Generation of the Proposed Hotel

4.3.1 Based on the development parameters as listed in **Table 2.1**, the development traffic generation of the proposed hotel were estimated and summarized in **Table 4.2**, based on the trip rates documented in TPDM Volume 1 Chapter 3 – Transport Considerations of Town Plans.

Table 4.2 Traffic Generation of the Proposed Hotel

159 guestrooms	Unit/Content	AM Peak Hour			PM Peak Hour		
		Gen.	Att.	2-way	Gen.	Att.	2-way
Adopted Trip Rates	pcu/hr/room	0.1329	0.1457	-	0.1290	0.1546	-
Traffic Generations	pcu/hr	22	24	46	21	25	46

Note: Gen. – Generation; Att. - Attraction

4.4 Comparison of Traffic Generation between the Proposed Hotel and the Approved Scheme

4.4.1 As shown in **Table 4.2**, the proposed hotel will generate a two-way traffic of 46 pcu/hr in both AM and PM peak hour, respectively. As compared with the traffic generation of the approved scheme estimated in **Table 4.1**, the comparison result is presented in **Table 4.3**.

Table 4.3 Comparison of Development Traffic Generation

Use	AM Peak Hour			PM Peak Hour		
	Gen.	Att.	Total	Gen.	Att.	Total
Approved Scheme (A)	17	18	35	16	20	36
Proposed Hotel (B)	22	24	46	21	25	46
Net Increase (B) – (A)	**5**	**6**	**11**	**5**	**5**	**10**

Note: Gen. – Generation; Att. - Attraction

4.4.2 Based on the comparison result with the approved scheme, the proposed hotel will only induce additional two-way traffic of 11 and 10 pcu/hr during the AM and the PM peak hour, respectively. Even the cumulative impact of 46 and 46 pcu/hr in the two peak hours is considered insignificant to the surrounding road network, in particular with the high accessibility of public transport services. The development traffic flows are distributed onto the road network as shown in **Figure 4.1**.

Other Planned and Approved Developments

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

Table 4.4 Planned and Approved Developments

Site	Location	Parameters
S1	Proposed Minor Relaxation of Building Height and Site Coverage Restrictions for the Expansion of Hong Kong Science Museum and Hong Kong Museum of History at 2 Science Museum Road and 100 Chatham Road South, Tsim Sha Tsui (Planning Application No. A/K1/267)	66,438 m^2 GFA
S2	Proposed Minor Relaxation of Building Height Restriction for Permitted Educational Institution Use at Main Campus of the Hong Kong Polytechnic University, Kowloon Inland Lot No. 9853 RP & Ext. (Part) (Planning Application No. A/K1/268)	33,299 m^2 GFA
S3	Proposed Flat with Permitted Office, Shop and Services/Eating Place at 43-49A Hankow Road, Tsim Sha Tsui, Kowloon (Planning Application No. A/K1/269)	9,210.6 m^2 GFA
S4	Proposed Hotel Redevelopment at 11 Middle Road, Tsim Sha Tsui (Kimpton Tsim Sha Tsui Hong Kong)	495 guestrooms

4.4.3 Based on the latest set of traffic generation and attraction rates documented in Chapter 3 “Transport Considerations of Town Plans” of the Transport Planning and Design Manual (TPDM), the traffic generated by these developments were estimated and are taken into account in the following assessments.

4.5 Traffic Forecast

Historical ATC Data

4.5.1 In order to establish the traffic growth rate in the vicinity of the Site, reference was made to the 2019 to 2023 Annual Traffic Census Reports published by the Transport Department, reporting on the annual average daily traffic (AADT) flows at the counting stations in the territory. Details of the counting stations in the study area and the corresponding counts are shown in **Table 4.5**.

Table 4.5 Annual Traffic Census Data

Stn. No.	Road Section			AADT(1)					Avg. Growth%
	Road	From	To	2019	2020	2021	2022	2023	
3013	Austin Rd	Cox's Rd	Chatham Rd S	30,030	27,400 (-8.8%)	25,010 (-8.7%)	25,350 (1.4%)	27,690 (9.2%)	-2.0%
3242	Cheong Wan Rd	Yuk Choi Rd up-ramp	Chatham Rd S	33,840	31,670 (-6.4%)	33,020 (4.3%)	31,470 (-4.7%)	33,840 (7.5%)	0.0%
3445	Austin Rd	Canton Rd	Nathan Rd	36,200	31,490 (-13%)	32,840 (4.3%)	31,290 (-4.7%)	33,010 (5.5%)	-2.3%
3608	Chatham Rd S	Observatory Rd	Austin Rd & Cheong Wan Rd	41,350	35,310 (-14.6%)	35,580 (0.8%)	33,910 (-4.7%)	35,770 (5.5%)	-3.6%
3610	Nathan Rd	Hillwood Rd	Kimberley Rd	30,600	29,220 (-4.5%)	28,080 (-3.9%)	26,750 (-4.7%)	28,220 (5.5%)	-2.0%
3646	Austin Rd	Nathan Rd	Cox's Rd	22,510	22,190 (-1.4%)	22,690 (2.3%)	21,620 (-4.7%)	22,810 (5.5%)	0.3%
3688	Observatory Rd	Chatham Rd S	Kimberley Rd	9,220	10,530 (14.2%)	12,710 (20.7%)	12,110 (-4.7%)	12,780 (5.5%)	8.5%
3809	Chatham Rd S	Austin Rd & Cheong Wan Rd	Gascoigne Rd	53,790	50,350 (-6.4%)	45,900 (-8.8%)	43,200 (-5.9%)	45,580 (5.5%)	-4.1%
3810	Nathan Rd	Jordan Rd	Hillwood Rd	24,030	22,490 (-6.4%)	18,840 (-16.2%)	18,140 (-3.7%)	19,140 (5.5%)	-5.5%
4620	Kimberley Rd	Nathan Rd	Observatory Rd	13,560	10,160 (-25.1%)	17,030 (67.6%)	13,520 (-20.6%)	17,230 (27.4%)	6.2%
Total				**295,130**	**270,810 (-8.2%)**	**271,700 (0.3%)**	**257,360 (-5.3%)**	**276,070 (7.3%)**	**-1.7%**

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

4.5.2 **Table 4.5** showed that the recorded average annual growth rate of the concerned counting stations is -1.7% between years 2019 to 2023.

TPEDM Data for Future Years

4.5.3 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 2019 and 2031 are summarized in **Table 4.6**.

Table 4.6 TPEDM Data – Yai Tsim Mong

Year	2021	2026	2031
Population	310,650	291,700	267,100
Employment	413,950	439,300	428,850
Total	724,600	731,000	695,950
Average Annual Growth %		+0.2% (2021 to 2026)	-1.0% (2026 to 2031)

4.5.4 As shown in **Table 4.6**, the average annual growth rate for the population and the employment total between 2021–2026 and 2026–2031 is +0.2% and -1.0% respectively. Having considered that the annual growth rates derived from the ATC data and the TPEDM data, a nominal growth rate of +0.5% will be adopted for the subsequent traffic forecast on a conservative approach.

4.6 2033 Reference and Design Flows

4.6.1 The 2033 Reference Flows, i.e. the traffic flows in the vicinity without the proposed hotel, were estimated based on the following equation.

2033 Reference Flows = 2025 Traffic Flows x $(1 + 0.5\%)^8$ + Traffic Flows Generated by the Planned and Approved developments

4.6.2 The 2033 Design Flows, i.e. the traffic flows in the local road network with the traffic generated by the proposed hotel, were estimated based on the following equation:

2033 Design Flows = 2033 Reference Flows + Traffic Flows Generated by the Proposed Hotel

4.6.3 The 2033 Reference and Design Flows are shown in **Figures 4.2 and 4.3**, respectively.

4.7 Junction Capacity Assessment

4.7.1 Junction capacity analysis was carried out for the assessment year 2033. The assessment results are shown in **Table 4.7** and the detailed calculation sheets are attached in **Appendix B**.

Table 4.7 2033 Junction Capacity Assessment

No.	Junction	Type/Capacity Index(1)	2033 Reference		2033 Design	
			AM	PM	AM	PM
J1	Nathan Road / Kimberley Road	Priority/DFC	0.12	0.17	0.12	0.17
J2	Nathan Road / Austin Road	Signalized/RC	45%	49%	44%	47%
J3	Chatham Road South / Austin Road / Cheong Wan Road	Signalized/RC	41%	46%	40%	45%
J4	Chatham Road South / Observatory Road	Priority/DFC	0.42	0.75	0.45	0.79
J5	Kimberley Road / Observatory Road	Priority/DFC	0.36	0.54	0.40	0.57

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

4.7.2 As shown in **Table 4.7**, the assessed junctions will operate with capacities during the peak hours in 2033 with the expected traffic growth and the additional traffic flows generated by the proposed hotel.

5 PROVISION OF TRANSPORT FACILITIES

5.1 Vehicular Access

5.1.1 In the proposed hotel, the vehicular access remains the same position as the approved scheme at Kimberly Road in order to provide access to internal transport facilities. The width of the vehicular access will be of 6.0m and the access's sightline is demonstrated in **Figure 5.1**.

5.2 HKPSG Requirements in Car Parking and Loading/Unloading Provisions

5.2.1 The requirements of car parking and loading/unloading facilities should be estimated, taking into consideration of the latest Hong Kong Planning Standards and Guidelines (HKPSG) requirements. The required car parking and loading/unloading facilities for the proposed hotel as required under the HKPSG is listed in **Table 5.1**.

Table 5.1 Car Parking and Loading/Unloading Facilities as Required by HKPSG

Component	HKPSG Requirements	Required Provision Under HKPSG		Proposed Provision	
		Nos.	Dimension	Nos.	Dimension
Hotel – 159 guestrooms and 5,917.629 m^2 GFA for Conference and Banquet Facilities;					
Car Parking Space	Guestroom: 1 car space per 100 rooms Conference and banquet facilities: 0.5 – 1 car space per 200m^2	2 15 – 30		2 28 (1)	
TOTAL CAR PARKING		**17 – 32**	16 – 31 @ 5.0m(L) x 2.5m(W) x 2.4m (L) 1 @ 5.0m(L) x 3.5m(W) x 2.4m (L)	30	29 @ 5.0m(L) x 2.5m(W) x 2.4m (L) 1 @ 5.0m(L) x 3.5m(W) x 2.4m (L)
Loading/ Unloading Space	1 goods vehicle bay per 100 rooms	2	1 @ 11.0m(L) x 3.5m(W) x 4.7m (L) 1 @ 7.0m(L) x 3.5m(W) x 3.6m (L)	2	2 @ 8.0m(L) x 3.5m(W) x 3.6m (L) (2)(3)
Motorcycle Parking Space	5 – 10 % of total provision for private cars	**1 – 3**	1 – 3 @ 2.0m(L) x 1.0m(W)	3	3 @ 2.0m(L) x 1.0m(W)
Lay-by for Taxi and Private Car	2 spaces for ≤ 299 rooms	**2**	2 @ 5.0m(L) x 2.5m(W) x 2.4m (L)	2	2 @ 5.0m(L) x 2.5m(W) x 2.4m (L)
Lay-by for Single-Deck Tour Bus	1 space for ≤ 299 rooms	**1**	1 @ 12.0m(L) x 3.5m(W) x 3.8m (L)	1	1 @ 8.0m(L) x 3.5m(W) x 3.6m (L) (3)(4)

Notes: (1) 0.93 car space per 200m^2 is adopted for Conference and Banquet Facilities.
(2) In view of the size of the Site, only LGV loading/unloading bays are provided.
(3) The spaces can be share-used by goods vehicles and light buses and are therefore proposed to be 8.0m (L) x 3.5m (W).
(4) In view of the size of the Site, only light bus parking space are provided.

5.2.2 The proposed hotel will provide a total of 30 car parking spaces, 2 LGV loading/unloading bays, 3 motorcycle parking spaces, 2 lay-bys for taxi and private cars and 1 light bus lay-by to meet the HKPSG requirements. The car park layout plan is enclosed in **Appendix C** and it is clearly demonstrated that two basement floors are fully utilized to provide internal transport facilities which are serving by two carlifts.

5.2.3 In formulating the ground floor layout, the 2 nos. of taxi and private car lay-by is being arranged in the most effective and efficient manner such that the vehicles will conduct the pick-up/drop-off activities within the proposed hotel instead of along the Kimberly Road kerbside. As a result, it is not anticipated to induce additional pick-up/drop-off demand on public road.

5.3 Practical Dimensions of Loading/Unloading Bays and Single Deck Tour Bus Lay-by

5.3.1 Due to site constraints, it is proposed to limit the use of LGV loading/unloading bays (8m in length) and light bus lay-by (8m in length) only and to replace the HGV loading/unloading bays (11m in length) and lay-by for single deck tour bus (12m in length) with full justifications listed in **Table 5.2**. Traffic management plan will be set up in place by the hotel operator to reject HGV and large tour bus during the operational phase.

Table 5.2 Justifications on Dimensions of the Internal Transport Facilities

<table>
<tr><th>No.</th><th>Considerations</th><th>Justifications for Proposed Dimension of Loading/unloading Space</th></tr>
<tr><td>1</td><td>Area and shape of Site</td><td>The dimension of the Site is about 21m (W) x 50m (L). Given the small site area, after providing the necessary floor space to accommodate the ramp, entrance lobby, staircases, lift core and M&E facilities etc., the remaining area is not sufficient to provide a 11m long loading/unloading space because the 11m long HGV cannot make a 3-point turn manoeuvring at the remaining area. Please refer to the swept path analysis in Appendix D demonstrating that a HGV cannot make a 3-point turn within the Site.</td></tr>
<tr><td>2</td><td>No tour group</td><td>The proposed small hotel with 159 rooms is not targeted for large tour groups with coaches as transportation. The provision of light bus lay-by will be sufficient to meet the demand.</td></tr>
<tr><td>3</td><td>Negligible Loading /unloading Demand</td><td>According to the operating of similar hotels with less than 200 rooms, the loading/unloading demand for these hotels was very minimal. In general, the normal operation of a small hotel will induce loading/unloading demand because of the activities as shown below. The subsequent recorded/estimated loading/unloading trips are also shown below.
<table>
<tr><th>Activity</th><th>Loading/unloading Demand</th><th>Required Duration</th></tr>
<tr><td>Regular Delivery of Consumables</td><td>Maximum 1 trips per day</td><td>5 minutes</td></tr>
<tr><td>Out-source Laundry Service</td><td>1 trips per day</td><td>10 minutes</td></tr>
<tr><td>Total</td><td>Not more than 2 trips per day</td><td>-</td></tr>
</table>
In view of the small loading/unloading frequency, the provision of LGV bays will be sufficient to meet the demand of the proposed building.</td></tr>
</table>

5.4 Car Lift Assessment

5.4.1 To assess the performance of the car lift system, it is necessary to adopt an appropriate arrival rate (attraction rate) in the assessment. With reference to the trip rates as documented in the latest Transport Planning and Design Manual, Volume 1, Chapter 3 prepared by the Transport Department, the peak traffic attraction rate of the proposed hotel is estimated.

5.4.2 The servicing rate of the car lift system is estimated based on the operation data provided by the car lift supplier.

5.4.3 A M/M/N queuing model is adopted to assess the probability of nos. of vehicle queuing in the car lift system. In case only 3 vehicles in the system, this implies that the 2 car lifts and the waiting space(s) are being occupied. If 4 or above vehicles in the system, there will be traffic queuing onto the public road and the system performance is undesirable.

5.4.4 From the assessment result, the probability of queuing onto the public road is about 1%. In other words, there is 99% confidence level that no traffic queue will occur in the public road and the system performance is found to be satisfactory. The details of the car lift assessment calculation are shown in **Appendix E**.

5.5 Swept Path Analysis

5.5.1 To ensure smooth manoeuvring of the parking area, swept path analysis was conducted to demonstrate that adequate space is provided for the vehicles for manoeuvring as shown in **Appendix F**.

5.6 Building Setback

5.6.1 At present, the footpath width along the site frontage is about 2.5 m. In the proposed hotel development, 1.5 m setback will be provided to increase the footpath width to 4.0 m to enhance the pedestrian walking environment.

6 SUMMARY AND CONCLUSION

6.1 Summary

6.1.1 The owner of the Site at 16 Kimberley Road, Tsim Sha Tsui intends to redevelop the Site into a non-domestic building as a hotel.

6.1.2 In order to assess the existing traffic conditions, a traffic count survey was carried out at the key junctions in the vicinity of the Application Site on 18 September 2025 (Thursday) during the peak hour period. The identified AM and PM peak hours are 08:30 – 09:30 and 17:45 – 18:45, respectively. The capacity of the key junctions in the vicinity of the Site was analysed and the results show that the concerned junctions are operating satisfactorily in the AM and PM peak hours. The proposed hotel enjoys excellent accessibility to public transport facilities, including MTR, bus and minibus services. Tsim Sha Tsui MTR Station Entrance is located about 260m south of the Site.

6.1.3 The proposed hotel will generate a two-way traffic of 46 pcu and 46 pcu during AM peak hour and PM peak hour, respectively. As compared with the approved GBP submission in September 2024, the proposed hotel will only induce additional two-way traffic of 11 and 10 pcu/hr during the AM and the PM peak hour respectively. By assigning the development traffic to the 2033 Reference Flows, the 2033 Design Flows were obtained.

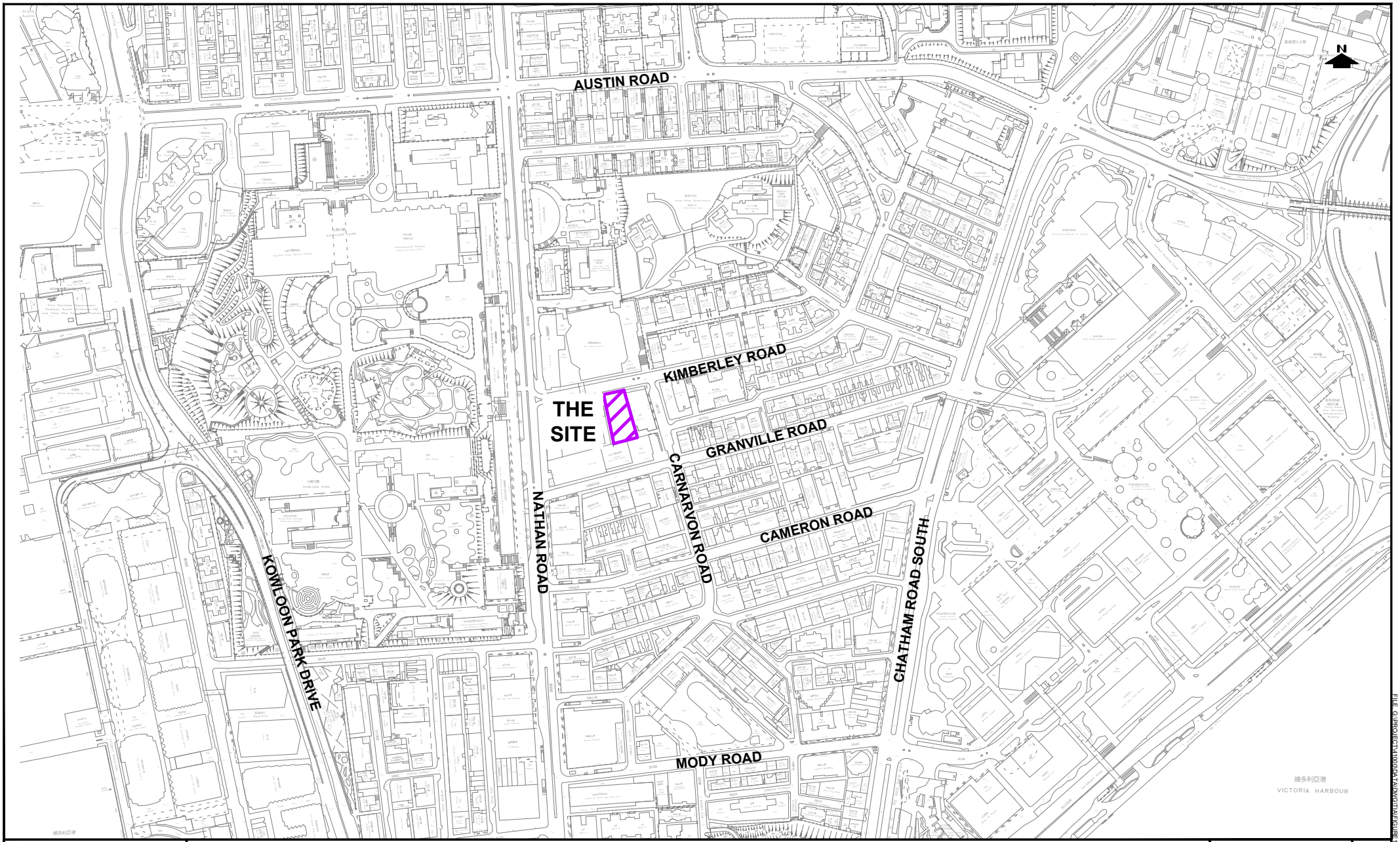
6.1.4 The cumulative traffic impact is considered insignificant to the surrounding road network. For the proposed hotel, the same vehicular access as the approved GBP scheme is adopted at Kimberly Road. The proposed hotel will provide a total of 30 car parking spaces, 2 LGV loading/unloading bays, 3 motorcycle parking spaces, 2 lay-bys for taxi and private cars and 1 light bus parking space to meet the HKPSG requirements. Two basement floors are parking spaces to serve the proposed hotel.

6.1.5 Due to the Site constraint, for the small hotel (159 rooms only), relaxation is required and the provision of the LGV loading/unloading bays and light bus lay-bys would be sufficient to meet the guests' demand.

6.1.6 Car lift assessment was conducted and the result shows that the probability of queuing onto the public road is about 1%. In other words, there is 99% confidence level that no traffic queue will be incurred in Kimberly Road and the system performance is found to be satisfactory.

6.2 Conclusion

6.2.1 Based on the findings of the traffic impact assessment study, it can be concluded that the proposed hotel development, with the provision of adequate internal transport facilities, will not induce significant adverse traffic impact and is acceptable from traffic engineering perspective.



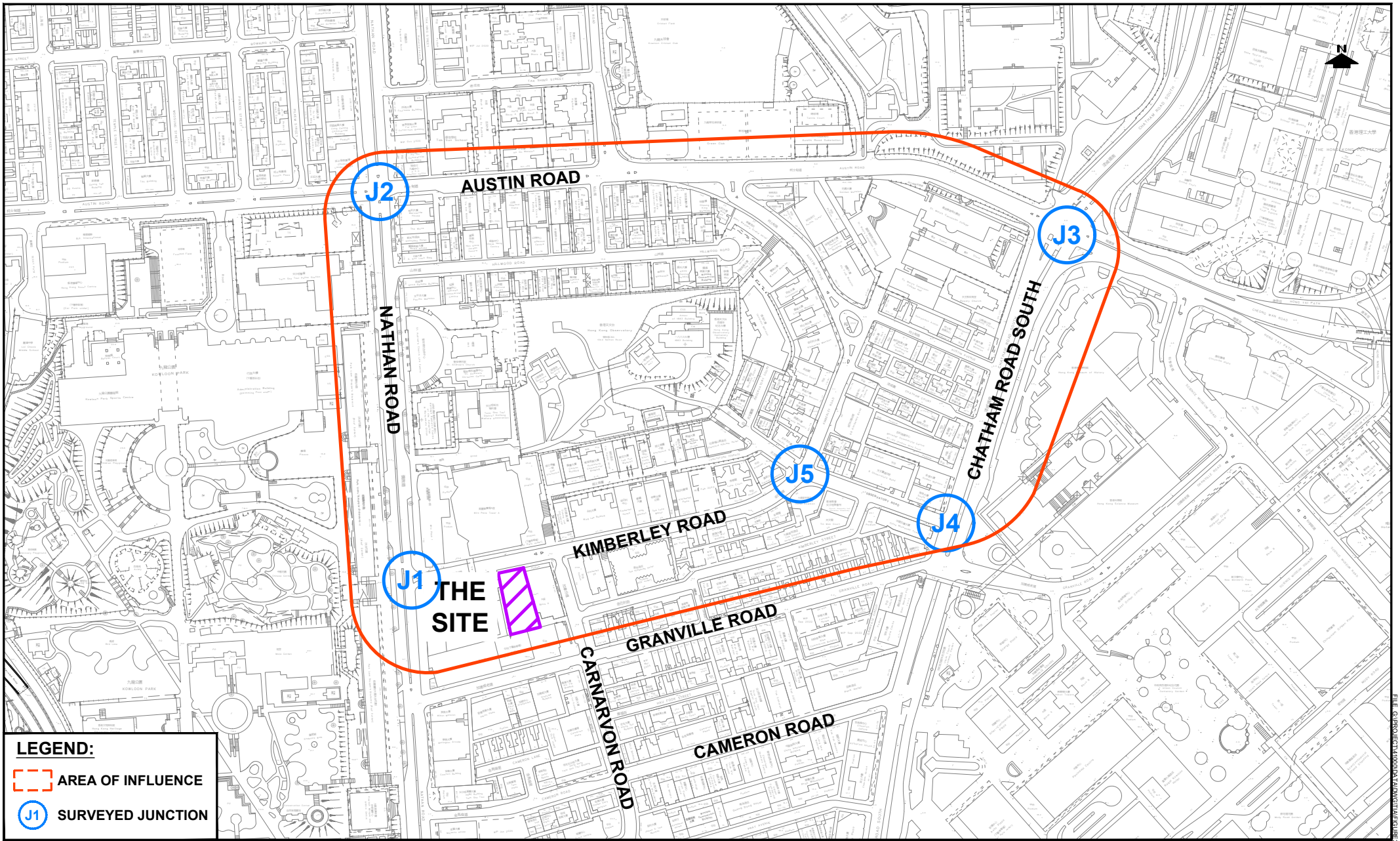
PROJECT NO.	PROJECT TITLE	DRAWING NO.	REV.
41000	SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL AT 16 KIMBERLEY ROAD, TSIM SHA TSUI, K.I.L. 6022 S.B R.P.	FIGURE 1.1	·

DESIGNED SKL	DATE SEP 2025	DRAWING TITLE
DRAWN CLL	SCALE 1:5000	LOCATION PLAN
CHECKED SLN		

LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\41000\DATA\DWG\TIA\FIGURE1.1.DWG PLOT SCALE : 1 = 1

FILE: G:\PROJECT\41000\DATA\DWG\TIA\FIGURE1.1.DWG PLOT SCALE : 1 = 1

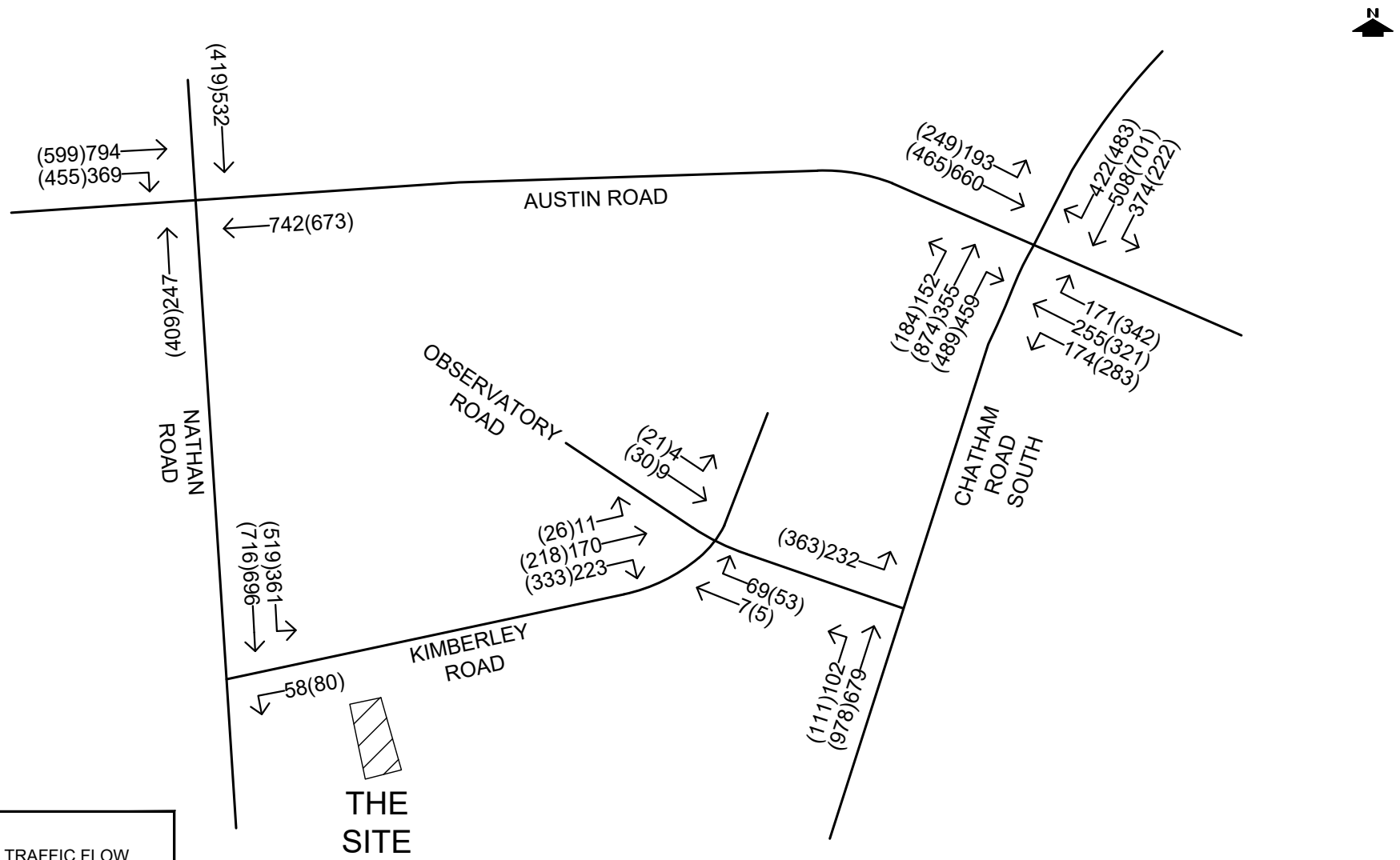


PROJECT NO.	PROJECT TITLE	DRAWING NO.	REV.
41000	SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL AT 16 KIMBERLEY ROAD, TSIM SHA TSUI, K.I.L. 6022 S.B R.P.	FIGURE 3.1	·

DESIGNED SKL	DATE SEP 2025	DRAWING TITLE
DRAWN CLL	SCALE 1:4000	LOCATION OF SURVEYED JUNCTIONS AND AREA OF INFLUENCE
CHECKED SLN		

LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\41000\DATA\DWG\TIA\FIGURE3.1.DWG PLOT SCALE : 1 = 1



LEGEND:

123 (456) ← PM PEAK HOUR TRAFFIC FLOW

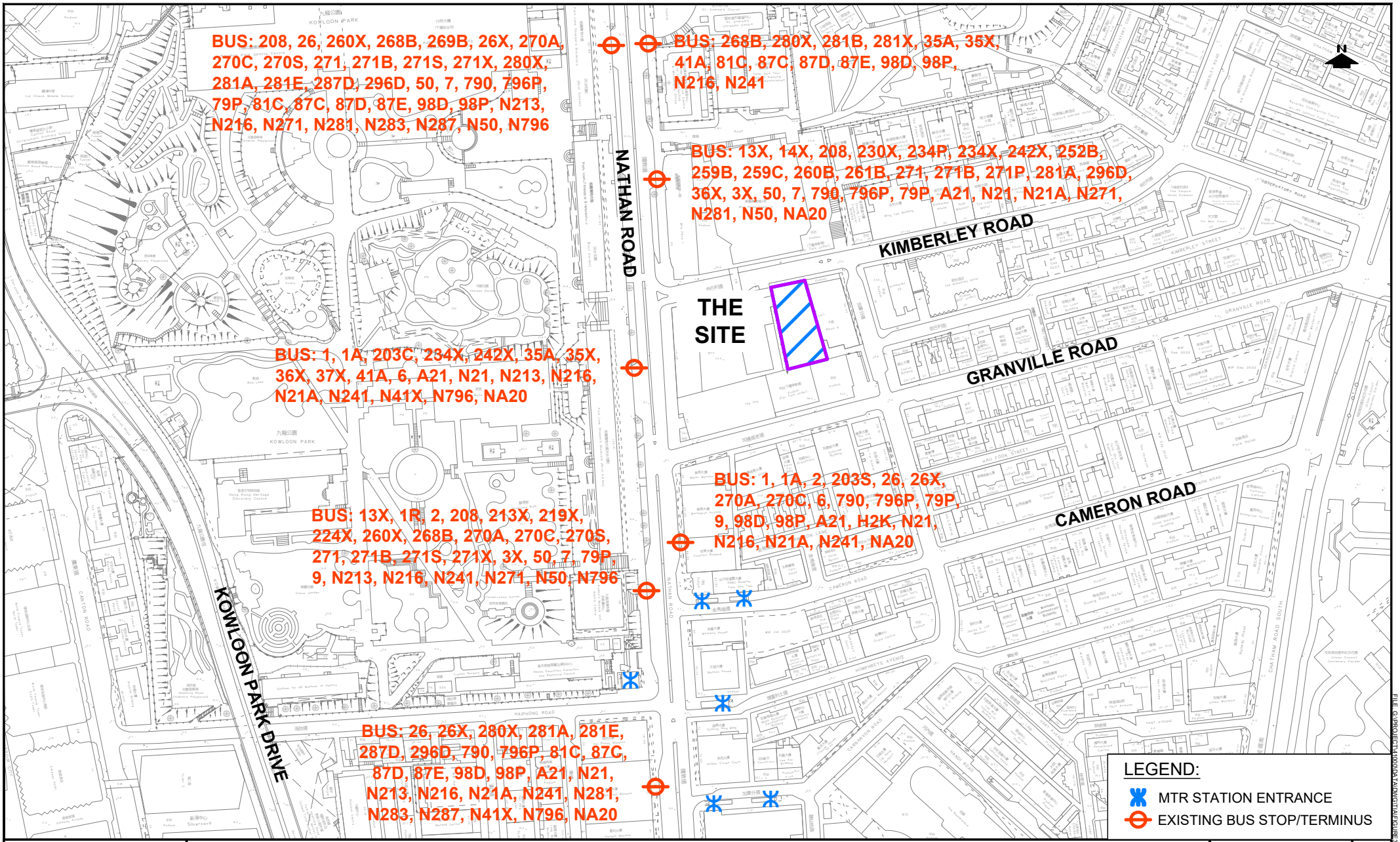
↑ AM PEAK HOUR TRAFFIC FLOW

NOTE:

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

PROJECT NO. 41000	PROJECT TITLE SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL AT 16 KIMBERLEY ROAD, TSIM SHA TSUI, K.I.L. 6022 S.B R.P.	DRAWING NO. FIGURE 3.2	REV. ·
DESIGNED SKL / DATE SEP 2025	DRAWING TITLE		
DRAWN CLL / SCALE N.T.S.	2025 EXISTING TRAFFIC FLOW	LLA 顧問有限公司 Consultancy Limited	
CHECKED SLN			

FILE: G:\PROJECT\41000\DATA\DWG\TIA\FIGURE3.2.DWG PLOT SCALE : 1 = 1

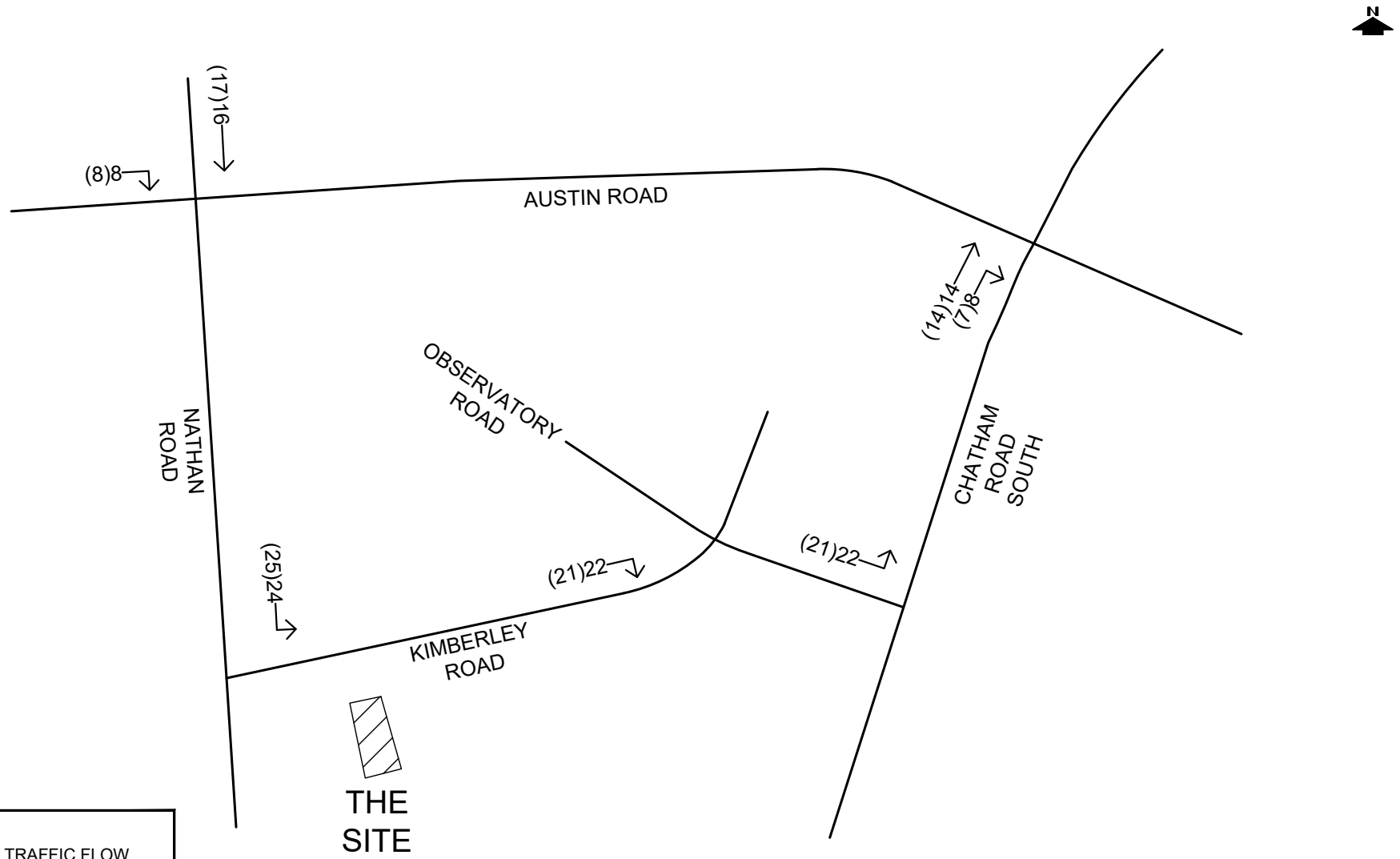


PROJECT NO.	PROJECT TITLE	DRAWING NO.	REV.
41000	SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL AT 16 KIMBERLEY ROAD, TSIM SHA TSUI, K.I.L. 6022 S.B R.P.	FIGURE 3.3	·

DESIGNED	SKL	DATE	JUL 2025	DRAWING TITLE
DRAWN	CLL	SCALE	1:3000	PUBLIC TRANSPORT SERVICES ALONG NATHAN ROAD
CHECKED	SLN			

LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\41000\DATA\DWG\TIA\FIGURE3.3.DWG PLOT SCALE : 1 = 1



LEGEND:

123 (456) ← PM PEAK HOUR TRAFFIC FLOW

↑ AM PEAK HOUR TRAFFIC FLOW

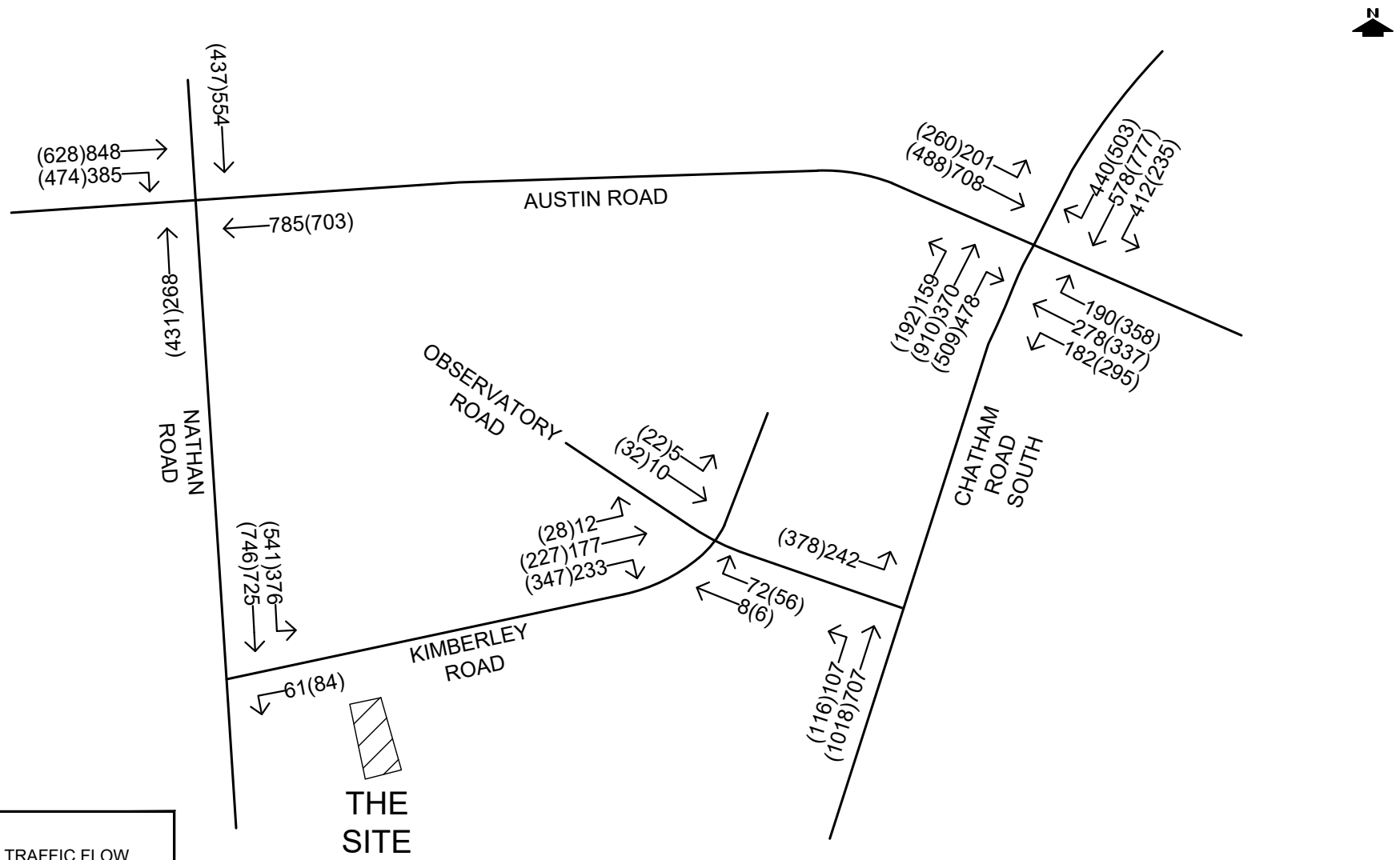
NOTE:

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

PROJECT NO. 41000	PROJECT TITLE SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL AT 16 KIMBERLEY ROAD, TSIM SHA TSUI, K.I.L. 6022 S.B R.P.	DRAWING NO. FIGURE 4.1	REV. ·
DESIGNED SKL / DATE SEP 2025	DRAWING TITLE		
DRAWN CLL / SCALE N.T.S.	DEVELOPMENT TRAFFIC FLOW	LLA 顧問有限公司 Consultancy Limited	
CHECKED SLN			

FILE: G:\PROJECT\41000\DATA\DWG\TIA\FIGURE4.1.DWG PLOT SCALE : 1 = 1

FILE: G:\PROJECT\41000\DATA\DWG\TIA\FIGURE4.1.DWG PLOT SCALE : 1 = 1



LEGEND:

123 (456) ⟵ PM PEAK HOUR TRAFFIC FLOW

↑ AM PEAK HOUR TRAFFIC FLOW

NOTE:

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

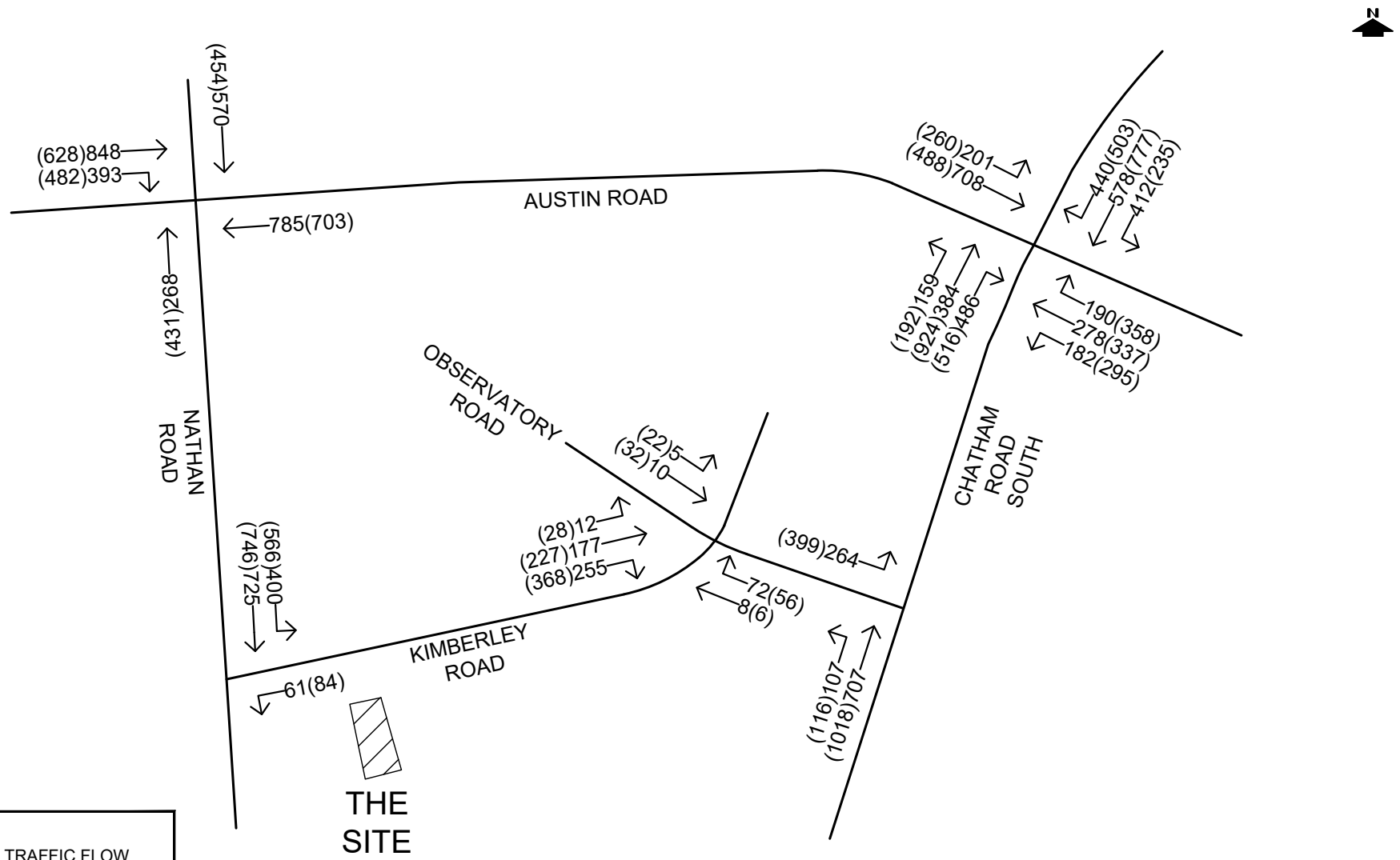
PROJECT NO.	PROJECT TITLE	DRAWING NO.	REV.
41000	SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL AT 16 KIMBERLEY ROAD, TSIM SHA TSUI, K.I.L. 6022 S.B R.P.	FIGURE 4.2	·

DESIGNED SKL	DATE SEP 2025	DRAWING TITLE
DRAWN CLL	SCALE N.T.S.	2033 REFERENCE TRAFFIC FLOW
CHECKED SLN		

LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\41000\DATA\DWG\TIA\FIGURE4.2.DWG PLOT SCALE : 1 = 1

FILE: G:\PROJECT\41000\DATA\DWG\TIA\FIGURE4.2.DWG PLOT SCALE : 1 = 1



LEGEND:

123 (456) ⟵ PM PEAK HOUR TRAFFIC FLOW

↑ AM PEAK HOUR TRAFFIC FLOW

NOTE:

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

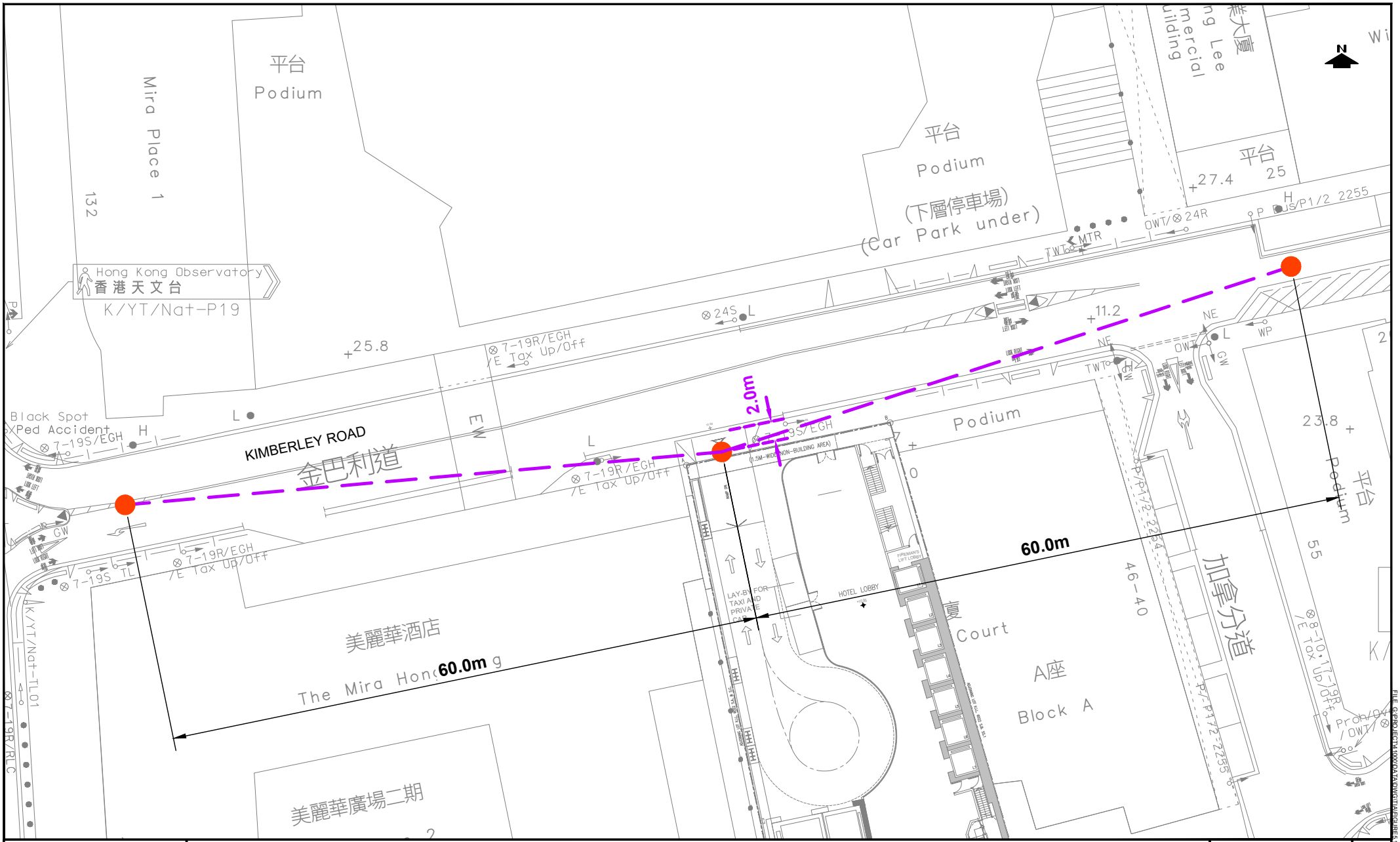
PROJECT NO.	PROJECT TITLE	DRAWING NO.	REV.
41000	SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL AT 16 KIMBERLEY ROAD, TSIM SHA TSUI, K.I.L. 6022 S.B R.P.	FIGURE 4.3	·

DESIGNED SKL	DATE SEP 2025	DRAWING TITLE
DRAWN CLL	SCALE N.T.S.	2033 DESIGN TRAFFIC FLOW
CHECKED SLN		

LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\41000\DATA\DWG\TIA\FIGURE4.3.DWG PLOT SCALE : 1 = 1

FILE: G:\PROJECT\41000\DATA\DWG\TIA\FIGURE4.3.DWG PLOT SCALE : 1 = 1



PROJECT NO.	PROJECT TITLE	DRAWING NO.	REV.
41000	SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL AT 16 KIMBERLEY ROAD, TSIM SHA TSUI, K.I.L. 6022 S.B R.P.	FIGURE 5.1	A

DESIGNED SKL	DATE JUL 2025	DRAWING TITLE
DRAWN CLL	SCALE 1:500	SIGHTLINE ANALYSIS OF PROPOSED VEHICULAR ACCESS
CHECKED SLN		

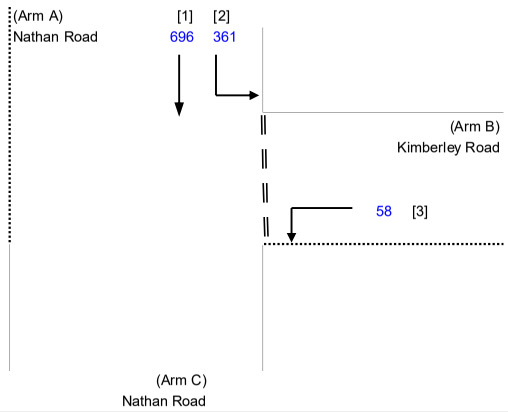
LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\41000\DATA\DWG\TIA\FIGURE5.1A.DWG PLOT SCALE : 1 = 1

Appendix A

Junction Calculation Sheets
- Existing Scenario

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2025 Existing AM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J1_NR_KR.xls	CHECKED BY:	SLN	Sep-25
J1 Nathan Road / Kimberley Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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	=	6.8	(metres)
W cr	=	0	(metres)
q a-b	=	361	(pcu/hr)
q a-c	=	696	(pcu/hr)

MAJOR ROAD (ARM C)

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

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.80	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	39	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	58	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.02732
F	=	0.58595
Y	=	0.76540
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

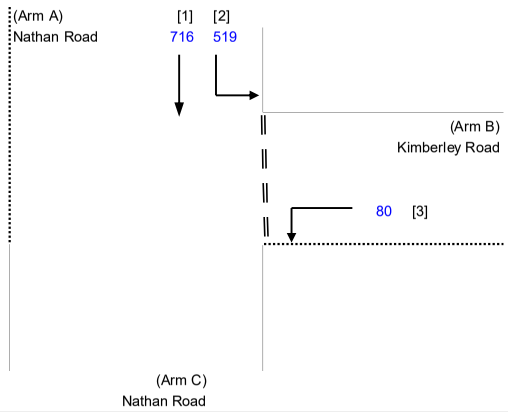
Q b-a	=	210		
Q b-c	=	525	Q b-c (O) =	525
Q c-b	=	264		
Q b-ac	=	525		
TOTAL FLOW	=	1115	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.1105
DFC c-b	=	0.0000
DFC b-ac	=	0.1105

CRITICAL DFC = 0.11

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2025 Existing PM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J1_NR_KR.xls	CHECKED BY:	SLN	Sep-25
J1 Nathan Road / Kimberley Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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	=	6.8	(metres)
W cr	=	0	(metres)
q a-b	=	519	(pcu/hr)
q a-c	=	716	(pcu/hr)

MAJOR ROAD (ARM C)

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

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.80	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	39	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	80	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.02732
F	=	0.58595
Y	=	0.76540
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

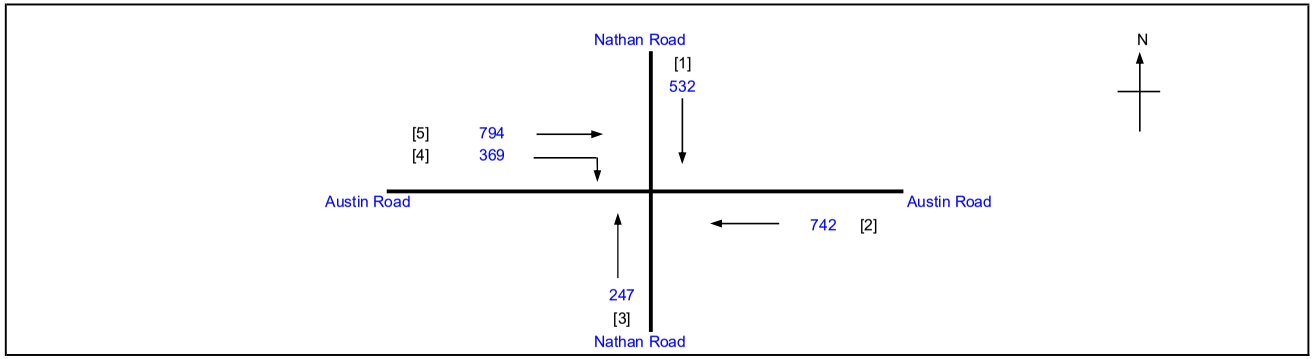
Q b-a	=	197		
Q b-c	=	502	Q b-c (O) =	502
Q c-b	=	235		
Q b-ac	=	502		
TOTAL FLOW	=	1315	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

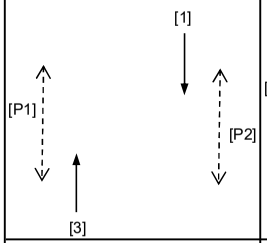
DFC b-a	=	0.0000
DFC b-c	=	0.1594
DFC c-b	=	0.0000
DFC b-ac	=	0.1594

CRITICAL DFC = 0.16

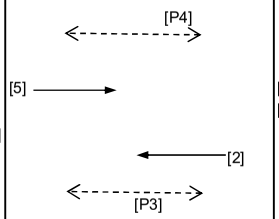
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2025 Existing AM**	PROJECT NO.: 41000	Prepared By:	SKL	Sep-25
		FILENAME : J2_AR_NR.xlsx	Checked By:	SLN	Sep-25
J2 Nathan Road / Austin Road			Reviewed By:	SLN	Sep-25



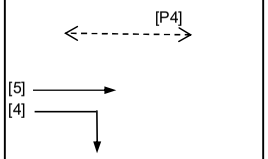
No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.539
Loss time		L =	10 sec
Total Flow		=	2684 pcu
Co	= (1.5*L+5)/(1-Y)	=	43.4 sec
Cm	= L/(1-Y)	=	21.7 sec
Yult		=	0.825
R.C.ult	= (Yult-Y)/Y*100%	=	53.1 %
Cp	= 0.9*L/(0.9-Y)	=	24.9 sec
Ymax	= 1-L/C	=	0.923
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**54 %**



Stage 1 G= 28
Int = 6



Stage 2 G= 48
Int =



Stage 3 G= 42
Int = 6

Stage 4 G=
Int =

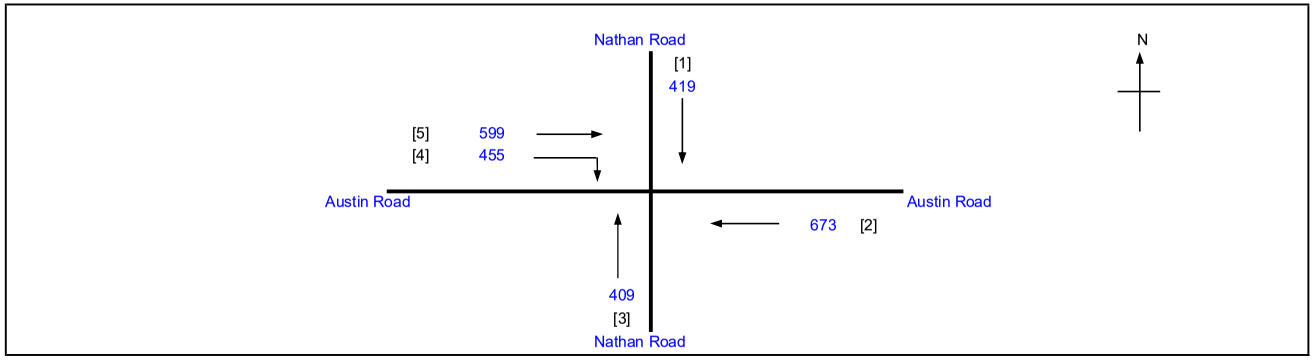
Stage 5 G=
Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	8	7	3	24	7
P2	1	5	10	7	17	10
P3	2	8	7	6	35	7
P4	2,3	8	7	7	82	7

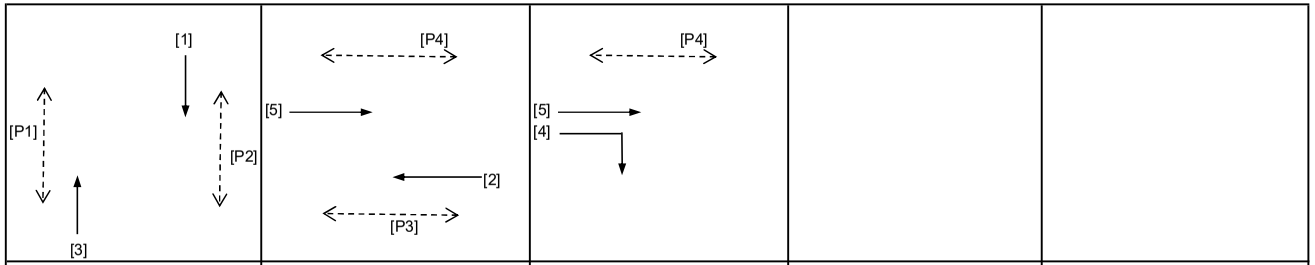
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
1	1	3.50	2			N	4070		532		532	0.00	4070							4070	0.131	0.131		29	29	0.584	42	43
3	1	3.50	2			N	4070		247		247	0.00	4070							4070	0.061			14	29	0.584	21	55
2	2	3.00	2			N	3970		742		742	0.00	3970							3970	0.187			42	48	0.584	54	35
5	2,3	3.30	1			N	1945		794		794	0.00	1945							1945	0.408	0.408		91	91	0.584	48	11
4	3	3.30	1	15			2085			369	369	1.00	1895							1895	0.195			43	43	0.584	48	36

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
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2025 Existing PM**	PROJECT NO.: 41000	Prepared By:	SKL	Sep-25
		FILENAME : J2_AR_NR.xlsx	Checked By:	SLN	Sep-25
J2 Nathan Road / Austin Road			Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.513
Loss time		L =	15 sec
Total Flow		=	2555 pcu
Co	= (1.5*L+5)/(1-Y)	=	56.4 sec
Cm	= L/(1-Y)	=	30.8 sec
Yult		=	0.788
R.C.ult	= (Yult-Y)/Y*100%	=	53.7 %
Cp	= 0.9*L/(0.9-Y)	=	34.8 sec
Ymax	= 1-L/C	=	0.885
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**55 %**



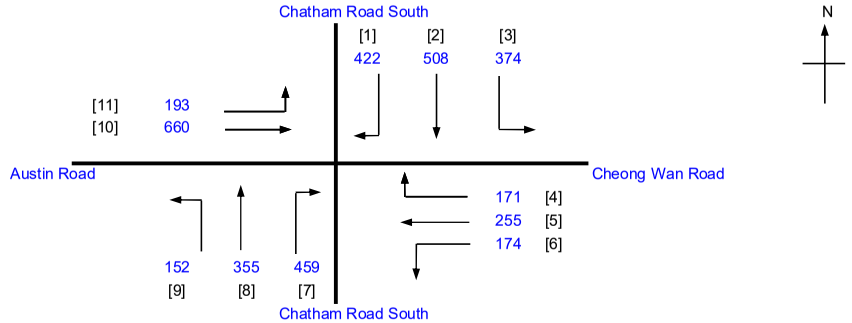
Stage 1	G= 22	Int = 6	Stage 2	G= 37	Int = 6	Stage 3	G= 53	Int = 6	Stage 4	G=	Int =	Stage 5	G=	Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	8	7	3	18	7
P2	1	5	10	7	11	10
P3	2	8	7	6	30	7
P4	2,3	8	7	7	88	7

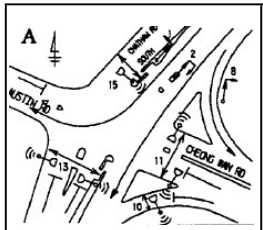
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							15					
1	1	3.50	2			N	4070		419		419	0.00	4070							4070	0.103	0.103		23	23	0.579	36	47
3	1	3.50	2			N	4070		409		409	0.00	4070							4070	0.100			23	23	0.579	36	48
2	2	3.00	2			N	3970		673		673	0.00	3970							3970	0.170	0.170		38	38	0.579	51	37
5	2,3	3.30	1			N	1945		599		599	0.00	1945							1945	0.308			69	92	0.579	60	21
4	3	3.30	1	15			2085			455	455	1.00	1895							1895	0.240	0.240		54	54	0.579	54	29

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

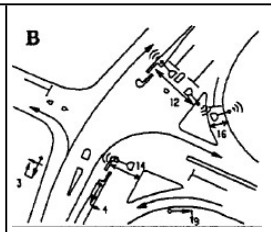
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**		INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2025 Existing AM**	PROJECT NO.: 41000	Prepared By: SKL	Sep-25
		FILENAME : J3_CRS_AR_CWR.xlsx	Checked By: SLN	Sep-25
J3 Chatham Road South / Austin Road / Cheong Wan Road			Reviewed By: SLN	Sep-25



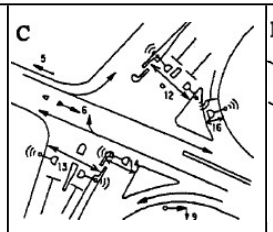
No. of stages per cycle		N =	4
Cycle time		C =	130 sec
Sum(y)		Y =	0.447
Loss time		L =	34 sec
Total Flow		=	3723 pcu
Co	= (1.5*L+5)/(1-Y)	=	101.3 sec
Cm	= L/(1-Y)	=	61.5 sec
Yult		=	0.645
R.C.ult	= (Yult-Y)/Y*100%	=	44.2 %
Cp	= 0.9*L/(0.9-Y)	=	67.6 sec
Ymax	= 1-L/C	=	0.738
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**49 %**



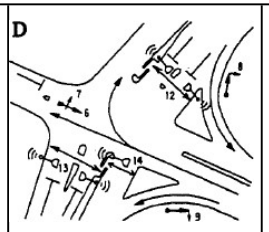
Stage 1 G= 26 Int = 9



Stage 2 G= 25 Int = 6



Stage 3 G= 46 Int = 8



Stage 4 G= 14 Int =

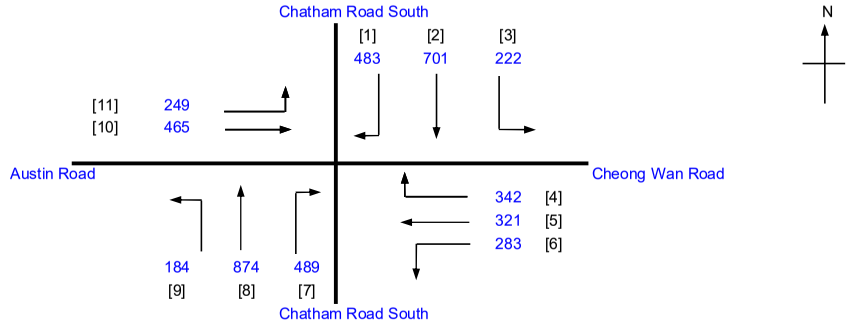
Stage 5 G= Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
10p	1	5	7			
11p	1	11	10			
12p	2,3,4	10	9			
13p	1,3,4	12	10			
14p	2,3,4	5	10			
15p	1	5	10			
16p	2,3	5	6			

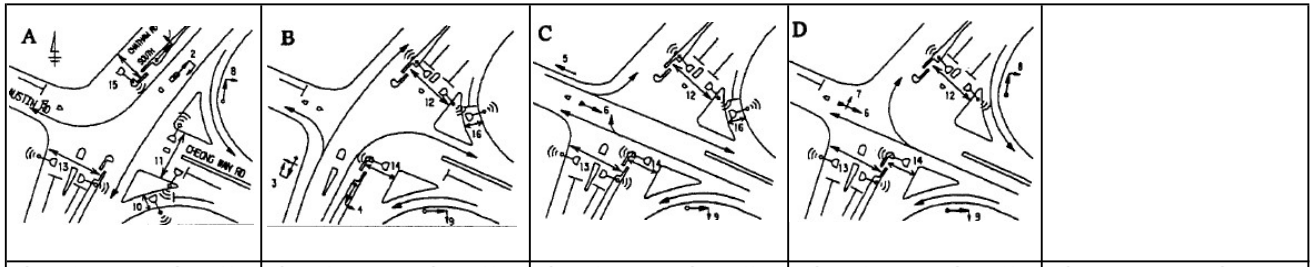
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
1	1	3.00	2	25			4110			422	422	1.00	3877							3877	0.109	0.109		23	27	0.606	36	48
2	1	3.00	2				4110		508		508	0.00	4110							4110	0.124			27	27	0.606	42	45
3	1,4	3.00	1	20		N	1915	374			374	1.00	1781							1781	0.210			45	45	0.606	48	36
8,9	2	3.00	1	10		N	1915	152	0		152	1.00	1665							1665	0.091			20	26	0.606	24	56
8	2	3.00	2				4110		355		355	0.00	4110							4110	0.086			19	26	0.606	30	51
7	2	3.00	2	20			4110			459	459	1.00	3823							3823	0.120	0.120		26	26	0.606	39	46
6	2,3,4	3.00	1	25		N	1915	174			174	1.00	1807							1807	0.096			21	21	0.606	30	54
4,5	3,4	3.00	1	25	O		2055		255	9	264	0.03	1821	36	1080					2901	0.091			20	20	0.606	48	52
4	3,4	3.00	1	25	O		2055			162	162	1.00	1722							1722	0.094			20	20	0.606	24	55
10,11	3	3.00	1	20		N	1915	193	211		404	0.48	1849							1849	0.219	0.219		47	47	0.606	54	34
10	3	3.00	1				2055		449		449	0.00	2055							2055	0.218			47	47	0.606	60	34
	4																						14					

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
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2025 Existing PM**	PROJECT NO.: 41000	Prepared By: SKL	Sep-25
		FILENAME : J3_CRS_AR_CWR.xlsx	Checked By: SLN	Sep-25
J3 Chatham Road South / Austin Road / Cheong Wan Road			Reviewed By: SLN	Sep-25



No. of stages per cycle		N =	4
Cycle time		C =	130 sec
Sum(y)		Y =	0.437
Loss time		L =	34 sec
Total Flow		=	4613 pcu
Co	= (1.5*L+5)/(1-Y)	=	99.5 sec
Cm	= L/(1-Y)	=	60.4 sec
Yult		=	0.645
R.C.ult	= (Yult-Y)/Y*100%	=	47.5 %
Cp	= 0.9*L/(0.9-Y)	=	66.1 sec
Ymax	= 1-L/C	=	0.738
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**52 %**



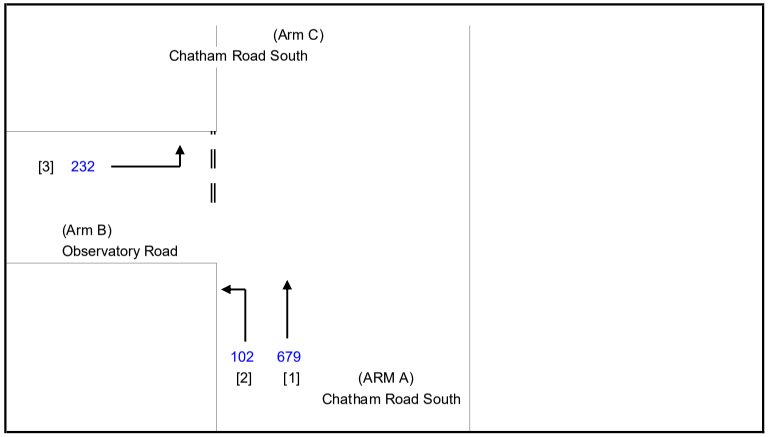
Stage 1	G= 36	Stage 2	G= 39	Stage 3	G= 40	Stage 4	G= 14	Stage 5	G=
	Int = 9		Int = 6		Int = 8		Int =		Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
10p	1	5	7			
11p	1	11	10			
12p	2,3,4	10	9			
13p	1,3,4	12	10			
14p	2,3,4	5	10			
15p	1	5	10			
16p	2,3	5	6			

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
1	1	3.00	2	25			4110			483	483	1.00	3877							3877	0.125	0.125		27	37	0.592	39	45
2	1	3.00	2				4110		701		701	0.00	4110							4110	0.171			37	37	0.592	54	38
3	1,4	3.00	1	20		N	1915	222			222	1.00	1781							1781	0.125			27	27	0.592	36	48
8,9	2	3.00	1	10		N	1915	184	133		317	0.58	1762							1762	0.180			40	40	0.592	42	39
8	2	3.00	2				4110		741		741	0.00	4110							4110	0.180			40	40	0.592	54	36
7	2	3.00	2	20			4110			489	489	1.00	3823							3823	0.128	0.128		28	40	0.592	39	44
6	2,3,4	3.00	1	25		N	1915	283			283	1.00	1807							1807	0.157			34	34	0.592	42	42
4,5	3,4	3.00	1	25	O		2055		321	66	387	0.17	1807	36	617					2424	0.160			35	35	0.592	60	41
4	3,4	3.00	1	25	O		2055			276	276	1.00	1722							1722	0.160			35	35	0.592	42	42
10,11	3	3.00	1	20		N	1915	249	86		335	0.74	1814							1814	0.185	0.185		41	41	0.592	48	38
10	3	3.00	1				2055		379		379	0.00	2055							2055	0.184			41	41	0.592	54	38
	4																						14					

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	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2025 Existing AM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J4_CRS_OR.	CHECKED BY:	SLN	Sep-25
J4 Chatham Road South / Observatory Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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	=	10.50	(metres)
W cr	=	0	(metres)
q a-b	=	102	(pcu/hr)
q a-c	=	679	(pcu/hr)

MAJOR ROAD (ARM C)

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

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.70	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	37	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	232	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.01663
F	=	0.58595
Y	=	0.63775
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

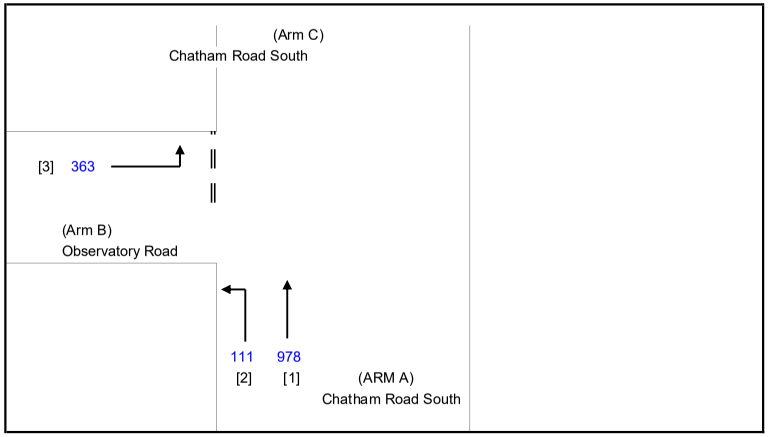
Q b-a	=	245		
Q b-c	=	588	Q b-c (O) =	588
Q c-b	=	330		
Q b-ac	=	588		
TOTAL FLOW	=	1013	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.3946
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.3946

CRITICAL DFC = 0.39

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2025 Existing PM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J4_CRS_OR.	CHECKED BY:	SLN	Sep-25
J4 Chatham Road South / Observatory Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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	=	10.50	(metres)
W cr	=	0	(metres)
q a-b	=	111	(pcu/hr)
q a-c	=	978	(pcu/hr)

MAJOR ROAD (ARM C)

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

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.70	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	37	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	363	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.01663
F	=	0.58595
Y	=	0.63775
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

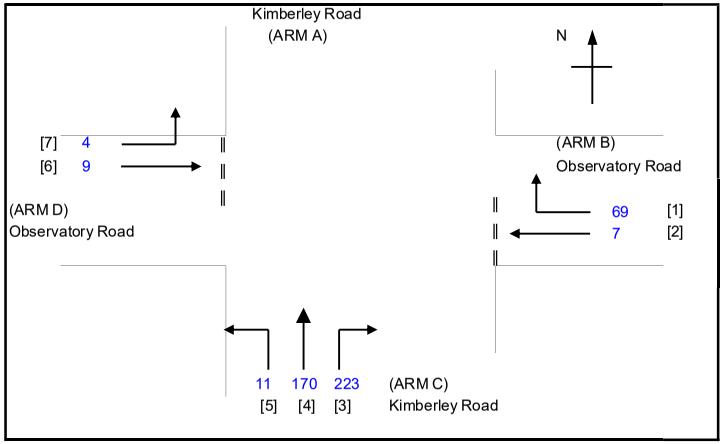
Q b-a	=	208		
Q b-c	=	516	Q b-c (O) =	516
Q c-b	=	288		
Q b-ac	=	516		
TOTAL FLOW	=	1452	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.7035
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.7035

CRITICAL DFC = 0.70

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2025 Existing AM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J5_KR_OR.xlsx	CHECKED BY:	SLN	Sep-25
J5 Kimberley Road / Observatory Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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
X a	=	STREAM-SPECIFIC (RIGHT TURN FROM A)
X b	=	STREAM-SPECIFIC (RIGHT TURN FROM B)
Z b	=	STREAM-SPECIFIC (LEFT TURN FROM B)
M b	=	STREAM-SPECIFIC (STRAIGHT AHEAD FROM B - LEFT LANE)
Y	=	(1-0.0345W)
r b-a	=	RATIO OF FLOW TO CAPACITY IN STREAM b-a

GEOMETRIC DETAILS:

GENERAL

W	=	7.4	(metres)		
W cr	=	0	(metres)	Y =	0.745

MAJOR ROAD (ARM A)				MAJOR ROAD (ARM C)			
W a-d	=	0.00	(metres)	W c-b	=	3.10	(metres)
Vr a-d	=	0	(metres)	Vr c-b	=	22	(metres)
q a-b	=	0	(pcu/hr)	q c-a	=	170	(pcu/hr)
q a-c	=	0	(pcu/hr)	q c-b	=	223	(pcu/hr)
q a-d	=	0	(pcu/hr)	q c-d	=	11	(pcu/hr)

MINOR ROAD (ARM B)				MINOR ROAD (ARM D)			
W b-a	=	5.00	(metres)	W d-c	=	0.00	(metres)
W b-c	=	0.00	(metres)	W d-a	=	3.00	(metres)
Vl b-a	=	23	(metres)	Vl d-c	=	0	(metres)
Vr b-a	=	100	(metres)	Vr d-c	=	0	(metres)
Vr b-c	=	0	(metres)	Vr d-a	=	23	(metres)
q b-a	=	69	(pcu/hr)	q d-c	=	0	(pcu/hr)
q b-c	=	0	(pcu/hr)	q d-a	=	4	(pcu/hr)
q b-d	=	7	(pcu/hr)	q d-b	=	9	(pcu/hr)

GEOMETRIC FACTORS :

X b	=	1.022	X a	=	0.586
X c	=	0.865	X d	=	0.533
Z b	=	0.586	Z d	=	0.857
M b	=	0.541	M d	=	0.780

PROPORTION OF MINOR STRAIGHT AHEAD TRAFFIC :

r b-a	=	0.2546		r d-c	=	0.000	
ql b-d	=	4.3911	(pcu/hr)	ql d-b	=	4.5	(pcu/hr)
qr b-d	=	2.6089	(pcu/hr)	qr d-b	=	4.5	(pcu/hr)

CAPACITY OF MOVEMENT :

Q b-a	=	519	(pcu/hr)	Q d-c	=	271	(pcu/hr)
Q b-c	=	409	(pcu/hr)	Q d-a	=	598	(pcu/hr)
Q c-b	=	644	(pcu/hr)	Q a-d	=	357	(pcu/hr)
Ql b-d	=	276	(pcu/hr)	Ql d-b	=	405	(pcu/hr)
Qr b-d	=	521	(pcu/hr)	Qr d-b	=	277	(pcu/hr)
Q b-acd	=	519	(pcu/hr)	Q d-abc	=	326	(pcu/hr)

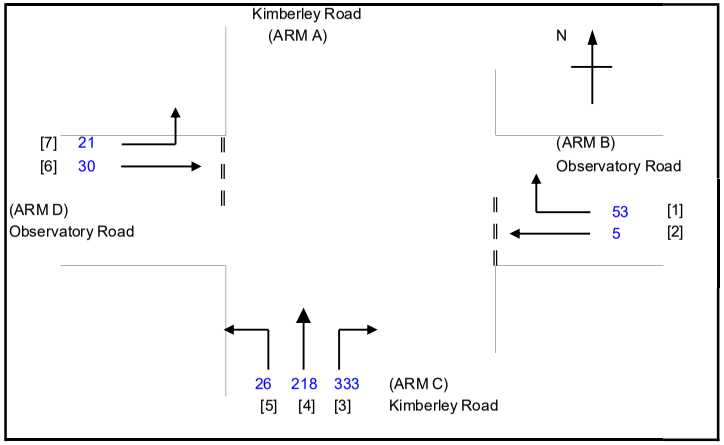
TOTAL FLOW = 493 (PCU/HR)

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.1329
DFC b-c	=	0.0000
DFC c-b	=	0.3463
DFCl b-d	=	0.0159
DFCr b-d	=	0.0050
DFC d-c	=	0.0000
DFC d-a	=	0.0067
DFC a-d	=	0.0000
DFCl d-b	=	0.0111
DFCr d-b	=	0.0162
DFC b-acd (shared lane)	=	0.1464
DFC d-abc (shared lane)	=	0.0399

CRITICAL DFC = 0.35

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2025 Existing PM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J5_KR_OR.xlsx	CHECKED BY:	SLN	Sep-25
J5 Kimberley Road / Observatory Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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
X a	=	STREAM-SPECIFIC (RIGHT TURN FROM A)
X b	=	STREAM-SPECIFIC (RIGHT TURN FROM B)
Z b	=	STREAM-SPECIFIC (LEFT TURN FROM B)
M b	=	STREAM-SPECIFIC (STRAIGHT AHEAD FROM B - LEFT LANE)
Y	=	(1-0.0345W)
r b-a	=	RATIO OF FLOW TO CAPACITY IN STREAM b-a

GEOMETRIC DETAILS:

GENERAL

W	=	7.4	(metres)		
W cr	=	0	(metres)	Y =	0.745

MAJOR ROAD (ARM A)				MAJOR ROAD (ARM C)			
W a-d	=	0.00	(metres)	W c-b	=	3.10	(metres)
Vr a-d	=	0	(metres)	Vr c-b	=	22	(metres)
q a-b	=	0	(pcu/hr)	q c-a	=	218	(pcu/hr)
q a-c	=	0	(pcu/hr)	q c-b	=	333	(pcu/hr)
q a-d	=	0	(pcu/hr)	q c-d	=	26	(pcu/hr)

MINOR ROAD (ARM B)				MINOR ROAD (ARM D)			
W b-a	=	5.00	(metres)	W d-c	=	0.00	(metres)
W b-c	=	0.00	(metres)	W d-a	=	3.00	(metres)
Vl b-a	=	23	(metres)	Vl d-c	=	0	(metres)
Vr b-a	=	100	(metres)	Vr d-c	=	0	(metres)
Vr b-c	=	0	(metres)	Vr d-a	=	23	(metres)
q b-a	=	53	(pcu/hr)	q d-c	=	0	(pcu/hr)
q b-c	=	0	(pcu/hr)	q d-a	=	21	(pcu/hr)
q b-d	=	5	(pcu/hr)	q d-b	=	30	(pcu/hr)

GEOMETRIC FACTORS :

X b	=	1.022	X a	=	0.586
X c	=	0.865	X d	=	0.533
Z b	=	0.586	Z d	=	0.857
M b	=	0.541	M d	=	0.780

PROPORTION OF MINOR STRAIGHT AHEAD TRAFFIC :

r b-a	=	0.2129		r d-c	=	0.000	
ql b-d	=	3.0321	(pcu/hr)	ql d-b	=	15	(pcu/hr)
qr b-d	=	1.9679	(pcu/hr)	qr d-b	=	15	(pcu/hr)

CAPACITY OF MOVEMENT :

Q b-a	=	457	(pcu/hr)	Q d-c	=	249	(pcu/hr)
Q b-c	=	413	(pcu/hr)	Q d-a	=	585	(pcu/hr)
Q c-b	=	644	(pcu/hr)	Q a-d	=	322	(pcu/hr)
Ql b-d	=	247	(pcu/hr)	Ql d-b	=	370	(pcu/hr)
Qr b-d	=	467	(pcu/hr)	Qr d-b	=	253	(pcu/hr)
Q b-acd	=	457	(pcu/hr)	Q d-abc	=	326	(pcu/hr)

TOTAL FLOW = 686 (PCU/HR)

COMPARISION OF DESIGN FLOW TO CAPACITY:

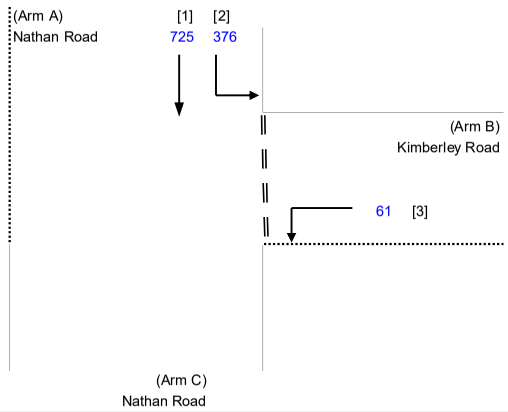
DFC b-a	=	0.1160
DFC b-c	=	0.0000
DFC c-b	=	0.5171
DFCl b-d	=	0.0123
DFCr b-d	=	0.0042
DFC d-c	=	0.0000
DFC d-a	=	0.0359
DFC a-d	=	0.0000
DFCl d-b	=	0.0405
DFCr d-b	=	0.0593
DFC b-acd (shared lane)	=	0.1269
DFC d-abc (shared lane)	=	0.1564

CRITICAL DFC = 0.52

Appendix B

Junction Calculation Sheets
- Reference & Design Scenarios

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Reference AM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J1_NR_KR.xls	CHECKED BY:	SLN	Sep-25
J1 Nathan Road / Kimberley Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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	=	6.8	(metres)
W cr	=	0	(metres)
q a-b	=	376	(pcu/hr)
q a-c	=	725	(pcu/hr)

MAJOR ROAD (ARM C)

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

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.80	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	39	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	61	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.02732
F	=	0.58595
Y	=	0.76540
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

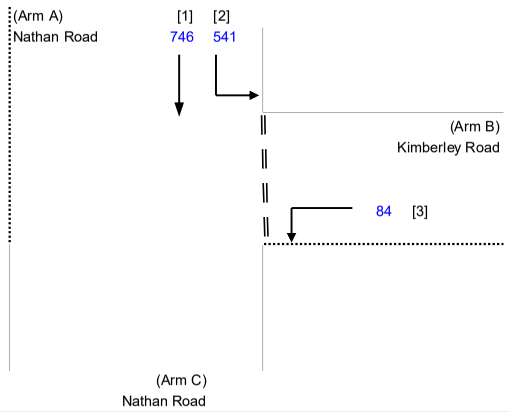
Q b-a	=	205		
Q b-c	=	515	Q b-c (O) =	515
Q c-b	=	257		
Q b-ac	=	515		
TOTAL FLOW	=	1162	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.1184
DFC c-b	=	0.0000
DFC b-ac	=	0.1184

CRITICAL DFC = 0.12

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Reference PM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J1_NR_KR.xls	CHECKED BY:	SLN	Sep-25
J1 Nathan Road / Kimberley Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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	=	6.8	(metres)
W cr	=	0	(metres)
q a-b	=	541	(pcu/hr)
q a-c	=	746	(pcu/hr)

MAJOR ROAD (ARM C)

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

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.80	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	39	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	84	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.02732
F	=	0.58595
Y	=	0.76540
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

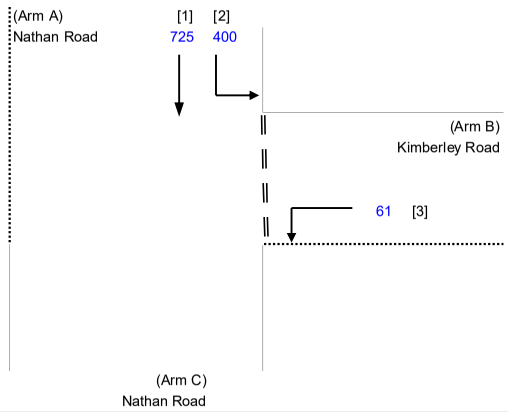
Q b-a	=	192		
Q b-c	=	491	Q b-c (O) =	491
Q c-b	=	226		
Q b-ac	=	491		
TOTAL FLOW	=	1371	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.1711
DFC c-b	=	0.0000
DFC b-ac	=	0.1711

CRITICAL DFC = 0.17

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Design AM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J1_NR_KR.xls	CHECKED BY:	SLN	Sep-25
J1 Nathan Road / Kimberley Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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	=	6.8	(metres)
W cr	=	0	(metres)
q a-b	=	400	(pcu/hr)
q a-c	=	725	(pcu/hr)

MAJOR ROAD (ARM C)

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

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.80	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	39	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	61	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.02732
F	=	0.58595
Y	=	0.76540
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

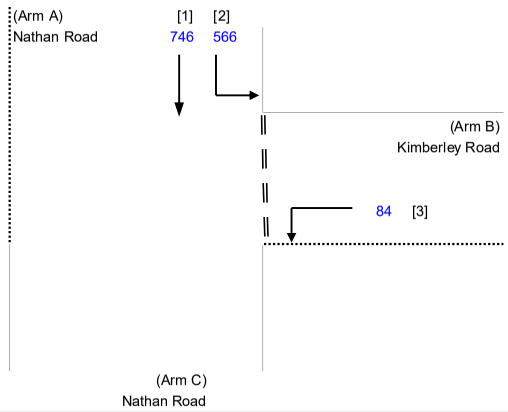
Q b-a	=	203		
Q b-c	=	513	Q b-c (O) =	513
Q c-b	=	253		
Q b-ac	=	513		
TOTAL FLOW	=	1186	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.1189
DFC c-b	=	0.0000
DFC b-ac	=	0.1189

CRITICAL DFC = 0.12

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Design PM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J1_NR_KR.xls	CHECKED BY:	SLN	Sep-25
J1 Nathan Road / Kimberley Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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	=	6.8	(metres)
W cr	=	0	(metres)
q a-b	=	566	(pcu/hr)
q a-c	=	746	(pcu/hr)

MAJOR ROAD (ARM C)

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

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.80	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	39	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	84	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.02732
F	=	0.58595
Y	=	0.76540
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

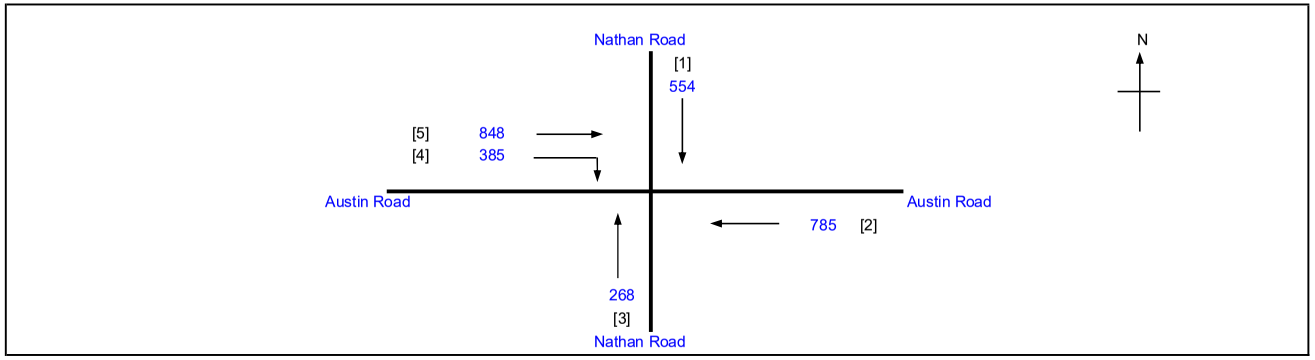
Q b-a	=	190		
Q b-c	=	488	Q b-c (O) =	488
Q c-b	=	222		
Q b-ac	=	488		
TOTAL FLOW	=	1396	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

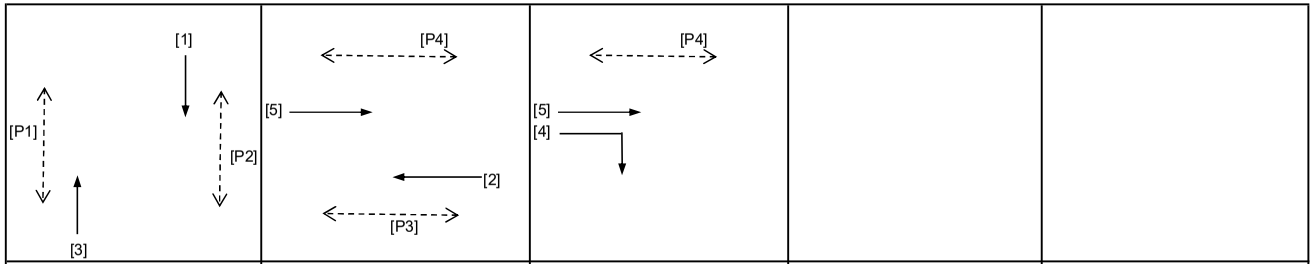
DFC b-a	=	0.0000
DFC b-c	=	0.1721
DFC c-b	=	0.0000
DFC b-ac	=	0.1721

CRITICAL DFC = 0.17

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Reference AM**	PROJECT NO.: 41000	Prepared By:	SKL	Sep-25
		FILENAME : J2_AR_NR.xlsx	Checked By:	SLN	Sep-25
J2 Nathan Road / Austin Road			Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.572
Loss time		L =	10 sec
Total Flow		=	2840 pcu
Co	= (1.5*L+5)/(1-Y)	=	46.7 sec
Cm	= L/(1-Y)	=	23.4 sec
Yult		=	0.825
R.C.ult	= (Yult-Y)/Y*100%	=	44.2 %
Cp	= 0.9*L/(0.9-Y)	=	27.4 sec
Ymax	= 1-L/C	=	0.923
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**45 %**



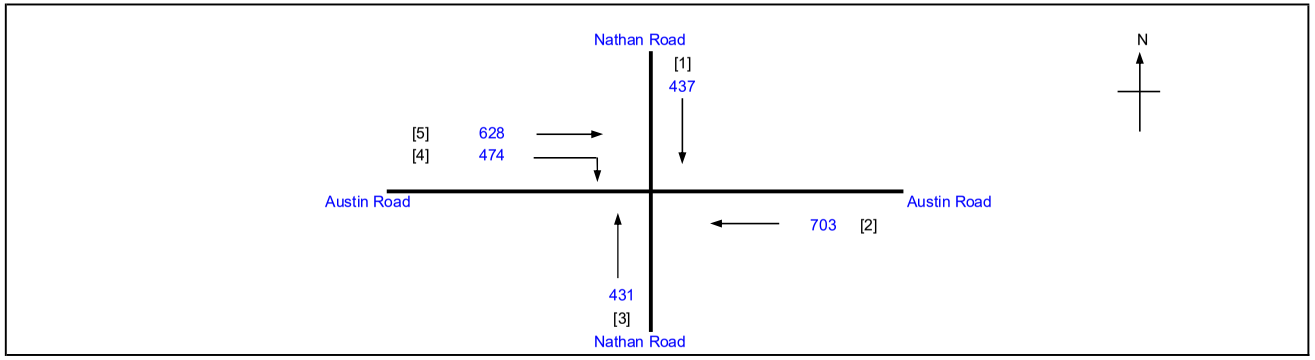
Stage 1	G= 28	Stage 2	G= 49	Stage 3	G= 42	Stage 4	G=	Stage 5	G=
	Int = 6		Int =		Int = 6		Int =		Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	8	7	3	24	7
P2	1	5	10	7	17	10
P3	2	8	7	6	36	7
P4	2,3	8	7	7	82	7

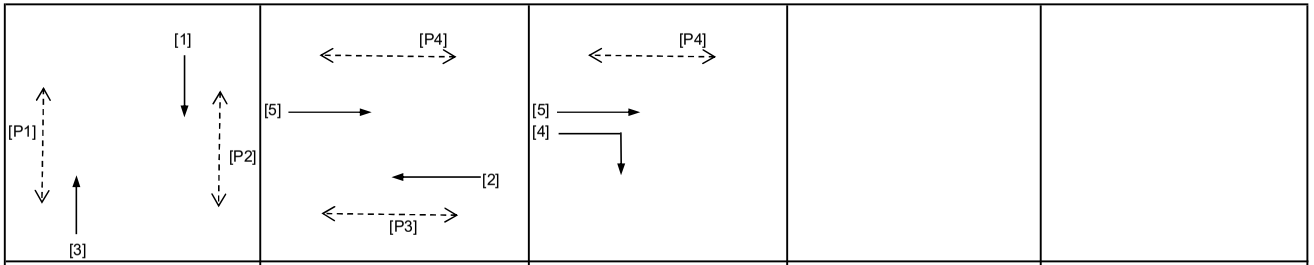
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
1	1	3.50	2			N	4070		554		554	0.00	4070							4070	0.136	0.136		29	29	0.620	45	44
3	1	3.50	2			N	4070		268		268	0.00	4070							4070	0.066			14	29	0.620	24	56
2	2	3.00	2			N	3970		785		785	0.00	3970							3970	0.198			41	49	0.620	57	36
5	2,3	3.30	1			N	1945		848		848	0.00	1945							1945	0.436	0.436		91	91	0.620	54	11
4	3	3.30	1	15			2085			385	385	1.00	1895							1895	0.203			43	43	0.620	54	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**			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Reference PM**	PROJECT NO.: 41000	Prepared By:	SKL	Sep-25
		FILENAME : J2_AR_NR.xlsx	Checked By:	SLN	Sep-25
J2 Nathan Road / Austin Road			Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.535
Loss time		L =	15 sec
Total Flow		=	2673 pcu
Co	= (1.5*L+5)/(1-Y)	=	59.1 sec
Cm	= L/(1-Y)	=	32.2 sec
Yult		=	0.788
R.C.ult	= (Yult-Y)/Y*100%	=	47.3 %
Cp	= 0.9*L/(0.9-Y)	=	36.9 sec
Ymax	= 1-L/C	=	0.885
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**49 %**



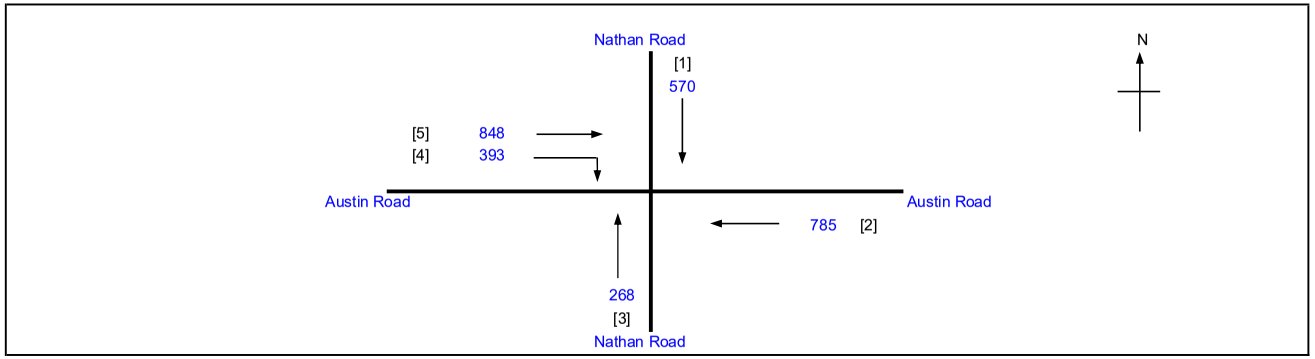
Stage 1	G= 22	Int = 6	Stage 2	G= 37	Int = 6	Stage 3	G= 53	Int = 6	Stage 4	G=	Int =	Stage 5	G=	Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	8	7	3	18	7
P2	1	5	10	7	11	10
P3	2	8	7	6	30	7
P4	2,3	8	7	7	88	7

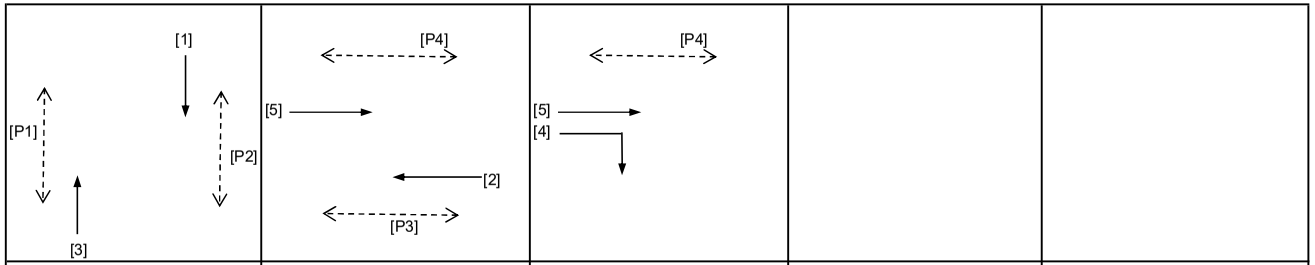
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							15					
1	1	3.50	2			N	4070		437		437	0.00	4070							4070	0.107	0.107		23	23	0.604	36	48
3	1	3.50	2			N	4070		431		431	0.00	4070							4070	0.106			23	23	0.604	36	48
2	2	3.00	2			N	3970		703		703	0.00	3970							3970	0.177	0.177		38	38	0.604	51	38
5	2,3	3.30	1			N	1945		628		628	0.00	1945							1945	0.323			69	92	0.604	60	21
4	3	3.30	1	15			2085			474	474	1.00	1895							1895	0.250	0.250		54	54	0.604	60	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
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Design AM**	PROJECT NO.: 41000	Prepared By:	SKL	Sep-25
		FILENAME : J2_AR_NR.xlsx	Checked By:	SLN	Sep-25
J2 Nathan Road / Austin Road			Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.576
Loss time		L =	10 sec
Total Flow		=	2864 pcu
Co	= (1.5*L+5)/(1-Y)	=	47.2 sec
Cm	= L/(1-Y)	=	23.6 sec
Yult		=	0.825
R.C.ult	= (Yult-Y)/Y*100%	=	43.2 %
Cp	= 0.9*L/(0.9-Y)	=	27.8 sec
Ymax	= 1-L/C	=	0.923
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**44 %**



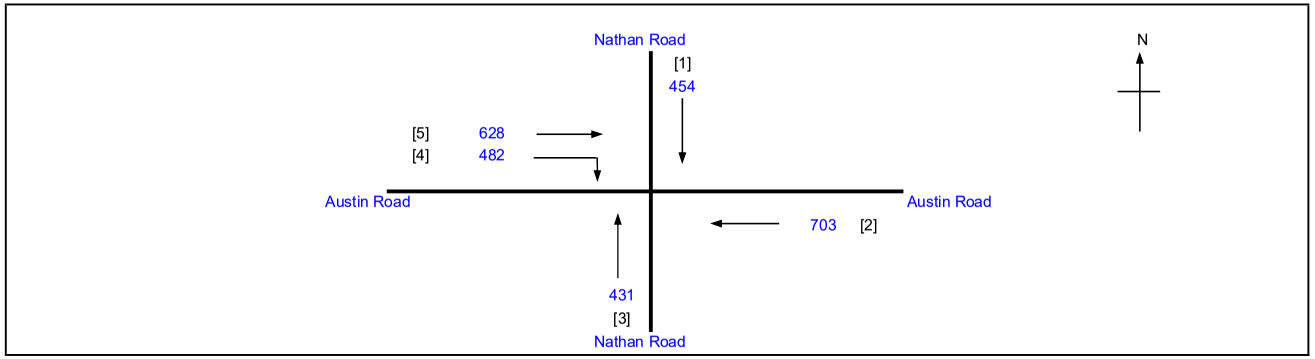
Stage 1	G= 28	Stage 2	G= 48	Stage 3	G= 42	Stage 4	G=	Stage 5	G=
	Int = 6		Int =		Int = 6		Int =		Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	8	7	3	24	7
P2	1	5	10	7	17	10
P3	2	8	7	6	35	7
P4	2,3	8	7	7	82	7

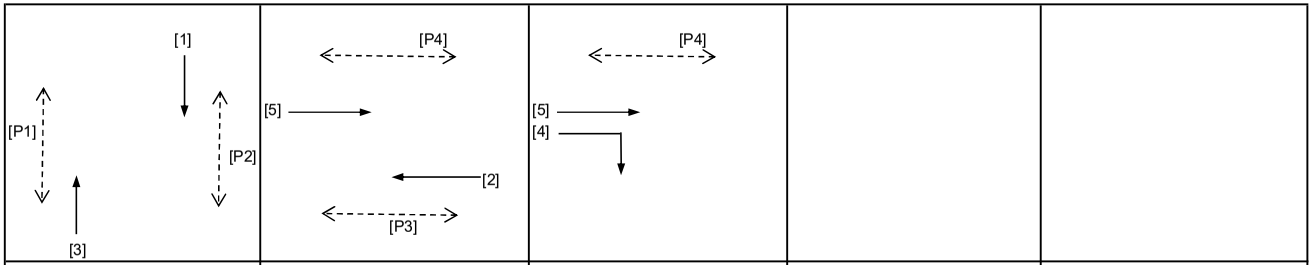
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
1	1	3.50	2			N	4070		570		570	0.00	4070							4070	0.140	0.140		29	29	0.624	45	44
3	1	3.50	2			N	4070		268		268	0.00	4070							4070	0.066			14	29	0.624	24	56
2	2	3.00	2			N	3970		785		785	0.00	3970							3970	0.198			41	48	0.624	57	36
5	2,3	3.30	1			N	1945		848		848	0.00	1945							1945	0.436	0.436		91	91	0.624	54	11
4	3	3.30	1	15			2085			393	393	1.00	1895							1895	0.207			43	43	0.624	54	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**			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Design PM**	PROJECT NO.: 41000	Prepared By:	SKL	Sep-25
		FILENAME : J2_AR_NR.xlsx	Checked By:	SLN	Sep-25
J2 Nathan Road / Austin Road			Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.543
Loss time		L =	15 sec
Total Flow		=	2698 pcu
Co	= (1.5*L+5)/(1-Y)	=	60.2 sec
Cm	= L/(1-Y)	=	32.8 sec
Yult		=	0.788
R.C.ult	= (Yult-Y)/Y*100%	=	45.0 %
Cp	= 0.9*L/(0.9-Y)	=	37.8 sec
Ymax	= 1-L/C	=	0.885
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**47 %**



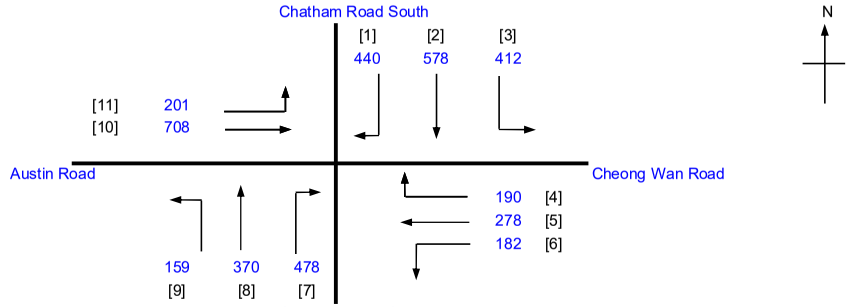
Stage 1	G= 23	Int = 6	Stage 2	G= 37	Int = 6	Stage 3	G= 53	Int = 6	Stage 4	G=	Int =	Stage 5	G=	Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	8	7	3	19	7
P2	1	5	10	7	12	10
P3	2	8	7	6	30	7
P4	2,3	8	7	7	87	7

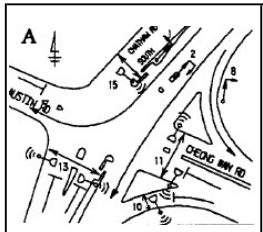
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							15					
1	1	3.50	2			N	4070		454		454	0.00	4070							4070	0.112	0.112		24	24	0.614	39	48
3	1	3.50	2			N	4070		431		431	0.00	4070							4070	0.106			22	24	0.614	36	48
2	2	3.00	2			N	3970		703		703	0.00	3970							3970	0.177	0.177		38	38	0.614	54	38
5	2,3	3.30	1			N	1945		628		628	0.00	1945							1945	0.323			68	91	0.614	60	22
4	3	3.30	1	15			2085			482	482	1.00	1895							1895	0.254	0.254		54	54	0.614	60	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

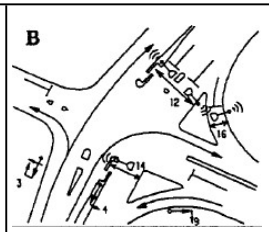
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Reference AM**	PROJECT NO.: 41000	Prepared By:	SKL	Sep-25
		FILENAME : J3_CRS_AR_CWR.xlsx	Checked By:	SLN	Sep-25
J3 Chatham Road South / Austin Road / Cheong Wan Road			Reviewed By:	SLN	Sep-25



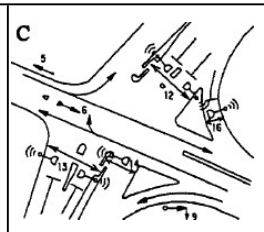
No. of stages per cycle		N =	4
Cycle time		C =	130 sec
Sum(y)		Y =	0.471
Loss time		L =	34 sec
Total Flow		=	3996 pcu
Co	= (1.5*L+5)/(1-Y)	=	105.9 sec
Cm	= L/(1-Y)	=	64.3 sec
Yult		=	0.645
R.C.ult	= (Yult-Y)/Y*100%	=	36.8 %
Cp	= 0.9*L/(0.9-Y)	=	71.4 sec
Ymax	= 1-L/C	=	0.738
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**41 %**



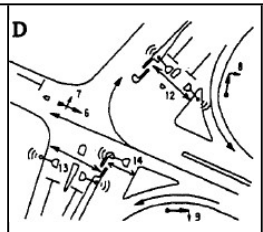
Stage 1 G= 28 Int = 9



Stage 2 G= 24 Int = 6



Stage 3 G= 46 Int = 8



Stage 4 G= 14 Int =

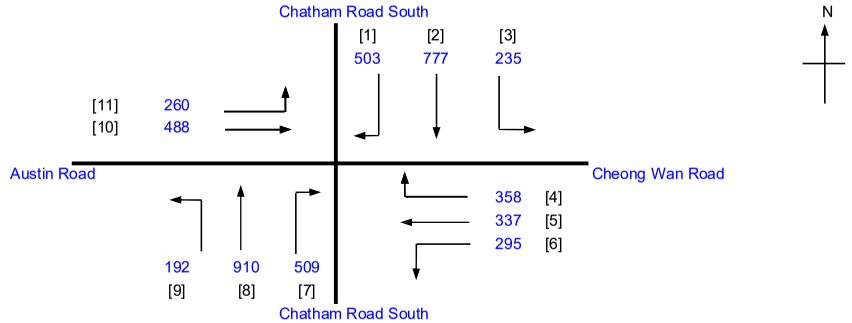
Stage 5 G= Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
10p	1	5	7			
11p	1	11	10			
12p	2,3,4	10	9			
13p	1,3,4	12	10			
14p	2,3,4	5	10			
15p	1	5	10			
16p	2,3	5	6			

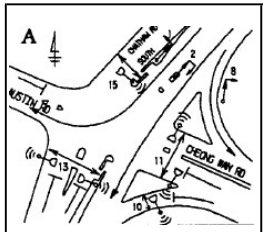
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
1	1	3.00	2	25			4110			440	440	1.00	3877							3877	0.113	0.113		23	29	0.638	39	49
2	1	3.00	2				4110		578		578	0.00	4110							4110	0.141			29	29	0.638	48	45
3	1,4	3.00	1	20		N	1915	412			412	1.00	1781							1781	0.231			47	47	0.638	54	35
8,9	2	3.00	1	10		N	1915	159	0		159	1.00	1665							1665	0.095			19	25	0.638	30	58
8	2	3.00	2				4110		370		370	0.00	4110							4110	0.090			18	25	0.638	33	52
7	2	3.00	2	20			4110			478	478	1.00	3823							3823	0.125	0.125		25	25	0.638	39	47
6	2,3,4	3.00	1	25		N	1915	182			182	1.00	1807							1807	0.101			21	21	0.638	30	56
4,5	3,4	3.00	1	25	O		2055		278	14	292	0.05	1820	36	1029					2848	0.103			21	21	0.638	48	52
4	3,4	3.00	1	25	O		2055			176	176	1.00	1722							1722	0.102			21	21	0.638	30	56
10,11	3	3.00	1	20		N	1915	201	230		431	0.47	1850							1850	0.233	0.233		47	47	0.638	54	35
10	3	3.00	1				2055		478		478	0.00	2055							2055	0.233			47	47	0.638	60	35
	4																						14					

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

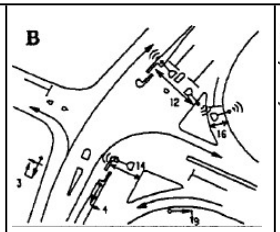
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Reference PM**	PROJECT NO.: 41000	Prepared By:	SKL	Sep-25
		FILENAME : J3_CRS_AR_CWR.xlsx	Checked By:	SLN	Sep-25
J3 Chatham Road South / Austin Road / Cheong Wan Road			Reviewed By:	SLN	Sep-25



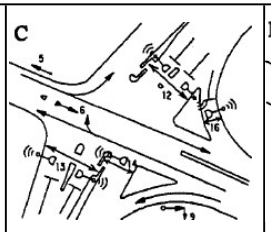
No. of stages per cycle		N =	4
Cycle time		C =	130 sec
Sum(y)		Y =	0.456
Loss time		L =	34 sec
Total Flow		=	4864 pcu
Co	= (1.5*L+5)/(1-Y)	=	103.0 sec
Cm	= L/(1-Y)	=	62.5 sec
Yult		=	0.645
R.C.ult	= (Yult-Y)/Y*100%	=	41.3 %
Cp	= 0.9*L/(0.9-Y)	=	69.0 sec
Ymax	= 1-L/C	=	0.738
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**46 %**



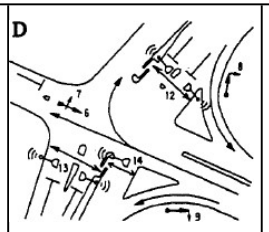
Stage 1 G= 39 Int = 9



Stage 2 G= 39 Int = 6



Stage 3 G= 40 Int = 8



Stage 4 G= 14 Int =

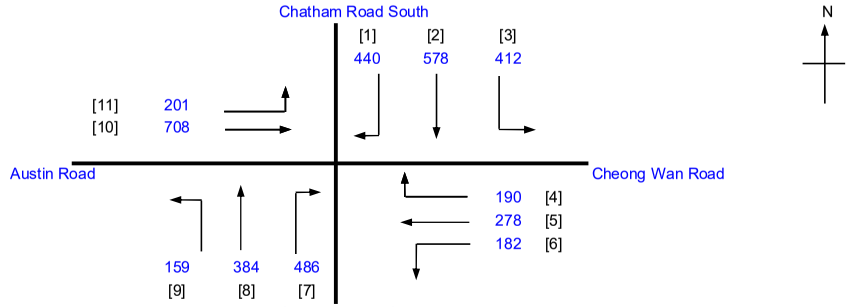
Stage 5 G= Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
10p	1	5	7			
11p	1	11	10			
12p	2,3,4	10	9			
13p	1,3,4	12	10			
14p	2,3,4	5	10			
15p	1	5	10			
16p	2,3	5	6			

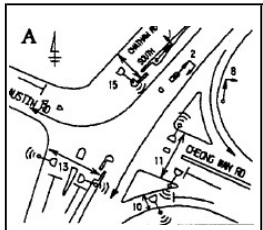
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
1	1	3.00	2	25			4110			503	503	1.00	3877							3877	0.130	0.130		27	40	0.618	42	45
2	1	3.00	2				4110		777		777	0.00	4110							4110	0.189			40	40	0.618	57	37
3	1,4	3.00	1	20		N	1915	235			235	1.00	1781							1781	0.132			28	28	0.618	36	49
8,9	2	3.00	1	10		N	1915	192	139		331	0.58	1762							1762	0.188			40	40	0.618	48	40
8	2	3.00	2				4110		771		771	0.00	4110							4110	0.188			39	40	0.618	57	37
7	2	3.00	2	20			4110			509	509	1.00	3823							3823	0.133	0.133		28	40	0.618	42	45
6	2,3,4	3.00	1	25		N	1915	295			295	1.00	1807							1807	0.163			34	34	0.618	42	43
4,5	3,4	3.00	1	25	O		2055		337	69	406	0.17	1807	36	617					2424	0.168			35	35	0.618	60	41
4	3,4	3.00	1	25	O		2055			289	289	1.00	1722							1722	0.168			35	35	0.618	42	43
10,11	3	3.00	1	20		N	1915	260	91		351	0.74	1814							1814	0.193	0.193		41	41	0.618	48	39
10	3	3.00	1				2055		397		397	0.00	2055							2055	0.193			41	41	0.618	54	38
	4																						14					

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

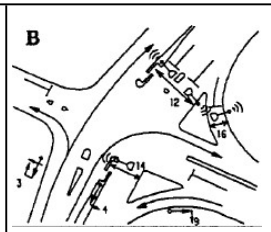
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Design AM**	PROJECT NO.: 41000	Prepared By:	SKL	Sep-25
		FILENAME : J3_CRS_AR_CWR.xlsx	Checked By:	SLN	Sep-25
J3 Chatham Road South / Austin Road / Cheong Wan Road			Reviewed By:	SLN	Sep-25



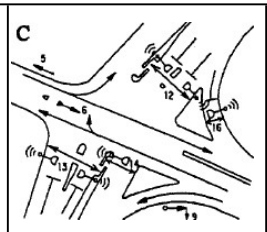
No. of stages per cycle		N =	4
Cycle time		C =	130 sec
Sum(y)		Y =	0.474
Loss time		L =	34 sec
Total Flow		=	4018 pcu
Co	= (1.5*L+5)/(1-Y)	=	106.4 sec
Cm	= L/(1-Y)	=	64.6 sec
Yult		=	0.645
R.C.ult	= (Yult-Y)/Y*100%	=	36.2 %
Cp	= 0.9*L/(0.9-Y)	=	71.8 sec
Ymax	= 1-L/C	=	0.738
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**40 %**



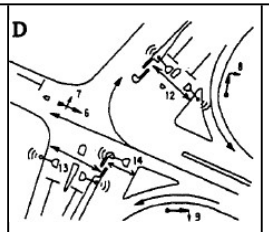
Stage 1 G= 28 Int = 9



Stage 2 G= 25 Int = 6



Stage 3 G= 46 Int = 8



Stage 4 G= 14 Int =

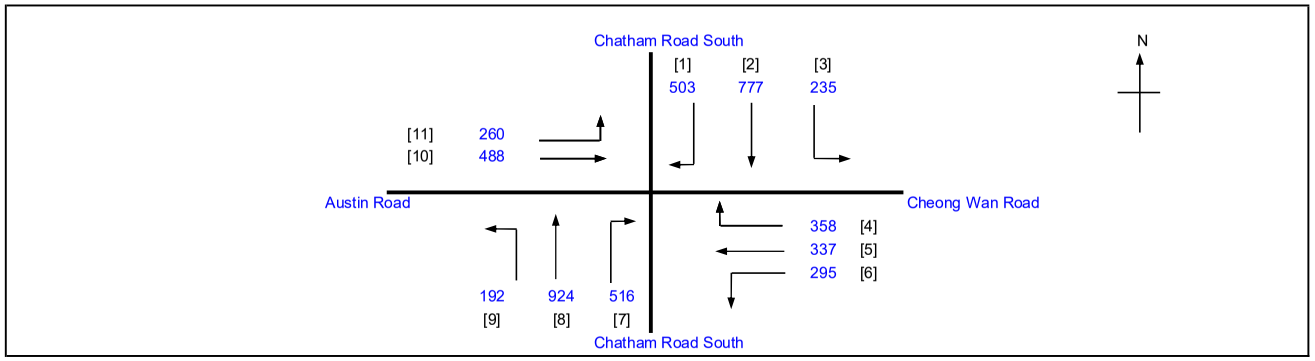
Stage 5 G= Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
10p	1	5	7			
11p	1	11	10			
12p	2,3,4	10	9			
13p	1,3,4	12	10			
14p	2,3,4	5	10			
15p	1	5	10			
16p	2,3	5	6			

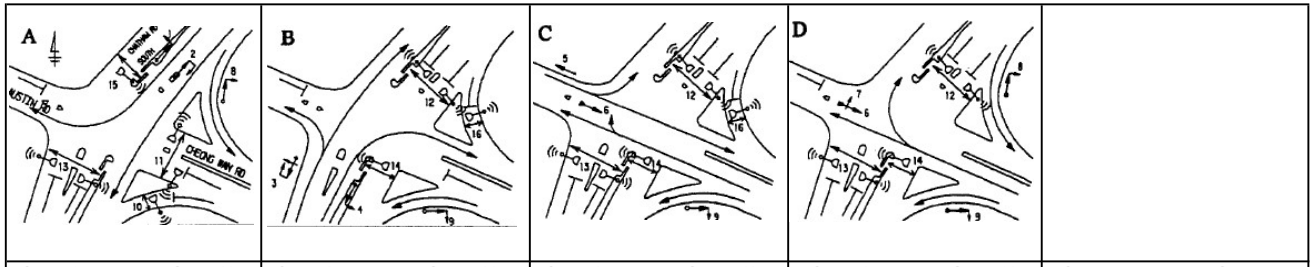
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
1	1	3.00	2	25			4110			440	440	1.00	3877							3877	0.113	0.113		23	29	0.641	39	49
2	1	3.00	2				4110		578		578	0.00	4110							4110	0.141			29	29	0.641	48	45
3	1,4	3.00	1	20		N	1915	412			412	1.00	1781							1781	0.231			47	47	0.641	54	36
8,9	2	3.00	1	10		N	1915	159	0		159	1.00	1665							1665	0.095			19	26	0.641	30	59
8	2	3.00	2				4110		384		384	0.00	4110							4110	0.093			19	26	0.641	33	52
7	2	3.00	2	20			4110			486	486	1.00	3823							3823	0.127	0.127		26	26	0.641	42	47
6	2,3,4	3.00	1	25		N	1915	182			182	1.00	1807							1807	0.101			20	20	0.641	30	56
4,5	3,4	3.00	1	25	O		2055		278	14	292	0.05	1820	36	1029					2848	0.103			21	21	0.641	48	52
4	3,4	3.00	1	25	O		2055			176	176	1.00	1722							1722	0.102			21	21	0.641	30	57
10,11	3	3.00	1	20		N	1915	201	230		431	0.47	1850							1850	0.233	0.233		47	47	0.641	54	35
10	3	3.00	1				2055		478		478	0.00	2055							2055	0.233			47	47	0.641	60	35
	4																						14					

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
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Design PM**	PROJECT NO.: 41000	Prepared By: SKL	Sep-25
		FILENAME : J3_CRS_AR_CWR.xlsx	Checked By: SLN	Sep-25
J3 Chatham Road South / Austin Road / Cheong Wan Road			Reviewed By: SLN	Sep-25



No. of stages per cycle		N =	4
Cycle time		C =	130 sec
Sum(y)		Y =	0.458
Loss time		L =	34 sec
Total Flow		=	4885 pcu
Co	= (1.5*L+5)/(1-Y)	=	103.4 sec
Cm	= L/(1-Y)	=	62.7 sec
Yult		=	0.645
R.C.ult	= (Yult-Y)/Y*100%	=	40.8 %
Cp	= 0.9*L/(0.9-Y)	=	69.3 sec
Ymax	= 1-L/C	=	0.738
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**45 %**



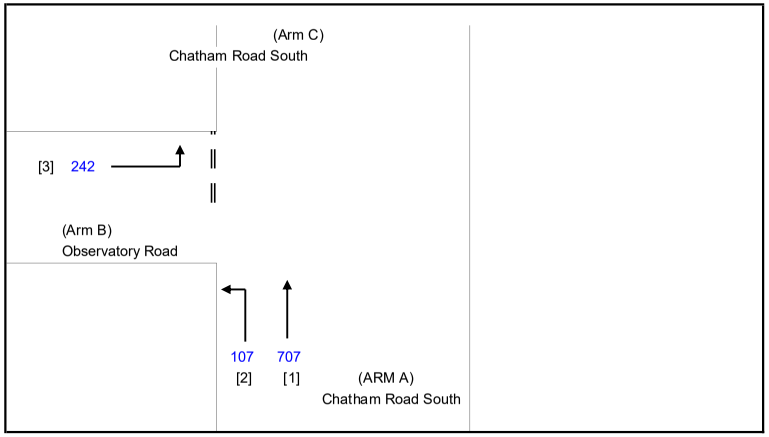
Stage 1	G= 39	Int = 9	Stage 2	G= 39	Int = 6	Stage 3	G= 40	Int = 8	Stage 4	G= 14	Int =	Stage 5	G=	Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
10p	1	5	7			
11p	1	11	10			
12p	2,3,4	10	9			
13p	1,3,4	12	10			
14p	2,3,4	5	10			
15p	1	5	10			
16p	2,3	5	6			

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
1	1	3.00	2	25			4110			503	503	1.00	3877							3877	0.130	0.130		27	40	0.620	42	45
2	1	3.00	2				4110		777		777	0.00	4110							4110	0.189			40	40	0.620	57	37
3	1,4	3.00	1	20		N	1915	235			235	1.00	1781							1781	0.132			28	28	0.620	36	49
8,9	2	3.00	1	10		N	1915	192	144		336	0.57	1764							1764	0.190			40	40	0.620	48	40
8	2	3.00	2				4110		780		780	0.00	4110							4110	0.190			40	40	0.620	57	37
7	2	3.00	2	20			4110			516	516	1.00	3823							3823	0.135	0.135		28	40	0.620	42	45
6	2,3,4	3.00	1	25		N	1915	295			295	1.00	1807							1807	0.163			34	34	0.620	42	44
4,5	3,4	3.00	1	25	O		2055		337	69	406	0.17	1807	36	617					2424	0.168			35	35	0.620	60	41
4	3,4	3.00	1	25	O		2055			289	289	1.00	1722							1722	0.168			35	35	0.620	42	43
10,11	3	3.00	1	20		N	1915	260	91		351	0.74	1814							1814	0.193	0.193		41	41	0.620	48	39
10	3	3.00	1				2055		397		397	0.00	2055							2055	0.193			40	41	0.620	54	39
	4																						14					

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	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Reference AM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J4_CRS_OR.	CHECKED BY:	SLN	Sep-25
J4 Chatham Road South / Observatory Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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	=	10.50	(metres)
W cr	=	0	(metres)
q a-b	=	107	(pcu/hr)
q a-c	=	707	(pcu/hr)

MAJOR ROAD (ARM C)

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

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.70	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	37	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	242	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.01663
F	=	0.58595
Y	=	0.63775
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

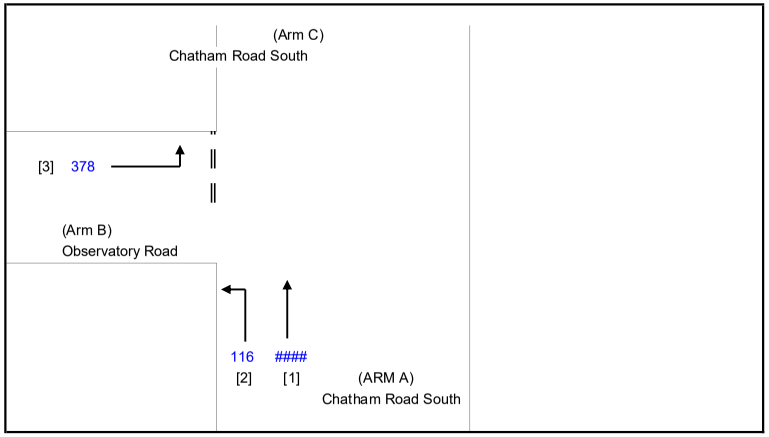
Q b-a	=	242		
Q b-c	=	581	Q b-c (O) =	581
Q c-b	=	326		
Q b-ac	=	581		
TOTAL FLOW	=	1056	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.4165
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.4165

CRITICAL DFC = 0.42

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Reference PM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J4_CRS_OR.	CHECKED BY:	SLN	Sep-25
J4 Chatham Road South / Observatory Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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	=	10.50	(metres)
W cr	=	0	(metres)
q a-b	=	116	(pcu/hr)
q a-c	=	1018	(pcu/hr)

MAJOR ROAD (ARM C)

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

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.70	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	37	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	378	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.01663
F	=	0.58595
Y	=	0.63775
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

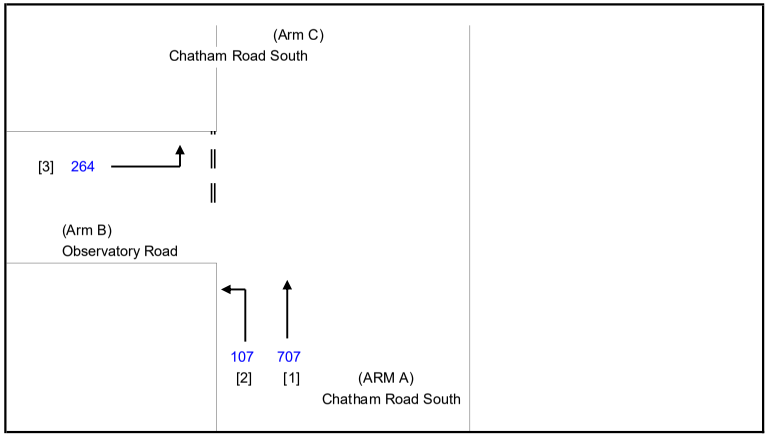
Q b-a	=	203		
Q b-c	=	506	Q b-c (O) =	506
Q c-b	=	282		
Q b-ac	=	506		
TOTAL FLOW	=	1512	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.7470
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.7470

CRITICAL DFC = 0.75

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Design AM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J4_CRS_OR.	CHECKED BY:	SLN	Sep-25
J4 Chatham Road South / Observatory Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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	=	10.50	(metres)
W cr	=	0	(metres)
q a-b	=	107	(pcu/hr)
q a-c	=	707	(pcu/hr)

MAJOR ROAD (ARM C)

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

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.70	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	37	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	264	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.01663
F	=	0.58595
Y	=	0.63775
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

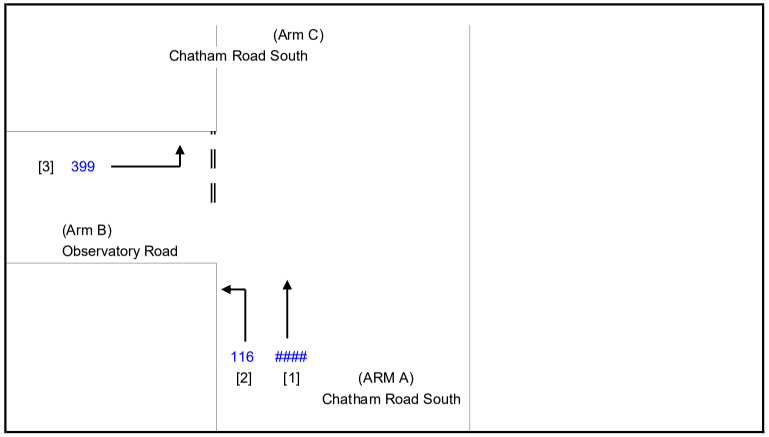
Q b-a	=	242		
Q b-c	=	581	Q b-c (O) =	581
Q c-b	=	326		
Q b-ac	=	581		
TOTAL FLOW	=	1078	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.4544
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.4544

CRITICAL DFC = 0.45

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Design PM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J4_CRS_OR.	CHECKED BY:	SLN	Sep-25
J4 Chatham Road South / Observatory Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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	=	10.50	(metres)
W cr	=	0	(metres)
q a-b	=	116	(pcu/hr)
q a-c	=	1018	(pcu/hr)

MAJOR ROAD (ARM C)

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

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.70	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	37	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	399	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.01663
F	=	0.58595
Y	=	0.63775
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

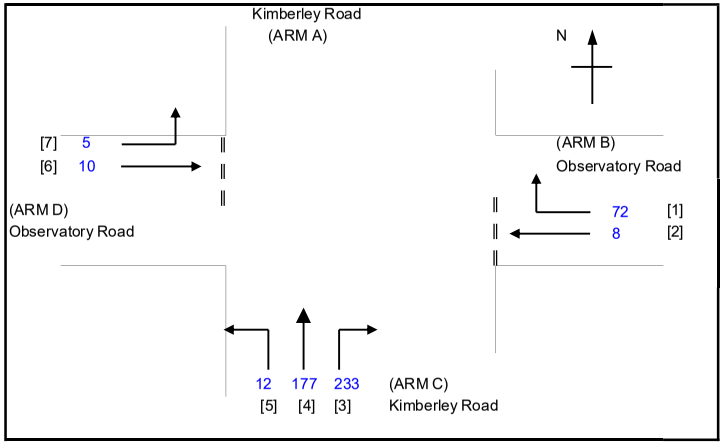
Q b-a	=	203		
Q b-c	=	506	Q b-c (O) =	506
Q c-b	=	282		
Q b-ac	=	506		
TOTAL FLOW	=	1533	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.7885
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.7885

CRITICAL DFC = 0.79

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Reference AM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J5_KR_OR.xlsx	CHECKED BY:	SLN	Sep-25
J5 Kimberley Road / Observatory Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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
X a	=	STREAM-SPECIFIC (RIGHT TURN FROM A)
X b	=	STREAM-SPECIFIC (RIGHT TURN FROM B)
Z b	=	STREAM-SPECIFIC (LEFT TURN FROM B)
M b	=	STREAM-SPECIFIC (STRAIGHT AHEAD FROM B - LEFT LANE)
Y	=	(1-0.0345W)
r b-a	=	RATIO OF FLOW TO CAPACITY IN STREAM b-a

GEOMETRIC DETAILS:

GENERAL

W =	7.4	(metres)			
W cr =	0	(metres)	Y =	0.745	

MAJOR ROAD (ARM A)			MAJOR ROAD (ARM C)		
W a-d =	0.00	(metres)	W c-b =	3.10	(metres)
Vr a-d =	0	(metres)	Vr c-b =	22	(metres)
q a-b =	0	(pcu/hr)	q c-a =	177	(pcu/hr)
q a-c =	0	(pcu/hr)	q c-b =	233	(pcu/hr)
q a-d =	0	(pcu/hr)	q c-d =	12	(pcu/hr)

MINOR ROAD (ARM B)			MINOR ROAD (ARM D)		
W b-a =	5.00	(metres)	W d-c =	0.00	(metres)
W b-c =	0.00	(metres)	W d-a =	3.00	(metres)
Vl b-a =	23	(metres)	Vl d-c =	0	(metres)
Vr b-a =	100	(metres)	Vr d-c =	0	(metres)
Vr b-c =	0	(metres)	Vr d-a =	23	(metres)
q b-a =	72	(pcu/hr)	q d-c =	0	(pcu/hr)
q b-c =	0	(pcu/hr)	q d-a =	5	(pcu/hr)
q b-d =	8	(pcu/hr)	q d-b =	10	(pcu/hr)

GEOMETRIC FACTORS :

X b =	1.022		X a =	0.586	
X c =	0.865		X d =	0.533	
Z b =	0.586		Z d =	0.857	
M b =	0.541		M d =	0.780	

PROPORTION OF MINOR STRAIGHT AHEAD TRAFFIC :

r b-a =	0.2687		r d-c =	0.000	
ql b-d =	5.0746	(pcu/hr)	ql d-b =	5	(pcu/hr)
qr b-d =	2.9254	(pcu/hr)	qr d-b =	5	(pcu/hr)

CAPACITY OF MOVEMENT :

Q b-a =	514	(pcu/hr)	Q d-c =	268	(pcu/hr)
Q b-c =	407	(pcu/hr)	Q d-a =	596	(pcu/hr)
Q c-b =	644	(pcu/hr)	Q a-d =	354	(pcu/hr)
Ql b-d =	273	(pcu/hr)	Ql d-b =	401	(pcu/hr)
Qr b-d =	516	(pcu/hr)	Qr d-b =	274	(pcu/hr)
Q b-acd =	514	(pcu/hr)	Q d-abc =	328	(pcu/hr)

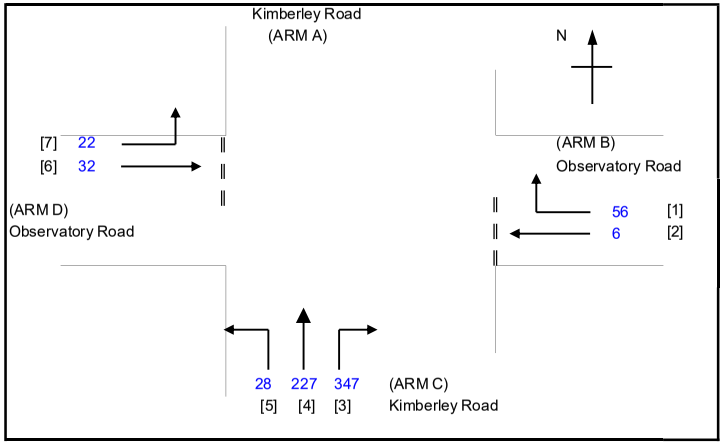
TOTAL FLOW = 517 (PCU/HR)

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.1401
DFC b-c	=	0.0000
DFC c-b	=	0.3618
DFCl b-d	=	0.0186
DFCr b-d	=	0.0057
DFC d-c	=	0.0000
DFC d-a	=	0.0084
DFC a-d	=	0.0000
DFCl d-b	=	0.0125
DFCr d-b	=	0.0182
DFC b-acd (shared lane)	=	0.1556
DFC d-abc (shared lane)	=	0.0457

CRITICAL DFC = 0.36

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Reference PM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J5_KR_OR.xlsx	CHECKED BY:	SLN	Sep-25
J5 Kimberley Road / Observatory Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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
X a	=	STREAM-SPECIFIC (RIGHT TURN FROM A)
X b	=	STREAM-SPECIFIC (RIGHT TURN FROM B)
Z b	=	STREAM-SPECIFIC (LEFT TURN FROM B)
M b	=	STREAM-SPECIFIC (STRAIGHT AHEAD FROM B - LEFT LANE)
Y	=	(1-0.0345W)
r b-a	=	RATIO OF FLOW TO CAPACITY IN STREAM b-a

GEOMETRIC DETAILS:

GENERAL

W	=	7.4	(metres)		
W cr	=	0	(metres)	Y =	0.745

MAJOR ROAD (ARM A)				MAJOR ROAD (ARM C)			
W a-d	=	0.00	(metres)	W c-b	=	3.10	(metres)
Vr a-d	=	0	(metres)	Vr c-b	=	22	(metres)
q a-b	=	0	(pcu/hr)	q c-a	=	227	(pcu/hr)
q a-c	=	0	(pcu/hr)	q c-b	=	347	(pcu/hr)
q a-d	=	0	(pcu/hr)	q c-d	=	28	(pcu/hr)

MINOR ROAD (ARM B)				MINOR ROAD (ARM D)			
W b-a	=	5.00	(metres)	W d-c	=	0.00	(metres)
W b-c	=	0.00	(metres)	W d-a	=	3.00	(metres)
Vl b-a	=	23	(metres)	Vl d-c	=	0	(metres)
Vr b-a	=	100	(metres)	Vr d-c	=	0	(metres)
Vr b-c	=	0	(metres)	Vr d-a	=	23	(metres)
q b-a	=	56	(pcu/hr)	q d-c	=	0	(pcu/hr)
q b-c	=	0	(pcu/hr)	q d-a	=	22	(pcu/hr)
q b-d	=	6	(pcu/hr)	q d-b	=	32	(pcu/hr)

GEOMETRIC FACTORS :

X b	=	1.022	X a	=	0.586
X c	=	0.865	X d	=	0.533
Z b	=	0.586	Z d	=	0.857
M b	=	0.541	M d	=	0.780

PROPORTION OF MINOR STRAIGHT AHEAD TRAFFIC :

r b-a	=	0.2286		r d-c	=	0.000	
ql b-d	=	3.6857	(pcu/hr)	ql d-b	=	16	(pcu/hr)
qr b-d	=	2.3143	(pcu/hr)	qr d-b	=	16	(pcu/hr)

CAPACITY OF MOVEMENT :

Q b-a	=	449	(pcu/hr)	Q d-c	=	245	(pcu/hr)
Q b-c	=	412	(pcu/hr)	Q d-a	=	583	(pcu/hr)
Q c-b	=	644	(pcu/hr)	Q a-d	=	317	(pcu/hr)
Ql b-d	=	243	(pcu/hr)	Ql d-b	=	365	(pcu/hr)
Qr b-d	=	459	(pcu/hr)	Qr d-b	=	250	(pcu/hr)
Q b-acd	=	449	(pcu/hr)	Q d-abc	=	321	(pcu/hr)

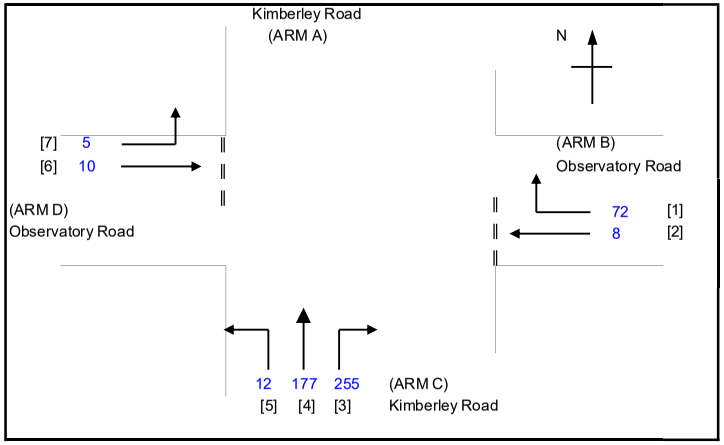
TOTAL FLOW = 718 (PCU/HR)

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.1247
DFC b-c	=	0.0000
DFC c-b	=	0.5388
DFCl b-d	=	0.0152
DFCr b-d	=	0.0050
DFC d-c	=	0.0000
DFC d-a	=	0.0377
DFC a-d	=	0.0000
DFCl d-b	=	0.0438
DFCr d-b	=	0.0640
DFC b-acd (shared lane)	=	0.1381
DFC d-abc (shared lane)	=	0.1683

CRITICAL DFC = 0.54

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Design AM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J5_KR_OR.xlsx	CHECKED BY:	SLN	Sep-25
J5 Kimberley Road / Observatory Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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
X a	=	STREAM-SPECIFIC (RIGHT TURN FROM A)
X b	=	STREAM-SPECIFIC (RIGHT TURN FROM B)
Z b	=	STREAM-SPECIFIC (LEFT TURN FROM B)
M b	=	STREAM-SPECIFIC (STRAIGHT AHEAD FROM B - LEFT LANE)
Y	=	(1-0.0345W)
r b-a	=	RATIO OF FLOW TO CAPACITY IN STREAM b-a

GEOMETRIC DETAILS:

GENERAL

W	=	7.4	(metres)		
W cr	=	0	(metres)	Y =	0.745

MAJOR ROAD (ARM A)				MAJOR ROAD (ARM C)			
W a-d	=	0.00	(metres)	W c-b	=	3.10	(metres)
Vr a-d	=	0	(metres)	Vr c-b	=	22	(metres)
q a-b	=	0	(pcu/hr)	q c-a	=	177	(pcu/hr)
q a-c	=	0	(pcu/hr)	q c-b	=	255	(pcu/hr)
q a-d	=	0	(pcu/hr)	q c-d	=	12	(pcu/hr)

MINOR ROAD (ARM B)				MINOR ROAD (ARM D)			
W b-a	=	5.00	(metres)	W d-c	=	0.00	(metres)
W b-c	=	0.00	(metres)	W d-a	=	3.00	(metres)
Vl b-a	=	23	(metres)	Vl d-c	=	0	(metres)
Vr b-a	=	100	(metres)	Vr d-c	=	0	(metres)
Vr b-c	=	0	(metres)	Vr d-a	=	23	(metres)
q b-a	=	72	(pcu/hr)	q d-c	=	0	(pcu/hr)
q b-c	=	0	(pcu/hr)	q d-a	=	5	(pcu/hr)
q b-d	=	8	(pcu/hr)	q d-b	=	10	(pcu/hr)

GEOMETRIC FACTORS :

X b	=	1.022	X a	=	0.586
X c	=	0.865	X d	=	0.533
Z b	=	0.586	Z d	=	0.857
M b	=	0.541	M d	=	0.780

PROPORTION OF MINOR STRAIGHT AHEAD TRAFFIC :

r b-a	=	0.2717		r d-c	=	0.000	
ql b-d	=	5.0868	(pcu/hr)	ql d-b	=	5	(pcu/hr)
qr b-d	=	2.9132	(pcu/hr)	qr d-b	=	5	(pcu/hr)

CAPACITY OF MOVEMENT :

Q b-a	=	505	(pcu/hr)	Q d-c	=	265	(pcu/hr)
Q b-c	=	407	(pcu/hr)	Q d-a	=	596	(pcu/hr)
Q c-b	=	644	(pcu/hr)	Q a-d	=	349	(pcu/hr)
Ql b-d	=	268	(pcu/hr)	Ql d-b	=	397	(pcu/hr)
Qr b-d	=	507	(pcu/hr)	Qr d-b	=	271	(pcu/hr)
Q b-acd	=	505	(pcu/hr)	Q d-abc	=	325	(pcu/hr)

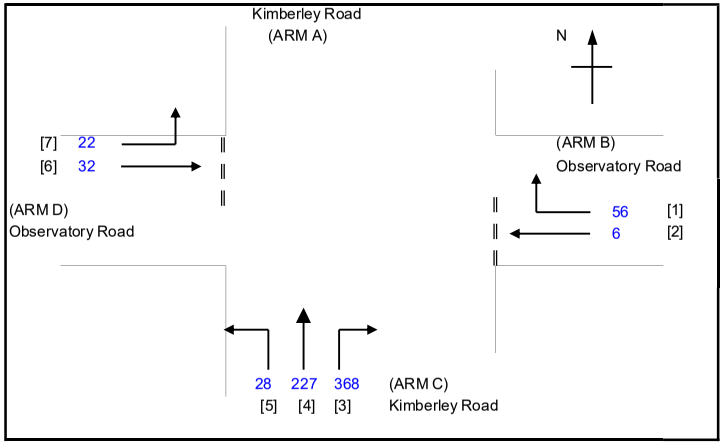
TOTAL FLOW = 539 (PCU/HR)

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.1426
DFC b-c	=	0.0000
DFC c-b	=	0.3960
DFCl b-d	=	0.0190
DFCr b-d	=	0.0057
DFC d-c	=	0.0000
DFC d-a	=	0.0084
DFC a-d	=	0.0000
DFCl d-b	=	0.0126
DFCr d-b	=	0.0185
DFC b-acd (shared lane)	=	0.1584
DFC d-abc (shared lane)	=	0.0461

CRITICAL DFC = 0.40

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 16 Planning Application for Proposed Hotel at 16 Kimberley Road, Tsim Sha Tsui	**2033 Design PM**	PROJECT NO.: 41000	PREPARED BY:	SKL	Sep-25
		FILENAME : J5_KR_OR.xlsx	CHECKED BY:	SLN	Sep-25
J5 Kimberley Road / Observatory Road		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



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
Vl 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
X a	=	STREAM-SPECIFIC (RIGHT TURN FROM A)
X b	=	STREAM-SPECIFIC (RIGHT TURN FROM B)
Z b	=	STREAM-SPECIFIC (LEFT TURN FROM B)
M b	=	STREAM-SPECIFIC (STRAIGHT AHEAD FROM B - LEFT LANE)
Y	=	(1-0.0345W)
r b-a	=	RATIO OF FLOW TO CAPACITY IN STREAM b-a

GEOMETRIC DETAILS:

GENERAL

W	=	7.4	(metres)		
W cr	=	0	(metres)	Y =	0.745

MAJOR ROAD (ARM A)				MAJOR ROAD (ARM C)			
W a-d	=	0.00	(metres)	W c-b	=	3.10	(metres)
Vr a-d	=	0	(metres)	Vr c-b	=	22	(metres)
q a-b	=	0	(pcu/hr)	q c-a	=	227	(pcu/hr)
q a-c	=	0	(pcu/hr)	q c-b	=	368	(pcu/hr)
q a-d	=	0	(pcu/hr)	q c-d	=	28	(pcu/hr)

MINOR ROAD (ARM B)				MINOR ROAD (ARM D)			
W b-a	=	5.00	(metres)	W d-c	=	0.00	(metres)
W b-c	=	0.00	(metres)	W d-a	=	3.00	(metres)
Vl b-a	=	23	(metres)	Vl d-c	=	0	(metres)
Vr b-a	=	100	(metres)	Vr d-c	=	0	(metres)
Vr b-c	=	0	(metres)	Vr d-a	=	23	(metres)
q b-a	=	56	(pcu/hr)	q d-c	=	0	(pcu/hr)
q b-c	=	0	(pcu/hr)	q d-a	=	22	(pcu/hr)
q b-d	=	6	(pcu/hr)	q d-b	=	32	(pcu/hr)

GEOMETRIC FACTORS :

X b	=	1.022	X a	=	0.586
X c	=	0.865	X d	=	0.533
Z b	=	0.586	Z d	=	0.857
M b	=	0.541	M d	=	0.780

PROPORTION OF MINOR STRAIGHT AHEAD TRAFFIC :

r b-a	=	0.2314		r d-c	=	0.000	
ql b-d	=	3.6942	(pcu/hr)	ql d-b	=	16	(pcu/hr)
qr b-d	=	2.3058	(pcu/hr)	qr d-b	=	16	(pcu/hr)

CAPACITY OF MOVEMENT :

Q b-a	=	441	(pcu/hr)	Q d-c	=	242	(pcu/hr)
Q b-c	=	411	(pcu/hr)	Q d-a	=	583	(pcu/hr)
Q c-b	=	644	(pcu/hr)	Q a-d	=	313	(pcu/hr)
Ql b-d	=	239	(pcu/hr)	Ql d-b	=	361	(pcu/hr)
Qr b-d	=	451	(pcu/hr)	Qr d-b	=	247	(pcu/hr)
Q b-acd	=	441	(pcu/hr)	Q d-abc	=	318	(pcu/hr)

TOTAL FLOW = 739 (PCU/HR)

COMPARISION OF DESIGN FLOW TO CAPACITY:

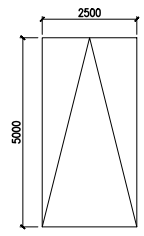
DFC b-a	=	0.1270
DFC b-c	=	0.0000
DFC c-b	=	0.5714
DFCl b-d	=	0.0155
DFCr b-d	=	0.0051
DFC d-c	=	0.0000
DFC d-a	=	0.0377
DFC a-d	=	0.0000
DFCl d-b	=	0.0443
DFCr d-b	=	0.0648
DFC b-acd (shared lane)	=	0.1406
DFC d-abc (shared lane)	=	0.1700

CRITICAL DFC = 0.57

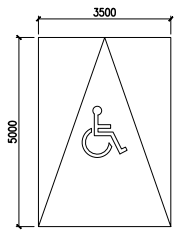
Appendix C

Car Park Layout Plan

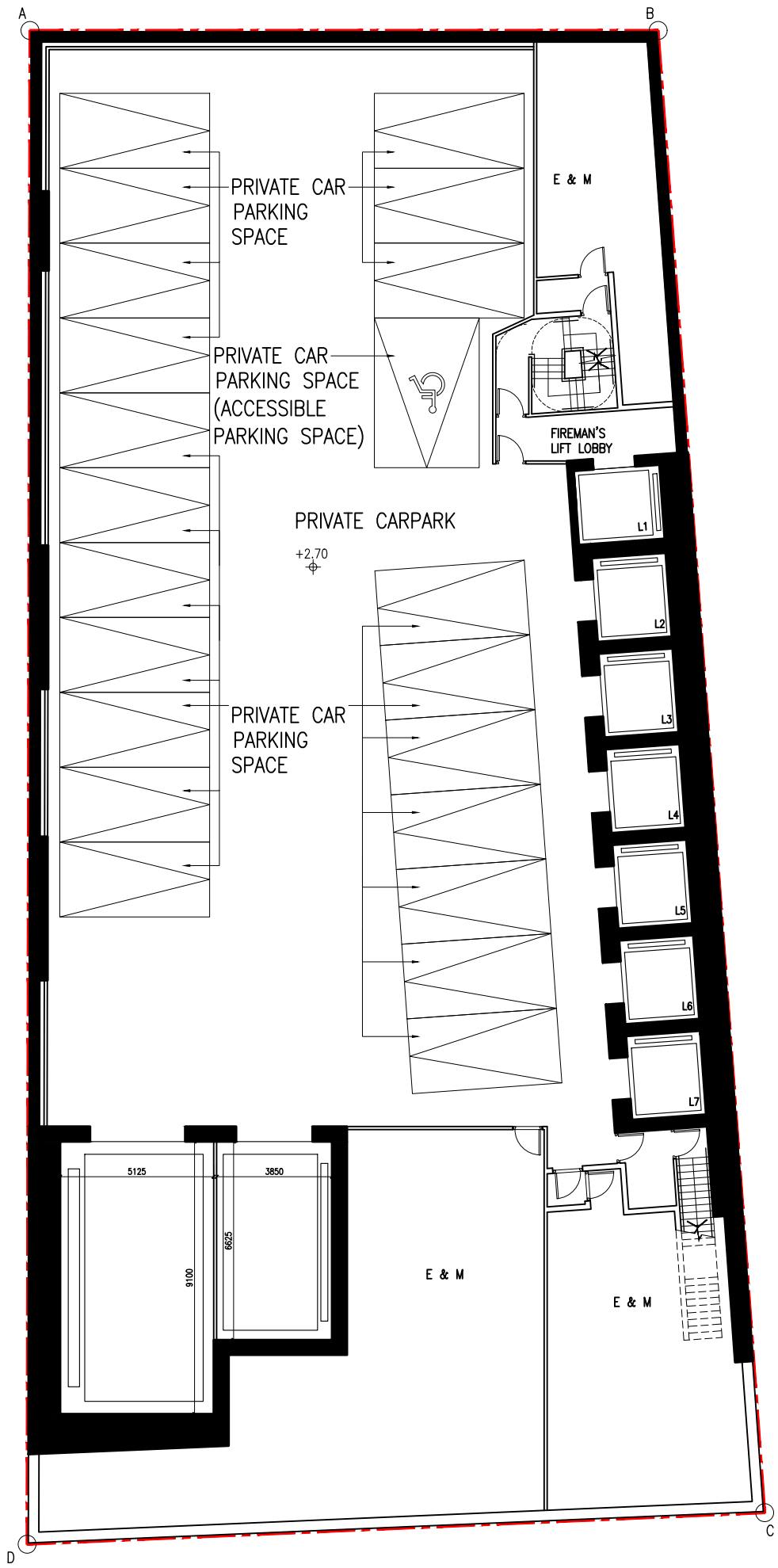
LEGEND:



PRIVATE CAR PARKING SPACE



PRIVATE CAR PARKING SPACE (ACCESSIBLE PARKING SPACE)



SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 16 KIMBERLEY ROAD, TSIM SHA TSUI, KOWLOON

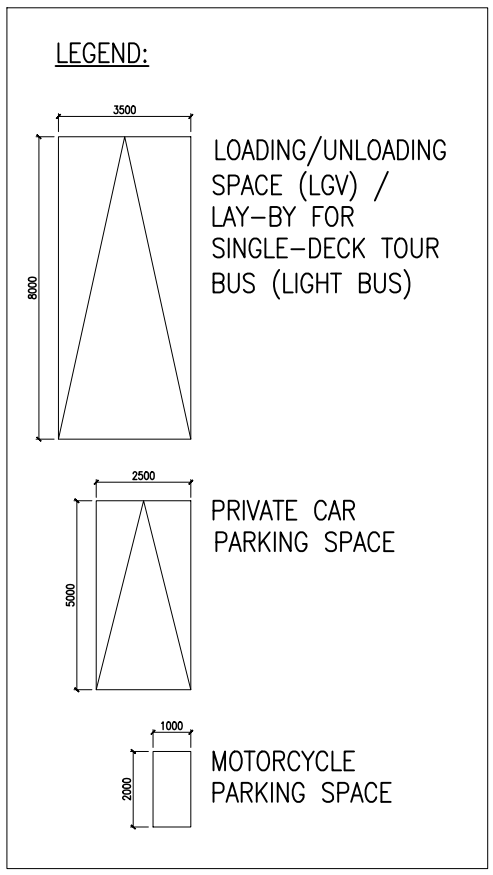
0 1 2 5 10M

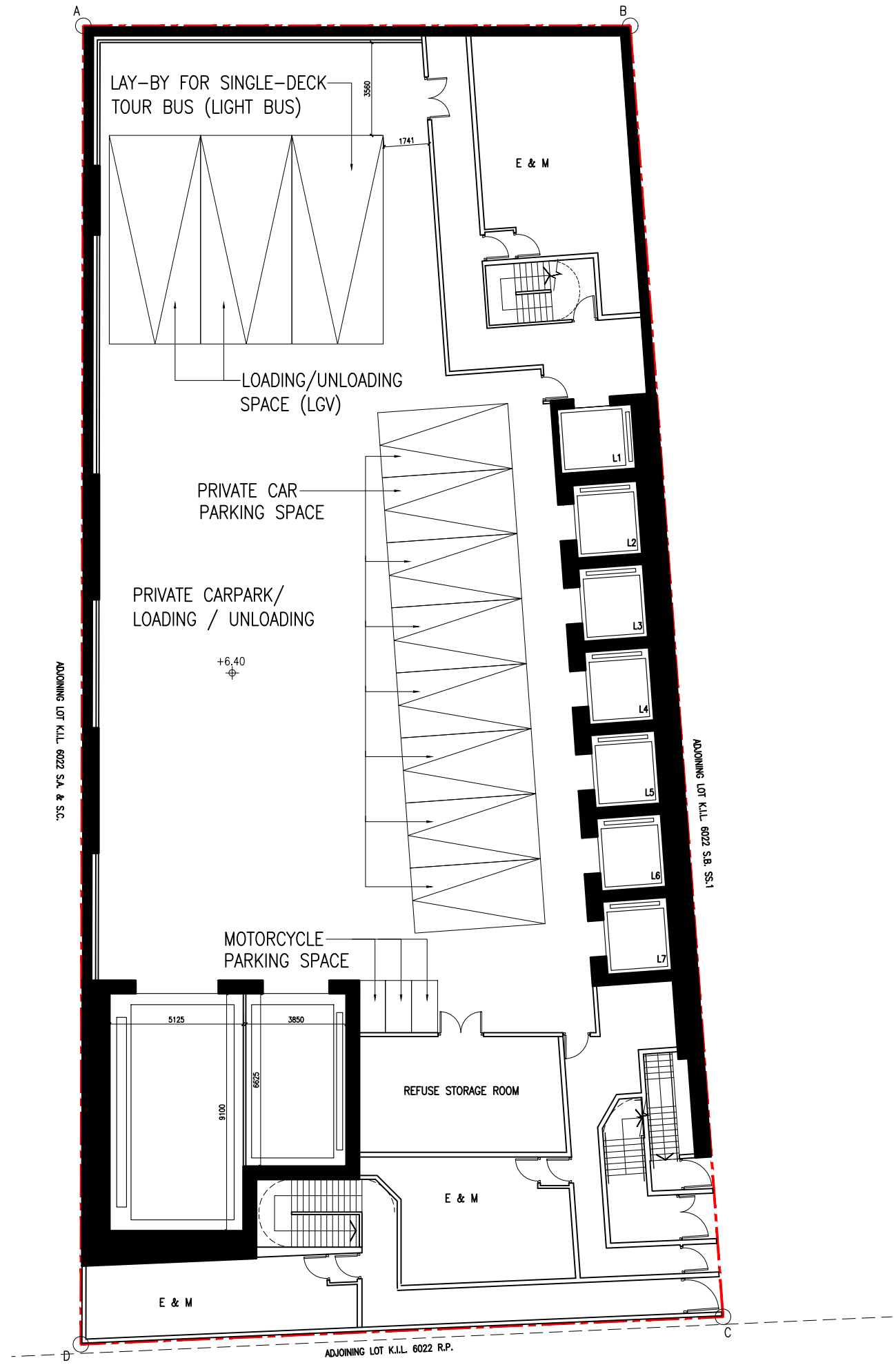
N

P&T Architects Limited
巴馬丹拿建築師有限公司
www.p-t-group.com T: 852-2575 6575

DRAWING / 圖名
B2 FLOOR PLAN

DRAWING NUMBER / 圖號
SK-02





SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 16 KIMBERLEY ROAD, TSIM SHA TSUI, KOWLOON

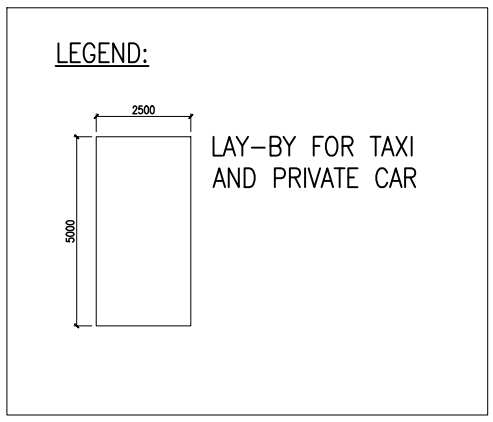
0 1 2 5 10M

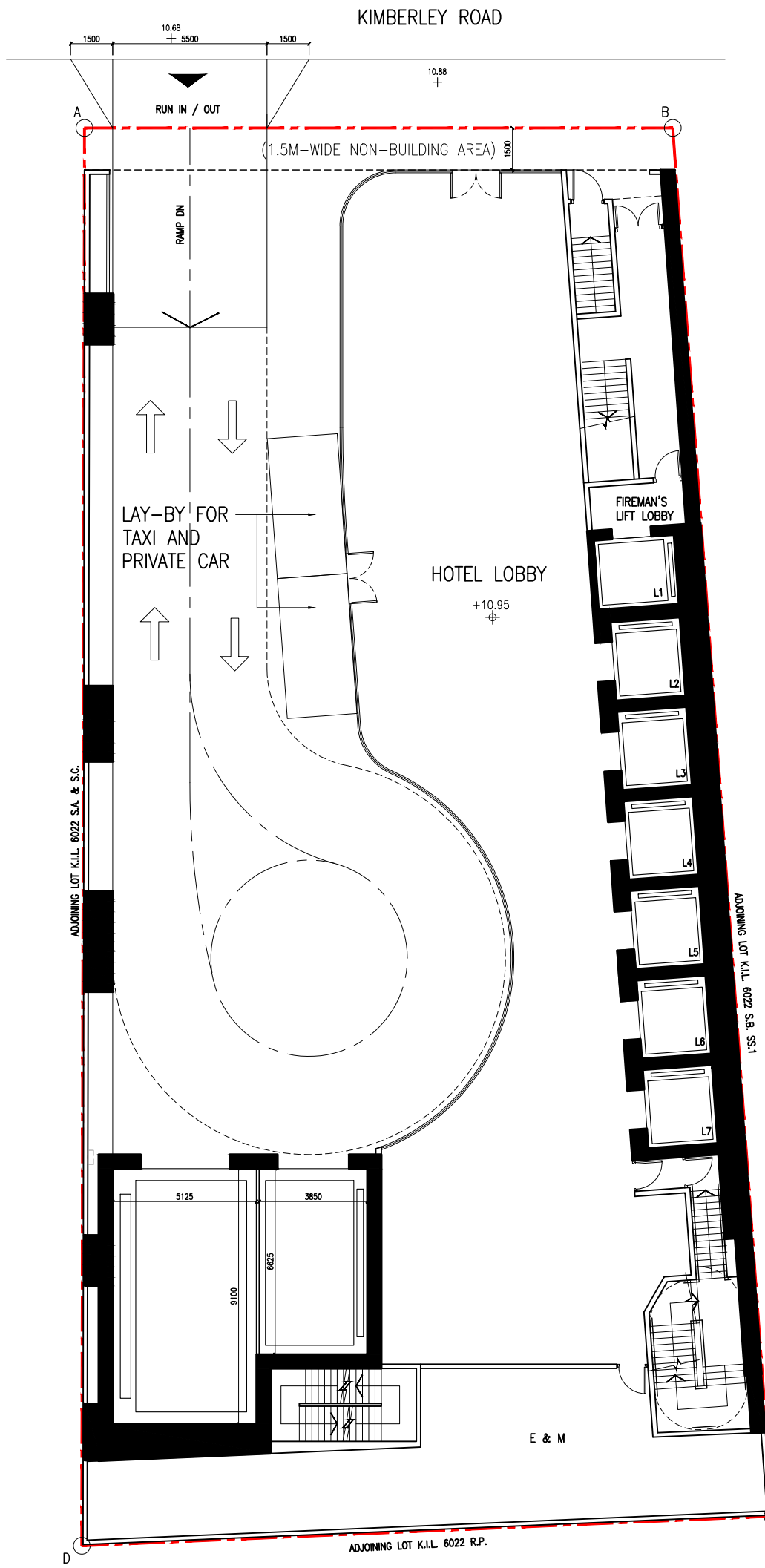
N

P&T Architects Limited
巴馬丹拿建築師有限公司
www.p-t-group.com T: 852-2575 6575

DRAWING / 圖名
B1 FLOOR PLAN

DRAWING NUMBER / 圖號
SK-03





SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 16 KIMBERLEY ROAD, TSIM SHA TSUI, KOWLOON

0 1 2 5 10M

N

P&T Architects Limited
巴馬丹拿建築師有限公司
www.p-t-group.com T: 852-2575 6575

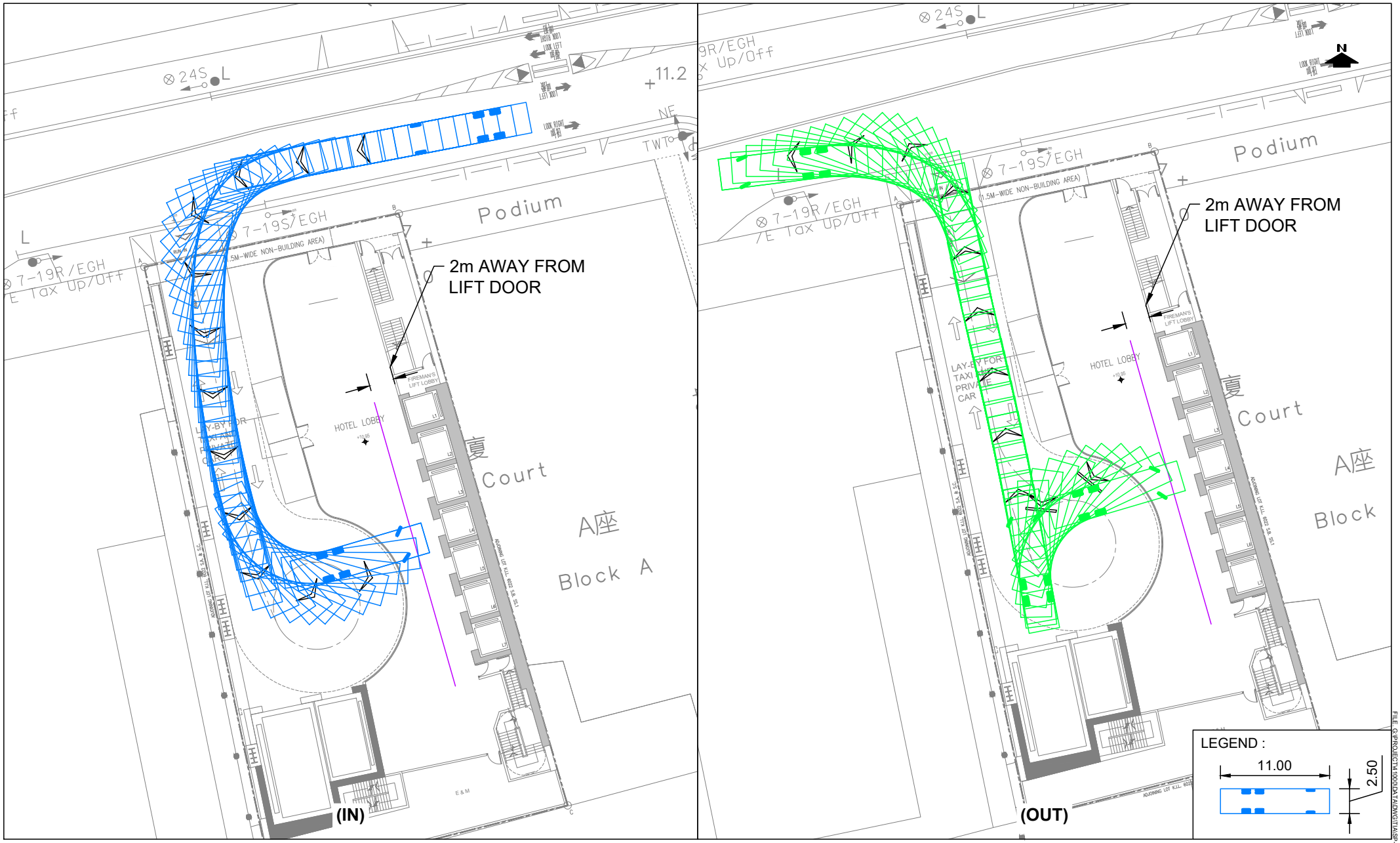
DRAWING / 圖名
GROUND FLOOR PLAN

DRAWING NUMBER / 圖號
SK-04

Appendix D

Swept Path Analysis

– To Demonstrate HGV Cannot Make a 3-point Turn Within the Site



SWEPT PATH ANALYSIS - HGV (G/F)

(SCALE 1:400 @ A4)

FILE. G:\PROJECT\41000\DATA\DWG\TIA\SP-A.DWG PLOT SCALE : 1 = 1

FILE. G:\PROJECT\41000\DATA\DWG\TIA\SP-A.DWG PLOT SCALE : 1 = 1

Appendix E

Car Lift Assessment

APPENDIX E - CAR LIFT ANALYSIS

Proposed New Non-domestic Building at 16 Kimberley Road, Tsim Sha Tsui

1. Carpark Spaces Arrangement

No. of Carlift					[n]	=	2
No. of Parking Space(s) & Waiting Spaces(s)							
G/F	(+10.845m)	=	0	waiting spaces(s)			
B1/F	(+6.295m)	=	0	waiting spaces(s)	+	14	parking space(s)
B2/F	(+2.595m)	=	0	waiting spaces(s)	+	22	parking space(s)
				Total	**=**	**36**	**parking spaces(s)**

2. Arrival Rate Estimate

Peak Hour Arrival Rate		=	**25**	**veh/hr**
Peak Hour Arrival Rate - Car Park Oriented		=	**10**	**veh/hr**
(40% of the Peak Hour Arrival Rate)				
Peak 15-minute Arrival Rate - Car Park Oriented	[λ]	=	**5**	**veh/15-min**
(50% of the Peak Hour Arrival Rate - Car Park Oriented)				

3. Estimate of Round Trip Time of Car Lift

Level Difference between G/F and parking floor (Weighted Average)		=	6.8	m
Travelling Speed of the Car Lift		=	0.5	m/s
Weighted Average Travelling Time from G/F		=	13.6	s
Door Open		=	8.0	s
Vehicle Out		=	8.0	s
Vehicle Enters		=	8.0	s
Safety Buffer		=	5.0	s
Door Close		=	8.0	s
Weighted Average Travelling Time from G/F		=	13.6	s
Door Open		=	8.0	s
Vehicle Out		=	8.0	s
Vehicle Enters		=	8.0	s
Safety Buffer		=	5.0	s
Door Close		=	8.0	s
Weight Average Travelling Time to G/F		=	13.6	s
Round Trip Time		=	101.2	s
Total Round Trip Time	[1/μ]	=	**102.0**	**s**

4. Estimated Average Servicing Rate

Average Servicing Rate per Carlift	[μ]	=	900s / 102	
		=	8.82	veh/15-min
With 2 car lifts available, (M/M/N) model is used.				
Peak 15-minute Arrival Rate - Car Park Oriented	[λ]	=	5.00	veh/15-min
Traffic Intensity	[ρ = λ/μ]	=	5.00 / 8.82	
		=	0.5667	

5. Estimated Average Servicing Rate

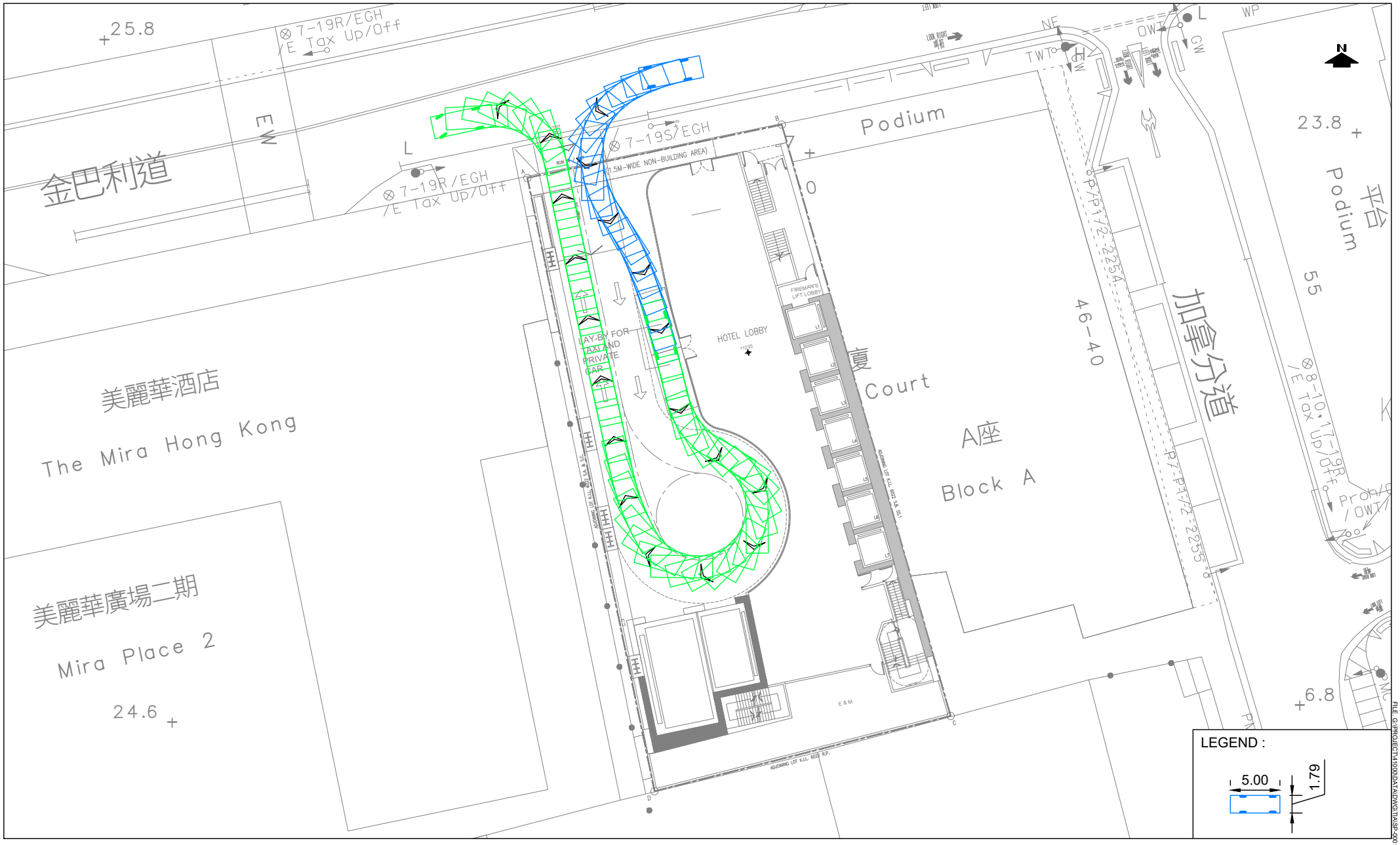
		P(x=n)
Probability of no vehicle in the system,	=	0.5584
Probability of one car lift in use,	=	0.3165
Probability of two car lifts in use,	=	0.0897
Probability of two car lifts in use & waiting space is in use,	=	0.0254
Sum of P(x<=n) = 0.5584 + 0.3165 + 0.0897 + 0.0254 =	=	0.9900

The chances that car park traffic will queue up on public road is less than = 1 - 0.9900 = **1.0%**

Appendix F

Swept Path Analysis

– To Demonstrate the Feasibility of Vehicles Manoeuvring Within the Site

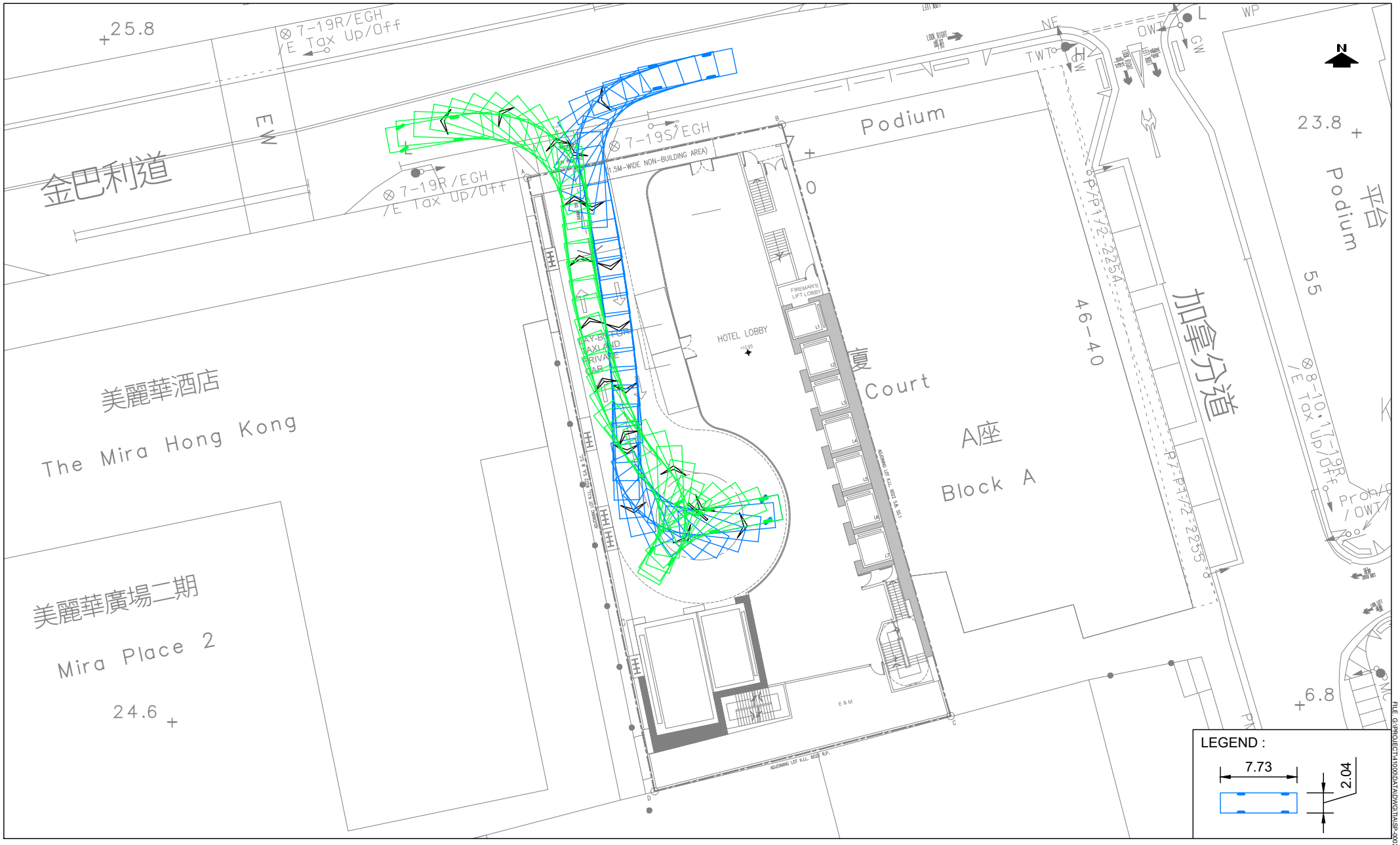


SWEPT PATH ANALYSIS - PC (G/F) (1 OF 2)

(SCALE 1:400 @ A4)

FILE. G:\PROJECT\41000\DATA\DWG\TIA\SP-0001.DWG PLOT SCALE : 1 = 1

FILE. G:\PROJECT\41000\DATA\DWG\TIA\SP-0001.DWG PLOT SCALE : 1 = 1

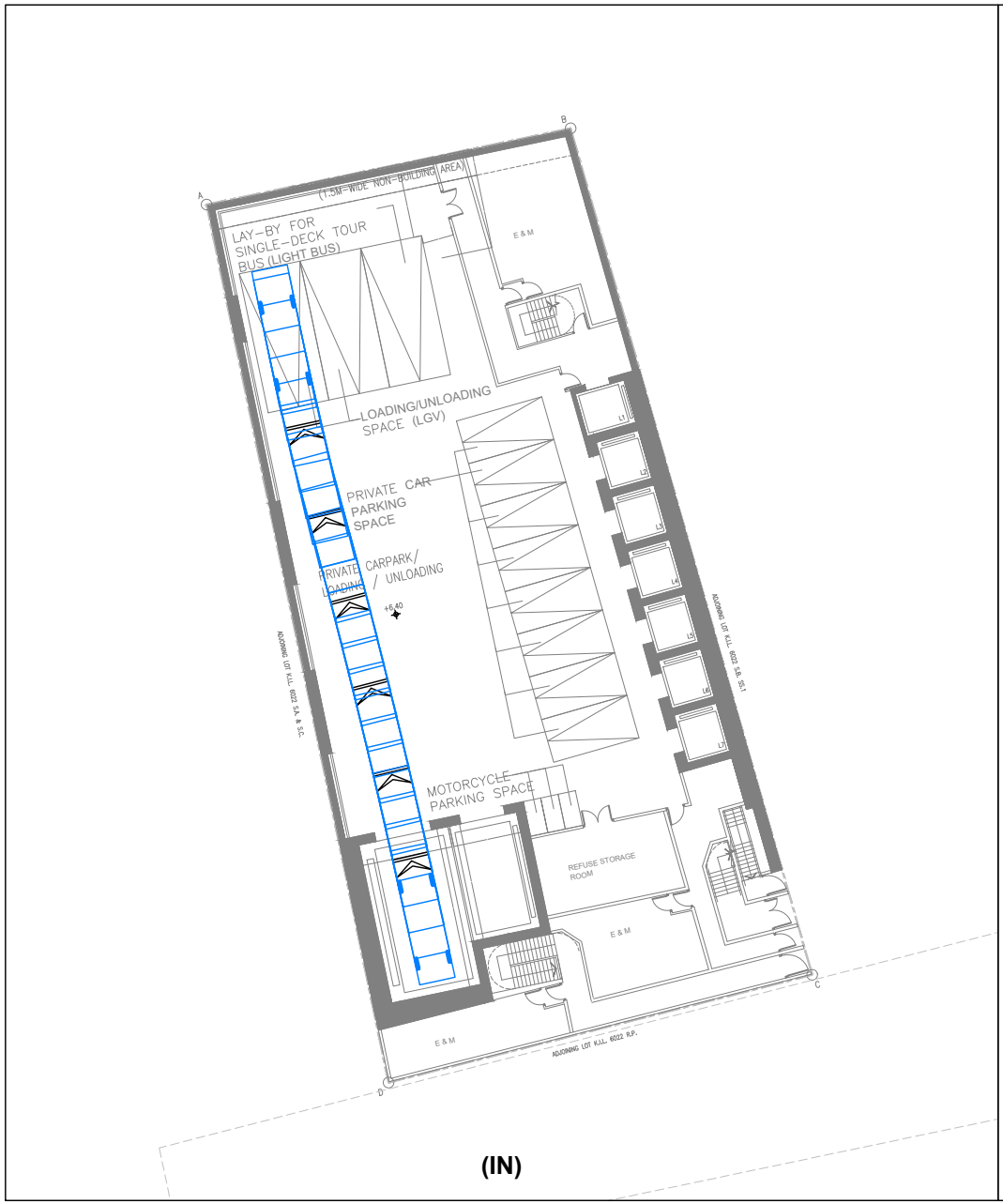


SWEPT PATH ANALYSIS - 28 SEATERS (G/F) (2 OF 2)

(SCALE 1:400 @ A4)

FILE. G:\PROJECT\41000\DATA\DWG\TIA\SP-0002.DWG PLOT SCALE : 1 = 1

FILE. G:\PROJECT\41000\DATA\DWG\TIA\SP-0002.DWG PLOT SCALE : 1 = 1



(IN)

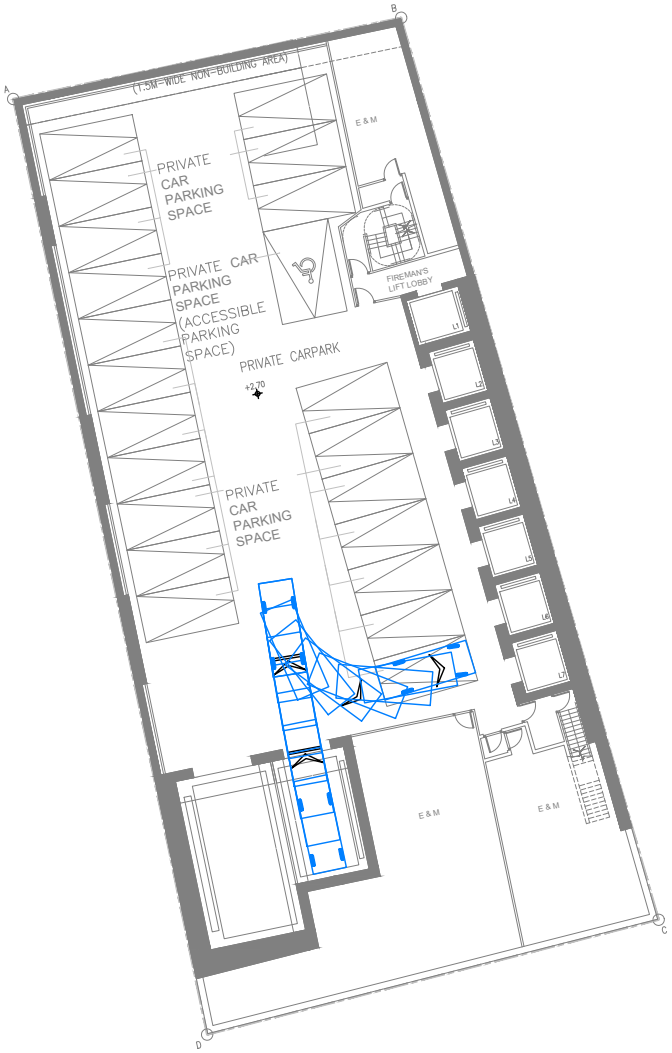
(OUT)

SWEPT PATH ANALYSIS - 28 SEATERS (B1/F)

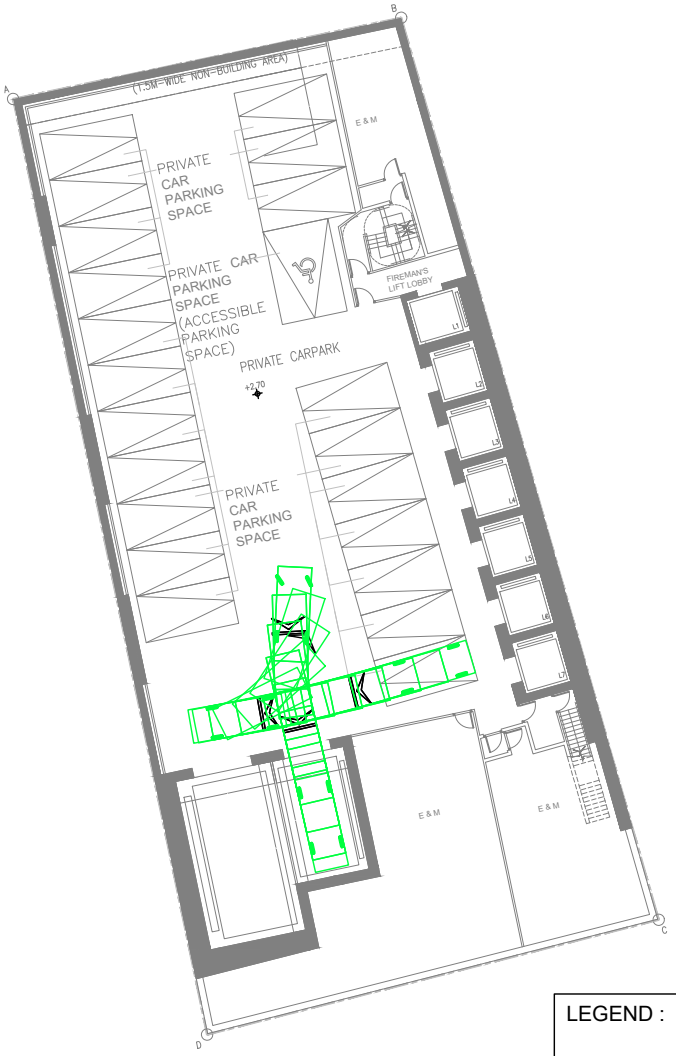
(SCALE 1:400 @ A4)

FILE. G:\PROJECT\41000\DATA\DWG\TIA\SP-0003.DWG PLOT SCALE : 1 = 1

FILE. G:\PROJECT\41000\DATA\DWG\TIA\SP-0003.DWG PLOT SCALE : 1 = 1

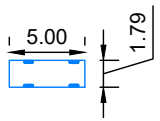


(IN)



(OUT)

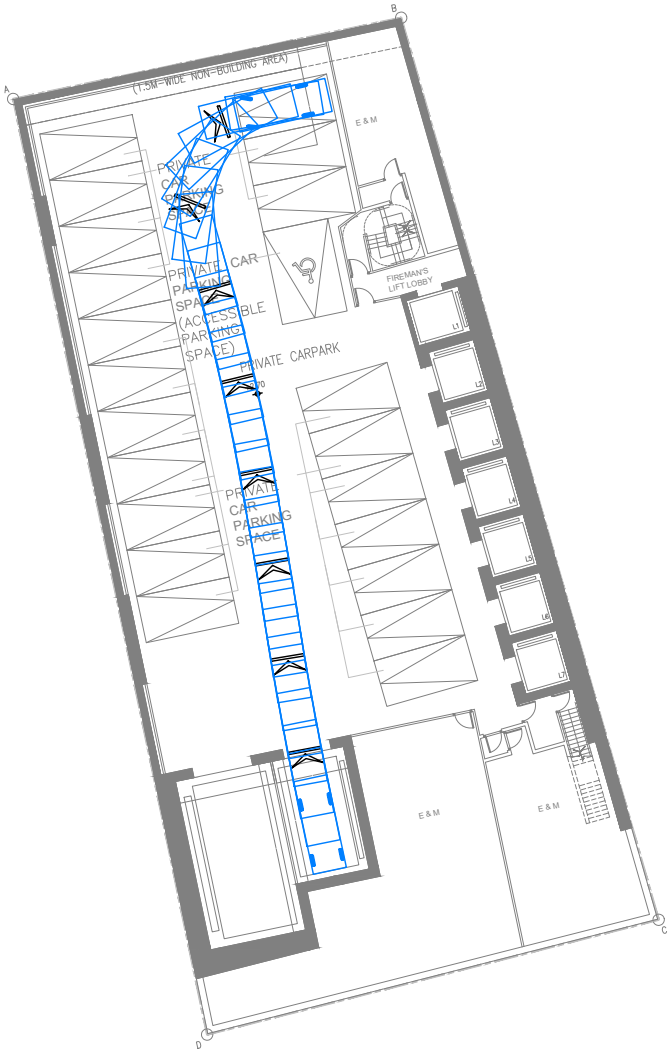
LEGEND :



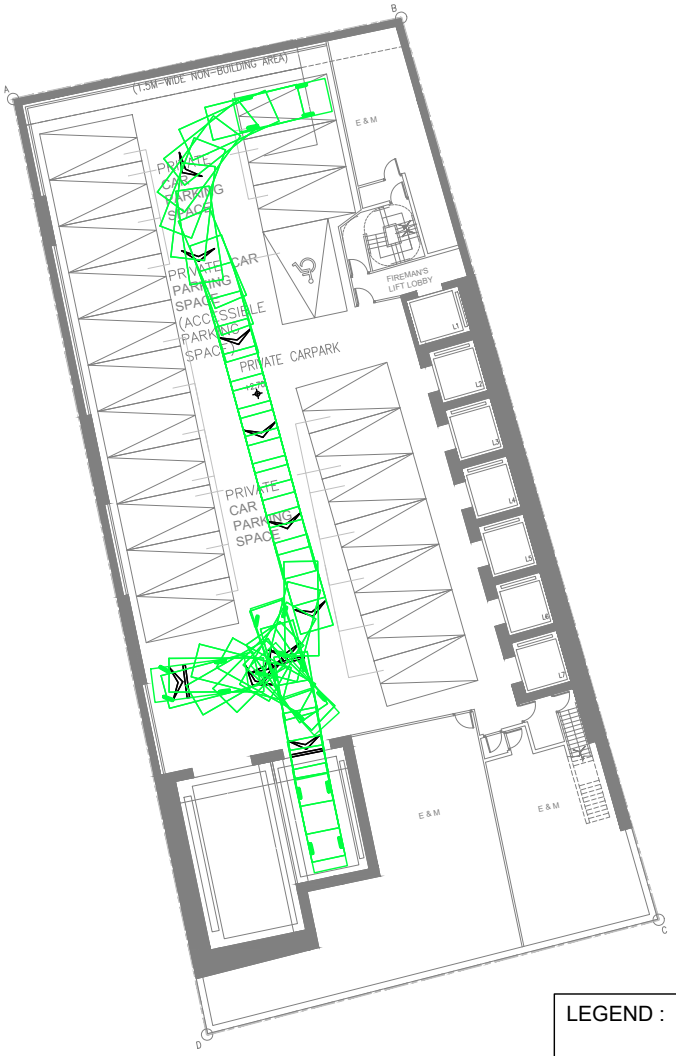
SWEPT PATH ANALYSIS - PC (B2/F) (1 OF 3)

(SCALE 1:400 @ A4)

FILE. G:\PROJECT\41000\DATA\DWG\TIA\SP-0004.DWG PLOT SCALE : 1 = 1

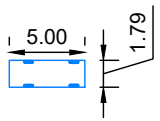


(IN)



(OUT)

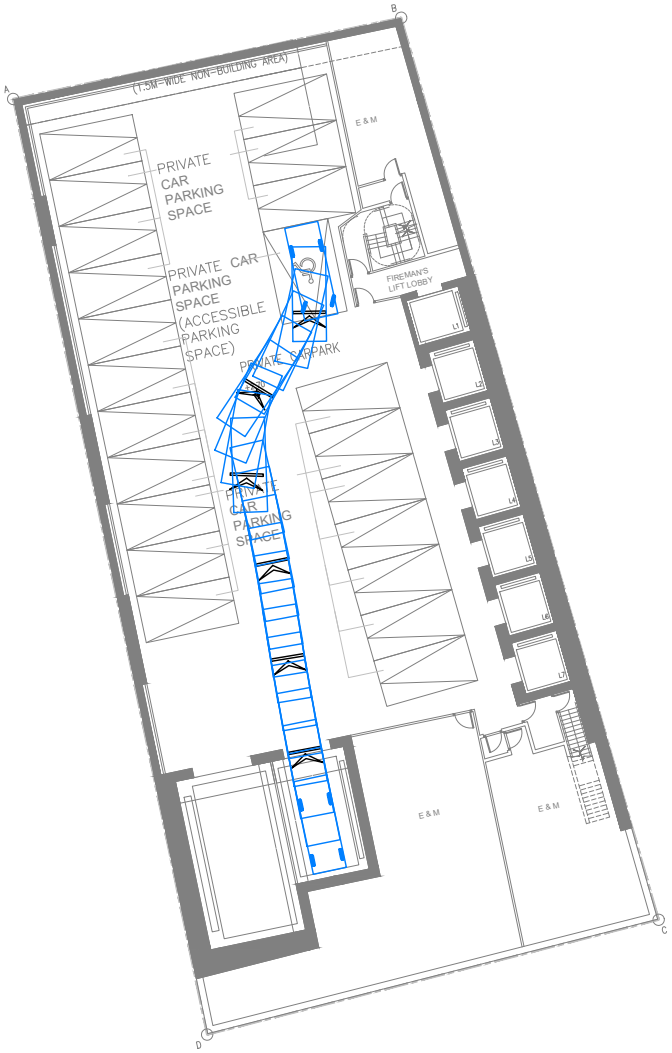
LEGEND :



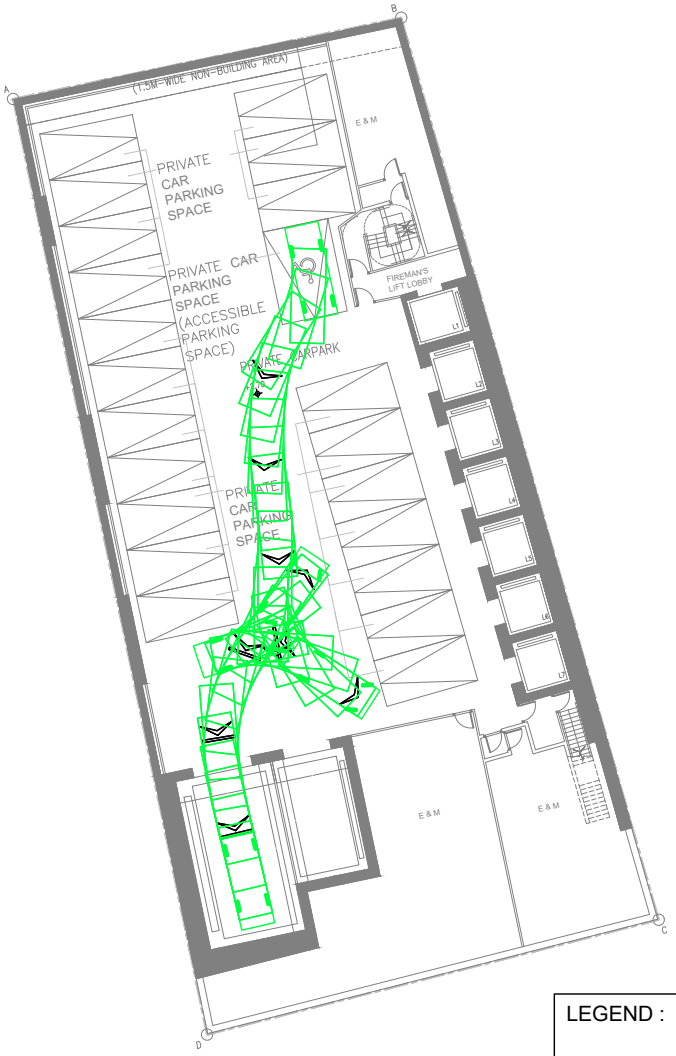
SWEPT PATH ANALYSIS - PC (B2/F) (2 OF 3)

(SCALE 1:400 @ A4)

FILE. G:\PROJECT\41000\DATA\DWG\TIA\SP-0005.DWG PLOT SCALE : 1 = 1

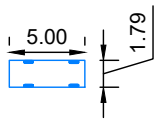


(IN)



(OUT)

LEGEND :



SWEPT PATH ANALYSIS - PC (B2/F) (3 OF 3)

(SCALE 1:400 @ A4)

FILE. G:\PROJECT\41000\DATA\DWG\TIA\SP-0006.DWG PLOT SCALE : 1 = 1