

Appendix IV Traffic Impact Assessment Report

Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4737, 4738, 4739 RP, 4739 S.A & 4739 S.B – Internal Transport Provisions

Background

The Applicant intends to redevelop the site at 20–24 Tai Yau Street, San Po Kong into a hotel comprising 1,260 guestrooms (hereafter referred to as "the proposed development").

The site is currently zoned as "Other Specified Use" annotated "Business" ("OU(B)") under the Approved Tsz Wan Shan, Diamond Hill and San Po Kong Outline Zoning Plan No. S/K11/31. As "Hotel" is fell into Column 2 of the Schedule of Uses for this zoning, a planning application under Section 16 of the Town Planning Ordinance is required.

To support this application, AMG Consultancy Limited is commissioned to conduct an Internal circulation within the proposed development. The purpose development access will be provided at Tai Yau Street. As shown in **Figures GF-1 to GF-1.20** and **Figures BF-1 to BF-1.32**.

The Site

The Site is located at 20-24 Tai Yau Street in San Po Kong. The site area is about 2,426.050 sqm. The Site is currently used as an industrial building.

Proposed Run-in/out

The proposed 2 vehicular accesses (One Ingress and One Egress) would have a width of about 7.3m and 9.6m respectively, as shown in **Drawing no.: Figure GF-1**.

Internal Transport Provisions

Parking Provisions and loading/unloading facilities

According to HKPSG, the car parking provision for the proposed development and the loading/unloading required for the proposed development are shown in **Table 1** and **Table 2**. The dimensions of the parking spaces stated in HKPSG are summarised in **Table 3**.

Table 1 **Parking Provisions**

Type of Development	Required Provisions	Proposed Provisions
Business Use "OU(B)" (Hotel) No. of Guestrooms: 1260	<u>Parking Spaces</u> Private Car: 1 car space per 100 Rooms = 13 Private Car: 0.5 - 1 car space per 200m² GFA of conference and banquet facilities in hotel (1/F : 1300.307 sqm) = 4 - 7 <u>Loading / unloading</u> Goods Vehicle: 0.5 - 1 goods vehicle bay per every 100 Rooms = 7 - 13 <u>Lay-by for Taxi and Private Cars</u> Lay-by for Taxi and Private Cars: 4 no. of lay-by =>600 rooms = 4 <u>Lay-by for single-deck tour buses</u> Lay-by for single deck tour buses: 3 no. of lay-by =>900 rooms = 3	<u>Parking Spaces</u> Private Car: 22 (include 1 accessible parking spaces) <u>Motorcycle Spaces</u> Motorcycle : 6 <u>Loading / unloading</u> Goods Vehicle: 13 Heavy Goods Vehicle: 3 Light Goods Vehicle: 10 <u>Lay-by for Taxi and Private Cars</u> Taxi and Private Cars Lay-by: 4 <u>Lay-by for single-deck tour buses</u> Single deck tour buses Lay-by: 3

Table 2 **Provision Details**

Floor No.	Provisions
Ground Floor	● 3 nos. of HGV Loading / Unloading Spaces ● 3 nos. of Single deck tour bus Spaces ● 4 nos. of Taxi and Private cars lay-by ● 6 nos. of Motorcycle Spaces
Basement 1 Floor	● 10 nos. of LGV Loading / Unloading Spaces ● 22 nos. of Private Car Parking Spaces (Include 1 accessible parking space)

Table 3 Parking Space Dimensions

Type of Parking Space	Size	References
Car Parking Space	2.5m(W) x 5.0m(L) x 2.4m(H)	Under HKPSG
Disabled Car Parking Space	3.7m(W) x 5.0m(L) x 2.4m(H) (Minimum width required is 3.5m)	
Motocycle Spaces	1.0m(W) x 2.4m(L) x 2.4m(H)	
Light Goods Vehicle	3.5m(W) x 7.0m(L) x 3.6m(H)	
Heavy Goods Vehicle	3.5m(W) x 11.0m(L) x 4.7m(H)	
Coaches / Single Deck buses	3.5m(W) x 12.0m(L) x 3.8m(H)	

Access Arrangement and Swept Path Analysis

A 7.3m wide vehicular accesses for the proposed development is proposed to provide at Tai Yau Street as shown in **Drawing no.: Figure GF-1**.

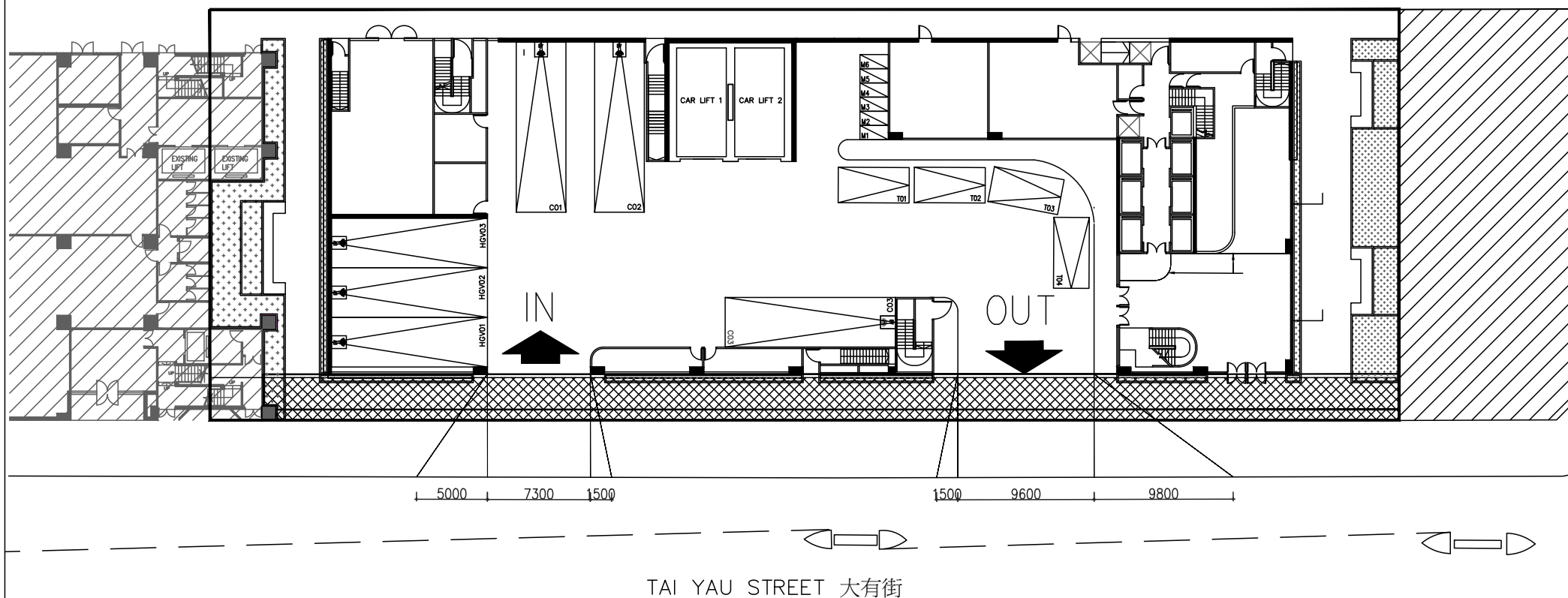
As depicted in **Figures GF-1 to GF-1.20** and **Figures BF-1 to BF-1.32**, the results of the swept path analysis demonstrate that the proposed accesses are adequate for manoeuvring for private cars, goods vehicles and coaches. The design speed of the long vehicles in the swept path assessment **is 5 km/h during forward design speed; 2.5 km/h during reverse speed.**

Traffic controller(s) will be deployed to manage vehicle movements entering and exiting the site, to avoid potential conflicts with the surrounding road traffic. Clear guidelines and appropriate trainings would be provided to all patrol staff.

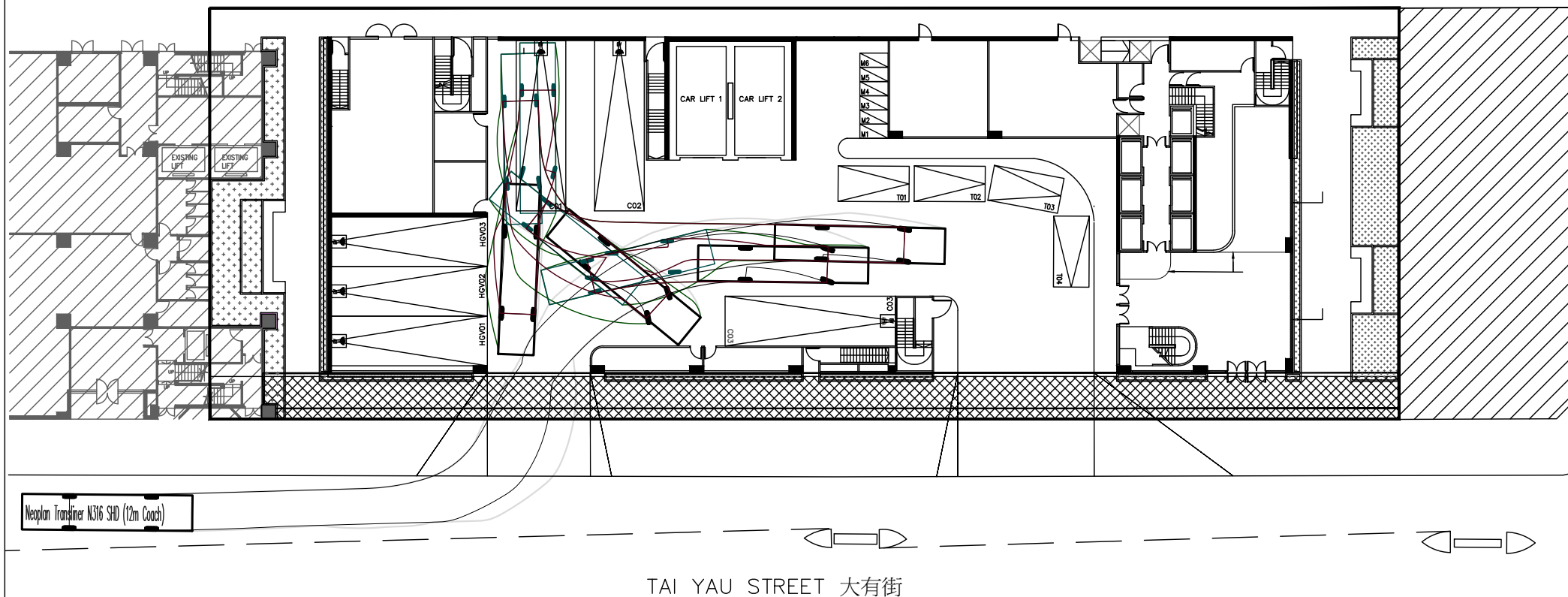
When vehicles are expected to enter or leave the proposed development, at least one traffic controller will be stationed at the access point to guide both vehicular and pedestrian movements, ensuring safe and orderly passage and preventing congestion or conflicts.

Conclusion

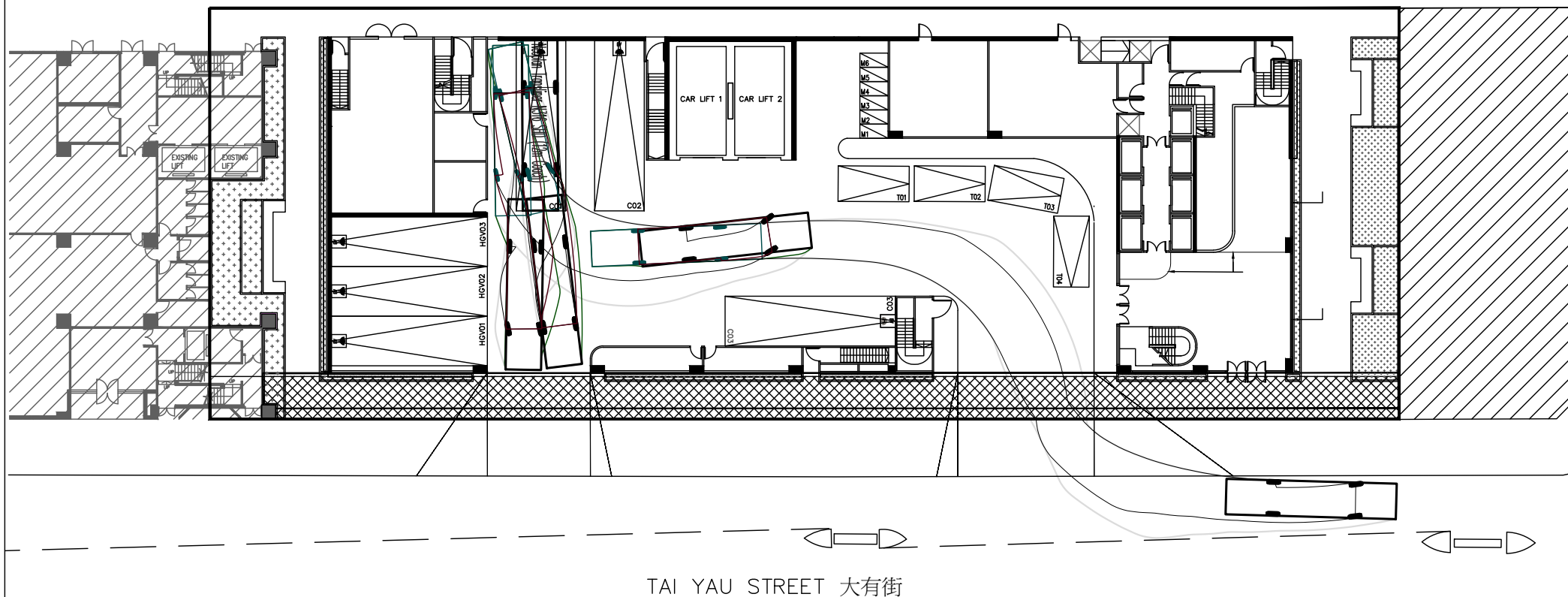
The provisions of loading/unloading spaces and the parking provisions can fulfil the HKPSG requirements. The swept path analysis has been carried out with private cars and goods vehicles and the results reveal that access is considered satisfactory. It is concluded that the design and provision of the proposed vehicular access, vehicle parking and the loading/unloading facilities and manoeuvring spaces for the proposed development are adequate and comply with the traffic engineering point of view.



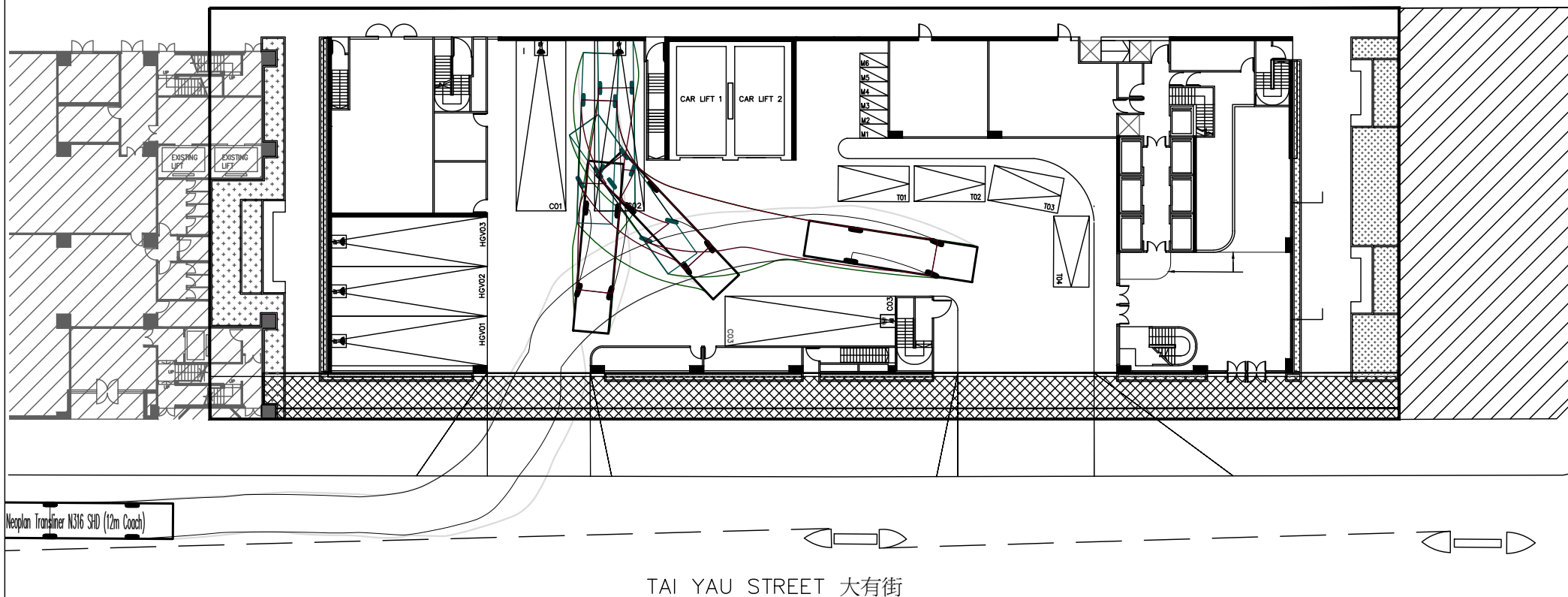
PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE GF-1
DATE OCT 2025	SCALE N.T.S	DRAWING TITLE GROUND FLOOR PLAN	
DRAWN SF	PROJECT NO. J03007		



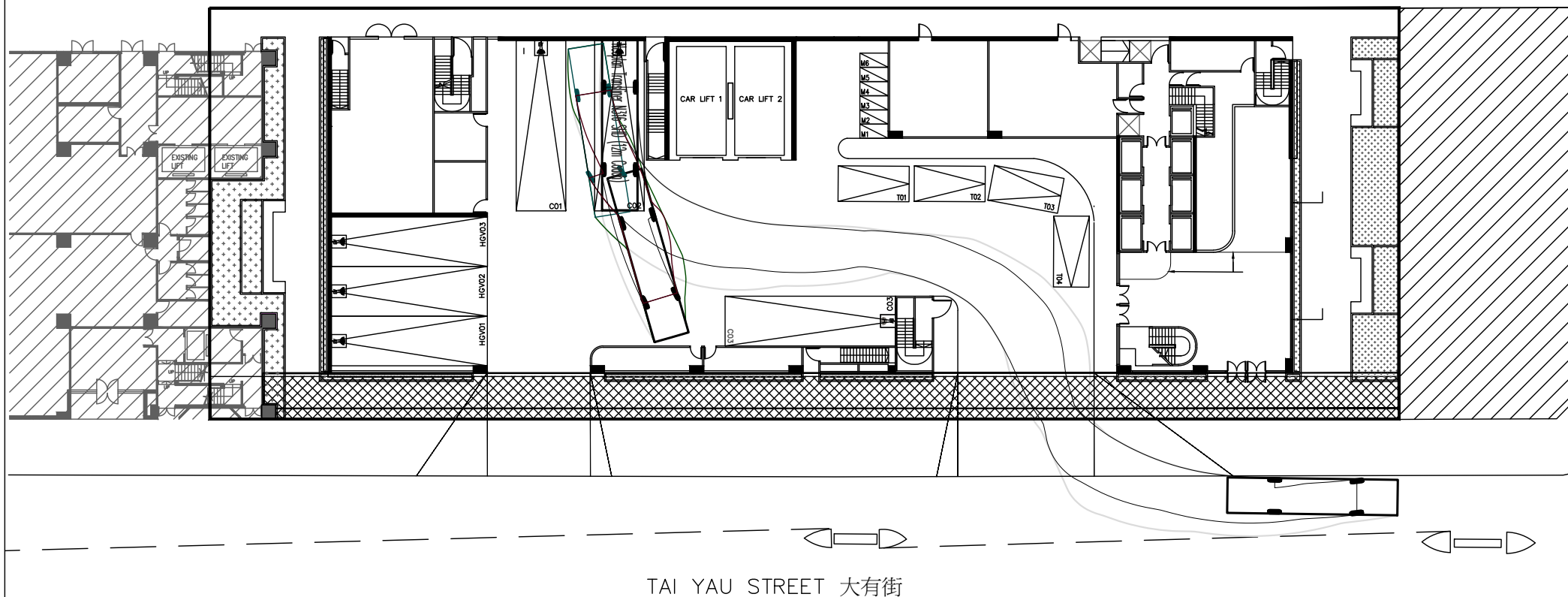
PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE GF-1.1
DATE OCT 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR COACH	 AMG CONSULTANCY LIMITED
DRAWN SF	PROJECT NO. J03007		



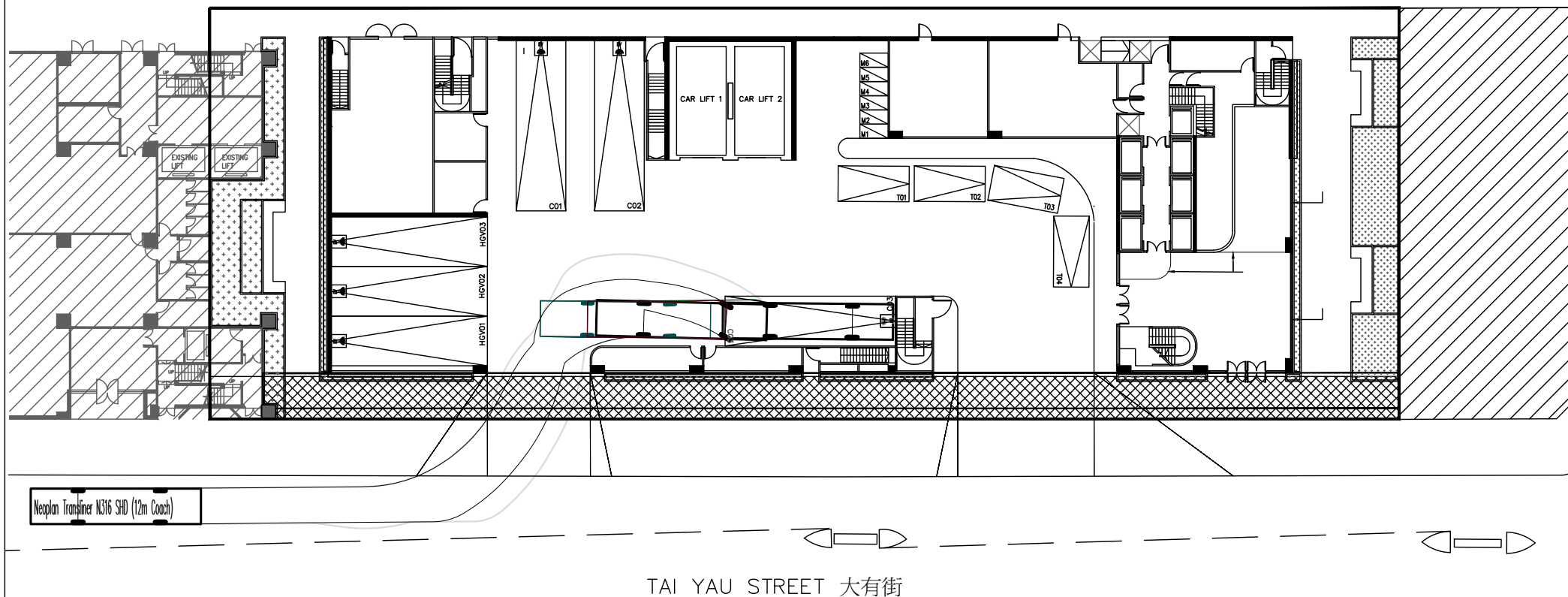
PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE GF-1.2
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DRAWN SF	PROJECT NO. J03007		



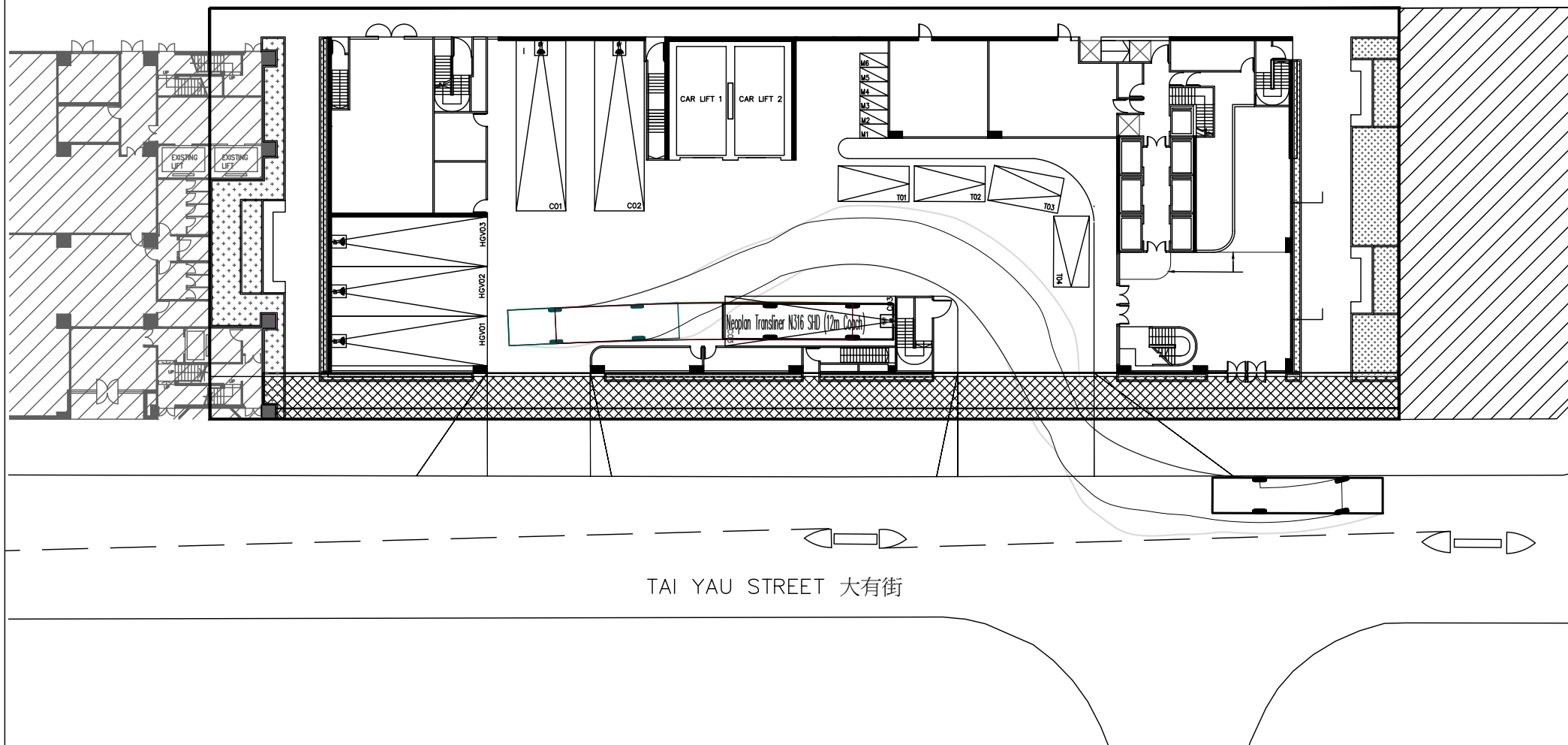
PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE GF-1.3
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DRAWN SF	PROJECT NO. J03007		
			



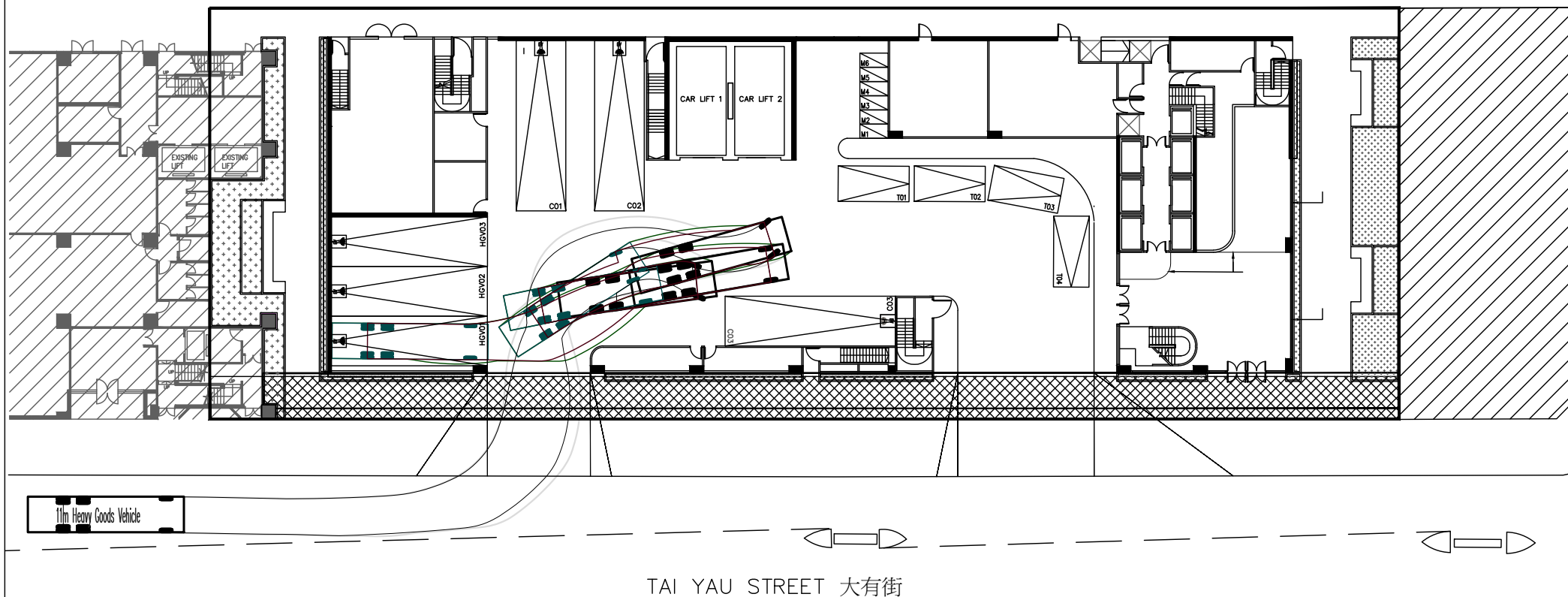
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DRAWN SF	PROJECT NO. J03007		



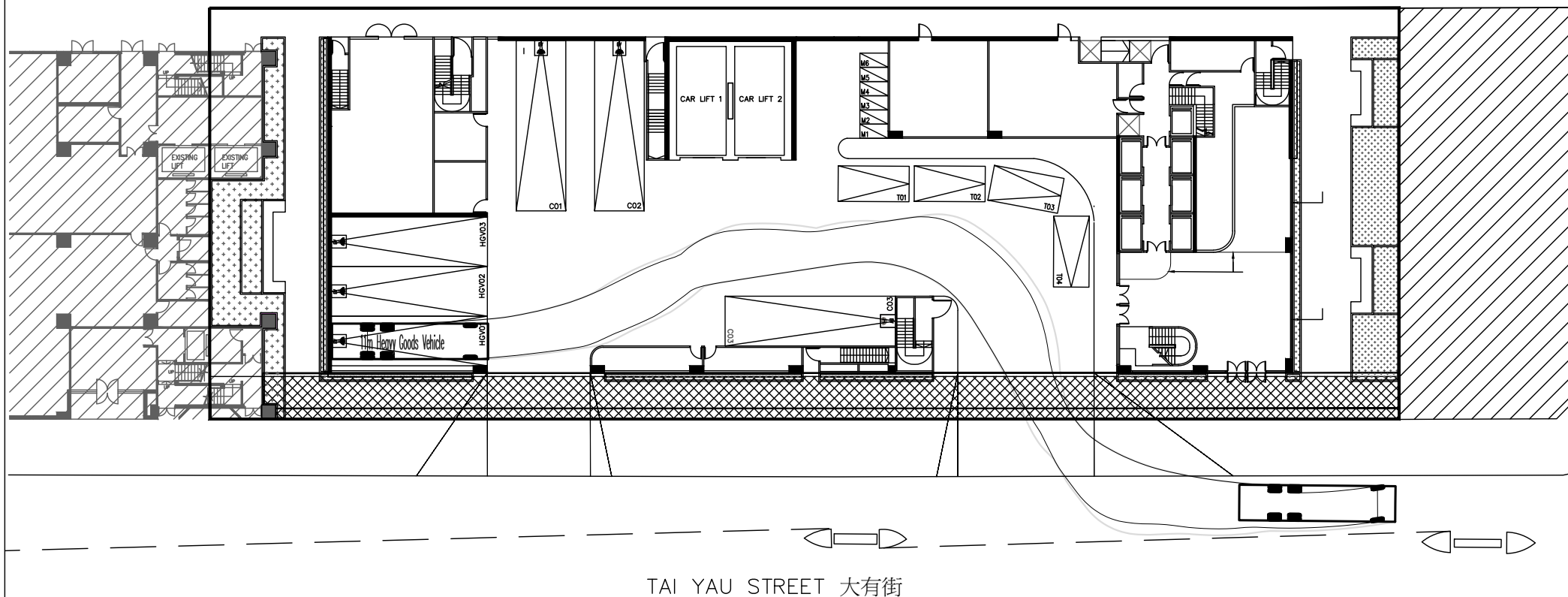
PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE GF-1.5
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DRAWN SF	PROJECT NO. J03007		



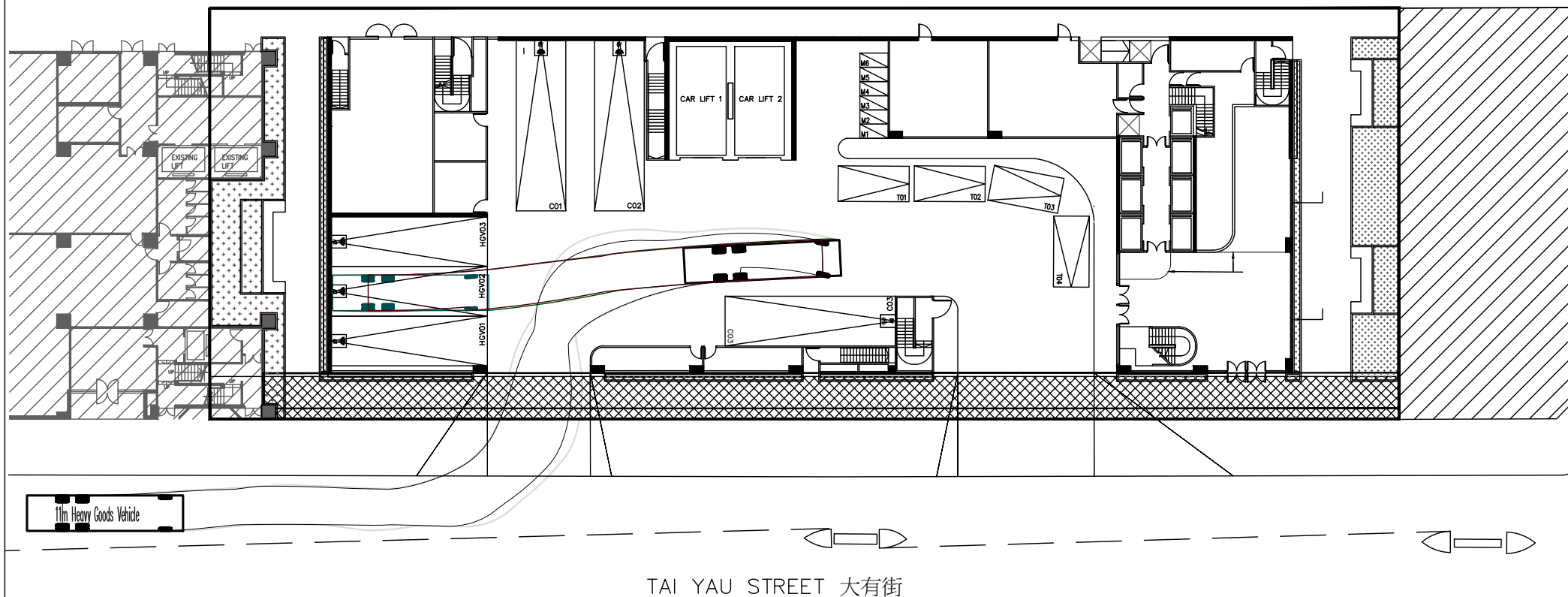
PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE GF-1.6
DATE OCT 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR COACH	 AMG CONSULTANCY LIMITED
DRAWN SF	PROJECT NO. J03007		



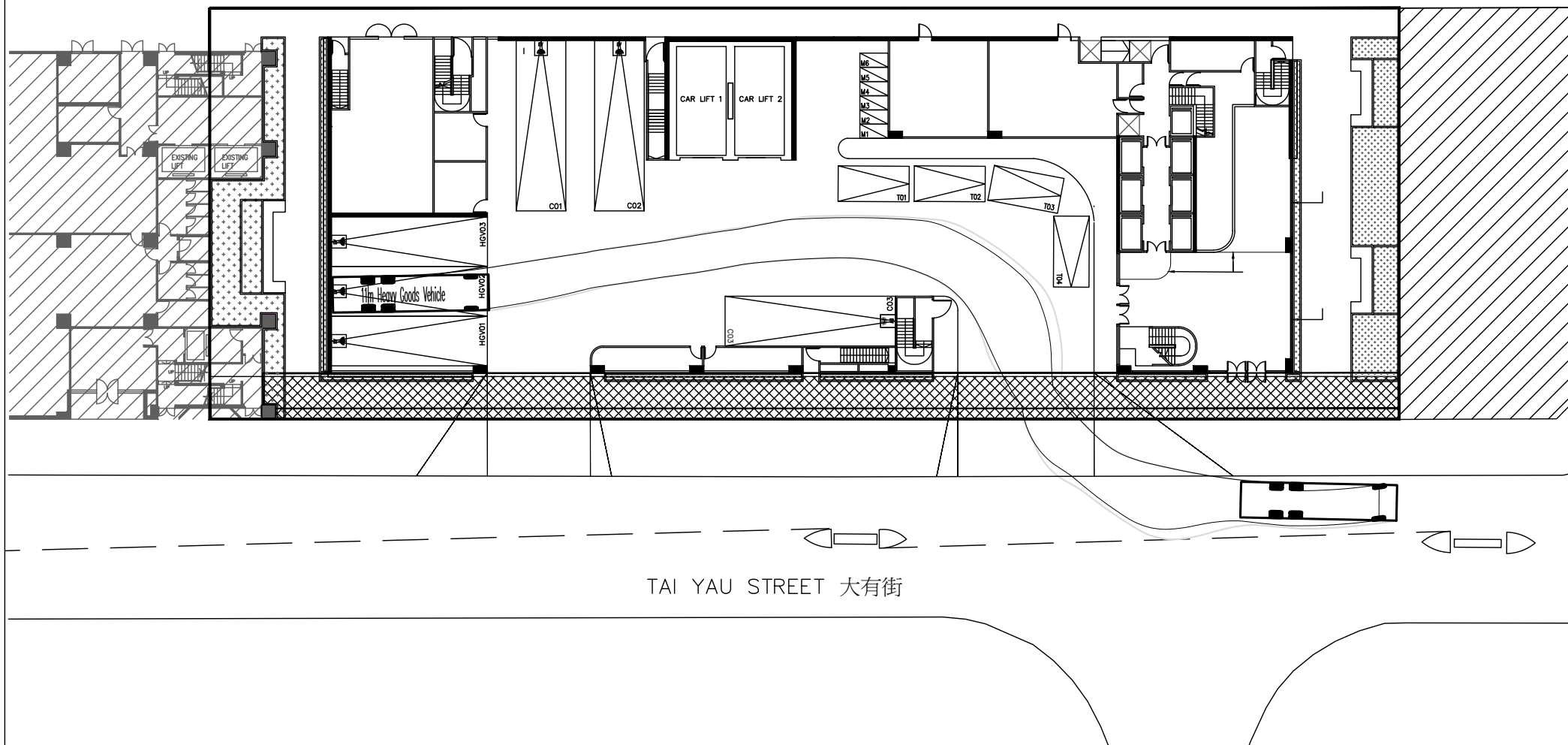
PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE GF-1.7
DATE OCT 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR HEAVY GOODS VEHICLE	 AMG CONSULTANCY LIMITED
DRAWN SF	PROJECT NO. J03007		



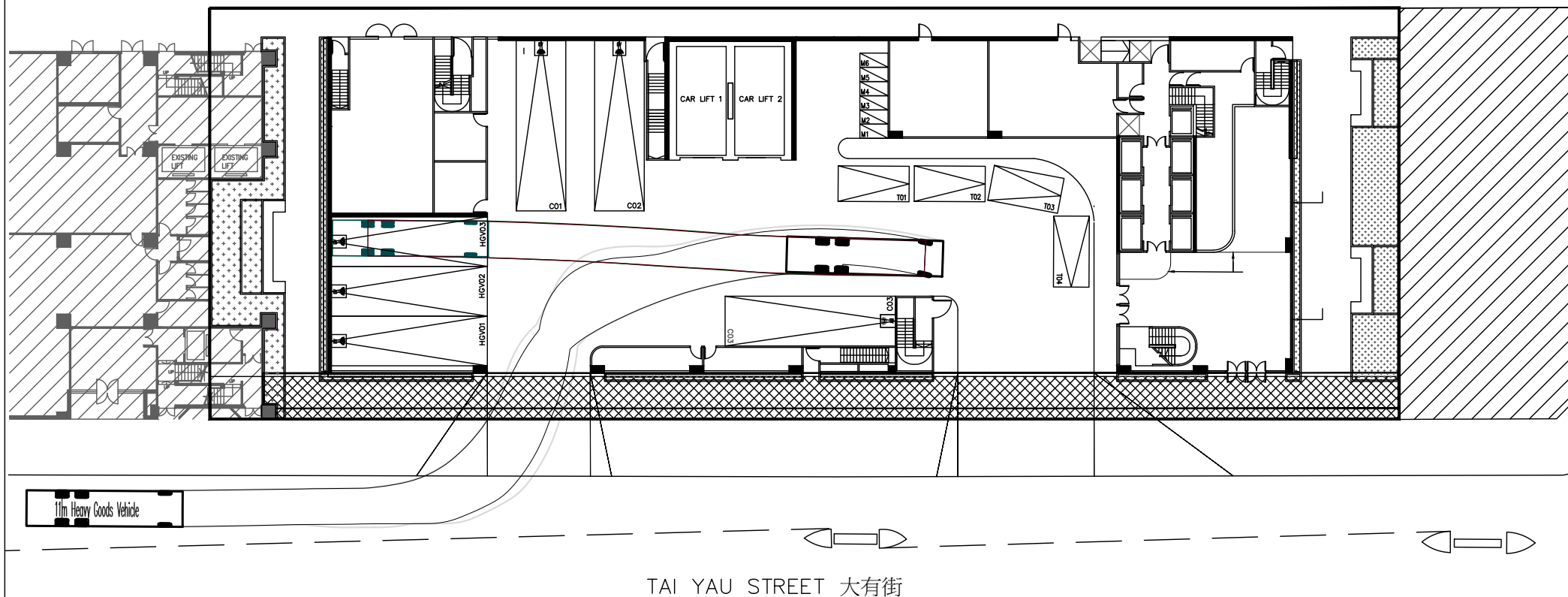
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DATE OCT 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR HEAVY GOODS VEHICLE	
DRAWN SF	PROJECT NO. J03007		
		 AMG CONSULTANCY LIMITED	



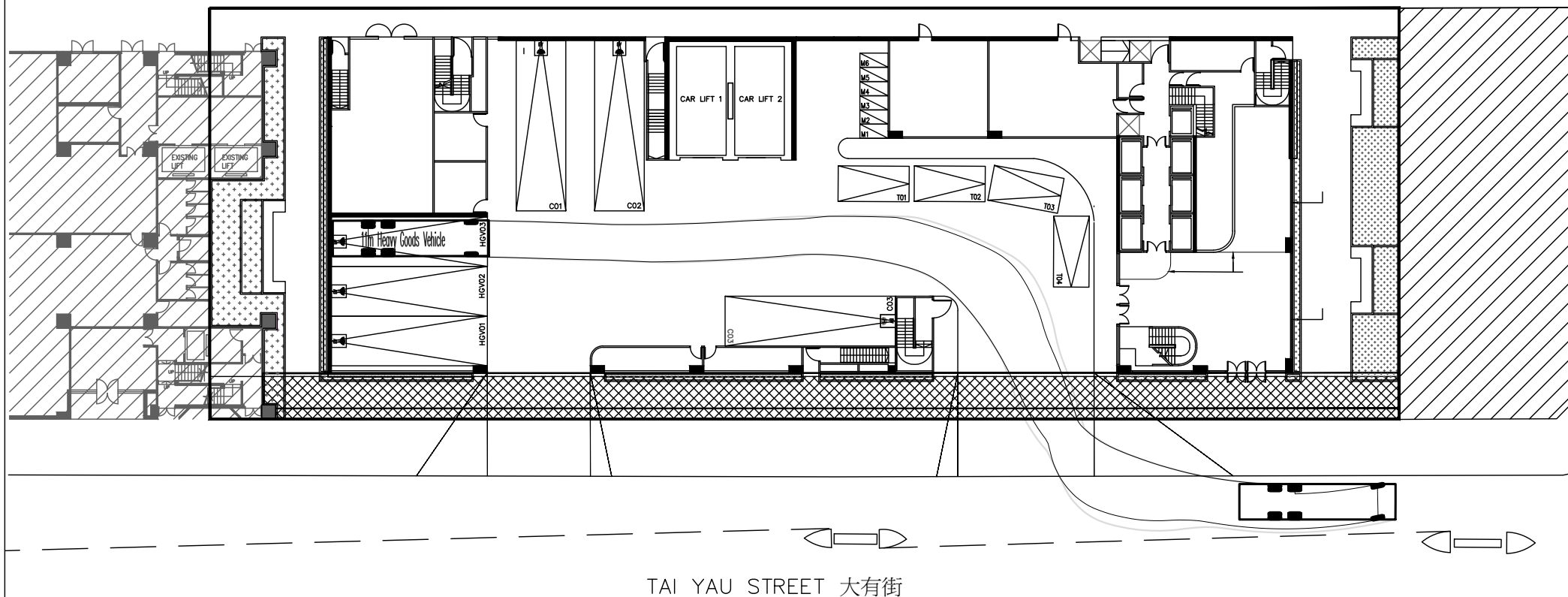
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DRAWN SF	PROJECT NO. J03007		



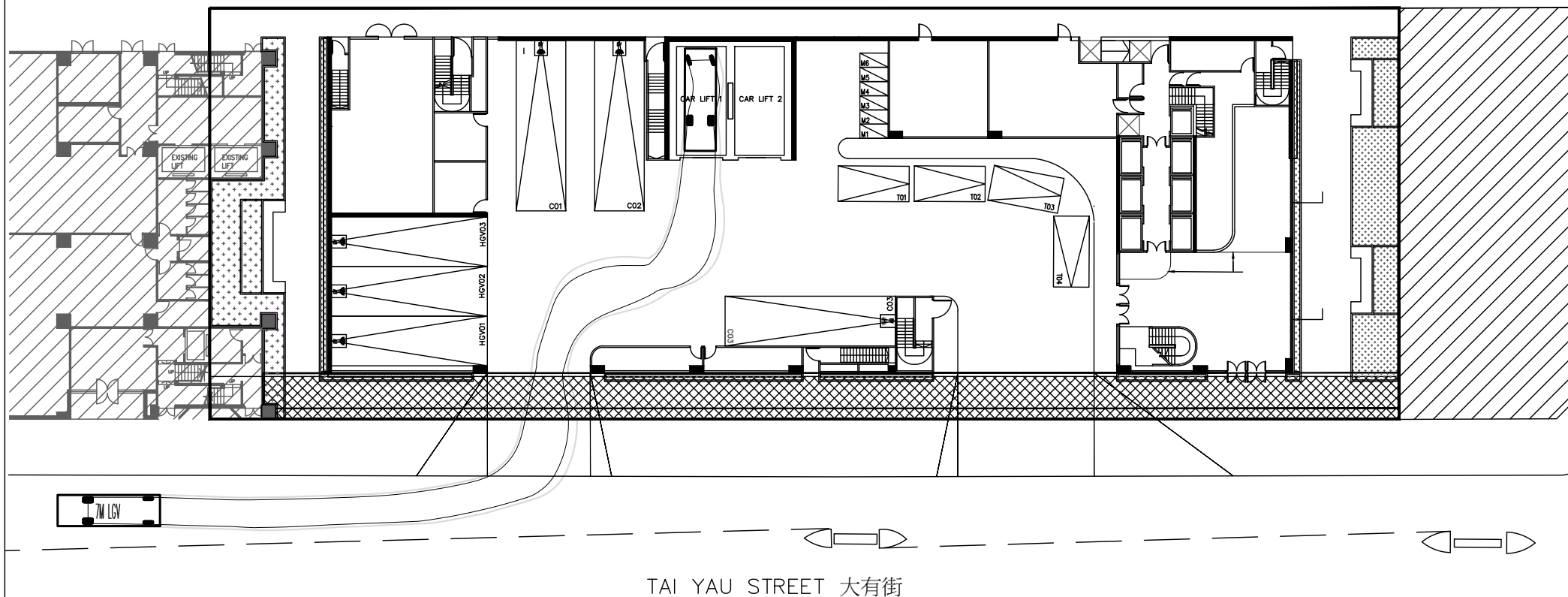
PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE GF-1.10
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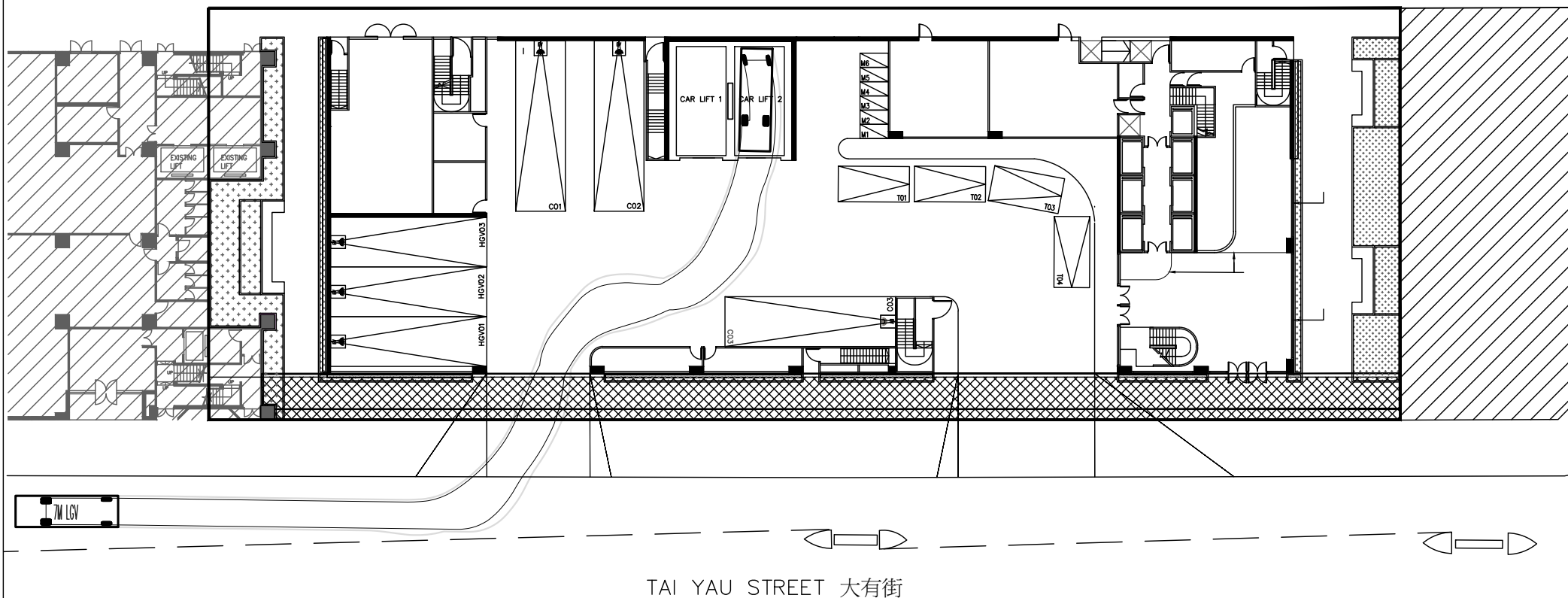
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DATE OCT 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR HEAVY GOODS VEHICLE	 AMG CONSULTANCY LIMITED
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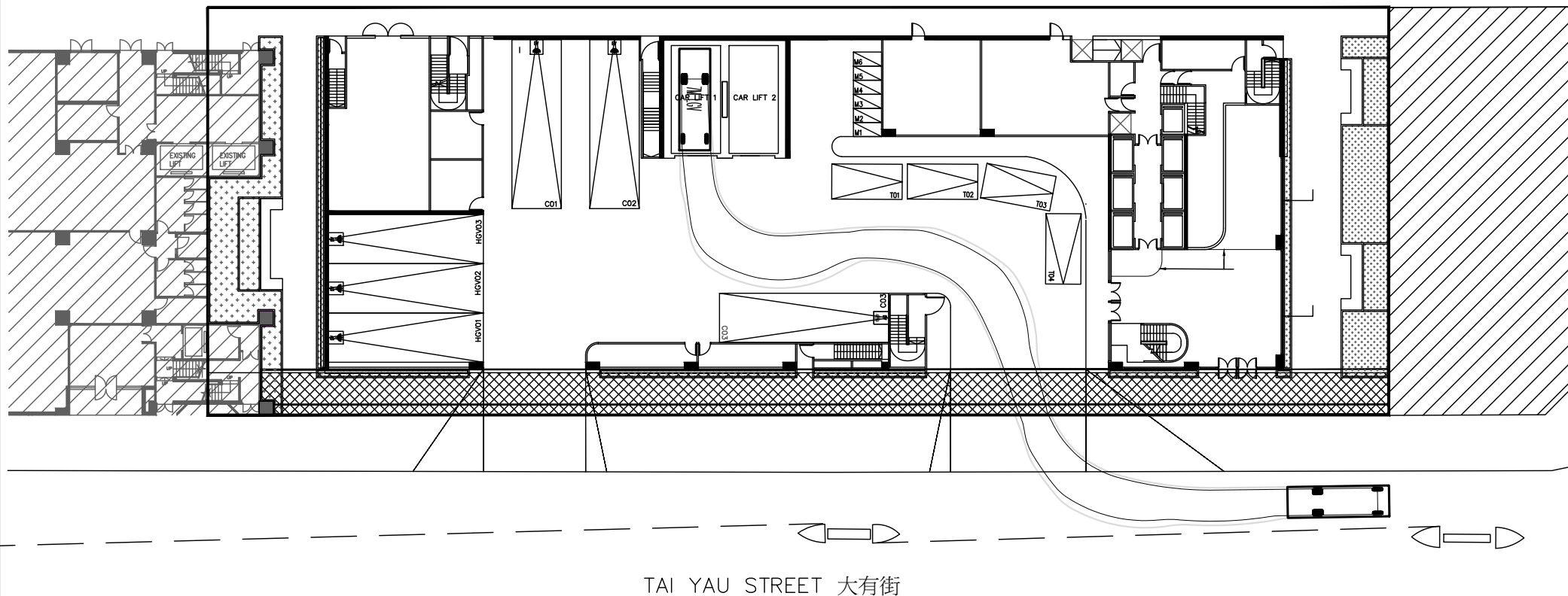
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DATE OCT 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR HEAVY GOODS VEHICLE		
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			 AMG CONSULTANCY LIMITED	



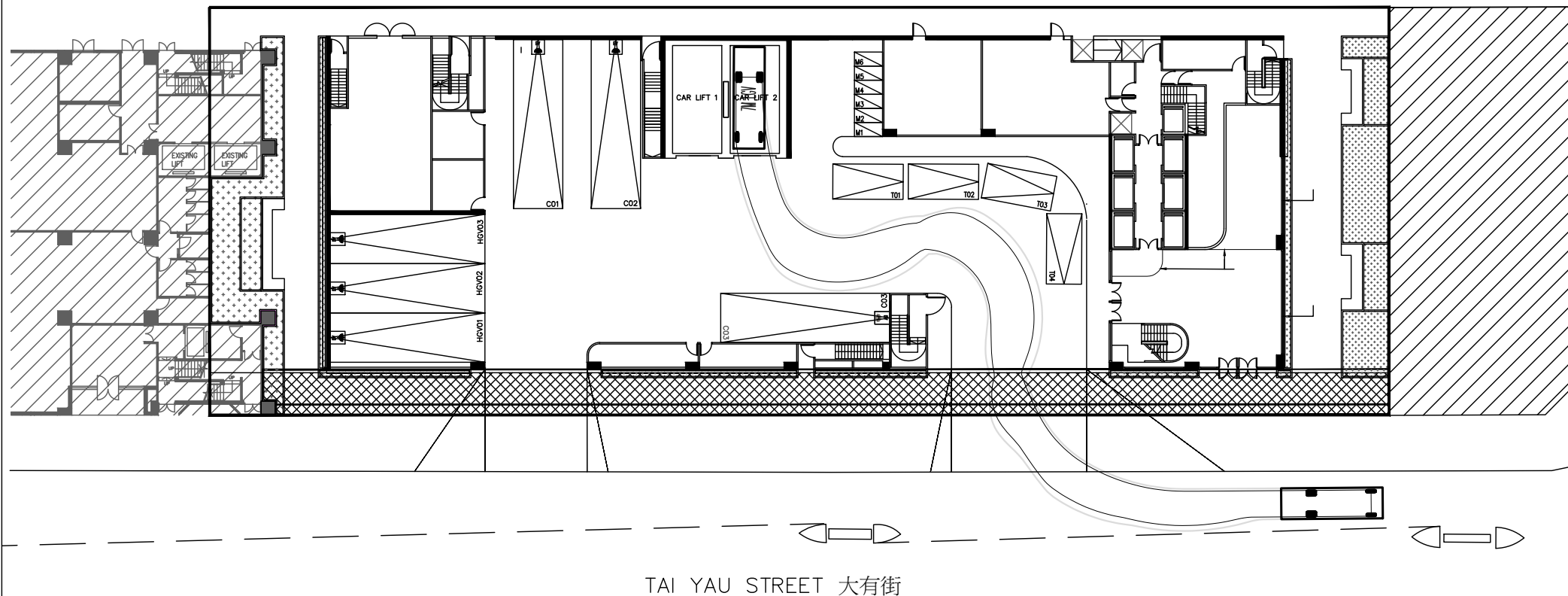
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DATE OCT 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR LIGHT GOODS VEHICLE	 AMG CONSULTANCY LIMITED
DRAWN SF	PROJECT NO. J03007		



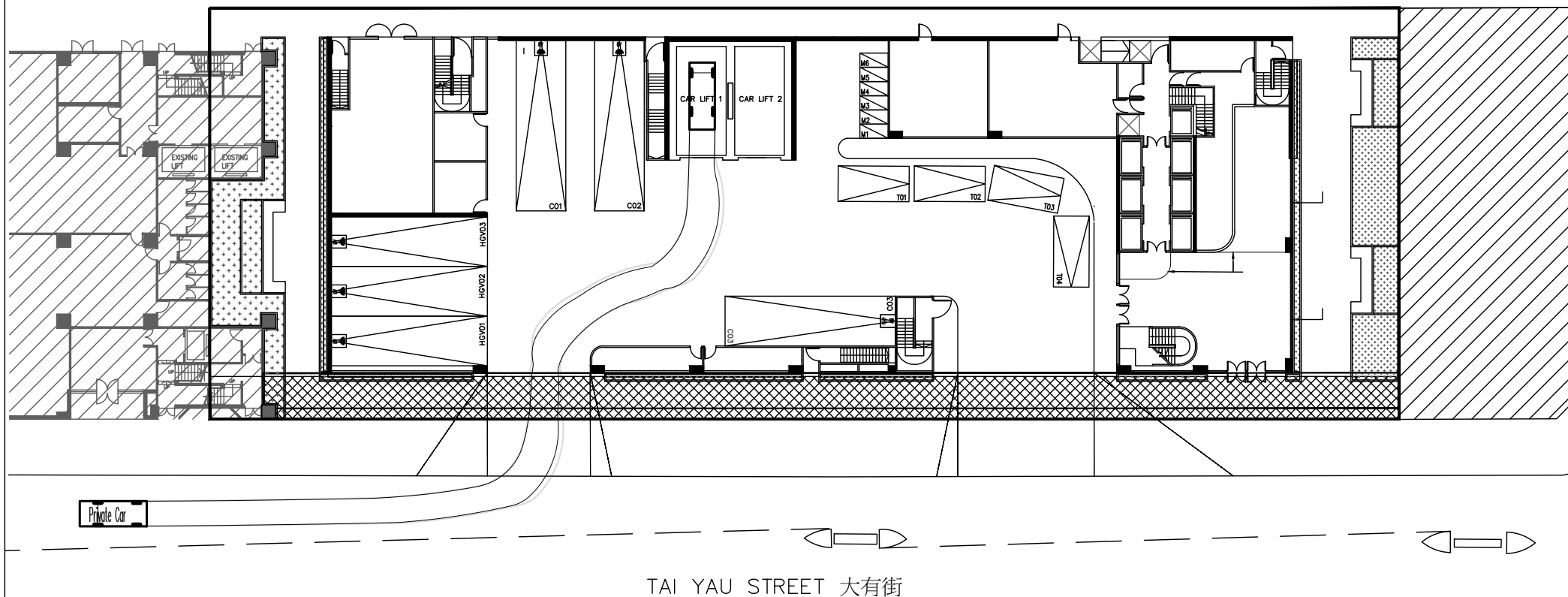
PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE GF-1.14
DATE OCT 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR LIGHT GOODS VEHICLE	
DRAWN SF	PROJECT NO. J03007		
			 AMG CONSULTANCY LIMITED



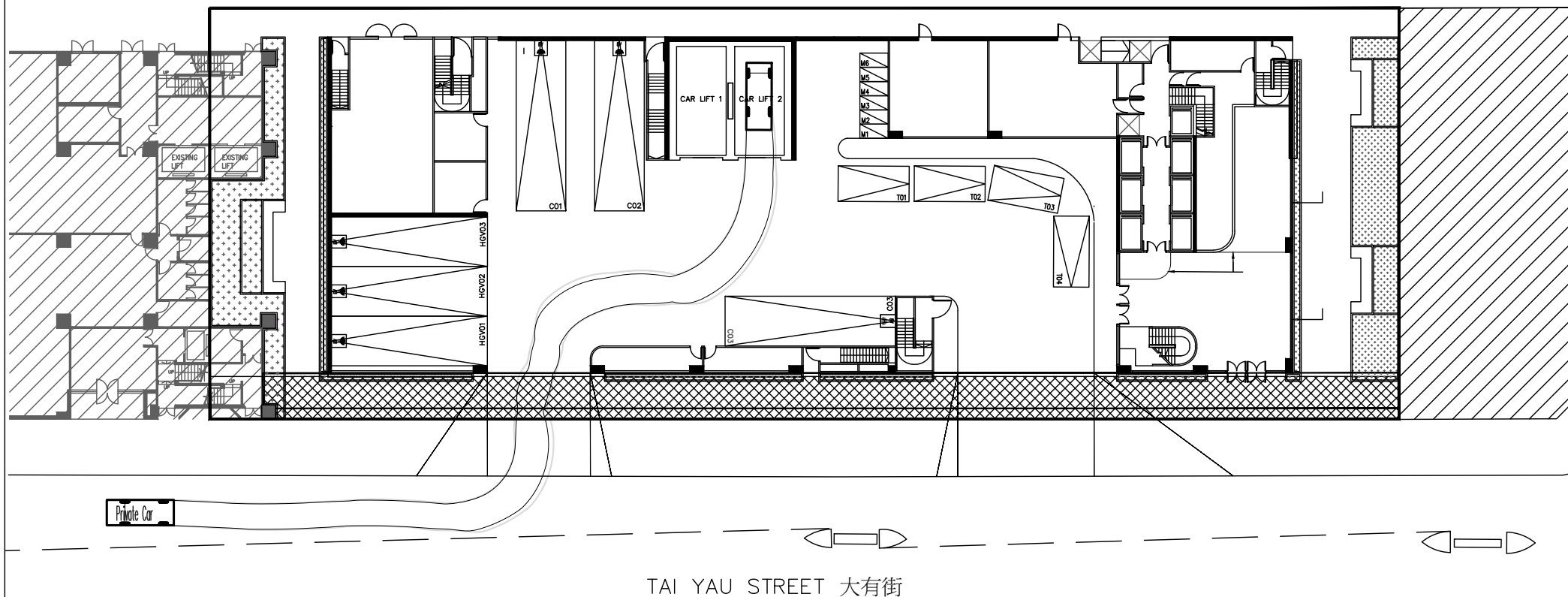
PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE GF-1.15
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DRAWN SF	PROJECT NO. J03007		



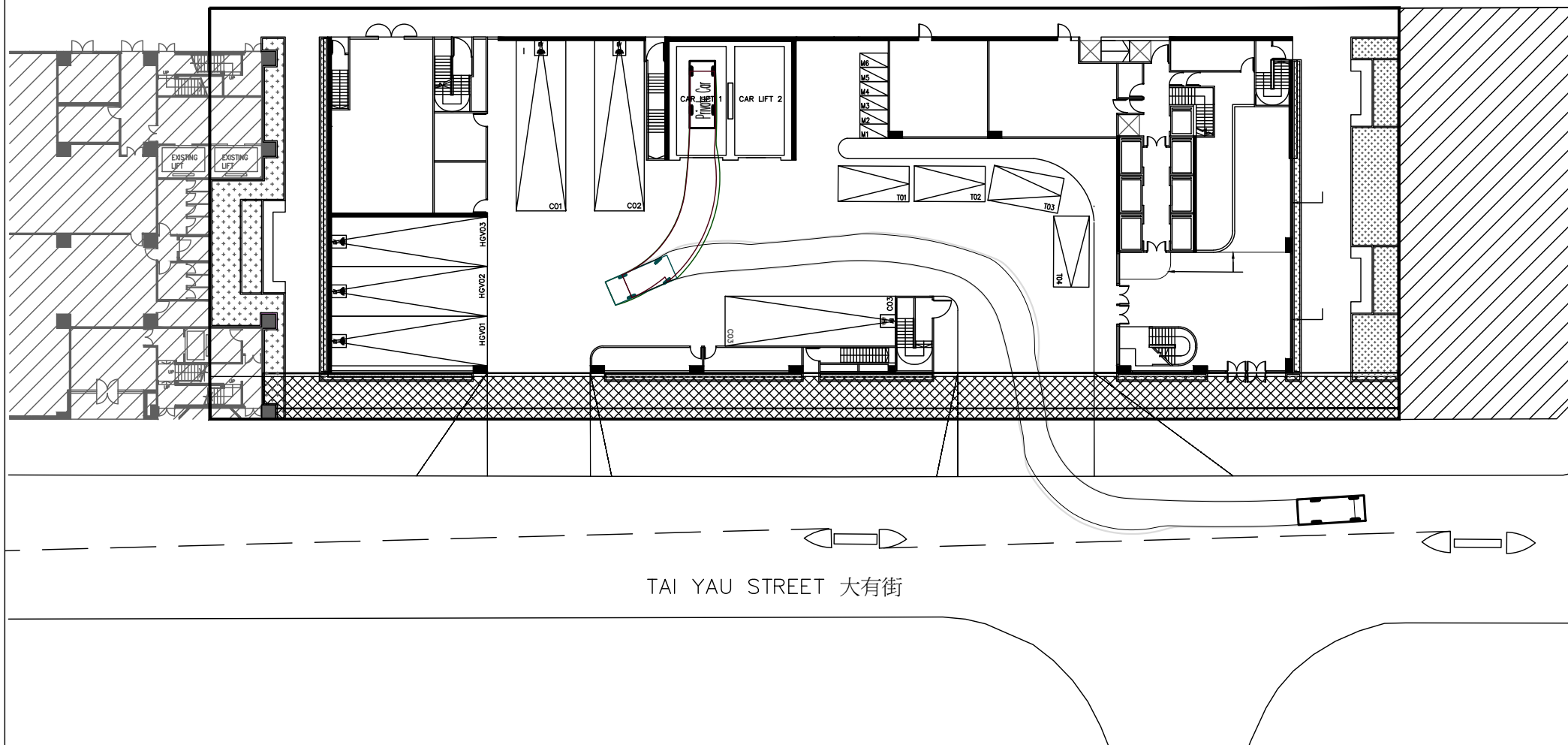
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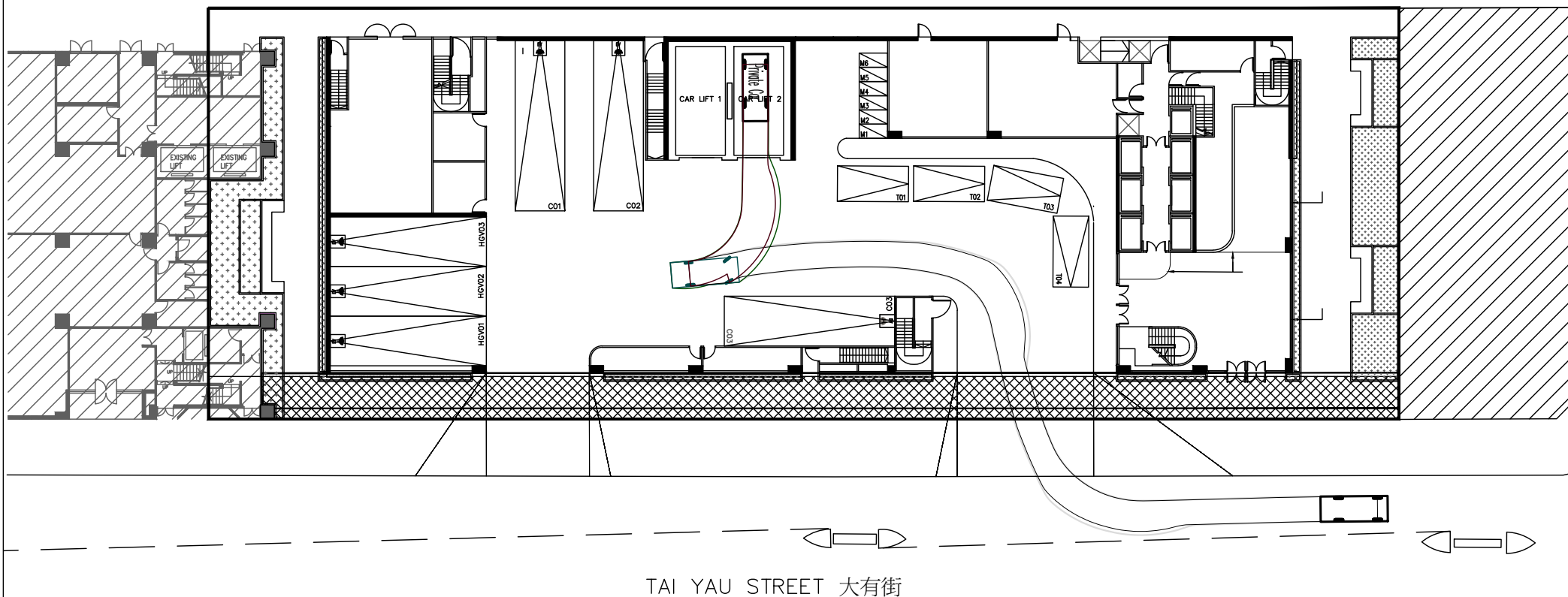
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DATE OCT 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR PRIVATE CAR	 AMG CONSULTANCY LIMITED
DRAWN SF	PROJECT NO. J03007		



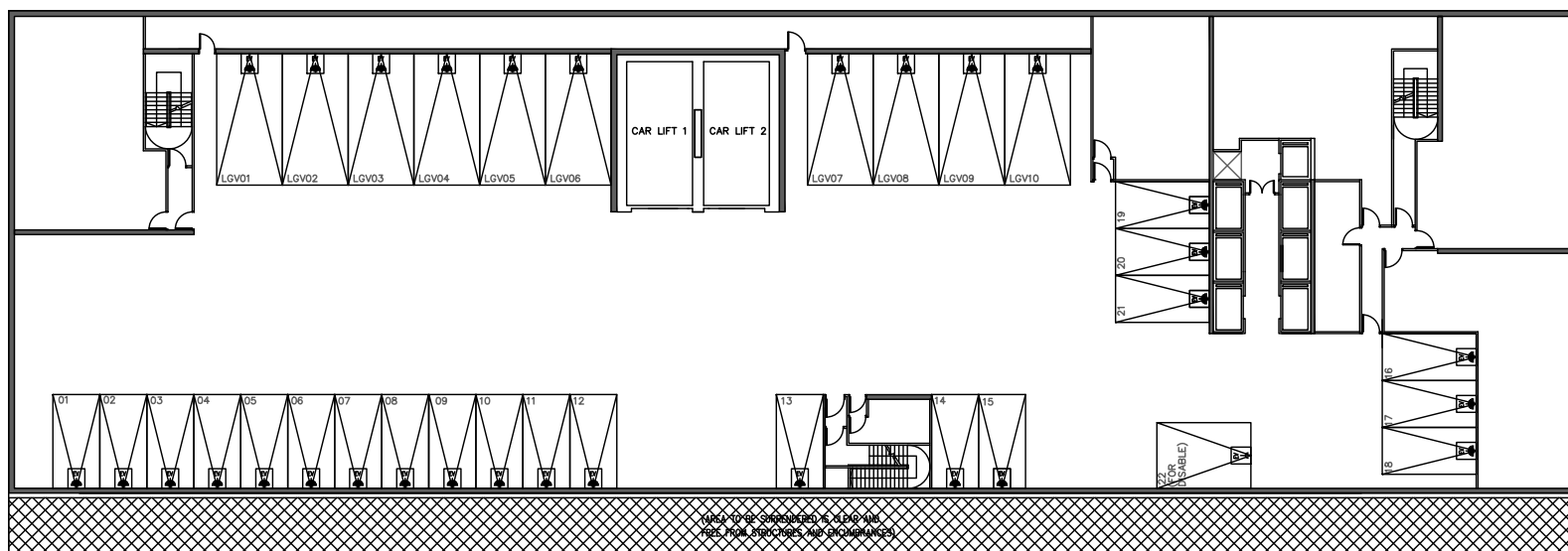
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DATE OCT 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR PRIVATE CAR	 AMG CONSULTANCY LIMITED
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PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE GF-1.19	
DATE OCT 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR PRIVATE CAR		 AMG CONSULTANCY LIMITED
DRAWN SF	PROJECT NO. J03007			



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DATE OCT 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR PRIVATE CAR	
DRAWN SF	PROJECT NO. J03007		
			



BASEMENT FLOOR

PROJECT TITLE
Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B

DATE
 JUL 2025

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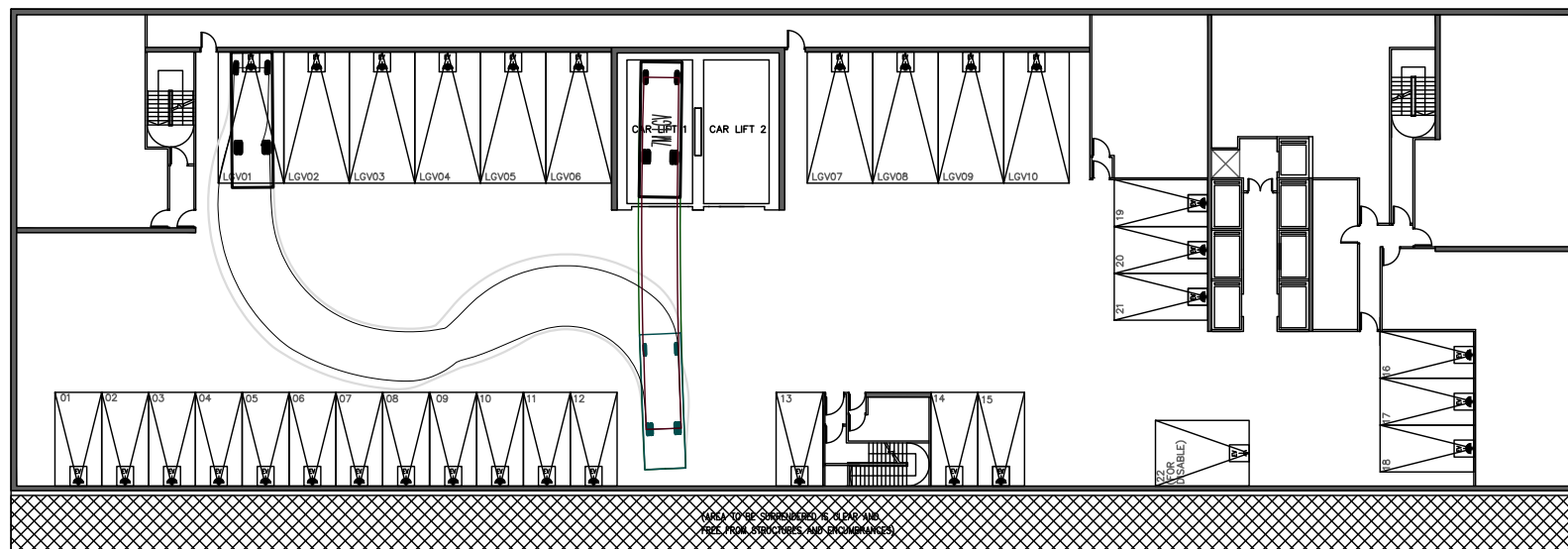
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 J03007

BASEMENT FLOOR PLAN

FIGURE BF-1





BASEMENT FLOOR

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DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR LIGHT GOODS VEHICLE		
DRAWN SF	PROJECT NO. J03007			
				

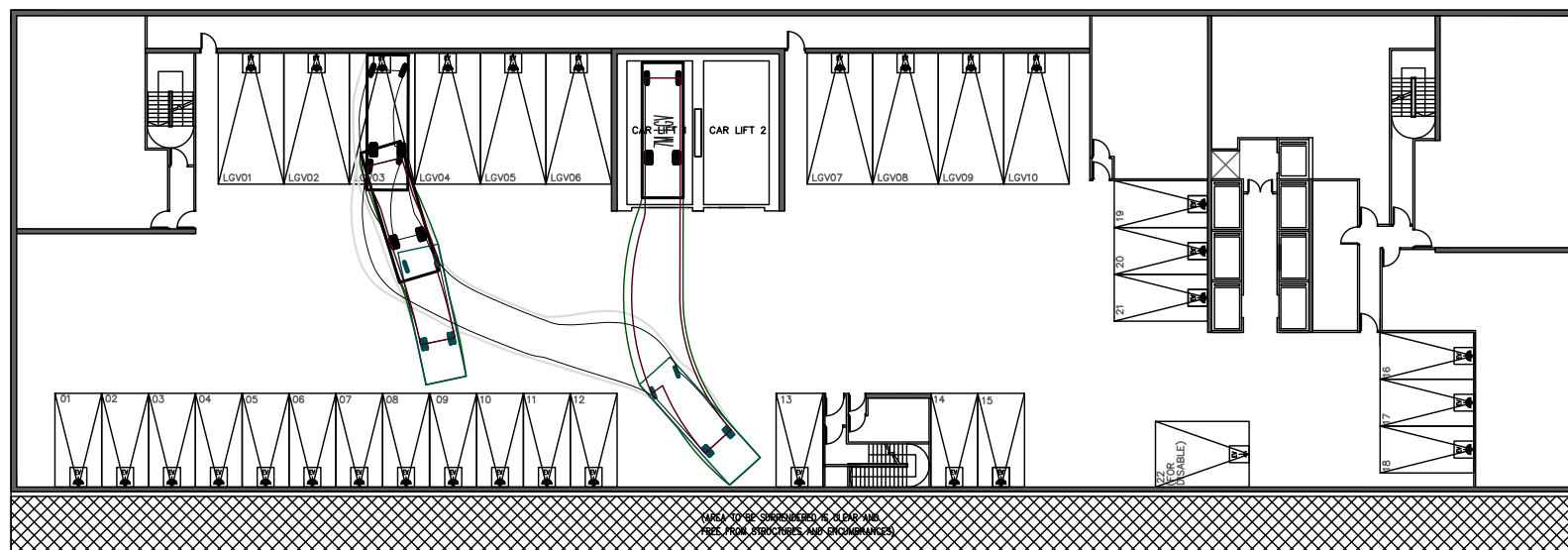
PROJECT TITLE
Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B

FIGURE BF-1.2

DRAWING TITLE

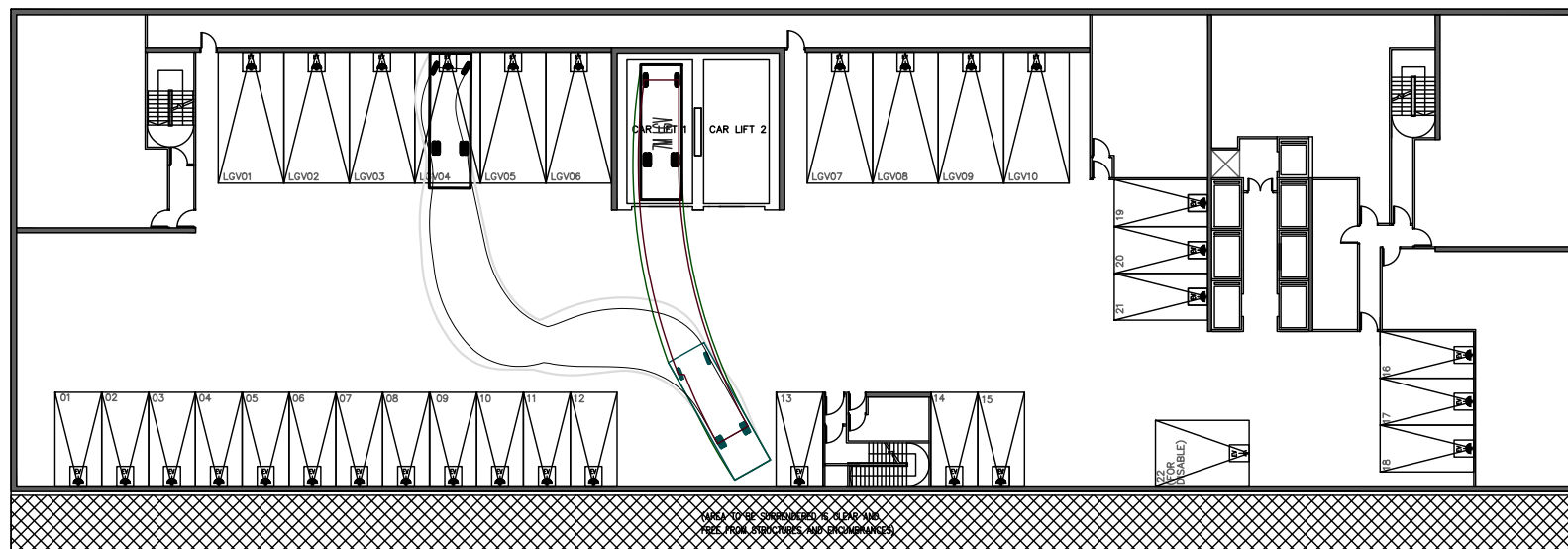
SWEPT PATH ANALYSIS FOR LIGHT GOODS VEHICLE





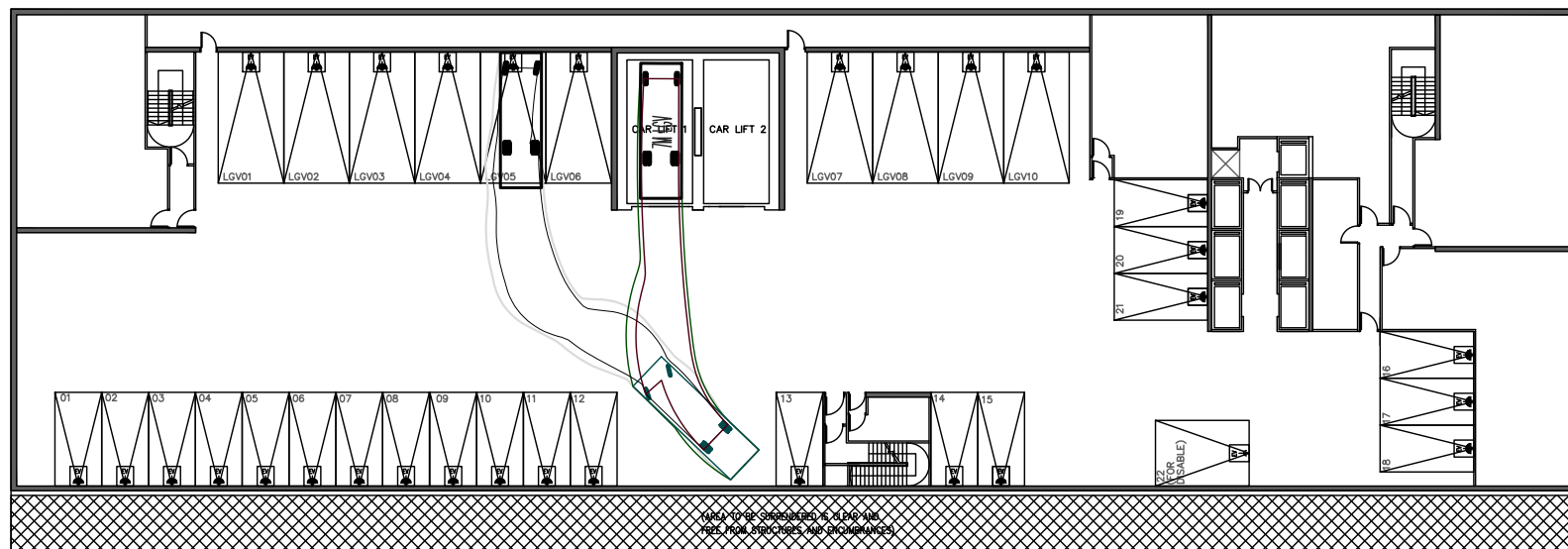
BASEMENT FLOOR

PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE BF-1.3	
DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR LIGHT GOODS VEHICLE		
DRAWN SF	PROJECT NO. J03007			



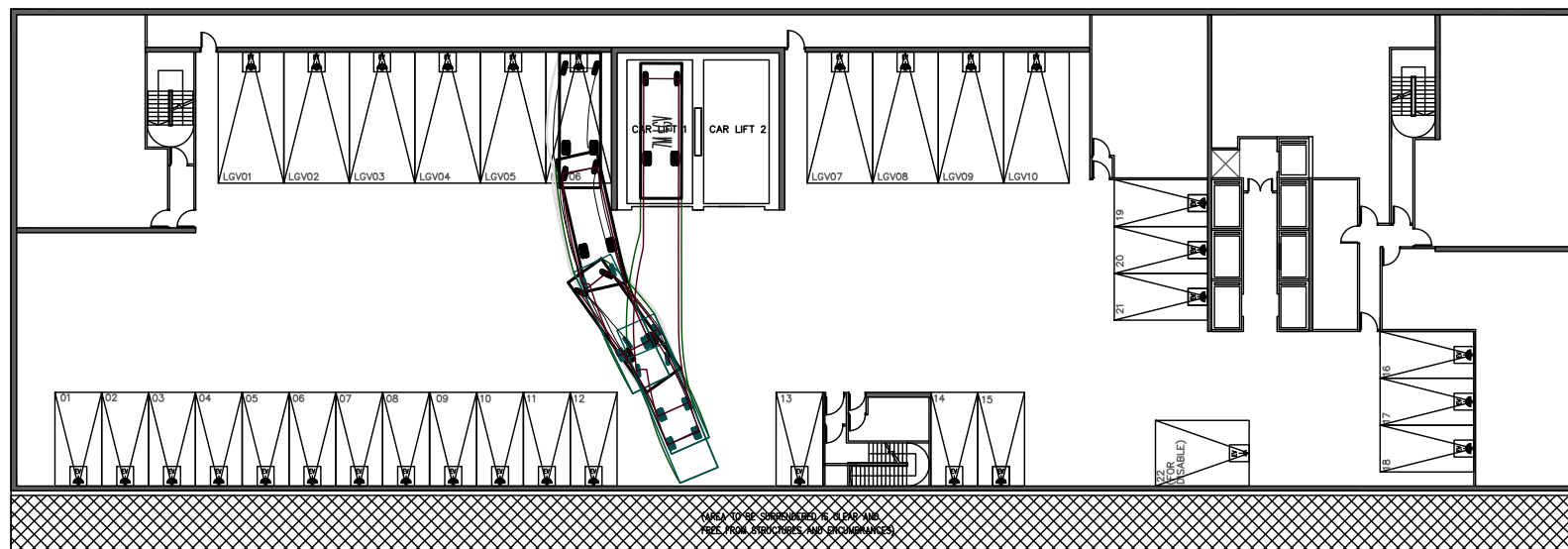
BASEMENT FLOOR

PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE BF-1.4	
DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR LIGHT GOODS VEHICLE		
DRAWN SF	PROJECT NO. J03007			



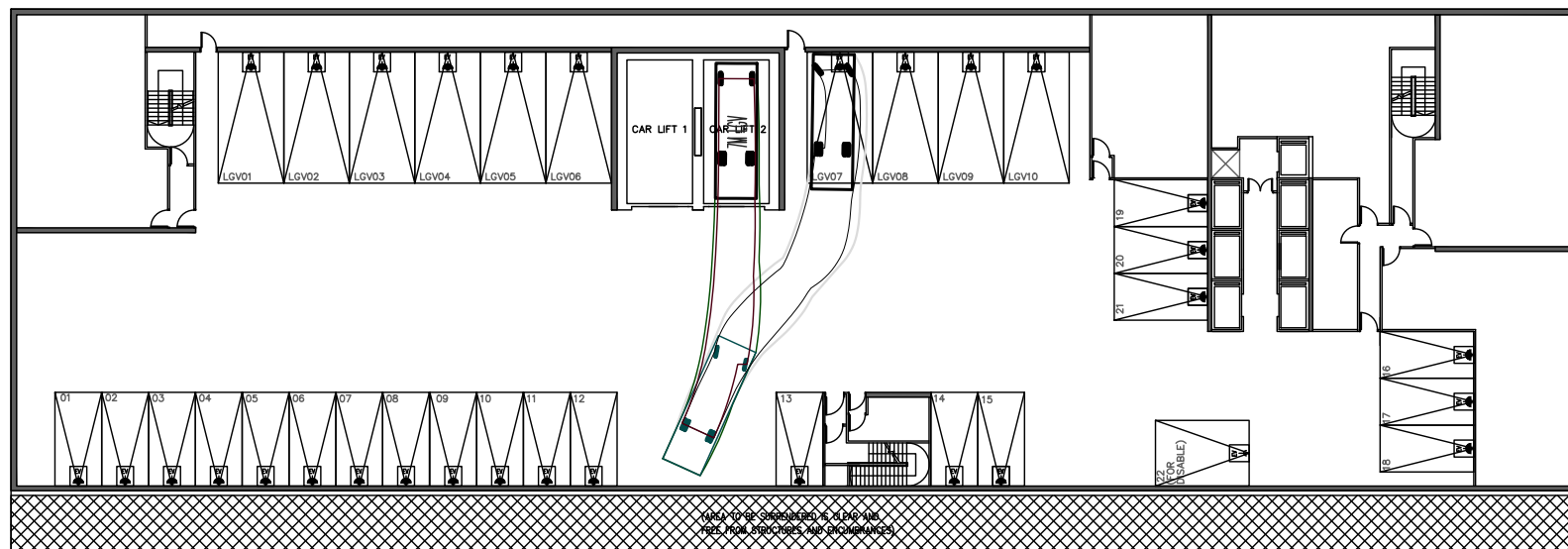
BASEMENT FLOOR

PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE BF-1.5
DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR LIGHT GOODS VEHICLE	 AMG CONSULTANCY LIMITED
DRAWN SF	PROJECT NO. J03007		



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DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR LIGHT GOODS VEHICLE	 AMG CONSULTANCY LIMITED	
DRAWN SF	PROJECT NO. J03007			



BASEMENT FLOOR

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Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B

FIGURE BF-1.7

DATE
JUL 2025

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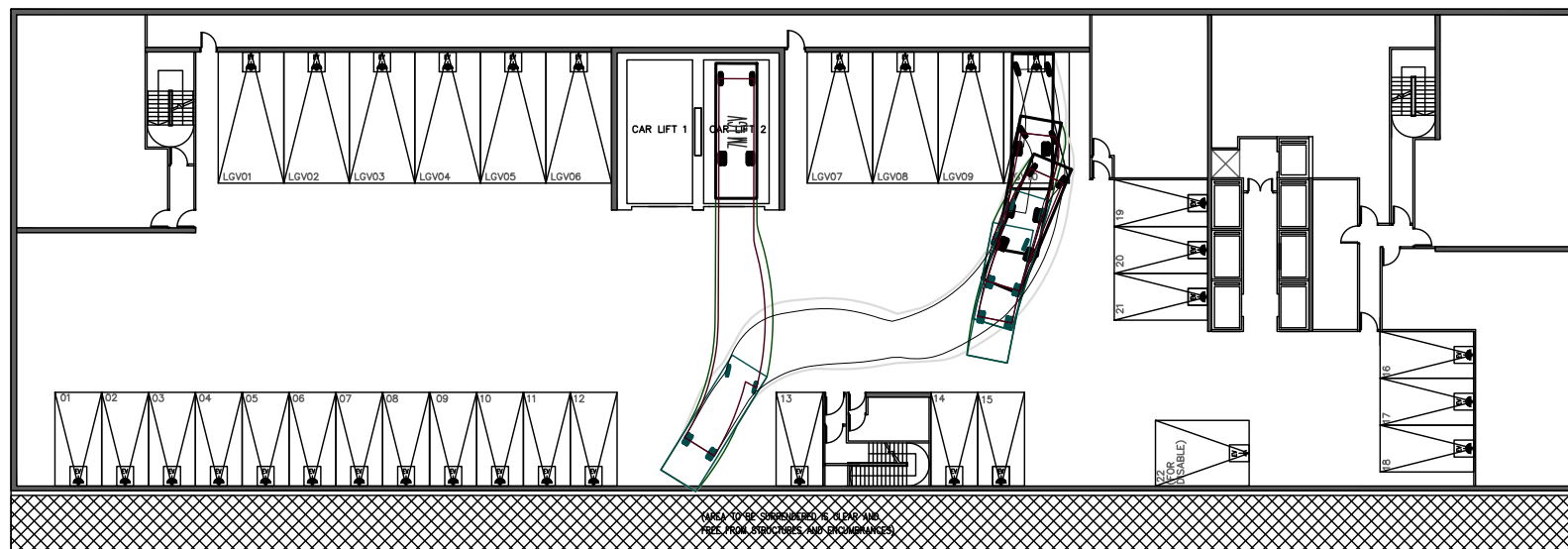
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PROJECT NO.
J03007

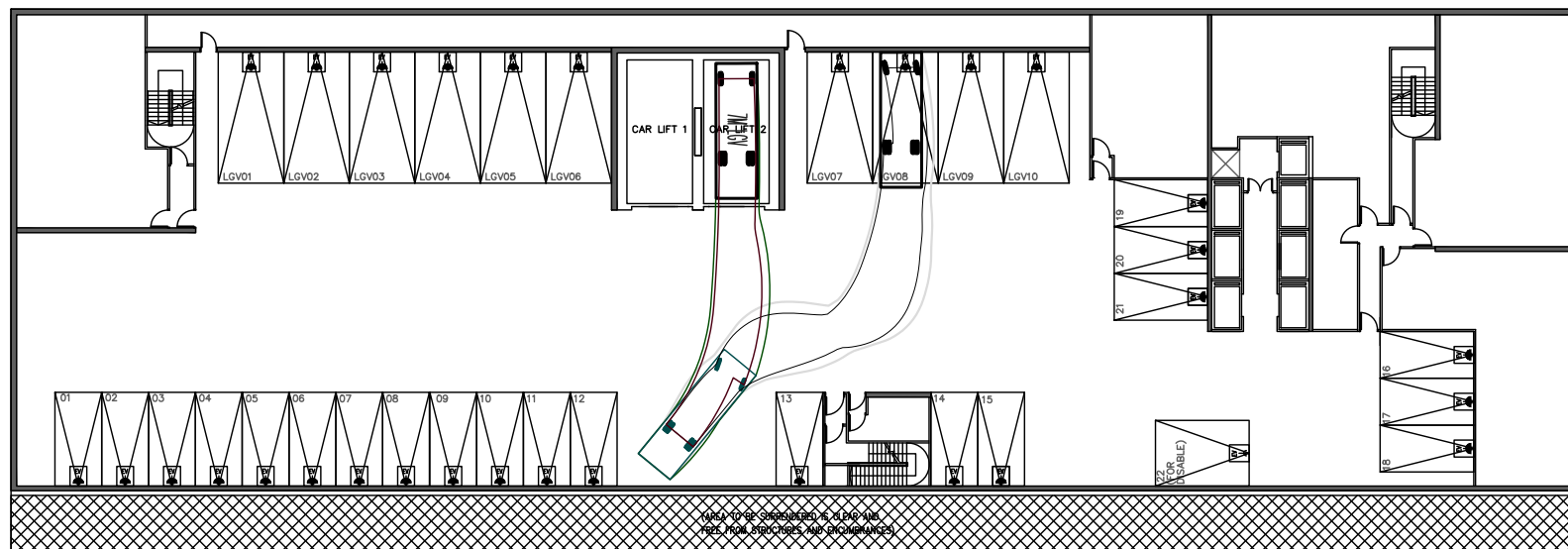
SWEPT PATH ANALYSIS FOR LIGHT GOODS VEHICLE





BASEMENT FLOOR

PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE BF-1.8	
DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR LIGHT GOODS VEHICLE		
DRAWN SF	PROJECT NO. J03007			



BASEMENT FLOOR

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DATE
JUL 2025

SCALE
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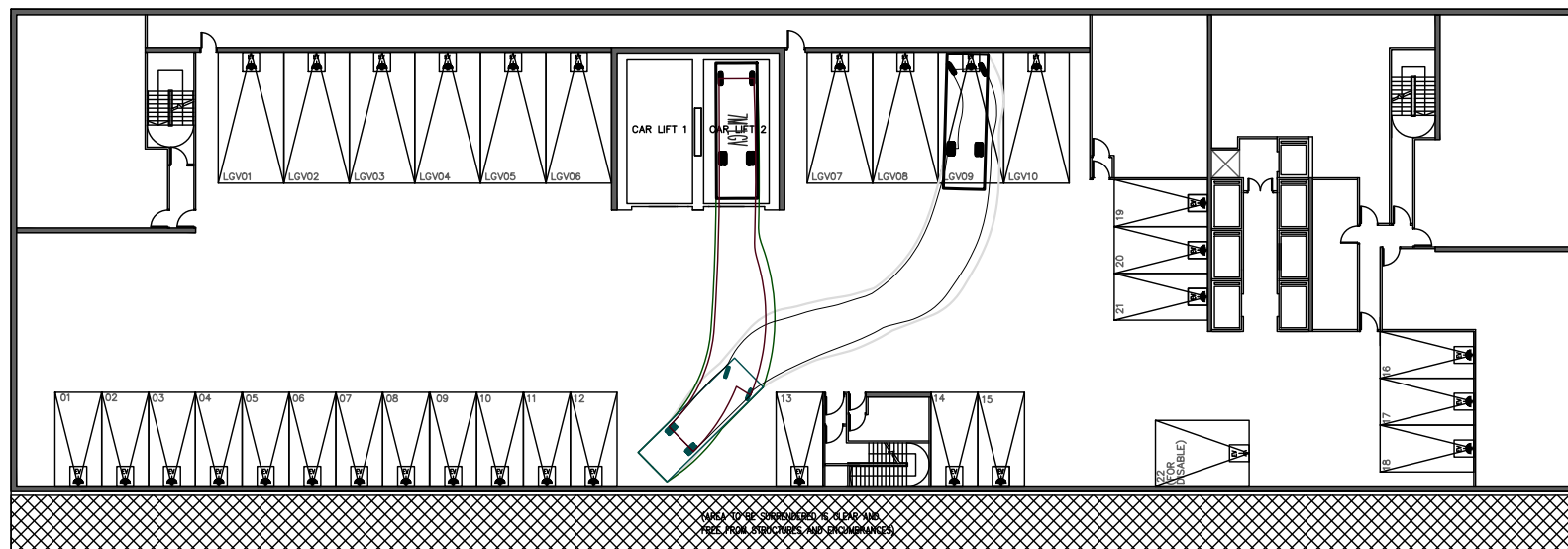
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SWEPT PATH ANALYSIS FOR LIGHT GOODS VEHICLE

FIGURE BF-1.9





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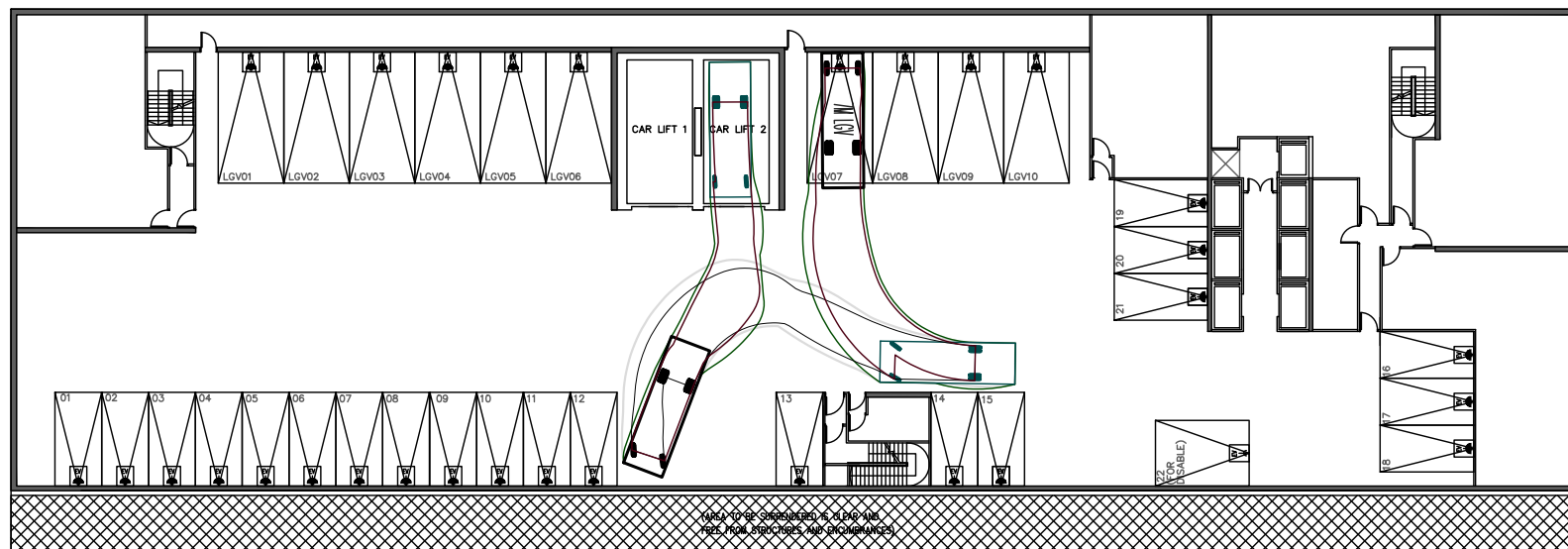
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PROJECT NO.
J03007

SWEPT PATH ANALYSIS FOR LIGHT GOODS VEHICLE

FIGURE BF-1.10





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FIGURE BF-1.11

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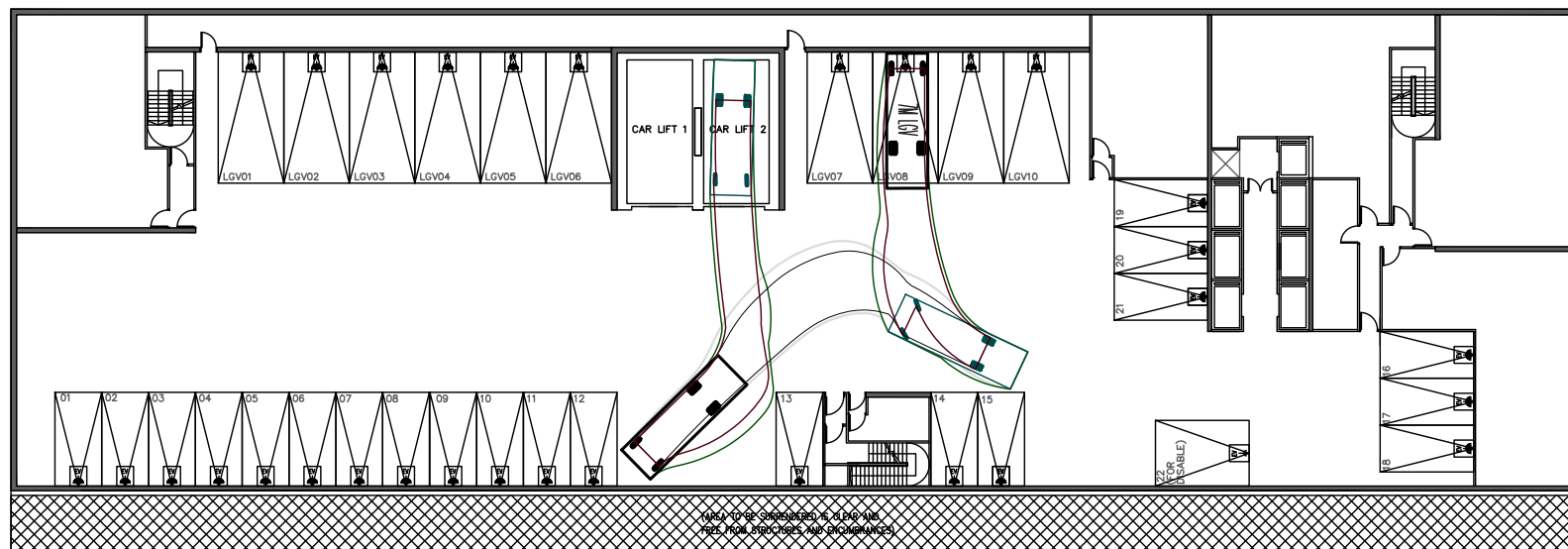
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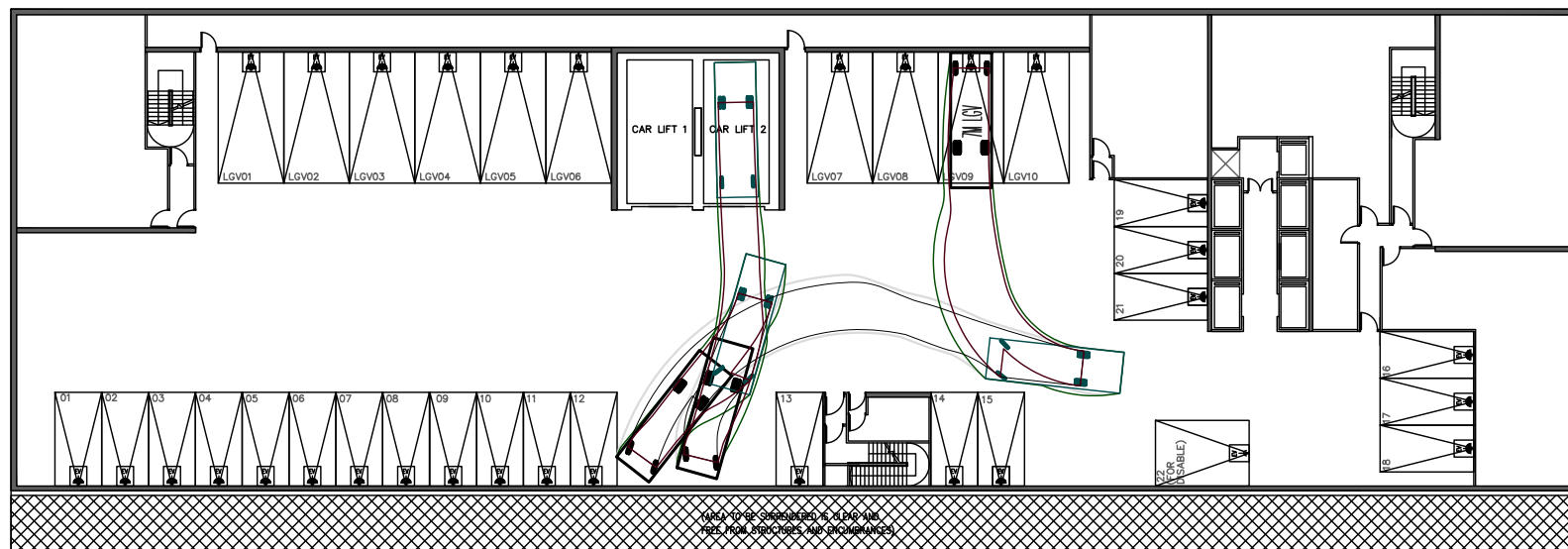
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SWEPT PATH ANALYSIS FOR LIGHT GOODS VEHICLE

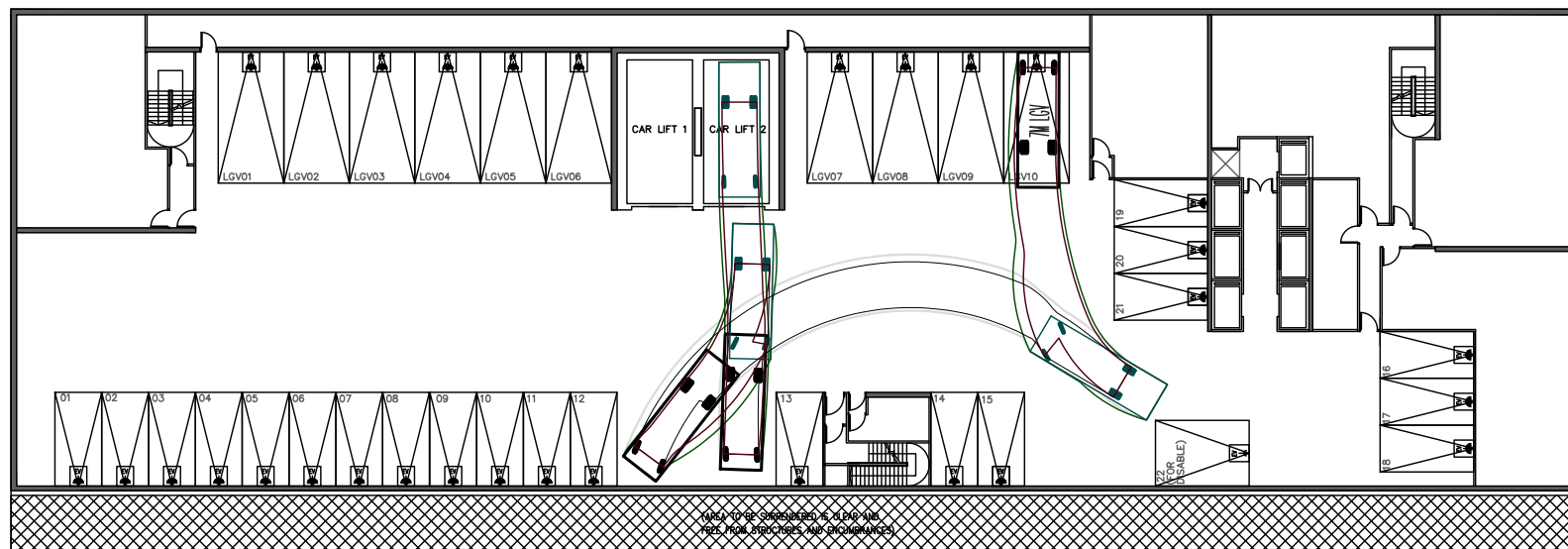
FIGURE BF-1.12





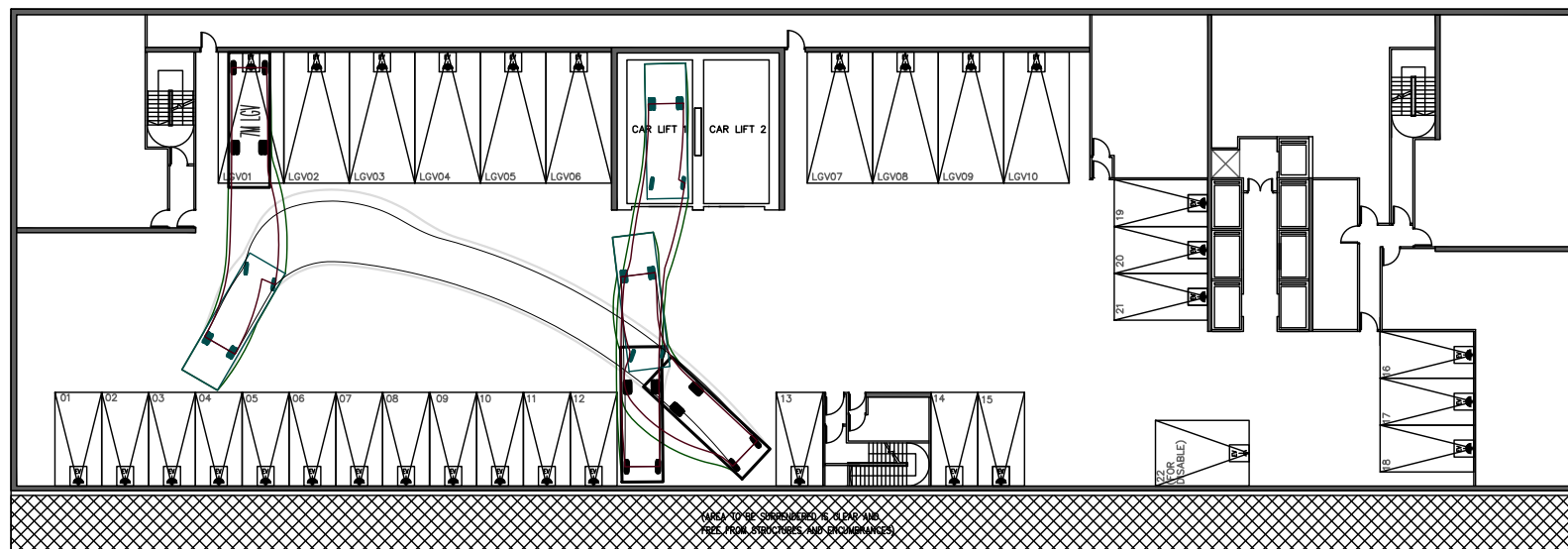
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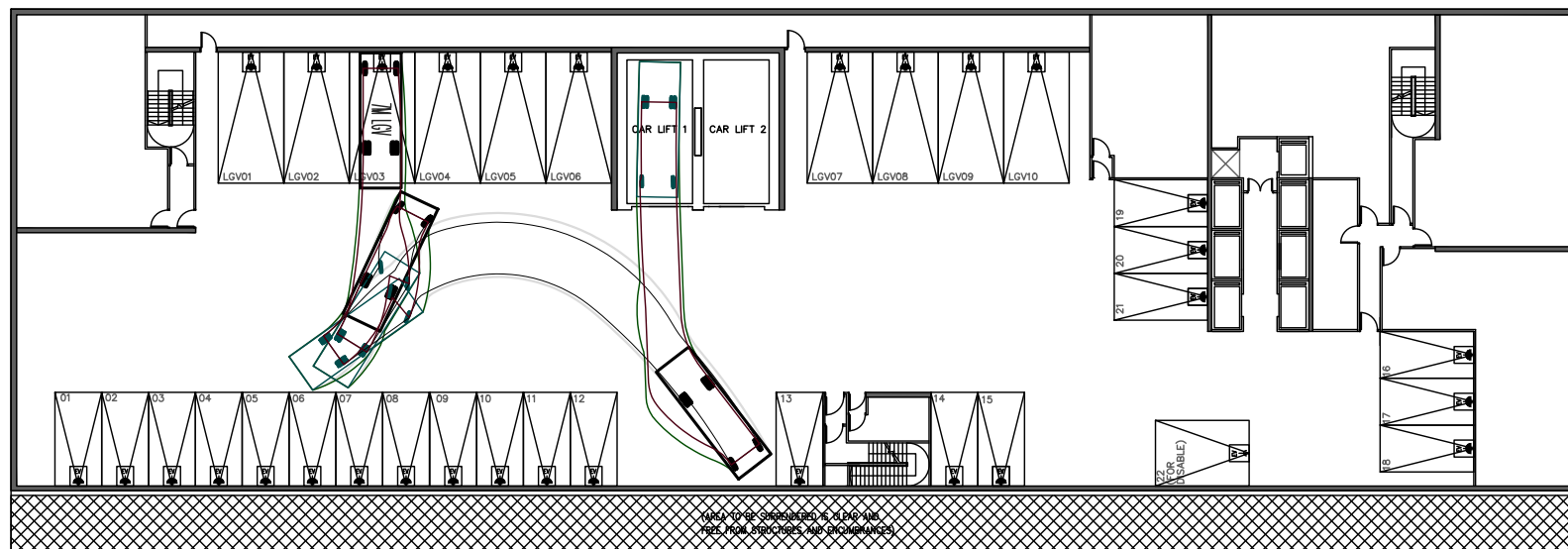
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DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR LIGHT GOODS VEHICLE	 AMG CONSULTANCY LIMITED	
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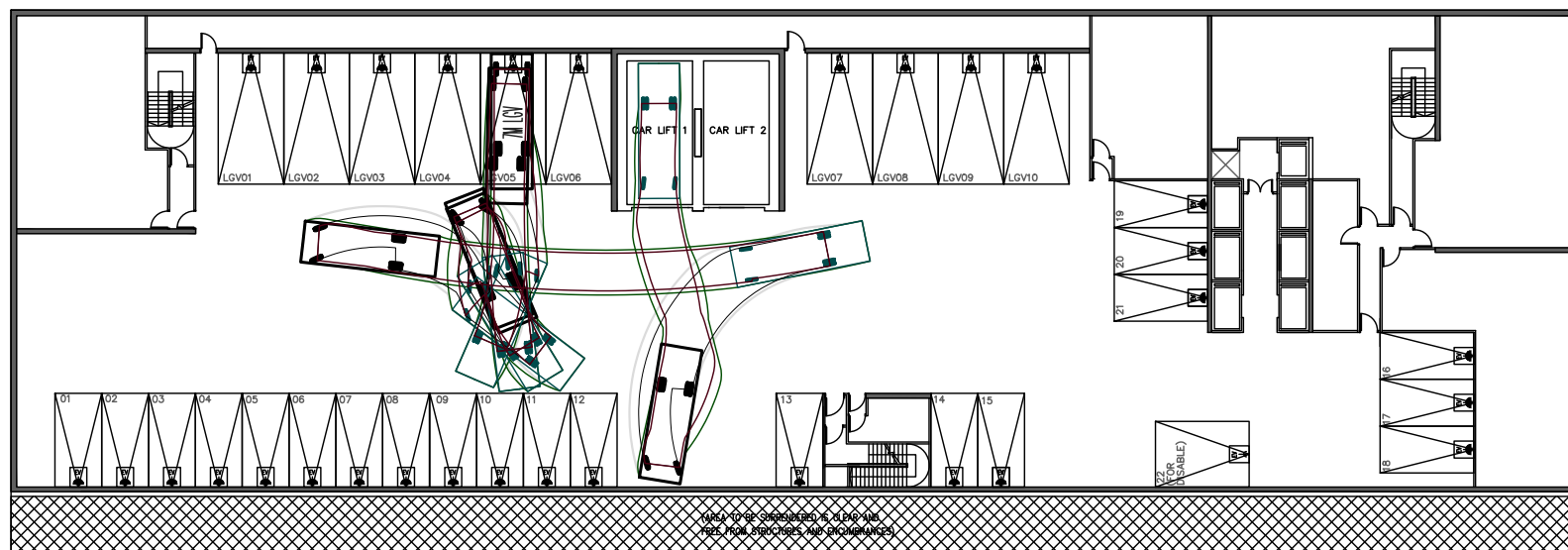
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FIGURE BF-1.16

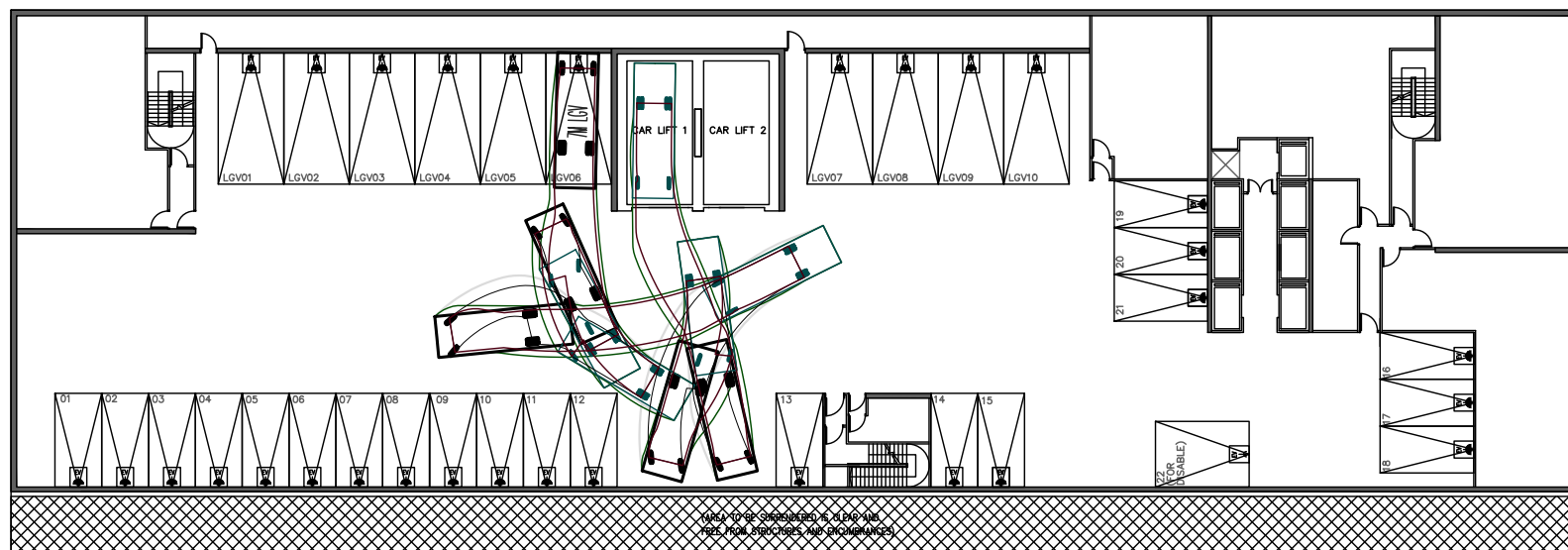


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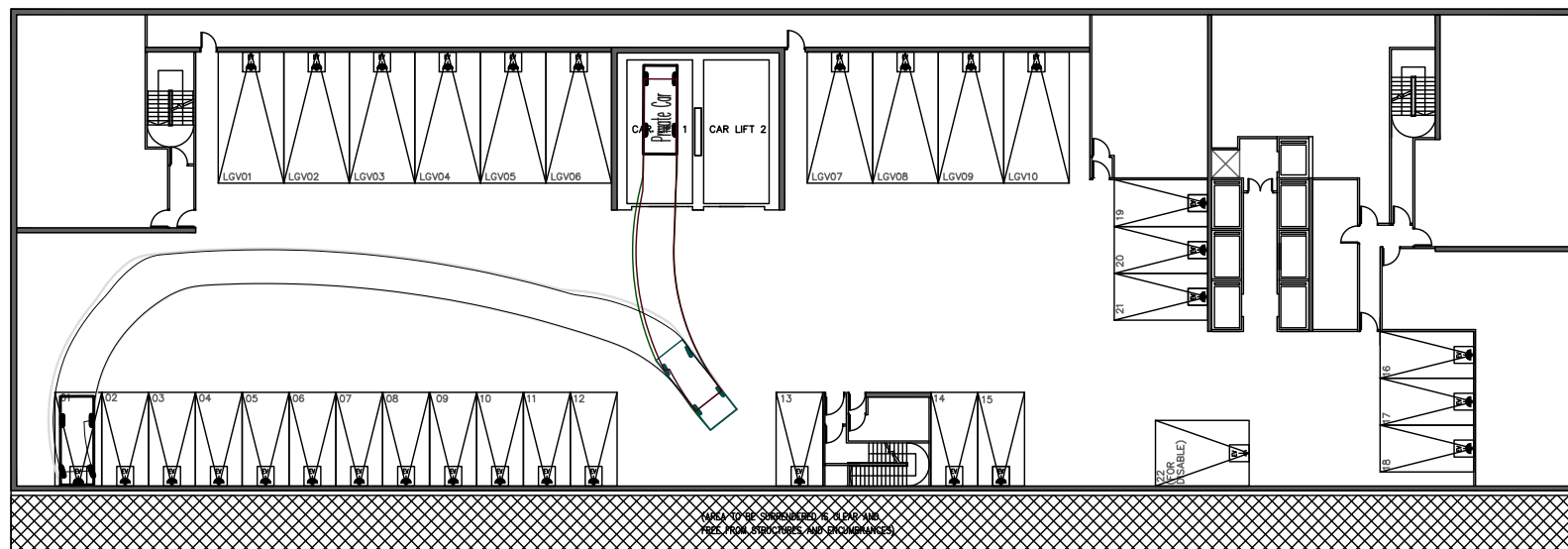
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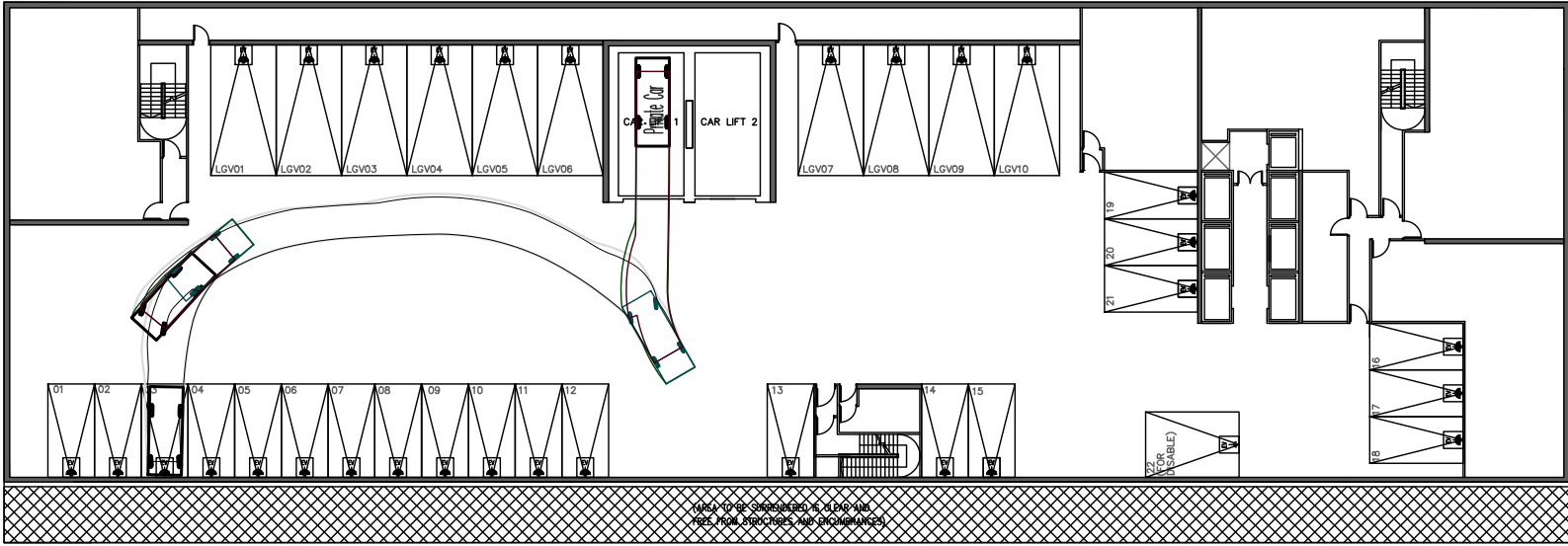
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DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR LIGHT GOODS VEHICLE		
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DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEEP PATH ANALYSIS FOR PRIVATE CAR		
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BASEMENT FLOOR

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FIGURE BF-1.20

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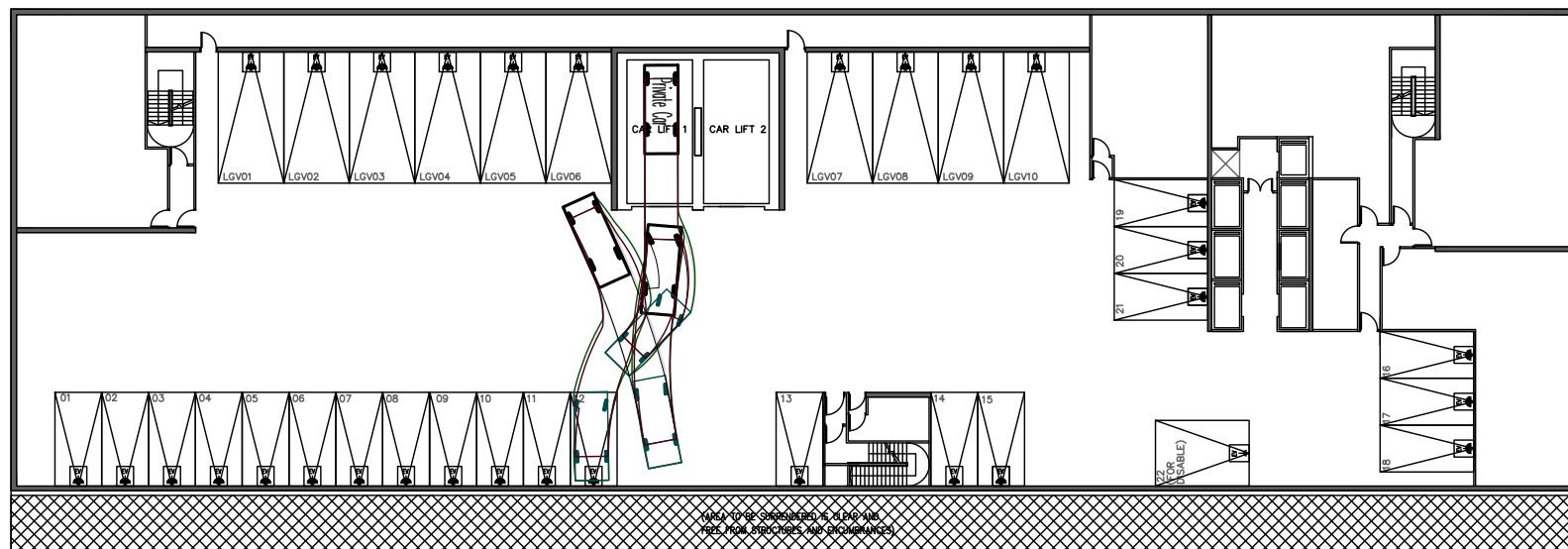
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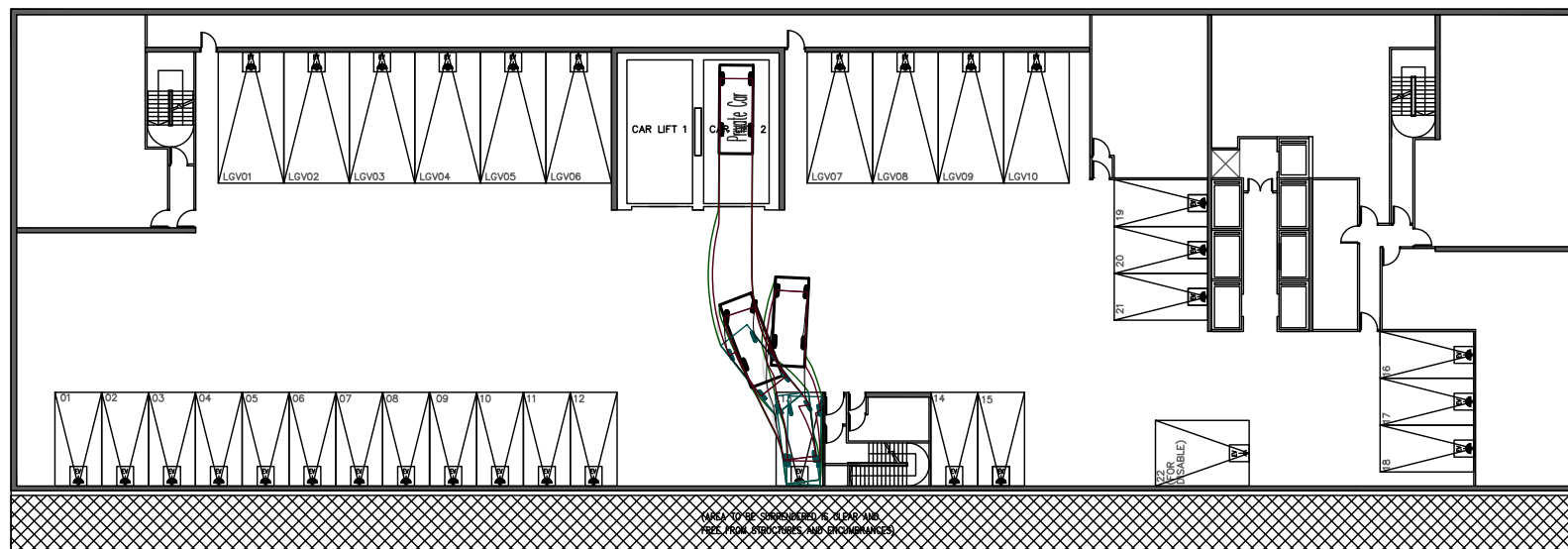
SWEPT PATH ANALYSIS FOR PRIVATE CAR





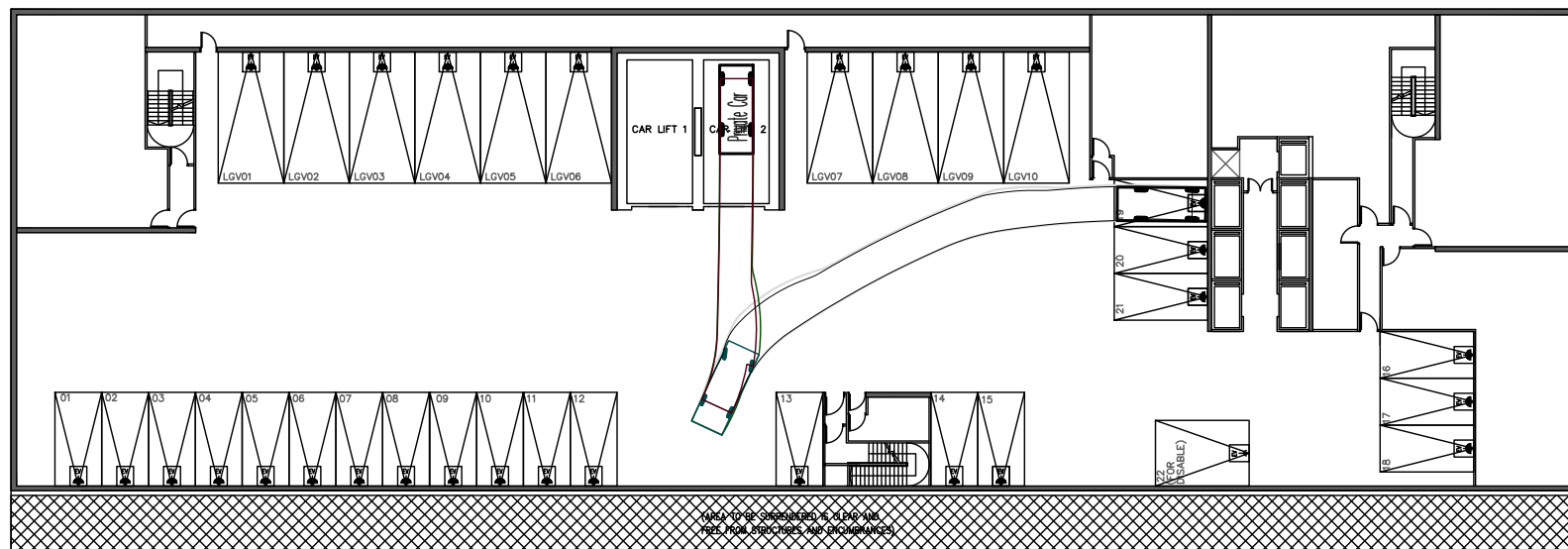
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DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEEP PATH ANALYSIS FOR PRIVATE CAR		
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PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE BF-1.22	
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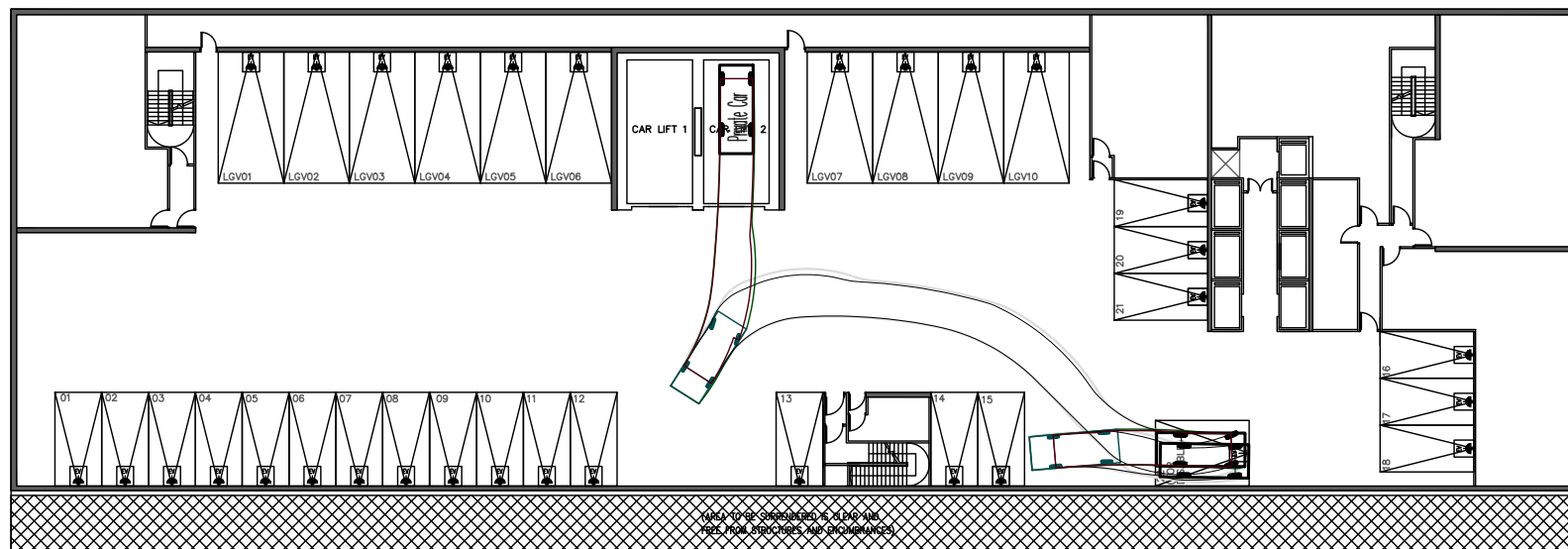
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SWEPT PATH ANALYSIS FOR PRIVATE CAR

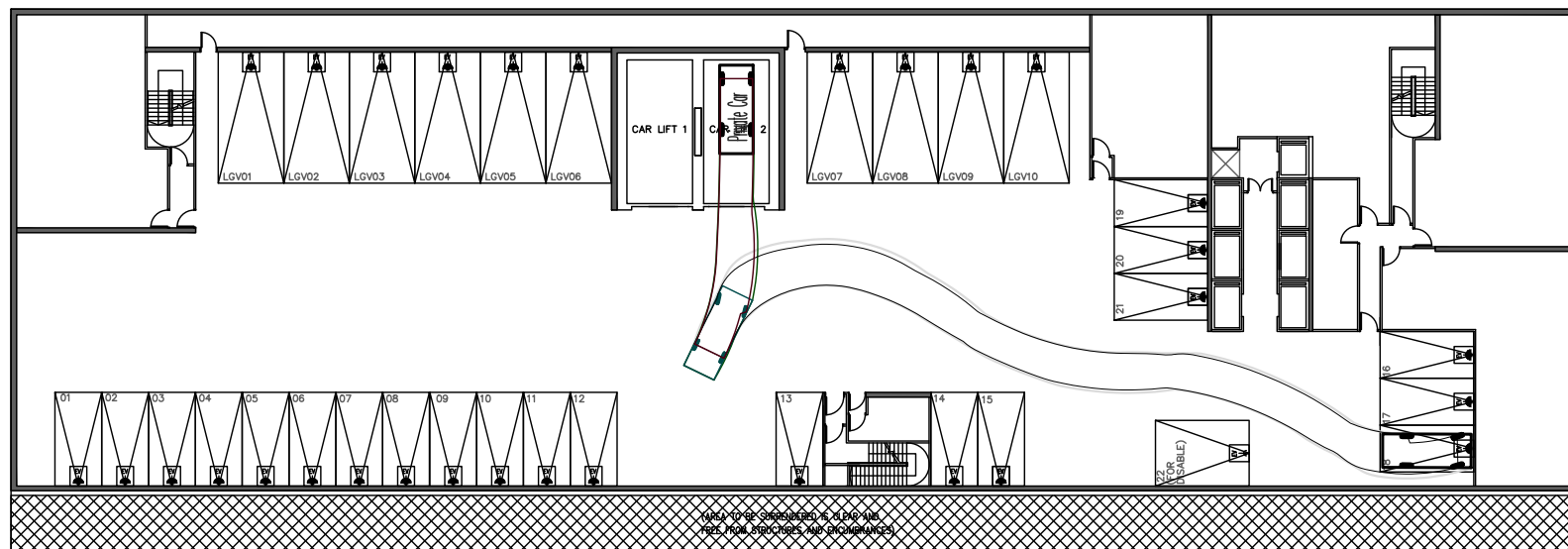
FIGURE BF-1.23





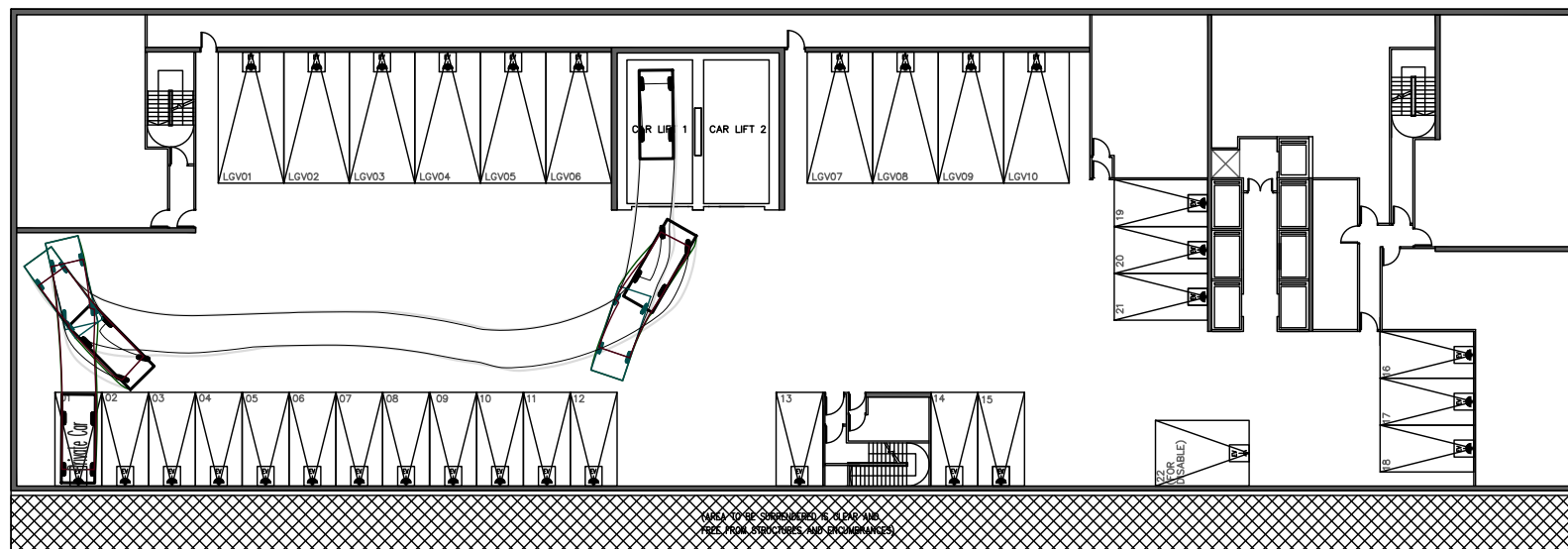
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PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE BF-1.24	
DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEEP PATH ANALYSIS FOR PRIVATE CAR		
DRAWN SF	PROJECT NO. J03007			



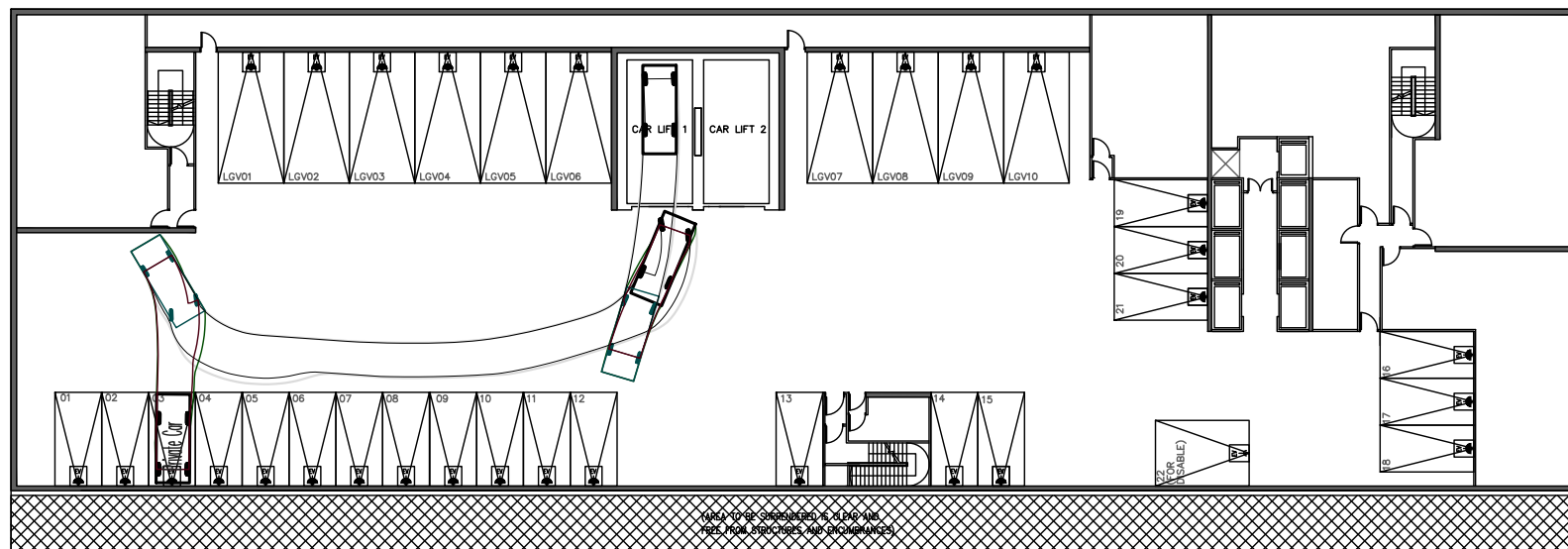
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DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR PRIVATE CAR	
DRAWN SF	PROJECT NO. J03007		



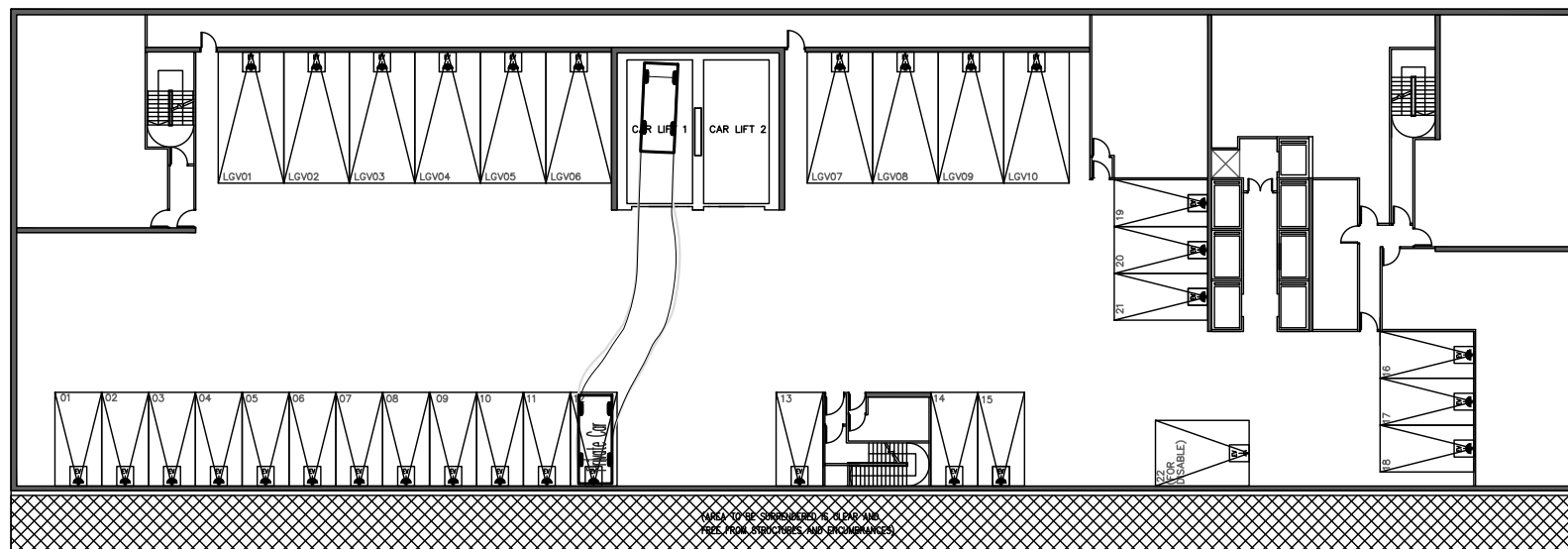
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DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEEP PATH ANALYSIS FOR PRIVATE CAR		
DRAWN SF	PROJECT NO. J03007			



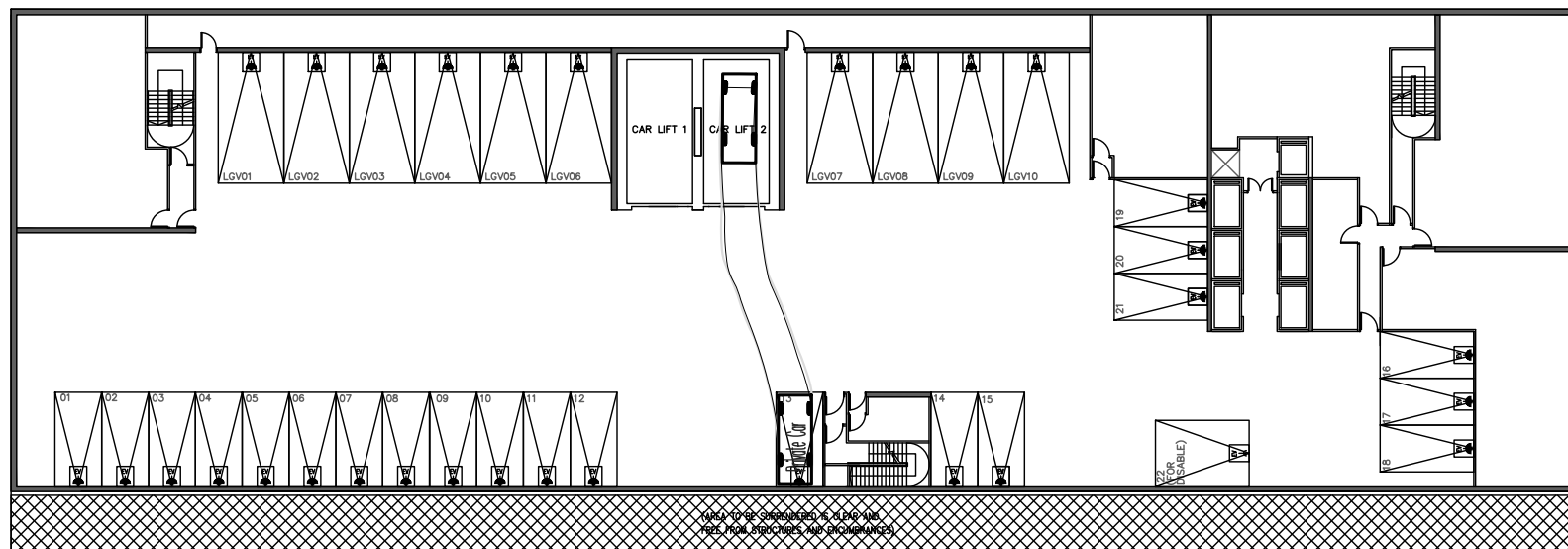
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DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR PRIVATE CAR	
DRAWN SF	PROJECT NO. J03007		
			



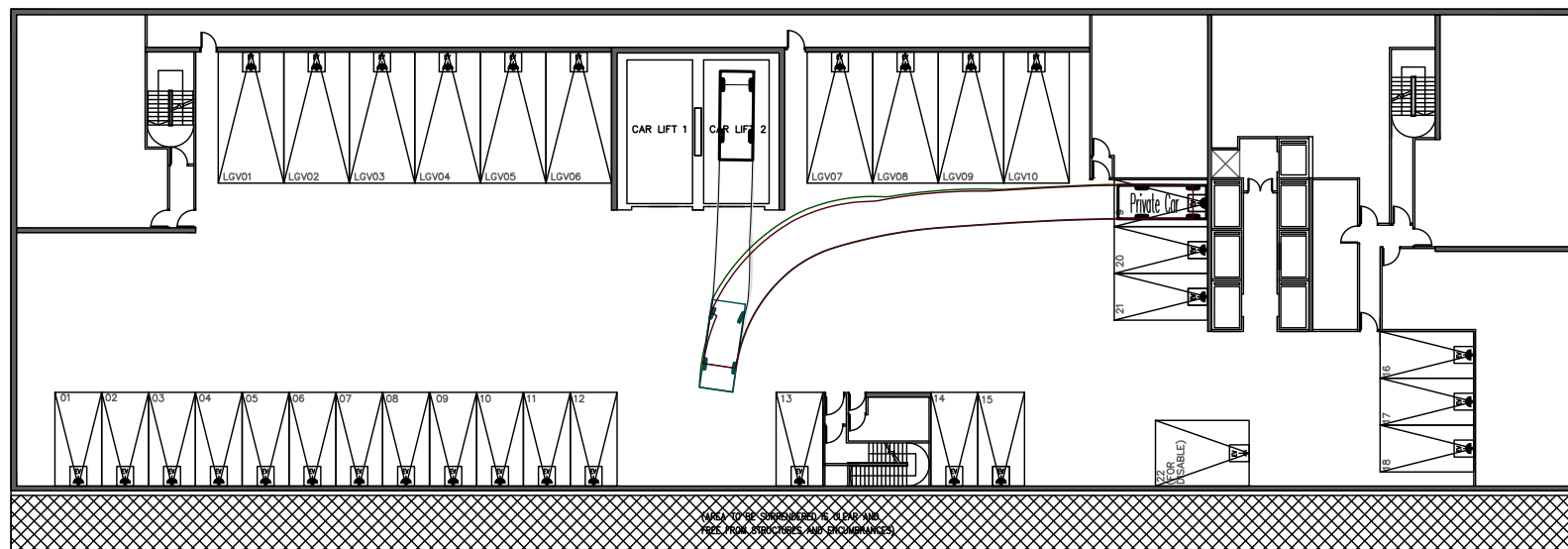
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DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEEP PATH ANALYSIS FOR PRIVATE CAR		
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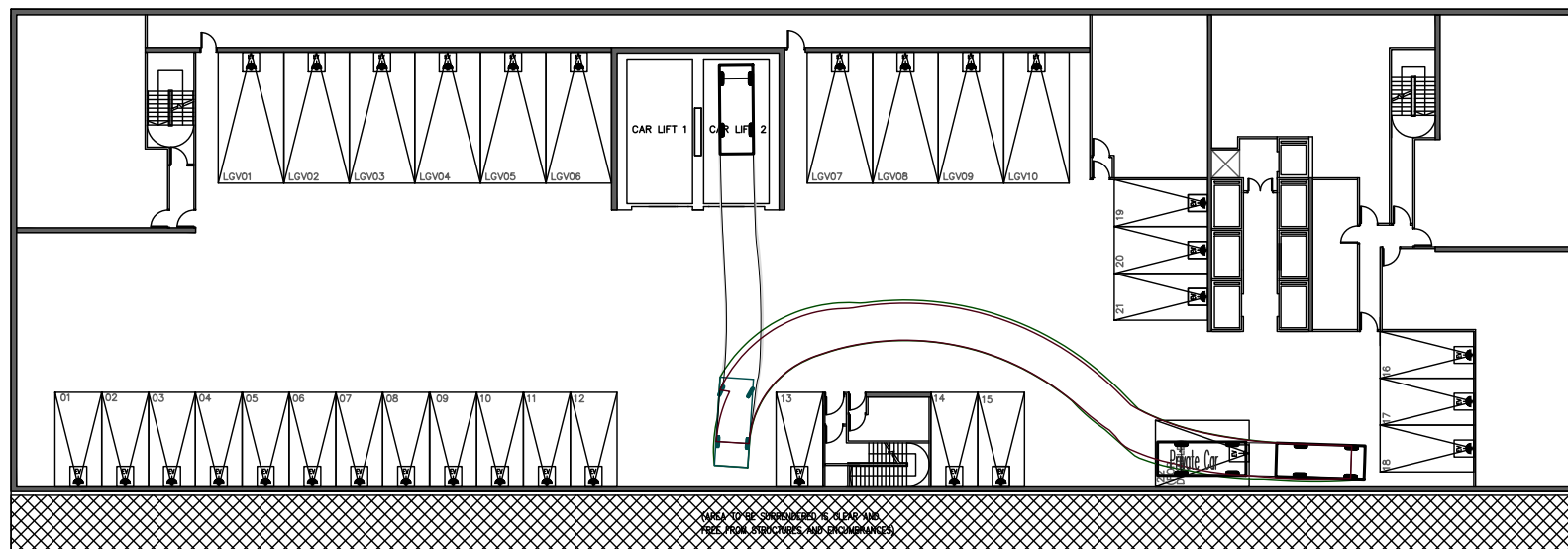
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PROJECT NO.
J03007

SWEPT PATH ANALYSIS FOR PRIVATE CAR

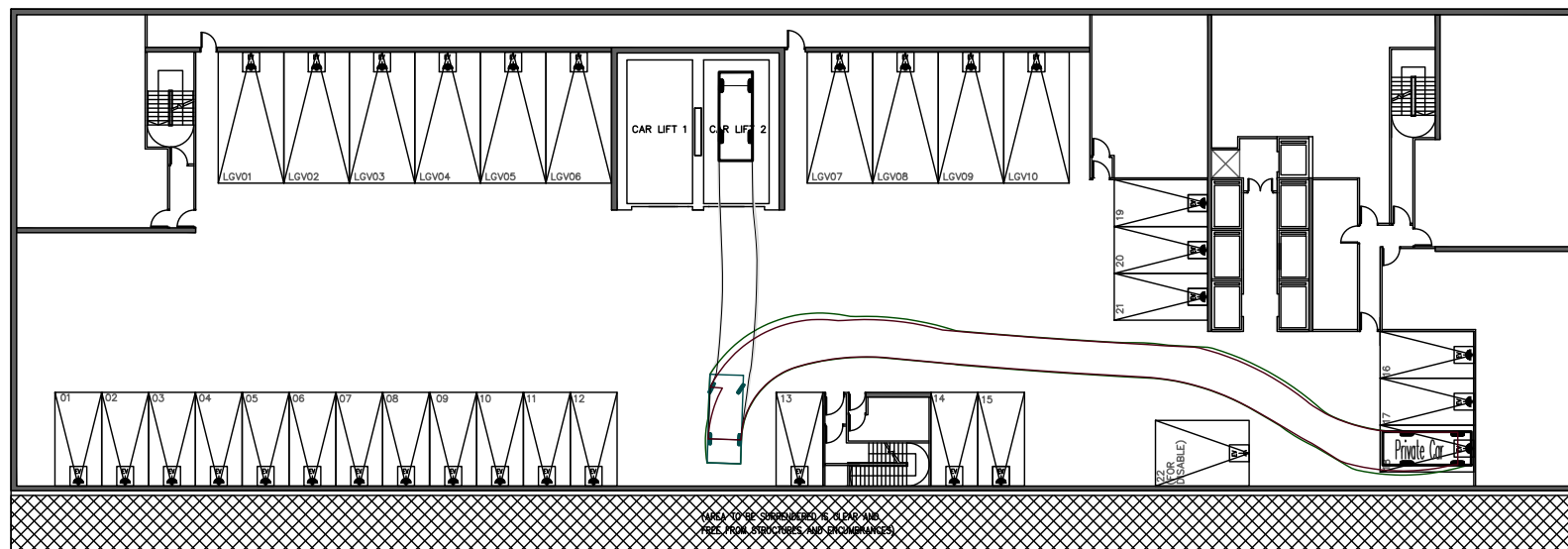
FIGURE BF-1.30





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PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE BF-1.31	
DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEEP PATH ANALYSIS FOR PRIVATE CAR		
DRAWN SF	PROJECT NO. J03007			



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PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE BF-1.32
DATE JUL 2025	SCALE N.T.S	DRAWING TITLE SWEPT PATH ANALYSIS FOR PRIVATE CAR	
DRAWN SF	PROJECT NO. J03007		

TRAFFIC IMPACT ASSESSMENT REPORT

Reference: J03007-R01-02

Date: November 2025



AMG CONSULTANCY LIMITED

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1 Introduction

1.1 Background

The Applicant intends to redevelop the site at 20–24 Tai Yau Street, San Po Kong into a hotel comprising 1,286 guestrooms (hereafter referred to as "the proposed development").

The site is currently zoned as "Other Specified Use" annotated "Business" ("OU(B)") under the Approved Tsz Wan Shan, Diamond Hill and San Po Kong Outline Zoning Plan No. S/K11/31. As "Hotel" is fell into Column 2 of the Schedule of Uses for this zoning, a planning application under Section 16 of the Town Planning Ordinance is required.

To support this application, AMG Consultancy Limited is commissioned to conduct a Traffic Impact Assessment (TIA). The purpose of the TIA is to evaluate the potential traffic implications of the proposed development, identify appropriate locations for hotel-related pick-up/drop-off and loading/unloading activities, and present the findings and recommendations in this report.

1.2 Objectives

The objectives of the traffic study are as follows:

- To estimate the anticipated traffic generation associated with the proposed development
- To assess future traffic conditions within the surrounding road network
- To evaluate the potential traffic impact resulting from the proposed development
- To review existing parking facilities in the vicinity and identify appropriate locations for hotel-related loading/unloading and pick-up/drop-off activities

2 The Proposed Development

2.1 The Site

The Site is located at 20-24 Tai Yau Street in San Po Kong, with a total area of approximately 2,426.050 sqm.

According to the Approved Tsz Wan Shan, Diamond Hill and San Po Kong Outline Zoning Plan (S/K11/31), the zoning of the site area of the proposed development is "Other Specified Use" annotated "Business" ("OU(B)").

Currently, the site is used as an industrial building, the site location is as shown in **Figure 2.1**.

2.2 The Proposed Development

The site is planned to be redeveloped into a hotel comprising 33 storeys, including one basement level and one refuge floor, with a total of 1,260 guestrooms. Completion of the proposed development is targeted for the year 2030.

The proposed development will have a total GFA of 29,111.334 sqm. The development schedule is summarised in **Table 2.1**.

Table 2.1 Development Schedule

Floor No.	Descriptions
B1/F	Car Parking Spaces, E&M Room
G/F	Entrance Lobby / Loading & Unloading / Drop-off / E&M
1/F	Restaurant / Cafe / Lounge / Shop
2/F	Back of House Facility / E&M
3/F – 15/F & 17/F -31/F	Guest Rooms
16/F	Refuge Floor
Roof	E&M Room

3 Existing Traffic Situation

3.1 Existing Road Network

The existing vehicular access of the Site is located at Tai Yau Street.

Tai Yau Street is classified as a local distributor which is mainly a single-two carriageway running in north-south direction.

Sheung Hei Street is classified as a local distributor which is mainly a single-two carriageway running in north-south direction.

Luk Hop Street is classified as a local distributor which is mainly a single-two carriageway running in east-west direction.

3.2 Public Transport

The site is well-served by public transportation, including franchised buses and green minibuses (GMBs). More than 50 bus routes and 20 minibus routes operate within walking distance of the site, providing well-connected to the surrounding areas.

3.3 Traffic Count Surveys

To assess the existing traffic conditions, classified turning movement count surveys (hereafter referred to as "the in-house surveys") were conducted at key junctions within the study area, as shown in **Figure 3.1**. These surveys took place on Wednesday, 7 May 2025, during the morning period from 07:30 to 10:30 and the evening period from 16:00 to 19:00. The area of influence is presented in **Figure 3.2**.

The traffic counts were recorded at 15-minute intervals and subsequently converted into passenger car unit (pcu) values. The highest consecutive 15-minute intervals within an hour were used to determine the peak hour traffic flow.

Based on the survey data, the morning and evening peak hours of the road network were identified as 07:45–08:45 and 17:30–18:30, respectively. The 2025 observed peak hour traffic flows for the study area are presented in **Figure 3.3**.

3.4 Existing Junction Capacity Assessment

Based on the observed traffic flows, the performance of key junctions near the subject site during the morning and evening peak hours was evaluated

in accordance with the Transport Planning and Design Manual, Volume 2, Chapter 4.

For signalised junctions, performance is measured by reserve capacity (RC). A positive RC indicates available spare capacity, while a negative RC suggests the junction is over capacity, leading to induced traffic queues and longer delay time.

For priority junctions and roundabouts, performance is assessed using the design flow / capacity ("DFC"). A DFC value of 0.85 or below is generally considered acceptable level without causing undue delay to motorists passing through the concerned junctions.

Based on the observed traffic flows, the performance of the key junctions in the vicinity of the subject site during the morning and evening peak hours was assessed. The results are summarised and presented in **Table 3.1** and the detailed calculation sheets are attached in **Appendix A** for perusal.

Table 3.1 Existing Junction Performance

Jun No.	Junction Location	Type/ Capacity Index	AM Peak Hour	PM Peak Hour
J1	Slip roads of Lung Cheung Road / Po Kong Village Road	Signal Junction / RC	59.8%	75.5%
J2	Choi Hung Road / Po Kong Village Road	Signal Junction / RC	12.0%	18.0%
J3	Choi Hung Road / Tai Yau Street	Signal Junction / RC	11.3%	15.6%
J4	Luk Hop Street / Tsat Po Street	Priority Junction / DFC	0.48	0.53
J5	Pat Tat Street / Tsat Po Street / Kai San Road	Signal Junction / RC	29.4%	33.9%
J6	Tai Yau Street / Ng Fong Street	Priority Junction / DFC	0.16	0.27
J7	Tai Yau Street / Luk Hop Street	Priority Junction / DFC	0.21	0.23
J8	Tai Yau Street / Pat Tat Street	Priority Junction / DFC	0.31	0.24
J9	Tai Yau Street / Sam Chuk Street	Signal Junction / RC	50.0%	31.2%
J10	Sze Mei Street / Luk Hop Street	Roundabout / DFC	0.63	0.67
J11	Sam Chuk Street / Tsat Po Street	Priority Junction / DFC	0.43	0.46

Notes: RC = reserve capacity, DFC = design flow to capacity

It can be seen from Table 3.1 that all of the key junctions perform satisfactorily during peak hours.

4 Future Traffic Situation

4.1 2030 Design Year Road Network

The application year of the proposed development is 2025. The design year is either 3 years after the completion year or 5 years after the application year. Therefore, year 2030 is adopted as the design year of this study.

4.2 Proposed Development Traffic Generation

According to the latest TPDM, the trip generations of the proposed development are shown in **Table 4.1**.

Table 4.1 Development Traffic Generation

Development	Generation		Attraction	
	AM Peak	PM Peak	AM Peak	PM Peak
Trips rates¹ (pcus/hr/guestroom)				
Proposed Hotel Use	0.1329	0.1290	0.1457	0.1546
Trips (pcus/hr)				
Existing Scheme ²	33	48	50	38
No. of Guestrooms:1260	168	163	184	195
Net	135	115	134	157

Note: 1. TPDM Volume 1
2. Approved Planning Application A/K11/236

As shown in **Table 4.1**, the proposed development would generate additional 135(115) pcus and attract 134(157) pcus in the morning (evening) peak hours.

The traffic generated by the proposed development was redistributed and assigned to the existing road network. The resulting traffic assignment is shown in **Figure 4.1**.

4.3 Adjacent Development

Several potential developments are identified in the vicinity of the site, either under planning or currently under construction. The design parameters of these adjacent developments are summarised in **Table 4.2**.

Table 4.2 Traffic Generation from Adjacent Developments

Development			Generation		Attraction	
			AM Peak	PM Peak	AM peak	PM Peak
Trip Rates⁽¹⁾						
Industrial Use (I)	(pcu/hr/100sqm GFA)		0.0926	0.1350	0.1386	0.1049
RCHE ⁽²⁾ (A)	(pcu/hr/10 beds)		0.3431	0.33431	0.3986	0.3431
Religious Building ⁽²⁾ (B)	(pcu/hr/100sqm Site Area)		0.3732	0.1755	0.4858	0.1397
Coach Parking Facility ⁽²⁾ (C)	(pcu/space)		1.3333	0.3777	1.4440	0.4222
Trips (pcus/hour)						
(i) Proposed Religious Institution and Social Welfare Facilities uses in CDA site, Diamond Hill (A/K11/244) (A) (B) (C) Target Completion Year : 2026			64 ⁽²⁾	30 ⁽²⁾	76 ⁽²⁾	28 ⁽²⁾
(ii) Proposed Public Vehicle Park at Kai Tak East Playground Bound by Sze Mei Street, Tsat Po Street and Luk Hop Street, San Po Kong (A/K11/238) Target Completion Year : 2027		326 Veh spaces and 1 L/UL	28 ⁽³⁾	24 ⁽³⁾	37 ⁽³⁾	35 ⁽³⁾
(iii) Proposed Relaxation of Maximum Plot Ratio Restriction for Permitted 'Non-Polluting Industrial' Use at No. 3 Luk Hop Street, San Po Kong (A/K11/241) (I) Target Completion Year : 2027		7628m ² GFA for Industrial Use	134	84	111	100
Net			226	138	224	163

Note: (1) TPDM Volume 1
(2) Trip Rates and Traffic Generation adopted in the TIA of Application no. A/K11/244
(3) Traffic Generation adopted in the TIA of Application no. A/K11/238

4.4 Annual Traffic Growth

To estimate traffic flows for the design year 2030, the existing traffic flows have been adjusted to account for natural traffic growth associated with increased car usage. The traffic forecasts were developed by applying an appropriate annual growth factor to the 2025 baseline traffic data obtained from the surveys, thereby deriving the projected background traffic for 2030.

Annual Traffic Census (ATC)

Reference was made to the Annual Average Daily Traffic (AADT) figures from the 2019 to 2023 Annual Traffic Census (ATC) published by the Transport Department. Traffic data recorded at stations near the site are summarised in **Table 4.3**.

Table 4.3 Annual Traffic Census Data

Station No./Road Name	2019	2020	2021	2022	2023	G.P.A
4054/Choi Hung Rd	34420	33220	34760	27560	30800	-2.7%
3660/ Po Kong Village Rd	37270	40110	44720	42610	44960	+4.8%
3805/Prince Edward Rd E	134290	123560	124490	115990	123530	-2.1%
3003/Prince Edward Rd E & FO <K10A>	122640	113260	107590	105370	112290	-2.2%
3259/ Choi Hung Rd	15770	15220	15930	15090	16590	+1.3%
4625/Luk Hop St	15830	18360	19520	19910	21380	+7.8%
Growth per Annum						-0.7%

Notes 1. G.P.A. = Growth Per Annum
2. Source: Annual Traffic Census, Transport Department

It is observed that the average annual growth factor over the past five years has shown a slight decline of approximately -0.7%.

Planning Data

According to the report “Projections of Population Distribution 2023-2031” issued by Planning Department in August 2023, the population growth from base year 2021 to 2031 is shown in **Table 4.4** and **Appendix B**.

Table 4.4 Projected Population by District Council District, 2021-2031

District Council District	Year 2021 [#]	Year 2031	Growth Rate p.a. (%)
Wong Tai Sin	406800	396650	-0.3%

[#] Base Year Estimates

The planning data indicate a growth in population at a rate of -0.3% per annum.

After comparing the historical data with the future planning data, for the purpose of a conservative assessment, an annual growth rate of +0.5% was adopted. This factor is used to forecast the future traffic volume for this study.

4.5 Reference and Design Flows

The growth factor, along with traffic generated by adjacent developments, will be applied to the 2025 observed peak hour traffic flows to estimate the projected reference flows for the year 2030.

The reference and design flows for the design year 2030 are calculated from the following formulae:

$$\begin{aligned}
 \text{2030 Reference Flows} &= \text{2025 Observed Flows} \times (1+0.5\%)^5 + \text{Adjacent Developments Traffic} \\
 \text{2030 Design Flows} &= \text{2030 Reference Flows} + \text{Proposed Development Traffic}
 \end{aligned}$$

Based on the observed traffic flows and existing road network patterns, the projected 2030 peak hour Reference and Design traffic flows at the critical junctions are distributed and assigned in **Figure 4.2** and **4.3** respectively.

4.6 Junction Capacity Assessment

Capacity assessments were conducted for the major junctions within the local road network under both the Reference and Design scenarios. The results are summarised in **Table 4.5**, with detailed calculation sheets provided for perusal.

Table 4.5 2030 Junction Capacity Assessments

Jun No.	Location	Type / Capacity Index	2030 Reference		2030 Design	
			AM	PM	AM	PM
J1	Slip roads of Lung Cheung Road / Po Kong Village Road	Signal Junction / RC	53.4%	70.9%	51.8%	68.5%
J2*	Choi Hung Road / Po Kong Village Road	Signal Junction / RC	33.4%	18.4%	29.9%	16.0%
J3*	Choi Hung Road / Tai Yau Street	Signal Junction / RC	50.5%	36.8%	37.8%	24.9%
J4	Lup Hop Street / Tsat Po Street	Priority Junction / DFC	0.50	0.57	0.51	0.57
J5	Pat Tat Street / Tsat Po Street / Kai San Road	Signal Junction / RC	24.3%	27.8%	15.2%	18.2%
J6	Tai Yau Street / Ng Fong Street	Priority Junction / DFC	0.17	0.28	0.24	0.34
J7	Tai Yau Street / Luk Hop Street	Priority Junction / DFC	0.23	0.26	0.24	0.27
J8	Tai Yau Street / Pat Tat Street	Priority Junction / DFC	0.32	0.24	0.41	0.34
J9	Tai Yau Street / Sam Chuk Street	Priority Junction / DFC	44.7%	27.1%	41.4%	24.3%
J10	Sze Mei Street / Luk Hop Street	Roundabout / DFC	0.66	0.70	0.70	0.73
J11#	Sam Chuk Street / Tsat Po Street	Priority Junction / DFC	0.54	0.57	0.54	0.58

Notes: RC =reserve capacity, DFC = ratio of flow to capacity
J* indicates junction with improvement works as proposed in the Diamond Hill CDA project by Housing Authority.
J# indicates junction with improvement works as planned by EKEO

As shown in **Table 4.5** and **Appendix A**, all key junctions are projected to operate satisfactorily during peak periods under both the Reference and Design scenarios. **Appendix C** illustrates the layouts of the approved junction improvement works.

5 Internal Transport Provisions

5.1 Provisions of parking provision and loading/unloading facilities

In accordance with the Hong Kong Planning Standards and Guidelines (HKPSG), the car parking provisions and loading/unloading requirements for the proposed development are detailed in **Tables 5.1 and 5.2**, respectively. The standard dimensions for parking spaces, as specified in the HKPSG, are summarised in **Table 5.3**. The layout of the internal transport provisions is presented in **Figures 5.1 to 5.4**.

Table 5.1 Parking Provisions

Type of Development	Required Provisions	Proposed Provisions
Business Use "OU(B)" (Hotel) No. of Guestrooms: 1260	<u>Parking Spaces</u> Private Car: 1 car space per 100 Rooms $\equiv 13$ Private Car: 0.5 - 1 car space per 200m² GFA of conference and banquet facilities in hotel (1/F : 1300.307 sqm) $\equiv 4 - 7$ <u>Loading / unloading</u> Goods Vehicle: 0.5 - 1 goods vehicle bay per every 100 Rooms $\equiv 7 - 13$ <u>Lay-by for Taxi and Private Cars</u> Lay-by for Taxi and Private Cars: 4 no. of lay-by =>600 rooms $\equiv 4$ <u>Lay-by for single-deck tour buses</u> Lay-by for single deck tour buses: 3 no. of lay-by =>900 rooms $\equiv 3$	<u>Parking Spaces</u> Private Car: 22 (include 1 accessible parking spaces) <u>Motorcycle Spaces</u> Motorcycle : 6 <u>Loading / unloading</u> Goods Vehicle: 13 Heavy Goods Vehicle: 3 Light Goods Vehicle: 10 <u>Lay-by for Taxi and Private Cars</u> Taxi and Private Cars Lay-by: 4 <u>Lay-by for single-deck tour buses</u> Single deck tour buses Lay-by: 3

Table 5.2 Provision Details

Floor No.	Provisions
Ground Floor	3 nos. of HGV Loading / Unloading Spaces 3 nos. of Single deck tour bus Spaces 4 nos. of Taxi and Private cars lay-by 6 nos. of Motorcycle Spaces
Basement 1 Floor	10 nos. of LGV Loading / Unloading Spaces 22 nos. of Private Car Parking Spaces (Include 1 accessible parking space)

Table 5.3 Parking Space Dimensions

Type of Parking Space	Size	References
Car Parking Space	2.5m(W) x 5.0m(L) x 2.4m(H)	Under HKPSG
Disabled Car Parking Space	3.7m(W) x 5.0m(L) x 2.4m(H) (Minimum width required is 3.5m)	
Motocycle Spaces	1.0m(W) x 2.4m(L) x 2.4m(H)	
Light Goods Vehicle	3.5m(W) x 7.0m(L) x 3.6m(H)	
Heavy Goods Vehicle	3.5m(W) x 11.0m(L) x 4.7m(H)	
Coaches / Single Deck buses	3.5m(W) x 12.0m(L) x 3.8m(H)	

5.2 Safety Measures at the proposed development accesses

To enhance safety at the wide site accesses, a series of safety measures have been proposed, as shown in **Figure 5.1**. A pair of amber revolving lanterns will be installed on both sides of the site access at approximately 2.3 metres above ground level to alert approaching road users.

Traffic controller(s) will be deployed to manage vehicle movements entering and exiting the site, to avoid potential conflicts with the surrounding road traffic. Clear guidelines and appropriate trainings would be provided to all patrol staff.

When vehicles are expected to enter or leave the proposed development, at least one traffic controller will be stationed at the access point to guide both vehicular and pedestrian movements, ensuring safe and orderly passage and preventing congestion or conflicts.

5.3 Car Lift Assessment

As indicated in Table 5.1, the proposed parking spaces are located on Basement Level 1 (B1/F). Car lifts will be required to provide access for both light goods vehicles (LGVs) and private cars to this level.

An assessment of car lift performance was conducted to evaluate the likelihood of queuing at the site access due to car lift usage. To meet operational demands, three car lifts with a travel speed of 0.5 m/s are proposed. The assessment results are summarised in **Appendix D**.

The probability of a queuing event is estimated at 0.9%, which falls within the 95% confidence interval. This suggests that the provision of two car lifts would not result in any significant adverse impact on the adjacent public road network.

In addition, management measures will be implemented during peak hours. The car lift system will be closely monitored and operated by trained personnel to minimise potential traffic impacts and ensure public safety.

6 Summary and Conclusions

6.1 Summary

The Applicant intends to submit a planning application for the redevelopment of the site at 20–24 Tai Yau Street, San Po Kong into a hotel comprising 1,260 guestrooms. The site is currently occupied by an industrial building.

According to the Approved Tsz Wan Shan, Diamond Hill and San Po Kong Outline Zoning Plan No. S/K11/31, the site is zoned as "Other Specified Use" annotated "Business" ("OU(B)"). As "Hotel" use is classified under Column 2 of the Schedule of Uses for this zoning, a planning application under Section 16 of the Town Planning Ordinance is required. The proposed development will span from B1/F to 31/F, with a total gross floor area (GFA) of 29,111.334 sqm.

To assess existing traffic conditions, classified turning movement count surveys were conducted at key junctions within the study area on 7 May 2025, during the morning period from 07:30 to 10:30 and the evening period from 16:00 to 19:00. The peak hours of the road network were identified as 07:45 to 08:45 in the morning and 17:30 to 18:30 in the evening.

The year 2030 has been adopted as the design year for the Traffic Impact Assessment (TIA). Based on future planning data, a traffic growth factor of +0.5% per annum has been applied to the 2025 observed traffic flows to project the anticipated traffic flows for 2030.

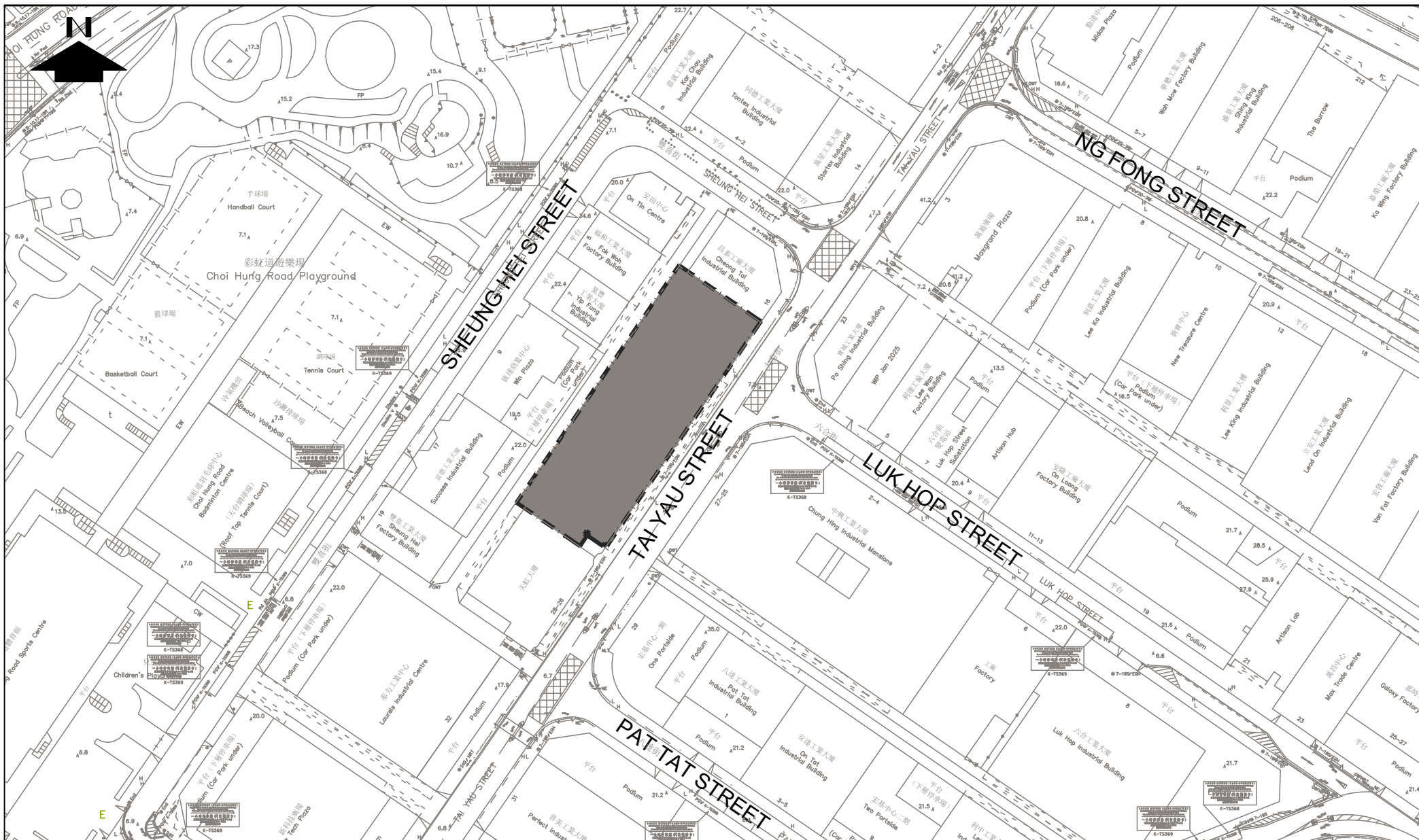
The capacity assessments indicate that all key junctions are expected to operate satisfactorily during peak periods under both the Reference and Design scenarios.

The proposed loading/unloading bay provisions have been appropriately justified, and the car parking provisions are in compliance with the requirements set out in the Hong Kong Planning Standards and Guidelines (HKPSG).

6.2 Conclusion

The findings of the traffic study indicate that the proposed development would not impose any unacceptable impact on the surrounding road network and is therefore considered acceptable from a traffic engineering perspective.

Figures



PROJECT TITLE
Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B

DATE
JUL 2025

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N.T.S

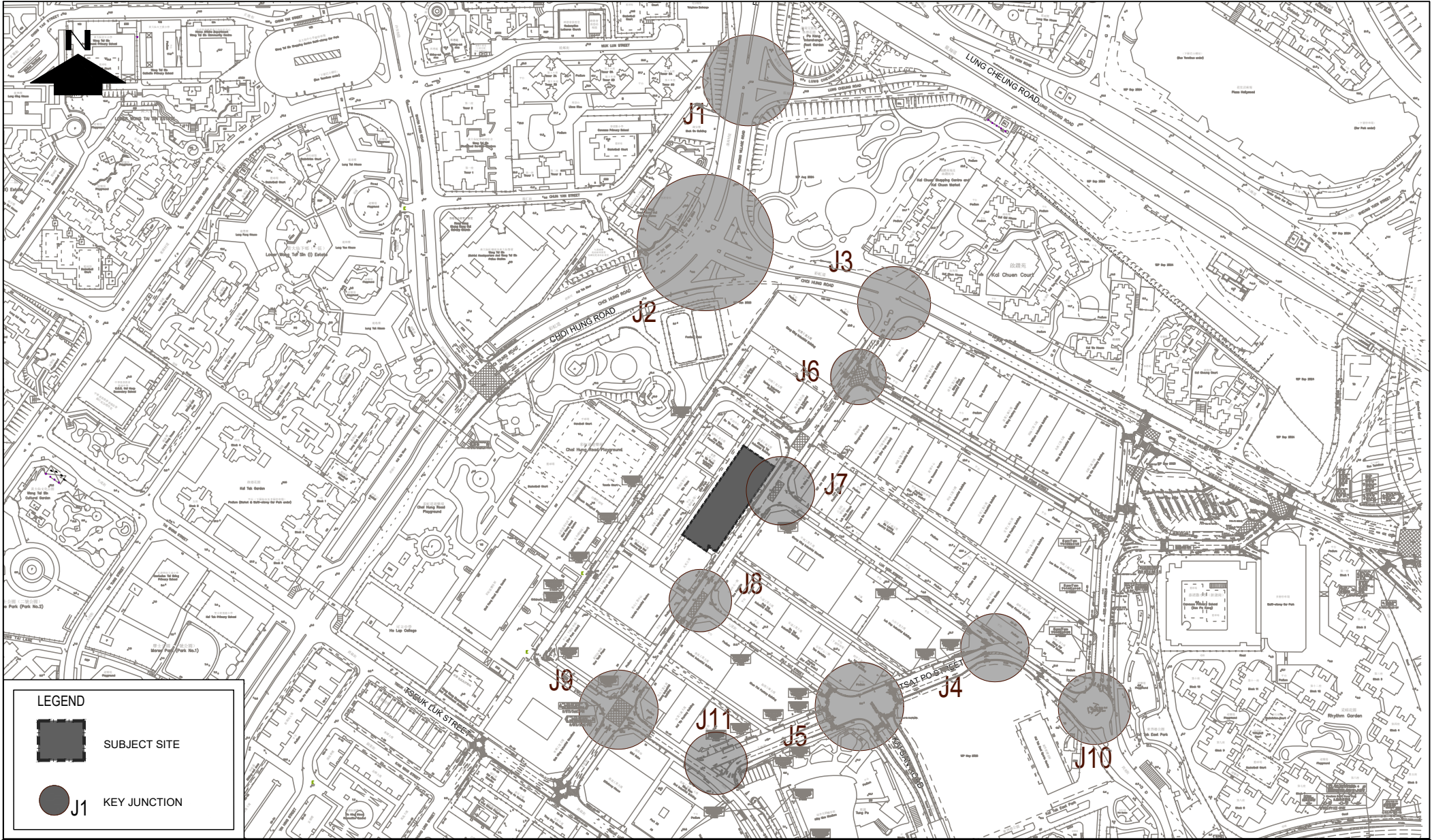
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SF

PROJECT NO.
J03007

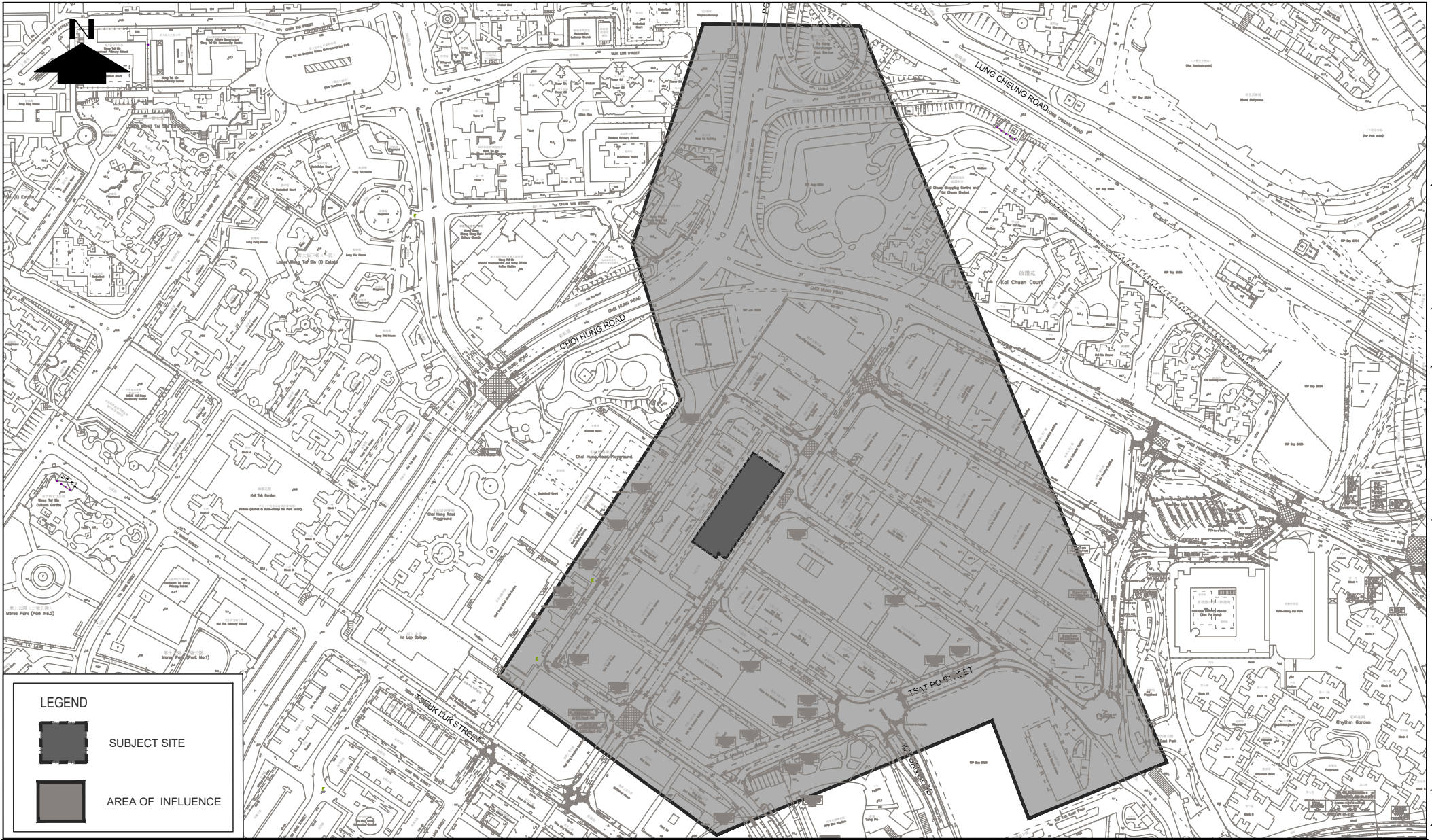
DRAWING TITLE
LOCATION PLAN

FIGURE 2.1

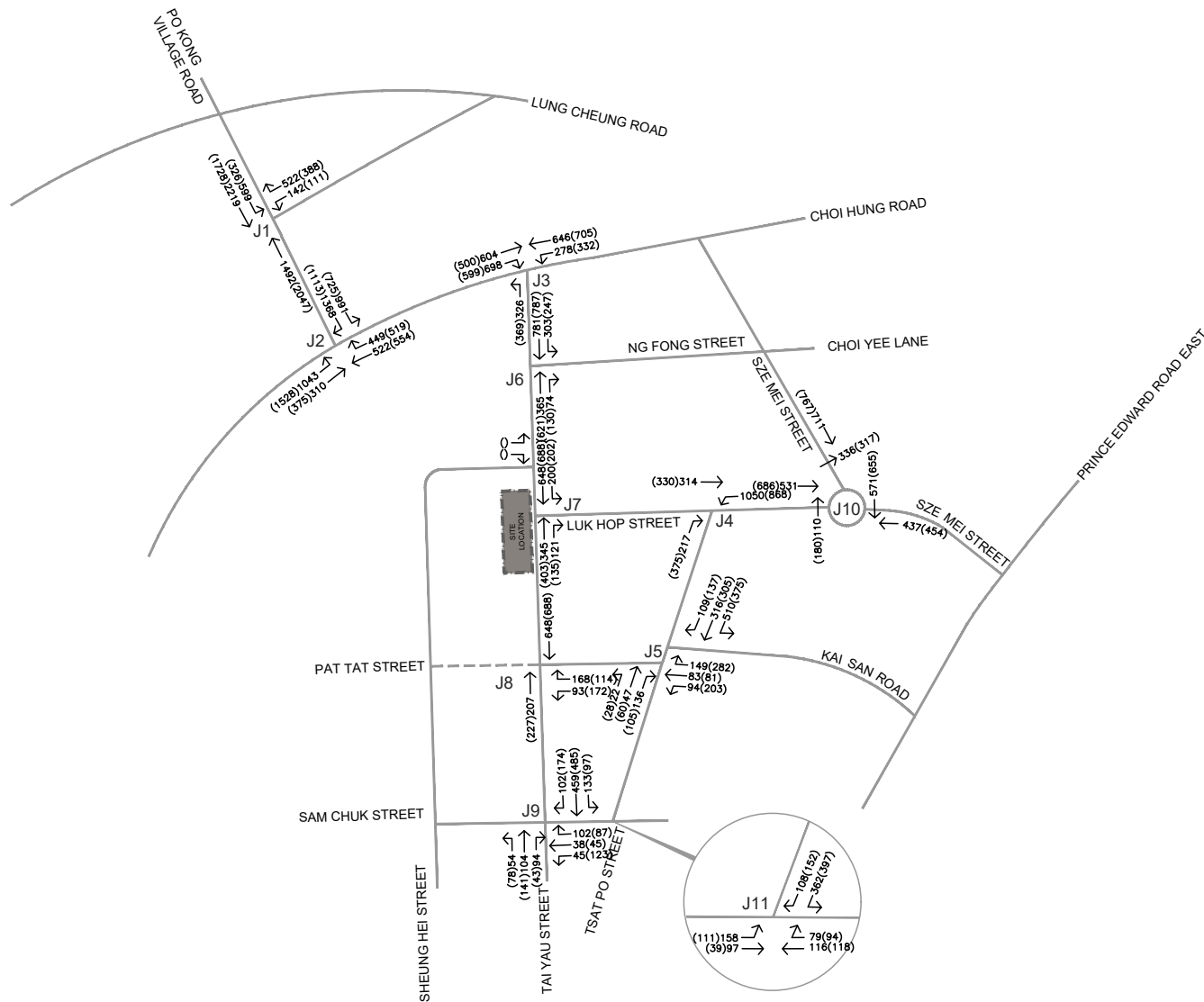




PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE 3.1	
DATE JUL 2025	SCALE N.T.S	DRAWING TITLE KEY JUNCTIONS	 AMG CONSULTANCY LIMITED	
DRAWN SF	PROJECT NO. J03007			



PROJECT TITLE Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B			FIGURE 3.2
DATE JUL 2025	SCALE N.T.S	DRAWING TITLE AREA OF INFLUENCE	 AMG CONSULTANCY LIMITED
DRAWN SF	PROJECT NO. J03007		



PROJECT TITLE
Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B

DATE
JUL 2025

SCALE
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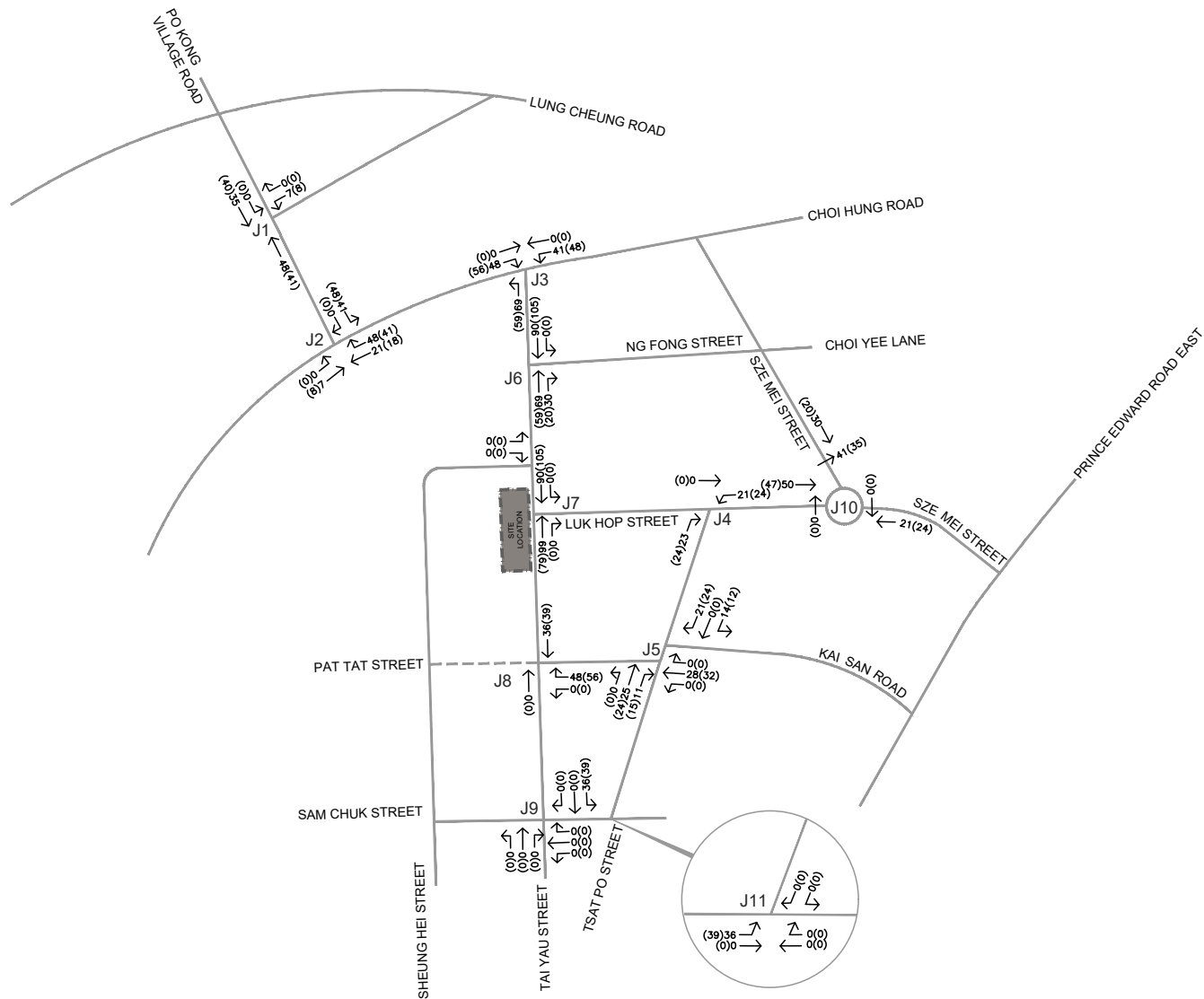
DRAWING TITLE

DRAWN
SF

PROJECT NO.
J03007

2025 OBSERVED PEAK HOURS TRAFFIC FLOWS

FIGURE 3.3



PROJECT TITLE
Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B

DATE
OCT 2025

SCALE
N.T.S

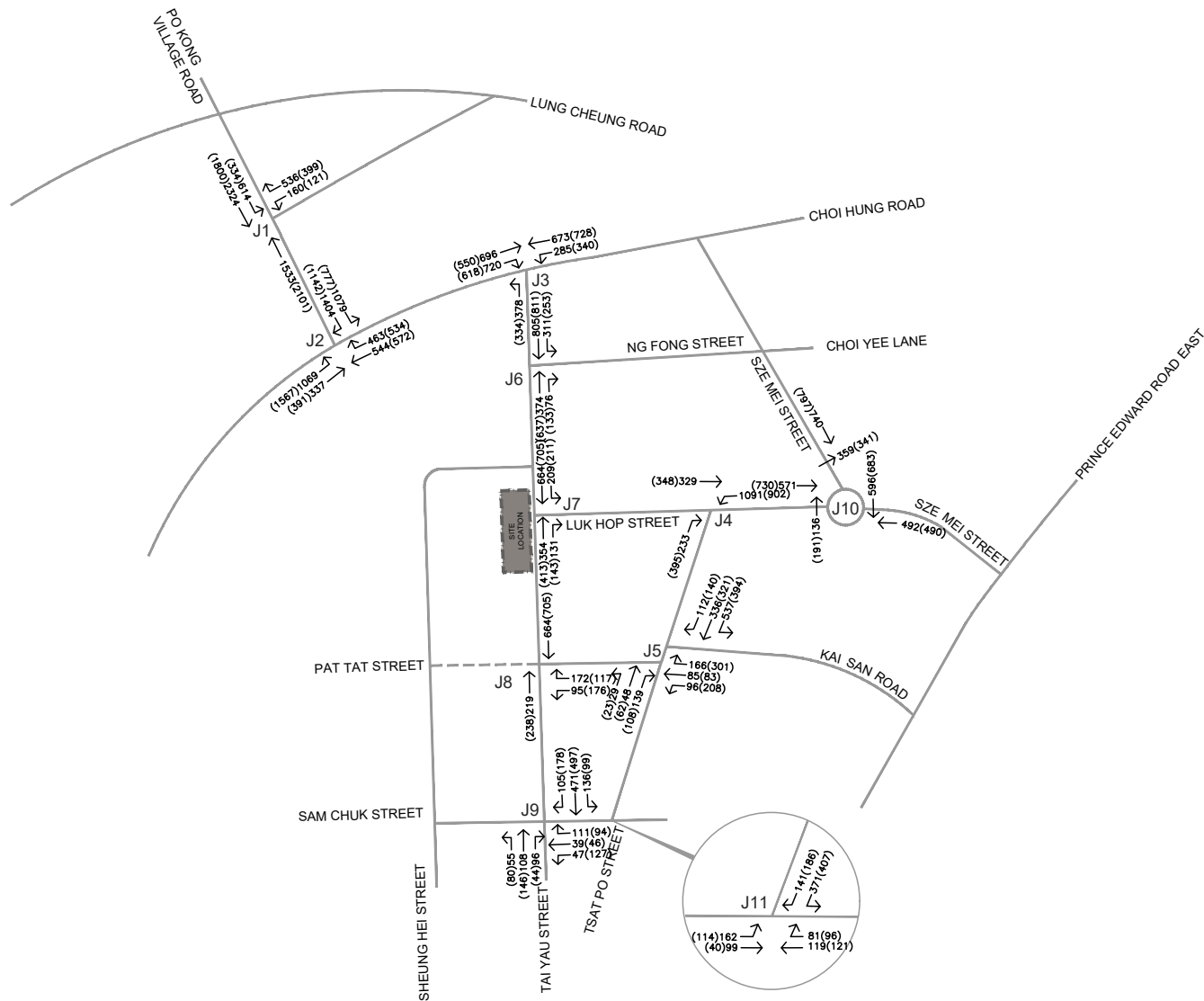
DRAWING TITLE
NET DEVELOPMENT PEAK HOURS TRAFFIC FLOWS

DRAWN
SF

PROJECT NO.
J03007

FIGURE 4.1





PROJECT TITLE
Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B

DATE
OCT 2025

SCALE
N.T.S

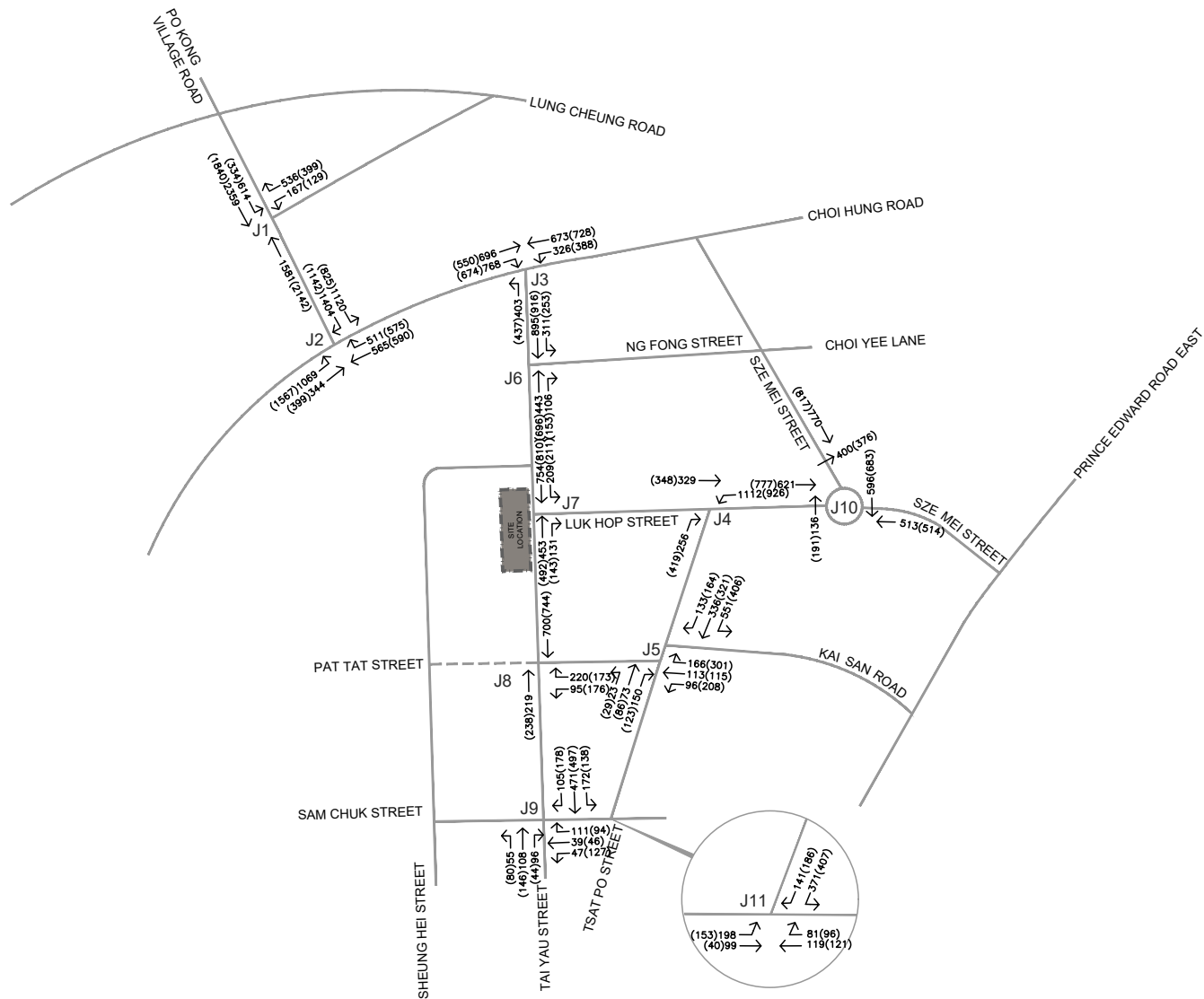
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2030 REFERENCE PEAK HOURS TRAFFIC FLOWS

DRAWN
SF

PROJECT NO.
J03007

FIGURE 4.2





PROJECT TITLE
Section 16 Planning Application for Proposed Hotel Development at Nos. 20-24, Tai Yau Street, San Po Kong, Kowloon, N.K.I.L.s 4735, 4736, 4738, 4739, RP, 4739S.A & 4739 S.B

DATE
OCT 2025

SCALE
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DRAWING TITLE
2030 DESIGN PEAK HOURS TRAFFIC FLOWS

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SF

PROJECT NO.
J03007

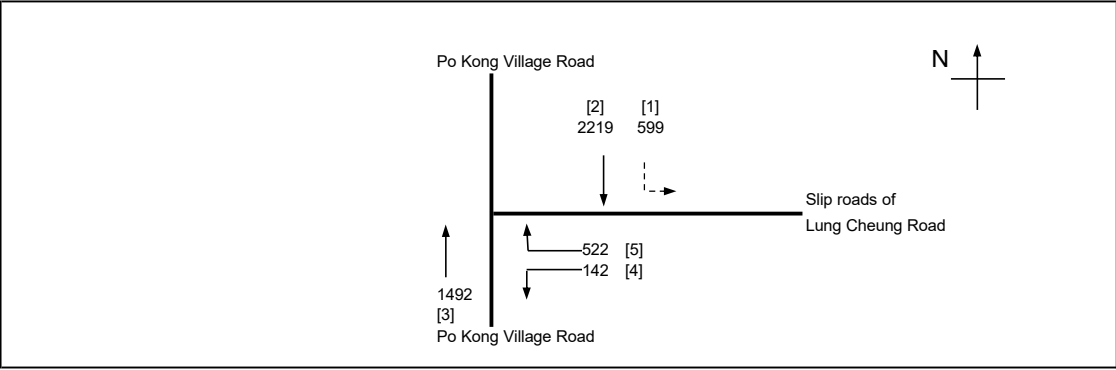
FIGURE 4.3



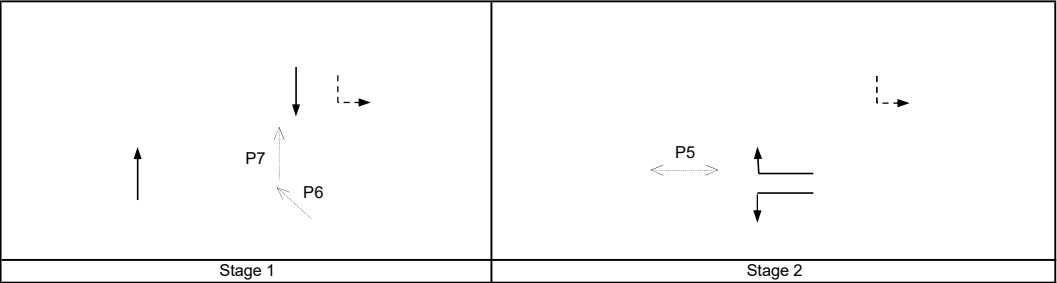
Appendix A

Junction Analysis

AMG CONSULTANCY LIMITED					TRAFFIC SIGNAL CALCULATION					INITIALS	DATE
20-24 Tai Yau Street, San Po Kong					Project No.: J03007		Prepared By: JP		Nov-25		
Slip roads of Lung Cheung Road / Po Kong Village Road					2025 Observed Flows AM		Checked By: SF		Nov-25		



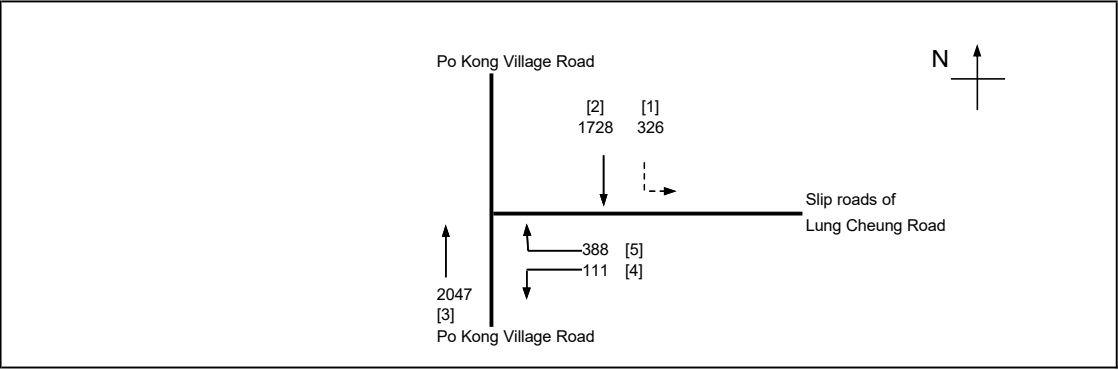
No. of stages per cycle	N =	2
Intergreen Period	Stage 1 - 2	I = 8 sec
	Stage 2 - 1	I = 7 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.502
Loss time	L =	13 sec
Total Flow	=	4974 pcu
Co	= (1.5*L+5)/(1-Y)	= 49.2 sec
Cm	= L/(1-Y)	= 26.1 sec
Yult	=	0.803
R.C.ult	= (Yult-Y)/Y*100%	= 59.8 %
Cp	= 0.9*L/(0.9-Y)	= 29.4 sec
Ymax	= 1-L/C	= 0.892
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 59.8 %



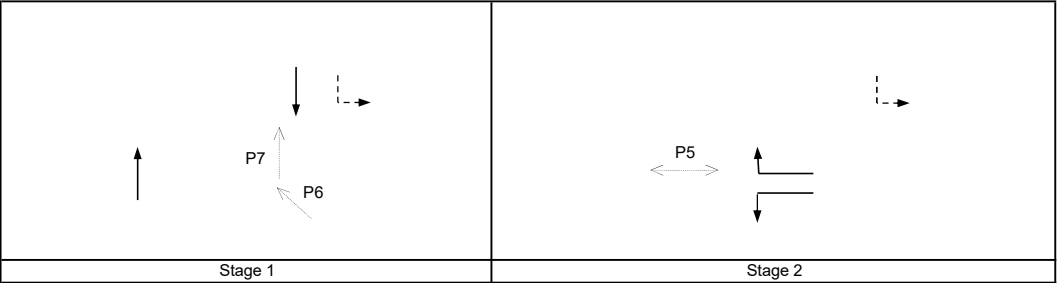
Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
			SG	FG	SG	FG	
P5	21.6	2	10	18	13	18	OK
P6	7.2	1	6	6	69	6	OK
P7	7.2	1	6	6	69	6	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lan Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
									Left	Straigh	Right														
1	1,2	3.30		1	10		N	1945	599			599	1.00	1691			1691	0.354		13	75	120	0.354	0	1
	1	3.30		3				6255		2219		2219	0.00	6255			6255	0.355	0.355		76	76	0.563	137	13
3	1	3.30		3			N	6115		1492		1492	0.00	6115			6115	0.244			52	76	0.387	92	11
4	2	3.30		1	10		N	1945	142			142	1.00	1691			1691	0.084	0.147		18	31	0.321	17	37
	2	3.50		2	10		N	4070			522	522	1.00	3539			3539	0.147			31	31	0.563	64	39

AMG CONSULTANCY LIMITED					TRAFFIC SIGNAL CALCULATION					INITIALS	DATE
20-24 Tai Yau Street, San Po Kong					Project No.: J03007		Prepared By: JP		Nov-25		
Slip roads of Lung Cheung Road / Po Kong Village Road					2025 Observed Flows PM		Checked By: SF		Nov-25		



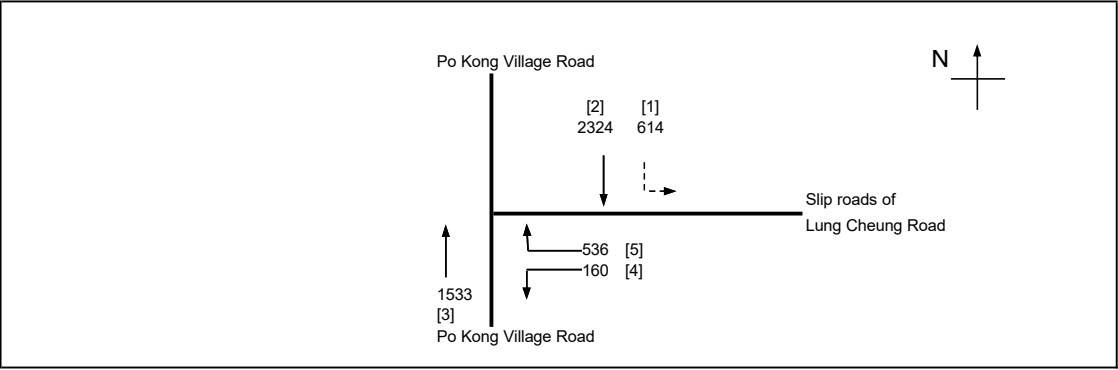
No. of stages per cycle	N =	2
Intergreen Period	Stage 1 - 2	I = 8 sec
	Stage 2 - 1	I = 7 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.444
Loss time	L =	16 sec
Total Flow	=	4600 pcu
Co	= (1.5*L+5)/(1-Y)	= 52.2 sec
Cm	= L/(1-Y)	= 28.8 sec
Yult	=	0.780
R.C.ult	= (Yult-Y)/Y*100%	= 75.5 %
Cp	= 0.9*L/(0.9-Y)	= 31.6 sec
Ymax	= 1-L/C	= 0.867
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 75.5 %



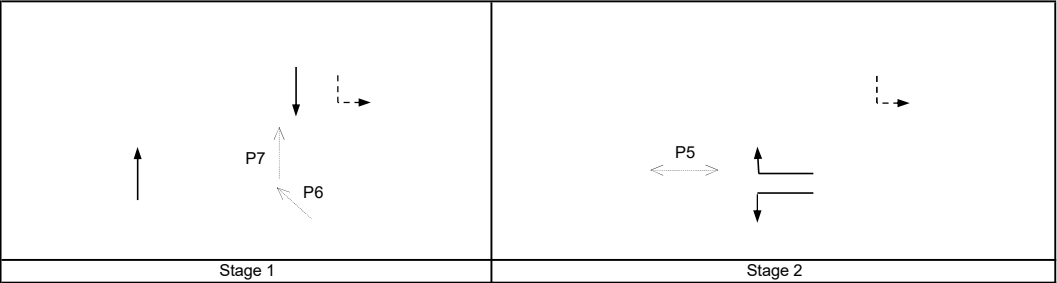
Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
			SG	FG	SG	FG	
P5	21.6	2	10	18	10	18	OK
P6	7.2	1	6	6	72	6	OK
P7	7.2	1	6	6	72	6	OK

Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
									Left	Straight	Right														
1	1,2	3.30		1	10		N	1945	326			326	1.00	1691			1691	0.193		13	45	120	0.193	0	0
2	1	3.30		3			N	6255		1728		1728	0.00	6255			6255	0.276	0.335		65	78	0.423	100	10
3	1	3.30		3			N	6115		2047		2047	0.00	6115			6115	0.335			78	78	0.513	118	11
4	2	3.30		1	10		N	1945	111			111	1.00	1691			1691	0.066	0.110	3	15	29	0.275	14	38
5	2	3.50		2	10		N	4070			388	388	1.00	3539			3539	0.110			26	29	0.459	49	40

AMG CONSULTANCY LIMITED				TRAFFIC SIGNAL CALCULATION				INITIALS	DATE
20-24 Tai Yau Street, San Po Kong				Project No.: J03007		Prepared By: JP			Nov-25
Slip roads of Lung Cheung Road / Po Kong Village Road				2030 Reference Flows AM		Checked By: SF			Nov-25



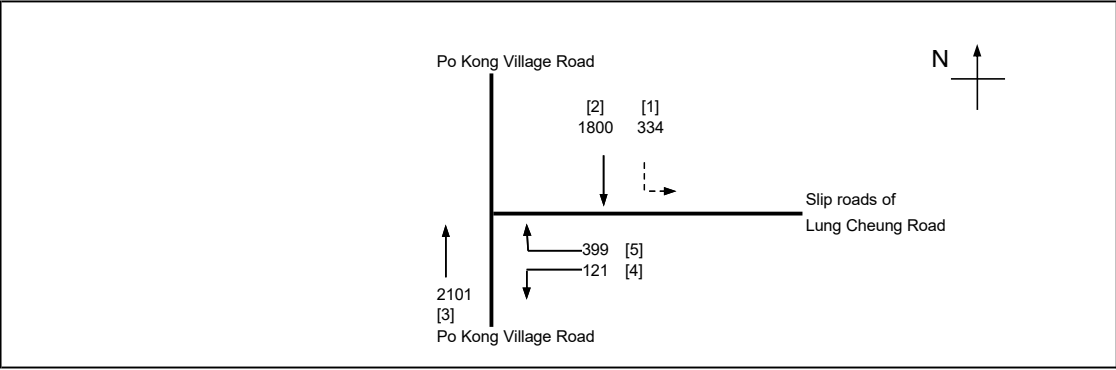
No. of stages per cycle	N =	2
Intergreen Period	Stage 1 - 2	I = 8 sec
	Stage 2 - 1	I = 7 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.523
Loss time	L =	13 sec
Total Flow		= 5167 pcu
Co	= (1.5*L+5)/(1-Y)	= 51.4 sec
Cm	= L/(1-Y)	= 27.3 sec
Yult		= 0.803
R.C.ult	= (Yult-Y)/Y*100%	= 53.4 %
Cp	= 0.9*L/(0.9-Y)	= 31.0 sec
Ymax	= 1-L/C	= 0.892
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 53.4 %



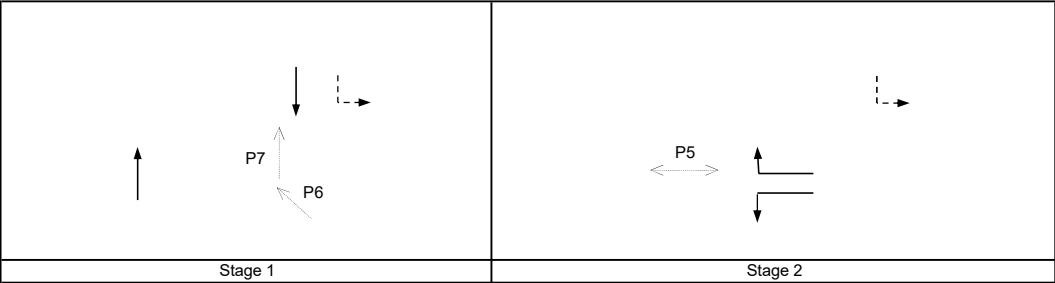
Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
			SG	FG	SG	FG	
P5	21.6	2	10	18	12	18	OK
P6	7.2	1	6	6	70	6	OK
P7	7.2	1	6	6	70	6	OK

	Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lan Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)	
										Left pcu/h	Straigh pcu/h	Right pcu/h															
	1	1,2	3.30		1	10		N	1945	614		614	1.00	1691			1691	0.363	0.372	13	74	120	0.363	1	1		
	2	1	3.30		3				6255		2324		2324	0.00	6255		6255	0.372			76	76	0.587	142	13		
	3	1	3.30		3			N	6115		1533		1533	0.00	6115		6115	0.251				51	76	0.396	94	11	
	4	2	3.30		1	10		N	1945	160		160	1.00	1691			1691	0.095			0.151		19	31	0.366	20	38
	5	2	3.50		2	10		N	4070			536	536	1.00	3539		3539	0.151					31	31	0.587	66	40

AMG CONSULTANCY LIMITED					TRAFFIC SIGNAL CALCULATION					INITIALS	DATE
20-24 Tai Yau Street, San Po Kong					Project No.: J03007		Prepared By: JP		Nov-25		
Slip roads of Lung Cheung Road / Po Kong Village Road					2030 Reference Flows PM		Checked By: SF		Nov-25		



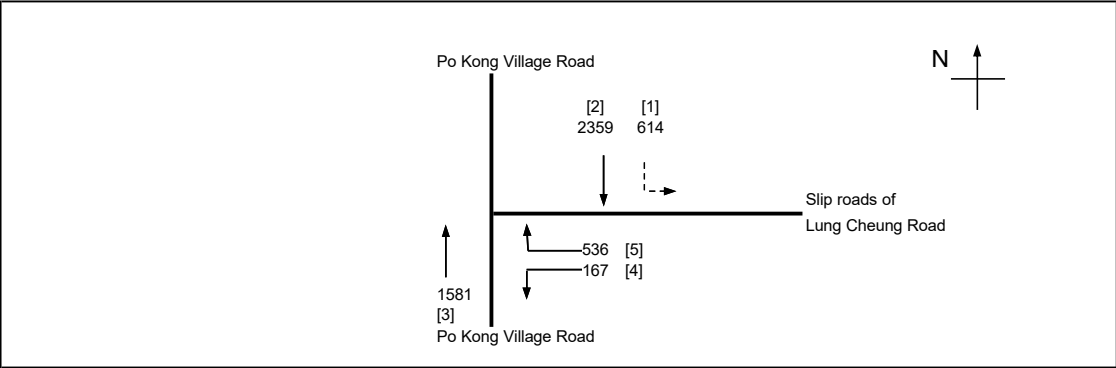
No. of stages per cycle	N =	2
Intergreen Period	Stage 1 - 2	I = 8 sec
	Stage 2 - 1	I = 7 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.456
Loss time	L =	16 sec
Total Flow		= 4755 pcu
Co	= (1.5*L+5)/(1-Y)	= 53.3 sec
Cm	= L/(1-Y)	= 29.4 sec
Yult		= 0.780
R.C.ult	= (Yult-Y)/Y*100%	= 70.9 %
Cp	= 0.9*L/(0.9-Y)	= 32.5 sec
Ymax	= 1-L/C	= 0.867
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 70.9 %



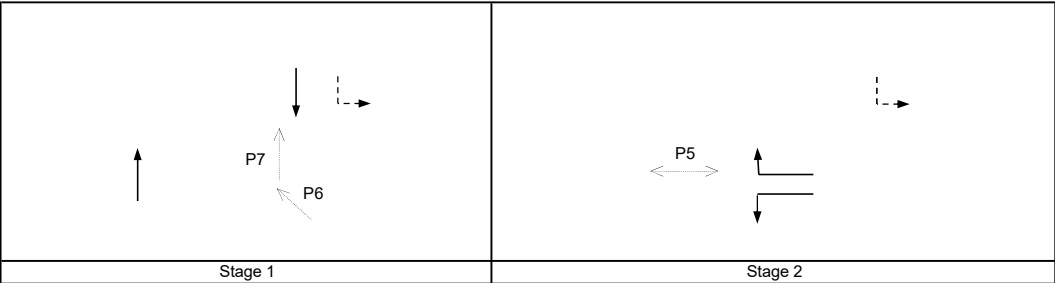
Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
			SG	FG	SG	FG	
P5	21.6	2	10	18	10	18	OK
P6	7.2	1	6	6	72	6	OK
P7	7.2	1	6	6	72	6	OK

	Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lan Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
										Left pcu/h	Straight pcu/h	Right pcu/h														
	1	1,2	3.30		1	10		N	1945	334		334	1.00	1691			1691	0.197	0.344	13	45	120	0.197	0	0	
	2	1	3.30		3				6255		1800	1800	0.00	6255			6255	0.288			66	78	0.441	104	10	
	3	1	3.30		3			N	6115		2101	2101	0.00	6115			6115	0.344			78	78	0.527	122	11	
	4	2	3.30		1	10		N	1945	121		121	1.00	1691			1691	0.072	0.113	3	16	29	0.299	15	39	
	5	2	3.50		2	10		N	4070			399	1.00	3539			3539	0.113			26	29	0.471	51	40	

AMG CONSULTANCY LIMITED				TRAFFIC SIGNAL CALCULATION				INITIALS	DATE
20-24 Tai Yau Street, San Po Kong				Project No.: J03007		Prepared By: JP			Nov-25
Slip roads of Lung Cheung Road / Po Kong Village Road				2030 Design Flows AM		Checked By: SF			Nov-25



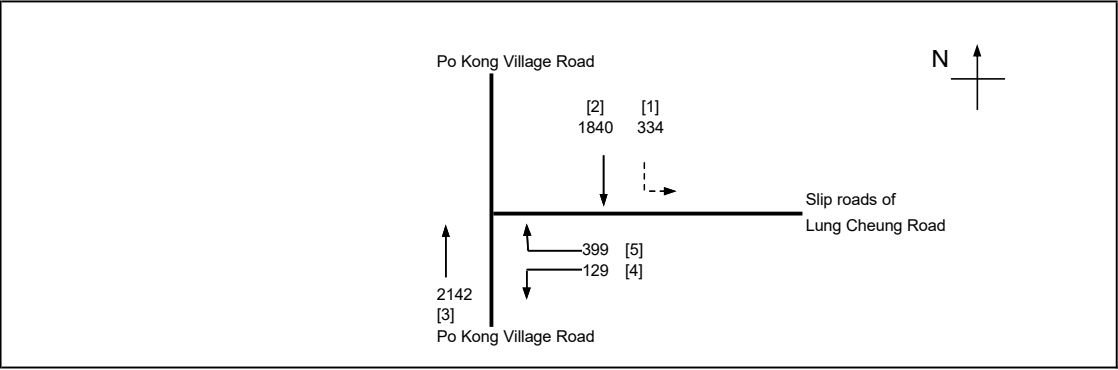
No. of stages per cycle	N =	2
Intergreen Period	Stage 1 - 2	I = 8 sec
	Stage 2 - 1	I = 7 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.529
Loss time	L =	13 sec
Total Flow		= 5257 pcu
Co	= (1.5*L+5)/(1-Y)	= 52.0 sec
Cm	= L/(1-Y)	= 27.6 sec
Yult		= 0.803
R.C.ult	= (Yult-Y)/Y*100%	= 51.8 %
Cp	= 0.9*L/(0.9-Y)	= 31.5 sec
Ymax	= 1-L/C	= 0.892
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 51.8 %



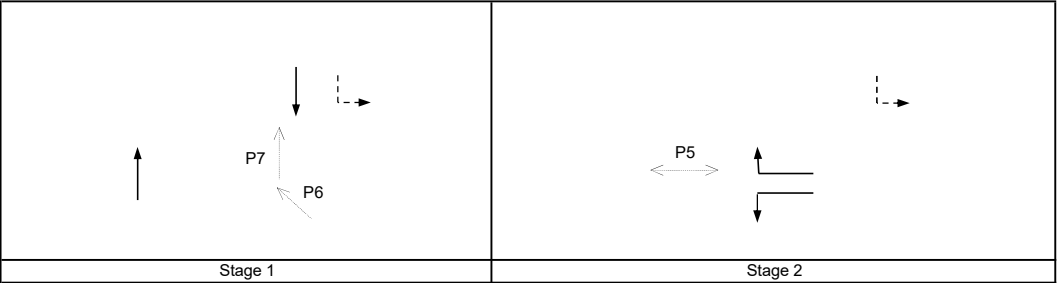
Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
			SG	FG	SG	FG	
P5	21.6	2	10	18	12	18	OK
P6	7.2	1	6	6	70	6	OK
P7	7.2	1	6	6	70	6	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lan Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
									Left pcu/h	Straigh pcu/h	Right pcu/h														
1	1,2	3.30		1	10		N	1945	614			614	1.00	1691			1691	0.363		13	73	120	0.363	1	1
2	1	3.30		3			N	6255		2359		2359	0.00	6255			6255	0.377	0.377		76	76	0.593	143	13
3	1	3.30		3			N	6115		1581		1581	0.00	6115			6115	0.259			52	76	0.406	96	11
4	2	3.30		1	10		N	1945	167			167	1.00	1691			1691	0.099	0.151		20	31	0.386	21	38
5	2	3.50		2	10		N	4070			536	536	1.00	3539			3539	0.151			31	31	0.593	67	40

AMG CONSULTANCY LIMITED						TRAFFIC SIGNAL CALCULATION						INITIALS	DATE
20-24 Tai Yau Street, San Po Kong						Project No.: J03007		Prepared By: JP		Nov-25			
Slip roads of Lung Cheung Road / Po Kong Village Road						2030 Design Flows PM		Checked By: SF		Nov-25			



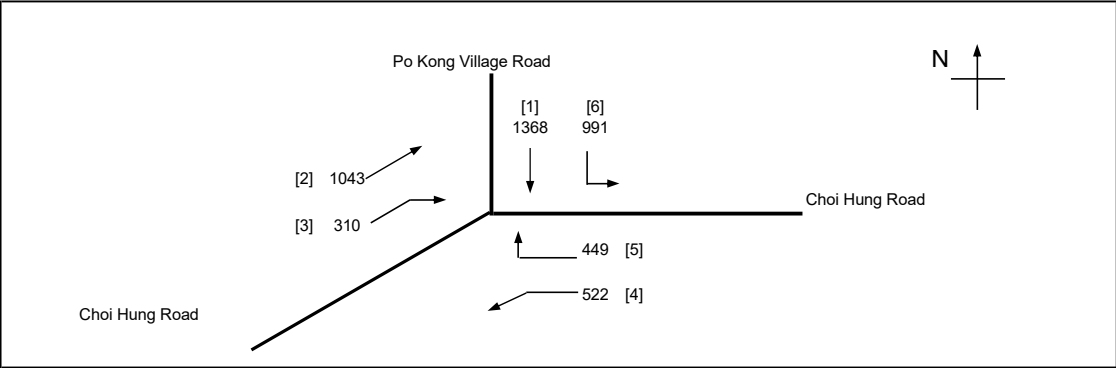
No. of stages per cycle	N =	2
Intergreen Period	Stage 1 - 2	I = 8 sec
	Stage 2 - 1	I = 7 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.463
Loss time	L =	16 sec
Total Flow	=	4844 pcu
Co	= (1.5*L+5)/(1-Y)	= 54.0 sec
Cm	= L/(1-Y)	= 29.8 sec
Yult	=	0.780
R.C.ult	= (Yult-Y)/Y*100%	= 68.5 %
Cp	= 0.9*L/(0.9-Y)	= 33.0 sec
Ymax	= 1-L/C	= 0.867
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 68.5 %



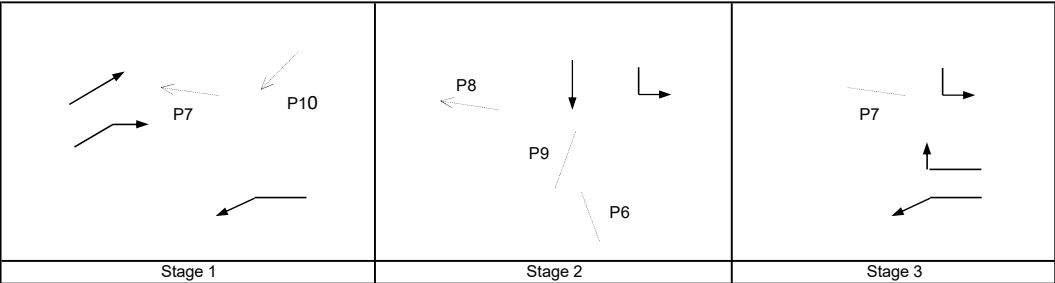
Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
			SG	FG	SG	FG	
P5	21.6	2	10	18	10	18	OK
P6	7.2	1	6	6	72	6	OK
P7	7.2	1	6	6	72	6	OK

	Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lan Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
										Left pcu/h	Straigh pcu/h	Right pcu/h														
	1	1,2	3.30		1	10		N	1945	334		334	1.00	1691			1691	0.197		13	44	120	0.197	0	0	
	2	1	3.30		3				6255		1840	1840	0.00	6255			6255	0.294	0.350		66	79	0.449	106	10	
	3	1	3.30		3			N	6115		2142	2142	0.00	6115			6115	0.350			79	79	0.534	123	11	
	4	2	3.30		1	10		N	1945	129		129	1.00	1691			1691	0.076	0.113	3	17	28	0.323	16	39	
	5	2	3.50		2	10		N	4070			399	1.00	3539			3539	0.113			25	28	0.478	51	40	

AMG CONSULTANCY LIMITED			TRAFFIC SIGNAL CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong			Project No.:	J03007	Prepared By:	JP
Choi Hung Road / Po Kong Village Road			2025 Observed Flows AM		Checked By:	SF
						Nov-25
						Nov-25



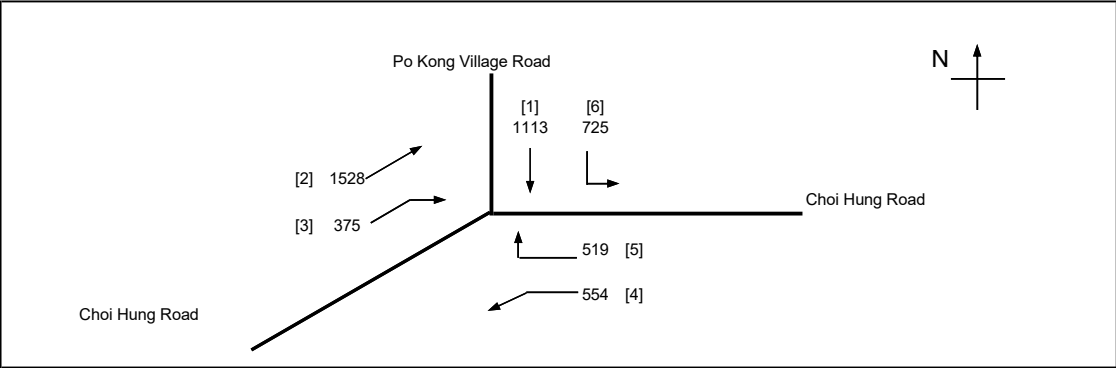
No. of stages per cycle	N =	3
Intergreen Period	Stage 1 - 2	I = 9 sec
	Stage 2 - 3	I = 10 sec
	Stage 3 - 1	I = 8 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.509
Loss time	L =	44 sec
Total Flow		= 4683 pcu
Co	= (1.5*L+5)/(1-Y)	= 144.6 sec
Cm	= L/(1-Y)	= 89.6 sec
Yult		= 0.570
R.C.ult	= (Yult-Y)/Y*100%	= 12.0 %
Cp	= 0.9*L/(0.9-Y)	= 101.3 sec
Ymax	= 1-L/C	= 0.633
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 12.0 %



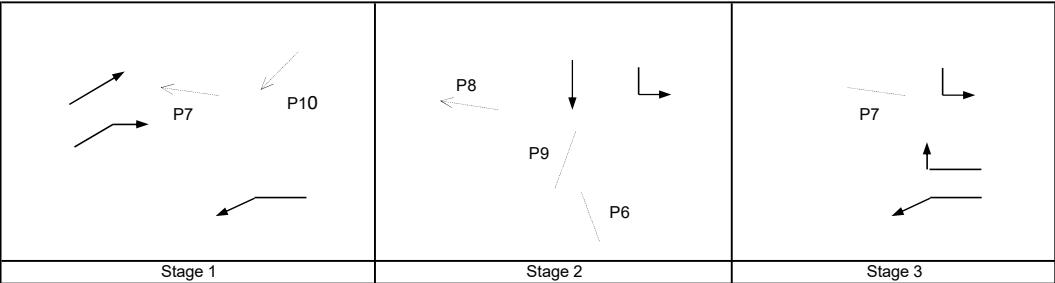
Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
			SG	FG	SG	FG	
P6	8.4	2	7	7	46	7	OK
P7	12	1,3	10	10	39	10	OK
P8	12	2	10	10	43	10	OK
P9	12	2	10	10	43	10	OK
P10	8.4	1	7	7	16	7	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lan Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
									Left	Straigh	Right														
2	1	3.50		2			N	4070		687		687	0.00	4070			4070	0.169	0.169	24	25	25	0.804	94	49
2,3	1	3.50		1	30		N	2105		356	0	356	0.00	2105			2105	0.169			25	25	0.804	51	54
3	1	3.50		1	25		N	2105			310	310	1.00	1986			1986	0.156			23	25	0.743	42	50
4	1,3	3.30		1	20		N	1945	522			522	1.00	1809			1809	0.289			43	50	0.688	51	31
5	3	3.50		2	15		N	4070			449	449	1.00	3700			3700	0.121	0.121		18	18	0.804	67	55
6	2,3	3.30		1	12		N	1945	991			991	1.00	1729			1729	0.573			86	80	0.862	62	22
1	2	3.30		3			N	6255		1368		1368	0.00	6255			6255	0.219	0.219	20	33	53	0.498	128	25

AMG CONSULTANCY LIMITED			TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
20-24 Tai Yau Street, San Po Kong			Project No.: J03007			Prepared By: JP	Nov-25
Choi Hung Road / Po Kong Village Road			2025 Observed Flows PM			Checked By: SF	Nov-25



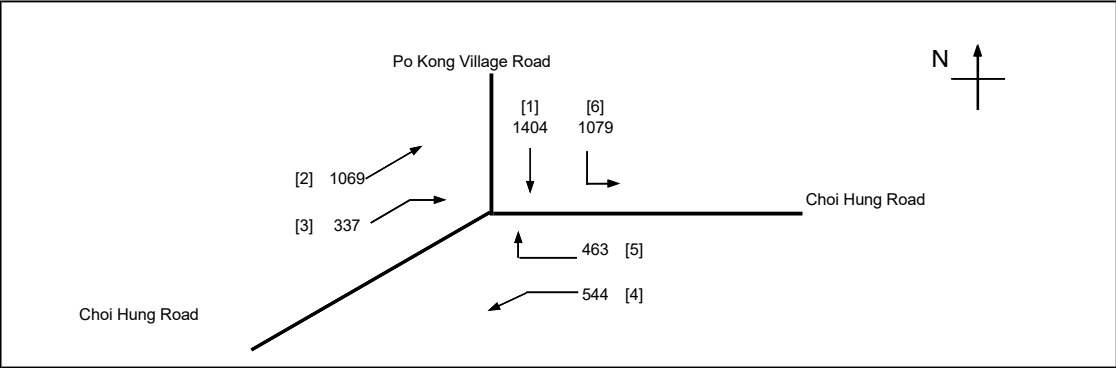
No. of stages per cycle	N =	3
Intergreen Period	Stage 1 - 2	I = 9 sec
	Stage 2 - 3	I = 10 sec
	Stage 3 - 1	I = 8 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.566
Loss time	L =	31 sec
Total Flow	=	4814 pcu
Co	= (1.5*L+5)/(1-Y)	= 118.6 sec
Cm	= L/(1-Y)	= 71.4 sec
Yult	=	0.668
R.C.ult	= (Yult-Y)/Y*100%	= 18.0 %
Cp	= 0.9*L/(0.9-Y)	= 83.4 sec
Ymax	= 1-L/C	= 0.742
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 18.0 %



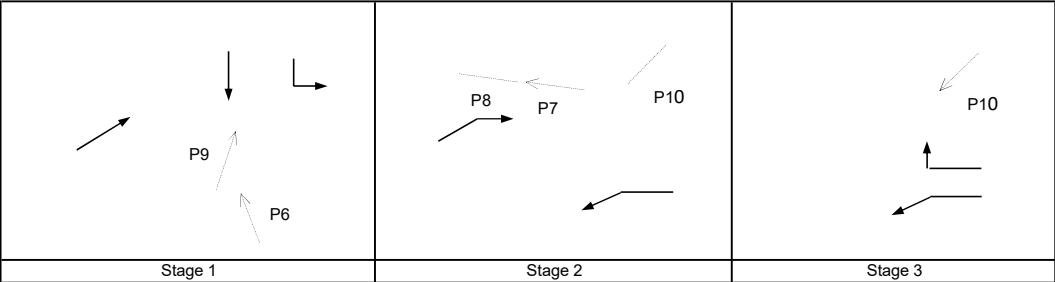
Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
P6	8.4	2	SG	FG	SG	FG	OK
P7	12	1,3	10	10	59	10	OK
P8	12	2	10	10	23	10	OK
P9	12	2	10	10	23	10	OK
P10	8.4	1	7	7	31	7	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lan Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
									Left	Straigh	Right														
2	1	3.50		2			N	4070		1007		1007	0.00	4070			4070	0.247	0.247	24	39	39	0.763	114	38
2,3	1	3.50		1	30		N	2105		521	0	521	0.00	2105			2105	0.247			39	39	0.763	60	40
3	1	3.50		1	25		N	2105			375	375	1.00	1986			1986	0.189			30	39	0.582	42	36
4	1,3	3.30		1	20		N	1945	554			554	1.00	1809			1809	0.306			48	68	0.540	40	18
5	3	3.50		2	15		N	4070			519	519	1.00	3700			3700	0.140	0.140		22	22	0.763	72	50
6	2,3	3.30		1	12		N	1945	725			725	1.00	1729			1729	0.419			66	66	0.762	55	24
1	2	3.30		3			N	6255		1113		1113	0.00	6255			6255	0.178	0.178	7	28	35	0.610	131	37

AMG CONSULTANCY LIMITED			TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
20-24 Tai Yau Street, San Po Kong			Project No.: J03007			Prepared By: JP	Nov-25
Choi Hung Road / Po Kong Village Road			2030 Reference Flows AM (with junction improvement)			Checked By: SF	Nov-25



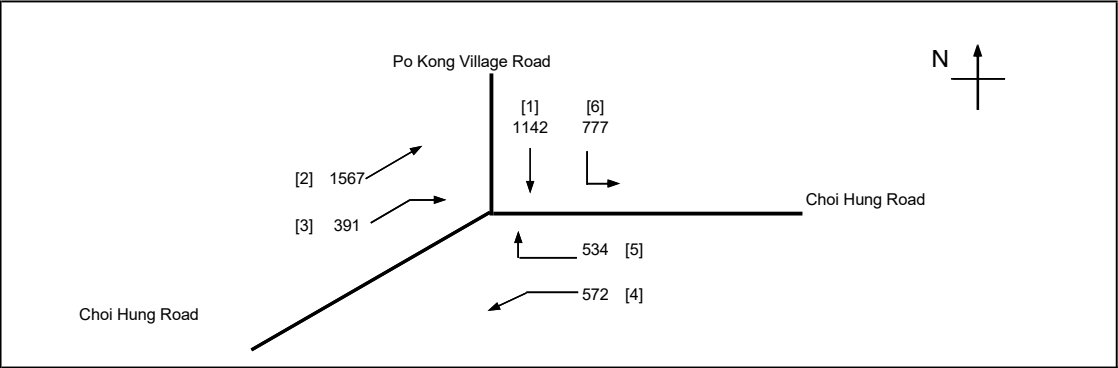
No. of stages per cycle	N =	3
Intergreen Period	Stage 1 - 2	I = 10 sec
	Stage 2 - 3	I = 5 sec
	Stage 3 - 1	I = 5 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.545
Loss time	L =	23 sec
Total Flow		= 4896 pcu
Co	= (1.5*L+5)/(1-Y)	= 86.9 sec
Cm	= L/(1-Y)	= 50.6 sec
Yult		= 0.728
R.C.ult	= (Yult-Y)/Y*100%	= 33.4 %
Cp	= 0.9*L/(0.9-Y)	= 58.4 sec
Ymax	= 1-L/C	= 0.808
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 33.4 %



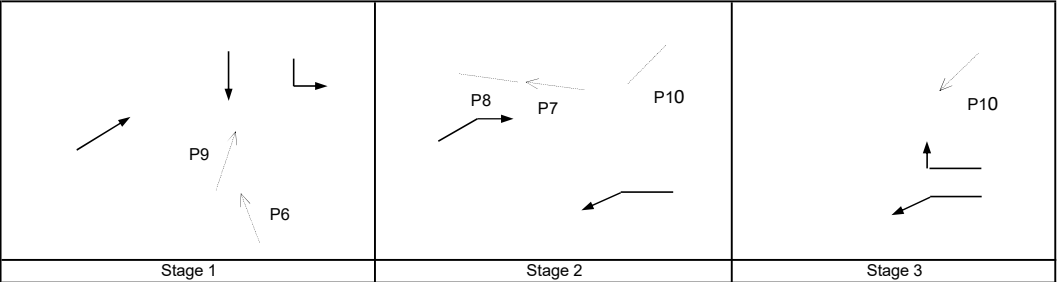
Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
			SG	FG	SG	FG	
P6	8.4	1	7	7	78	7	OK
P7	12	2	10	10	10	10	OK
P8	12	2	10	10	10	10	OK
P9	12	1	10	10	75	10	OK
P10	8.4	2,3	7	7	44	7	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lan Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
									Left	Straigh	Right														
2	1	3.80		2			N	4130		1069		1069	0.00	4130			4130	0.259	0.337	17	46	46	0.675	110	32
3	2	3.80		2	25		N	4270			337	337	1.00	4028			4028	0.084	0.084	6	15	21	0.481	46	45
4	2,3	3.30		1	20		N	1945	544			544	1.00	1809			1809	0.301			53	72	0.499	36	15
5	3	3.50		2	15		N	4070			463	463	1.00	3700			3700	0.125	0.125		22	22	0.675	63	47
6	1	3.30		2	12		N	4030	1079			1079	1.00	3582			3582	0.301			54	86	0.420	51	7
1	1	3.30		2				4170		1404		1404	0.00	4170			4170	0.337			60	60	0.675	117	23

AMG CONSULTANCY LIMITED			TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
20-24 Tai Yau Street, San Po Kong			Project No.: J03007			Prepared By: JP	Nov-25
Choi Hung Road / Po Kong Village Road			2030 Reference Flows PM (with junction improvement)			Checked By: SF	Nov-25



No. of stages per cycle	N =	3
Intergreen Period	Stage 1 - 2	I = 10 sec
	Stage 2 - 3	I = 5 sec
	Stage 3 - 1	I = 5 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.621
Loss time	L =	22 sec
Total Flow		= 4983 pcu
Co	= (1.5*L+5)/(1-Y)	= 100.2 sec
Cm	= L/(1-Y)	= 58.0 sec
Yult		= 0.735
R.C.ult	= (Yult-Y)/Y*100%	= 18.4 %
Cp	= 0.9*L/(0.9-Y)	= 70.9 sec
Ymax	= 1-L/C	= 0.817
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 18.4 %



Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
			SG	FG	SG	FG	
P6	8.4	1	7	7	61	7	OK
P7	12	2	10	10	10	10	OK
P8	12	2	10	10	10	10	OK
P9	12	1	10	10	58	10	OK
P10	8.4	2,3	7	7	45	7	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lan Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
									Left	Straigh	Right														
2	1	3.80		2			N	4130		1567		1567	0.00	4130			4130	0.379	0.379	17	60	60	0.760	131	25
3	2	3.80		2	25		N	4270			391	391	1.00	4028			4028	0.097	0.097	5	15	20	0.573	54	47
4	2,3	3.30		1	20		N	1945	572			572	1.00	1809			1809	0.316			50	87	0.438	26	8
5	3	3.50		2	15		N	4070			534	534	1.00	3700			3700	0.144	0.144		23	23	0.760	74	49
6	1	3.30		2	12		N	4030	777			777	1.00	3582			3582	0.217			34	70	0.372	54	14
1	1	3.30		2				4170		1142		1142	0.00	4170			4170	0.274			43	43	0.760	122	35

AMG CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

20-24 Tai Yau Street, San Po Kong

Choi Hung Road / Po Kong Village Road

Project No.: J03007

Prepared By: JP

Nov-25

2030 Design Flows AM

(with junction improvement)

Checked By: SF

Nov-25

Po Kong Village Road

Choi Hung Road

Choi Hung Road

[1] 1404 [6] 1120

[2] 1069 [3] 344

[5] 511 [4] 565

N

No. of stages per cycle N = 3

Intergreen Period Stage 1 - 2 I = 10 sec

Stage 2 - 3 I = 5 sec

Stage 3 - 1 I = 5 sec

Cycle time C = 120 sec

Sum(y) Y = 0.560

Loss time L = 23 sec

Total Flow = 5013 pcu

Co = (1.5*L+5)/(1-Y) = 89.8 sec

Cm = L/(1-Y) = 52.3 sec

Yult = 0.728

R.C.ult = (Yult-Y)/Y*100% = 29.9 %

Cp = 0.9*L/(0.9-Y) = 60.9 sec

Ymax = 1-L/C = 0.808

R.C.(C) = (0.9*Ymax-Y)/Y*100% = 29.9 %

Stage 1

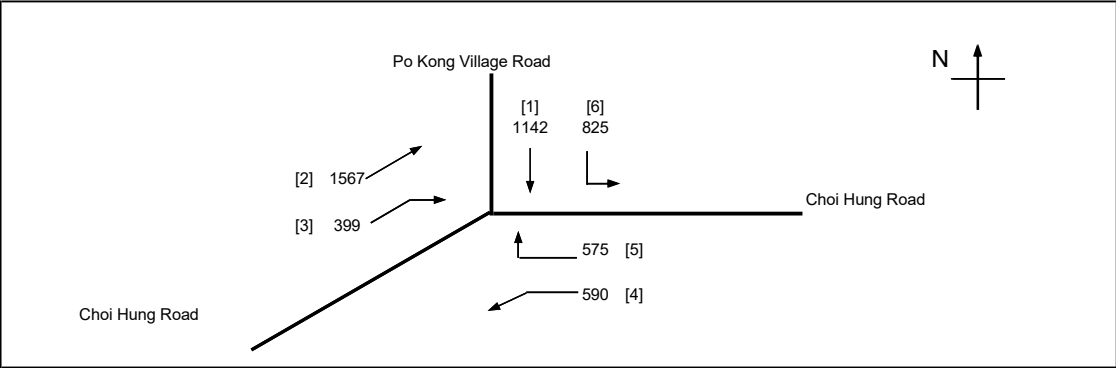
Stage 2

Stage 3

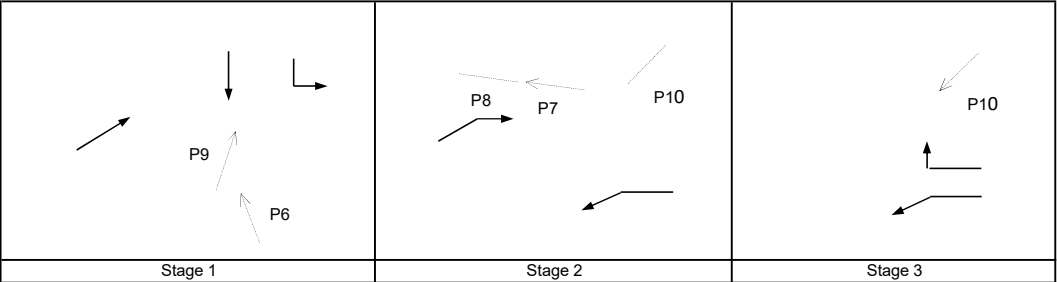
Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
			SG	FG	SG	FG	
P6	8.4	1	7	7	78	7	OK
P7	12	2	10	10	10	10	OK
P8	12	2	10	10	10	10	OK
P9	12	1	10	10	75	10	OK
P10	8.4	2,3	7	7	45	7	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lan Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
									Left pcu/h	Straigh pcu/h	Right pcu/h														
2	1	3.80		2			N	4130		1069		1069	0.00	4130			4130	0.259	0.337	17	45	45	0.693	112	33
3	2	3.80		2	25		N	4270			344	344	1.00	4028			4028	0.085	0.085	6	15	21	0.493	47	45
4	2,3	3.30		1	20		N	1945	565			565	1.00	1809			1809	0.312			54	73	0.515	37	15
5	3	3.50		2	15		N	4070			511	511	1.00	3700			3700	0.138	0.138		24	24	0.693	68	46
6	1	3.30		2	12		N	4030	1120			1120	1.00	3582			3582	0.313			54	86	0.435	53	7
1	1	3.30		2				4170		1404		1404	0.00	4170			4170	0.337			58	58	0.693	120	25

AMG CONSULTANCY LIMITED			TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
20-24 Tai Yau Street, San Po Kong			Project No.: J03007			Prepared By: JP	Nov-25
Choi Hung Road / Po Kong Village Road			2030 Design Flows PM (with junction improvement)			Checked By: SF	Nov-25

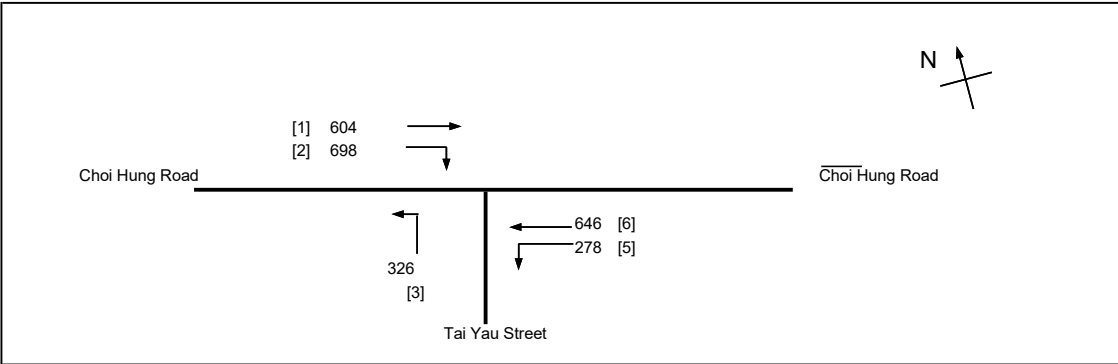
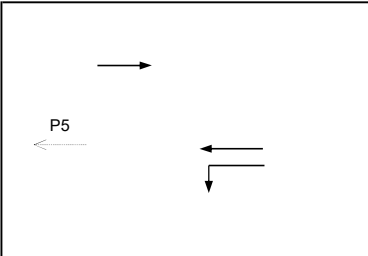
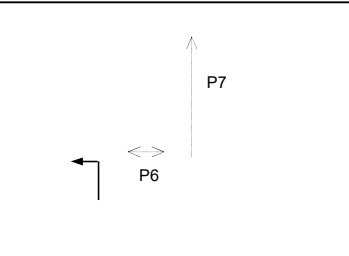
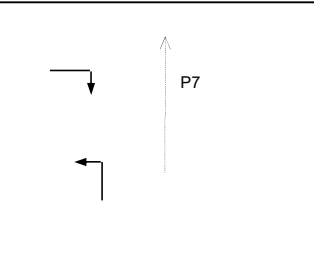


No. of stages per cycle	N =	3
Intergreen Period	Stage 1 - 2	I = 10 sec
	Stage 2 - 3	I = 5 sec
	Stage 3 - 1	I = 5 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.634
Loss time	L =	22 sec
Total Flow		= 5098 pcu
Co	= (1.5*L+5)/(1-Y)	= 103.8 sec
Cm	= L/(1-Y)	= 60.1 sec
Yult		= 0.735
R.C.ult	= (Yult-Y)/Y*100%	= 16.0 %
Cp	= 0.9*L/(0.9-Y)	= 74.4 sec
Ymax	= 1-L/C	= 0.817
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 16.0 %

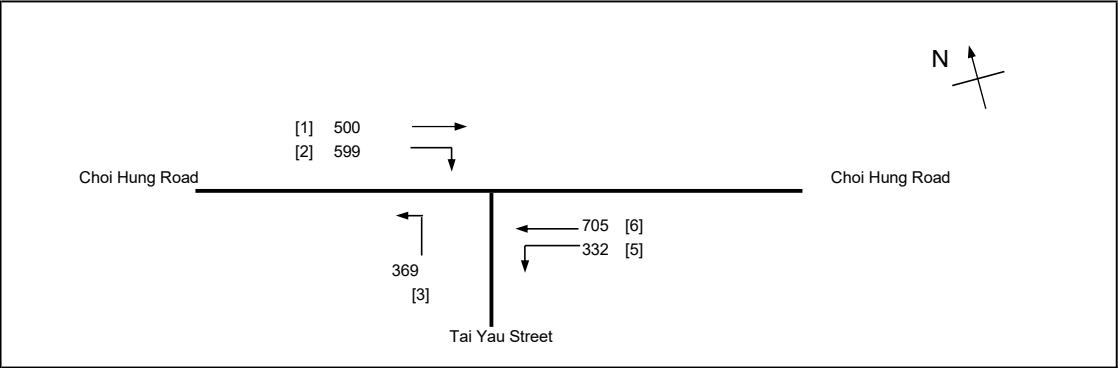


Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
			SG	FG	SG	FG	
P6	8.4	1	7	7	61	7	OK
P7	12	2	10	10	10	10	OK
P8	12	2	10	10	10	10	OK
P9	12	1	10	10	58	10	OK
P10	8.4	2,3	7	7	45	7	OK

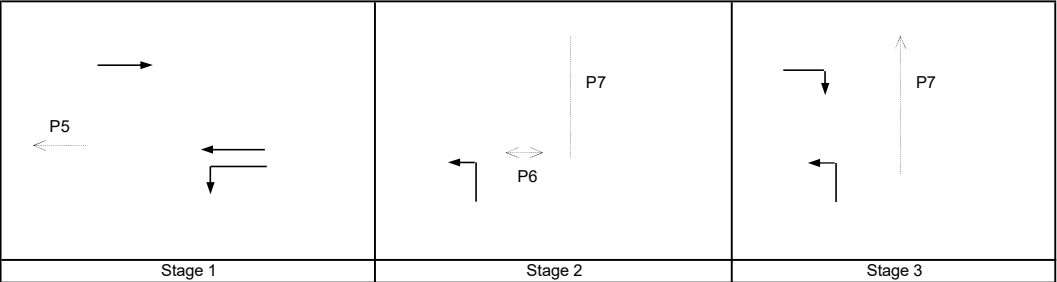
Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lan Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
									Left	Straigh	Right														
2 3	1	3.80		2			N	4130		1567		1567	0.00	4130			4130	0.379	0.379	17	59	59	0.776	133	27
	2	3.80		2	25			4270			399	399	1.00	4028			4028	0.099	0.099		15	20	0.585	55	47
4 5	2,3	3.30		1	20		N	1945	590			590	1.00	1809			1809	0.326	0.155		50	87	0.451	27	8
	3	3.50		2	15		N	4070			575	575	1.00	3700			3700	0.155			24	24	0.776	79	49
6 1	1	3.30		2	12		N	4030	825			825	1.00	3582			3582	0.230			36	70	0.393	57	14
	1	3.30		2				4170		1142		1142	0.00	4170			4170	0.274			42	42	0.776	124	36

AMG CONSULTANCY LIMITED										TRAFFIC SIGNAL CALCULATION										INITIALS		DATE																													
20-24 Tai Yau Street, San Po Kong															Project No.: J03007					Prepared By: JP		JP		Nov-25																											
Choi Hung Road / Tai Yau Street										2025 Observed Flows AM										Checked By: SF		SF		Nov-25																											
															No. of stages per cycleN = 3 Intergreen PeriodStage 1 - 2I = 6 sec Stage 2 - 3I = 3 sec Stage 3 - 1I = 6 sec Cycle timeC = 120 sec Sum(y)Y = 0.600 Loss timeL = 31 sec Total Flow= 2552 pcu Co = (1.5*L+5)/(1-Y) = 128.6 sec Cm = L/(1-Y) = 77.4 sec Yult = 0.668 R.C.ult = (Yult-Y)/Y*100% = 11.3 % Cp = 0.9*L/(0.9-Y) = 92.9 sec Ymax = 1-L/C = 0.742 R.C.(C) = (0.9*Ymax-Y)/Y*100% = 11.3 %																																				
															<table><tr><th>Pedestrian Phase</th><th>Width (m)</th><th>Stage</th><th colspan="2">Green Time Required</th><th colspan="2">Green Time Provided (s)</th><th>Check</th></tr><tr><td>P5</td><td>6</td><td>1</td><td>5</td><td>5</td><td>29</td><td>5</td><td>OK</td></tr><tr><td>P6</td><td>12</td><td>2</td><td>8</td><td>10</td><td>8</td><td>10</td><td>OK</td></tr><tr><td>P7</td><td>12</td><td>2,3</td><td>12</td><td>10</td><td>67</td><td>10</td><td>OK</td></tr></table>					Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check	P5	6	1	5	5	29	5	OK	P6	12	2	8	10	8	10	OK	P7	12	2,3	12	10	67	10	OK
Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check																																												
P5	6	1	5	5	29	5	OK																																												
P6	12	2	8	10	8	10	OK																																												
P7	12	2,3	12	10	67	10	OK																																												
Stage 1					Stage 2					Stage 3																																									
Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m Left pcu/hStraigh pcu/hRight pcu/h			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)																										
1	1	6.60		2			N	4690		604		604	0.00	4690			4690	0.129	0.235	13	19	35	0.443	71	35																										
2	3	3.50		1	15		N	2105			698	698	1.00	1914			1914	0.365	0.365		54	54	0.809	67	33																										
3	2,3	3.30		1	12		N	1945	326			326	1.00	1729			1729	0.189			28	74	0.305	21	12																										
5,6	1	3.50		1	13		N	1965	278	152		430	0.65	1828			1828	0.235			35	35	0.809	55	47																										
6	1	3.50		1			N	2105		494		494	0.00	2105			2105	0.235			35	35	0.809	62	46																										
	2		dummy																	18	18	18																													

Z:\AMG Work Station\Project\J03007 S16 Application, Tai Yau Street for Hotel development\Data\Calculation\J3_ Choi Hung Road_ Tai Yau Street_ 20251122.xlsm\OBS AM



No. of stages per cycle	N =	3
Intergreen Period	Stage 1 - 2	I = 6 sec
	Stage 2 - 3	I = 3 sec
	Stage 3 - 1	I = 6 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.577
Loss time	L =	31 sec
Total Flow		= 2505 pcu
Co	= (1.5*L+5)/(1-Y)	= 121.8 sec
Cm	= L/(1-Y)	= 73.3 sec
Yult		= 0.668
R.C.ult	= (Yult-Y)/Y*100%	= 15.6 %
Cp	= 0.9*L/(0.9-Y)	= 86.4 sec
Ymax	= 1-L/C	= 0.742
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 15.6 %



Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
			SG	FG	SG	FG	
P5	6	1	5	5	32	5	OK
P6	12	2	8	10	8	10	OK
P7	12	2,3	12	10	56	10	OK

	Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h		Flare Lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
										Left pcu/h	Straight pcu/h	Right pcu/h														
	1	1	6.60	dummy	2	15		N	4690	500	599	500	0.00	4690			4690	0.107	0.264	13	16	41	0.314	55	30	
	2	3	3.50		1			2105	599			1.00	1914	1914			0.313	0.313	48		48	0.778	62	36		
	3	2,3	3.30		1	12		N	1945	369	556	369	1.00	1729			1729	0.213	33	68	0.375	27	15			
	5,6	1	3.50		1	13		N	1965	332		149	481	0.69			1820	1820	0.264	41	41	0.778	55	41		
	6	1	3.50		1				2105		556	556	0.00	2105			2105	0.264	41	41	0.778	64	40			
		2																					18	18	18	

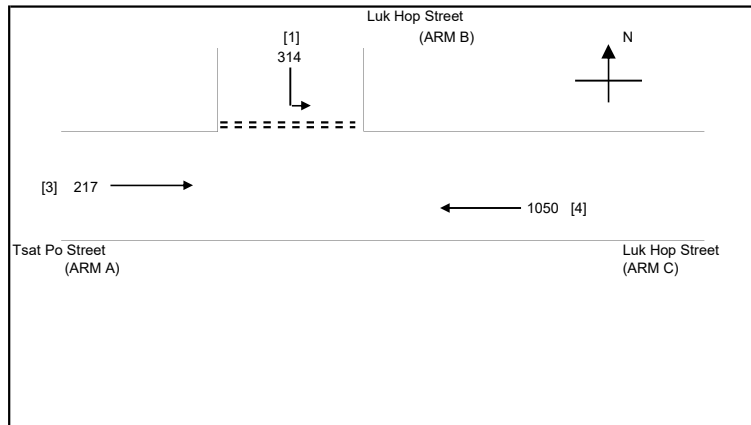
AMG CONSULTANCY LIMITED										TRAFFIC SIGNAL CALCULATION										INITIALS		DATE																																																																																																																																																																																						
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<table><tr><td></td><td></td><td></td></tr><tr><td>Stage 1</td><td>Stage 2</td><td>Stage 3</td></tr></table>													Stage 1	Stage 2	Stage 3	<table><tr><td>Pedestrian Phase</td><td>Width (m)</td><td>Stage</td><td colspan="2">Green Time Required</td><td colspan="2">Green Time Provided (s)</td><td>Check</td></tr><tr><td></td><td></td><td></td><td>SG</td><td>FG</td><td>SG</td><td>FG</td><td></td></tr><tr><td>P1</td><td>12</td><td>2,3</td><td>5</td><td>5</td><td>13</td><td>8</td><td>OK</td></tr><tr><td>P2</td><td>6</td><td>3</td><td>8</td><td>10</td><td>8</td><td>10</td><td>OK</td></tr></table>										Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check				SG	FG	SG	FG		P1	12	2,3	5	5	13	8	OK	P2	6	3	8	10	8	10	OK																																																																																																																																																			
Stage 1	Stage 2	Stage 3																																																																																																																																																																																																										
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<table><tr><th>Move-ment</th><th>Stage</th><th>Lane Width m.</th><th>Phase</th><th>No. of lane</th><th>Radius m.</th><th>O</th><th>N</th><th>Straight-Ahead Sat. Flow</th><th colspan="3">m</th><th>Total Flow pcu/h</th><th>Proportion of Turning Vehicles</th><th>Sat. Flow pcu/h</th><th>Flare Lane Length m</th><th>Flare Lane Effect</th><th>Revised Sat. Flow pcu/h</th><th>y</th><th>Greater y</th><th>L sec</th><th>g (required) sec</th><th>g (input) sec</th><th>Degree of Saturation X</th><th>Queue Length (m/lane)</th><th>Average Delay (sec)</th></tr><tr><td>1</td><td>1</td><td>3.40</td><td></td><td>2</td><td></td><td></td><td>N</td><td>4050</td><td></td><td>696</td><td></td><td>696</td><td>0.00</td><td>4050</td><td></td><td></td><td>4050</td><td>0.172</td><td>0.241</td><td rowspan="2">10</td><td>29</td><td>40</td><td>0.427</td><td>58</td><td>22</td></tr><tr><td>2</td><td>2</td><td>3.30</td><td></td><td>2</td><td>15</td><td></td><td></td><td>4170</td><td></td><td></td><td>720</td><td>720</td><td>1.00</td><td>3791</td><td></td><td></td><td>3791</td><td>0.190</td><td>0.190</td><td>32</td><td>32</td><td>0.598</td><td>68</td><td>30</td></tr><tr><td>3</td><td>2</td><td>4.60</td><td></td><td>1</td><td>12</td><td></td><td>N</td><td>2075</td><td>334</td><td></td><td></td><td>334</td><td>1.00</td><td>1844</td><td></td><td></td><td>1844</td><td>0.181</td><td></td><td></td><td>30</td><td>32</td><td>0.570</td><td>32</td><td>31</td></tr><tr><td>5,6</td><td>1</td><td>3.60</td><td></td><td>1</td><td>13</td><td></td><td>N</td><td>1975</td><td>285</td><td>157</td><td></td><td>442</td><td>0.64</td><td>1838</td><td></td><td></td><td>1838</td><td>0.241</td><td></td><td></td><td>40</td><td>40</td><td>0.598</td><td>37</td><td>26</td></tr><tr><td>6</td><td>1</td><td>3.90</td><td></td><td>1</td><td></td><td></td><td></td><td>2145</td><td></td><td>516</td><td></td><td>516</td><td>0.00</td><td>2145</td><td></td><td></td><td>2145</td><td>0.241</td><td></td><td></td><td>40</td><td>40</td><td>0.598</td><td>43</td><td>25</td></tr><tr><td></td><td>3</td><td></td><td>dummy</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>18</td><td>18</td><td>18</td><td></td><td></td><td></td></tr></table>																								Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane Length m	Flare Lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)	1	1	3.40		2			N	4050		696		696	0.00	4050			4050	0.172	0.241	10	29	40	0.427	58	22	2	2	3.30		2	15			4170			720	720	1.00	3791			3791	0.190	0.190	32	32	0.598	68	30	3	2	4.60		1	12		N	2075	334			334	1.00	1844			1844	0.181			30	32	0.570	32	31	5,6	1	3.60		1	13		N	1975	285	157		442	0.64	1838			1838	0.241			40	40	0.598	37	26	6	1	3.90		1				2145		516		516	0.00	2145			2145	0.241			40	40	0.598	43	25		3		dummy																	18	18	18			
Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane Length m	Flare Lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)																																																																																																																																																																																			
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2	2	3.30		2	15			4170			720	720	1.00	3791			3791	0.190	0.190		32	32	0.598	68	30																																																																																																																																																																																			
3	2	4.60		1	12		N	2075	334			334	1.00	1844			1844	0.181			30	32	0.570	32	31																																																																																																																																																																																			
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Choi Hung Road / Tai Yau Street										2030 Design Flows PM (with junction improvement)										Checked By: SF		Nov-25																																																																																																																																																																								
										No. of stages per cycleN = 3 Intergreen PeriodStage 1 - 2I = 5 sec Stage 2 - 3I = 4 sec Stage 3 - 1I = 3 sec Cycle timeC = 100 sec Sum(y)Y = 0.519 Loss timeL = 28 sec Total Flow= 2777 pcu Co = (1.5*L+5)/(1-Y) = 97.6 sec Cm = L/(1-Y) = 58.2 sec Yult = 0.690 R.C.ult = (Yult-Y)/Y*100% = 33.0 % Cp = 0.9*L/(0.9-Y) = 66.1 sec Ymax = 1-L/C = 0.720 R.C.(C) = (0.9*Ymax-Y)/Y*100% = 24.9 %																																																																																																																																																																																				
										<table><tr><th>Pedestrian Phase</th><th>Width (m)</th><th>Stage</th><th colspan="2">Green Time Required</th><th colspan="2">Green Time Provided (s)</th><th>Check</th></tr><tr><td>P1</td><td>12</td><td>2,3</td><td>5</td><td>5</td><td>13</td><td>8</td><td>OK</td></tr><tr><td>P2</td><td>6</td><td>3</td><td>8</td><td>10</td><td>8</td><td>10</td><td>OK</td></tr></table>										Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check	P1	12	2,3	5	5	13	8	OK	P2	6	3	8	10	8	10	OK																																																																																																																																																			
Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check																																																																																																																																																																																							
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P2	6	3	8	10	8	10	OK																																																																																																																																																																																							
<table><tr><th>Move-ment</th><th>Stage</th><th>Lane Width m.</th><th>Phase</th><th>No. of lane</th><th>Radius m.</th><th>O</th><th>N</th><th>Straight-Ahead Sat. Flow</th><th colspan="3">m</th><th>Total Flow pcu/h</th><th>Proportion of Turning Vehicles</th><th>Sat. Flow pcu/h</th><th>Flare Lane Length m</th><th>Flare Lane Effect</th><th>Revised Sat. Flow pcu/h</th><th>y</th><th>Greater y</th><th>L sec</th><th>g (required) sec</th><th>g (input) sec</th><th>Degree of Saturation X</th><th>Queue Length (m/lane)</th><th>Average Delay (sec)</th></tr><tr><td>1</td><td>1</td><td>3.40</td><td></td><td>2</td><td></td><td></td><td>N</td><td>4050</td><td></td><td>550</td><td></td><td>550</td><td>0.00</td><td>4050</td><td></td><td></td><td>4050</td><td>0.136</td><td>0.282</td><td rowspan="2">10</td><td>19</td><td>39</td><td>0.347</td><td>47</td><td>22</td></tr><tr><td>2</td><td>2</td><td>3.30</td><td></td><td>2</td><td>15</td><td></td><td></td><td>4170</td><td></td><td></td><td>674</td><td>674</td><td>1.00</td><td>3791</td><td></td><td></td><td>3791</td><td>0.178</td><td>0.237</td><td>25</td><td>33</td><td>0.541</td><td>63</td><td>28</td></tr><tr><td>3</td><td>2</td><td>4.60</td><td></td><td>1</td><td>12</td><td></td><td>N</td><td>2075</td><td>437</td><td></td><td></td><td>437</td><td>1.00</td><td>1844</td><td></td><td></td><td>1844</td><td>0.237</td><td></td><td></td><td>33</td><td>33</td><td>0.720</td><td>41</td><td>33</td></tr><tr><td>5,6</td><td>1</td><td>3.60</td><td></td><td>1</td><td>13</td><td></td><td>N</td><td>1975</td><td>388</td><td>124</td><td></td><td>512</td><td>0.76</td><td>1816</td><td></td><td></td><td>1816</td><td>0.282</td><td></td><td></td><td>39</td><td>39</td><td>0.720</td><td>44</td><td>29</td></tr><tr><td>6</td><td>1</td><td>3.90</td><td></td><td>1</td><td></td><td></td><td></td><td>2145</td><td></td><td>604</td><td></td><td>604</td><td>0.00</td><td>2145</td><td></td><td></td><td>2145</td><td>0.282</td><td></td><td></td><td>39</td><td>39</td><td>0.720</td><td>51</td><td>29</td></tr><tr><td></td><td>3</td><td></td><td>dummy</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>18</td><td>18</td><td>18</td><td></td><td></td><td></td></tr></table>										Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane Length m	Flare Lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)	1	1	3.40		2			N	4050		550		550	0.00	4050			4050	0.136	0.282	10	19	39	0.347	47	22	2	2	3.30		2	15			4170			674	674	1.00	3791			3791	0.178	0.237	25	33	0.541	63	28	3	2	4.60		1	12		N	2075	437			437	1.00	1844			1844	0.237			33	33	0.720	41	33	5,6	1	3.60		1	13		N	1975	388	124		512	0.76	1816			1816	0.282			39	39	0.720	44	29	6	1	3.90		1				2145		604		604	0.00	2145			2145	0.282			39	39	0.720	51	29		3		dummy																	18	18	18			
Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane Length m	Flare Lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)																																																																																																																																																																					
1	1	3.40		2			N	4050		550		550	0.00	4050			4050	0.136	0.282	10	19	39	0.347	47	22																																																																																																																																																																					
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3	2	4.60		1	12		N	2075	437			437	1.00	1844			1844	0.237			33	33	0.720	41	33																																																																																																																																																																					
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6	1	3.90		1				2145		604		604	0.00	2145			2145	0.282			39	39	0.720	51	29																																																																																																																																																																					
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AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Luk Hop Street / Tsat Po Street		2025 Observed Flows AM	FILENAME :	SF	Nov-25
		REFERENCE NO.:			



NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W = 6.60 (metres)
 W_{cr} = 0 (metres)
 q_{a-b} = 0 (pcu/hr)
 q_{a-c} = 217 (pcu/hr)

MAJOR ROAD (ARM C)

W_{c-b} = 3.20 (metres)
 V_r c-b = 0 (metres)
 q_{c-a} = 1050 (pcu/hr)
 q_{c-b} = 0 (pcu/hr)

MINOR ROAD (ARM B)

W_{b-a} = 0.00 (metres)
 W_{b-c} = 3.20 (metres)
 V_l b-a = 0 (metres)
 V_r b-a = 0 (metres)
 V_r b-c = 130 (metres)
 q_{b-a} = 0 (pcu/hr)
 q_{b-c} = 314 (pcu/hr)

GEOMETRIC FACTORS :

D = 0.5332189
 E = 0.9663193
 F = 0.8542684
 Y = 0.7723

F for (Q_{b-ac}) = 1

THE CAPACITY OF MOVEMENT :

Q_{b-a} = 203
 Q_{b-c} = 661
 Q_{c-b} = 584
 Q_{b-ac} = 661
 Q_{b-c} (O) = 661

TOTAL FLOW = 1581 (PCU/HR)

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC_{b-a} = 0.0000
 DFC_{b-c} = 0.4750
 DFC_{c-b} = 0.0000

CRITICAL DFC = 0.48

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Luk Hop Street / Tsat Po Street	2025 Observed Flows PM	FILENAME :	CHECKED BY:	SF	Nov-25
		REFERENCE NO.:			

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W_{cr} = CENTRAL RESERVE WIDTH

W_{b-a} = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W_{b-c} = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W_{c-b} = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

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

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

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

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

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

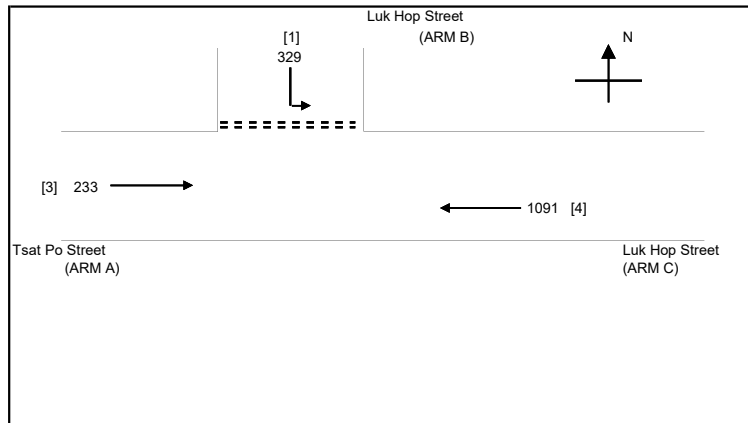
F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 6.60 (metres) W _{cr} = 0 (metres) q _{a-b} = 0 (pcu/hr) q _{a-c} = 375 (pcu/hr)	GEOMETRIC FACTORS : D = 0.5332189 E = 0.9663193 F = 0.8542684 Y = 0.7723 F for (Q _{b-ac}) = 1	THE CAPACITY OF MOVEMENT : Q _{b-a} = 196 Q _{b-c} = 618 Q _{b-c} (O) = 618 Q _{c-b} = 546 Q _{b-ac} = 618 TOTAL FLOW = 1573 (PCU/HR)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC _{b-a} = 0.0000 DFC _{b-c} = 0.5340 DFC _{c-b} = 0.0000 CRITICAL DFC = 0.53
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AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Luk Hop Street / Tsat Po Street		2030 Reference Flows AM	FILENAME :	SF	Nov-25
		REFERENCE NO.:			



NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W = 6.60 (metres)
 W_{cr} = 0 (metres)
 q_{a-b} = 0 (pcu/hr)
 q_{a-c} = 233 (pcu/hr)

MAJOR ROAD (ARM C)

W_{c-b} = 3.20 (metres)
 V_r c-b = 0 (metres)
 q_{c-a} = 1091 (pcu/hr)
 q_{c-b} = 0 (pcu/hr)

MINOR ROAD (ARM B)

W_{b-a} = 0.00 (metres)
 W_{b-c} = 3.20 (metres)
 V_l b-a = 0 (metres)
 V_r b-a = 0 (metres)
 V_r b-c = 130 (metres)
 q_{b-a} = 0 (pcu/hr)
 q_{b-c} = 329 (pcu/hr)

GEOMETRIC FACTORS :

D = 0.5332189
 E = 0.9663193
 F = 0.8542684
 Y = 0.7723

F for (Q_{b-ac}) = 1

THE CAPACITY OF MOVEMENT :

Q_{b-a} = 197
 Q_{b-c} = 657 Q_{b-c} (O) = 657
 Q_{c-b} = 580
 Q_{b-ac} = 657

TOTAL FLOW = 1653 (PCU/HR)

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC_{b-a} = 0.0000
 DFC_{b-c} = 0.5008
 DFC_{c-b} = 0.0000

CRITICAL DFC = 0.50

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
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Luk Hop Street / Tsat Po Street		2030 Reference Flows PM	FILENAME :	SF	Nov-25
		REFERENCE NO.:			

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W_{cr} = CENTRAL RESERVE WIDTH

W_{b-a} = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W_{b-c} = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W_{c-b} = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

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

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

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

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

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

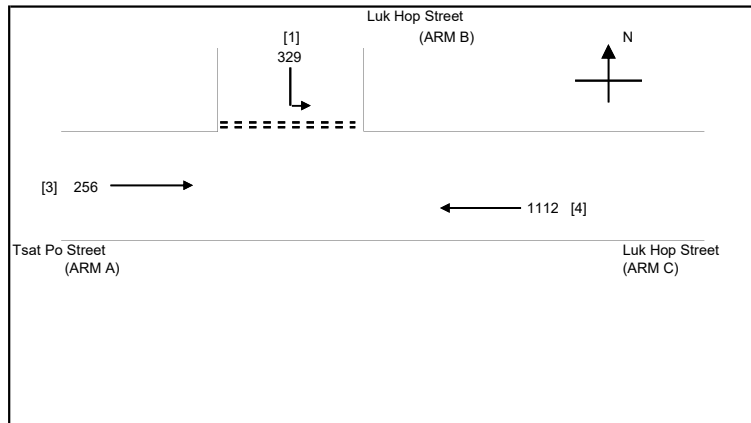
F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 6.60 (metres) W _{cr} = 0 (metres) q _{a-b} = 0 (pcu/hr) q _{a-c} = 395 (pcu/hr)	GEOMETRIC FACTORS : D = 0.5332189 E = 0.9663193 F = 0.8542684 Y = 0.7723 F for (Q _{b-ac}) = 1	THE CAPACITY OF MOVEMENT : Q _{b-a} = 190 Q _{b-c} = 613 Q _{b-c} (O) = 613 Q _{c-b} = 542 Q _{b-ac} = 613 TOTAL FLOW = 1645 (PCU/HR)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC _{b-a} = 0.0000 DFC _{b-c} = 0.5677 DFC _{c-b} = 0.0000 CRITICAL DFC = 0.57
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AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Luk Hop Street / Tsat Po Street		2030 Design Flows AM	FILENAME :	SF	Nov-25
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NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W = 6.60 (metres)
 W_{cr} = 0 (metres)
 q_{a-b} = 0 (pcu/hr)
 q_{a-c} = 256 (pcu/hr)

MAJOR ROAD (ARM C)

W_{c-b} = 3.20 (metres)
 V_r c-b = 0 (metres)
 q_{c-a} = 1112 (pcu/hr)
 q_{c-b} = 0 (pcu/hr)

MINOR ROAD (ARM B)

W_{b-a} = 0.00 (metres)
 W_{b-c} = 3.20 (metres)
 V_l b-a = 0 (metres)
 V_r b-a = 0 (metres)
 V_r b-c = 130 (metres)
 q_{b-a} = 0 (pcu/hr)
 q_{b-c} = 329 (pcu/hr)

GEOMETRIC FACTORS :

D = 0.5332189
 E = 0.9663193
 F = 0.8542684
 Y = 0.7723

F for (Q_{b-ac}) = 1

THE CAPACITY OF MOVEMENT :

Q_{b-a} = 191
 Q_{b-c} = 650 Q_{b-c} (O) = 650
 Q_{c-b} = 575
 Q_{b-ac} = 650

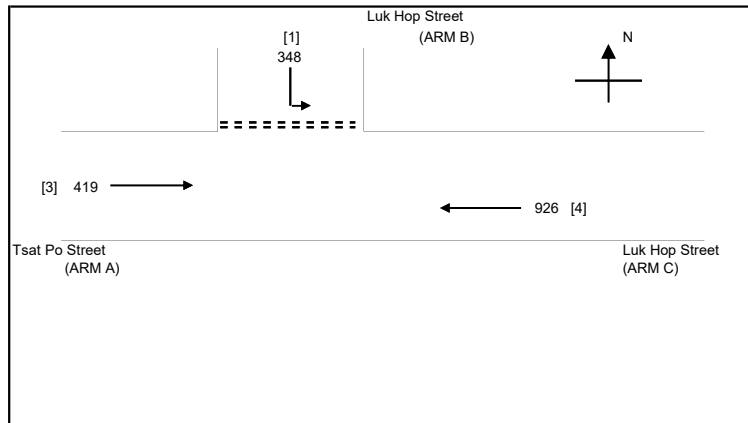
TOTAL FLOW = 1697 (PCU/HR)

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC_{b-a} = 0.0000
 DFC_{b-c} = 0.5062
 DFC_{c-b} = 0.0000

CRITICAL DFC = 0.51

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Luk Hop Street / Tsat Po Street		2030 Design Flows PM	FILENAME :	SF	Nov-25
		REFERENCE NO.:			



NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W = 6.60 (metres)
 W_{cr} = 0 (metres)
 q_{a-b} = 0 (pcu/hr)
 q_{a-c} = 419 (pcu/hr)

MAJOR ROAD (ARM C)

W_{c-b} = 3.20 (metres)
 V_r c-b = 0 (metres)
 q_{c-a} = 926 (pcu/hr)
 q_{c-b} = 0 (pcu/hr)

MINOR ROAD (ARM B)

W_{b-a} = 0.00 (metres)
 W_{b-c} = 3.20 (metres)
 V_l b-a = 0 (metres)
 V_r b-a = 0 (metres)
 V_r b-c = 130 (metres)
 q_{b-a} = 0 (pcu/hr)
 q_{b-c} = 348 (pcu/hr)

GEOMETRIC FACTORS :

D = 0.5332189
 E = 0.9663193
 F = 0.8542684
 Y = 0.7723

F for (Q_{b-ac}) = 1

THE CAPACITY OF MOVEMENT :

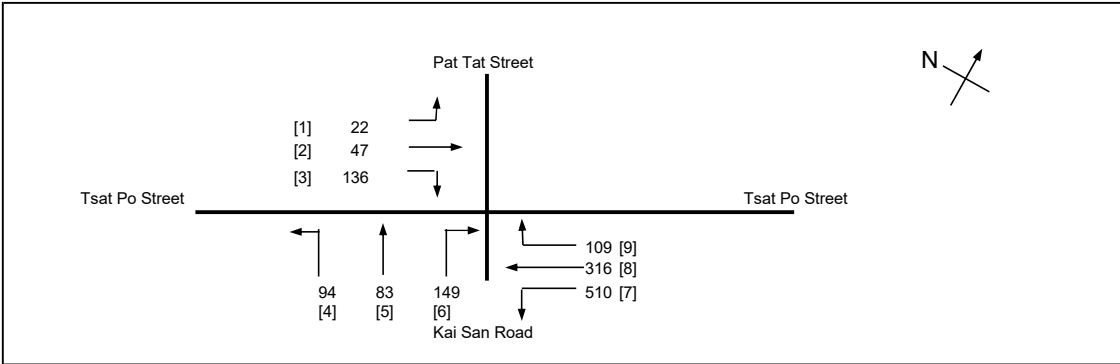
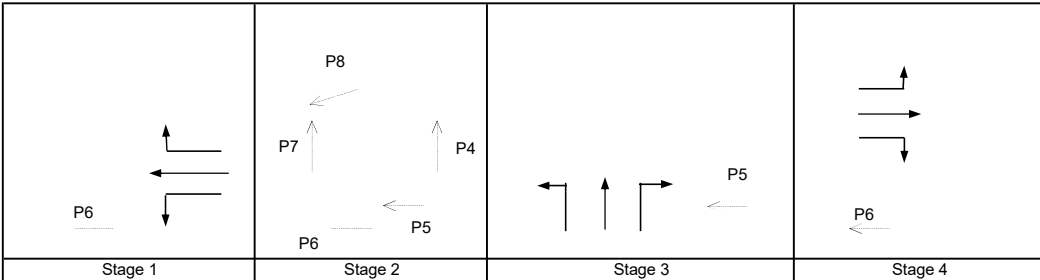
Q_{b-a} = 184
 Q_{b-c} = 606
 Q_{c-b} = 536
 Q_{b-ac} = 606
 Q_{b-c} (O) = 606

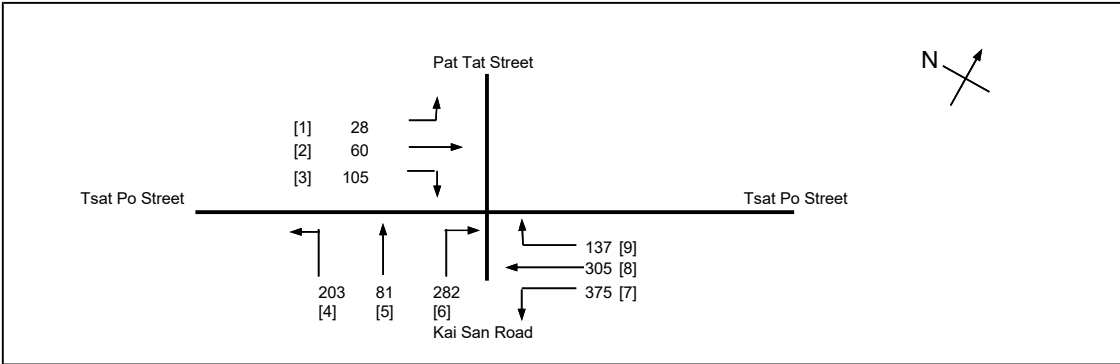
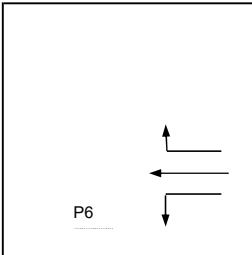
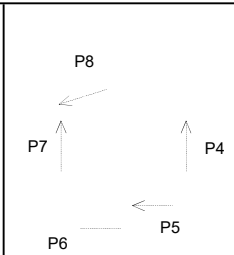
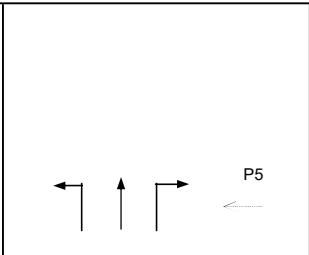
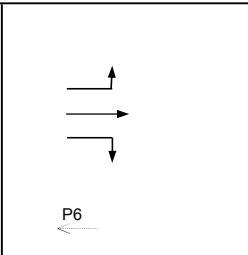
TOTAL FLOW = 1693 (PCU/HR)

COMPARISON OF DESIGN FLOW TO CAPACITY:

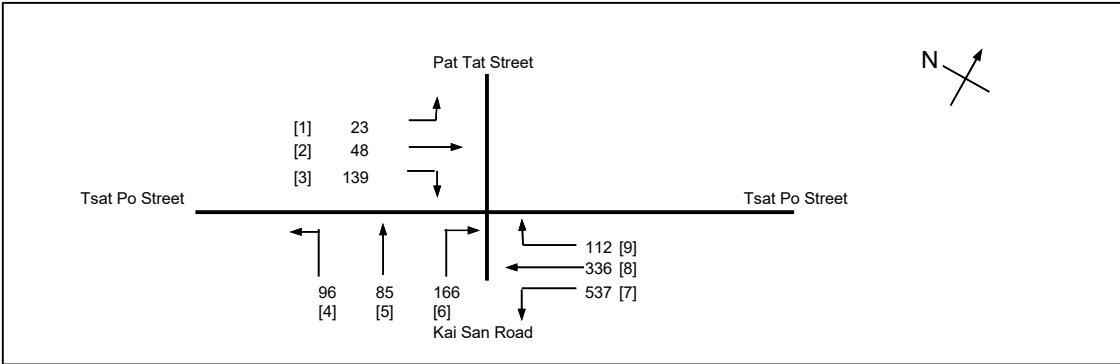
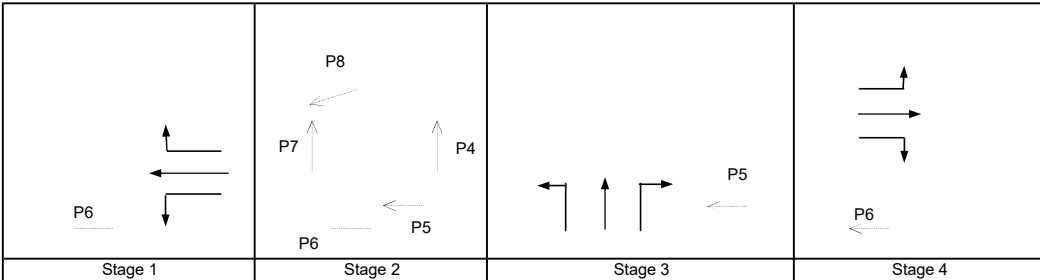
DFC b-a = 0.0000
 DFC b-c = 0.5743
 DFC c-b = 0.0000

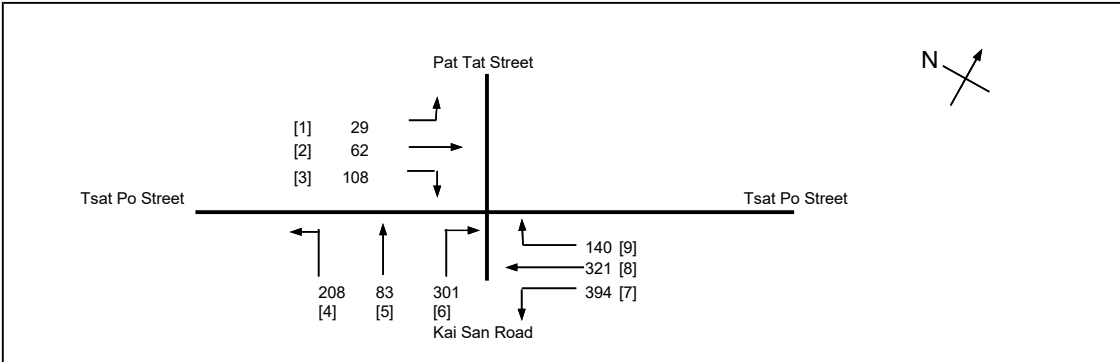
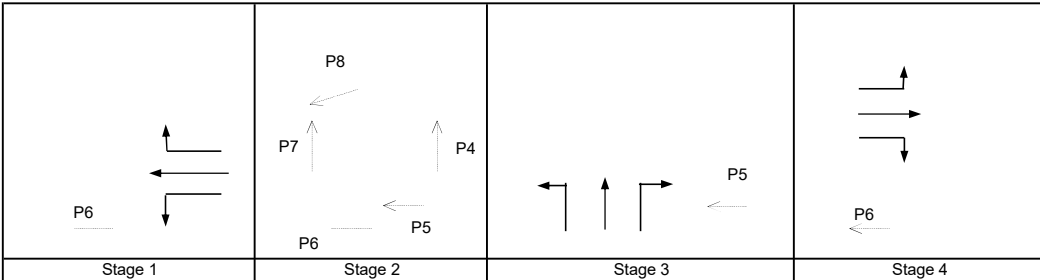
CRITICAL DFC = 0.57

AMG CONSULTANCY LIMITED										TRAFFIC SIGNAL CALCULATION										INITIALS		DATE																																																																																																																																																																																													
20-24 Tai Yau Street, San Po Kong															Project No.: J03007					Prepared By: JP		JP		Nov-25																																																																																																																																																																																											
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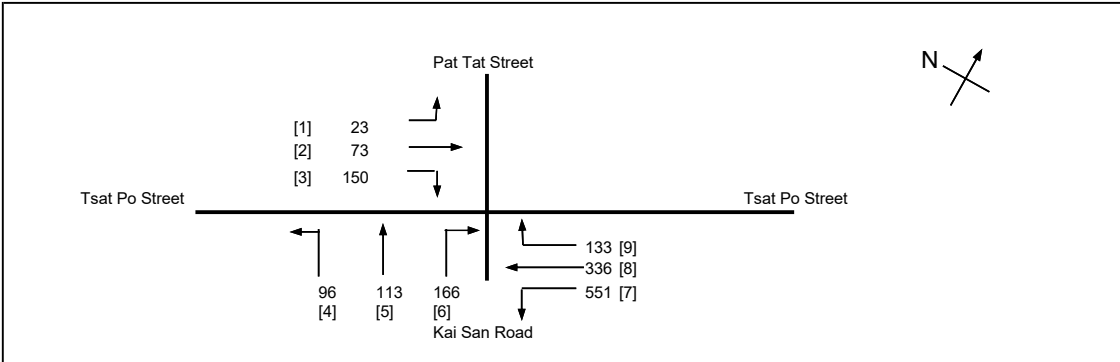
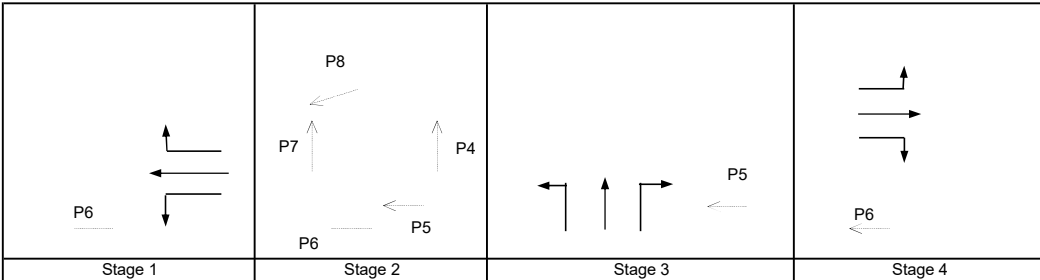
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AMG CONSULTANCY LIMITED										TRAFFIC SIGNAL CALCULATION										INITIALS		DATE																																																																																																																																																																																										
20-24 Tai Yau Street, San Po Kong										Project No.: J03007										Prepared By: JP		Nov-25																																																																																																																																																																																										
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P8	8.4	2	7	7	11	7	OK																																																																																																																																																																																																									
<table><tr><th rowspan="2">Movement</th><th rowspan="2">Stage</th><th rowspan="2">Lane Width m.</th><th rowspan="2">Phase</th><th rowspan="2">No. of lane</th><th rowspan="2">Radius m.</th><th rowspan="2">O</th><th rowspan="2">N</th><th rowspan="2">Straight-Ahead Sat. Flow</th><th colspan="3">m</th><th rowspan="2">Total Flow pcu/h</th><th rowspan="2">Proportion of Turning Vehicles</th><th rowspan="2">Sat. Flow pcu/h</th><th rowspan="2">Flare lane Length m.</th><th rowspan="2">Flare lane Effect</th><th rowspan="2">Revised Sat. Flow pcu/h</th><th rowspan="2">y</th><th rowspan="2">Greater y</th><th rowspan="2">L sec</th><th rowspan="2">g (required) sec</th><th rowspan="2">g (input) sec</th><th rowspan="2">Degree of Saturation X</th><th rowspan="2">Queue Length (m/lane)</th><th rowspan="2">Average Delay (sec)</th></tr><tr><th>Left pcu/h</th><th>Straigh pcu/h</th><th>Right pcu/h</th></tr><tr><td>1,2,3</td><td>4</td><td>5.00</td><td></td><td>1</td><td>18</td><td></td><td></td><td>2255</td><td>23</td><td>73</td><td>150</td><td>246</td><td>0.70</td><td>2130</td><td></td><td></td><td>2130</td><td>0.115</td><td>0.115</td><td>26</td><td>19</td><td>19</td><td>0.781</td><td>41</td><td>64</td></tr><tr><td>4,5</td><td>3</td><td>3.90</td><td></td><td>1</td><td>20</td><td></td><td>N</td><td>2005</td><td>96</td><td>113</td><td></td><td>209</td><td>0.46</td><td>1938</td><td></td><td></td><td>1938</td><td>0.108</td><td>0.108</td><td></td><td>18</td><td>18</td><td>0.781</td><td>36</td><td>67</td></tr><tr><td>6</td><td>3</td><td>3.90</td><td></td><td>1</td><td>12</td><td></td><td></td><td>2145</td><td></td><td></td><td>166</td><td>166</td><td>1.00</td><td>1907</td><td></td><td></td><td>1907</td><td>0.087</td><td></td><td></td><td>14</td><td>18</td><td>0.631</td><td>26</td><td>57</td></tr><tr><td>7,8</td><td>1</td><td>3.90</td><td></td><td>1</td><td>22</td><td></td><td>N</td><td>2005</td><td>551</td><td>0</td><td></td><td>551</td><td>1.00</td><td>1877</td><td></td><td></td><td>1877</td><td>0.294</td><td>0.294</td><td></td><td>49</td><td>49</td><td>0.781</td><td>64</td><td>41</td></tr><tr><td>8,9</td><td>1</td><td>3.90</td><td></td><td>1</td><td>25</td><td></td><td></td><td>2145</td><td></td><td>336</td><td>133</td><td>469</td><td>0.28</td><td>2109</td><td></td><td></td><td>2109</td><td>0.222</td><td></td><td></td><td>37</td><td>49</td><td>0.592</td><td>53</td><td>34</td></tr><tr><td></td><td>2</td><td></td><td>dummy</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>18</td><td>18</td><td>18</td><td></td><td></td><td></td></tr></table>																								Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)	Left pcu/h	Straigh pcu/h	Right pcu/h	1,2,3	4	5.00		1	18			2255	23	73	150	246	0.70	2130			2130	0.115	0.115	26	19	19	0.781	41	64	4,5	3	3.90		1	20		N	2005	96	113		209	0.46	1938			1938	0.108	0.108		18	18	0.781	36	67	6	3	3.90		1	12			2145			166	166	1.00	1907			1907	0.087			14	18	0.631	26	57	7,8	1	3.90		1	22		N	2005	551	0		551	1.00	1877			1877	0.294	0.294		49	49	0.781	64	41	8,9	1	3.90		1	25			2145		336	133	469	0.28	2109			2109	0.222			37	49	0.592	53	34		2		dummy																	18	18	18			
Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X										Queue Length (m/lane)	Average Delay (sec)																																																																																																																																																																														
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6	3	3.90		1	12			2145			166	166	1.00	1907			1907	0.087			14	18	0.631	26	57																																																																																																																																																																																							
7,8	1	3.90		1	22		N	2005	551	0		551	1.00	1877			1877	0.294	0.294		49	49	0.781	64	41																																																																																																																																																																																							
8,9	1	3.90		1	25			2145		336	133	469	0.28	2109			2109	0.222			37	49	0.592	53	34																																																																																																																																																																																							
	2		dummy																	18	18	18																																																																																																																																																																																										

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AMG CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE _____

20-24 Tai Yau Street, San Po Kong

Project No.: J03007

Prepared By:

JP

Nov-25

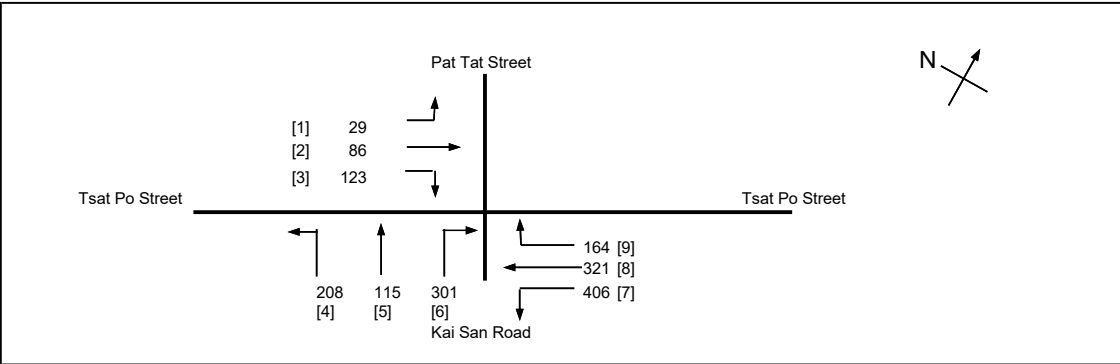
Pat Tat Street / Tsat Po Street / Kai San Road

2030 Design Flows PM

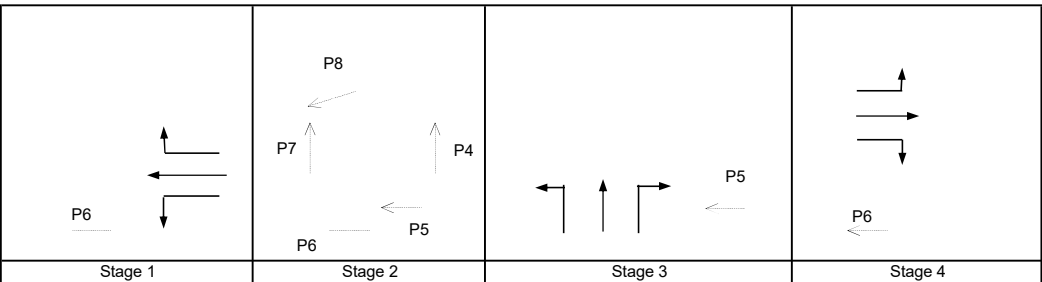
Checked By:

SF

Nov-25



No. of stages per cycle	N =	4
Intergreen Period	I =	5 sec
Stage 1 - 2	I =	4 sec
Stage 2 - 3	I =	9 sec
Stage 3 - 4	I =	11 sec
Stage 4 - 1	C =	130 sec
Cycle time	Y =	0.504
Sum(y)	L =	44 sec
Loss time	=	1753 pcu
Total Flow	=	143.1 sec
Co = $(1.5 \cdot L + 5) / (1 - Y)$	=	88.7 sec
Cm = $L / (1 - Y)$	=	0.570
Yult = $(Yult - Y) / Y \cdot 100\%$	=	13.1 %
Cp = $0.9 \cdot L / (0.9 - Y)$	=	99.9 sec
Ymax = $1 - L / C$	=	0.662
R.C.(C) = $(0.9 \cdot Ymax - Y) / Y \cdot 100\%$	=	18.2 %



Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
			SG	FG	SG	FG	
P4	10.8	2	9	9	9	9	OK
P5	9.6	2,3	8	8	44	8	OK
P6	8.4	1,2,4	7	7	74	7	OK
P7	9.6	2	9	8	10	8	OK
P8	8.4	2	7	7	11	7	OK

Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
									Left pcu/h	Straigh pcu/h	Right pcu/h														
1,2,3	4	5.00		1	18			2255	29	86	123	238	0.64				2141	0.111	0.111	26	19	19	0.762	39	62
4,5	3	3.90		1	20		N	2005	208	115		323	0.64				1913	0.169	0.169		29	29	0.762	47	54
6	3	3.90		1	12			2145			301	301	1.00				1907	0.158			27	29	0.712	43	51
7,8	1	3.90		1	22		N	2005	406	15		421	0.96				1881	0.224	0.224		38	38	0.762	55	47
8,9	1	3.90		1	25			2145		306	164	470	0.35				2101	0.224			38	38	0.762	62	46
	2		dummy																	18	18	18			

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Tai Yau Street / Ng Fong Street		2025 Observed Flows AM	FILENAME :	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		

Tai Yau Street (ARM C) Ng Fong Street (ARM A)
(ARM B)

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

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

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

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

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

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

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

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

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.60 (metres) W cr = 0.7 (metres) q a-b = 303 (pcu/hr) q a-c = 781 (pcu/hr)	D = 0.5332189 E = 0.5859548 F = 0.9663193 Y = 0.6688 F for (Qb-ac) = #DIV/0!	Q b-a = 179 Q b-c = 308 Q b-c (O) = 308 Q c-b = 465 Q b-ac = ##### TOTAL FLOW = 1523 (PCU/HR)	DFC b-a = 0.0000 DFC b-c = 0.0000 DFC c-b = 0.1591
MAJOR ROAD (ARM C) W c-b = 3.20 (metres) Vr c-b = 130 (metres) q c-a = 365 (pcu/hr) q c-b = 74 (pcu/hr)			
MINOR ROAD (ARM B) W b-a = 0.00 (metres) W b-c = 0.00 (metres) VI b-a = 0 (metres) Vr b-a = 0 (metres) Vr b-c = 0 (metres) q b-a = 0 (pcu/hr) q b-c = 0 (pcu/hr)			

CRITICAL DFC = 0.16

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Tai Yau Street / Ng Fong Street	2025 Observed Flows PM	FILENAME :	CHECKED BY:	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		

Tai Yau Street (ARM C) Ng Fong Street (ARM B)

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

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

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

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

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

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

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

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

D = STREAM-SPECIFIC B-A

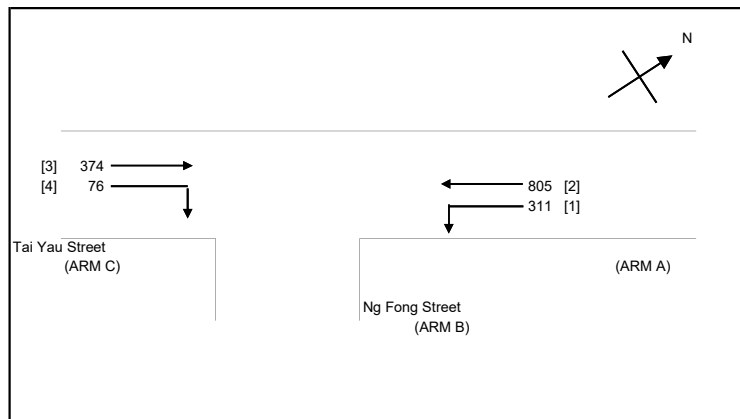
E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.60 (metres) W cr = 0.7 (metres) q a-b = 247 (pcu/hr) q a-c = 787 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 3.20 (metres) Vr c-b = 130 (metres) q c-a = 621 (pcu/hr) q c-b = 130 (pcu/hr) MINOR ROAD (ARM B) W b-a = 0.00 (metres) W b-c = 0.00 (metres) VI b-a = 0 (metres) Vr b-a = 0 (metres) Vr b-c = 0 (metres) q b-a = 0 (pcu/hr) q b-c = 0 (pcu/hr)	GEOMETRIC FACTORS : D = 0.5332189 E = 0.5859548 F = 0.9663193 Y = 0.6688 F for (Qb-ac) = #DIV/0!	THE CAPACITY OF MOVEMENT : Q b-a = 150 Q b-c = 310 Q b-c (O) = 310 Q c-b = 477 Q b-ac = ##### TOTAL FLOW = 1785 (PCU/HR)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0000 DFC b-c = 0.0000 DFC c-b = 0.2725 CRITICAL DFC = 0.27
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AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Tai Yau Street / Ng Fong Street		2030 Reference Flows AM	FILENAME :	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		



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 = 9.60 (metres)
 W cr = 0.7 (metres)
 q a-b = 311 (pcu/hr)
 q a-c = 805 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b = 3.20 (metres)
 Vr c-b = 130 (metres)
 q c-a = 374 (pcu/hr)
 q c-b = 76 (pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D = 0.5332189
 E = 0.5859548
 F = 0.9663193
 Y = 0.6688

F for (Qb-ac) = #DIV/0!

THE CAPACITY OF MOVEMENT :

Q b-a = 174
 Q b-c = 304 Q b-c (O) = 304
 Q c-b = 457
 Q b-ac = #####

TOTAL FLOW = 1566 (PCU/HR)

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a = 0.0000
 DFC b-c = 0.0000
 DFC c-b = 0.1663

CRITICAL DFC = 0.17

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
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Tai Yau Street / Ng Fong Street	2030 Reference Flows PM	FILENAME :	CHECKED BY:	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		

Tai Yau Street (ARM C) Ng Fong Street (ARM B)

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

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

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

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

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

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

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

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

D = STREAM-SPECIFIC B-A

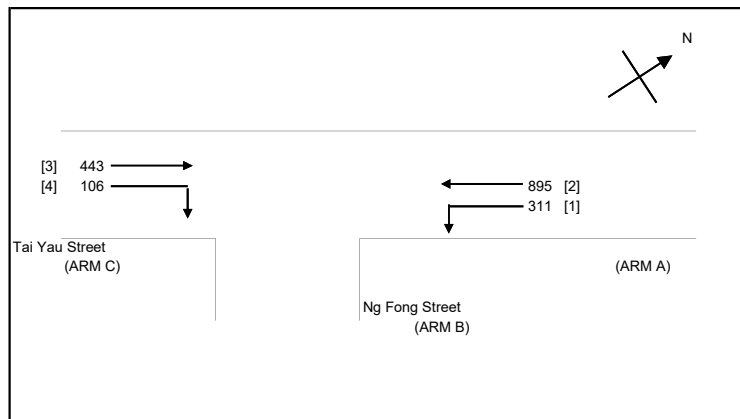
E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.60 (metres) W cr = 0.7 (metres) q a-b = 253 (pcu/hr) q a-c = 811 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 3.20 (metres) Vr c-b = 130 (metres) q c-a = 637 (pcu/hr) q c-b = 133 (pcu/hr) MINOR ROAD (ARM B) W b-a = 0.00 (metres) W b-c = 0.00 (metres) VI b-a = 0 (metres) Vr b-a = 0 (metres) Vr b-c = 0 (metres) q b-a = 0 (pcu/hr) q b-c = 0 (pcu/hr)	GEOMETRIC FACTORS : D = 0.5332189 E = 0.5859548 F = 0.9663193 Y = 0.6688 F for (Qb-ac) = #DIV/0!	THE CAPACITY OF MOVEMENT : Q b-a = 144 Q b-c = 307 Q b-c (O) = 307 Q c-b = 470 Q b-ac = ##### TOTAL FLOW = 1834 (PCU/HR)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0000 DFC b-c = 0.0000 DFC c-b = 0.2830 CRITICAL DFC = 0.28
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AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Tai Yau Street / Ng Fong Street		FILENAME :	CHECKED BY:	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		



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 = 9.60 (metres)
 W cr = 0.7 (metres)
 q a-b = 311 (pcu/hr)
 q a-c = 895 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b = 3.20 (metres)
 Vr c-b = 130 (metres)
 q c-a = 443 (pcu/hr)
 q c-b = 106 (pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D = 0.5332189
 E = 0.5859548
 F = 0.9663193
 Y = 0.6688

F for (Qb-ac) = #DIV/0!

THE CAPACITY OF MOVEMENT :

Q b-a = 151
 Q b-c = 291 Q b-c (O) = 291
 Q c-b = 436
 Q b-ac = #####

TOTAL FLOW = 1755 (PCU/HR)

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a = 0.0000
 DFC b-c = 0.0000
 DFC c-b = 0.2431

CRITICAL DFC = 0.24

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
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Tai Yau Street / Ng Fong Street	2030 Design Flows PM	FILENAME :	CHECKED BY:	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

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

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

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

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

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

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

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

D = STREAM-SPECIFIC B-A

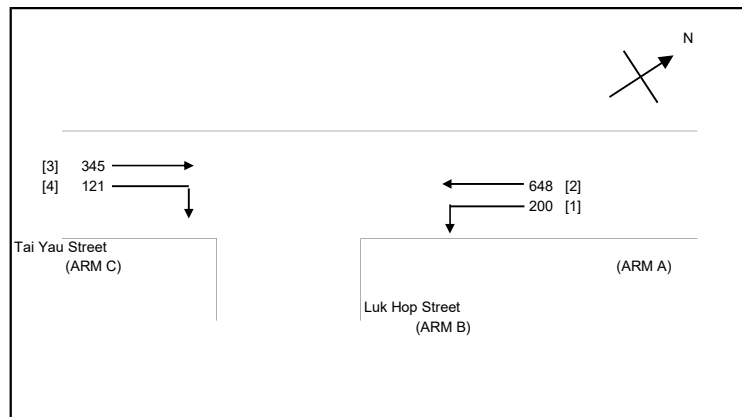
E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.60 (metres) W cr = 0.7 (metres) q a-b = 253 (pcu/hr) q a-c = 916 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 3.20 (metres) Vr c-b = 130 (metres) q c-a = 696 (pcu/hr) q c-b = 153 (pcu/hr) MINOR ROAD (ARM B) W b-a = 0.00 (metres) W b-c = 0.00 (metres) VI b-a = 0 (metres) Vr b-a = 0 (metres) Vr b-c = 0 (metres) q b-a = 0 (pcu/hr) q b-c = 0 (pcu/hr)	GEOMETRIC FACTORS : D = 0.5332189 E = 0.5859548 F = 0.9663193 Y = 0.6688 F for (Qb-ac) = #DIV/0!	THE CAPACITY OF MOVEMENT : Q b-a = 122 Q b-c = 292 Q b-c (O) = 292 Q c-b = 445 Q b-ac = ##### TOTAL FLOW = 2018 (PCU/HR)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0000 DFC b-c = 0.0000 DFC c-b = 0.3438 CRITICAL DFC = 0.34
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AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Tai Yau Street / Luk Hop Street		2025 Observed Flows AM	FILENAME :	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		



NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	10.70	(metres)
W cr	=	0.0	(metres)
q a-b	=	200	(pcu/hr)
q a-c	=	648	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	5.24	(metres)
Vr c-b	=	45	(metres)
q c-a	=	345	(pcu/hr)
q c-b	=	121	(pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D	=	0.5332189
E	=	0.5859548
F	=	1.0718715
Y	=	0.63085

F for (Qb-ac) = #DIV/0!

THE CAPACITY OF MOVEMENT :

Q b-a	=	198
Q b-c	=	339
Q c-b	=	590
Q b-ac	=	#DIV/0!

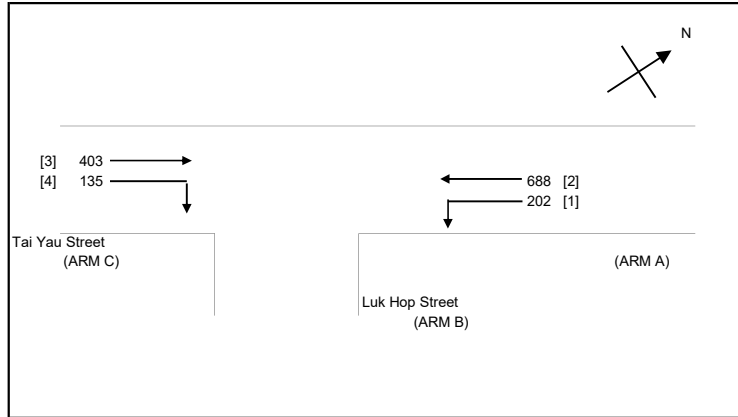
TOTAL FLOW = 1314 (PCU/HR)

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0000
DFC c-b	=	0.2051

CRITICAL DFC = 0.21

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Tai Yau Street / Luk Hop Street		2025 Observed Flows PM	FILENAME :	SF	Nov-25
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NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	10.70	(metres)
W cr	=	0.0	(metres)
q a-b	=	202	(pcu/hr)
q a-c	=	688	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	5.24	(metres)
Vr c-b	=	45	(metres)
q c-a	=	403	(pcu/hr)
q c-b	=	135	(pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D	=	0.5332189
E	=	0.5859548
F	=	1.0718715
Y	=	0.63085

F for (Qb-ac) = #DIV/0!

THE CAPACITY OF MOVEMENT :

Q b-a	=	186
Q b-c	=	333
Q c-b	=	579
Q b-ac	=	#DIV/0!

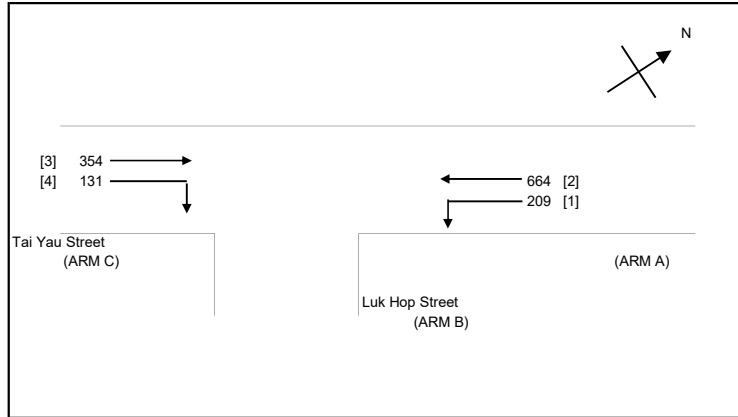
TOTAL FLOW = 1428 (PCU/HR)

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0000
DFC c-b	=	0.2332

CRITICAL DFC = 0.23

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NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	8.90	(metres)
W cr	=	0.0	(metres)
q a-b	=	209	(pcu/hr)
q a-c	=	664	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	5.24	(metres)
Vr c-b	=	45	(metres)
q c-a	=	354	(pcu/hr)
q c-b	=	131	(pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D	=	0.5332189
E	=	0.5859548
F	=	1.0718715
Y	=	0.69295

F for (Qb-ac) = #DIV/0!

THE CAPACITY OF MOVEMENT :

Q b-a	=	179
Q b-c	=	326
Q c-b	=	563
Q b-ac	=	#DIV/0!

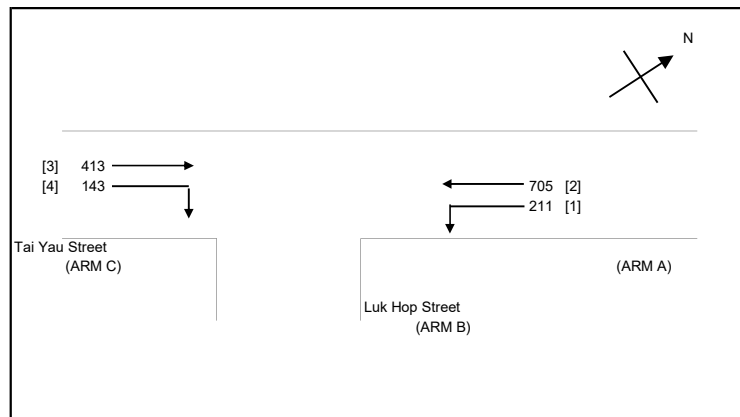
TOTAL FLOW = 1358 (PCU/HR)

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0000
DFC c-b	=	0.2327

CRITICAL DFC = 0.23

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NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	8.90	(metres)
W cr	=	0.0	(metres)
q a-b	=	211	(pcu/hr)
q a-c	=	705	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	5.24	(metres)
Vr c-b	=	45	(metres)
q c-a	=	413	(pcu/hr)
q c-b	=	143	(pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D	=	0.5332189
E	=	0.5859548
F	=	1.0718715
Y	=	0.69295

F for (Qb-ac) = #DIV/0!

THE CAPACITY OF MOVEMENT :

Q b-a	=	166
Q b-c	=	320
Q c-b	=	551
Q b-ac	=	#DIV/0!

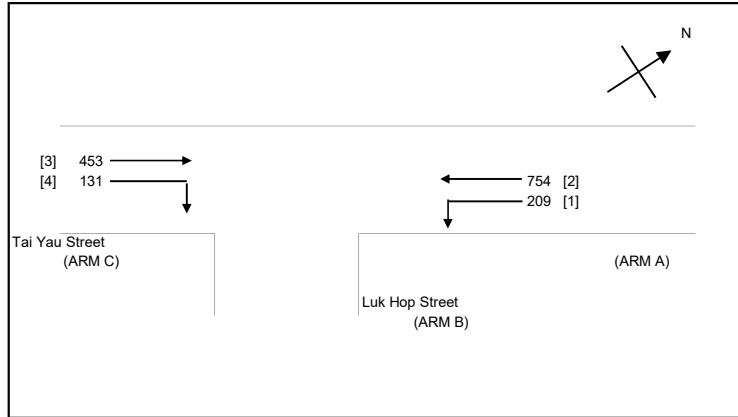
TOTAL FLOW = 1472 (PCU/HR)

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0000
DFC c-b	=	0.2595

CRITICAL DFC = 0.26

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
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Tai Yau Street / Luk Hop Street		2030 Design Flows AM	FILENAME :	SF	Nov-25
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NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	8.90	(metres)
W cr	=	0.0	(metres)
q a-b	=	209	(pcu/hr)
q a-c	=	754	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	5.24	(metres)
Vr c-b	=	45	(metres)
q c-a	=	453	(pcu/hr)
q c-b	=	131	(pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D	=	0.5332189
E	=	0.5859548
F	=	1.0718715
Y	=	0.69295

F for (Qb-ac) = #DIV/0!

THE CAPACITY OF MOVEMENT :

Q b-a	=	158
Q b-c	=	313
Q c-b	=	538
Q b-ac	=	#DIV/0!

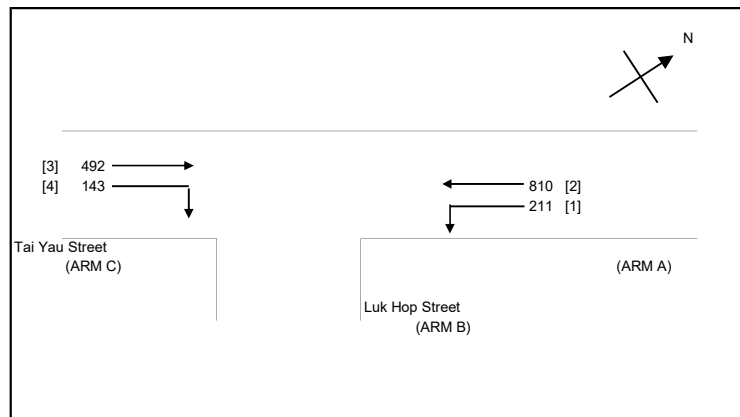
TOTAL FLOW = 1547 (PCU/HR)

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0000
DFC c-b	=	0.2435

CRITICAL DFC = 0.24

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20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
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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 = 8.90 (metres)
W cr = 0.0 (metres)
q a-b = 211 (pcu/hr)
q a-c = 810 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b = 5.24 (metres)
Vr c-b = 45 (metres)
q c-a = 492 (pcu/hr)
q c-b = 143 (pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D = 0.5332189
E = 0.5859548
F = 1.0718715
Y = 0.69295

F for (Qb-ac) = #DIV/0!

THE CAPACITY OF MOVEMENT :

Q b-a = 145
Q b-c = 304 Q b-c (O) = 304
Q c-b = 523
Q b-ac = #DIV/0!

TOTAL FLOW = 1656 (PCU/HR)

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a = 0.0000
DFC b-c = 0.0000
DFC c-b = 0.2734

CRITICAL DFC = 0.27

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Tai Yau Street / Pat Tat Street	2025 Observed Flows AM	FILENAME :	CHECKED BY:	SF	Nov-25
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NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

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

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

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

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

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

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

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

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 10.20 (metres) W cr = 1.4 (metres) q a-b = 0 (pcu/hr) q a-c = 648 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 5.64 (metres) Vr c-b = 45 (metres) q c-a = 207 (pcu/hr) q c-b = 0 (pcu/hr) MINOR ROAD (ARM B) W b-a = 7.37 (metres) W b-c = 7.37 (metres) VI b-a = 43 (metres) Vr b-a = 50 (metres) Vr b-c = 34 (metres) q b-a = 168 (pcu/hr) q b-c = 93 (pcu/hr)	GEOMETRIC FACTORS : D = 1.1834596 E = 1.2452148 F = 1.1069335 Y = 0.6481 F for (Qb-ac) = 0.3563218	THE CAPACITY OF MOVEMENT : Q b-a = 547 Q b-c = 737 Q b-c (O) = 680.4 Q c-b = 655 Q b-ac = 602.3 TOTAL FLOW = 1116 (PCU/HR)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.3071 DFC b-c = 0.1262 DFC c-b = 0.0000 CRITICAL DFC = 0.31
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AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Tai Yau Street / Pat Tat Street	2025 Observed Flows PM	FILENAME :	CHECKED BY:	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

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

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

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

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

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

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

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

D = STREAM-SPECIFIC B-A

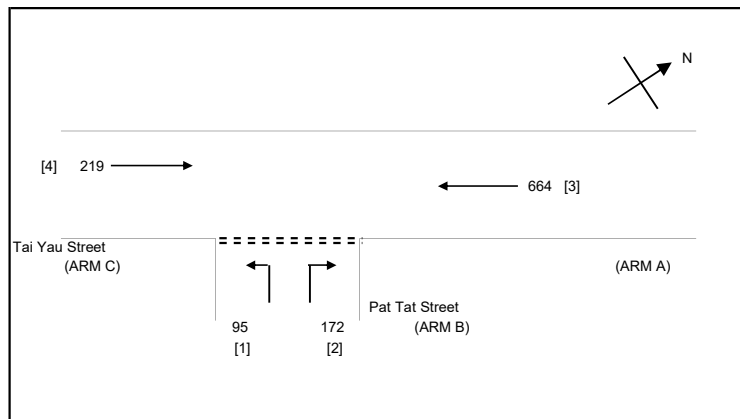
E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 10.20 (metres) W cr = 1.4 (metres) q a-b = 0 (pcu/hr) q a-c = 688 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 5.64 (metres) Vr c-b = 45 (metres) q c-a = 227 (pcu/hr) q c-b = 0 (pcu/hr) MINOR ROAD (ARM B) W b-a = 7.37 (metres) W b-c = 7.37 (metres) VI b-a = 43 (metres) Vr b-a = 50 (metres) Vr b-c = 34 (metres) q b-a = 114 (pcu/hr) q b-c = 172 (pcu/hr)	GEOMETRIC FACTORS : D = 1.1834596 E = 1.2452148 F = 1.1069335 Y = 0.6481 F for (Qb-ac) = 0.6013986	THE CAPACITY OF MOVEMENT : Q b-a = 533 Q b-c = 726 Q b-c (O) = 687.2 Q c-b = 645 Q b-ac = 634.4 TOTAL FLOW = 1201 (PCU/HR)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.2139 DFC b-c = 0.2369 DFC c-b = 0.0000 CRITICAL DFC = 0.24
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AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
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NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	10.20	(metres)
W cr	=	1.4	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	664	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	5.64	(metres)
Vr c-b	=	45	(metres)
q c-a	=	219	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	7.37	(metres)
W b-c	=	7.37	(metres)
VI b-a	=	43	(metres)
Vr b-a	=	50	(metres)
Vr b-c	=	34	(metres)
q b-a	=	172	(pcu/hr)
q b-c	=	95	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.1834596
E	=	1.2452148
F	=	1.1069335
Y	=	0.6481

$$F \text{ for } (Qb-ac) = 0.3558052$$

THE CAPACITY OF MOVEMENT :

Q b-a	=	541
Q b-c	=	733
Q c-b	=	651
Q b-ac	=	596.6

$$Q \text{ b-c (O)} = 674.7$$

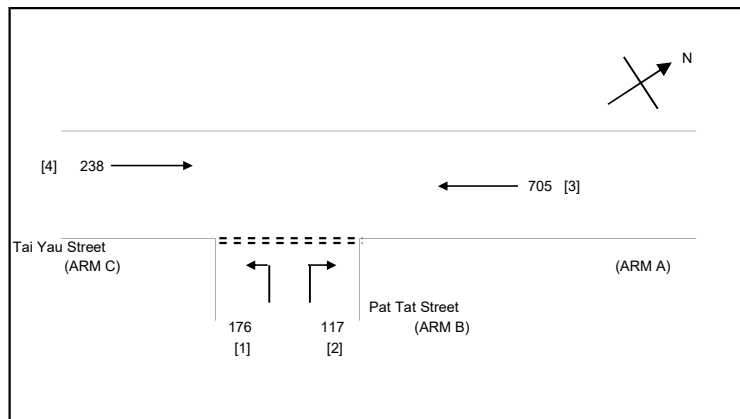
$$\text{TOTAL FLOW} = 1150 \quad (\text{PCU/HR})$$

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.3179
DFC b-c	=	0.1296
DFC c-b	=	0.0000

$$\text{CRITICAL DFC} = 0.32$$

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Tai Yau Street / Pat Tat Street		2030 Reference Flows PM	FILENAME :	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		



NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	10.20	(metres)
W cr	=	1.4	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	705	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	5.64	(metres)
Vr c-b	=	45	(metres)
q c-a	=	238	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	7.37	(metres)
W b-c	=	7.37	(metres)
VI b-a	=	43	(metres)
Vr b-a	=	50	(metres)
Vr b-c	=	34	(metres)
q b-a	=	117	(pcu/hr)
q b-c	=	176	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.1834596
E	=	1.2452148
F	=	1.1069335
Y	=	0.6481

$$F \text{ for } (Qb-ac) = 0.6006826$$

THE CAPACITY OF MOVEMENT :

Q b-a	=	526
Q b-c	=	721
Q c-b	=	641
Q b-ac	=	628

$$Q \text{ b-c (O)} = 680.9$$

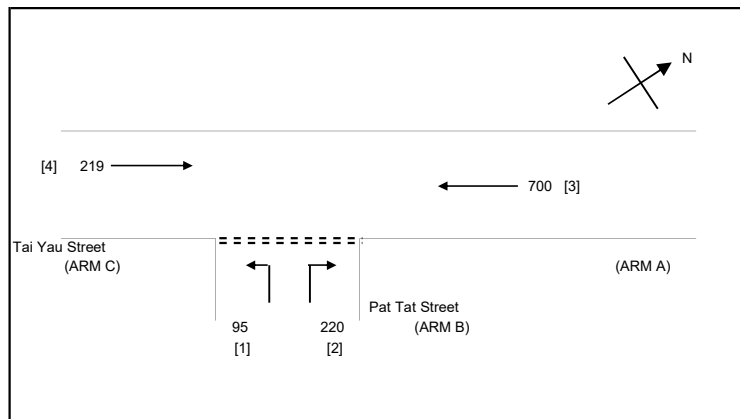
$$\text{TOTAL FLOW} = 1236 \quad (\text{PCU/HR})$$

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.2224
DFC b-c	=	0.2441
DFC c-b	=	0.0000

$$\text{CRITICAL DFC} = 0.24$$

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Tai Yau Street / Pat Tat Street		2030 Design Flows AM	FILENAME :	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		



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 = 10.20 (metres)
 W cr = 1.4 (metres)
 q a-b = 0 (pcu/hr)
 q a-c = 700 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b = 5.64 (metres)
 Vr c-b = 45 (metres)
 q c-a = 219 (pcu/hr)
 q c-b = 0 (pcu/hr)

MINOR ROAD (ARM B)

W b-a = 7.37 (metres)
 W b-c = 7.37 (metres)
 Vl b-a = 43 (metres)
 Vr b-a = 50 (metres)
 Vr b-c = 34 (metres)
 q b-a = 220 (pcu/hr)
 q b-c = 95 (pcu/hr)

GEOMETRIC FACTORS :

D = 1.1834596
 E = 1.2452148
 F = 1.1069335
 Y = 0.6481

F for (Qb-ac) = 0.3015873

THE CAPACITY OF MOVEMENT :

Q b-a = 531
 Q b-c = 722 Q b-c (O) = 647.2
 Q c-b = 642
 Q b-ac = 577

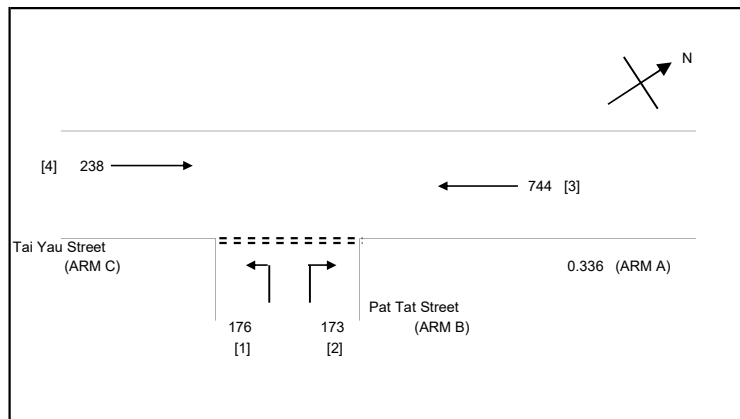
TOTAL FLOW = 1234 (PCU/HR)

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a = 0.4143
 DFC b-c = 0.1316
 DFC c-b = 0.0000

CRITICAL DFC = 0.41

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Tai Yau Street / Pat Tat Street		2030 Design Flows PM	FILENAME :	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		



NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	10.20	(metres)
W cr	=	1.4	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	744	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	5.64	(metres)
Vr c-b	=	45	(metres)
q c-a	=	238	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	7.37	(metres)
W b-c	=	7.37	(metres)
VI b-a	=	43	(metres)
Vr b-a	=	50	(metres)
Vr b-c	=	34	(metres)
q b-a	=	173	(pcu/hr)
q b-c	=	176	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.1834596
E	=	1.2452148
F	=	1.1069335
Y	=	0.6481

$$F \text{ for } (Qb-ac) = 0.504298$$

THE CAPACITY OF MOVEMENT :

Q b-a	=	515
Q b-c	=	709
Q c-b	=	630
Q b-ac	=	597.4

$$Q \text{ b-c } (O) = 649.5$$

$$\text{TOTAL FLOW} = 1331 \quad (\text{PCU/HR})$$

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.3359
DFC b-c	=	0.2482
DFC c-b	=	0.0000

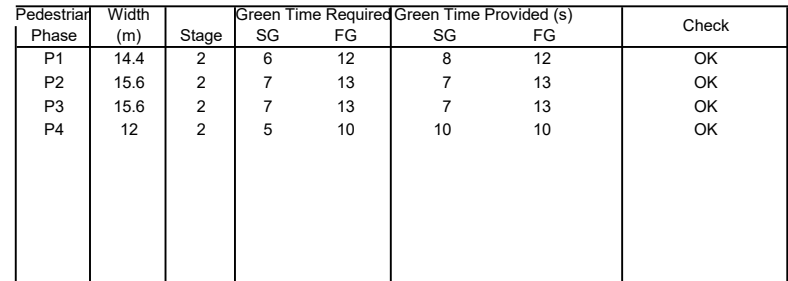
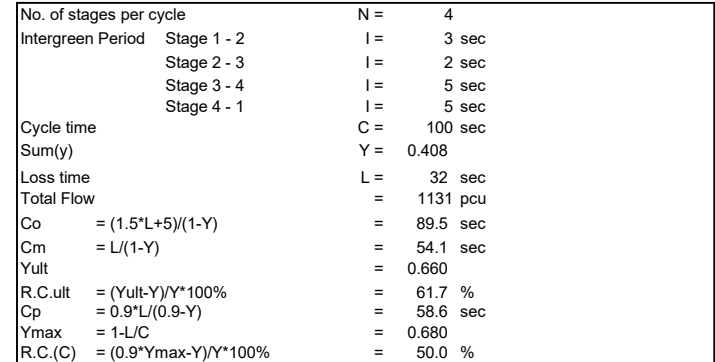
$$\text{CRITICAL DFC} = 0.34$$

TRAFFIC SIGNAL CALCULATION

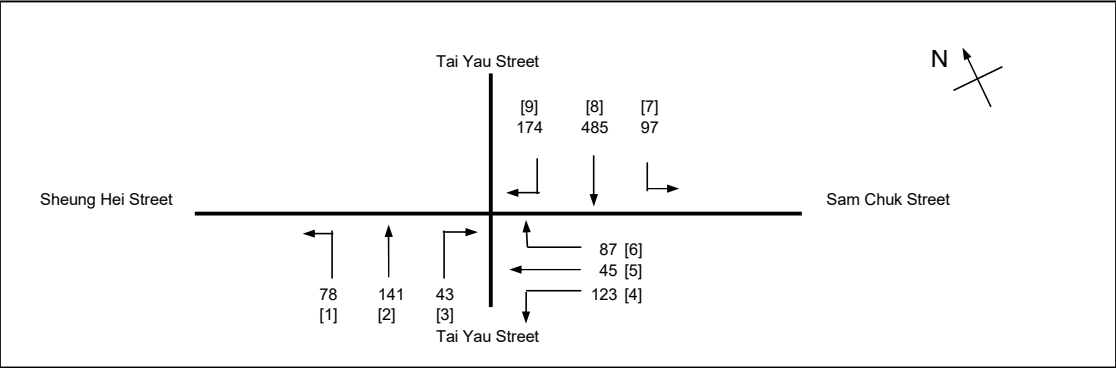
DATE _____

Nov-25

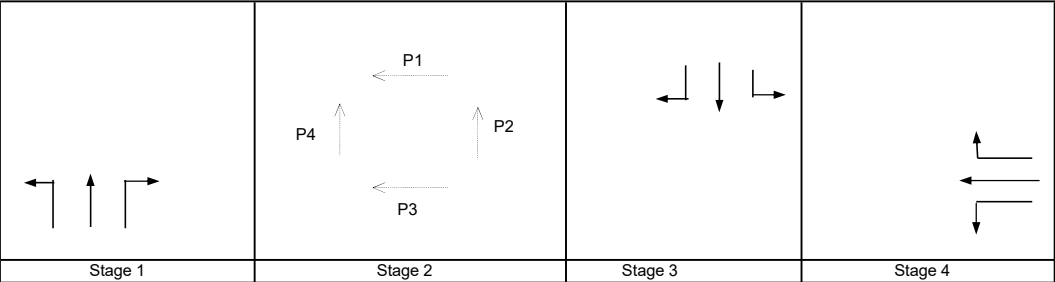
Nov-25



AMG CONSULTANCY LIMITED			TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
20-24 Tai Yau Street, San Po Kong			Project No.:	J03007	Prepared By:	JP	Nov-25
Tai Yau Street / Sam Chuk Street			2025 Observed Flows PM		Checked By:	SF	Nov-25



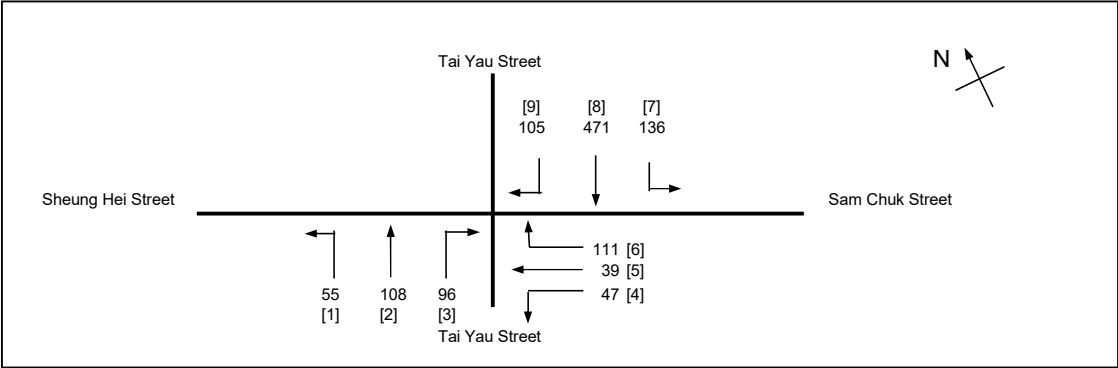
No. of stages per cycle	N =	4
Intergreen Period	Stage 1 - 2	I = 3 sec
	Stage 2 - 3	I = 2 sec
	Stage 3 - 4	I = 5 sec
	Stage 4 - 1	I = 5 sec
Cycle time	C =	100 sec
Sum(y)	Y =	0.466
Loss time	L =	32 sec
Total Flow		= 1273 pcu
Co	= (1.5*L+5)/(1-Y)	= 99.3 sec
Cm	= L/(1-Y)	= 60.0 sec
Yult		= 0.660
R.C.ult	= (Yult-Y)/Y*100%	= 41.5 %
Cp	= 0.9*L/(0.9-Y)	= 66.4 sec
Ymax	= 1-L/C	= 0.680
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 31.2 %



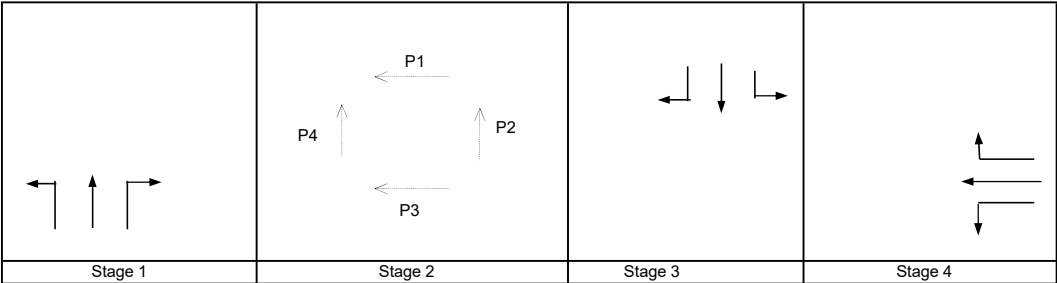
Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
			SG	FG	SG	FG	
P1	14.4	2	6	12	8	12	OK
P2	15.6	2	7	13	7	13	OK
P3	15.6	2	7	13	7	13	OK
P4	12	2	5	10	10	10	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
									Left	Straight	Right														
1,2,3	1	4.60		1	16		N	2075	78	141	43	262	0.46	1989			1989	0.132	0.132	12	19	19	0.686	30	42
4,5,6	4	3.70		1	15		N	1985	123	45	87	255	0.82	1834			1834	0.139	0.139		20	20	0.686	29	42
7,8	3	3.10		1	15		N	1925	97	270		367	0.26	1875			1875	0.196	0.196		29	29	0.686	36	35
8,9	3	3.10		1	18		N	2065		215	174	389	0.45	1991			1991	0.196			29	29	0.686	39	35
	2		dummy																	20	20	20			

AMG CONSULTANCY LIMITED			TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
20-24 Tai Yau Street, San Po Kong			Project No.:	J03007	Prepared By:	JP	Nov-25
Tai Yau Street / Sam Chuk Street			2030 Reference Flows AM		Checked By:	SF	Nov-25

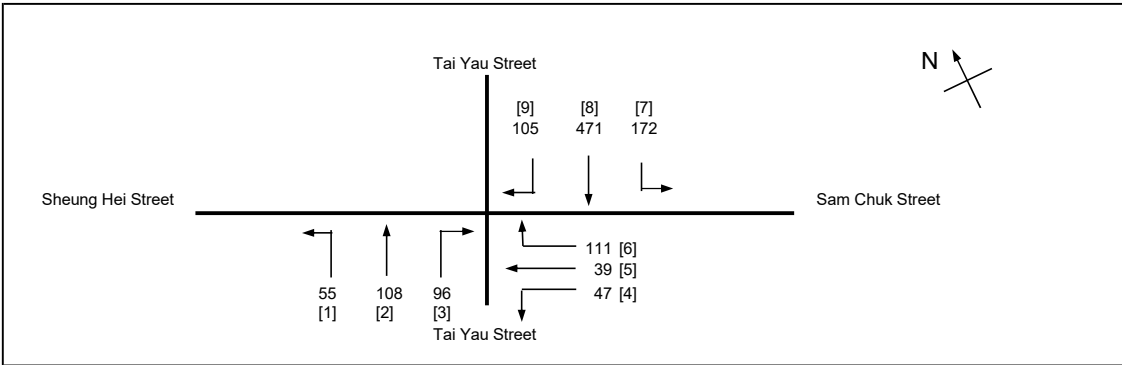


No. of stages per cycle	N =	4
Intergreen Period	Stage 1 - 2	I = 3 sec
	Stage 2 - 3	I = 2 sec
	Stage 3 - 4	I = 5 sec
	Stage 4 - 1	I = 5 sec
Cycle time	C =	100 sec
Sum(y)	Y =	0.423
Loss time	L =	32 sec
Total Flow		= 1168 pcu
Co	= (1.5*L+5)/(1-Y)	= 91.8 sec
Cm	= L/(1-Y)	= 55.4 sec
Yult		= 0.660
R.C.ult	= (Yult-Y)/Y*100%	= 56.1 %
Cp	= 0.9*L/(0.9-Y)	= 60.4 sec
Ymax	= 1-L/C	= 0.680
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 44.7 %

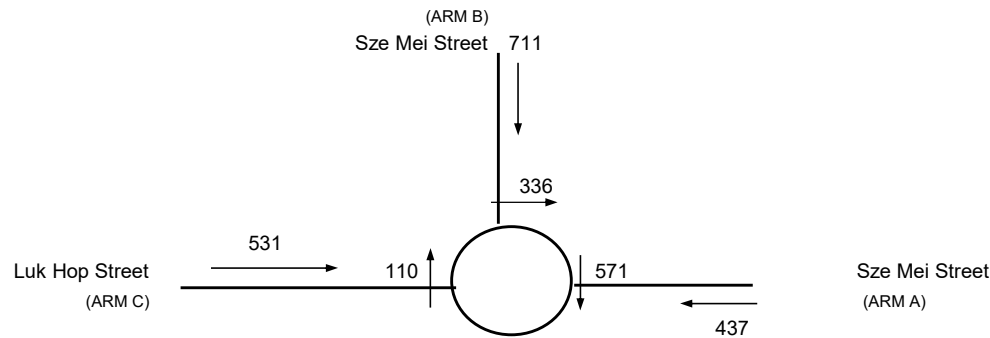


Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check
P1	14.4	2	SG	FG	SG	FG	OK
P2	15.6	2	7	13	7	13	OK
P3	15.6	2	7	13	7	13	OK
P4	12	2	5	10	10	10	OK

	Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lan Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
										Left pcu/h	Straigh pcu/h	Right pcu/h														
↕	1,2,3	1	4.60		1	16		N	2075	55	108	96	259	0.58	1967			1967	0.132	0.132	12	21	21	0.622	28	39
↕	4,5,6	4	3.70		1	15		N	1985	47	39	111	197	0.80	1838			1838	0.107	0.107		17	17	0.622	23	42
↕	7,8	3	3.10		1	15		N	1925	136	205		341	0.40	1851			1851	0.184	0.184		30	30	0.622	33	33
↕	8,9	3	3.10		1	18			2065		266	105	371	0.28	2017			2017	0.184			30	30	0.622	36	33
		2		dummy																20	20	20				

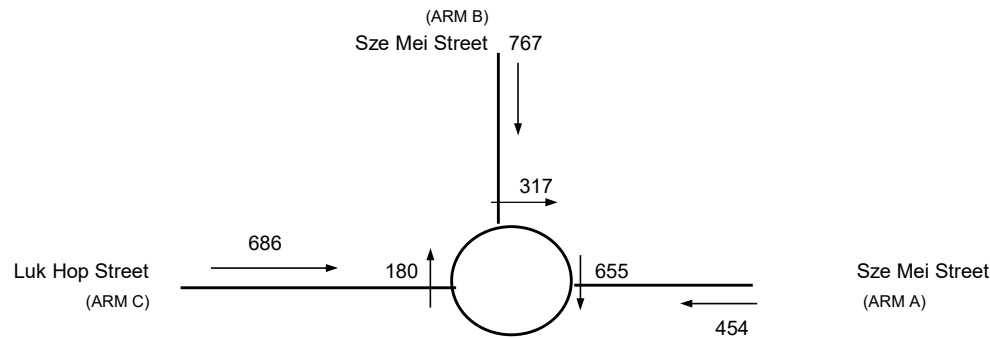
AMG CONSULTANCY LIMITED										TRAFFIC SIGNAL CALCULATION										INITIALS		DATE																																																																																																																																																																										
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															No. of stages per cycle N = 4 Intergreen Period Stage 1 - 2 I = 3 sec Stage 2 - 3 I = 2 sec Stage 3 - 4 I = 5 sec Stage 4 - 1 I = 5 sec Cycle time C = 100 sec Sum(y) Y = 0.433 Loss time L = 32 sec Total Flow = 1204 pcu Co = (1.5*L+5)/(1-Y) = 93.4 sec Cm = L/(1-Y) = 56.4 sec Yult = 0.660 R.C.ult = (Yult-Y)/Y*100% = 52.5 % Cp = 0.9*L/(0.9-Y) = 61.6 sec Ymax = 1-L/C = 0.680 R.C.(C) = (0.9*Ymax-Y)/Y*100% = 41.4 %																																																																																																																																																																																	
← ↑ → Stage 1 ↑ ↔ ↑ Stage 2 ← ↓ → Stage 3 ↔ ← ↓ Stage 4															<table><tr><th>Pedestrian Phase</th><th>Width (m)</th><th>Stage</th><th colspan="2">Green Time Required</th><th colspan="2">Green Time Provided (s)</th><th rowspan="2">Check</th></tr><tr><th></th><th></th><th></th><th>SG</th><th>FG</th><th>SG</th><th>FG</th></tr><tr><td>P1</td><td>14.4</td><td>2</td><td>6</td><td>12</td><td>8</td><td>12</td><td>OK</td></tr><tr><td>P2</td><td>15.6</td><td>2</td><td>7</td><td>13</td><td>7</td><td>13</td><td>OK</td></tr><tr><td>P3</td><td>15.6</td><td>2</td><td>7</td><td>13</td><td>7</td><td>13</td><td>OK</td></tr><tr><td>P4</td><td>12</td><td>2</td><td>5</td><td>10</td><td>10</td><td>10</td><td>OK</td></tr></table>	Pedestrian Phase	Width (m)	Stage	Green Time Required		Green Time Provided (s)		Check				SG	FG	SG	FG	P1	14.4	2	6	12	8	12	OK	P2	15.6	2	7	13	7	13	OK	P3	15.6	2	7	13	7	13	OK	P4	12	2	5	10	10	10	OK																																																																																																																																		
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P3	15.6	2	7	13	7	13	OK																																																																																																																																																																																									
P4	12	2	5	10	10	10	OK																																																																																																																																																																																									
<table><tr><th>Movement</th><th>Stage</th><th>Lane Width m.</th><th>Phase</th><th>No. of lane</th><th>Radius m.</th><th>O</th><th>N</th><th>Straight-Ahead Sat. Flow</th><th colspan="3">m</th><th>Total Flow pcu/h</th><th>Proportion of Turning Vehicles</th><th>Sat. Flow pcu/h</th><th>Flare lane Length m.</th><th>Flare lane Effect</th><th>Revised Sat. Flow pcu/h</th><th>y</th><th>Greater y</th><th>L sec</th><th>g (required) sec</th><th>g (input) sec</th><th>Degree of Saturation X</th><th>Queue Length (m/lane)</th><th>Average Delay (sec)</th></tr><tr><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>Left</th><th>Straight</th><th>Right</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></tr><tr><td>1,2,3</td><td>1</td><td>4.60</td><td></td><td>1</td><td>16</td><td></td><td>N</td><td>2075</td><td>55</td><td>108</td><td>96</td><td>259</td><td>0.58</td><td>1967</td><td></td><td></td><td>1967</td><td>0.132</td><td>0.132</td><td>12</td><td>21</td><td>21</td><td>0.636</td><td>29</td><td>40</td></tr><tr><td>4,5,6</td><td>4</td><td>3.70</td><td></td><td>1</td><td>15</td><td></td><td>N</td><td>1985</td><td>47</td><td>39</td><td>111</td><td>197</td><td>0.80</td><td>1838</td><td></td><td></td><td>1838</td><td>0.107</td><td>0.107</td><td></td><td>17</td><td>17</td><td>0.636</td><td>23</td><td>43</td></tr><tr><td>7,8</td><td>3</td><td>3.10</td><td></td><td>1</td><td>15</td><td></td><td>N</td><td>1925</td><td>172</td><td>184</td><td></td><td>356</td><td>0.48</td><td>1836</td><td></td><td></td><td>1836</td><td>0.194</td><td>0.194</td><td></td><td>30</td><td>30</td><td>0.636</td><td>34</td><td>33</td></tr><tr><td>8,9</td><td>3</td><td>3.10</td><td></td><td>1</td><td>18</td><td></td><td>N</td><td>2065</td><td></td><td>287</td><td>105</td><td>392</td><td>0.27</td><td>2020</td><td></td><td></td><td>2020</td><td>0.194</td><td></td><td></td><td>30</td><td>30</td><td>0.636</td><td>38</td><td>32</td></tr><tr><td></td><td>2</td><td></td><td>dummy</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>20</td><td>20</td><td>20</td><td></td><td></td><td></td></tr></table>	Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)										Left	Straight	Right															1,2,3	1	4.60		1	16		N	2075	55	108	96	259	0.58	1967			1967	0.132	0.132	12	21	21	0.636	29	40	4,5,6	4	3.70		1	15		N	1985	47	39	111	197	0.80	1838			1838	0.107	0.107		17	17	0.636	23	43	7,8	3	3.10		1	15		N	1925	172	184		356	0.48	1836			1836	0.194	0.194		30	30	0.636	34	33	8,9	3	3.10		1	18		N	2065		287	105	392	0.27	2020			2020	0.194			30	30	0.636	38	32		2		dummy																	20	20	20				Z:\AMG Work Station\Project\J03007 S16 Application, Tai Yau Street for Hotel development\Data\Calculation\J9_Tai Yau Street_Sam Chuk Street_20251122.xlsm\DES AM									
Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	m			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)																																																																																																																																																																							
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	2		dummy																	20	20	20																																																																																																																																																																										

AMG CONSULTANCY LIMITED		ROUNABOUT JUNCTION ANALYSIS		INITIALS	DATE
Job Title:	20-24 Tai Yau Street, San Po Kong	PROJECT NO.:	J03007	PREPARED BY:	JP
Junction Name:	Sze Mei Street / Luk Hop Street	2025 Observed Flows AM	FILENAME :	CHECKED BY:	SF
			REFERENCE NO.:		



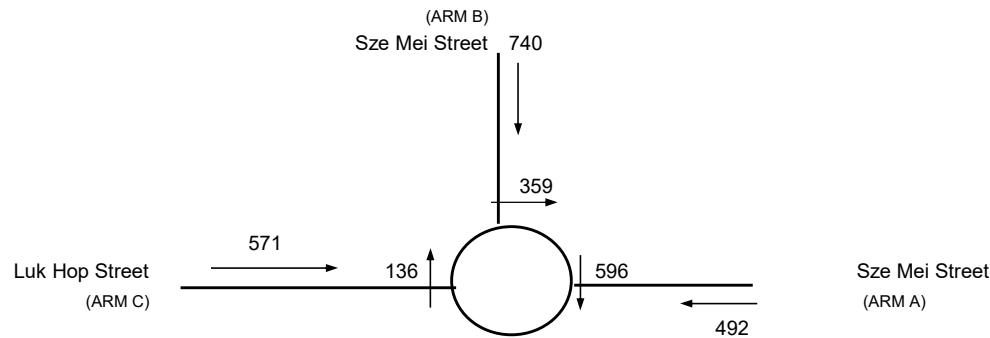
ARM		A	B	C
INPUT PARAMETERS:				
V	= Approach half width (m)	3.56	3.83	3.92
E	= Entry width (m)	3.90	4.17	5.14
L	= Effective length of flare (m)	5.10	19.50	2.16
R	= Entry radius (m)	83.00	39.30	25.00
D	= Inscribed circle diameter (m)	28.14	28.14	28.14
A	= Entry angle (degree)	17.00	18.00	38.00
Q	= Entry flow (pcu/h)	437	711	531
Qc	= Circulating flow across entry (pcu/h)	571	336	110
OUTPUT PARAMETERS:				
S	= Sharpness of flare = $1.6(E-V)/L$	0.11	0.03	0.90
K	= $1-0.00347(A-30)-0.978(1/R-0.05)$	1.08	1.07	0.98
X2	= $V + ((E-V)/(1+2S))$	3.84	4.15	4.35
M	= $EXP((D-60)/10)$	0.04	0.04	0.04
F	= $303 \times X2$	1164	1258	1319
Td	= $1+(0.5/(1+M))$	1.48	1.48	1.48
Fc	= $0.21 \times Td(1+0.2 \times X2)$	0.55	0.57	0.58
Qe	= $K(F-Fc \times Qc)$	920	1137	1233
Total In Sum =		2696		PCU
DFC	= Design flow/Capacity = Q/Qe	0.48	0.63	0.43
DFC of Critical Approach =		0.63		

AMG CONSULTANCY LIMITED		ROUNABOUT JUNCTION ANALYSIS		INITIALS	DATE
Job Title:	20-24 Tai Yau Street, San Po Kong	PROJECT NO.:	J03007	PREPARED BY:	JP
Junction Name:	Sze Mei Street / Luk Hop Street	2025 Observed Flows PM	FILENAME :	CHECKED BY:	SF
			REFERENCE NO.:		



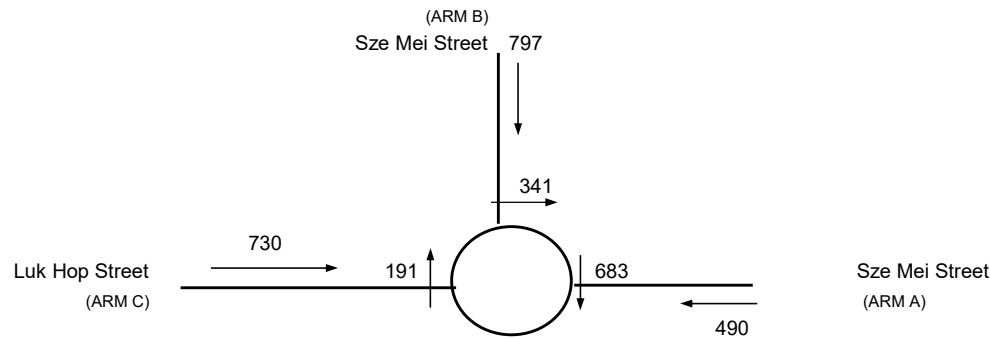
ARM		A	B	C		
INPUT PARAMETERS:						
V	=	Approach half width (m)	3.56	3.83	3.92	
E	=	Entry width (m)	3.90	4.17	5.14	
L	=	Effective length of flare (m)	5.10	19.50	2.16	
R	=	Entry radius (m)	83.00	39.30	25.00	
D	=	Inscribed circle diameter (m)	28.14	28.14	28.14	
A	=	Entry angle (degree)	17.00	18.00	38.00	
Q	=	Entry flow (pcu/h)	454	767	686	
Qc	=	Circulating flow across entry (pcu/h)	655	317	180	
OUTPUT PARAMETERS:						
S	=	Sharpness of flare = $1.6(E-V)/L$	0.11	0.03	0.90	
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.08	1.07	0.98	
X2	=	$V + ((E-V)/(1+2S))$	3.84	4.15	4.35	
M	=	$EXP((D-60)/10)$	0.04	0.04	0.04	
F	=	$303 \times X2$	1164	1258	1319	
Td	=	$1+(0.5/(1+M))$	1.48	1.48	1.48	
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.55	0.57	0.58	
Qe	=	$K(F-Fc \times Qc)$	870	1148	1193	
Total In Sum =					3059	PCU
DFC	=	Design flow/Capacity = Q/Qe	0.52	0.67	0.58	
DFC of Critical Approach =					0.67	

AMG CONSULTANCY LIMITED		ROUNABOUT JUNCTION ANALYSIS		INITIALS	DATE
Job Title:	20-24 Tai Yau Street, San Po Kong	PROJECT NO.:	J03007	PREPARED BY:	JP
Junction Name:	Sze Mei Street / Luk Hop Street	2030 Reference Flows AM	FILENAME :	CHECKED BY:	SF
			REFERENCE NO.:		



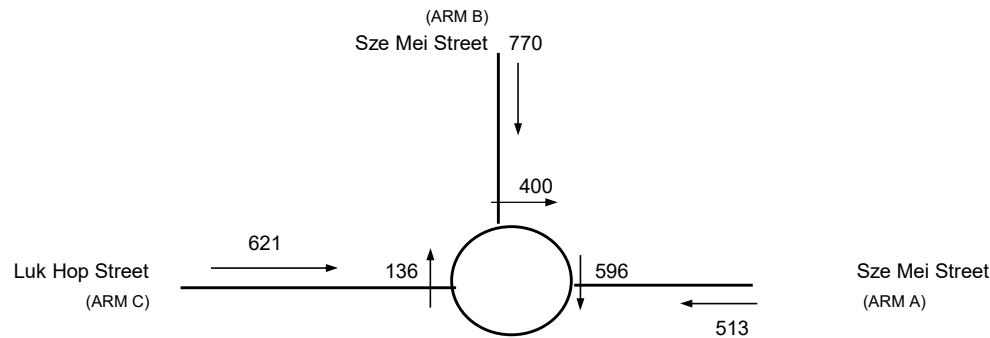
ARM		A	B	C		
INPUT PARAMETERS:						
V	=	Approach half width (m)	3.56	3.83	3.92	
E	=	Entry width (m)	3.90	4.17	5.14	
L	=	Effective length of flare (m)	5.10	19.50	2.16	
R	=	Entry radius (m)	83.00	39.30	25.00	
D	=	Inscribed circle diameter (m)	28.14	28.14	28.14	
A	=	Entry angle (degree)	17.00	18.00	38.00	
Q	=	Entry flow (pcu/h)	492	740	571	
Qc	=	Circulating flow across entry (pcu/h)	596	359	136	
OUTPUT PARAMETERS:						
S	=	Sharpness of flare = $1.6(E-V)/L$	0.11	0.03	0.90	
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.08	1.07	0.98	
X2	=	$V + ((E-V)/(1+2S))$	3.84	4.15	4.35	
M	=	$EXP((D-60)/10)$	0.04	0.04	0.04	
F	=	$303 \times X2$	1164	1258	1319	
Td	=	$1+(0.5/(1+M))$	1.48	1.48	1.48	
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.55	0.57	0.58	
Qe	=	$K(F-Fc \times Qc)$	905	1123	1218	
					Total In Sum =	2894
						PCU
DFC	=	Design flow/Capacity = Q/Qe	0.54	0.66	0.47	
					DFC of Critical Approach =	0.66

AMG CONSULTANCY LIMITED		ROUNABOUT JUNCTION ANALYSIS		INITIALS	DATE
Job Title:	20-24 Tai Yau Street, San Po Kong	PROJECT NO.:	J03007	PREPARED BY:	JP
Junction Name:	Size Mei Street / Luk Hop Street	2030 Reference Flows PM	FILENAME :	CHECKED BY:	SF
		REFERENCE NO.:			



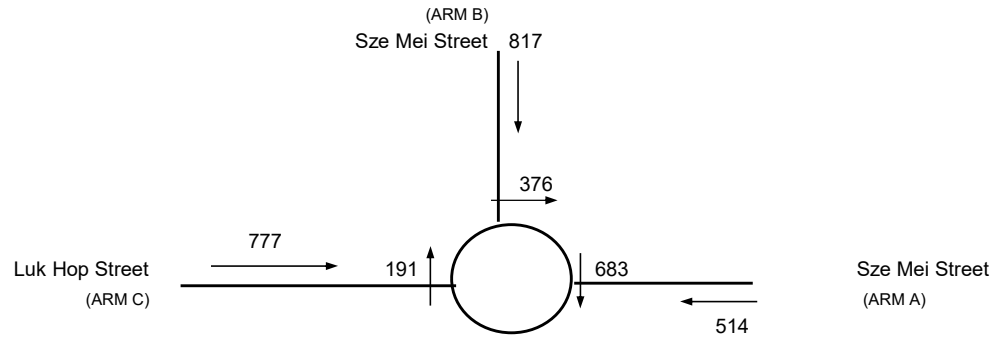
ARM		A	B	C
INPUT PARAMETERS:				
V	= Approach half width (m)	3.56	3.83	3.92
E	= Entry width (m)	3.90	4.17	5.14
L	= Effective length of flare (m)	5.10	19.50	2.16
R	= Entry radius (m)	83.00	39.30	25.00
D	= Inscribed circle diameter (m)	28.14	28.14	28.14
A	= Entry angle (degree)	17.00	18.00	38.00
Q	= Entry flow (pcu/h)	490	797	730
Qc	= Circulating flow across entry (pcu/h)	683	341	191
OUTPUT PARAMETERS:				
S	= Sharpness of flare = $1.6(E-V)/L$	0.11	0.03	0.90
K	= $1-0.00347(A-30)-0.978(1/R-0.05)$	1.08	1.07	0.98
X2	= $V + ((E-V)/(1+2S))$	3.84	4.15	4.35
M	= $EXP((D-60)/10)$	0.04	0.04	0.04
F	= $303 \times X2$	1164	1258	1319
Td	= $1+(0.5/(1+M))$	1.48	1.48	1.48
Fc	= $0.21 \times Td(1+0.2 \times X2)$	0.55	0.57	0.58
Qe	= $K(F-Fc \times Qc)$	853	1134	1187
Total In Sum =		3232		PCU
DFC	= Design flow/Capacity = Q/Qe	0.57	0.70	0.62
DFC of Critical Approach =		0.70		

AMG CONSULTANCY LIMITED		ROUNABOUT JUNCTION ANALYSIS		INITIALS	DATE
Job Title:	20-24 Tai Yau Street, San Po Kong	PROJECT NO.:	J03007	PREPARED BY:	JP
Junction Name:	Sze Mei Street / Luk Hop Street	2030 Design Flows AM	FILENAME :	CHECKED BY:	SF
			REFERENCE NO.:		



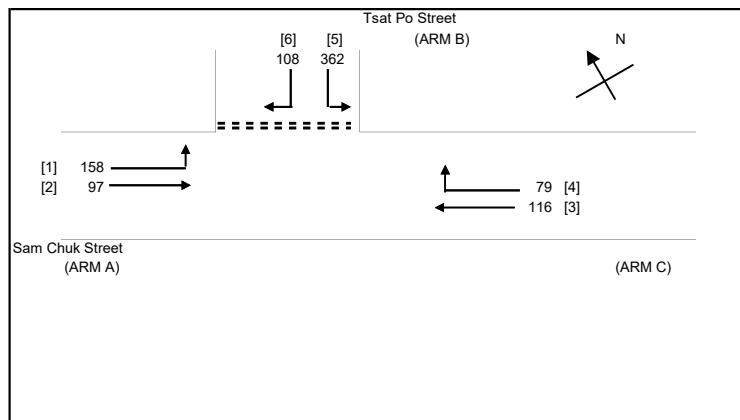
ARM		A	B	C
INPUT PARAMETERS:				
V	= Approach half width (m)	3.56	3.83	3.92
E	= Entry width (m)	3.90	4.17	5.14
L	= Effective length of flare (m)	5.10	19.50	2.16
R	= Entry radius (m)	83.00	39.30	25.00
D	= Inscribed circle diameter (m)	28.14	28.14	28.14
A	= Entry angle (degree)	17.00	18.00	38.00
Q	= Entry flow (pcu/h)	513	770	621
Qc	= Circulating flow across entry (pcu/h)	596	400	136
OUTPUT PARAMETERS:				
S	= Sharpness of flare = $1.6(E-V)/L$	0.11	0.03	0.90
K	= $1-0.00347(A-30)-0.978(1/R-0.05)$	1.08	1.07	0.98
X2	= $V + ((E-V)/(1+2S))$	3.84	4.15	4.35
M	= $EXP((D-60)/10)$	0.04	0.04	0.04
F	= $303 \times X2$	1164	1258	1319
Td	= $1+(0.5/(1+M))$	1.48	1.48	1.48
Fc	= $0.21 \times Td(1+0.2 \times X2)$	0.55	0.57	0.58
Qe	= $K(F-Fc \times Qc)$	905	1098	1218
Total In Sum =		3036		PCU
DFC	= Design flow/Capacity = Q/Qe	0.57	0.70	0.51
DFC of Critical Approach =		0.70		

AMG CONSULTANCY LIMITED		ROUNABOUT JUNCTION ANALYSIS		INITIALS	DATE
Job Title:	20-24 Tai Yau Street, San Po Kong	PROJECT NO.:	J03007	PREPARED BY:	JP
Junction Name:	Sze Mei Street / Luk Hop Street	2030 Design Flows PM	FILENAME :	CHECKED BY:	SF
			REFERENCE NO.:		



ARM	A	B	C
INPUT PARAMETERS:			
V = Approach half width (m)	3.56	3.83	3.92
E = Entry width (m)	3.90	4.17	5.14
L = Effective length of flare (m)	5.10	19.50	2.16
R = Entry radius (m)	83.00	39.30	25.00
D = Inscribed circle diameter (m)	28.14	28.14	28.14
A = Entry angle (degree)	17.00	18.00	38.00
Q = Entry flow (pcu/h)	514	817	777
Qc = Circulating flow across entry (pcu/h)	683	376	191
OUTPUT PARAMETERS:			
S = Sharpness of flare = $1.6(E-V)/L$	0.11	0.03	0.90
K = $1-0.00347(A-30)-0.978(1/R-0.05)$	1.08	1.07	0.98
X2 = $V + ((E-V)/(1+2S))$	3.84	4.15	4.35
M = $EXP((D-60)/10)$	0.04	0.04	0.04
F = $303 \times X2$	1164	1258	1319
Td = $1+(0.5/(1+M))$	1.48	1.48	1.48
Fc = $0.21 \times Td(1+0.2 \times X2)$	0.55	0.57	0.58
Qe = $K(F-Fc \times Qc)$	853	1113	1187
			Total In Sum = 3358 PCU
DFC = Design flow/Capacity = Q/Qe	0.60	0.73	0.65
			DFC of Critical Approach = 0.73

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Sam Chuk Street / Tsat Po Street		FILENAME :	CHECKED BY:	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		



NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

GEOMETRIC FACTORS :

THE CAPACITY OF MOVEMENT :

COMPARISON OF DESIGN FLOW
TO CAPACITY:

MAJOR ROAD (ARM A)

W	=	9.40	(metres)
W cr	=	0	(metres)
q a-b	=	158	(pcu/hr)
q a-c	=	97	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	4.90	(metres)
Vr c-b	=	60	(metres)
q c-a	=	116	(pcu/hr)
q c-b	=	79	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	6.20	(metres)
W b-c	=	6.20	(metres)
VI b-a	=	0	(metres)
Vr b-a	=	60	(metres)
Vr b-c	=	80	(metres)
q b-a	=	108	(pcu/hr)
q b-c	=	362	(pcu/hr)

D	=	1.0672081
E	=	1.1950708
F	=	1.057155
Y	=	0.6757

F for (Qb-ac) = 0.7702128

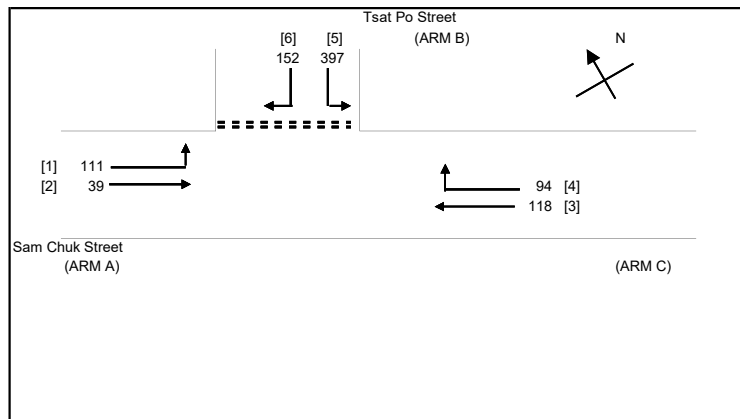
Q b-a	=	578
Q b-c	=	843
Q c-b	=	721
Q b-ac	=	762.7

TOTAL FLOW = 920 (PCU/HR)

DFC b-a	=	0.1869
DFC b-c	=	0.4294
DFC c-b	=	0.1096

CRITICAL DFC = 0.43

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Sam Chuk Street / Tsat Po Street		FILENAME :	CHECKED BY:	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		



NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	9.40	(metres)
W cr	=	0	(metres)
q a-b	=	111	(pcu/hr)
q a-c	=	39	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	4.90	(metres)
Vr c-b	=	60	(metres)
q c-a	=	118	(pcu/hr)
q c-b	=	94	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	6.20	(metres)
W b-c	=	6.20	(metres)
VI b-a	=	0	(metres)
Vr b-a	=	60	(metres)
Vr b-c	=	80	(metres)
q b-a	=	152	(pcu/hr)
q b-c	=	397	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0672081
E	=	1.1950708
F	=	1.057155
Y	=	0.6757

$$F \text{ for } (Qb-ac) = 0.723133$$

THE CAPACITY OF MOVEMENT :

Q b-a	=	593
Q b-c	=	866
Q c-b	=	749
Q b-ac	=	768.1

$$Q \text{ b-c (O)} = 810.5$$

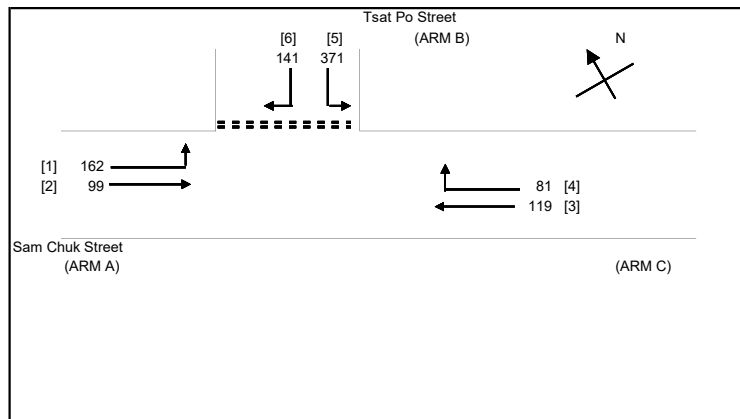
$$\text{TOTAL FLOW} = 911 \quad (\text{PCU/HR})$$

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.2563
DFC b-c	=	0.4584
DFC c-b	=	0.1255

$$\text{CRITICAL DFC} = 0.46$$

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Sam Chuk Street / Tsat Po Street		2030 Reference Flows AM	FILENAME :	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		



NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	9.40	(metres)
W cr	=	0	(metres)
q a-b	=	162	(pcu/hr)
q a-c	=	99	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	4.90	(metres)
Vr c-b	=	60	(metres)
q c-a	=	119	(pcu/hr)
q c-b	=	81	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	4.58	(metres)
W b-c	=	3.80	(metres)
VI b-a	=	0	(metres)
Vr b-a	=	60	(metres)
Vr b-c	=	80	(metres)
q b-a	=	141	(pcu/hr)
q b-c	=	371	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.9361164
E	=	0.9775924
F	=	1.057155
Y	=	0.6757

F for (Qb-ac) = 0.7246094

THE CAPACITY OF MOVEMENT :

Q b-a	=	506
Q b-c	=	689
Q c-b	=	720
Q b-ac	=	626.6

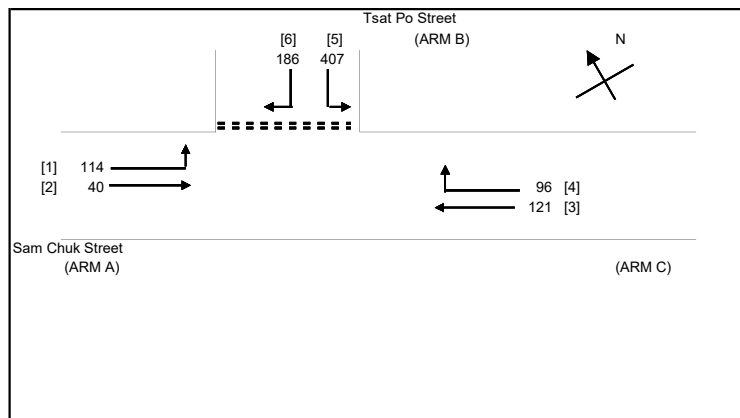
TOTAL FLOW = 973 (PCU/HR)

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.2787
DFC b-c	=	0.5385
DFC c-b	=	0.1125

CRITICAL DFC = 0.54

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
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		REFERENCE NO.:	REVIEWED BY:		



NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	9.40	(metres)
W cr	=	0	(metres)
q a-b	=	114	(pcu/hr)
q a-c	=	40	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	4.90	(metres)
Vr c-b	=	60	(metres)
q c-a	=	121	(pcu/hr)
q c-b	=	96	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	4.58	(metres)
W b-c	=	3.80	(metres)
VI b-a	=	0	(metres)
Vr b-a	=	60	(metres)
Vr b-c	=	80	(metres)
q b-a	=	186	(pcu/hr)
q b-c	=	407	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.9361164
E	=	0.9775924
F	=	1.057155
Y	=	0.6757

$$F \text{ for } (Qb-ac) = 0.6863406$$

THE CAPACITY OF MOVEMENT :

Q b-a	=	518
Q b-c	=	708
Q c-b	=	748
Q b-ac	=	634.9

$$Q \text{ b-c (O)} = 644.4$$

$$\text{TOTAL FLOW} = 964 \quad (\text{PCU/HR})$$

COMPARISON OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.3591
DFC b-c	=	0.5749
DFC c-b	=	0.1283

$$\text{CRITICAL DFC} = 0.57$$

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Sam Chuk Street / Tsat Po Street		2030 Design Flows AM	FILENAME :	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		

Tsat Po Street
(ARM B)

Sam Chuk Street
(ARM A)

(ARM C)

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

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

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

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

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

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

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

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

D = STREAM-SPECIFIC B-A

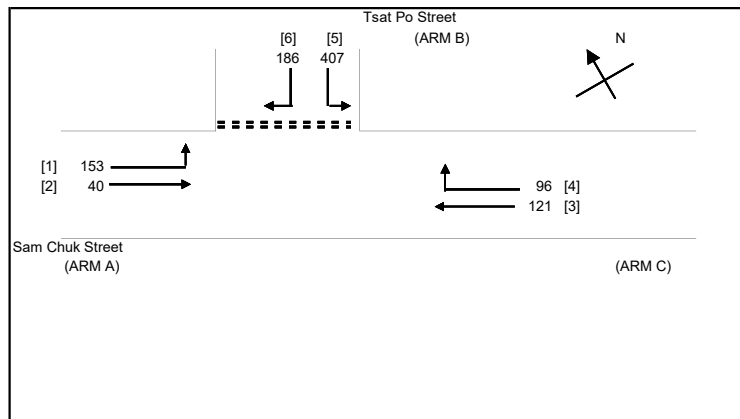
E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.40 (metres) W cr = 0 (metres) q a-b = 198 (pcu/hr) q a-c = 99 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.90 (metres) Vr c-b = 60 (metres) q c-a = 119 (pcu/hr) q c-b = 81 (pcu/hr) MINOR ROAD (ARM B) W b-a = 4.58 (metres) W b-c = 3.80 (metres) VI b-a = 0 (metres) Vr b-a = 60 (metres) Vr b-c = 80 (metres) q b-a = 141 (pcu/hr) q b-c = 371 (pcu/hr)	GEOMETRIC FACTORS : D = 0.9361164 E = 0.9775924 F = 1.057155 Y = 0.6757 F for (Qb-ac) = 0.7246094	THE CAPACITY OF MOVEMENT : Q b-a = 502 Q b-c = 686 Q b-c (O) = 637.8 Q c-b = 710 Q b-ac = 623.1 TOTAL FLOW = 1009 (PCU/HR)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.2809 DFC b-c = 0.5408 DFC c-b = 0.1141 CRITICAL DFC = 0.54
---	---	---	---

AMG CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
20-24 Tai Yau Street, San Po Kong		PROJECT NO.: J03007	PREPARED BY:	JP	Nov-25
Sam Chuk Street / Tsat Po Street		FILENAME :	CHECKED BY:	SF	Nov-25
		REFERENCE NO.:	REVIEWED BY:		



NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:

GEOMETRIC FACTORS :

THE CAPACITY OF MOVEMENT :

COMPARISON OF DESIGN FLOW TO CAPACITY:

MAJOR ROAD (ARM A)

W	=	9.40	(metres)
W cr	=	0	(metres)
q a-b	=	153	(pcu/hr)
q a-c	=	40	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	4.90	(metres)
Vr c-b	=	60	(metres)
q c-a	=	121	(pcu/hr)
q c-b	=	96	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	4.58	(metres)
W b-c	=	3.80	(metres)
Vi b-a	=	0	(metres)
Vr b-a	=	60	(metres)
Vr b-c	=	80	(metres)
q b-a	=	186	(pcu/hr)
q b-c	=	407	(pcu/hr)

D	=	0.9361164
E	=	0.9775924
F	=	1.057155
Y	=	0.6757

F for (Qb-ac) = 0.6863406

Q b-a	=	515
Q b-c	=	704
Q c-b	=	737
Q b-ac	=	631.3

TOTAL FLOW = 1003 (PCU/HR)

DFC b-a	=	0.3612
DFC b-c	=	0.5781
DFC c-b	=	0.1303

CRITICAL DFC = 0.58

Appendix B

Planning Data from
Planning Department

以2021年為基礎年期的全港人口及就業數據矩陣 -
2021年、2026年和2031年人口和就業職位的分布
2021-based Territorial Population and Employment Data Matrix -
Distributions of Population and Employment in 2021, 2026 and 2031

(以年中計算 as at mid year)

	2021年 Year 2021		2026年 Year 2026		2031年 Year 2031	
	人口 Population	就業職位 Employment	人口 Population	就業職位 Employment	人口 Population	就業職位 Employment
區議會分區摘要： SUMMARY BY DISTRICT COUNCIL DISTRICT						
中西區 CENTRAL AND WESTERN	235 950	390 350	226 250	379 150	222 600	381 450
灣仔 WAN CHAI	166 700	299 700	156 000	301 700	145 700	287 250
東區 EASTERN	529 600	296 200	500 100	288 400	467 000	277 050
南區 SOUTHERN	263 300	117 200	258 800	126 700	267 200	121 850
香港島 HONG KONG ISLAND	1 195 550	1 103 450	1 141 200	1 095 950	1 102 500	1 067 600
深水埗 SHAM SHUI PO	431 100	228 650	432 200	219 000	438 600	214 000
九龍城 KOWLOON CITY	410 650	200 500	470 450	231 000	460 100	240 350
黃大仙 WONG TAI SIN	406 800	104 100	404 800	106 600	396 650	101 550
觀塘 KWUN TONG	673 150	395 900	682 500	400 050	690 750	441 300
油尖旺 YAU TSIM MONG	310 650	413 950	291 700	439 300	267 100	428 850
九龍 KOWLOON	2 232 350	1 343 100	2 281 650	1 395 900	2 253 150	1 426 050
葵青 KWAI TSING	495 800	226 350	488 750	223 400	483 050	227 800
荃灣 TSUEN WAN	320 100	167 350	296 150	168 150	295 850	163 800
屯門 TUEN MUN	506 900	133 400	557 650	132 450	586 200	152 650
元朗 YUEN LONG	668 100	152 850	685 000	238 500	760 600	258 200
北區 NORTH	309 650	84 150	352 000	104 050	435 550	144 850
大埔 TAI PO	316 450	96 600	348 900	94 800	343 250	89 800
沙田 SHA TIN	692 800	222 150	687 450	230 600	667 750	220 400
西貢 SAI KUNG	489 050	111 550	527 150	116 200	538 800	123 450
離島 ISLANDS	185 300	118 000	229 900	147 150	352 500	191 950
新界 NEW TERRITORIES	3 984 100	1 312 350	4 172 950	1 455 350	4 463 550	1 572 900
次區域摘要 SUMMARY BY SUB-REGION:						
都會區 METRO AREA	4 228 300	2 837 350	4 215 750	2 882 900	4 150 550	2 882 950
新界西北 NORTHWEST NEW TERRITORIES	1 176 050	286 800	1 243 650	372 750	1 347 800	413 350
新界東北 NORTHEAST NEW TERRITORIES	1 310 000	401 150	1 361 150	421 350	1 416 800	448 600
新界東南 SOUTHEAST NEW TERRITORIES	497 950	112 550	531 600	117 550	538 300	124 250
新界西南 SOUTHWEST NEW TERRITORIES	199 700	121 050	243 600	152 650	365 700	197 350
總計 TOTAL	7 411 950	3 758 900	7 595 750	3 947 150	7 819 200	4 066 550
都會區總計 METRO AREA TOTAL	4 228 300	2 837 350	4 215 750	2 882 900	4 150 550	2 882 950
非都會區總計 NON-METRO AREA TOTAL	3 183 650	921 550	3 380 000	1 064 300	3 668 600	1 183 550
全港陸上總計 TERRITORY LAND TOTAL	7 411 950	3 758 900	7 595 750	3 947 150	7 819 200	4 066 550

註釋：

- 一. 上述人口和就業職位分布應與相關的一般備註、特別備註及免責聲明一併閱讀，詳情可瀏覽規劃署網頁 www.pland.gov.hk。
- 二. 數字調整至最接近的50位數。
- 三. 由於四捨五入，個別數字的相加總和可能與總計數字略有出入。

Notes:

1. The above population and employment distrubutions should read together with the related General Notes, Special Notes and Disclaimer which are available on the Planning Department's website at www.pland.gov.hk.
2. Figures are rounded to the nearest 50.
3. There may be a slight discrepancy between the sum of individual items and the respective total owing to rounding.

Appendix C

Layouts for Approved Junction Improvement Works

CHOI HUNG ROAD

PO KONG VILLAGE ROAD

Wong King Industrial Building

San Po Kong

Wong Tai Sin

Diamond Hill

KEY PLAN

SCALE 1 : 12500

TRAFFIC SIGN NO.	DESCRIPTION
102	GIVE WAY
107	TURN LEFT
115	NO ENTRY
183	NO STOPPING
838	DAY PLATE EXCEPT GENERAL HOLIDAYS
2230	"NO STOPPING" ZONE 8AM-10AM 5PM-7PM
2231	"NO STOPPING" ZONE 8AM-10AM 5PM-7PM
2143	PLB "NO STOPPING" ZONE 7AM-7PM

CUT LINE A-A

SEE DRAWING NO. WT05/4/ROAD/C/TE-03

1. FOR NOTES AND LEGEND REFER TO DRAWING NO.
WT05/4/ROAD/C/TE-01.

PROJECT
NON-PUBLIC HOUSING FACILITIES AT
DIAMOND HILL CDA - TRANSPORT
INFRASTRUCTURE WORKS, WATER
FEATURE PARK AND LANDSCAPED WALK

DRAWING TITLE
ROAD MARKINGS & TRAFFIC
SIGNS

(SHEET 2 OF 6)

DRAWING NO.

SOURCE	
--------	--

ICU NO. _____



Plot File by: Jinguo.zhang 24/08/2020
PATH P:\PROJECTS\60506551\DRAWING\REPORT\AA5ITE_202.dwg

Plot File by: LIUH9 24/08/2020
PATH P:\PROJECTS\60506551\DRAWING\REPORT\AA5\TE_509.dwg

EQUIPMENT SCHEDULE



CONFLICT TABLE
(FOR INFORMATION ONLY)



1. FOR NOTES AND LEGEND, REFER TO DRAWING NO.
WT05/4/ROAD/C/TE-10.

PROJECT	NON-PUBLIC HOUSING FACILITIES AT DIAMOND HILL CDA - TRANSPORT INFRASTRUCTURE WORKS, WATER FEATURE PARK AND LANDSCAPED WALK
DRAWING TITLE	TRAFFIC SIGNAL DETAILS - PO KONG VILLAGE ROAD/ CHOI HUNG ROAD (SHEET 1 OF 2)

SCALE 1:250 (A1)

DRAWING NO.

WT05/4/ROAD/C/TE-09

SOURCE	
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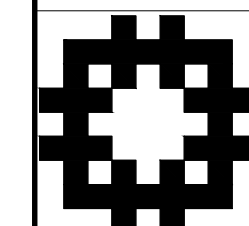
ICU NO. _____

AutCAD 2000 M1 604 945



AUTOCAD 2000 AT 394 X 641

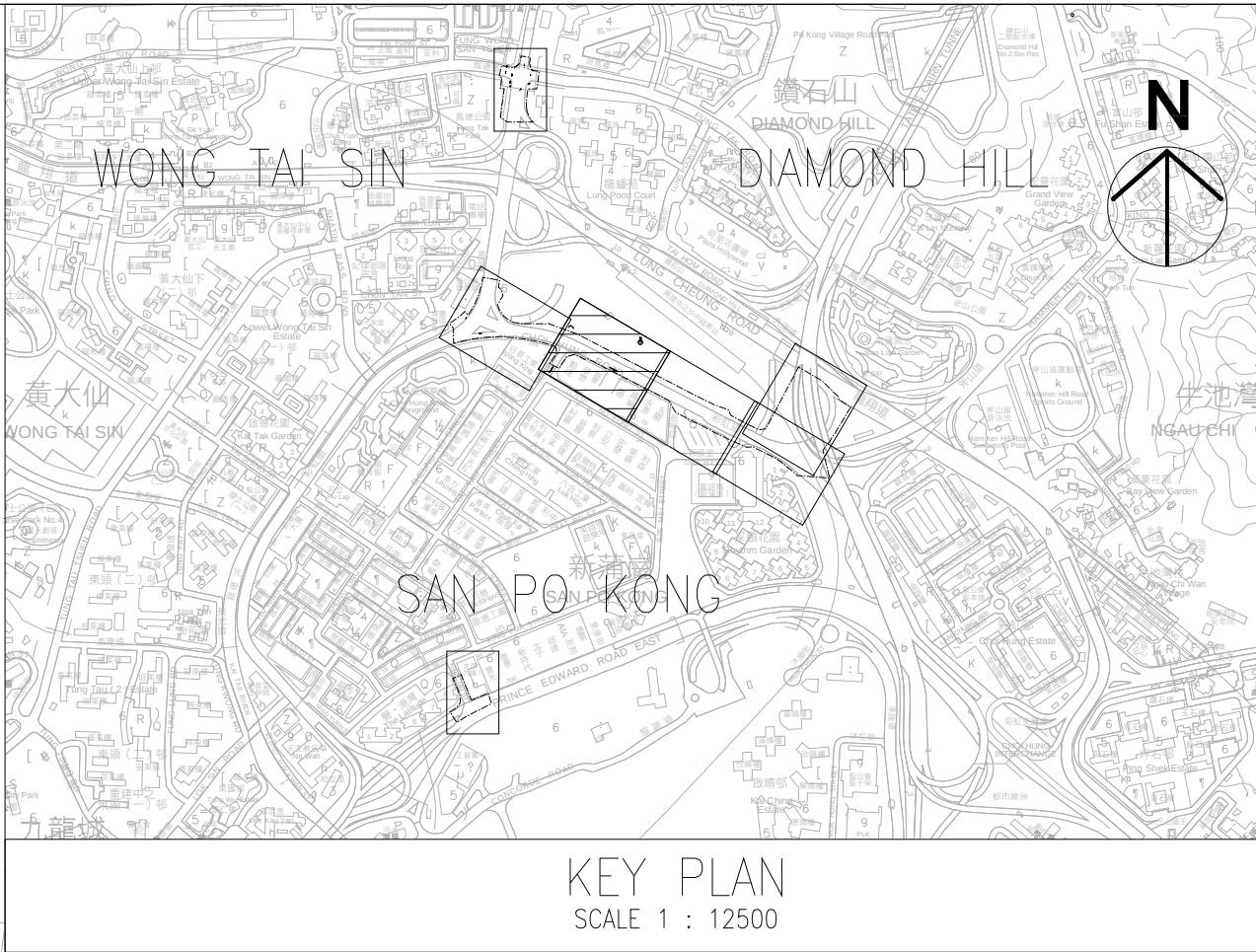
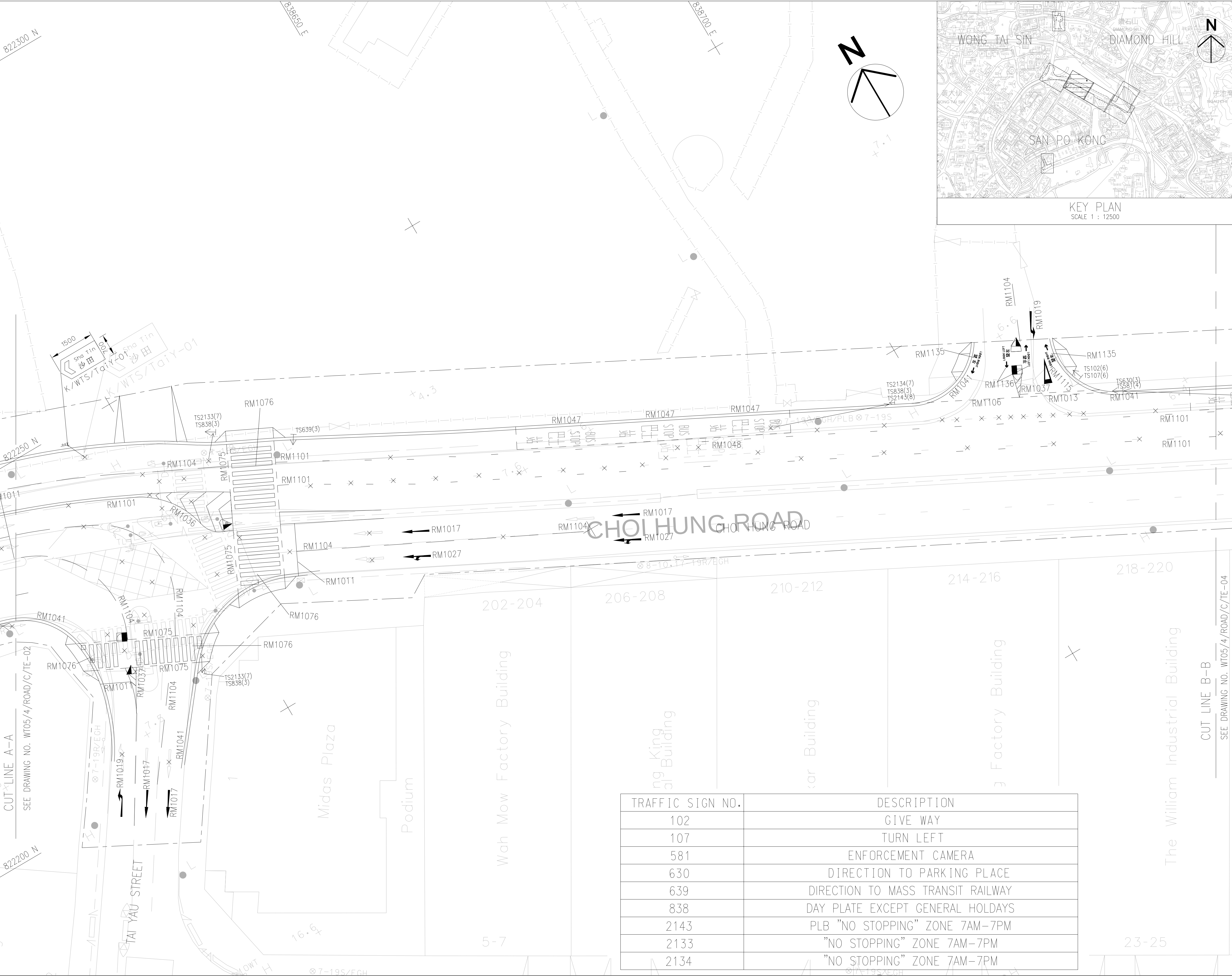
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 HOUSING DEPARTMENT

HOUSING DEPARTMENT



Proposed Improvement for J3*



NOTE:
1. FOR NOTES AND LEGEND REFER TO DRAWING NO. WT05/4/ROAD/C/TE-01.

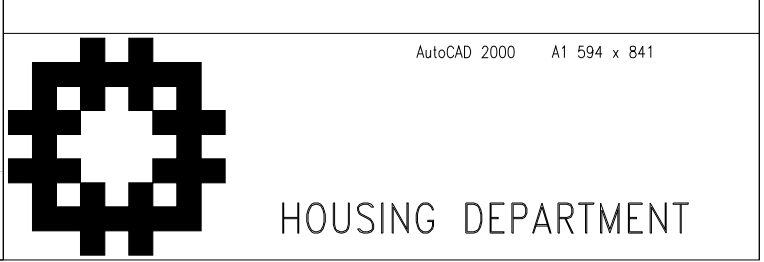
REVISIONS			INITIAL AND DESIGNATION		
NO	DESCRIPTION AND DATE		DWN	CKD	AUTH

	</			

PROJECT
NON-PUBLIC HOUSING FACILITIES AT
DIAMOND HILL CDA - TRANSPORT
INFRASTRUCTURE WORKS, WATER
FEATURE PARK AND LANDSCAPED WALK
DRAWING TITLE
ROAD MARKINGS & TRAFFIC
SIGNS
(SHEET 3 OF 6)

SCALE 1 : 250 (A1)
DRAWING NO.
WT05/4/ROAD/C/TE-03

SOURCE
ICU NO.

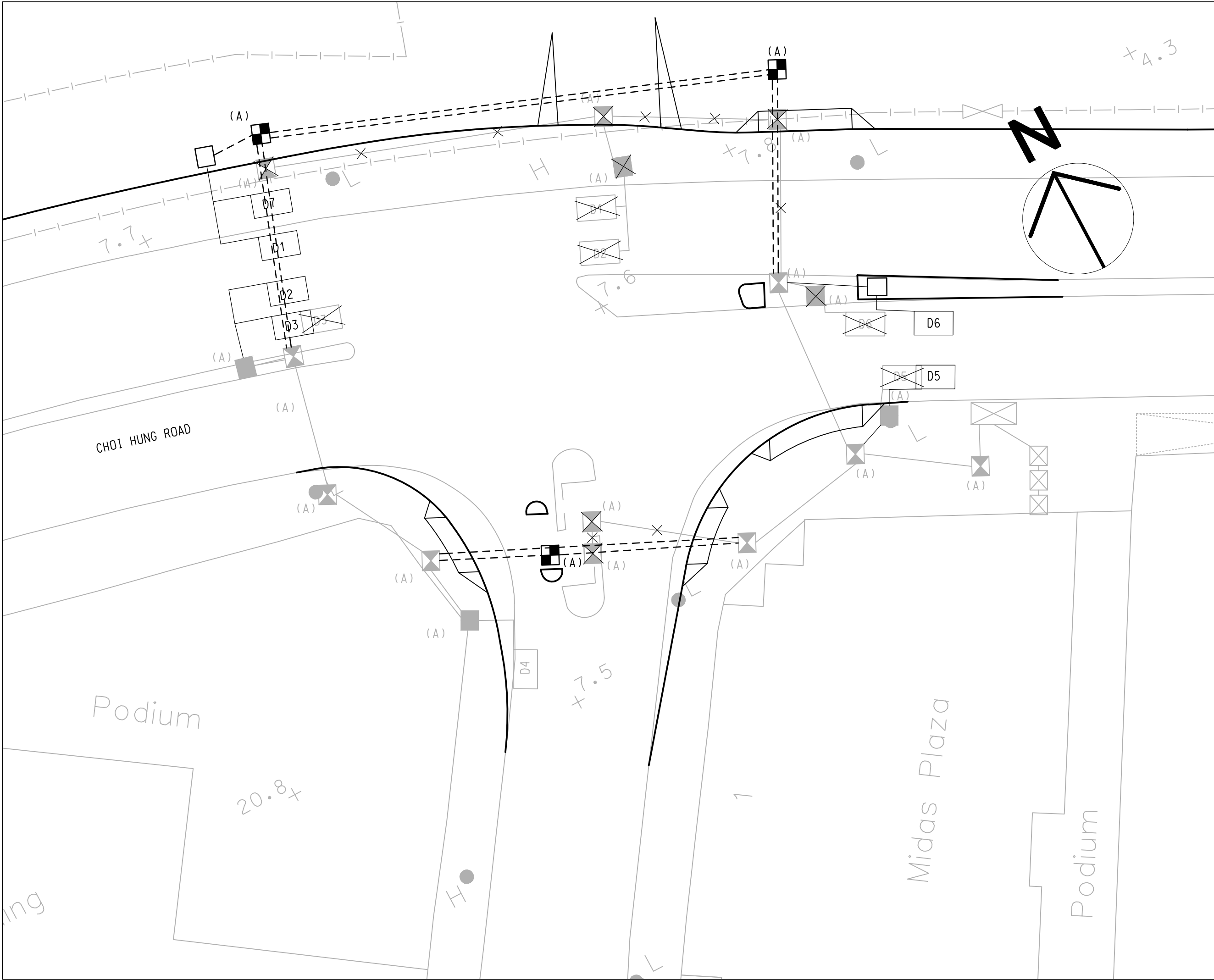
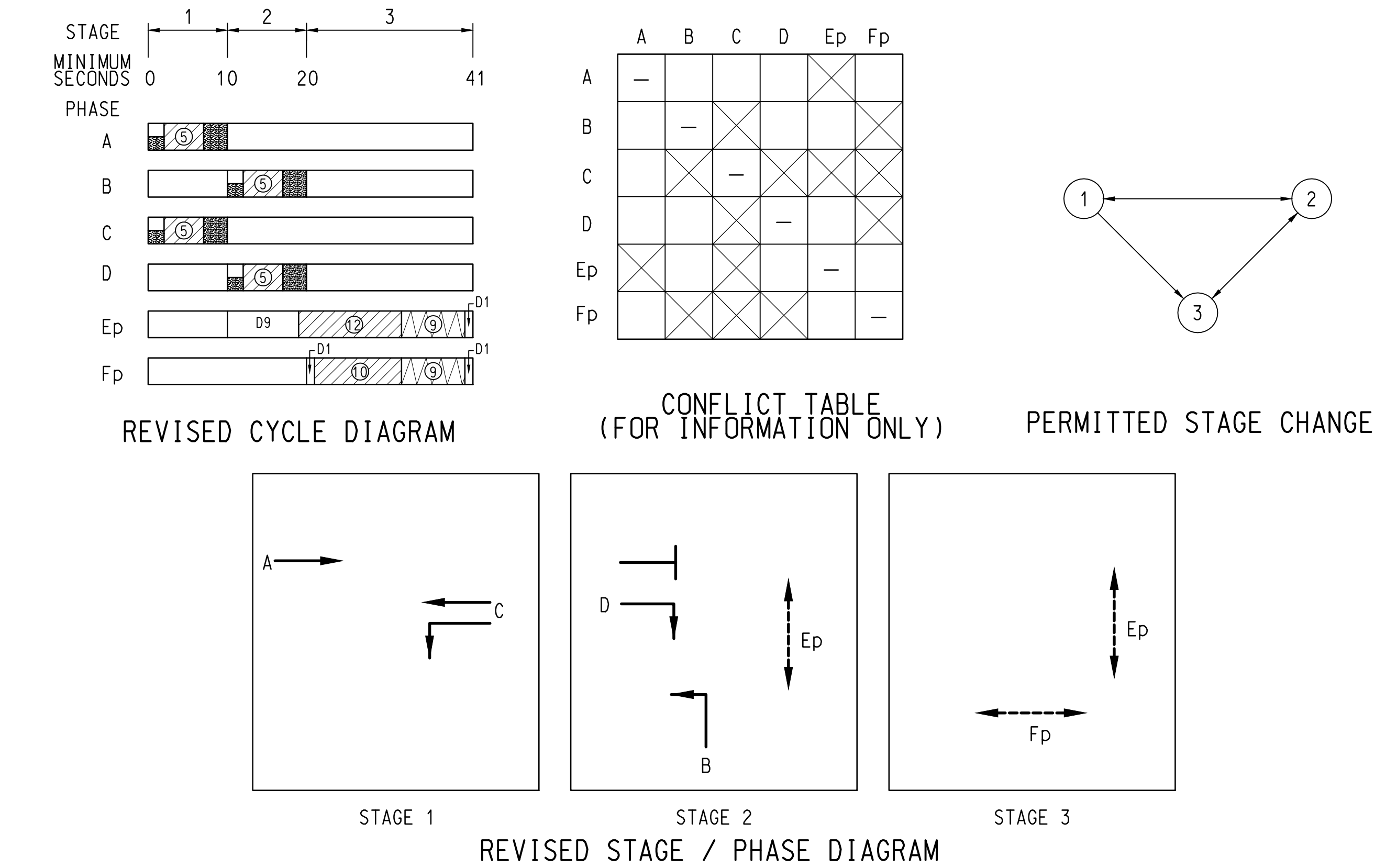


TRAFFIC SIGN NO.	DESCRIPTION
102	GIVE WAY
107	TURN LEFT
581	ENFORCEMENT CAMERA
630	DIRECTION TO PARKING PLACE
639	DIRECTION TO MASS TRANSIT RAILWAY
838	DAY PLATE EXCEPT GENERAL HOLIDAYS
2143	PLB "NO STOPPING" ZONE 7AM-7PM
2133	"NO STOPPING" ZONE 7AM-7PM
2134	"NO STOPPING" ZONE 7AM-7PM

Proposed Improvement for J3*

SUPPLIED BY	DESCRIPTION			QUANTITY REQUIRED			
				EXISTING	PROPOSED	NEW	SURPLUS
TRANSPORT DEPARTMENT (TD)	CONTROLLER	TYPE					
		STAGES		3	3		
		PHASES	VEHICULAR	4	3		1
			PEDESTRIAN	3	1		2
	ASPECTS	TRAM	200mmØ RED, AMBER AND GREEN LENS				
		VEHICULAR	200mmØ RED, AMBER AND GREEN LENS	3	3		
			200mmØ RED & AMBER LENSES 300mmØ GREEN ARROW LENS	9	8		1
			300mmØ GREEN ARROW LENS				
		PEDESTRIAN	300mmØ RED MAN 300mmØ GREEN MAN LENS	8	8		
	MISCELLANEOUS	INTERNALLY ILLUMINATED TRAFFIC SIGN	(I) NO U-TURN				
			(II) NO RIGHT TURN				
			(III) NO LEFT TURN				
		PEDESTRIAN PUSH BUTTON ASSEMBLY	(I) WITH WAIT INDICATOR AND AUDIBLE UNIT	6	8	2	
			(II) WITH AUDIBLE UNIT ONLY (NO PUSH BUTTON)	2	0		2
			DETECTOR UNIT	1	1		
			DETECTOR LOOP	6	7	1	
ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)	SIGNAL POLE ASSEMBLIES			0	1	1	
				1	0		1
				0	1	1	
				1	0		1
				0	2	2	
				1	0		1
				1	1		
				2	0		2
				1	0		1
				2	2		
				0	1	1	
				0	1	1	
				1	0		1
				2	0		2
				0	1	1	
	MISCELLANEOUS	CABLING		AS REQUIRED			
		BACKING BOARD		AS REQUIRED			

EQUIPMENT SCHEDULE



REVISED ATC DUCTING ARRANGEMENT

NOTE:
1. FOR NOTES AND LEGEND, REFER TO DRAWING NO.
WT05/4/ROAD/C/TE-12.

REVISIONS		INITIAL AND DESIGNATION		
NO	DESCRIPTION AND DATE	DWN	CKD	AUTH

Plot File by: ZHAOHQ2 2020/1/3



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**PROJECT
2.11**

**SAN PO KONG BUSINESS
AREA PEDESTRIAN
ENVIRONMENT AND
TRAFFIC IMPROVEMENT
– FEASIBILITY STUDY**

CLIENT

Development Bureau

起飛行動 Kowloon East Office
九龍東辦事處

CONSULTANT
工程顧問公司

AECOM Asia Company Ltd
www.aecom.com

SUB-CONSULTANTS
分判工程師有限公司

ISSUE/REVISION			
IR 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK 校核
B	JAN.20	AMENDMENT	LCMF
A	JUN.19	AMENDMENT	LCMF
-	AUG.18	FIRST DRAFT	KHL

STATUS

SCALE 比例	DIMENSION UNIT 尺寸單位
A3 1 : 300	METRES

KEY PLAN

PROJECT NO. 項目編號	AGREEMENT NO 協議編號
60568474	WQ/072/17

SHEET TITLE
圖紙名稱

**PROPOSED IMPROVEMENT AT
J21 SAM CHUK STREET /
TSAT PO STREET**

SHEET NUMBER
張数

60568474/WP3/FIGURE 3.6B

Appendix D

Car Lift Assessment

CAR LIFT ASSESSMENT (Two Car Lifts)

Arrival Rate Estimate

Total no. of parking spaces	=	32
Peak 15 minutes arrival rate (arrivals/space)	=	0.16
Peak arrival rate (A) in veh/min	=	$32 \times 0.16 / 15$
	=	0.333 veh/min

Estimate of Round Trip Time of Car Lift

Level Difference between G/F and B1/F	=	4.5 m
Travelling Speed of the Car Lift	=	0.5 m/s
Travel Time (G/F to B1/F) =	=	9.0 s

Door Open	=	5 s
Vehicle Out	=	8 s
Vehicle Enters	=	8 s
Safety Buffer	=	2 s
Door Close	=	5 s
Travel Time (G/F to B1/F)	=	9.0 s
Door Open	=	5 s
Vehicle Out	=	8 s
Vehicle Enters	=	8 s
Safety Buffer	=	2 s
Door Close	=	5 s
Travel Time (B1/F to G/F)	=	9.0 s
Round Trip Time	=	74.0 s

Total Round Trip Time (say)	=	74 s
Average Servicing Rate (S)	=	$60s / 74 \times 2$
	=	1.622 veh/min

The probability that there are n units in the car parking system

$$P(n) = p^n \times P(0) = p^n \times (1-p)$$

where	n	= number of units in the system
	p	= $A/S = 0.2054$
	P(n)	= probability of the system being at state n

Probability of both car lift are idle

$$\begin{aligned} P(0) &= 1 - p \\ &= 1 - 0.2054 \\ &= 79.46\% \end{aligned}$$

Probability of the one car lift is in use

$$P(1) = 0.2054 (1 - 0.2054) = 16.32\%$$

Probability of two car lifts are in use

$$P(2) = 0.2054^2 (1 - 0.2054) = 3.35\%$$

Probability of two car lifts are in use and 3 waiting spaces are occupied

$$\begin{aligned} &= P(0) + P(1) + P(2) \\ &= 0.7946 + 0.1632 + 0.0335 \\ &= 99.13\% \end{aligned}$$

Probability of more than 5 car in the system

$$\begin{aligned} &= 1 - 0.9913 \\ &= 0.0087 \end{aligned}$$

The chances that car park traffic will queue up is less than 0.9%