Proposed Minor Relaxation of Plot Ratio and Building Height Restrictions for Proposed Hotel Use in "Other Specified Uses" annotated "Business" Zone, 107-109 Wai Yip Street, Kwun Tong

Traffic Impact Assessment
Final Report
September 2025

Prepared by: CKM Asia Limited

Proposed Minor Relaxation of Plot Ratio and Building Height Restrictions for Proposed Hotel Use in "Other Specified Uses" annotated "Business" Zone, 107-109 Wai Yip Street, Kwun Tong

CONTENTS

CONTENTS (Continued)

Proposed Minor Relaxation of Plot Ratio and Building Height Restrictions for Proposed Hotel Use in "Other Specified Uses" annotated "Business" Zone, 107-109 Wai Yip Street, Kwun Tong

TABLES

NUMBER

Proposed Minor Relaxation of Plot Ratio and Building Height Restrictions
for Proposed Hotel Use in "Other Specified Uses"
annotated "Business" Zone, 107-109 Wai Yip Street, Kwun Tong

TABLES (Continued)

NUMBER

Proposed Minor Relaxation of Plot Ratio and Building Height Restrictions for Proposed Hotel Use in "Other Specified Uses" annotated "Business" Zone, 107-109 Wai Yip Street, Kwun Tong

FIGURES

NUMBER

Proposed Minor Relaxation of Plot Ratio and Building Height Restrictions for Proposed Hotel Use in "Other Specified Uses" annotated "Business" Zone, 107-109 Wai Yip Street, Kwun Tong

FIGURES (Continued)

NUMBER

1.0 INTRODUCTION

Background

1.1 The Subject Site is located at Nos. 107 – 109 Wai Yip Street in Kwun Tong, which is now vacant. Figure 1.1 shows the location of the Subject Site.

1.2 On 29th May 2020, the Town Planning Board ("TPB") approved the S16 Planning Application for Office, Shop and Services & Eating Place Uses at 107-109 Wai Yip Street (TPB ref: A/K14/780) ("Approved S16 Scheme"). The Applicant has the intention to construct a hotel ("Proposed Development") at the Subject Site.

1.3 CKM Asia Limited, a traffic and transportation planning consultancy firm, was commissioned by the Applicant, to conduct a traffic impact assessment ("TIA") in support of Proposed Development. This report presents the findings of the TIA of the Proposed Development.

Scope of the Assessment

1.4 The main objectives of this TIA are as follows:

- To assess the existing traffic issues in the vicinity of the Subject Site;
- To quantify the traffic and pedestrians generated by the Proposed Development; and
- To examine the traffic and pedestrian impact on the local road network in the vicinity of the Subject Site.

Contents of the Report

1.5 After this introduction, the remaining chapters contain the following:

Chapter Two	-	describes the existing situation;
Chapter Three	-	outlines the development proposal;
Chapter Four	-	presents the traffic impact analysis;
Chapter Five	-	presents the pedestrian impact analysis;
Chapter Six	-	presents the traffic sensitivity test; and
Chapter Seven	-	summarises the overall conclusion.

2.0 THE EXISTING SITUATION

The Subject Site

2.1 The Subject Site fronts onto Wai Yip Street to the south, and is bounded by a service lane to the north. The section of Wai Yip Street fronting the Subject Site is a dual carriageway 3-lane road.

Traffic Survey

2.2 To quantify the traffic flows at the junctions chosen for the capacity analysis, manual classified counts were conducted on Thursday, 12th June 2025 during the AM and PM peak periods. The locations of the surveyed junctions are presented in Figure 2.1 and their layout is shown in Figures 2.2 to 2.13.

2.3 The surveyed junctions include the following:

- J1: Hoi Bun Road / Shun Yip Street;
- J2: Wai Yip Street / Shun Yip Street;
- J3: Tai Yip Street / Service Lane;
- J4: Hong Tak Road / Tai Yip Street;
- J5: Tai Yip Street / Tai Yip Lane;
- J6: Kwun Tong Road / Hong Tak Road;
- J7: Wai Yip Street / Lai Yip Street;
- J8: Kwun Tong Road / Lai Yip Street;
- J9: Hoi Bun Road / Lai Yip Street;
- J10: Lai Yip Street / Hung To Road;
- J11: Tai Yip Street / Siu Yip Street; and
- J12: Wai Yip Street / Siu Yip Street.

2.4 The counts were classified by vehicle type to enable traffic flows in passenger car units ("pcu") to be calculated. From the survey, the AM and PM peak hours were found to be between 0845 – 0945 and 1730 – 1830 hours respectively and the existing AM and PM peak hour traffic flows are presented in Figure 2.14.

Operational Performance of the Surveyed Junctions

2.5 The existing operational performance of the surveyed junctions is calculated based on the observed traffic counts and the analysis is undertaken using the methods outlined in Volume 2 of Transport Planning and Design Manual ("TPDM"). The existing operational performance of the surveyed junctions are summarised in Table 2.1 and the detailed calculations are found in Appendix 1.

TABLE 2.1 EXISTING JUNCTION OPERATIONAL PERFORMANCE

Ref	Junction	Type of Junction	Parameter[1]	AM Peak	PM Peak
J1	Hoi Bun Road / Shun Yip Street	Signal	RC	56%	43%
J2	Wai Yip Street / Shun Yip Street	Signal	RC	66%	62%
J3	Tai Yip Street / Service Lane	Priority	RFC	0.010	0.010
J4	Hong Tak Road / Tai Yip Street	Priority	RFC	0.224	0.177
J5	Tai Yip Street / Tai Yip Lane	Priority	RFC	0.049	0.023
J6	Kwun Tong Road / Hong Tak Road	Priority	RFC	0.366	0.451
J7	Wai Yip Street / Lai Yip Street	Signal	RC	80%	87%
J8	Kwun Tong Road / Lai Yip Street	Signal	RC	60%	44%
J9	Hoi Bun Road / Lai Yip Street[2]	Signal	RC	82%	85%
J10	Lai Yip Street / Hung To Road[2]	Signal	RC	80%	98%
J11	Tai Yip Street / Siu Yip Street	Priority	RFC	0.322	0.403
J12	Wai Yip Street/ Siu Yip Street	Priority	RFC	0.421	0.361

Notes: [1] RC – Reserve Capacity RFC – Ratio of Flow to Capacity
[2] Site factor applied to reflect kerbside / on-street activities

2.6 The results in Table 2.1 indicate that the junctions now operate with capacities during the AM and PM peak hours.

Pedestrian Facilities

2.7 There are good pedestrian facilities provided in the vicinity of the Subject Site, including footpaths, and at-grade pedestrian crossings are provided at the signalised road junctions.

Availability of Public Transport Facilities

2.8 The Subject Site is well-served by various types of public transport services, including road-based franchised bus and public light bus. These services operate along Kwun Tong Road and Wai Yip Street within 500m or about 10 minutes' walk away. The Subject Site is located close to the Ngau Tau Kok MTR Station and the nearest entrance is at Lai Yip Street, which is some 400 metres or 6 minutes' walk away.

2.9 Details of the road-based public transport services operating in the vicinity of the Subject Site are shown in Figure 2.15 and Table 2.2.

TABLE 2.2 FRANCHISED BUS AND GMB SERVICES OPERATING CLOSE TO THE SUBJECT SITE

Route	Routing	Frequency (minutes)
KMB 1A	Sau Mau Ping (Central) – Star Ferry	5 – 15
KMB 3D	Tsz Wan Shan (Central) – Kwun Tong (Yue Man Square)	4 – 16
KMB 5R	Kai Tak Cruise Terminal – Kwun Tong (apm) (Circular)	30
KMB 6P	Cheung Sha Wan (So Uk Estate) – Lei Yue Mun Estate	AM, PM Peak
KMB 11B	Kwun Tong (Tsui Ping Road) – Kowloon City Ferry	10 – 25
KMB 11C	Chuk Yuen Estate – Sau Mau Ping (Upper)	15 – 25
KMB 11D	Lok Fu – Kwun Tong Ferry	15 – 30
KMB 13D	Po Tat – Island Harbourview	15 – 25
KMB 13M	Kwun Tong (Elegance Road) – Po Tat (Circular)	15 – 30
KMB 14	Lei Yue Mun Estate – China Ferry Terminal	12 – 25
KMB 14B	Ngau Tau Kok – Lam Tin (Kwong Tin Estate)	15 – 25
KMB 14X	Yau Tong (Shung Tak Wai) – Tsim Sha Tsui (Circular)	15 – 30
KMB 15	Ping Tin – Hung Hom (Hung Luen Road)	12 – 20
KMB 15A	Ping Tin – Tsz Wan Shan (North)	20 – 30

Route	Routing	Frequency (minutes)
KMB 15X	Lam Tin (Kwong Tin Estate) – Hung Hom Station	AM, PM Peak
KMB 16	Lam Tin (Kwong Tin Estate) – Mong Kok (Park Avenue)	8 – 20
KMB 16P	Kwun Tong Ferry – Mong Kok (Park Avenue)	AM, PM Peak
KMB 17	Kwun Tong (Yue Man Square) – Ho Man Tin (Oi Man Estate)	5 – 20
KMB 23M	Lok Wah – Shun Lee (Circular)	12 – 20
KMB 28B	Choi Fook – Kai Tak (Kai Ching Estate)	15 – 25
KMB 28S	Kwun Tong (Yue Mun Square) – Lok Wah	AM Peak
KMB 33	Tsuen Wan West Station – Yau Tong	15 – 30
KMB 33B	Tsuen Wan West Station – Yau Tong	20 – 25
KMB 38	Kwai Shing (East) – Ping Tin	5 – 20
KMB 38P	Kwai Shing (Central) – Ping Tin	AM Peak
KMB 40	Tsuen Wan (Belvedere Garden) – Laguna City	12 – 25
KMB 40A	Ping Tin – Kwai Hing Station	AM, PM Peak
KMB 40B	Kwai Chung Estate – Ping Tin	AM Peak
KMB 40P	Kwun Tong Ferry – Tsuen Wan (Shek Wai Kok)	AM, PM Peak
KMB 42C	Tsing Yi (Cheung Hang Estate) – Lam Tin Station	5 – 15
KMB 49	Ching Fu Court – Tseung Kwan O Industrial Estate	AM, PM Peak
KMB 62P	Tuen Mun Central – Lei Yue Mun Estate	8 – 25
KMB 62X	Tuen Mun Central – Lei Yue Mun Estate	8 – 25
KMB 69C	Tin Yan Estate – Kwun Tong Ferry	AM, PM Peak
KMB 74C	Kau Lung Hang – Kwun Tong Ferry	AM Peak
KMB 74D	Kau Lung Hang – Kwun Tong Ferry	25 – 60
KMB 74E	Tai Mei Tuk – Kwun Tong Ferry	AM, PM Peak
KMB 74F	Kwun Tong Ferry – Education University of Hong Kong	AM Peak
KMB 74P	Kwun Tong Ferry – Tai Po Central	AM Peak
KMB 74X	Tai Po Central – Kwun Tong Ferry	3 – 15
KMB 80	Mei Lam – Kwun Tong Ferry	5 – 20
KMB 80A	Mei Lam – Kwun Tung Ferry	AM Peak
KMB 80P	Hin Keng – Kwun Tong Ferry	AM Peak
KMB 80X	Chun Shek – Kwun Tong Ferry	8 – 25
KMB 83A	Shui Chuen O – Kwun Tong Ferry	AM Peak
KMB 83X	Shui Chuen O – Kwun Tong Ferry	8 – 30
KMB 88X	Fo Tan Chung Yeung Estate – Ping Tin (Circular)	20 – 30
KMB 89	Lek Yuen – Kwun Tong Station	8 – 20
KMB 89B	Shatin Wai – Kwun Tong Station	10 – 25
KMB 89C	Heng On – Kwun Tong (Tsui Ping Road)	12 – 30
KMB 89D	Wu Kai Sha Station – Lam Tin Station	3 – 20
KMB 89P	Ma On Shan Town Centre – Lam Tin Station Bus Terminus	AM Peak
KMB 89X	Shatin Station – Kwun Tong (Tsui Ping Road)	7 – 20
KMB 93K	Po Lam – Mong Kok East Station	15 – 30
KMB 95M	Tsui Lam – Kwun Tong Road (Elegance Road)	20 – 30
KMB 98	Tseung Kwan O Industrial Estate – Ngau Tau Kok Station (Circular)	15 – 20
KMB 98A	Hang Hau (North) (Tseung Kwan O Hospital) – Ngau Tau Kok Station (Circular)	8 – 20
KMB 98B	Hang Hau (North) (Tseung Kwan O Hospital) – Kwun Tong Station	AM Peak
KMB 213B	On Tai – Ting Fu Street (Circular)	AM Peak
KMB 215X	Lam Tin (Kwong Tin Estate) – Kowloon Station	5 – 20
KMB 234C	Sham Tseng – Kwun Tong Station	AM, PM Peak
KMB 234D	Tsing Lung Tau – Kwun Tong Station	AM, PM Peak
KMB 252X	Handsome Court – Lam Tin Station	AM, PM Peak
KMB 258A	Hung Shui Kiu (Hung Fuk Estate) – Lam Tin Station	AM Peak
KMB 258D	Tuen Mun (Po Tin Estate) – Lam Tin Station	5 – 20
KMB 258P	Hung Shui Kiu (Hung Fuk Estate) – Lam Tin Station	AM, PM Peak
KMB 258S	Tuen Mun (Shan King Estate) – Lam Tin Station	AM Peak
KMB 258X	Tuen Mun (Po Tin Estate) – Kwun Tong Ferry	AM, PM Peak

Route	Routing	Frequency (minutes)
KMB 259D	Tuen Mun (Lung Mun Oasis) – Lei Yue Mun Estate	7 – 25
KMB 259X	Lung Mun Oasis – Kwun Tong Ferry	AM, PM Peak
KMB 267X	Tuen Mun (Siu Hong Court) – Lam Tin Station	AM, PM Peak
KMB 268A	Long Ping Estate – Kwun Tong Ferry	AM, PM Peak
KMB 268C	Long Ping Station – Kwun Tong Ferry	5 – 20
KMB 268P	Ma Wang Road (Shan Shui House) – Kwun Tong Ferry Kwun Tong Ferry – Long Ping Station	AM, PM Peak
KMB 269C	Tin Shui Wai Town Centre – Kwun Tong Ferry	5 – 20
KMB 269S	Tin Shui Wai Town Centre – Kwun Tong Ferry	AM, PM Peak
KMB 274X	Kwun Tong Ferry – Tai Po Central	PM Peak
KMB 277A	Sha Tau Kok – Lam Tin Station	AM, PM Peak
KMB 277E	Lam Tin Station – Sheung Shui (Tin Ping)	15 – 30
KMB 277P	Sheung Shui (Tin Ping) – Lam Tin Station	AM, PM Peak
KMB 277X	Fanling (Luen Wo Hui) – Lam Tin Station	5 – 30
KMB 296A	Sheung Tak – Ngau Tau Kok Station (Circular)	7 – 15
KMB 296C	Sheung Tak – Cheung Sha Wan (Hoi Ying Estate)	15 – 30
KMB N3D	Kwun Tong (Yue Man Square) – Tsz Wan Shan (Central)	Overnight
KMB N293	Sheung Yak – Mong Kok East Station	Overnight
KMB T74	Tai Po (Tai Wo) – Kwun Tong Ferry	AM Peak
KMB T277	Sheung Shui – Lam Tin Station	AM, PM Peak
KMB W2	Jordan (West Kowloon Station) – Kwun Tong (Circular)	30 – 60
KMB X42C	Tsing Yi (Cheung Hang Estate) – Yau Tong	7-30
KMB X42P	Tsing Yi (Cheung On Estate) – Lam Tin Station	AM Peak
KMB X89D	Nai Chung – Kwun Tong Ferry	AM, PM Peak
KMB/CTB 101	Kwun Tong (Yue Man Square) – Kennedy Town	3 -- 20
KMB/CTB 101X	Kwun Tong (Yue Man Square) – Kennedy Town	AM, PM Peak
KMB/CTB 606	Siu Sai Wan (Island Resort) – Choi Wan (Fung Shing Street)	20 – 25
KMB/CTB 606A	Shau Kei Wan (Yiu Tung Estate) – Choi Wan (Fung Shing Street)	AM Peak
KMB/CTB 606X	Siu Sai Wan (Island Resort) – Kowloon Bay	AM, PM Peak
KMB/CTB 619	Shun Lee – Central (Macau Ferry)	4 – 25
KMB/CTB 619P	Shun Lee – Central (Macau Ferry)	AM Peak
KMB/CTB 641	Kai Tak (Kai Ching Estate) – Central (Macau Ferry)	AM, PM Peak
KMB/CTB 671	Diamond Hill Station – Ap Lei Chau Lee Lok Street	15 – 45
KMB/CTB 671X	Ap Lei Chau Lee Lok Street – Diamond Hill Station	AM Peak
KMB/CTB N619	Shun Lee – Central (Macau Ferry)	Overnight
CTB 55	Ching Tin and Wo Tin – Kwun Tong Ferry Pier	AM, PM Peak
CTB 61R	Lam Tin Station – City One Shatin	12 – 20
CTB 78C	Queen's Hill Fanling – Kai Tak	AM, PM Peak
CTB 78P	Queen's Hill Fanling – Kwun Tong	AM Peak
CTB 78X	Queen's Hill Fanling – Kai Tak	30 – 60
CTB 796S	Tseung Kwan O Station – Ngau Tau Kok Station (Circular)	Overnight
CTB 797	Lohas Park – Kowloon Bay (Circular)	15 – 20
CTB A22	Lam Tin Station – Airport	15 – 40
CTB A29	Tseung Kwan O (Po Lam) – Airport / HZMB Hong Kong Port	20 – 60
CTB E22	Lam Tin (North) – AsiaWorld-Expo	8 – 20
CTB E22A	Tseung Kwan O (Hong Sing Garden) – AsiaWorld-Expo	25 – 30
CTB E22C	Tiu Keng Leng Station – Aircraft Maintenance Area	AM, PM Peak
CTB E22S	Tung Chung (Mun Tung Estate) – Tseung Kwan O (Po Lam)	AM, PM Peak
CTB E22X	Yau Tong – AsiaWorld-Expo	AM, PM Peak
CTB N29	Tseung Kwan O (Hong Sing Garden) – Tung Chung Station	Overnight
CTB NA29	Tseung Kwan O (Po Lam) – Airport / HZMB Hong Kong Port	Overnight
GMB 22A	Lok Wah Estate – Cheung Yip Street / Kwun Tong Ferry Pier (Circular)	20
GMB 35	Choi Ha Estate – Hong Lee Court	5 – 7
GMB 36A	Crocodile Hill (Hong Lee Court) To Yue Man Square Public Transport Interchange (Circular)	4 – 5

Route	Routing	Frequency (minutes)
GMB 56	Richland Gardens – Kwun Tong (Shung Yan St)	10 -- 20
GMB 62S	Kwong Tin Estate – Tsim Sha Tsui (Haiphong Road)	Overnight
GMB 68	Choi Wan Estate – Kowloon Bay (Enterprise Square)	8 -- 12
GMB 86	Kai Tak Cruise Terminal – Telford Gardens	8 -- 20
GMB 90A	Yau Lai Estate – HK Children's Hospital	20
GMB 90B	Sau Mau Ping Estate Phase 5 – HK Children's Hospital	15 – 20
GMB 102	Hang Hau Station – San Po Kong (Hong Keung Street)	2 – 15
GMB 102B	Hang Hau (Yuk Ming Court) – Choi Hung	12 – 20
GMB 102S	Hang Hau Station – San Po Kong (Hong Keung Street)	Overnight
GMB 104	The HK University of Science and Technology – Ngau Tau Kok Station	12 – 25
GMB 106	Tseung Kwan O (Po Lam) – Kowloon Bay (Enterprise Square)	7 – 25
GMB 501S	Sheung Shui Station – Kwun Tong (Yue Man Square)	Overnight

Note: KMB – Kowloon Motor Bus CTB – City Bus GMB – Green Minibus

3.0 THE PROPOSED DEVELOPMENT

Development Parameters and Provision of Internal Transport Facilities

3.1 The Proposed Development is a Hotel with 984 guest rooms. The internal transport facilities for the Proposed Development are provided in accordance to the recommendations of the Hong Kong Planning Standards and Guidelines ("HKPSG"), and are presented in Table 3.1.

TABLE 3.1 COMPARISON OF THE HKPSG RECOMMENDATION AND THE PROPOSED PROVISION

HKPSG Recommendation for a Hotel with 984 guest rooms	Proposed Provision
Car Parking Space	
1 car parking space per 100 rooms. 984 / 100 = 9.8, say 10 nos.	10 nos. comprising of: (i) 9 nos. @ 5m (L) x 2.5m (W) x 2.4m, (ii) 1 no. @ 5m (L) x 3.5m (W) x 2.4m (H) for persons with disabilities = HKPSG recommendation
Motorcycle Parking Space	
5 to 10% of the total provision for private cars Minimum = 10 x 5% = 0.05, say 1 no. Maximum = 10 x 10% = 0.1, say 1 no.	1 no. @ 2.4m (L) x 1m (W) x 2.4m (H) = HKPSG recommendation
Taxi and Private Car Layby	
Minimum 4 lay-bys for taxi and private cars for ≥ 600 rooms = 4 nos.	4 nos. @ 5m (L) x 2.5m (W) x 2.4m (H) = HKPSG recommendation
Single-Deck Tour Bus Layby	
Minimum 3 lay-bys for single-deck tour buses for ≥ 900 rooms = 3 nos.	3 nos. @ 12m (L) x 3.5m (W) x 4.7m (H) = HKPSG recommendation Note: These 3 laybys are proposed to be "Shared-use" for Coaches/buses and M/HGV
Goods Vehicle Loading / Unloading Bay	
0.5 - 1 goods vehicle bay per 100 rooms Minimum = 984 / 100 x 0.5 = 4.9, say 5 nos. (X LGV, X HGV) Maximum = 984 / 100 x 1 = 9.8, say 10 nos. (7 LGV, 3 HGV)	8 nos. comprising of: (i) 7 nos. LGV @ 7m (L) x 3.5m (W) x 3.6m (H) & (ii) 1 no. M/HGV @ 11m (L) x 3.5m (W) x 4.7m (H) > HKPSG minimum & < HKPSG maximum recommendation

Reasons for Deviation from the HKPSG Maximum Recommendation

3.2 The only internal transport facility which deviates from the HKPSG maximum recommendation is the provision of 8 loading / unloading bays, which is 2 less than the maximum HKPSG recommendation, but, 3 more than the HKPSG minimum recommendation.

3.3 The provision of 2 nos. more M/HGV loading / unloading bays was considered, but not found to be possible due site constraint, and is explained as follows:

(1) The Outline Development Plan no. D/K14A/1H require the Subject Site to setback (i) along Wai Yip Street of 2.3m, and (ii) 1.5m setback and 1.5m non-building area along the service lane;
(2) With the above setback requirements, the length of the Subject Site (i.e. measured from Wai Yip Street to the service lane) which is originally 21.3m is reduced to only 17.5m (reduction of substantial length of 17.8%)
(3) The ground floor layout has maximised the provision of M/HGV loading / unloading bays which need to front onto the turntable so vehicles could enter and leave the loading / unloading bay.

3.4 After accommodating the essential facilities such as, structural columns, staircases, escalators, lift lobby and car lift to the basement car park, etc, the provision of 2 more M/HGV loading / unloading bay is not possible.

Layout Plans

3.5 The carpark layout plans for G/F and B1/F are found in Figures 3.1 – 3.2. Similar to the Approved S16 Planning Application (TPB ref: A/K14/809), two vehicular access points are provided and these are located at:
(i) The service lane at the northern side of the Proposed Development;
(ii) Wai Yip Street

Swept Path Analysis

3.6 The CAD-based swept path analysis program, Autodesk Vehicle Tracking, was used to check the ease of vehicle manoeuvring, and the swept path drawings of vehicle manoeuvring on the parking levels are found in in Appendix 2. Vehicles are found to have no manoeuvring problems and all vehicles could enter and leave the spaces with ease.

Vehicle Lift Analysis

3.7 A light goods vehicle lift is provided to access B1/F from G/F, and to prevent potential tailback to Wai Yip Street, a waiting space provided on G/F. A vehicle lift analysis was conducted to check on the operation of the vehicle lift system, and it was found that the vehicle lift system is acceptable and can serve the Proposed Development. The vehicle lift analysis is found in Appendix 3.

Traffic Management Plan

#1 Turntable

3.8 A traffic management plan will be implemented by the Applicant, which includes the following:

- Loading / unloading related to goods deliveries will be undertaken during the non-peak hours.
- All users have to make reservation with the property management prior to the use of the goods vehicle loading/unloading bay and "Shared-use" for Coaches/buses and M/HGV laybys.
- The Management Office will ensure that maintenance of the turntable will be carried out during the non-peak period.
- The Management Office will ensure that should the turntable breaks down, the Management Office will immediately contact the turntable maintenance company to repair, and all users will be notified that the use of HGV loading/ unloading bay and "Shared-use" for Coaches/buses and M/HGV laybys will be suspended.

#2 Car Lift

(i) Operation and Maintenance of the lift

3.9 A management staff will be deployed to guide the driver to enter the vehicle lift. Regular inspection will be arranged, and prior to the conduct of the regular maintenance, all occupants will be notified of the date and duration of the suspension of the vehicle lift.

(ii) Breakdown of the lift

3.10 If a vehicle lift breaks down, the Property Management will immediately call the vehicle lift maintenance company. However, if a vehicle is trapped inside the vehicle lift, the Fire Services Department will be contacted, and notice will be displayed at the entrance of the car park to inform motorists of the suspension of service.

3.11 As mentioned in Section 3.8, the use of goods vehicle loading/unloading bay and "Shared-use" for Coaches/buses and M/HGV layby is by reservation only, the Management Office would be aware of the arrival times of the vehicles, thus enabling efficient scheduling and coordination.

3.12 In the event that the car lift has broken down, the following measures will be undertaken for vehicles which use the car lift, i.e., LGV, private car and motorcycle:

#1 Measure for LGV
LGV could use the 3 "Shared-use" for Coaches/buses and M/HGV laybys.

#2 Measure for Private cars
The management staff will direct the driver to use nearby public car park eg NEO at 123 Hoi Bun Road.

#3 Measure for Motorcycle
The management staff will direct the driver to use nearby public car park opposite One Bay East Citi Tower at 83 Hoi Bun Road.

(iii) Management of passages between compartments of the carpark and L/UL at B/F in case of opposing traffic

3.13 A management staff will be deployed on B/F to ensure smooth operation on B/F to guide the drive to enter and leave the vehicle lift.

Passenger Safety Measures

3.14 Directional signs will be installed at key locations to guide passengers to the lobby. In addition, management staff will be deployed to guide passengers.

4.0 TRAFFIC IMPACT

Design Year

4.1 The Proposed Development is expected to be completed by 2029, and the design year adopted for the capacity analysis is 2032, i.e. 3 years after the completion of the development.

Traffic Forecast

4.2 The 2032 traffic flows used for the junction analysis are produced with reference to: (i) 2031 traffic flows from the Base District Traffic Model ("BDTM"); (ii) estimated traffic growth from 2031 to 2032; (iii) the planned developments in the vicinity of the Proposed Development, and (iv) additional traffic generated by the Proposed Development.

Estimated Traffic Growth Rate from 2031 to 2032

4.3 Reference is made to the 2021 – based Territorial Population and Employment Data Matrix ("TPEDM") data produced by Planning Department for Kwun Tong District, which are for 2021, 2026 and 2031 and are presented in Table 4.1.

TABLE 4.1 2021-BASED TPEDM DATA PRODUCED BY PLANNING DEPARTMENT FOR KWUN TONG DISTRICT

Item	TPEDM Estimates and Projections		
	2021	2026	2031
Population	673,150	682,500	690,750
Employment	395,900	400,050	441,300
Total	1,069,050	1,082,550	1,132,050
Average Growth	From 2021 to 2026: +0.25% From 2021 to 2031: +0.57%	From 2026 to 2031: +0.90%	N/A

4.4 Table 4.1 shows that the highest average annual growth rate is +0.90%. In view that there is no estimation beyond 2031 and to err on the high side, the growth rate of 1% per annum is adopted for the traffic growth between 2031 and 2032.

Planned Developments in the Vicinity of the Proposed Development

4.5 The planned developments included in the 2032 reference traffic flows are presented in Table 4.2, and the locations of planned developments are shown in Figure 4.1.

TABLE 4.2 PLANNED DEVELOPMENTS IN THE VICINITY OF THE PROPOSED DEVELOPMENT

Site	Planning Application No. / Plan No.	Address	Use	Development Parameters (Approx.)
1	A/K14/763	350 Kwun Tong Road	Commercial	GFA = 25,658m^2
2	A/K14/766	41 King Yip Street	Commercial	GFA = 30,576m^2
3	A/K14/771	32 Hung To Road	Commercial	GFA = 13,122m^2
4	A/K14/773	82 Hung To Road	Industrial	GFA = 13,378m^2
5	A/K14/774	7 Lai Yip Street	Commercial	GFA = 14,775m^2
6	A/K14/775	132 Wai Yip Street	Commercial	GFA = 6,021m^2
7	A/K14/777	71 How Ming Street	Office	GFA = 18,312m^2
8	A/K14/782	4 Tai Yip Street	Retail	GFA = 8,027m^2
9	A/K14/787	33 Hung To Road	Industrial	GFA = 13,830m^2

Site	Planning Application No. / Plan No.	Address	Use	Development Parameters (Approx.)
10	A/K14/796	28A Hung To Road	Hotel	No. of rooms = 89
11	A/K14/804	334 -336 and 338 Kwun Tong Road	Commercial	GFA = 23,211m^2
12	A/K14/806	11 Lai Yip Street	Office	GFA = 15,051m^2
13	A/K14/807	Kun Tong Inland Lots 1 S.A , 1 RP, 3 and 15	Commercial	GFA = 66,890m^2
14	A/K14/809	1 Tai Yip Street and 111 Wai Yip Street	Commercial	GFA = 13,349m^2
15	A/K14/810	5 Lai Yip Street	Commercial	GFA = 14,788m^2
16	A/K14/820	73 – 75 Hung To Road	Commercial	GFA = 26,757m^2
17	A/K14/822	25 Tai Yip Street, Kwun Tong	Commercial	GFA = 5,572m^2
18	A/K14/832	201 and 203 Wai Yip Street	Hotel	No. of rooms = 448
19	A/K14/819 & S/K14S/URA1/3 Urban Renewal Authority 'Vertical City' mixed use development	Areas 4 and 5 of Kwun Tong Town Centre	Commercial GFA = 65,000m^2, Office GFA = 127,619m^2 and GIC GFA = 8,601m^2	
20	N/A	EKEO Lai Yip Street Development	Commercial	GFA = 23,000m^2
21	N/A	Kwun Tong Action Area	Commercial	GFA = 89,350m^2
22	N/A	Kowloon Bay Action Area	Commercial	GFA = 500,000m^2

4.6 The infrastructure and road network included in the BDTM are as follows:

- Kai Tak Development
- Tseung Kwan O – Lam Tin Tunnel
- Central Kowloon Route
- Trunk Road T2 between Central Kowloon Route and Tseung Kwan O – Lam Tin Tunnel

Traffic Generated by the Proposed Development

4.7 Surveys were conducted on Tuesday, 26th November 2024 between 0800 – 1100 and 1600 – 1900 hours at 4 hotels which are of similar class, number of hotel rooms and traffic characteristics, i.e. proximity to the MTR and road-based public transport services. The surveyed hotels are shown below:

(i) 254-room Nina Hotel Kowloon East at 38 Chong Yip Street, Kwun Tong
(ii) 298-room Tuen Mun Pentahotel at 6 Tsun Wen Road, Tuen Mun
(iii) 360-room Dorsett Kwun Tong at 84 Hung To Road, Kwun Tong
(iv) 598-room Hotel Cozi Harbour View at 163 Wai Yip Sreet, Kwun Tong

4.8 In addition, reference is made the survey of the Regal Riverside Hotel found in TD 05/2006 Trip Generation Survey 2006 Report. The comparison of these trip generation rates with the TPDM lower limit is found in Table 4.3.

TABLE 4.3 COMPARISON OF TRIP GENERATION RATES

Items	Trip Generation rate in pcu/hr/room			
	AM Peak		PM Peak	
	In	Out	In	Out
(i) Nina Hotel[(1)]	0.0591	0.0433	0.0512	0.0472
(ii) Tuen Mun Pentahotel[(1)]	0.0369	0.0336	0.0336	0.0336
(iii) Dorsett Kwun Tong[(1)]	0.0361	0.0333	0.0361	0.0333
(iv) Hotel Cozi Harbour View[(1)]	0.0084	0.0151	0.0134	0.0167
(v) Regal Riverside Hotel[(2)]	0.0837	0.0993	0.1005	0.0909
(iv) Lower limit of rates from TPDM	0.0832	0.0843	0.0908	0.0883
Maximum rate	0.0837	0.0993	0.1005	0.0909

Note [(1)] CKM survey
[(2)] From TD 05/2006 – Traffic Generation Survey 2006 Final Report

4.9 To be conservative, trip generation rates from the Regal Riverside Hotel is adopted to estimate the traffic generation for Proposed Development, and the calculated traffic generation associated with the Proposed Development are found in Table 4.4.

TABLE 4.4 TRAFFIC GENERATION OF THE PROPOSED DEVELOPMENT

Item	AM Peak Hour			PM Peak Hour		
	In	Out	2-way	In	Out	2-way
Trip Generation Rates for hotel (pcu/hour/guest room)						
Rates from Table 4.3	0.0837	0.0993	NA	0.1005	0.0909	NA
Traffic Generation of Proposed Development (pcu/hour)						
984 guest rooms	83	98	181	99	90	189

4.10 Table 4.4 shows the Proposed Development generates 181 and 189 more pcu (2-way) during the AM and PM peak hours respectively.

Planned Junction Improvement Schemes

4.11 The planned junction improvement schemes found in the vicinity of the Subject Site are summarised in Table 4.5 and shown in Appendix 4.

TABLE 4.5 PLANNED TRAFFIC IMPROVEMENT SCHEMES IN THE VICINITY OF THE PROPOSED DEVELOPMENT

Junction		Description of Work	Project Proponent	Estimated Completion Year
J1	Hoi Bun Road / Shun Yip Street	The road markings are changed at Shun Yip Street Westbound and Eastbound	Kowloon Bay Action Area – Feasibility Study	Before 2032
J8	Kwun Tong Road / Lai Yip Street	The road alignment is adjusted at Lai Yip Street Northbound	Kwun Tong District Council Traffic Development and Transport Committee Discussion Paper No. 3/2023	
J9	Hoi Bun Road / Lai Yip Street	A new pedestrian crossing across Hoi Bun Road Eastbound is added and existing staggered pedestrian crossing at Lai Yip Street to be	Technical study on the Lai Yip Street site in Kowloon East	

Junction		Description of Work	Project Proponent	Estimated Completion Year
		converted to straight crossing		

2032 Traffic Flows

4.12 Year 2032 traffic flows for the following cases are derived:

2032 without the Proposed Development [A]	= 2031 traffic flows derived with reference to BDTM + estimated total growth from 2031 to 2032 + Traffic generated by the planned developments in the vicinity of the Proposed Development
2032 with the Proposed Development [B]	= [A] + traffic generated by the Proposed Development (Table 4.4)

4.13 The 2032 peak hour traffic flows for the cases without and with the Proposed Development, are shown in Figures 4.2 - 4.3, respectively. The ingress/egress vehicular routings to/from the Proposed Development via Wai Yip Street and the service lane at the northern side of the Proposed Development are shown in Figures 4.4 - 4.5.

2032 Junction Operational Performance

4.14 Year 2032 capacity analysis for the cases without and with the Proposed Development are summarised in Table 4.6 and detailed calculations are found in the Appendix 1.

TABLE 4.6 2032 JUNCTION OPERATIONAL PERFORMANCE

Ref.	Junction	Type of Junction / Parameter[1]	Without the Proposed Development		With the Proposed Development	
			AM Peak	PM Peak	AM Peak	PM Peak
J1	Hoi Bun Road / Shun Yip Street[3]	Signal / RC	22%	17%	21%	16%
J2	Wai Yip Street / Shun Yip Street[4]	Signal / RC	22%	21%	18%	18%
J3	Tai Yip Street / Service Lane	Priority / RFC	0.044	0.036	0.046	0.037
J4	Hong Tak Road / Tai Yip Street	Priority / RFC	0.384	0.294	0.498	0.420
J5	Tai Yip Street / Tai Yip Lane	Priority / RFC	0.135	0.116	0.137	0.117
J6	Kwun Tong Road / Hong Tak Road	Priority / RFC	0.655	0.740	0.743	0.841
J7	Wai Yip Street / Lai Yip Street	Signal / RC	32%	44%	31%	43%
J8	Kwun Tong Road / Lai Yip Street[3]	Signal / RC	23%	18%	22%	18%
J9	Hoi Bun Road / Lai Yip Street[2][3]	Signal / RC	18%	21%	18%	21%
J10	Lai Yip Street / Hung To Road[2]	Signal / RC	29%	37%	29%	36%
J11	Tai Yip Street / Siu Yip Street	Priority /RFC	0.384	0.503	0.387	0.505
J12	Wai Yip Street / Siu Yip Street	Priority / RFC	0.750	0.715	0.805	0.748

Notes: [1] RC – reserve capacity RFC – Ratio of Flow to Capacity
[2] Site factor to reflect kerbside / on-street activities
[3] Junction Improvement Scheme has been incorporated in the assessment
[4] In order to meet RC not less than 15% for sensitivity test in Section 6, the PM cycle time of J2 - Wai Yip Street / Shun Yip Street, could be increased from 108 to 112 seconds.

4.15 Table 4.6 shows that the junctions operate with capacities during the AM and PM peak hours for the cases without and with the Proposed Development.

5.0 PEDESTRIAN ASSESSMENT

Surveyed Pedestrian Locations

5.1 In order to quantify the existing pedestrian flows, pedestrian counts were conducted between AM (0800 – 1000 hours), Noon(1200 – 1400 hours) and PM (1700 – 1900 hours) on Thursday, 12th June 2025 at the footpaths and waiting area of the pedestrian crossing shown in Figure 5.1. The survey locations are summarised in Table 5.1.

TABLE 5.1 SURVEYED PEDESTRIAN LOCATIONS

Ref.	Location
	Footpath
F1	Northern footpath of Wai Yip Street between Shun Yip Lane and Tai Yip Street (Eastern side)
F2	Northern footpath of Wai Yip Street between Shun Yip Lane and Tai Yip Street (Western side)
F3	Shun Yip Lane between Wai Yip Street and Service Lane
	Waiting area of pedestrian crossing
W1	Western pedestrian crossing of Wai Yip Street / Shun Yip Street
W2	Eastern pedestrian crossing of Wai Yip Street / Shun Yip Street

Existing Pedestrian Flows

5.2 The existing peak 15-minute 2-way pedestrian flows are also presented in Figure 5.1.

Estimated growth from 2025 to 2032

5.3 The 2032 reference pedestrian flows are estimated with the reference of the existing pedestrian flows and a growth rate of 1% per annum, which is derived from the latest TPEDM data.

Pedestrian Generated by the Proposed Development

5.4 The pedestrian generated by the Proposed Development is calculated based on the pedestrian generation rates of 4 surveyed hotels listed in paragraph 4.7 and the adopted pedestrian generation rates are presented in Table 5.2. The calculated pedestrian generation is found in Table 5.3.

TABLE 5.2 PEDESTRIAN GENERATION RATES OF THE SURVEYED HOTELS

Development	No. of rooms	Pedestrian Generation Rates (ped / 15 min / room)					
		AM Peak		Noon Peak		PM Peak	
		In	Out	In	Out	In	Out
Nina Hotel	254	0.0512	0.1732	0.1063	0.1614	0.1575	0.1772
Tuen Mun Pentahotel	298	0.0134	0.1174	0.0638	0.1007	0.1141	0.0805
Dorsett Kwun Tong	360	0.0444	0.1972	0.0500	0.0750	0.0750	0.0722
Hotel Cozi Harbour View	598	0.0318	0.0769	0.0368	0.0234	0.0401	0.0485
Adopted maximum rate		0.0512	0.1972	0.1063	0.1614	0.1972	0.1772

TABLE 5.3 PEDESTRIAN GENERATED BY THE PROPOSED DEVELOPMENT

Use	Pedestrian Generation (ped / 15 min)								
	AM Peak			Noon Peak			PM Peak		
	In	Out	2-way	In	Out	2-way	In	Out	2-way
Proposed Development with 984 Rooms	51	195	246	105	159	264	155	175	330

Year 2032 Pedestrian Flows

5.5 The 2032 pedestrian flow with and without the Proposed Development are derived using the following method:

Without the Proposed Development [a]	=	2025 observed pedestrian flows + growth from 2025 to 2032 + pedestrian generated by the planned developments in the vicinity of the Subject Site
With the Proposed Development [b]	=	[a] + pedestrian generated by the Proposed Development (Table 5.3)

5.6 The 2032 pedestrian flows without and with the Proposed Development are presented in Figures 5.2 and 5.3.

Level-Of-Service ("LOS") Assessment

5.7 The pedestrian assessment method adopted is referenced to Exhibit 18-3 of Chapter 18 of the Highway Capacity Manual ("HCM") 2000 and the extract of Exhibit 18-3 is summarised in Table 5.4.

TABLE 5.4 EXTRACT OF EXHIBIT 18-3 OF THE HCM 2000

LOS	Space (m^2/p)	Flow Rate (p/min/m)
A	> 5.6	≤ 16
B	> 3.7-5.6	> 16-23
C	> 2.2-3.7	> 23-33
D	> 1.4-2.2	> 33-49
E	> 0.75-1.4	> 49-75
F	≤ 0.75	variable

5.8 As stated in Volume 6 Section 10.5 of TPDM, "In general, LOS C is desirable for most design at streets with dominant 'living' pedestrian activities".

(a) LOS of the Footpaths

5.9 The effective width of the surveyed footpaths and the year 2032 LOS without and with the Proposed Development are presented in Tables 5.5 and 5.6.

TABLE 5.5 EFFECTIVE WIDTH OF SURVEYED FOOTPATHS

Ref.	Footpath width (m)	Effective width (m)[(1)]
F1	3.5	2.5
F2	2.7	1.7
F3	9.8	8.8

Note:[(1)] The effective width does not include 0.5m dead zone on both sides, i.e. 1m

TABLE 5.6 YEAR 2032 LOS OF FOOTPATH WITHOUT AND WITH THE PROPOSED DEVELOPMENT

Ref.	Peak Period	Year 2032 without the Proposed Development			Year 2032 with the Proposed Development		
		Flow (Ped/15 min)	Rate[(1)] (Ped/min/ m)	LOS	Flow (Ped/15 min)	Rate[(1)] (Ped/ min/m)	LOS
F1	AM	315	8.4	A	376	10.0	A
	Noon	98	3.0	A	223	6.0	A
	PM	251	6.7	A	333	8.9	A
F2	AM	442	17.3	B	469	18.4	B
	Noon	266	11.0	A	370	15.0	A
	PM	320	12.5	A	359	14.1	A
F3	AM	911	6.9	A	1024	7.8	A
	Noon	530	5.0	A	753	6.0	A
	PM	558	4.2	A	717	5.4	A

Note: [(1)] pedestrian flow rate = pedestrian flow ÷ 15 minutes ÷ effective width

5.10 Table 5.6 shows that the footpaths achieve LOS A and B during AM, Noon and PM peak for the 2032 cases without and with the Proposed Development, both which are acceptable.

(b) Waiting area of the Pedestrian Crossing

5.11 The year 2032 LOS of pedestrian crossing waiting areas without and with the Proposed Development are presented in Table 5.7.

TABLE 5.7 YEAR 2032 LOS OF PEDESTRIAN CROSSING WAITING AREAS WITHOUT AND WITH THE PROPOSED DEVELOPMENT

Ref.	Area (m^2)	Average No. of Pedestrians at the waiting area (ped/signal cycle)			Pedestrian Space (m^2/ped)			LOS		
		AM	Noon	PM	AM	Noon	PM	AM	Noon	PM
Without the Proposed Development										
W1	150	34	12	8	4.4	12.5	18.8	B	A	A
W2	63	25	8	2	2.5	7.9	31.5	C	A	A
With the Proposed Development										
W1	150	36	14	10	4.2	10.7	15.0	B	A	A
W2	63	27	10	4	2.3	6.3	15.8	C	A	A

5.12 Table 5.7 shows that the pedestrian crossing waiting areas achieve LOS A and C during AM, Noon and PM peak for the 2032 cases without and with the Proposed Development, both which are acceptable.

6.0 SENSITIVITY TEST

6.1 A sensitivity test using mean rates from the TPDM and the results are presented below.

Traffic Generated by the Proposed Development (Sensitivity Test)

6.2 Trip generation rates from mean rates from TPDM is used to estimate the traffic generation for Proposed Development, and the calculated traffic generation is found in Table 6.1.

TABLE 6.1 TRAFFIC GENERATION OF THE Proposed Development BY ADOPTING MEAN RATES FROM TPDM

Item	AM Peak Hour			PM Peak Hour		
	In	Out	2-way	In	Out	2-way
Trip Generation Rates for hotel (pcu/hour/guest room)						
Mean rates from TPDM	0.1457	0.1329	NA	0.1546	0.1290	NA
Traffic Generation of Proposed Development (pcu/hour)						
984 guest rooms	144	131	275	153	127	280

6.3 Table 6.1 shows the Proposed Development generates 275 and 280 more pcu (2-way) during the AM and PM peak hours respectively.

6.4 The sensitivity test 2032 peak hour traffic flows are shown in Figure 6.1. The ingress/egress vehicular routings to/from the Proposed Development via Wai Yip Street and the service lane at the northern side of the Proposed Development are shown in Figures 6.2 - 6.3.

2032 Junction Operational Performance (Sensitivity Test)

6.5 The 2032 sensitivity test capacity analysis for the cases without and with the Proposed Development are summarised in Table 6.2 and detailed calculations are found in the Appendix 1.

TABLE 6.2 2032 SENSITIVITY TEST JUNCTION OPERATIONAL PERFORMANCE

Ref.	Junction	Type of Junction / Parameter[1]	Without the Proposed Development		With the Proposed Development	
			AM Peak	PM Peak	AM Peak	PM Peak
J1	Hoi Bun Road / Shun Yip Street[3]	Signal / RC	22%	17%	21%	16%
J2	Wai Yip Street / Shun Yip Street[4]	Signal / RC	22%	21%	16%	16%
J3	Tai Yip Street / Service Lane	Priority / RFC	0.044	0.036	0.046	0.037
J4	Hong Tak Road / Tai Yip Street	Priority / RFC	0.384	0.294	0.538	0.428
J5	Tai Yip Street / Tai Yip Lane	Priority / RFC	0.135	0.116	0.137	0.118
J6	Kwun Tong Road / Hong Tak Road	Priority / RFC	0.655	0.740	0.773	0.847
J7	Wai Yip Street / Lai Yip Street	Signal / RC	32%	44%	31%	42%
J8	Kwun Tong Road / Lai Yip Street[3]	Signal / RC	23%	18%	22%	17%
J9	Hoi Bun Road / Lai Yip Street[2][3]	Signal / RC	18%	21%	18%	20%
J10	Lai Yip Street / Hung To Road[2]	Signal / RC	29%	37%	29%	35%
J11	Tai Yip Street / Siu Yip Street	Priority /RFC	0.384	0.503	0.387	0.507
J12	Wai Yip Street / Siu Yip Street	Priority / RFC	0.750	0.715	0.829	0.772

Notes: [1] RC – reserve capacity RFC – Ratio of Flow to Capacity
[2] Site factor to reflect kerbside / on-street activities
[3] Junction Improvement Scheme has been incorporated in the assessment
[4] In order to meet RC not less than 15%, the PM cycle time of J2 Wai Yip Street / Shun Yip Street, could be increased from 108 to 112 seconds.

6.6 Table 6.2 shows that the junctions operate with capacities during the AM and PM peak hours with implementation of an increased PM peak cycle time at J2 - Wai Yip Street / Shun Yip Street for the cases without and with the Proposed Development.

7.0 CONCLUSION

7.1 The Subject Site is located at Nos. 107 - 109 Wai Yip Street in Kwun Tong. On 29th May 2020, the TPB approved the S16 Planning Application (TPB ref: A/K14/780) for Office, Shop and Services & Eating Place Uses at the Subject Site. Subsequent to the Approved S16 Scheme (TPB ref: A/K14/780), the Applicant has the intention to construct a hotel with 984 rooms.

7.2 Manual classified counts were conducted at junctions located in the vicinity of the Subject Site in order to establish the peak hour traffic flows. Currently, the surveyed junctions operate with capacities during the AM and PM peak hours.

7.3 Similar to the Approved S16 Scheme (TPB ref: A/K14/780), two vehicular access points are provided for the Proposed Development, including, (i) The service lane at the northern side of the Proposed Development, and (ii) Wai Yip Street.

7.4 The internal transport facilities for the Proposed Development are provided with reference to the recommendation of the HKPSG. Swept path analysis was conducted to ensure that all vehicles could enter and leave the development and the spaces provided with ease.

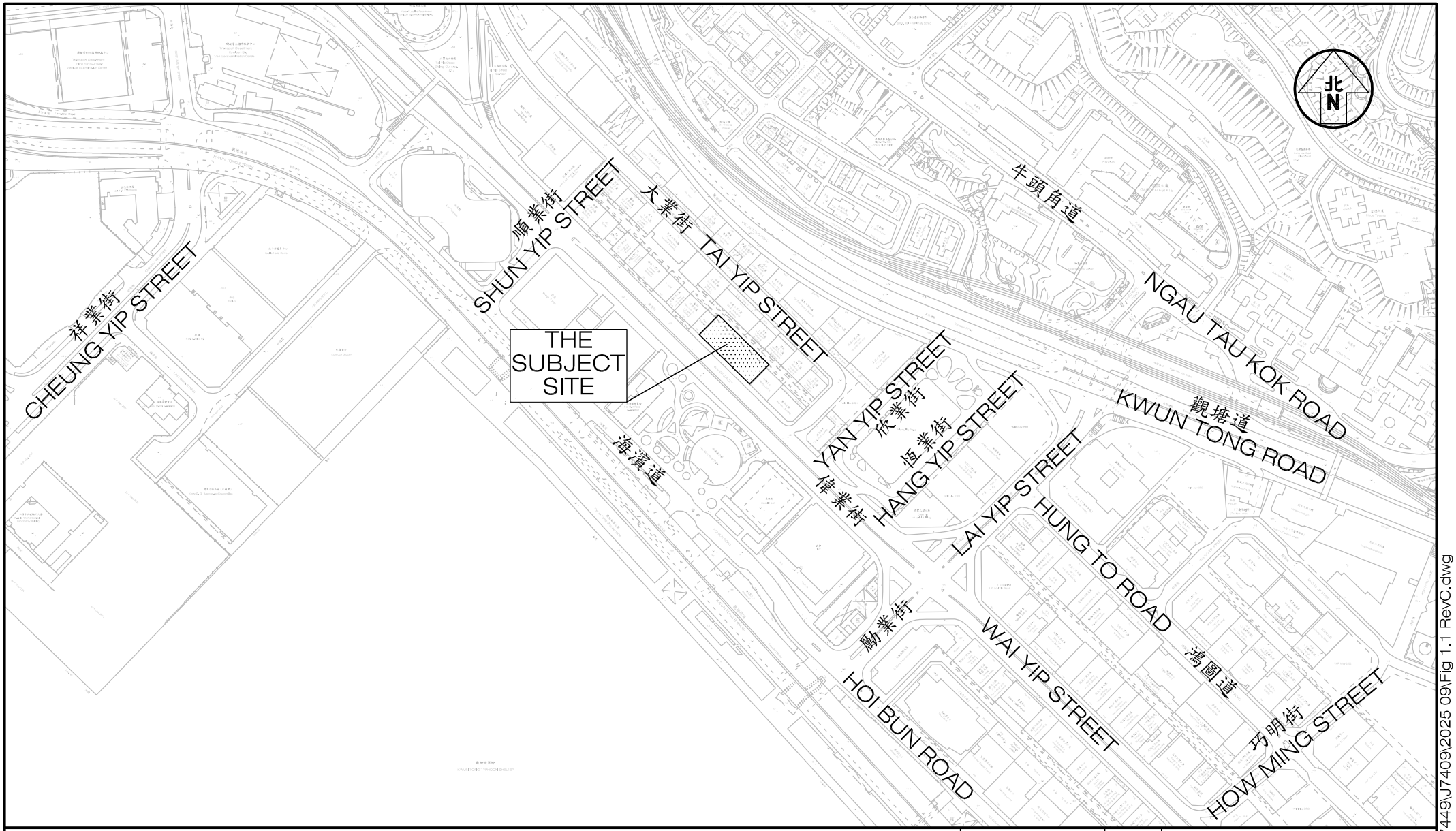
7.5 The Proposed Development is expected to be completed by 2029, and the junction capacity analysis is undertaken for year 2032. For the design year 2032, the junctions analysed are expected to operate with capacities during the peak hours for the case without and with the Proposed Development.

7.6 With implementation of increased PM peak cycle time at J2 - Wai Yip Street / Shun Yip Street, all junctions analysed for the sensitivity test have sufficient capacity to accommodate the expected traffic flow in the 2032 and the traffic generated by the Proposed Development.

7.7 The pedestrian assessment conducted found that the surveyed footpaths and waiting area of the pedestrian crossing would operate with LOS A to C in 2032 for the cases without and with the Proposed Development.

7.8 It is concluded that the Proposed Development will result in no adverse traffic impact to the surrounding road network.

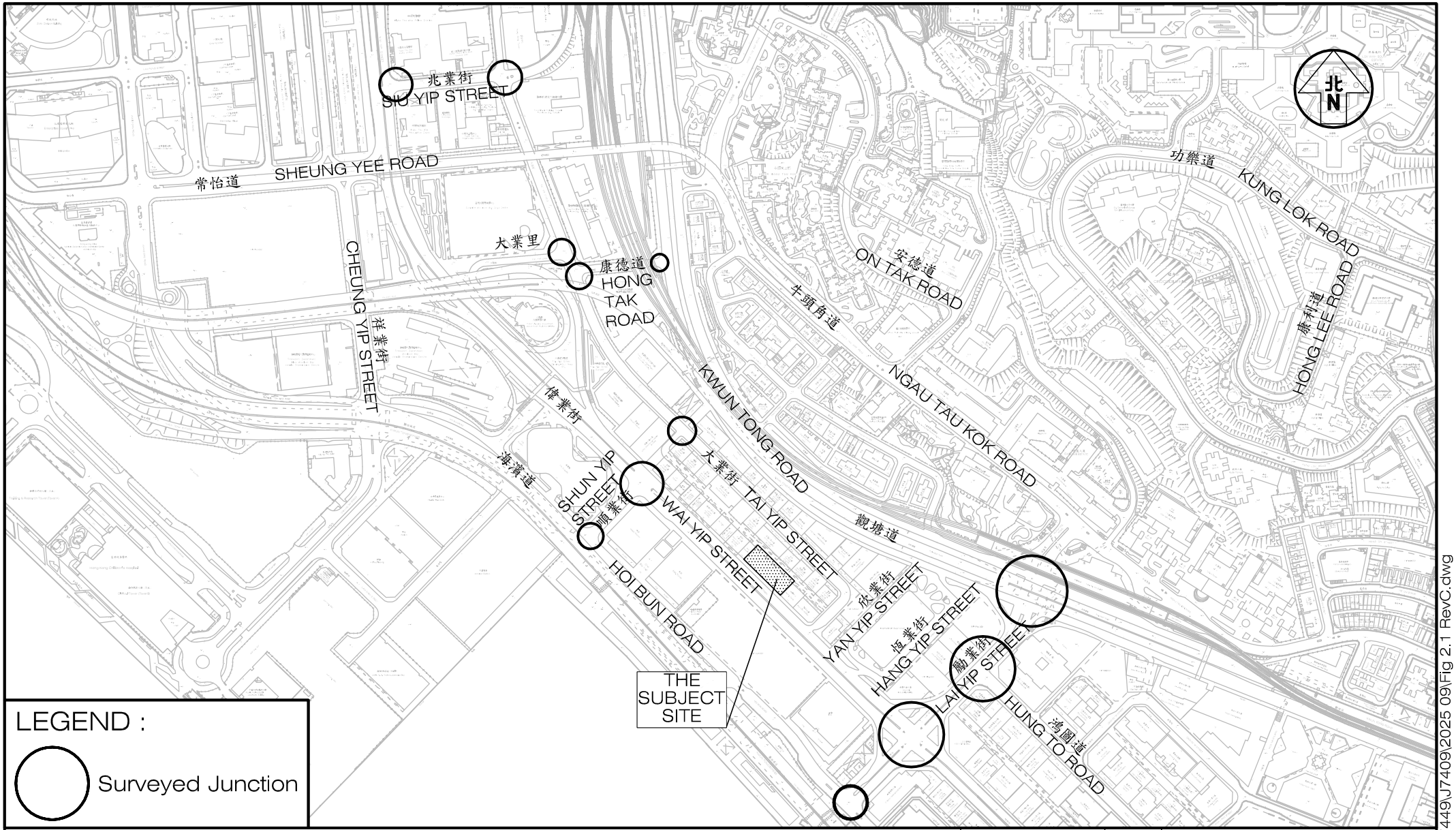
Figures



Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON	J7409	Figure No. 1.1	Revision C
Figure Title: LOCATION OF THE SUBJECT SITE		Designed by C Y Y / Drawn by N C M / Checked by K C	
		Scale in A4 1 : 4000 / Date 19 SEP 2025	

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 1.1 RevC.dwg



Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title

LOCATION OF THE SURVEYED JUNCTIONS

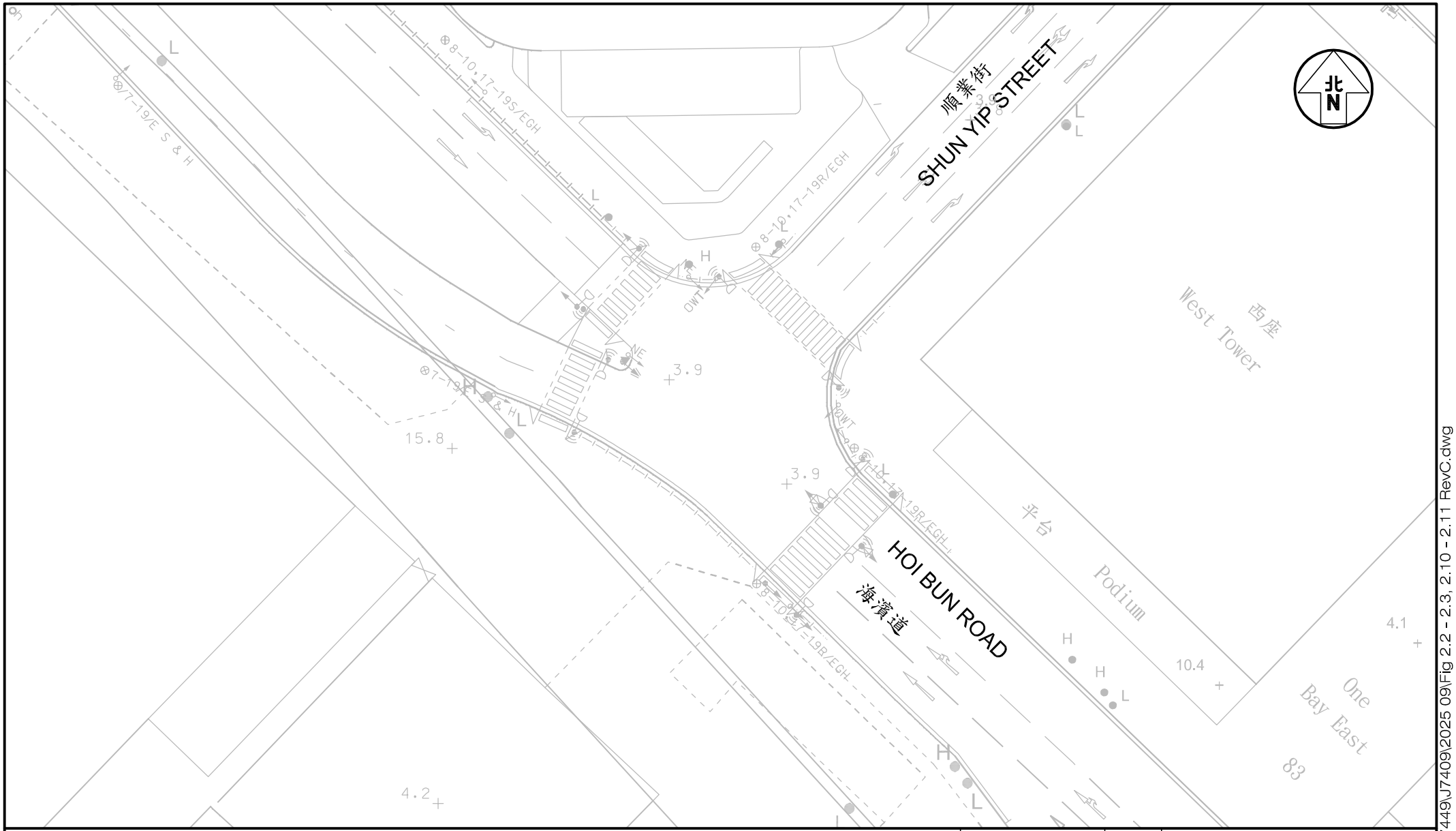
Figure No.	Revision
2.1	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4	Date
1 : 5500	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 2.1 RevC.dwg



Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title

LAYOUT OF JUNCTION OF HOI BUN ROAD / SHUN YIP STREET

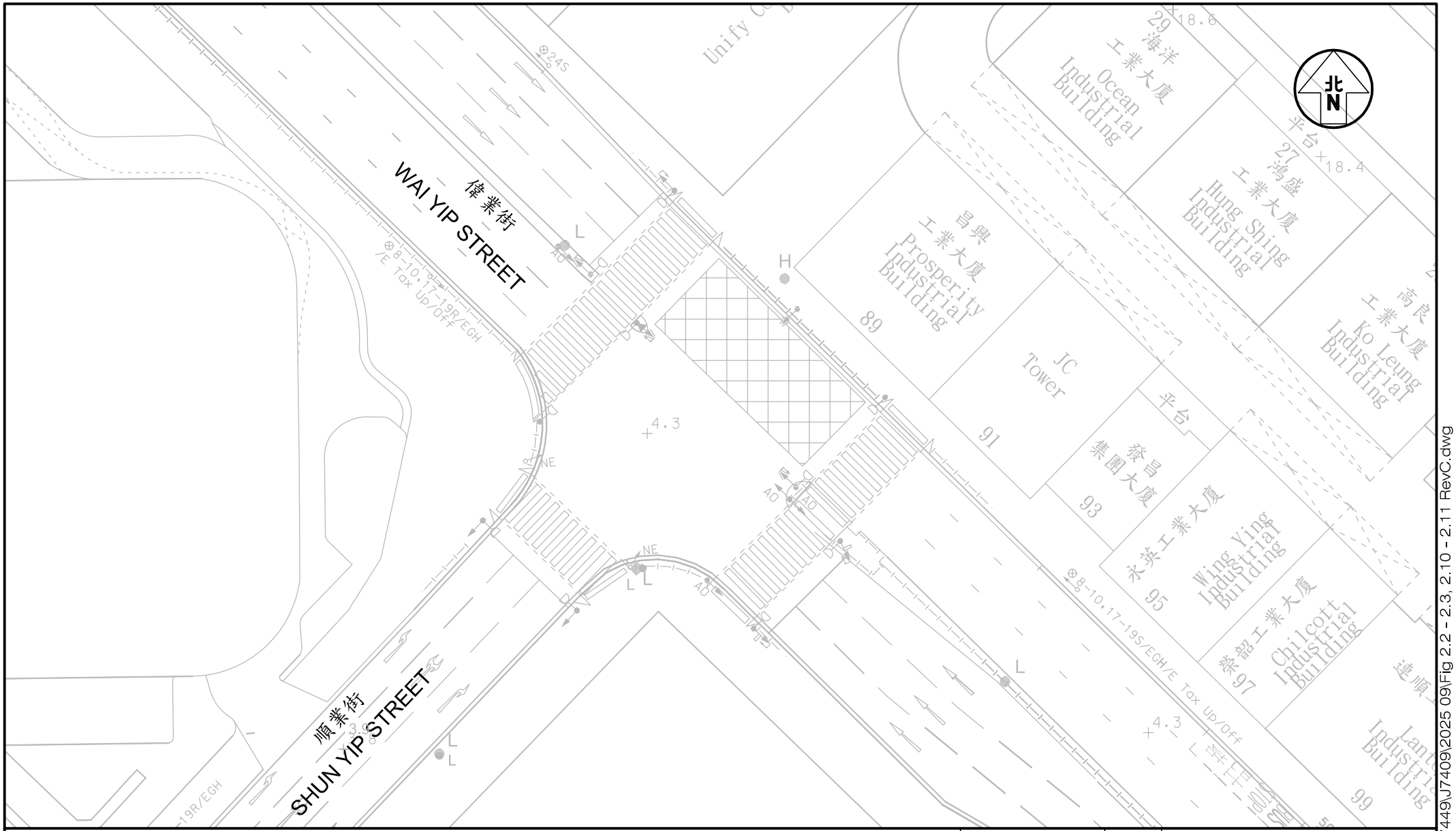
Figure No.	Revision
2.2	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4	Date
1 : 500	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 2.2 - 2.3, 2.10 - 2.11 RevC.dwg



Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title

LAYOUT OF JUNCTION OF WAI YIP STREET / SHUN YIP STREET

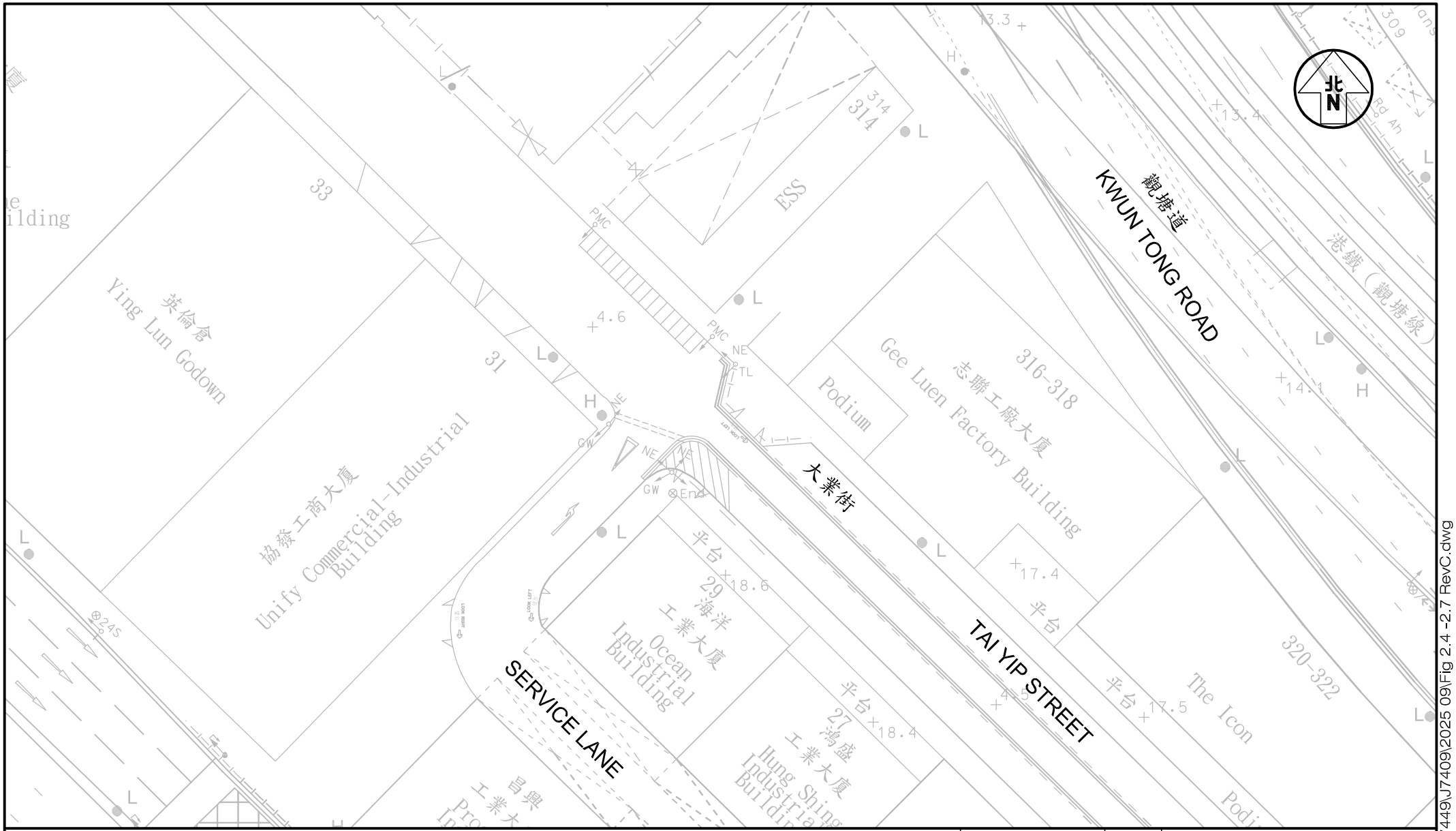
Figure No.	Revision
2.3	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4	Date
1 : 500	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

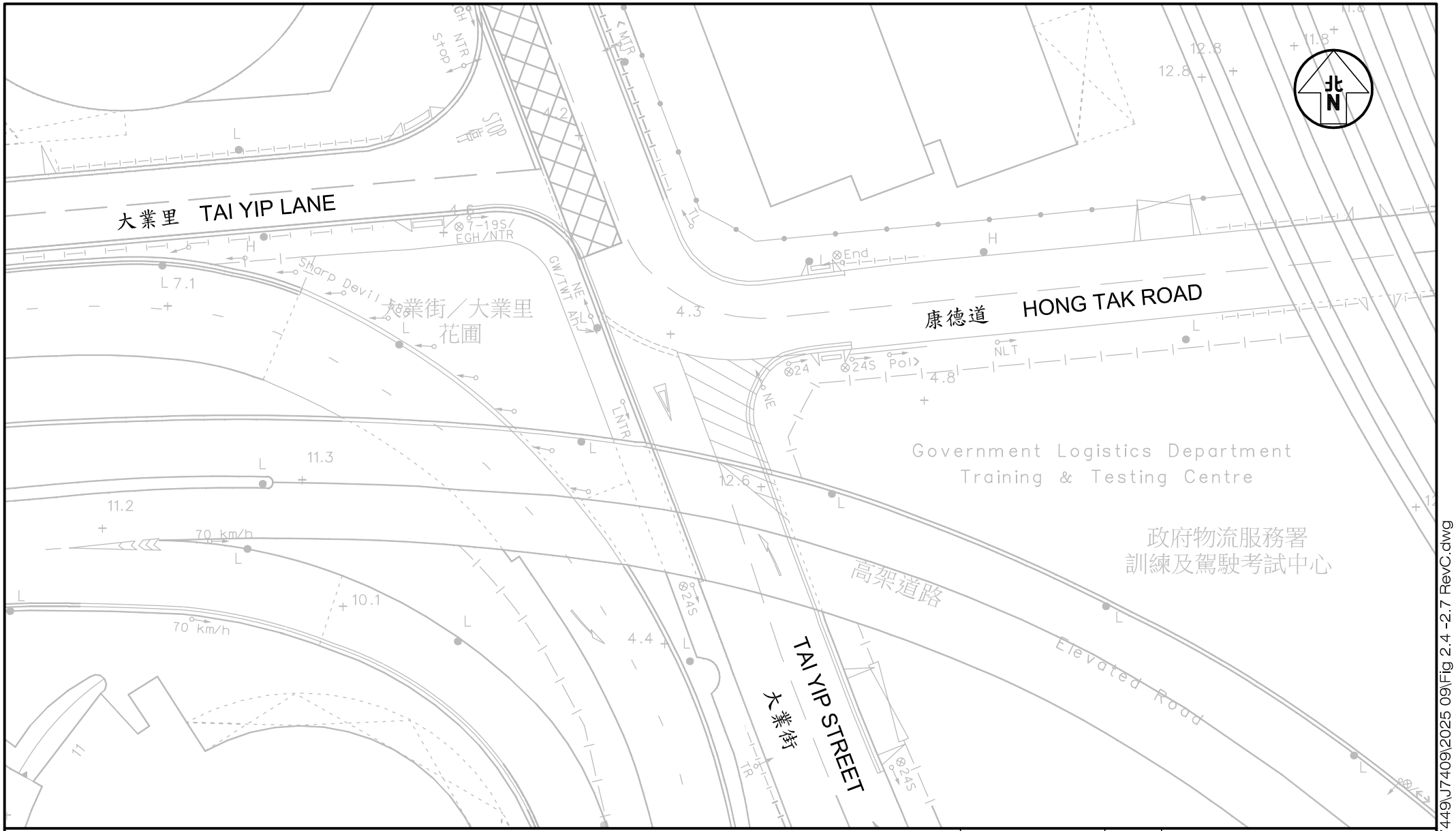
T:\JOB\J7400-J7449\J7409\2025 09\Fig 2.2 - 2.3, 2.10 - 2.11 RevC.dwg



Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON	J7409	
Figure Title	LAYOUT OF JUNCTION OF TAI YIP STREET / SERVICE LANE	Figure No. 2.4	Revision C
		Designed by C Y Y / Drawn by N C M / Checked by K C	
		Scale in A4 1 : 500 / Date 19 SEP 2025	

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 2.4 -2.7 RevC.dwg



Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title

LAYOUT OF JUNCTION OF HONG TAK ROAD / TAI YIP STREET

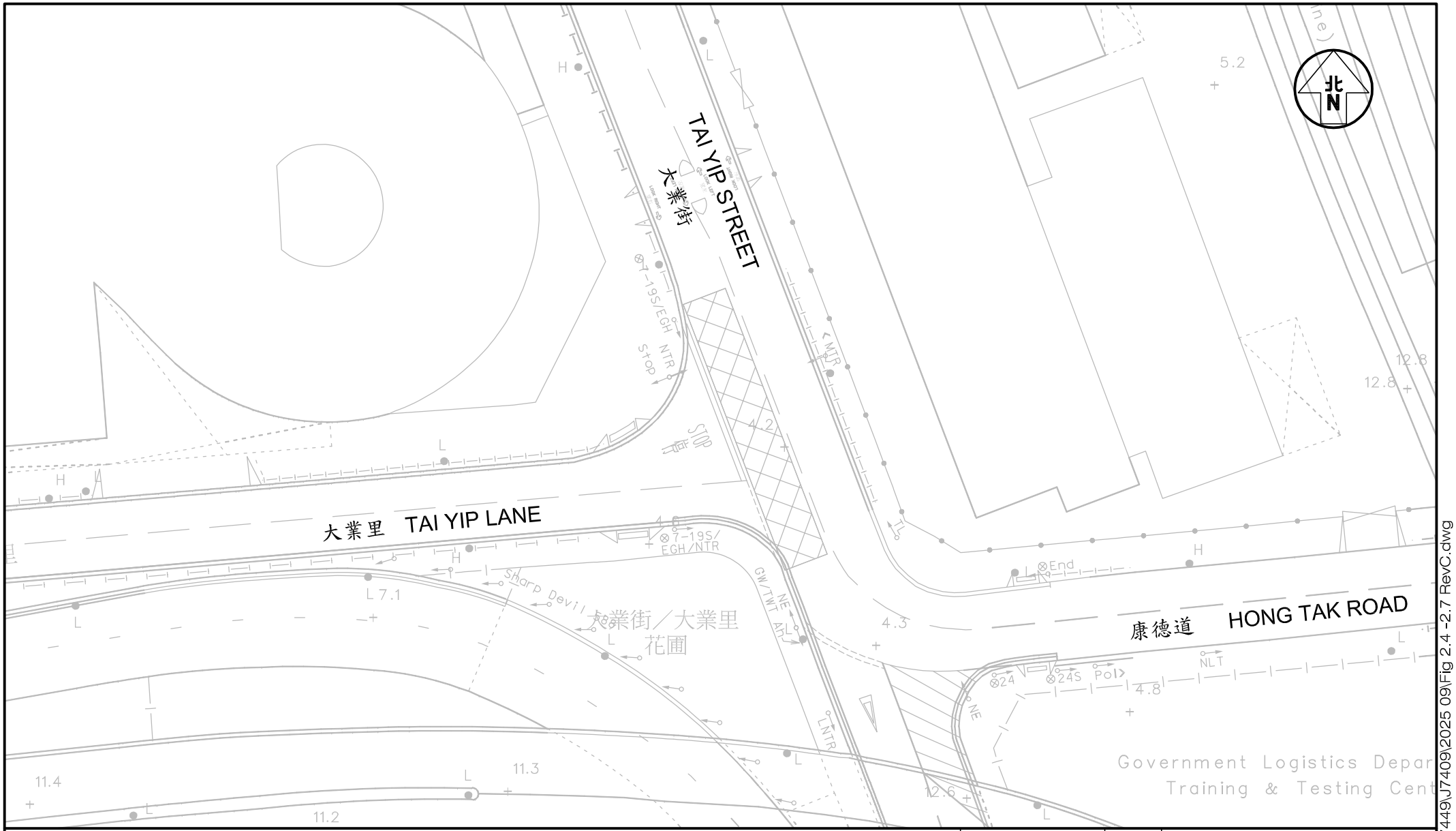
Figure No.	Revision
2.5	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4	Date
1 : 500	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 2.4 -2.7 RevC.dwg



Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title

LAYOUT OF JUNCTION OF TAI YIP STREET / TAI YIP LANE

Figure No.	Revision
2.6	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4	Date
1 : 500	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 2.4 -2.7 RevC.dwg

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title

LAYOUT OF JUNCTION OF KWUN TONG ROAD / HONG TAK ROAD

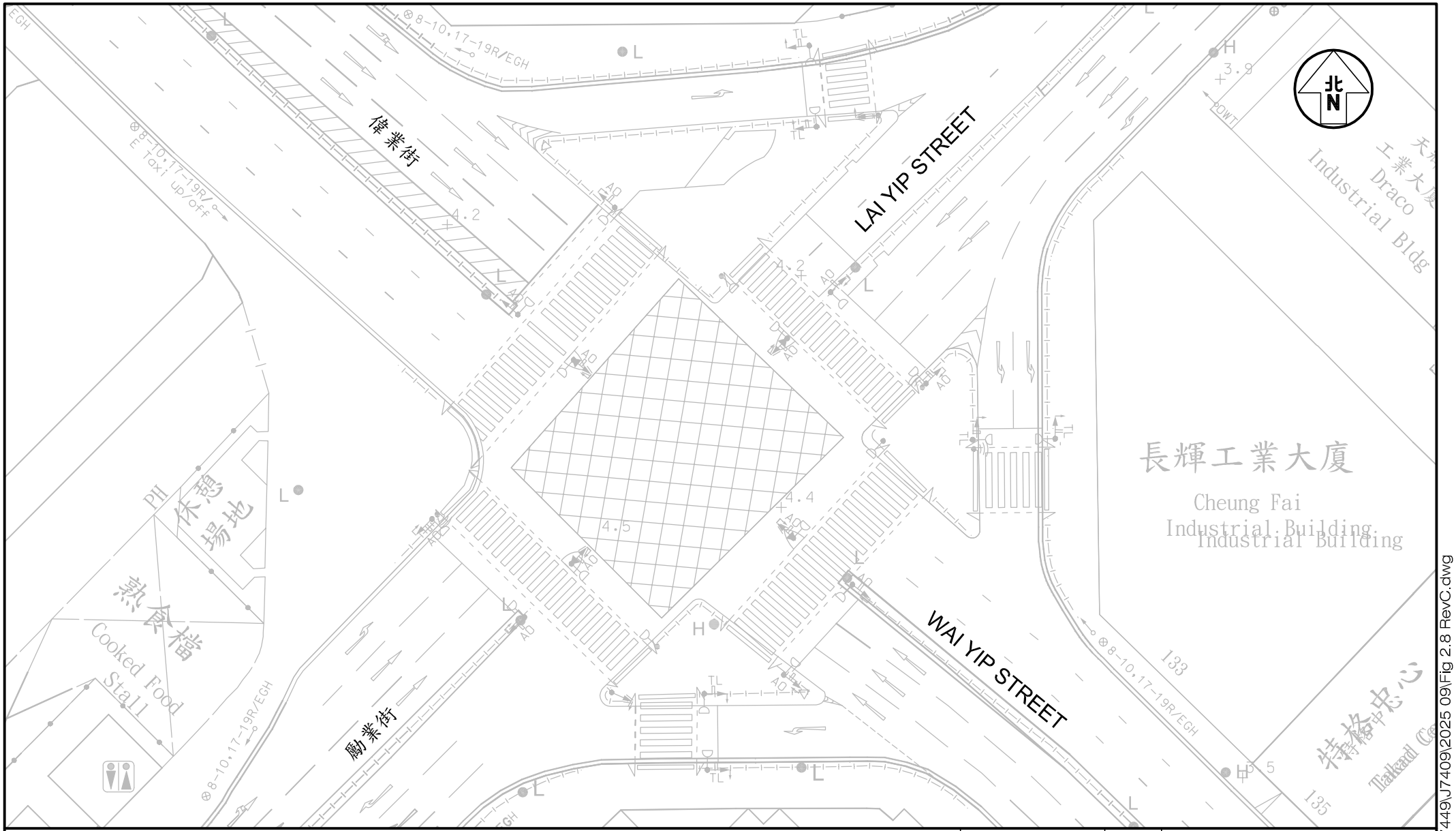
Figure No.	Revision
2.7	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4	Date
1 : 500	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 2.4 -2.7 RevC.dwg



Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure No.: 2.8

Revision: C

Figure Title

LAYOUT OF JUNCTION OF WAI YIP STREET / LAI YIP STREET

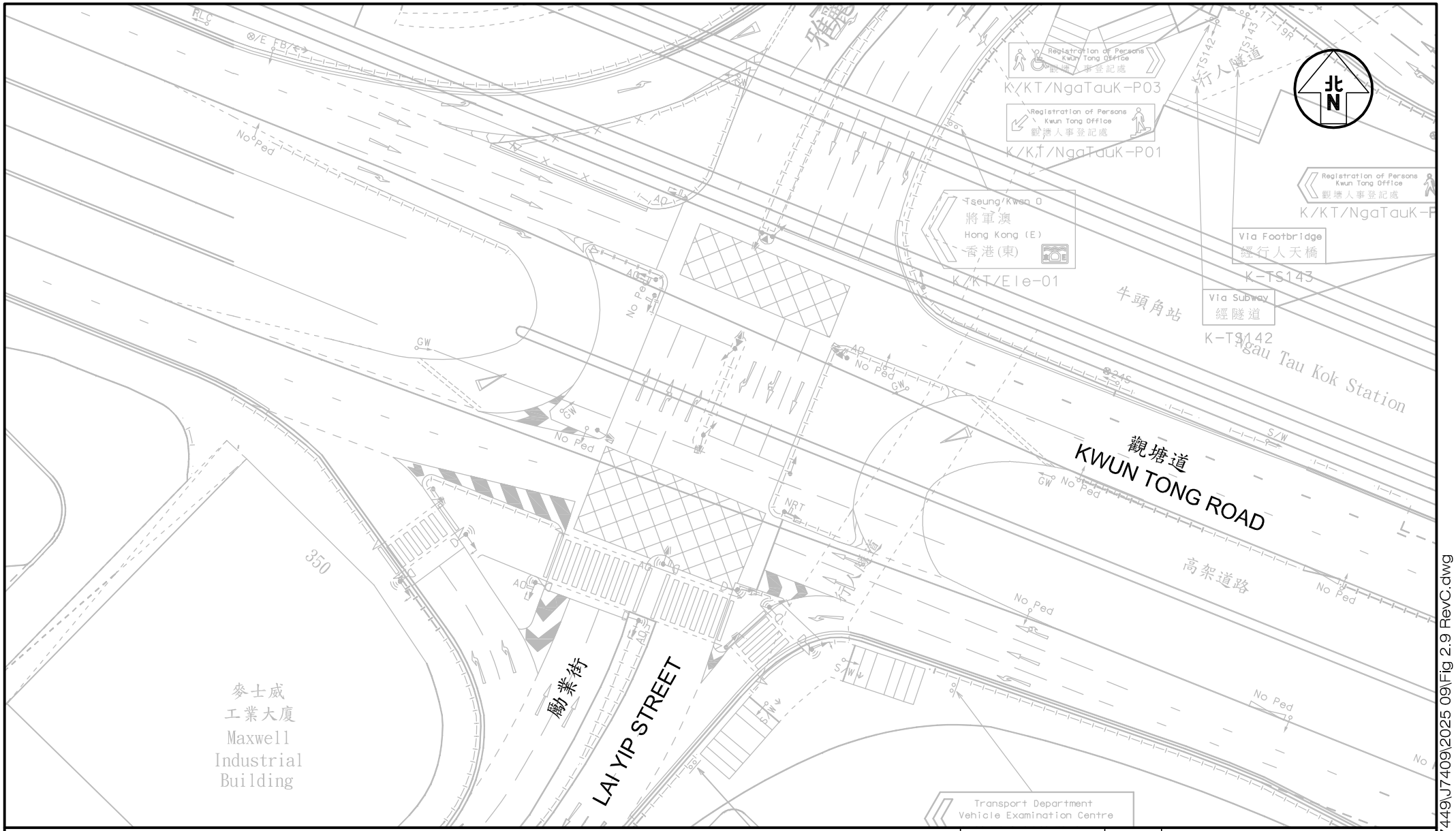
Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4: 1 : 500

Date: 19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

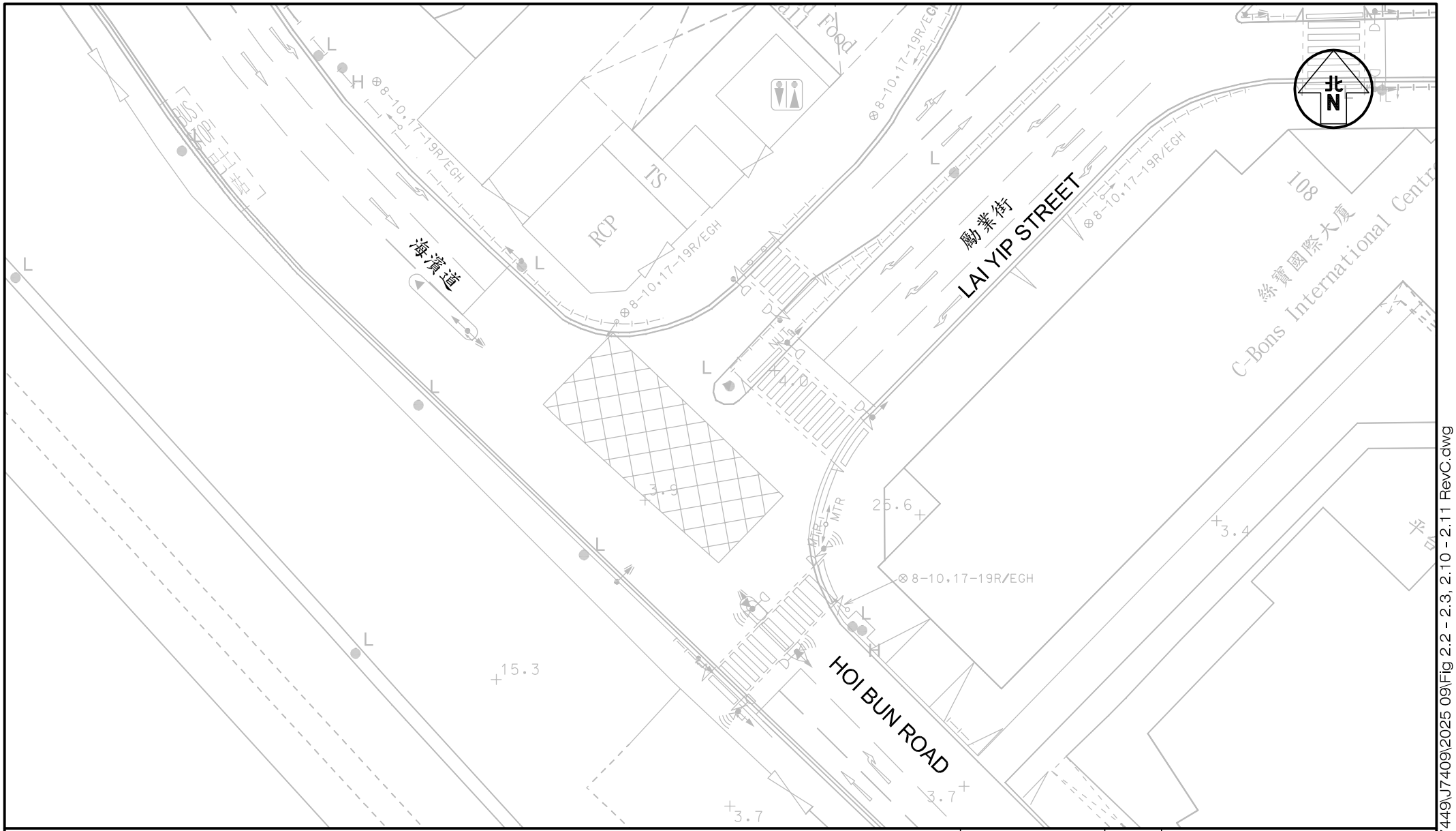
T:\JOB\J7400-J7449\J7409\2025 09\Fig 2.8 RevC.dwg



Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON	J7409	Figure No. 2.9 / Revision C
Figure Title	LAYOUT OF JUNCTION OF KWUN TONG ROAD / LAI YIP STREET	Designed by C Y Y / Drawn by N C M / Checked by K C	Scale in A4 1 : 600 / Date 19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 2.9 RevC.dwg



Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title

LAYOUT OF JUNCTION OF HOI BUN ROAD / LAI YIP STREET

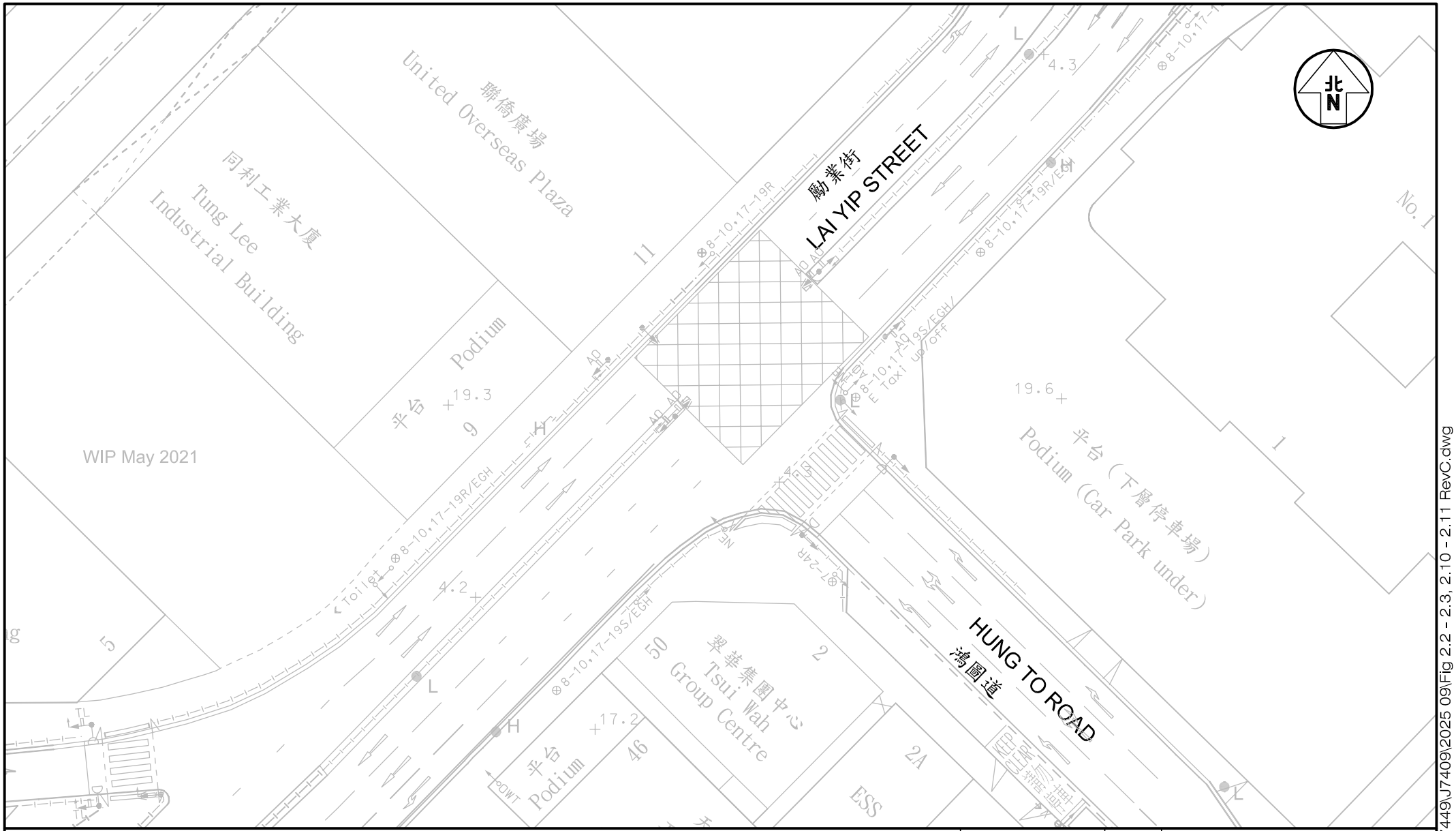
Figure No.	Revision
2.10	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4	Date
1 : 500	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 2.2 - 2.3, 2.10 - 2.11 RevC.dwg



Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON	J7409	Figure No. 2.11 / Revision C
Figure Title	LAYOUT OF JUNCTION OF LAI YIP STREET / HUNG TO ROAD	Designed by C Y Y / Drawn by N C M / Checked by K C	Scale in A4 1 : 500 / Date 19 SEP 2025

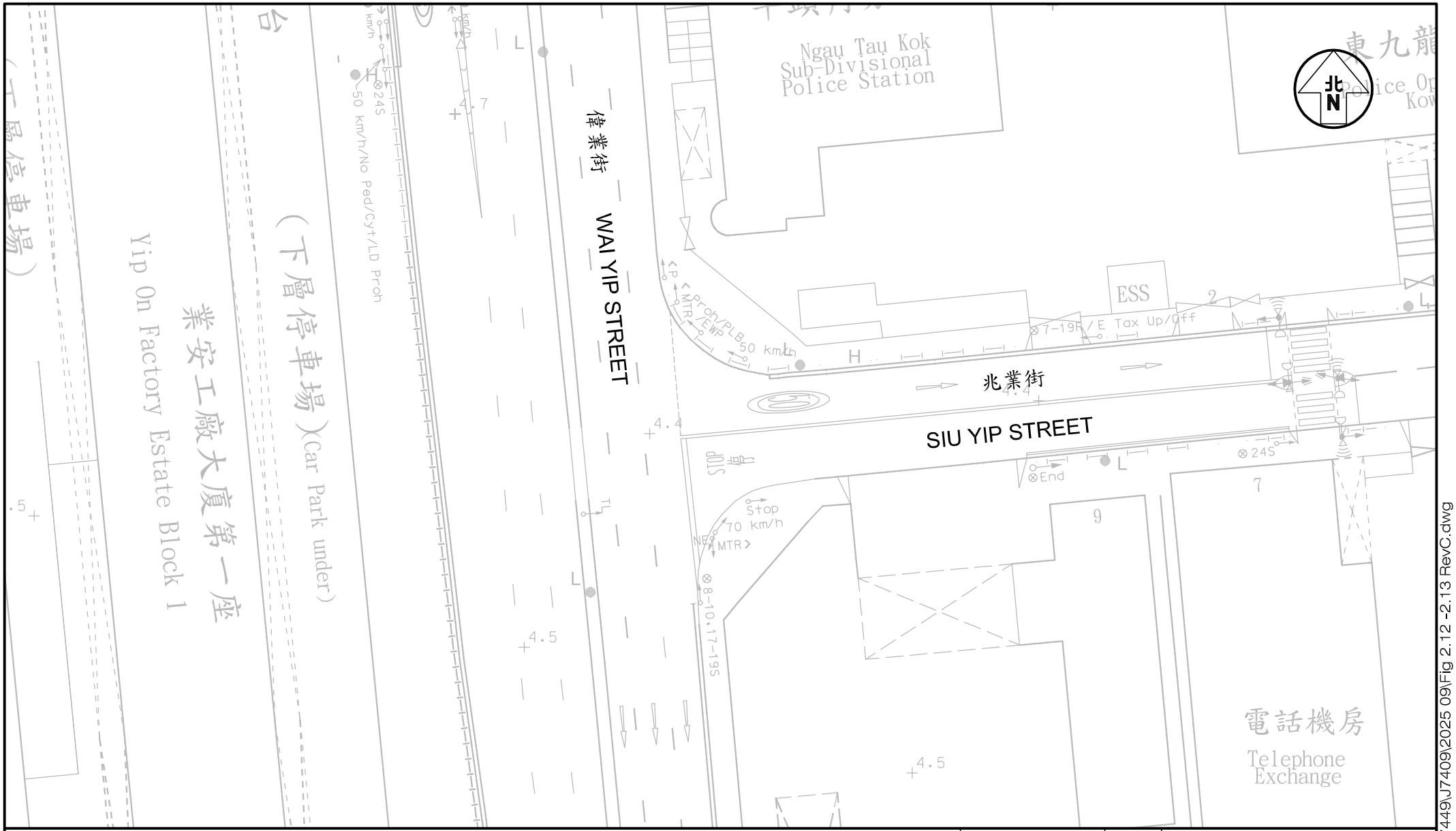
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 2.2 - 2.3, 2.10 - 2.11 RevC.dwg

Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON	J7409	
Figure Title	LAYOUT OF JUNCTION OF TAI YIP STREET / SIU YIP STREET	Figure No. 2.12	Revision C
		Designed by C Y Y / Drawn by N C M / Checked by K C	
		Scale in A4 1 : 500 / Date 19 SEP 2025	

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 2.12 -2.13 RevC.dwg



Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure No.: 2.13

Revision: C

Figure Title

LAYOUT OF JUNCTION OF WAI YIP STREET / SIU YIP STREET

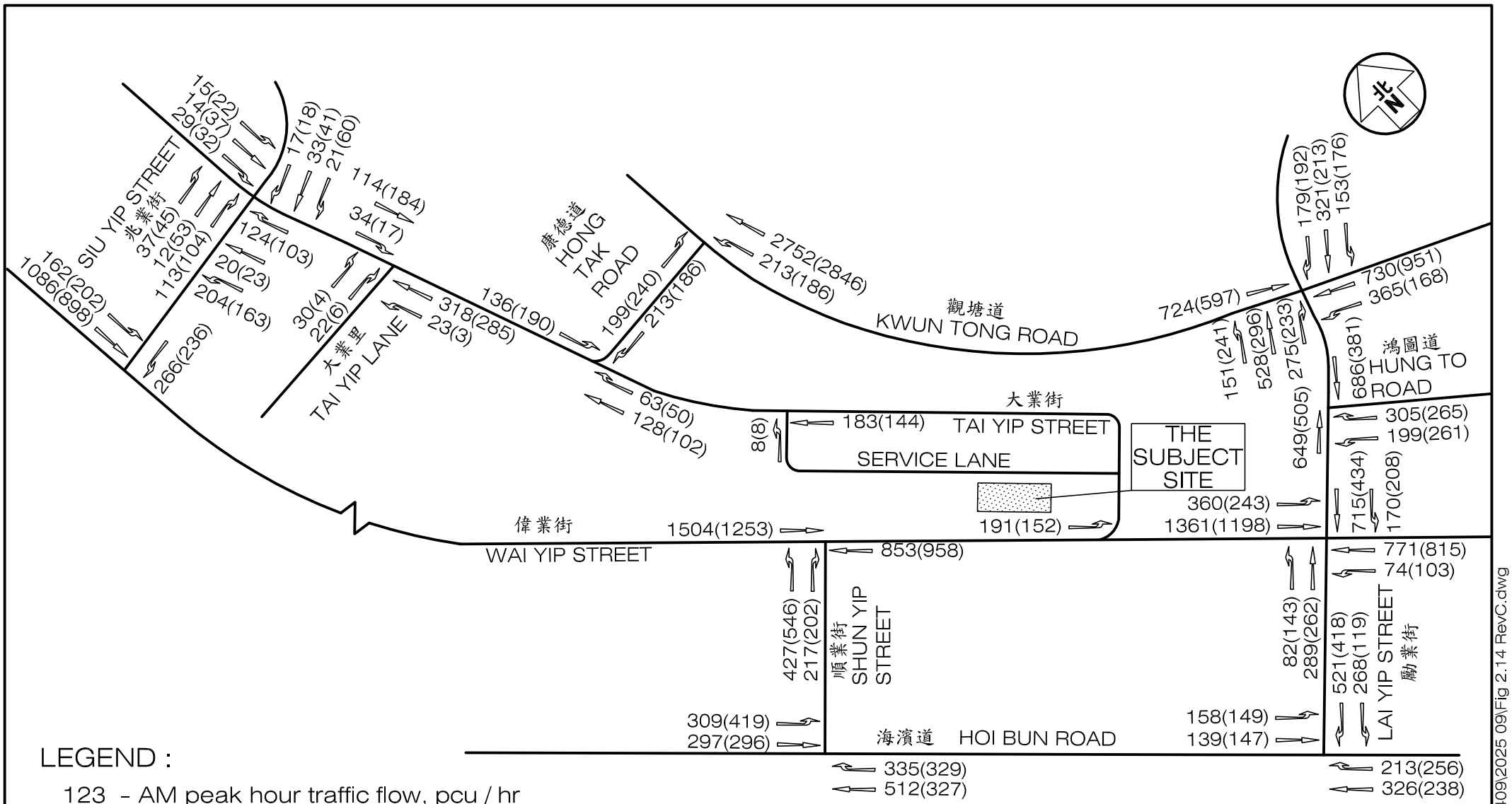
Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4: 1 : 500

Date: 19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 2.12 -2.13 RevC.dwg



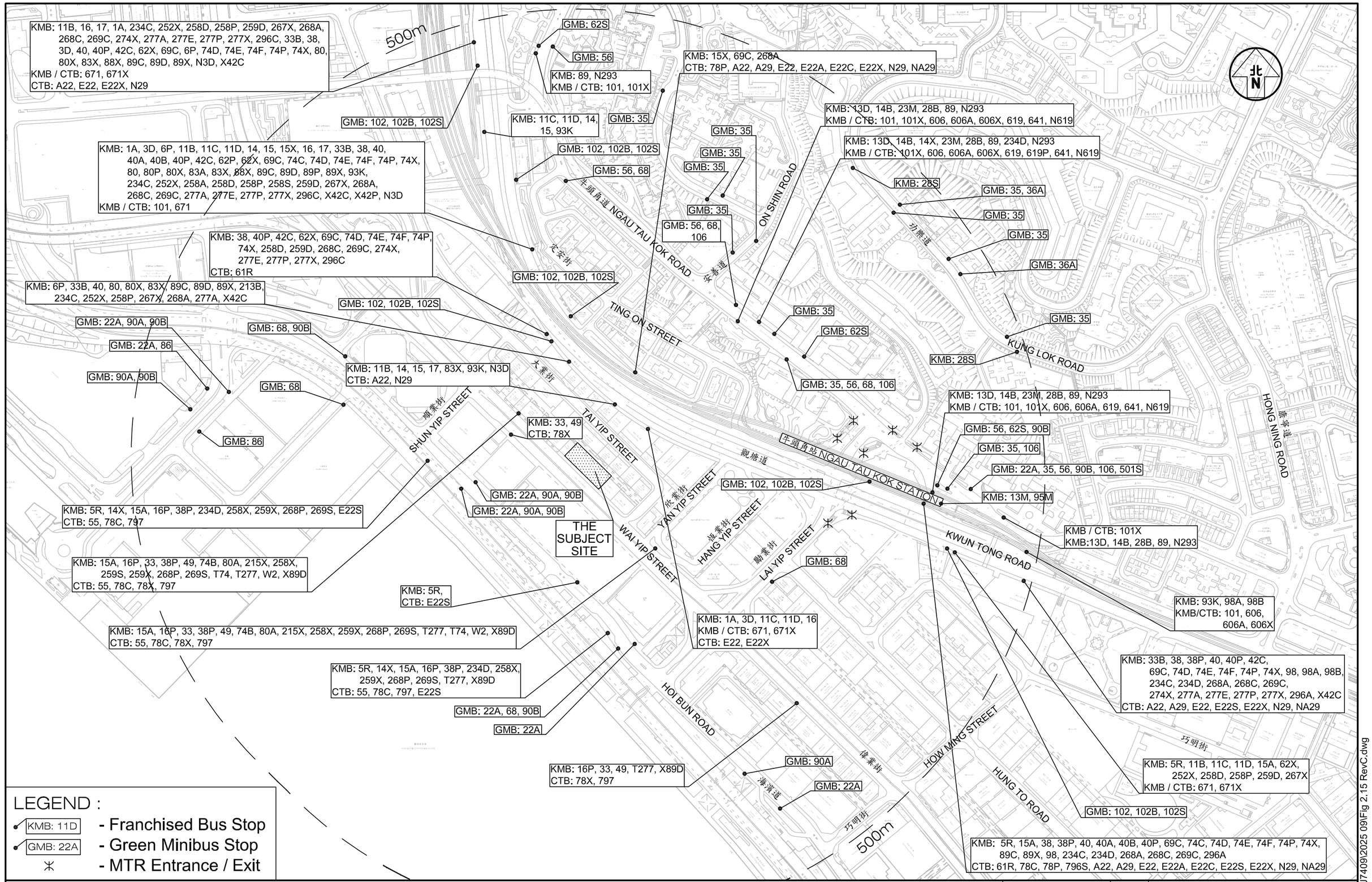
LEGEND :

123 - AM peak hour traffic flow, pcu / hr

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

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON J7409	Figure No. 2.14	Revision C	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
Figure Title: 2025 PEAK HOUR TRAFFIC FLOWS	Designed by C Y Y / Drawn by N C M / Checked by K C		
	Scale in A4 N.T.S.	Date 19 SEP 2025	

T:\JOB\J7400-J7449\J7409\2025 09\Fig 2.14 RevC.dwg



Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure No. 2.15

Revision C

Figure Title

THE PUBLIC TRANSPORT SERVICES PROVIDED IN THE VICINITY OF THE SUBJECT SITE

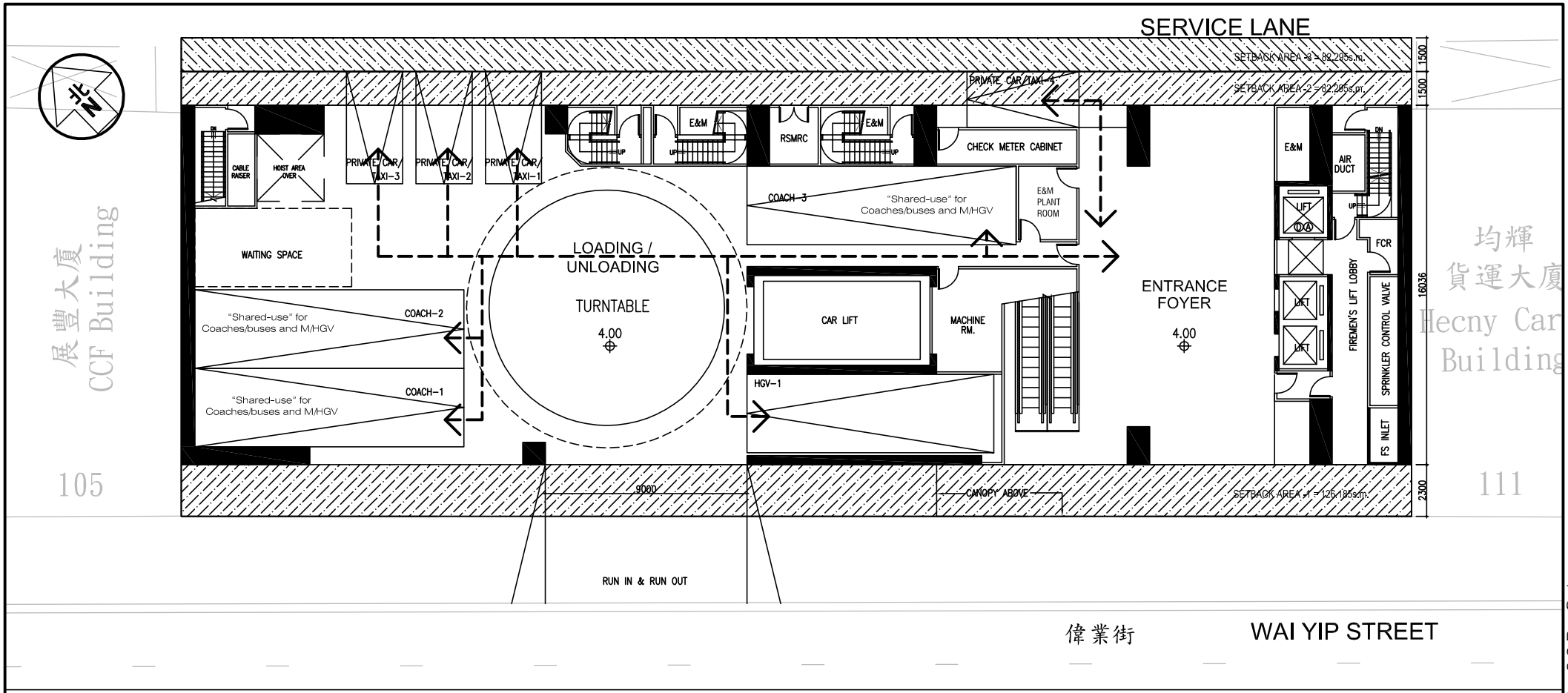
Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A3: 1 : 4000

Date: 19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 2.15 RevC.dwg



LEGEND :

"Shared-use" for Coaches/buses and M/HGV Layby
@12m(L) X 3.5m(W) X 4.7m(H)

HGV loading / unloading bay
@11m(L) X 3.5m(W) X 4.7m(H)

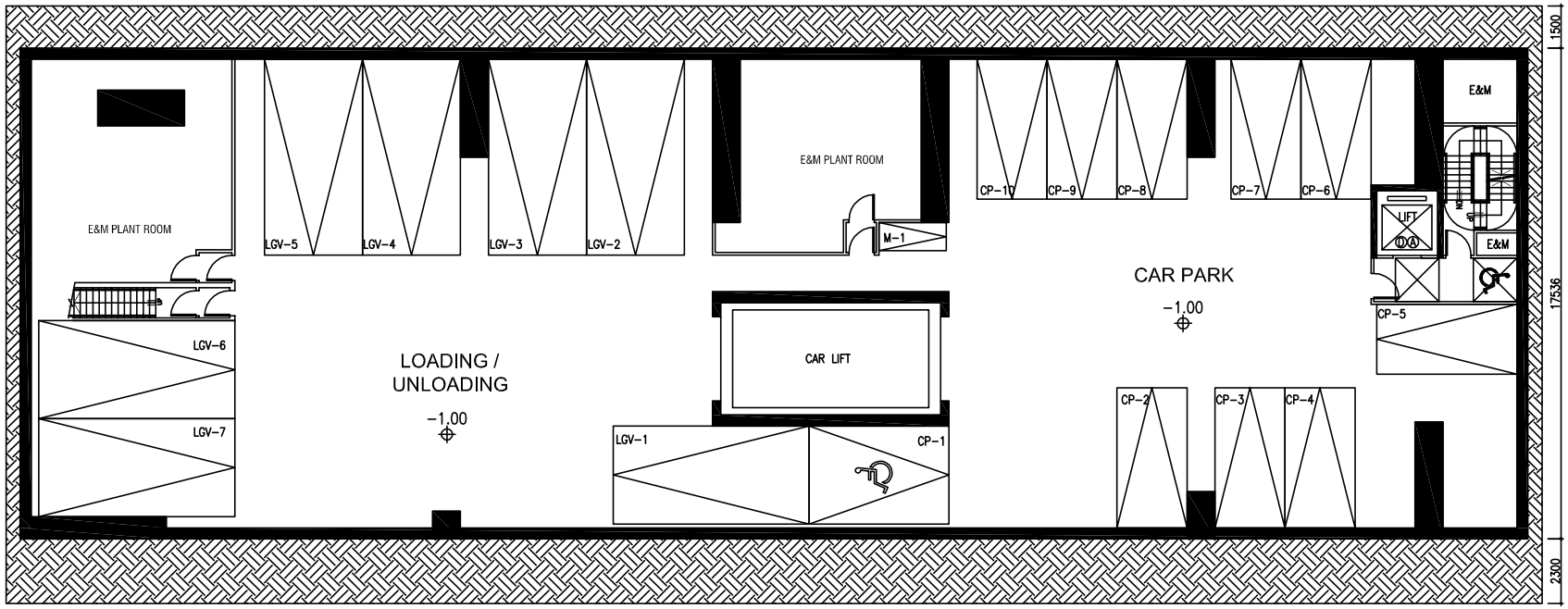
Taxi and private car layby
@5m(L) X 2.5m(W) X 2.4m(H)

The passenger routes to / from the proposed taxi / private car pick-up / drop-off points & goods delivery routes

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON	J7409	Figure No. 3.1	Revision C
Figure Title: G/F LAYOUT PLAN		Designed by C Y Y / Drawn by N C M / Checked by K C	
		Scale in A4 1 : 250 / Date 19 SEP 2025	

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 3.1 - 3.2 RevC.dwg



LEGEND :

LGV-1 — LGV loading / unloading bay @7m(L) X 3.5m(W) X 3.6m(H)

CP-1 — Accessible car parking space @5m(L) X 3.5m(W) X 2.4m(H)

CP-2 — Private car parking space @5m(L) X 2.5m(W) X 2.4m(H)

M-1 — Motorcycle parking space @2.4m(L) X 1m(W) X 2.4m(H)

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure No. 3.2

Revision C

Figure Title: B1/F LAYOUT PLAN

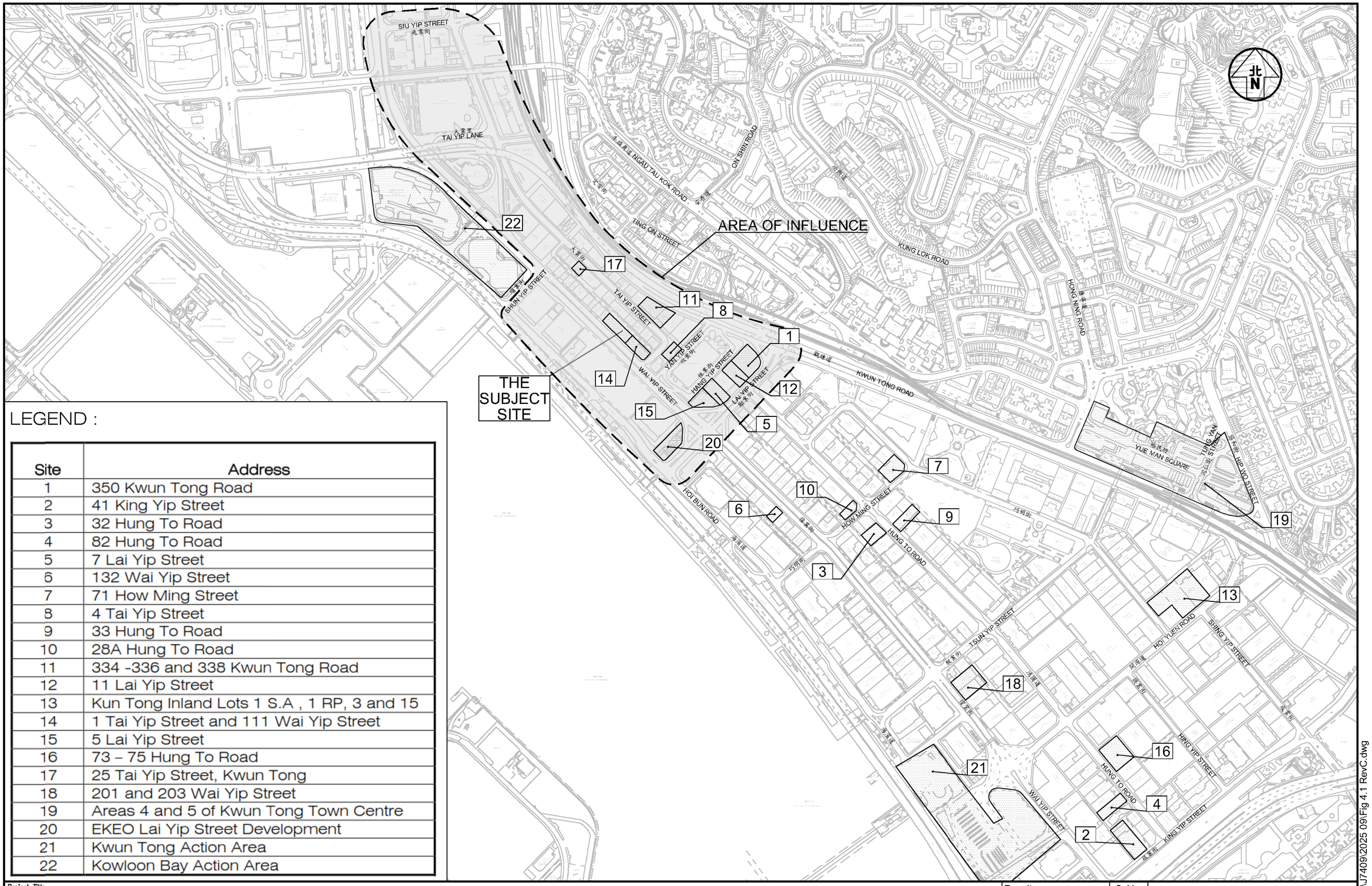
Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4: 1 : 250

Date: 19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 3.1 - 3.2 RevC.dwg



LEGEND :

Site	Address
1	350 Kwun Tong Road
2	41 King Yip Street
3	32 Hung To Road
4	82 Hung To Road
5	7 Lai Yip Street
6	132 Wai Yip Street
7	71 How Ming Street
8	4 Tai Yip Street
9	33 Hung To Road
10	28A Hung To Road
11	334 -336 and 338 Kwun Tong Road
12	11 Lai Yip Street
13	Kun Tong Inland Lots 1 S.A , 1 RP, 3 and 15
14	1 Tai Yip Street and 111 Wai Yip Street
15	5 Lai Yip Street
16	73 – 75 Hung To Road
17	25 Tai Yip Street, Kwun Tong
18	201 and 203 Wai Yip Street
19	Areas 4 and 5 of Kwun Tong Town Centre
20	EKEO Lai Yip Street Development
21	Kwun Tong Action Area
22	Kowloon Bay Action Area

Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title

LOCATION OF PLANNED DEVELOPMENTS IN THE VICINITY OF THE PROPOSED DEVELOPMENT

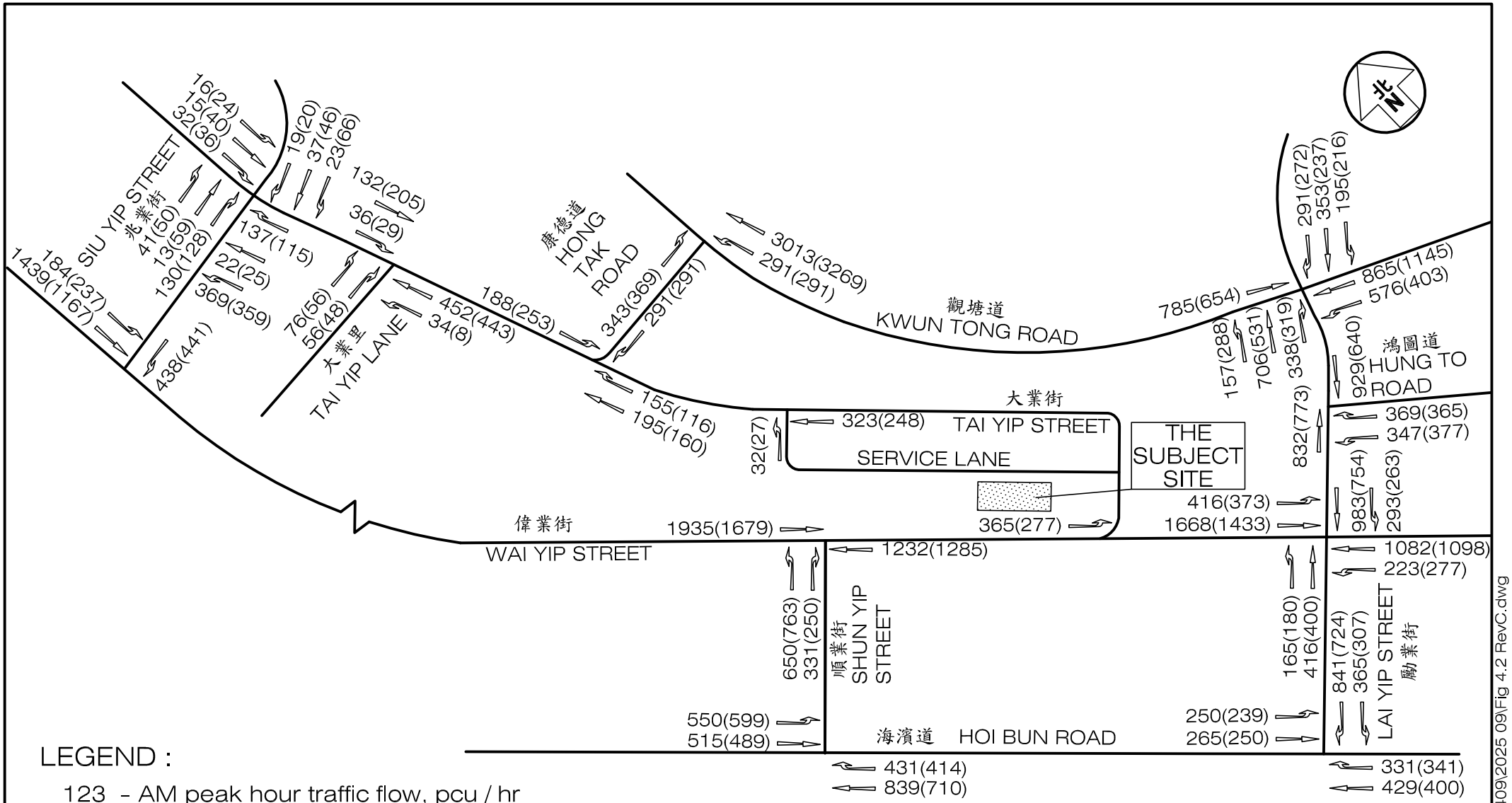
Figure No.	Revision
4.1	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A3	Date
1 : 6000	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 4.1 RevC.dwg



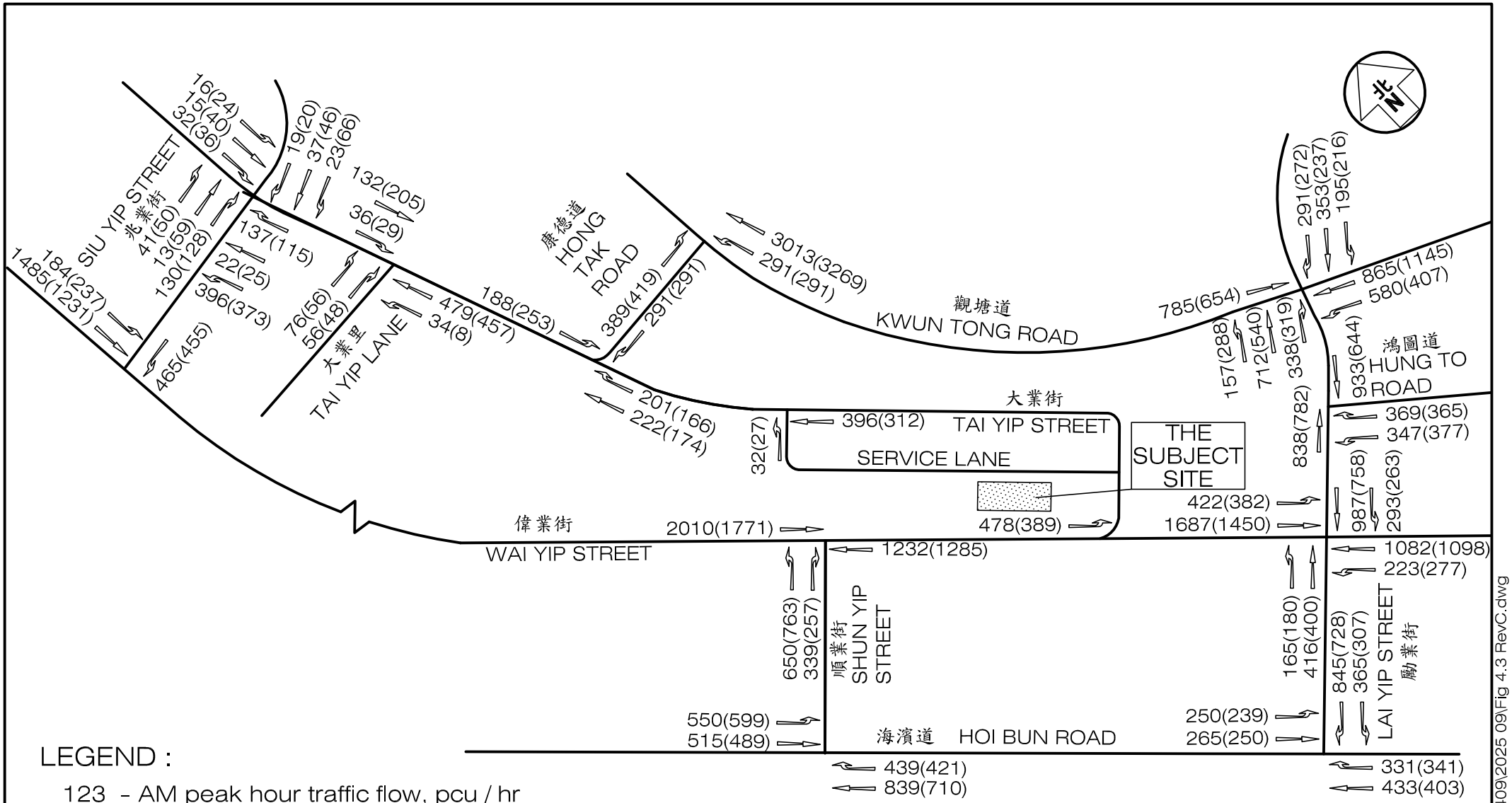
LEGEND :

123 - AM peak hour traffic flow, pcu / hr

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

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON J7409	Figure No. 4.2	Revision C	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
Figure Title: YEAR 2032 PEAK HOUR TRAFFIC FLOWS WITHOUT THE PROPOSED DEVELOPMENT	Designed by C Y Y / Drawn by N C M / Checked by K C		
	Scale in A4 N.T.S.	Date 19 SEP 2025	

T:\JOB\J7400-J7449\J7409\2025 09\Fig 4.2 RevC.dwg



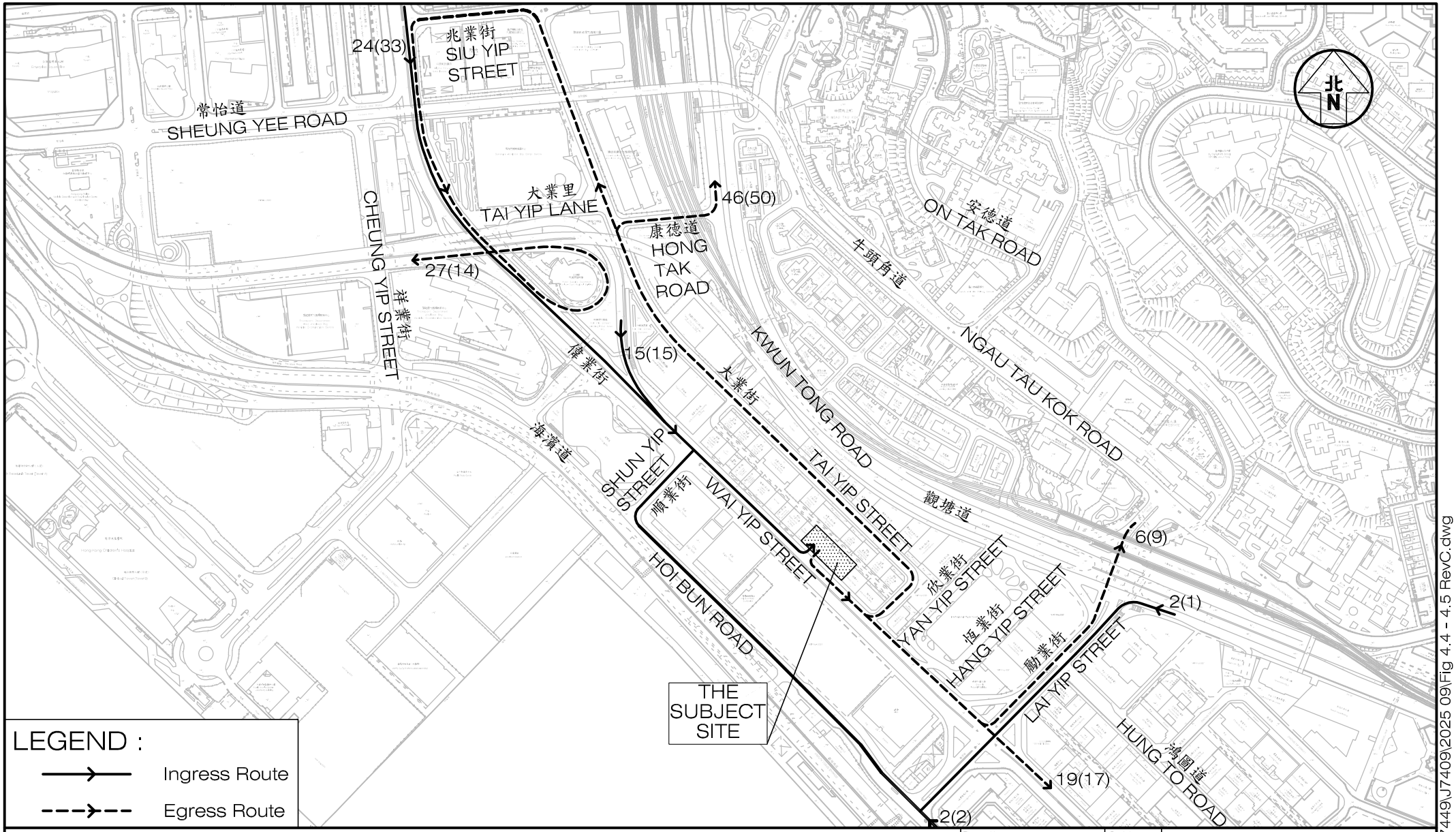
LEGEND :

123 - AM peak hour traffic flow, pcu / hr

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

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON J7409	Figure No. 4.3	Revision C	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
Figure Title: YEAR 2032 PEAK HOUR TRAFFIC FLOWS WITH THE PROPOSED DEVELOPMENT	Designed by C Y Y / Drawn by N C M / Checked by K C		
	Scale in A4 N.T.S.	Date 19 SEP 2025	

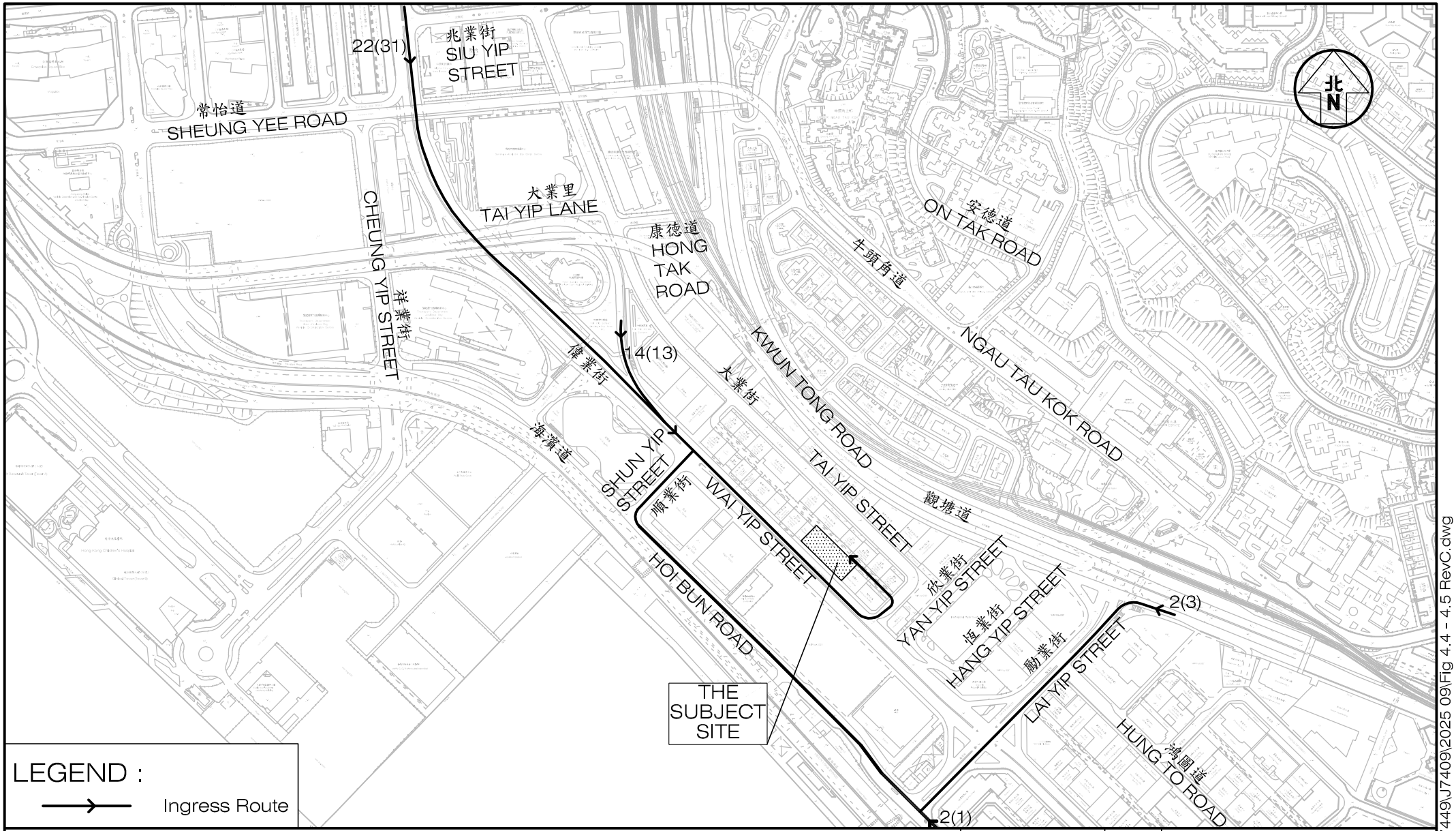
T:\JOB\J7400-J7449\J7409\2025 09\Fig 4.3 RevC.dwg



Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON	J7409	Figure No. 4.4 / Revision C
Figure Title	THE INGRESS / EGRESS ROUTE FOR TRAFFIC GENERATED BY THE PROPOSED DEVELOPMENT (VIA WAI YIP STREET)	Designed by C Y Y / Drawn by N C M / Checked by K C	Scale in A4 1 : 5000 / Date 19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOBJ\J7400-J7449\J7409\2025 09\Fig 4.4 - 4.5 RevC.dwg



Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title

THE INGRESS ROUTE FOR TRAFFIC GENERATED BY THE PROPOSED DEVELOPMENT (VIA THE SERVICE LANE)

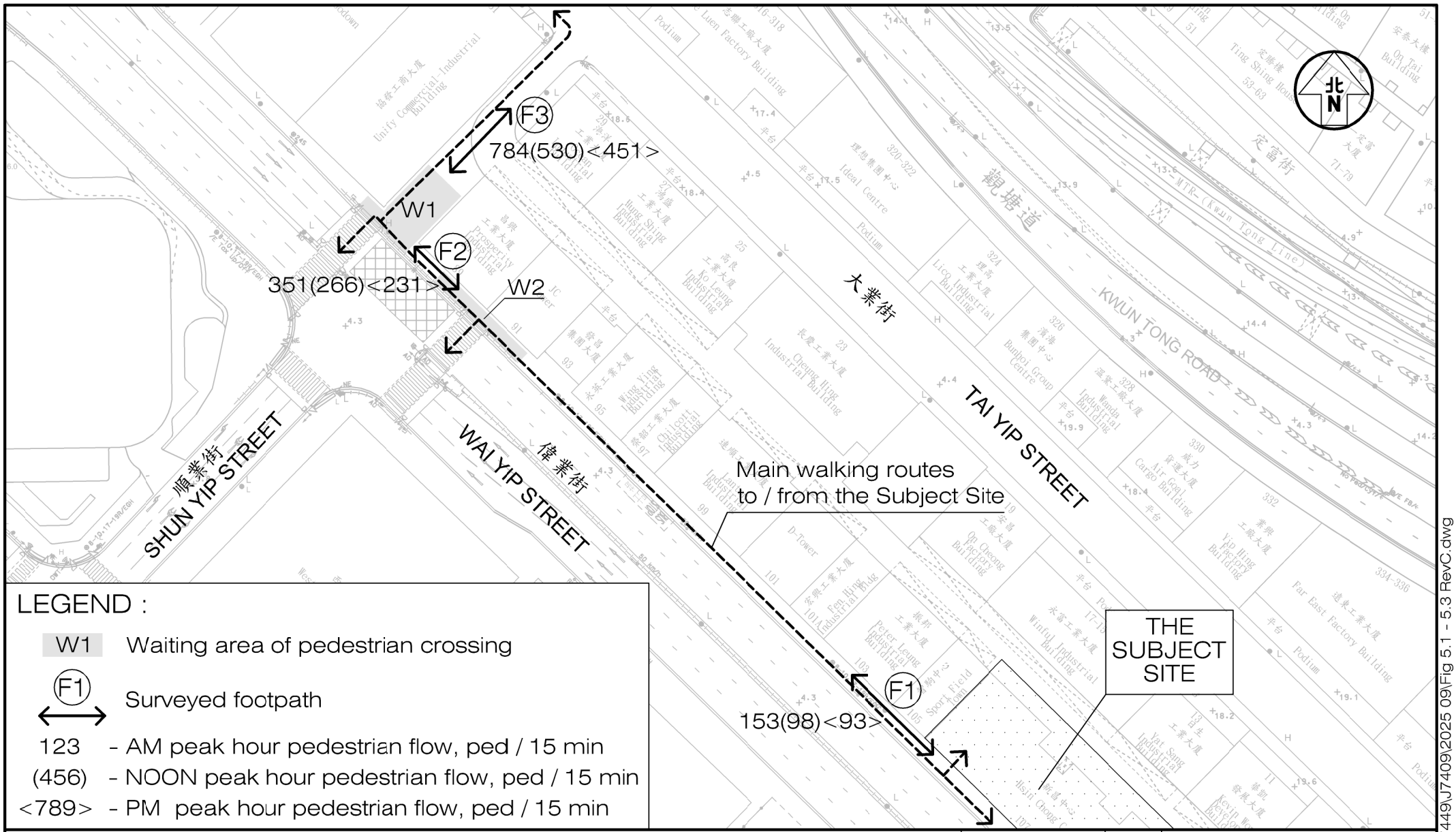
Figure No.	Revision
4.5	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4	Date
1 : 5000	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOBJ\J7400-J7449\J7409\2025 09\Fig 4.4 - 4.5 RevC.dwg



Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure No.: 5.1

Revision: C

Figure Title

OBSERVED EXISTING PEDESTRIAN FLOWS AND MAIN WALKING ROUTES TO / FROM THE SUBJECT SITE

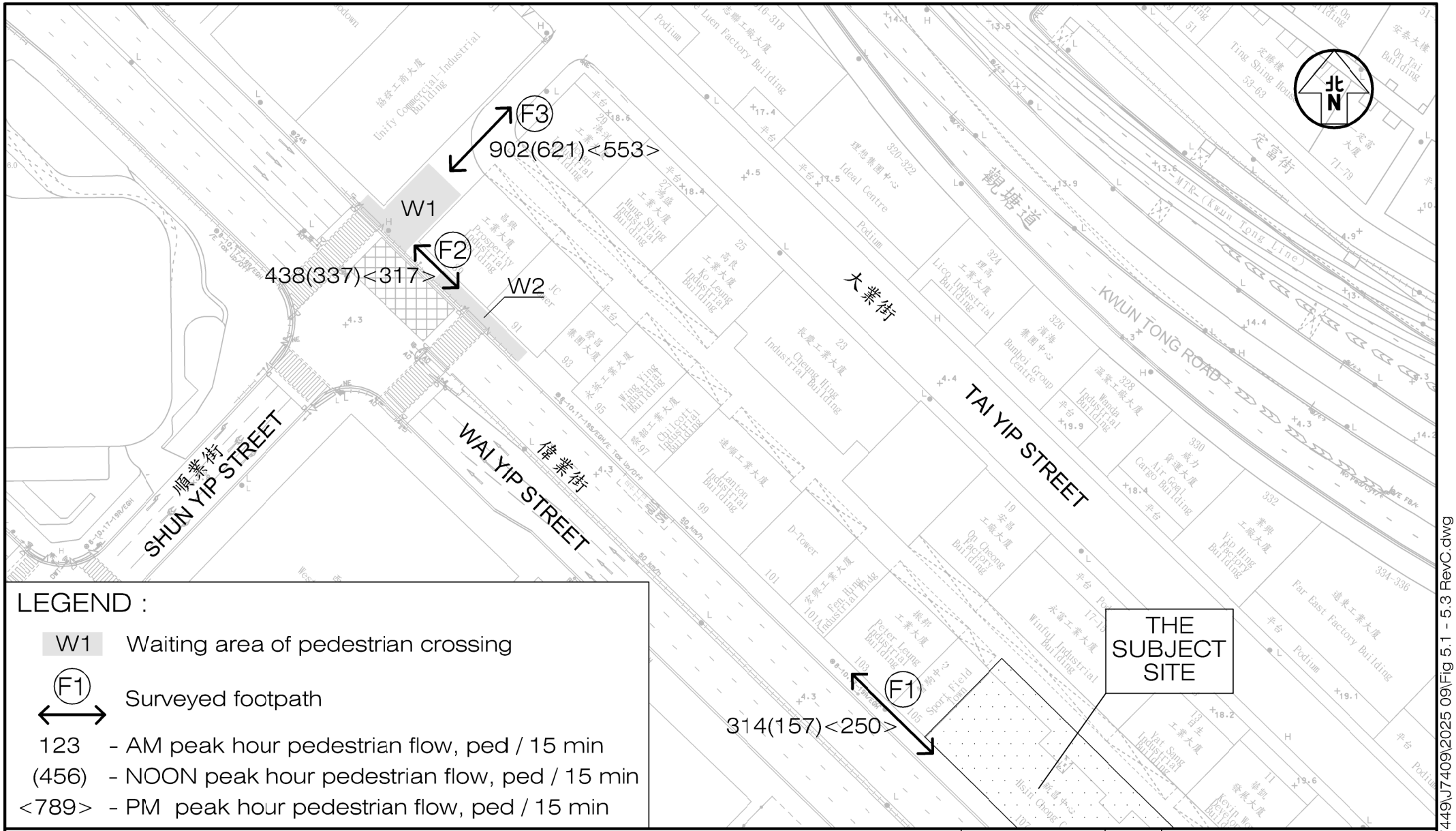
Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4: 1 : 1000

Date: 19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOBs\J7400-J7449\J7409\2025 09\Fig 5.1 - 5.3 RevC.dwg



LEGEND :

W1	Waiting area of pedestrian crossing
F1 ⟷	Surveyed footpath
123	- AM peak hour pedestrian flow, ped / 15 min
(456)	- NOON peak hour pedestrian flow, ped / 15 min
<789>	- PM peak hour pedestrian flow, ped / 15 min

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title: YEAR 2032 PEDESTRIAN FLOWS WITHOUT THE PROPOSED DEVELOPMENT

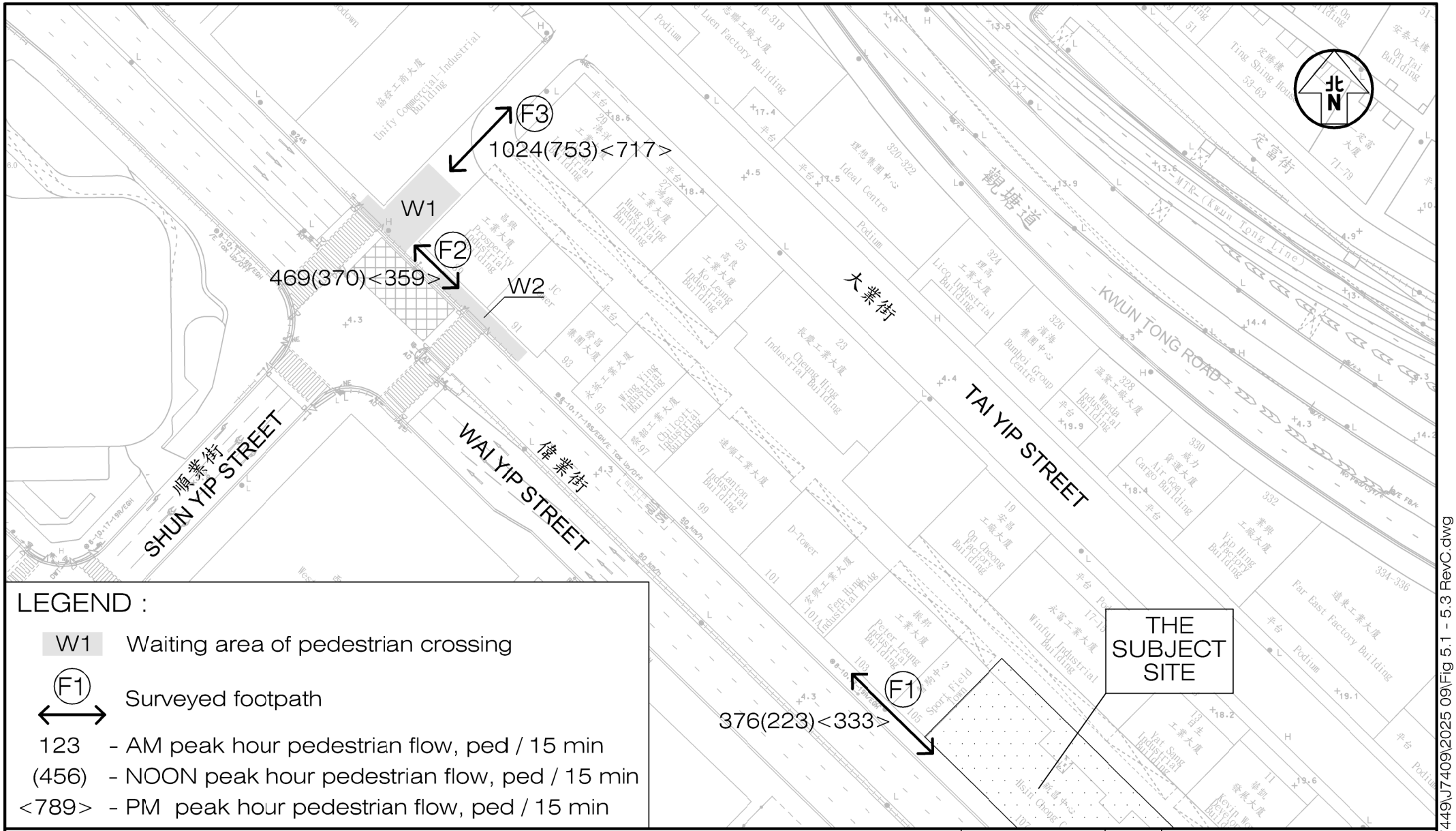
Figure No.	Revision
5.2	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4	Date
1 : 1000	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOBs\J7400-J7449\J7409\2025 09\Fig 5.1 - 5.3 RevC.dwg



LEGEND :

W1	Waiting area of pedestrian crossing
F1 ⟷	Surveyed footpath
123	- AM peak hour pedestrian flow, ped / 15 min
(456)	- NOON peak hour pedestrian flow, ped / 15 min
<789>	- PM peak hour pedestrian flow, ped / 15 min

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title: YEAR 2032 PEDESTRIAN FLOWS WITH THE PROPOSED DEVELOPMENT

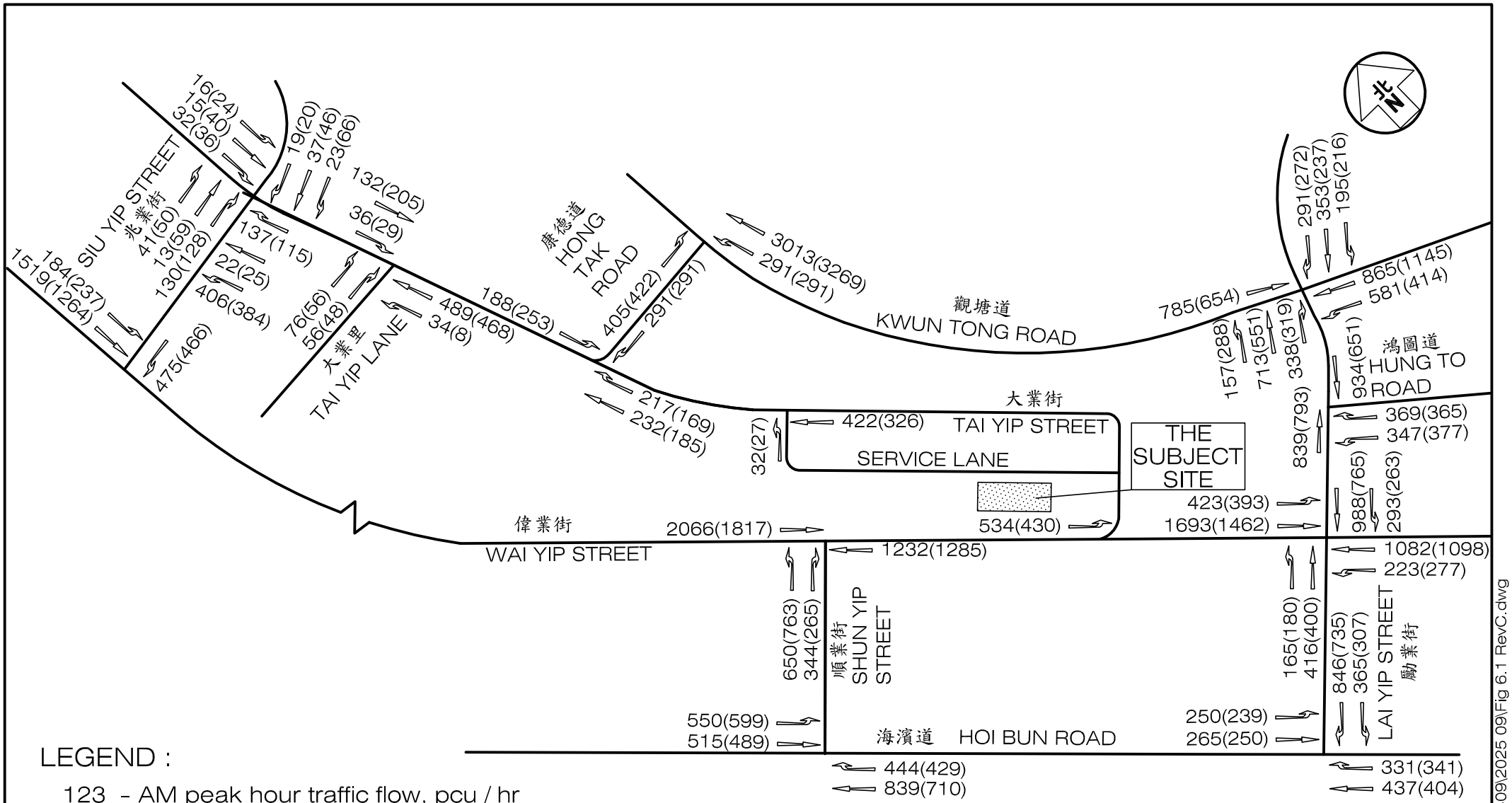
Figure No.	Revision
5.3	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4	Date
1 : 1000	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOBs\J7400-J7449\J7409\2025 09\Fig 5.1 - 5.3 RevC.dwg



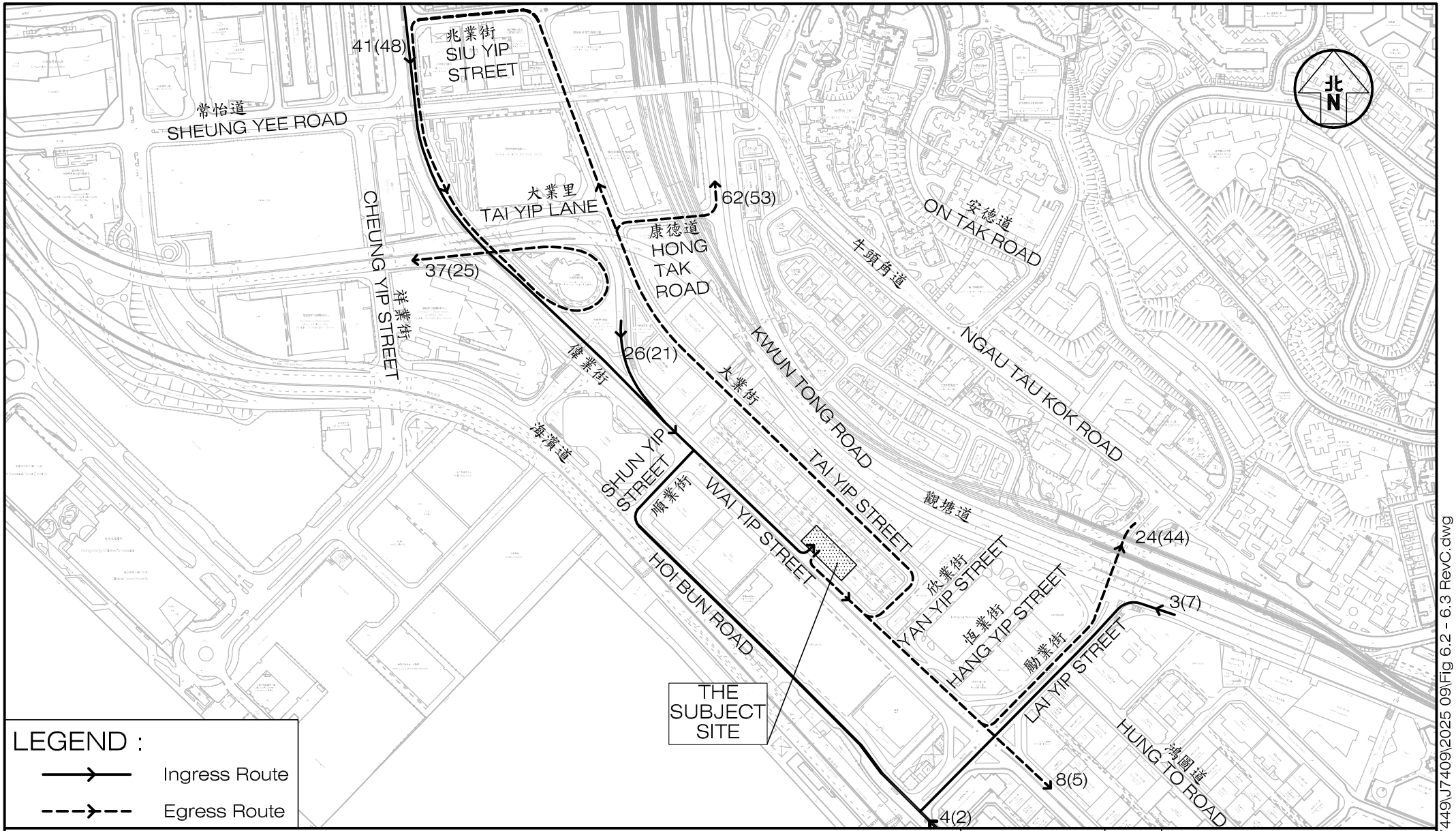
LEGEND :

123 - AM peak hour traffic flow, pcu / hr

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

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON J7409	Figure No. 6.1	Revision C	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
Figure Title: SENSITIVITY TEST 2032 PEAK HOUR TRAFFIC FLOWS	Designed by C Y Y / Drawn by N C M / Checked by K C		
	Scale in A4 N.T.S.	Date 19 SEP 2025	

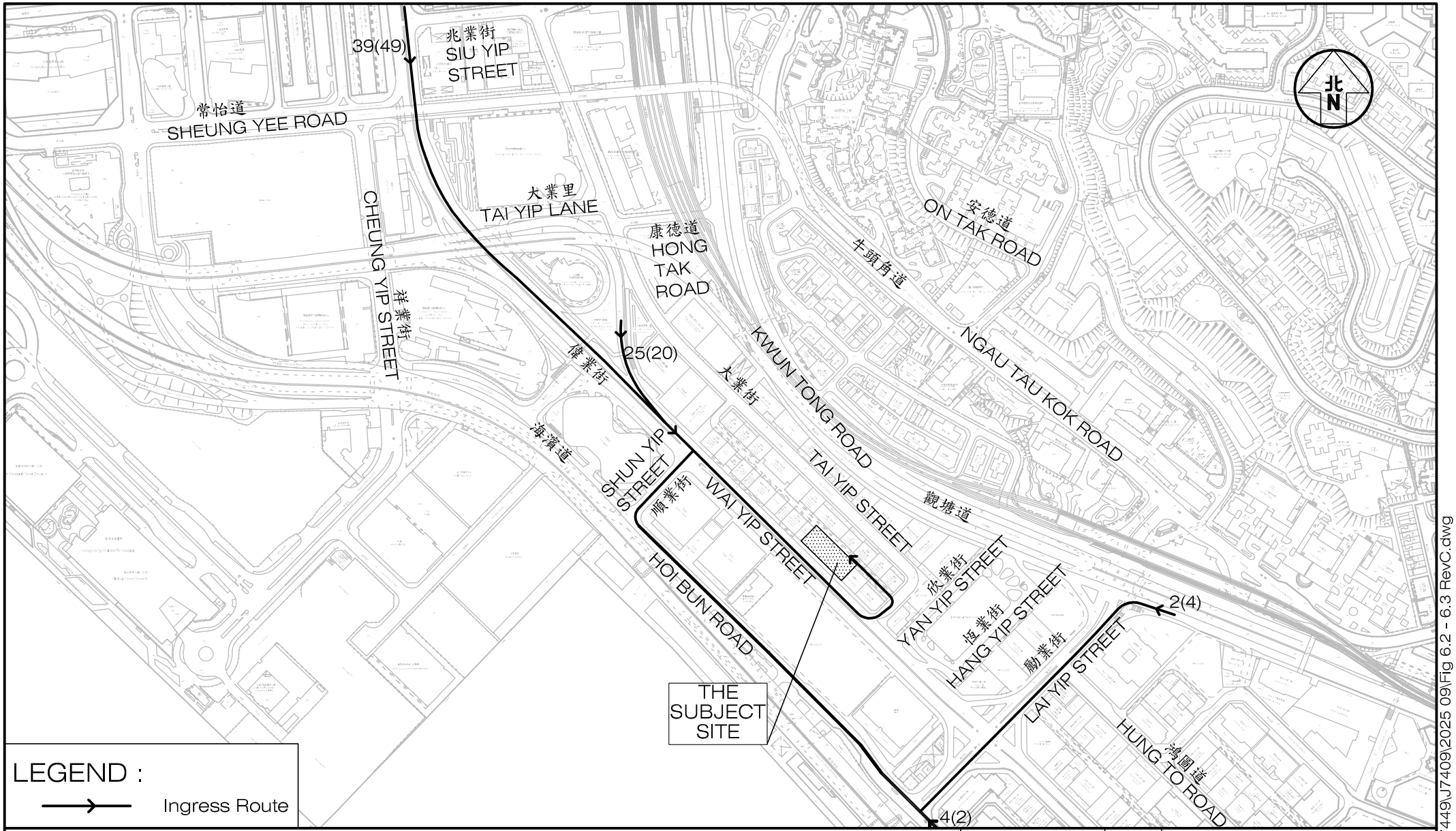
T:\JOBJ7400-J7449\J7409\2025 09\Fig 6.1 RevC.dwg



Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON	J7409	Figure No. 6.2 / Revision C
Figure Title	THE INGRESS / EGRESS ROUTE OF SENSITIVITY TEST (VIA WAI YIP STREET)		Designed by C Y Y / Drawn by N C M / Checked by K C
			Scale in A4 1 : 5000 / Date 19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 6.2 - 6.3 RevC.dwg



Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title

THE INGRESS ROUTE OF SENSITIVITY TEST (VIA THE SERVICE LANE)

Figure No.	Revision
6.3	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4	Date
1 : 5000	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig 6.2 - 6.3 RevC.dwg

Appendix 1 – Calculation

Signal Junction Analysis

Junction: Hoi Bun Road / Shun Yip Street — Job Number: J7409

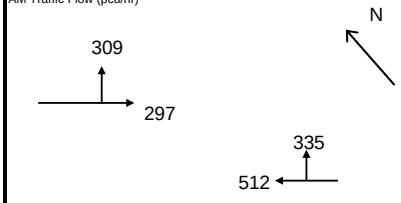
Scenario: Existing Condition — P. 1

Design Year: 2025 — Designed By: — Checked By: — Date: 19 September 2025

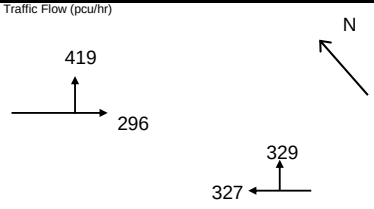
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hoi Bun Road WB	SA	A1	1	3.50				1965	419	0.213	0.213		1965	326	0.166	0.166
	SA+RT	A2	1	3.50	25.0		78	2011	428	0.213		100	1986	330	0.166	
Hoi Bun Road EB	LT	B1	2	3.50	15.0		100	1786	309	0.173	0.173	100	1786	419	0.235	0.235
	SA	B2	2	3.50				2105	297	0.141			2105	296	0.141	

pedestrian phase	Cp	1,3		min crossing time =	7	sec GM +	7	sec FGM =	14	sec
	Dp	2,3		min crossing time =	6	sec GM +	6	sec FGM =	12	sec
	Ep	3		min crossing time =	11	sec GM +	12	sec FGM =	23	sec
	Fp	3		min crossing time =	8	sec GM +	6	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



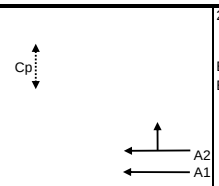
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

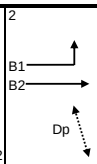
	AM Peak 1+2	AM Peak	PM Peak 1+2	PM Peak
Sum y	0.386		0.401	
L (s)	39		39	
C (s)	118		108	
practical y	0.603		0.575	
R.C. (%)	56%		43%	

Note:

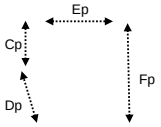
1



2



3



AM	G =	I/G = 8	G =	I/G = 8	G = 23	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
PM	G =	I/G = 8	G =	I/G = 8	G = 23	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	

Signal Junction Analysis

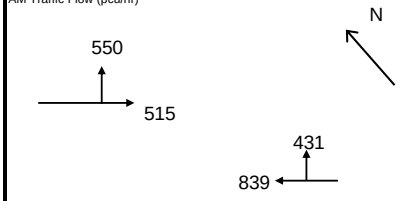
Junction: Hoi Bun Road / Shun Yip Street — Job Number: J7409

Scenario: Without the Proposed Development — P. 2

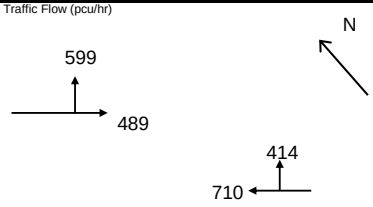
Design Year: 2032 — Designed By: — Checked By: — Date: 19 September 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hoi Bun Road WB	SA	A1	1,2	3.50				1965	839	0.427			1965	710	0.361	
	RT	A2	1	3.50	25.0		100	1986	431	0.217	0.217	100	1986	414	0.208	0.208
Hoi Bun Road EB	LT	B1	2	3.50	15.0		100	1786	491	0.275	0.275	100	1786	503	0.282	0.282
	SA+LT	B2	2	3.50	20.0		10	2089	574	0.275		16	2080	585	0.281	
pedestrian phase		Cp	1,3		min crossing time =			7	sec GM +	7	sec FGM =		14	sec		
		Dp	3		min crossing time =			6	sec GM +	6	sec FGM =		12	sec		
		Ep	3		min crossing time =			11	sec GM +	12	sec FGM =		23	sec		
		Fp	3		min crossing time =			8	sec GM +	6	sec FGM =		14	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

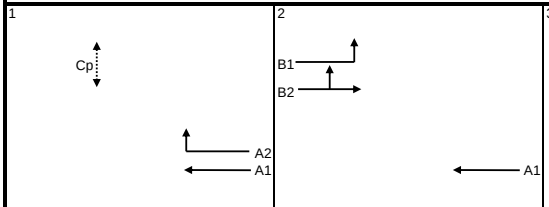


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak 1+2	AM Peak	PM Peak 1+2	PM Peak
Sum y	0.492		0.490	
L (s)	39		39	
C (s)	118		108	
practical y	0.603		0.575	
R.C. (%)	22%		17%	

Note: Junction Improvement Scheme by Other Project



AM	G =	I/G = 8	G =	I/G = 8	G = 23	I/G = 2	G =	I/G =	G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =
PM	G =	I/G = 8	G =	I/G = 8	G = 23	I/G = 2	G =	I/G =	G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =

Signal Junction Analysis

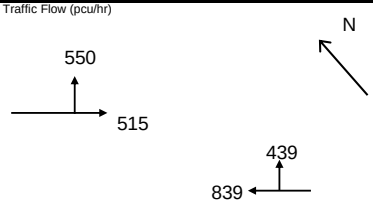
Junction: Hoi Bun Road / Shun Yip Street — Job Number: J7409

Scenario: With the Proposed Development — P. 3

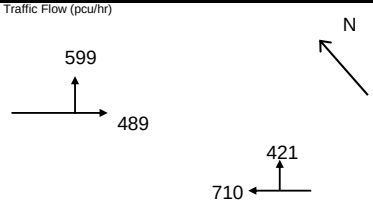
Design Year: 2032 — Designed By: — Checked By: — Date: 19 September 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hoi Bun Road WB	SA	A1	1,2	3.50				1965	839	0.427			1965	710	0.361	
	RT	A2	1	3.50	25.0		100	1986	439	0.221	0.221	100	1986	421	0.212	0.212
Hoi Bun Road EB	LT	B1	2	3.50	15.0		100	1786	491	0.275	0.275	100	1786	503	0.282	0.282
	SA+LT	B2	2	3.50	20.0		10	2089	574	0.275		16	2080	585	0.281	
pedestrian phase		Cp	1,3		min crossing time =		7	sec GM +		7	sec FGM =		14	sec		
		Dp	3		min crossing time =		6	sec GM +		6	sec FGM =		12	sec		
		Ep	3		min crossing time =		11	sec GM +		12	sec FGM =		23	sec		
		Fp	3		min crossing time =		8	sec GM +		6	sec FGM =		14	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



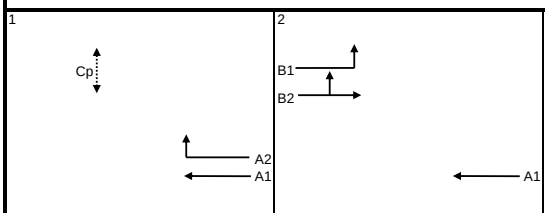
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak 1+2	AM Peak	PM Peak 1+2	PM Peak
Sum y	0.496		0.494	
L (s)	39		39	
C (s)	118		108	
practical y	0.603		0.575	
R.C. (%)	21%		16%	

Note:

Junction Improvement Scheme by Other Project



AM	G =	I/G = 8	G =	I/G = 8	G = 23	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
PM	G =	I/G = 8	G =	I/G = 8	G = 23	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	

Signal Junction Analysis

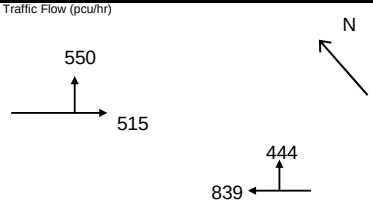
Junction: Hoi Bun Road / Shun Yip Street — Job Number: J7409

Scenario: With the Proposed Development (Sensitivity Test for adopting mean rate) — P. 4

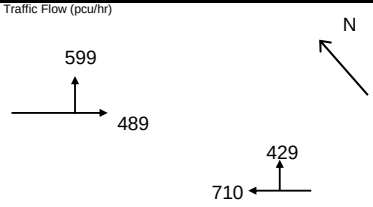
Design Year: 2032 — Designed By: — Checked By: — Date: 19 September 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hoi Bun Road WB	SA	A1	1,2	3.50				1965	839	0.427			1965	710	0.361	
	RT	A2	1	3.50	25.0		100	1986	444	0.224	0.224	100	1986	429	0.216	0.216
Hoi Bun Road EB	LT	B1	2	3.50	15.0		100	1786	491	0.275	0.275	100	1786	503	0.282	0.282
	SA+LT	B2	2	3.50	20.0		10	2089	574	0.275		16	2080	585	0.281	
pedestrian phase		Cp	1,3		min crossing time =		7	sec GM +		7	sec FGM =		14	sec		
		Dp	3		min crossing time =		6	sec GM +		6	sec FGM =		12	sec		
		Ep	3		min crossing time =		11	sec GM +		12	sec FGM =		23	sec		
		Fp	3		min crossing time =		8	sec GM +		6	sec FGM =		14	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



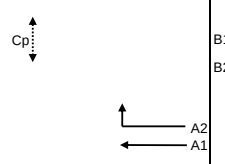
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

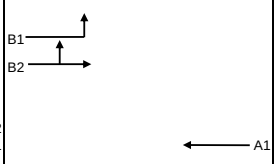
	AM Peak 1+2	AM Peak	PM Peak 1+2	PM Peak
Sum y	0.498		0.498	
L (s)	39		39	
C (s)	118		108	
practical y	0.603		0.575	
R.C. (%)	21%		16%	

Note: Junction Improvement Scheme by Other Project

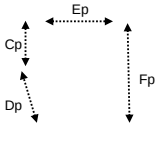
1



2



3



AM	G =	I/G = 8	G =	I/G = 8	G = 23	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
PM	G =	I/G = 8	G =	I/G = 8	G = 23	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	

Signal Junction Analysis

Junction: Wai Yip Street / Shun Yip Street — Job Number: J7409

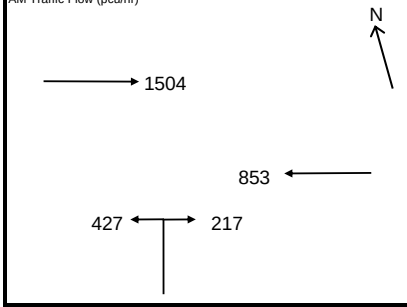
Scenario: Existing Condition — P. 5

Design Year: 2025 — Designed By: — Checked By: — Date: 19 September 2025

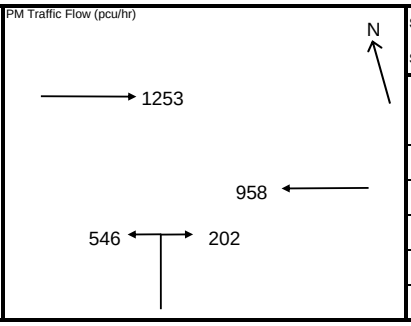
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street EB	SA	A1	1	3.50				1965	479	0.244	0.244		1965	399	0.203	
	SA	A2	1	3.50				2105	513	0.244			2105	427	0.203	0.203
	SA	A3	1	3.50				2105	512	0.243			2105	427	0.203	
Wai Yip Street WB	SA	B1	1	3.50				1965	271	0.138			1965	305	0.155	
	SA	B2	1	3.50				2105	291	0.138			2105	327	0.155	
	SA	B3	1	3.50				2105	291	0.138			2105	326	0.155	
Shun Yip Street NB	LT	C1	3	3.50	15.0		100	1786	206	0.115	0.115	100	1786	262	0.147	0.147
	LT+RT	C2	3	3.50	18.0		100	1943	224	0.115		100	1943	284	0.146	
	RT	C3	3	3.50	25.0		100	1854	214	0.115		100	1854	202	0.109	

pedestrian phase	Dp	1,2		min crossing time =	8	sec GM +	11	sec FGM =	19	sec
	Ep	2		min crossing time =	12	sec GM +	9	sec FGM =	21	sec
	Fp	2		min crossing time =	13	sec GM +	12	sec FGM =	25	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

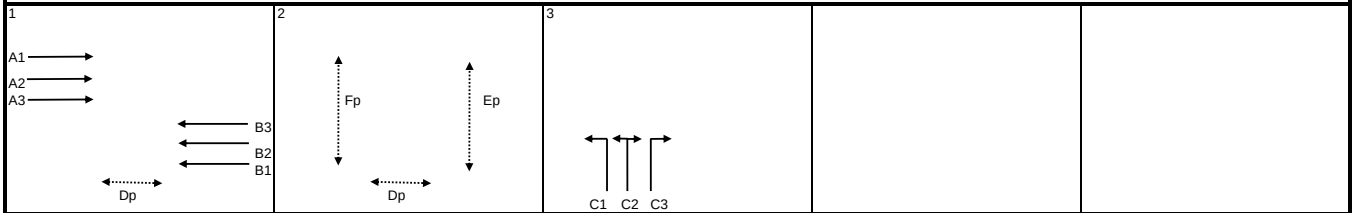


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak 1+3	AM Peak	PM Peak 1+3	PM Peak
Sum y	0.359		0.350	
L (s)	40		40	
C (s)	118		108	
practical y	0.595		0.567	
R.C. (%)	66%		62%	

Note:



AM	G =	I/G = 7	G = 25	I/G = 8	G =	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
PM	G =	I/G = 7	G = 25	I/G = 8	G =	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	

Signal Junction Analysis

Junction: Wai Yip Street / Shun Yip Street — Job Number: J7409

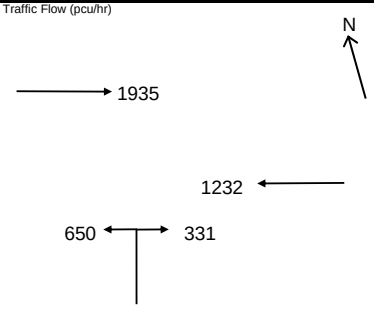
Scenario: Without the Proposed Development — P. 6

Design Year: 2032 — Designed By: — Checked By: — Date: 19 September 2025

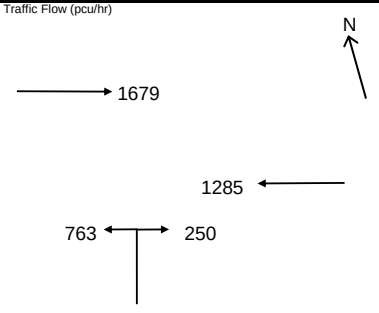
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street EB	SA	A1	1	3.50				1965	616	0.313			1965	534	0.272	
	SA	A2	1	3.50				2105	660	0.314	0.314		2105	572	0.272	
	SA	A3	1	3.50				2105	659	0.313			2105	573	0.272	0.272
Wai Yip Street WB	SA	B1	1	3.50				1965	392	0.199			1965	409	0.208	
	SA	B2	1	3.50				2105	420	0.200			2105	438	0.208	
	SA	B3	1	3.50				2105	420	0.200			2105	438	0.208	
Shun Yip Street NB	LT	C1	3	3.50	15.0		100	1786	314	0.176	0.176	100	1786	365	0.204	
	LT+RT	C2	3	3.50	18.0		100	1943	341	0.176		100	1943	398	0.205	0.205
	RT	C3	3	3.50	25.0		100	1854	326	0.176		100	1854	250	0.135	

pedestrian phase	Dp	1,2		min crossing time =	8	sec GM +	11	sec FGM =	19	sec
	Ep	2		min crossing time =	12	sec GM +	9	sec FGM =	21	sec
	Fp	2		min crossing time =	13	sec GM +	12	sec FGM =	25	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



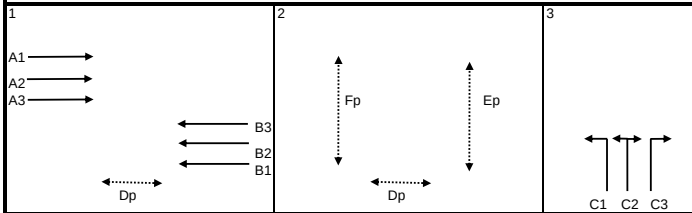
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak 1+3	AM Peak	PM Peak 1+3	PM Peak
Sum y	0.489		0.477	
L (s)	40		40	
C (s)^	118		112	
practical y	0.595		0.579	
R.C. (%)	22%		21%	

Note:

^ The cycle time is proposed to increase from 108s to 112s



AM	G =	I/G = 7	G = 25	I/G = 8	G =	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
PM	G =	I/G = 7	G = 25	I/G = 8	G =	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	

Signal Junction Analysis

Junction: Wai Yip Street / Shun Yip Street — Job Number: J7409

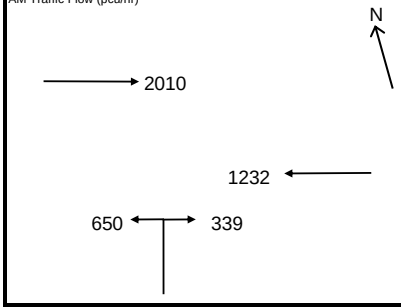
Scenario: With the Proposed Development — P. 7

Design Year: 2032 — Designed By: — Checked By: — Date: 19 September 2025

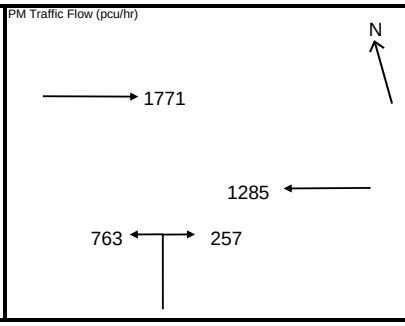
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street EB	SA	A1	1	3.50				1965	640	0.326	0.326		1965	564	0.287	
	SA	A2	1	3.50				2105	685	0.325			2105	604	0.287	0.287
	SA	A3	1	3.50				2105	685	0.325			2105	603	0.286	
Wai Yip Street WB	SA	B1	1	3.50				1965	392	0.199			1965	409	0.208	
	SA	B2	1	3.50				2105	420	0.200			2105	438	0.208	
	SA	B3	1	3.50				2105	420	0.200			2105	438	0.208	
Shun Yip Street NB	LT	C1	3	3.50	15.0		100	1786	316	0.177		100	1786	365	0.204	
	LT+RT	C2	3	3.50	18.0		100	1943	345	0.178	0.178	100	1943	398	0.205	0.205
	RT	C3	3	3.50	25.0		100	1854	328	0.177		100	1854	257	0.139	

pedestrian phase	Dp	1,2		min crossing time =	8	sec GM +	11	sec FGM =	19	sec
	Ep	2		min crossing time =	12	sec GM +	9	sec FGM =	21	sec
	Fp	2		min crossing time =	13	sec GM +	12	sec FGM =	25	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



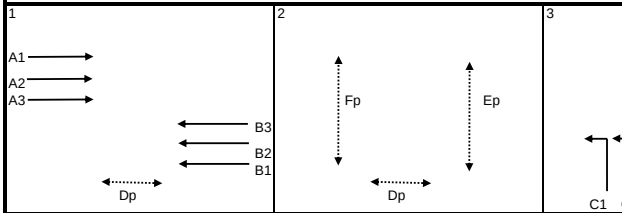
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak 1+3	AM Peak	PM Peak 1+3	PM Peak
Sum y	0.503		0.492	
L (s)	40		40	
C (s)^	118		112	
practical y	0.595		0.579	
R.C. (%)	18%		18%	

Note:

^ The cycle time is proposed to increase from 108s to 112s



AM	G =	I/G = 7	G = 25	I/G = 8	G =	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
PM	G =	I/G = 7	G = 25	I/G = 8	G =	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	

Signal Junction Analysis

Junction: Wai Yip Street / Shun Yip Street — Job Number: J7409

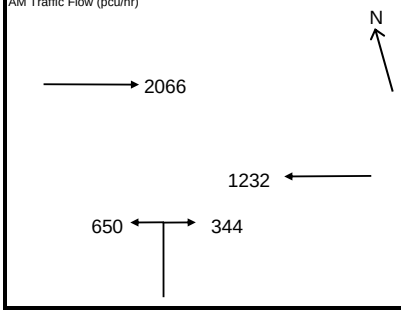
Scenario: With the Proposed Development (Sensitivity Test for adopting mean rate) — P. 8

Design Year: 2032 — Designed By: — Checked By: — Date: 19 September 2025

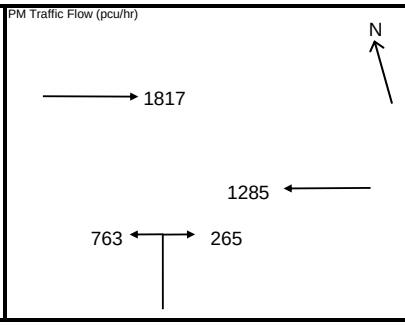
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street EB	SA	A1	1	3.50				1965	657	0.334			1965	578	0.294	
	SA	A2	1	3.50				2105	704	0.334			2105	619	0.294	
	SA	A3	1	3.50				2105	705	0.335	0.335		2105	620	0.295	0.295
Wai Yip Street WB	SA	B1	1	3.50				1965	392	0.199			1965	409	0.208	
	SA	B2	1	3.50				2105	420	0.200			2105	438	0.208	
	SA	B3	1	3.50				2105	420	0.200			2105	438	0.208	
Shun Yip Street NB	LT	C1	3	3.50	15.0		100	1786	318	0.178		100	1786	365	0.204	
	LT+RT	C2	3	3.50	18.0		100	1943	346	0.178	0.178	100	1943	398	0.205	0.205
	RT	C3	3	3.50	25.0		100	1854	330	0.178		100	1854	265	0.143	

pedestrian phase	Dp	1,2		min crossing time =	8	sec GM +	11	sec FGM =	19	sec
	Ep	2		min crossing time =	12	sec GM +	9	sec FGM =	21	sec
	Fp	2		min crossing time =	13	sec GM +	12	sec FGM =	25	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



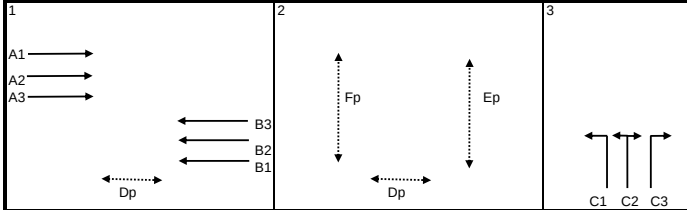
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak 1+3	AM Peak	PM Peak 1+3	PM Peak
Sum y	0.513		0.499	
L (s)	40		40	
C (s)^	118		112	
practical y	0.595		0.579	
R.C. (%)	16%		16%	

Note:

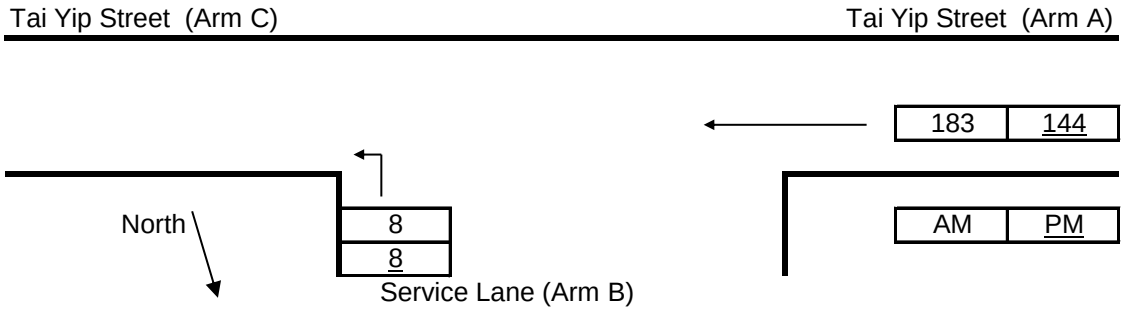
^ The cycle time is proposed to increase from 108s to 112s



AM	G =	I/G = 7	G = 25	I/G = 8	G =	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
PM	G =	I/G = 7	G = 25	I/G = 8	G =	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	

Priority Junction Analysis

Junction:	Tai Yip Street / Service Lane				
Design Year:	2025	Job Number:	J7409	Date:	19 September 2025
Scenario:	Existing Condition				P. 9



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	6.25	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	6.00	E	1.1077
			V-rBC	17	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7844

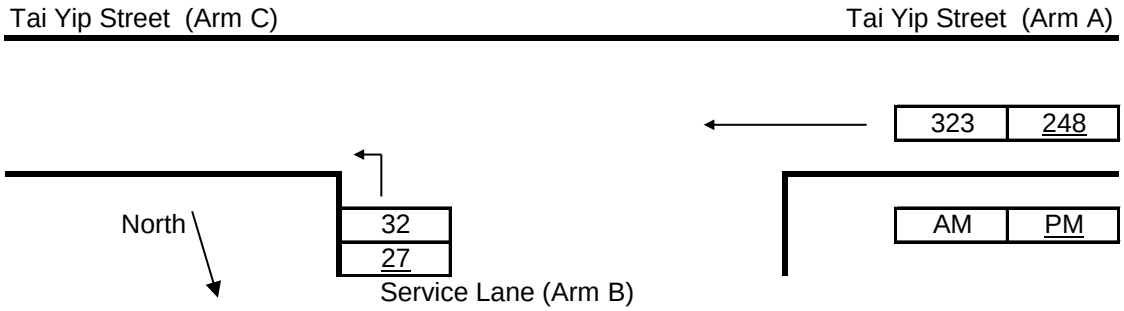
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	306	312
q-CB	0	0	Q-BC	767	780
q-AB	0	0	Q-CB	406	412
q-AC	183	144	Q-BAC	767	780
q-BA	0	0			
q-BC	8	8			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.010	0.010
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Tai Yip Street / Service Lane				
Design Year:	2032	Job Number:	J7409	Date:	19 September 2025
Scenario:	Without the Proposed Development				P. 10



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	6.25	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	6.00	E	1.1077
			V-rBC	17	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7844

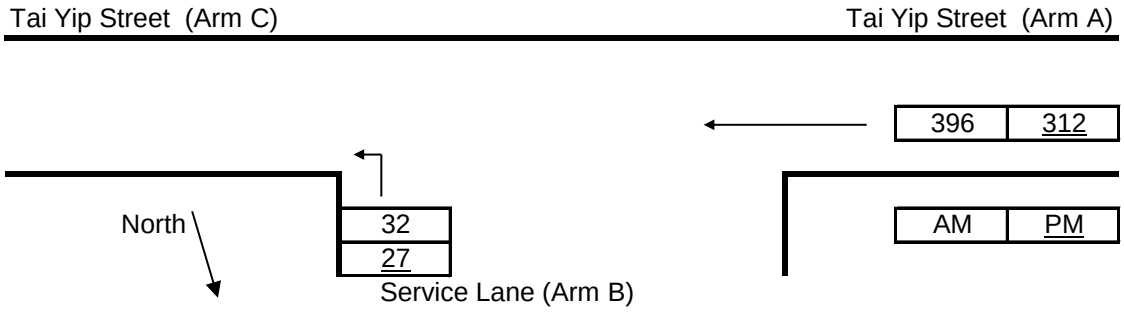
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	285	297
q-CB	0	0	Q-BC	723	747
q-AB	0	0	Q-CB	382	395
q-AC	323	248	Q-BAC	723	747
q-BA	0	0			
q-BC	32	27			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.044	0.036
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Tai Yip Street / Service Lane				
Design Year:	2032	Job Number:	J7409	Date:	19 September 2025
Scenario:	With the Proposed Development				P. 11



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	6.25	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	6.00	E	1.1077
			V-rBC	17	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7844

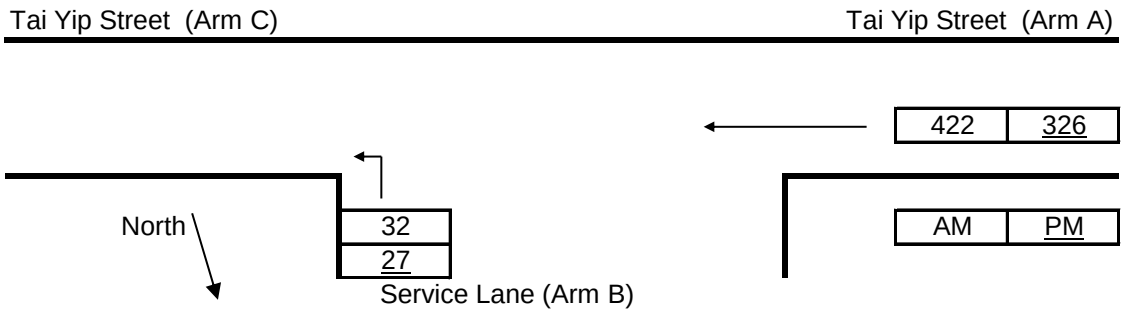
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	274	287
q-CB	0	0	Q-BC	700	727
q-AB	0	0	Q-CB	370	384
q-AC	396	312	Q-BAC	700	727
q-BA	0	0			
q-BC	32	27			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.046	0.037
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Tai Yip Street / Service Lane				
Design Year:	2032	Job Number:	J7409	Date:	19 September 2025
Scenario:	With the Proposed Development (Sensitivity Test for adopting mean rate)				P. 12



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	6.25	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	6.00	E	1.1077
			V-rBC	17	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7844

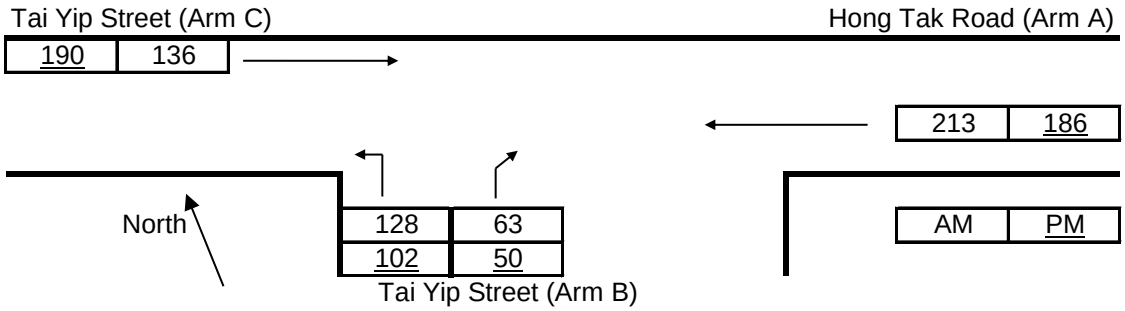
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	270	285
q-CB	0	0	Q-BC	692	722
q-AB	0	0	Q-CB	366	382
q-AC	422	326	Q-BAC	692	722
q-BA	0	0			
q-BC	32	27			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.046	0.037
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Hong Tak Road / Tai Yip Street				
Design Year:	2025	Job Number:	J7409	Date:	19 September 2025
Scenario:	Existing Condition				P. 13



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	7.75	V-rBA	42	w-BA	2.50	D	0.7795
	W-CR	0.00	V-lBA	50	w-BC	2.50	E	0.8293
			V-rBC	42	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7326

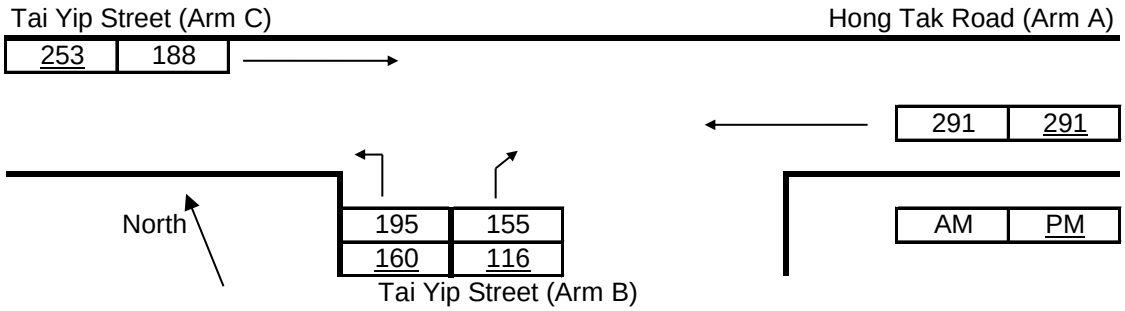
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	136	190	Q-BA	427	425
q-CB	0	0	Q-BC	571	577
q-AB	0	0	Q-CB	403	407
q-AC	213	186	Q-BAC	514	516
q-BA	63	50			
q-BC	128	102			
f	0.670	0.671			

Ratio-of-flow to Capacity	AM	PM
B-A	0.148	0.118
B-C	0.224	0.177
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Hong Tak Road / Tai Yip Street				
Design Year:	2032	Job Number:	J7409	Date:	19 September 2025
Scenario:	Without the Proposed Development				P. 14



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	7.75	V-rBA	42	w-BA	2.50	D	0.7795
	W-CR	0.00	V-lBA	50	w-BC	2.50	E	0.8293
			V-rBC	42	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7326

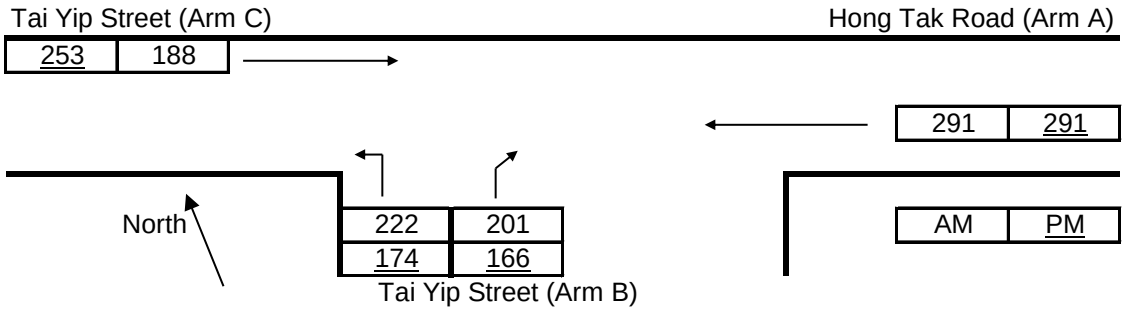
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	188	253	Q-BA	404	395
q-CB	0	0	Q-BC	553	553
q-AB	0	0	Q-CB	391	391
q-AC	291	291	Q-BAC	475	474
q-BA	155	116			
q-BC	195	160			
f	0.557	0.580			

Ratio-of-flow to Capacity	AM	PM
B-A	0.384	0.294
B-C	0.352	0.289
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Hong Tak Road / Tai Yip Street				
Design Year:	2032	Job Number:	J7409	Date:	19 September 2025
Scenario:	With the Proposed Development				P. 15



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	7.75	V-rBA	42	w-BA	2.50	D	0.7795
	W-CR	0.00	V-lBA	50	w-BC	2.50	E	0.8293
			V-rBC	42	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7326

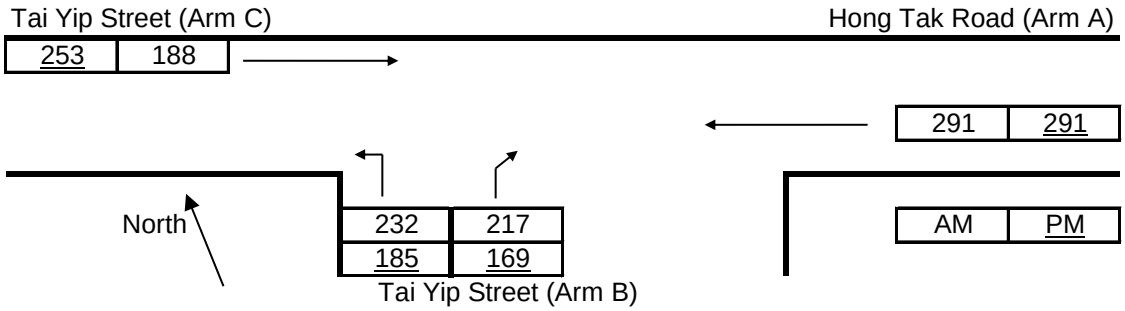
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	188	253	Q-BA	404	395
q-CB	0	0	Q-BC	553	553
q-AB	0	0	Q-CB	391	391
q-AC	291	291	Q-BAC	471	463
q-BA	201	166			
q-BC	222	174			
f	0.525	0.512			

Ratio-of-flow to Capacity	AM	PM
B-A	0.498	0.420
B-C	0.401	0.314
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Hong Tak Road / Tai Yip Street				
Design Year:	2032	Job Number:	J7409	Date:	19 September 2025
Scenario:	With the Proposed Development (Sensitivity Test for adopting mean rate)				P. 16



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	7.75	V-rBA	42	w-BA	2.50	D	0.7795
	W-CR	0.00	V-lBA	50	w-BC	2.50	E	0.8293
			V-rBC	42	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7326

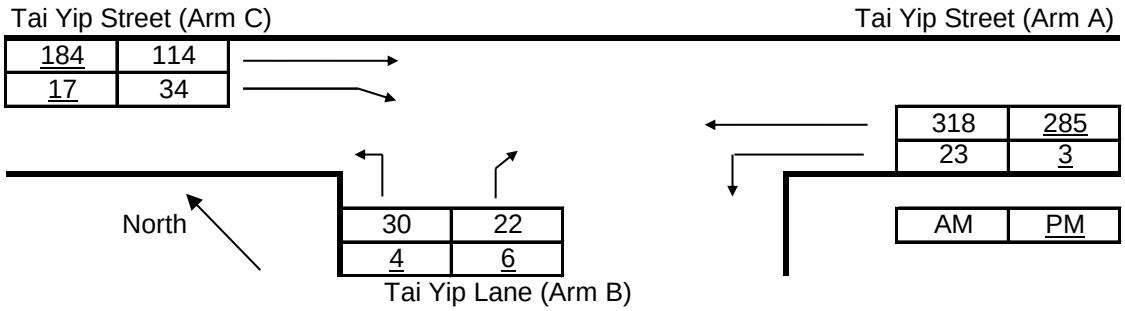
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	188	253	Q-BA	404	395
q-CB	0	0	Q-BC	553	553
q-AB	0	0	Q-CB	391	391
q-AC	291	291	Q-BAC	469	465
q-BA	217	169			
q-BC	232	185			
f	0.517	0.523			

Ratio-of-flow to Capacity	AM	PM
B-A	0.538	0.428
B-C	0.419	0.334
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Tai Yip Street / Tai Yip Lane				
Design Year:	2025	Job Number:	J7409	Date:	19 September 2025
Scenario:	Existing Condition				P. 17



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	10.50	V-rBA	50	w-BA	3.30	D	0.8518
	W-CR	0.00	V-lBA	50	w-BC	3.80	E	0.9502
			V-rBC	50	w-CB	5.25	F	1.0738
			V-rCB	46			Y	0.6378

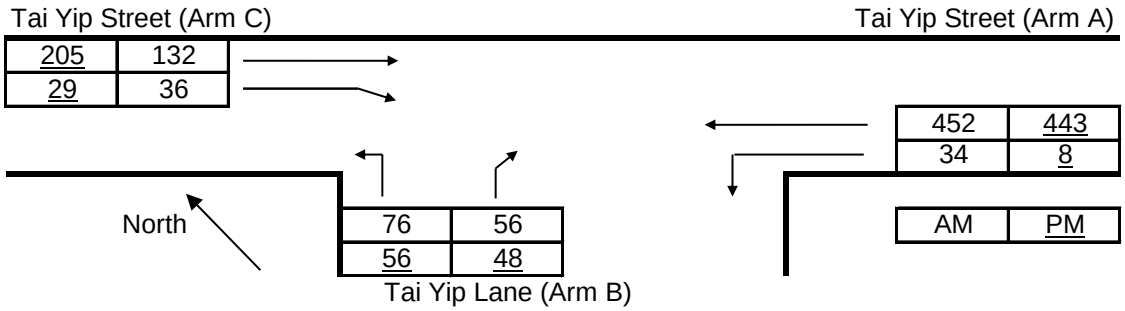
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	114	184	Q-BA	446	450
q-CB	34	17	Q-BC	636	645
q-AB	23	3	Q-CB	715	728
q-AC	318	285	Q-BAC	539	512
q-BA	22	6			
q-BC	30	4			
f	0.577	0.400			

Ratio-of-flow to Capacity	AM	PM
B-A	0.049	0.013
B-C	0.047	0.006
C-B	0.048	0.023

Priority Junction Analysis

Junction:	Tai Yip Street / Tai Yip Lane				
Design Year:	2032	Job Number:	J7409	Date:	19 September 2025
Scenario:	Without the Proposed Development				P. 18



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	10.50	V-rBA	50	w-BA	3.30	D	0.8518
	W-CR	0.00	V-lBA	50	w-BC	3.80	E	0.9502
			V-rBC	50	w-CB	5.25	F	1.0738
			V-rCB	46			Y	0.6378

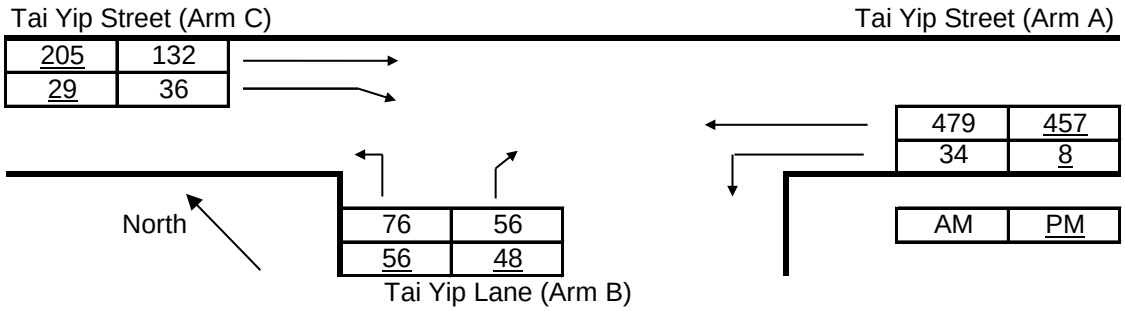
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	132	205	Q-BA	415	412
q-CB	36	29	Q-BC	605	609
q-AB	34	8	Q-CB	679	688
q-AC	452	443	Q-BAC	507	499
q-BA	56	48			
q-BC	76	56			
f	0.576	0.538			

Ratio-of-flow to Capacity	AM	PM
B-A	0.135	0.116
B-C	0.126	0.092
C-B	0.053	0.042

Priority Junction Analysis

Junction:	Tai Yip Street / Tai Yip Lane				
Design Year:	2032	Job Number:	J7409	Date:	19 September 2025
Scenario:	With the Proposed Development				P. 19



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	10.50	V-rBA	50	w-BA	3.30	D	0.8518
	W-CR	0.00	V-lBA	50	w-BC	3.80	E	0.9502
			V-rBC	50	w-CB	5.25	F	1.0738
			V-rCB	46			Y	0.6378

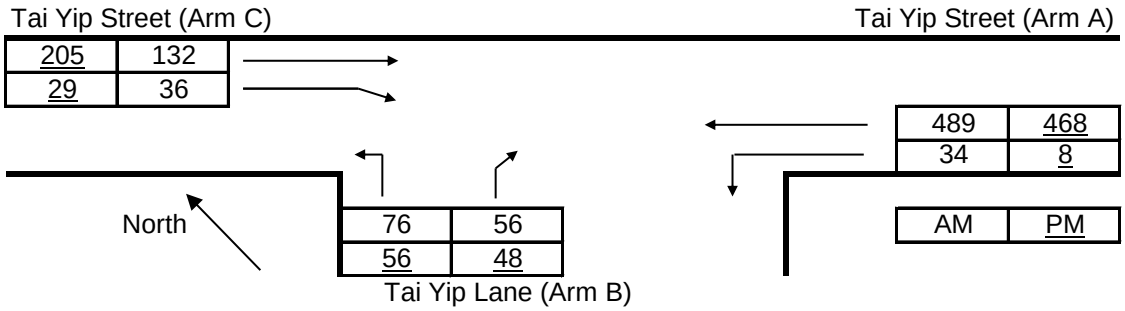
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	132	205	Q-BA	410	409
q-CB	36	29	Q-BC	599	606
q-AB	34	8	Q-CB	672	684
q-AC	479	457	Q-BAC	501	496
q-BA	56	48			
q-BC	76	56			
f	0.576	0.538			

Ratio-of-flow to Capacity	AM	PM
B-A	0.137	0.117
B-C	0.127	0.092
C-B	0.054	0.042

Priority Junction Analysis

Junction:	Tai Yip Street / Tai Yip Lane				
Design Year:	2032	Job Number:	J7409	Date:	19 September 2025
Scenario:	With the Proposed Development (Sensitivity Test for adopting mean rate)				P. 20



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	10.50	V-rBA	50	w-BA	3.30	D	0.8518
	W-CR	0.00	V-lBA	50	w-BC	3.80	E	0.9502
			V-rBC	50	w-CB	5.25	F	1.0738
			V-rCB	46			Y	0.6378

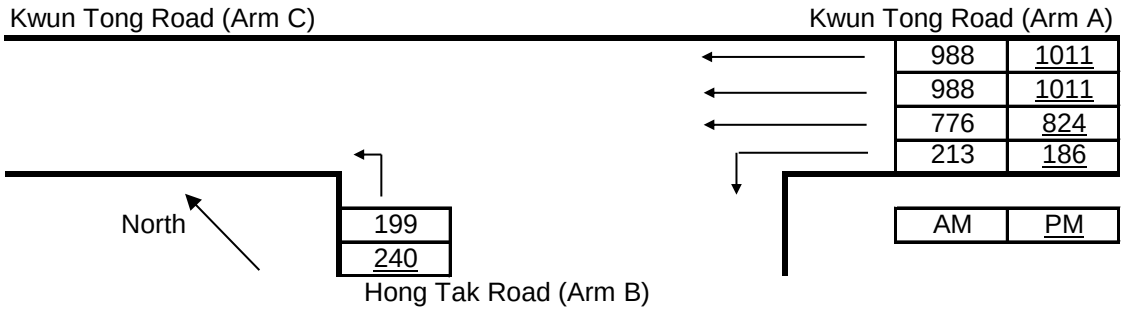
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	132	205	Q-BA	408	407
q-CB	36	29	Q-BC	597	604
q-AB	34	8	Q-CB	670	681
q-AC	489	468	Q-BAC	499	494
q-BA	56	48			
q-BC	76	56			
f	0.576	0.538			

Ratio-of-flow to Capacity	AM	PM
B-A	0.137	0.118
B-C	0.127	0.093
C-B	0.054	0.043

Priority Junction Analysis

Junction:	Kwun Tong Road / Hong Tak Road				
Design Year:	2025	Job Number:	J7409	Date:	19 September 2025
Scenario:	Existing Condition				P. 21



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	6.70	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	5.25	E	1.0779
			V-rBC	50	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7689

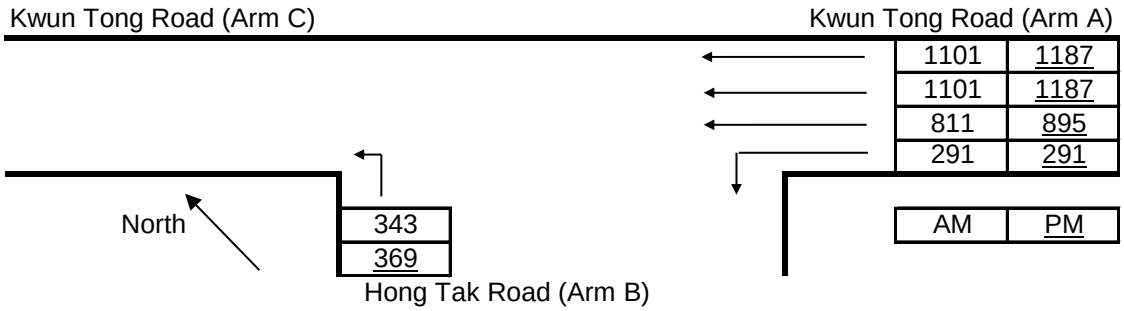
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	206	200
q-CB	0	0	Q-BC	544	532
q-AB	213	186	Q-CB	274	271
q-AC	776	824	Q-BAC	544	532
q-BA	0	0			
q-BC	199	240			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.366	0.451
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Kwun Tong Road / Hong Tak Road				
Design Year:	2032	Job Number:	J7409	Date:	19 September 2025
Scenario:	Without the Proposed Development				P. 22



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	6.70	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	5.25	E	1.0779
			V-rBC	50	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7689

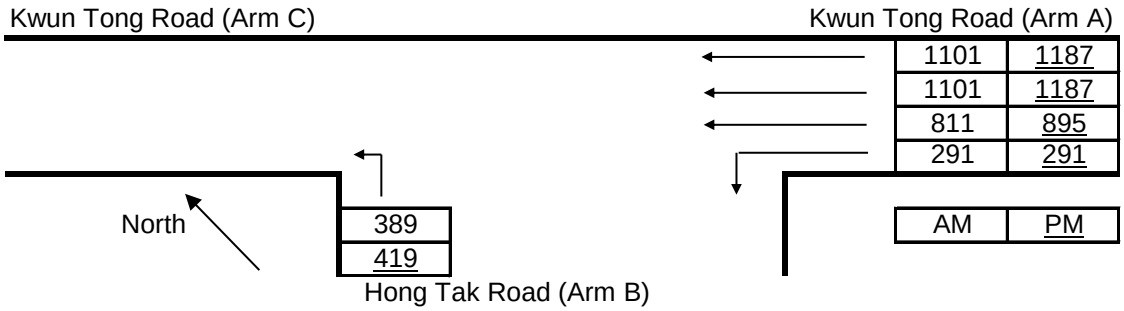
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	196	184
q-CB	0	0	Q-BC	524	498
q-AB	291	291	Q-CB	256	242
q-AC	811	895	Q-BAC	524	498
q-BA	0	0			
q-BC	343	369			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.655	0.740
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Kwun Tong Road / Hong Tak Road				
Design Year:	2032	Job Number:	J7409	Date:	19 September 2025
Scenario:	With the Proposed Development				P. 23



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	6.70	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	5.25	E	1.0779
			V-rBC	50	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7689

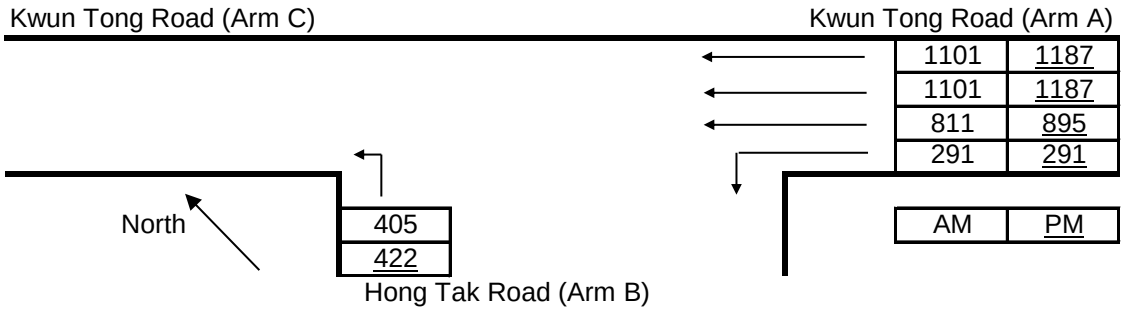
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	196	184
q-CB	0	0	Q-BC	524	498
q-AB	291	291	Q-CB	256	242
q-AC	811	895	Q-BAC	524	498
q-BA	0	0			
q-BC	389	419			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.743	0.841
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Kwun Tong Road / Hong Tak Road				
Design Year:	2032	Job Number:	J7409	Date:	19 September 2025
Scenario:	With the Proposed Development (Sensitivity Test for adopting mean rate)				P. 24



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	6.70	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	5.25	E	1.0779
			V-rBC	50	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7689

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	196	184
q-CB	0	0	Q-BC	524	498
q-AB	291	291	Q-CB	256	242
q-AC	811	895	Q-BAC	524	498
q-BA	0	0			
q-BC	405	422			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.773	0.847
C-B	0.000	0.000

Signal Junction Analysis

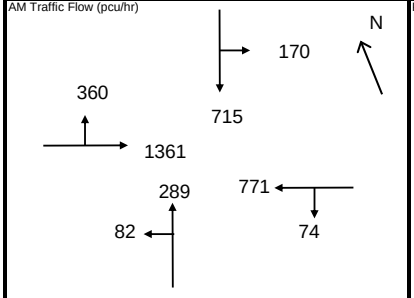
Junction: Wai Yip Street / Lai Yip Street — Job Number: J7409

Scenario: Existing Condition — P. 25

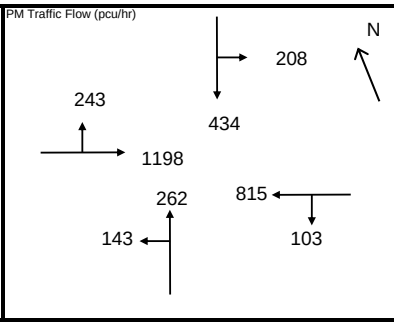
Design Year: 2025 — Designed By: — Checked By: — Date: 19 September 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street WB	SA+LT	A1	3	2.80	20.0		27	1977	276	0.140		34	1981	301	0.152	
	SA	A2	3	2.80				2035	284	0.140			2035	309	0.152	
	SA	A3	3	2.80				2035	285	0.140			2035	308	0.151	
Lai Yip Street SB	LT	B1	2	3.10	20.0		100	2638	170	0.064	0.064	100	2638	208	0.079	0.079
	SA	B2	1,2	3.10				2065	358	0.173			2065	217	0.105	
	SA	B3	1,2	3.10				2065	357	0.173			2065	217	0.105	
Wai Yip Street EB	SA+LT	C1	3	3.30	20.0		63	2097	576	0.275		50	2142	489	0.228	
	SA	C2	3	3.30				2085	573	0.275	0.275		2085	476	0.228	0.228
	SA	C3	3	3.30				2085	572	0.274			2085	476	0.228	
Lai Yip Street NB	SA+LT	D1	1	4.00	15.0		45	2048	183	0.089	0.089	72	2013	198	0.098	0.098
	SA	D2	1	3.50				2105	188	0.089			2105	207	0.098	
pedestrian phase		Ep	3		min crossing time =		11	sec GM +		10	sec FGM =		21	sec		
		Fp	1,2		min crossing time =		7	sec GM +		11	sec FGM =		18	sec		
		Gp	1,2		min crossing time =		5	sec GM +		10	sec FGM =		15	sec		
		Hp	1,3		min crossing time =		5	sec GM +		7	sec FGM =		12	sec		
		Ip	2		min crossing time =		7	sec GM +		11	sec FGM =		18	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



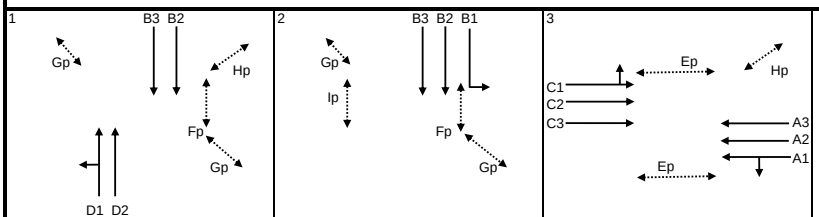
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak 1+2+3	AM Peak 1,2+3	PM Peak 1+2+3	PM Peak 1,2+3
Sum y	0.429	0.448	0.406	0.333
L (s)	17	12	17	12
C (s)	120	120	108	108
practical y	0.773	0.810	0.758	0.800
R.C. (%)	80%	81%	87%	140%

Note:

^ Based on observation



AM^	G =	I/G = 7	G =	I/G = 5	G =	I/G = 8	G =	I/G =	G =	
	G =	I/G =	G =	I/G = 6	G =	I/G = 8	G =	I/G =	G =	
PM^	G =	I/G = 7	G =	I/G = 5	G =	I/G = 8	G =	I/G =	G =	
	G =	I/G =	G =	I/G = 6	G =	I/G = 8	G =	I/G =	G =	

Signal Junction Analysis

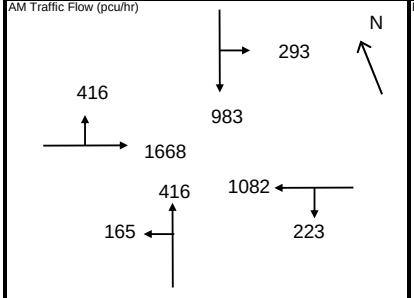
Junction: Wai Yip Street / Lai Yip Street — Job Number: J7409

Scenario: Without the Proposed Development — P. 26

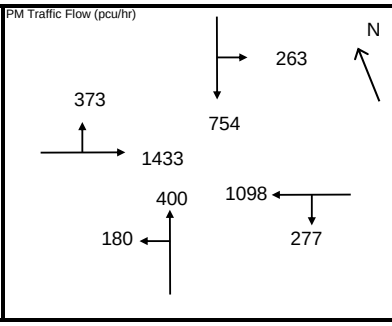
Design Year: 2032 — Designed By: — Checked By: — Date: 19 September 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street WB	SA+LT	A1	3	2.80	20.0		52	1944	422	0.217		62	1944	444	0.228	
	SA	A2	3	2.80				2035	442	0.217			2035	465	0.229	
	SA	A3	3	2.80				2035	441	0.217			2035	466	0.229	
Lai Yip Street SB	LT	B1	2	3.10	20.0		100	2638	293	0.111	0.111	100	2638	263	0.100	0.100
	SA	B2	1,2	3.10				2065	492	0.238			2065	377	0.183	
	SA	B3	1,2	3.10				2065	491	0.238			2065	377	0.183	
Wai Yip Street EB	SA+LT	C1	3	3.30	20.0		60	2101	698	0.332		61	2127	610	0.287	
	SA	C2	3	3.30				2085	693	0.332	0.332		2085	598	0.287	0.287
	SA	C3	3	3.30				2085	693	0.332			2085	598	0.287	
Lai Yip Street NB	SA+LT	D1	1	4.00	15.0		58	2025	285	0.141	0.141	63	2029	285	0.140	0.140
	SA	D2	1	3.50				2105	296	0.141			2105	295	0.140	
pedestrian phase		Ep	3		min crossing time =		11	sec GM +		10	sec FGM =		21	sec		
		Fp	1,2		min crossing time =		7	sec GM +		11	sec FGM =		18	sec		
		Gp	1,2		min crossing time =		5	sec GM +		10	sec FGM =		15	sec		
		Hp	1,3		min crossing time =		5	sec GM +		7	sec FGM =		12	sec		
		Ip	2		min crossing time =		7	sec GM +		11	sec FGM =		18	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



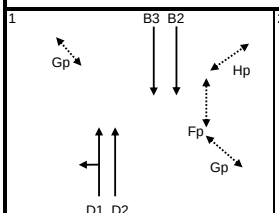
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

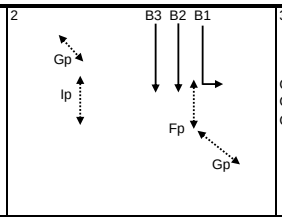
$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

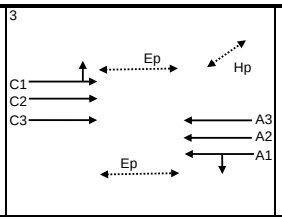
	AM Peak 1+2+3	AM Peak 1,2+3	PM Peak 1+2+3	PM Peak 1,2+3
Sum y	0.584	0.571	0.527	0.469
L (s)	17	12	17	12
C (s)	120	120	108	108
practical y	0.773	0.810	0.758	0.800
R.C. (%)	32%	42%	44%	70%

Note:

^ Based on observation







AM	G =	I/G = 7	G =	I/G = 5	G =	I/G = 8	G =	I/G =	G =	
	G =	I/G =	G =	I/G = 6	G =	I/G = 8	G =	I/G =	G =	
PM	G =	I/G = 7	G =	I/G = 5	G =	I/G = 8	G =	I/G =	G =	
	G =	I/G =	G =	I/G = 6	G =	I/G = 8	G =	I/G =	G =	

Signal Junction Analysis

Junction: Wai Yip Street / Lai Yip Street — Job Number: J7409

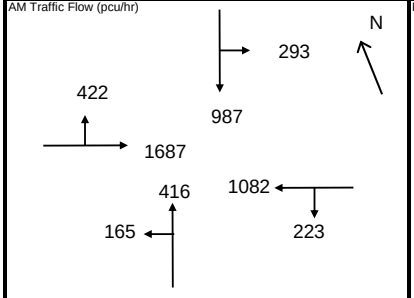
Scenario: With the Proposed Development — P. 27

Design Year: 2032 — Designed By: — Checked By: — Date: 19 September 2025

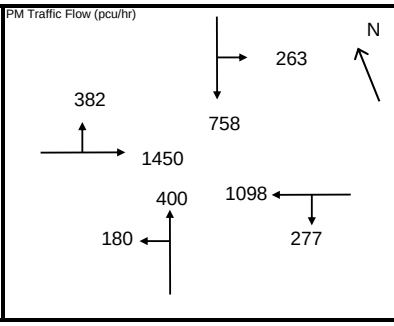
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street WB	SA+LT	A1	3	2.80	20.0		53	1943	422	0.217		62	1944	444	0.228	
	SA	A2	3	2.80				2035	442	0.217			2035	465	0.229	
	SA	A3	3	2.80				2035	441	0.217			2035	466	0.229	
Lai Yip Street SB	LT	B1	2	3.10	20.0		100	2638	293	0.111	0.111	100	2638	263	0.100	0.100
	SA	B2	1,2	3.10				2065	494	0.239			2065	379	0.184	
	SA	B3	1,2	3.10				2065	493	0.239			2065	379	0.184	
Wai Yip Street EB	SA+LT	C1	3	3.30	20.0		60	2101	707	0.337	0.337	62	2126	619	0.291	0.291
	SA	C2	3	3.30				2085	701	0.336			2085	607	0.291	
	SA	C3	3	3.30				2085	701	0.336			2085	606	0.291	
Lai Yip Street NB	SA+LT	D1	1	4.00	15.0		58	2025	285	0.141	0.141	63	2029	285	0.140	0.140
	SA	D2	1	3.50				2105	296	0.141			2105	295	0.140	

pedestrian phase	Ep	3		min crossing time =	11	sec GM +	10	sec FGM =	21	sec
	Fp	1,2		min crossing time =	7	sec GM +	11	sec FGM =	18	sec
	Gp	1,2		min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	Hp	1,3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	Ip	2		min crossing time =	7	sec GM +	11	sec FGM =	18	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



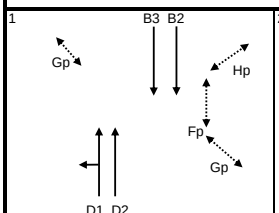
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

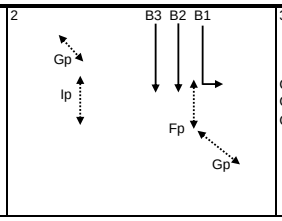
$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

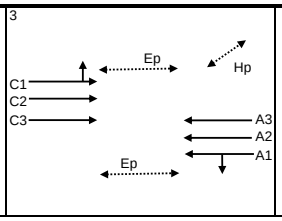
	AM Peak 1+2+3	AM Peak 1,2+3	PM Peak 1+2+3	PM Peak 1,2+3
Sum y	0.588	0.576	0.531	0.475
L (s)	17	12	17	12
C (s)	120	120	108	108
practical y	0.773	0.810	0.758	0.800
R.C. (%)	31%	41%	43%	69%

Note:

^ Based on observation







AM	G =	I/G = 7	G =	I/G = 5	G =	I/G = 8	G =	I/G =	G =	
	G =	I/G =	G =	I/G = 6	G =	I/G = 8	G =	I/G =	G =	
PM	G =	I/G = 7	G =	I/G = 5	G =	I/G = 8	G =	I/G =	G =	
	G =	I/G =	G =	I/G = 6	G =	I/G = 8	G =	I/G =	G =	

Signal Junction Analysis

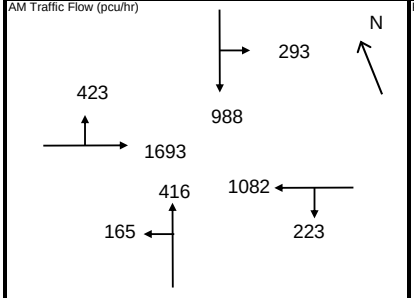
Junction: Wai Yip Street / Lai Yip Street — Job Number: J7409

Scenario: With the Proposed Development (Sensitivity Test for adopting mean rate) — P. 28

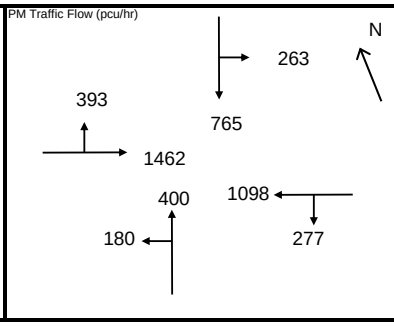
Design Year: 2032 — Designed By: — Checked By: — Date: 19 September 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street WB	SA+LT	A1	3	2.80	20.0		53	1943	422	0.217		62	1944	444	0.228	
	SA	A2	3	2.80				2035	442	0.217			2035	465	0.229	
	SA	A3	3	2.80				2035	441	0.217			2035	466	0.229	
Lai Yip Street SB	LT	B1	2	3.10	20.0		100	2638	293	0.111	0.111	100	2638	263	0.100	0.100
	SA	B2	1,2	3.10				2065	494	0.239			2065	383	0.185	
	SA	B3	1,2	3.10				2065	494	0.239			2065	382	0.185	
Wai Yip Street EB	SA+LT	C1	3	3.30	20.0		60	2101	709	0.337		63	2124	626	0.295	
	SA	C2	3	3.30				2085	704	0.338	0.338		2085	615	0.295	0.295
	SA	C3	3	3.30				2085	703	0.337			2085	614	0.294	
Lai Yip Street NB	SA+LT	D1	1	4.00	15.0		58	2025	285	0.141	0.141	63	2029	285	0.140	0.140
	SA	D2	1	3.50				2105	296	0.141			2105	295	0.140	
pedestrian phase		Ep	3		min crossing time =		11	sec GM +		10	sec FGM =		21	sec		
		Fp	1,2		min crossing time =		7	sec GM +		11	sec FGM =		18	sec		
		Gp	1,2		min crossing time =		5	sec GM +		10	sec FGM =		15	sec		
		Hp	1,3		min crossing time =		5	sec GM +		7	sec FGM =		12	sec		
		Ip	2		min crossing time =		7	sec GM +		11	sec FGM =		18	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



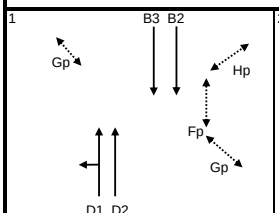
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

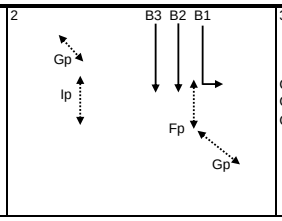
$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

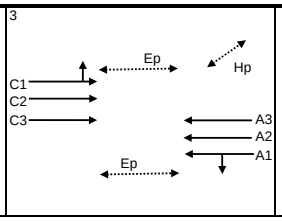
	AM Peak 1+2+3	AM Peak 1,2+3	PM Peak 1+2+3	PM Peak 1,2+3
Sum y	0.589	0.577	0.535	0.480
L (s)	17	12	17	12
C (s)	120	120	108	108
practical y	0.773	0.810	0.758	0.800
R.C. (%)	31%	40%	42%	67%

Note:

^ Based on observation







AM	G =	I/G = 7	G =	I/G = 5	G =	I/G = 8	G =	I/G =	G =	
	G =	I/G =	G =	I/G = 6	G =	I/G = 8	G =	I/G =	G =	
PM	G =	I/G = 7	G =	I/G = 5	G =	I/G = 8	G =	I/G =	G =	
	G =	I/G =	G =	I/G = 6	G =	I/G = 8	G =	I/G =	G =	

Signal Junction Analysis

Junction: Kwun Tong Road / Lai Yip Street — Job Number: J7409

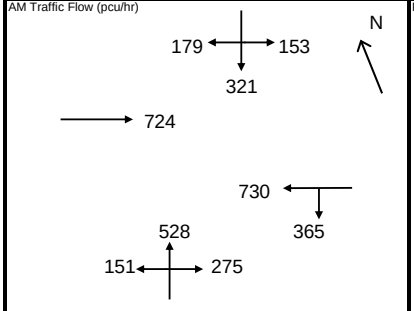
Scenario: Existing Condition — P. 29

Design Year: 2025 — Designed By: — Checked By: — Date: 19 September 2025

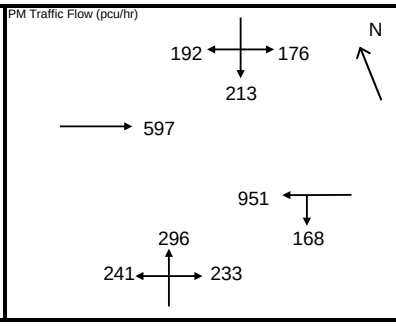
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kwun Tong Road EB	SA	A1	1,2	3.20				1935	349	0.180			1935	288	0.149	
	SA	A2	1,2	3.20				2075	375	0.181	0.181		2075	309	0.149	
Lai Yip Street NB	LT+SA	B1	5	3.50	30.0		32	2117	478	0.226		63	2105	385	0.183	0.183
	SA	B2	5	3.50				2105	476	0.226	0.226		2105	385	0.183	
Elegance Road NB	SA	B3	5	3.50				2105	277	0.132			2105	184	0.087	
	SA+RT	B4	5	3.50	18.0		9	2089	275	0.132		37	2042	178	0.087	
	RT	B5	5	3.50	15.0		100	1914	251	0.131		100	1914	167	0.087	
Kwun Tong Road WB	LT	C1	1,5	3.30	15.0		100	1768	365	0.206		100	1768	168	0.095	
	SA	C2	1,2	3.50				2105	365	0.173			2105	476	0.226	0.226
	SA	C3	1,2	3.50				2105	365	0.173			2105	475	0.226	
Elegance Road SB	LT	D1	3,4	3.50	15.0		100	1786	153	0.086	0.086	100	1786	176	0.099	0.099
	SA	D2	3,4	3.50				2105	173	0.082			2105	141	0.067	
	SA+RT	D3	3,4	3.50	18.0		13	2082	171	0.082		47	2026	136	0.067	
	RT	D4	3,4	3.50	15.0		100	1914	156	0.082		100	1914	128	0.067	

pedestrian phase		Ep	1,2		min crossing time =		12	sec GM +		10	sec FGM =		22	sec		
		Fp	1,2,3,4		min crossing time =		5	sec GM +		7	sec FGM =		12	sec		
		Gp	2,3		min crossing time =		5	sec GM +		5	sec FGM =		10	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

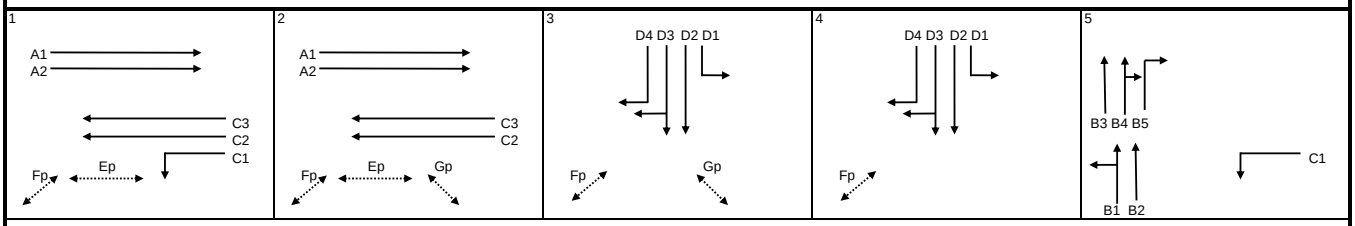
$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak		PM Peak	
	2+4+5		2+3+5	
Sum y	0.493		0.508	
L (s)	15		20	
C (s)	118		108	
practical y	0.786		0.733	
R.C. (%)	60%		44%	

Note:

1) In AM Peak, Stage Sequence : 2>4>5>2

2) In PM Peak, Stage Sequence : 2>3>5>2



AM	I/G =	I/G =	I/G = 5	I/G = 10	I/G = 3
PM	I/G =	I/G = 7	I/G = 7	I/G = 6	I/G = 3

Signal Junction Analysis

Junction: Kwun Tong Road / Lai Yip Street — Job Number: J7409

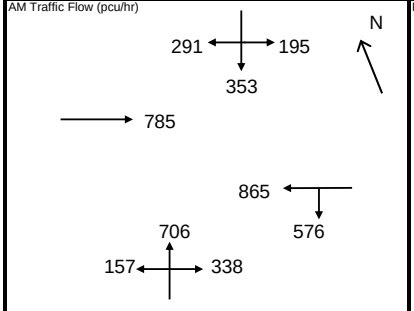
Scenario: Without the Proposed Development — P. 30

Design Year: 2032 — Designed By: — Checked By: — Date: 19 September 2025

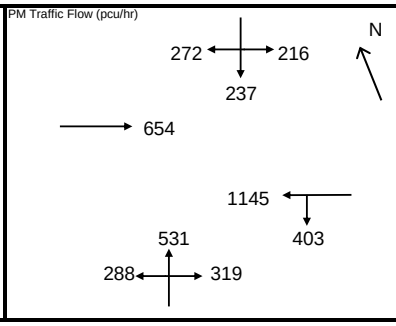
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kwun Tong Road EB	SA	A1	1,2	3.20				1935	379	0.196			1935	316	0.163	
	SA	A2	1,2	3.20				2075	406	0.196			2075	338	0.163	
Lai Yip Street NB	SA+LT	B1	5	3.40	15.0		42	1876	373	0.199		84	1804	344	0.191	
	SA	B2	5	3.30				2085	414	0.199			2085	397	0.190	
	SA	B3	5	3.30				2085	414	0.199			2085	397	0.190	
Elegance Road NB	SA	B4	5	3.50				2105	359	0.171			2105	294	0.140	
	SA+RT	B5	5	3.50	18.0		3	2100	358	0.170		18	2074	289	0.139	
	RT	B6	5	3.50	15.0		100	1914	327	0.171		100	1914	267	0.139	
Kwun Tong Road WB	LT	C1	1,5	3.30	15.0		100	1768	576	0.326	0.326	100	1768	403	0.228	0.228
	SA	C2	1,2	3.50				2105	433	0.206	0.206		2105	573	0.272	0.272
	SA	C3	1,2	3.50				2105	432	0.205			2105	572	0.272	
Elegance Road SB	LT	D1	3,4	3.50	15.0		100	1786	195	0.109	0.109	100	1786	216	0.121	0.121
	SA	D2	3,4	3.50				2105	224	0.106			2105	178	0.085	
	SA+RT	D3	3,4	3.50	18.0		41	2035	216	0.106		65	1997	169	0.085	
	RT	D4	3,4	3.50	15.0		100	1914	204	0.107		100	1914	162	0.085	

pedestrian phase	Ep	1,2		min crossing time =	12	sec GM +	10	sec FGM =	22	sec
	Fp	1,2,3,4		min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	Gp	2,3		min crossing time =	5	sec GM +	5	sec FGM =	10	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

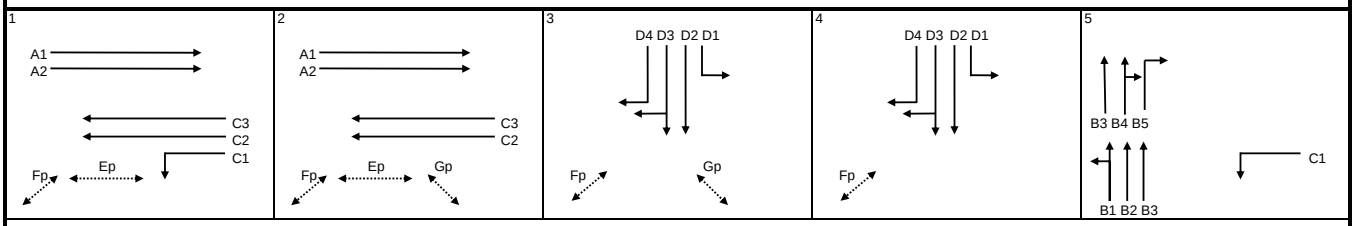
	AM Peak		PM Peak	
	2+4+5		2+3+5	
Sum y	0.641		0.621	
L (s)	15		20	
C (s)	118		108	
practical y	0.786		0.733	
R.C. (%)	23%		18%	

Note:

1) Junction Improvement Works proposed in District Council Traffic Development and Transport Committee Discussion Paper No. 3/2023

2) In AM Peak, Stage Sequence : 2>4>5>2

3) In PM Peak, Stage Sequence : 2>3>5>2



AM	I/G =	I/G =	I/G = 5	I/G = 10	I/G = 3
PM	I/G =	I/G = 7	I/G = 7	I/G = 6	I/G = 3

Signal Junction Analysis

Junction: Kwun Tong Road / Lai Yip Street — Job Number: J7409

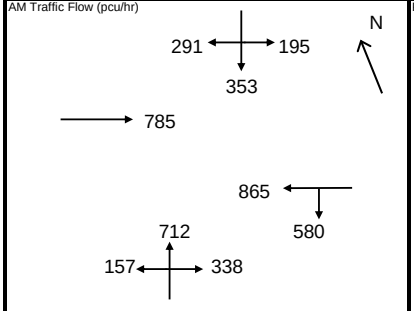
Scenario: With the Proposed Development — P. 31

Design Year: 2032 — Designed By: — Checked By: — Date: 19 September 2025

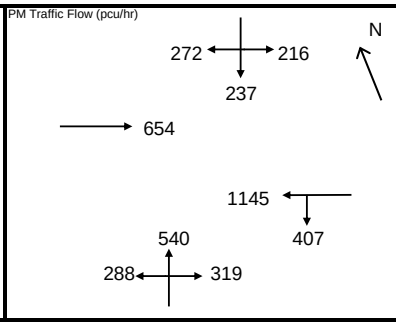
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kwun Tong Road EB	SA	A1	1,2	3.20				1935	379	0.196			1935	316	0.163	
	SA	A2	1,2	3.20				2075	406	0.196			2075	338	0.163	
Lai Yip Street NB	SA+LT	B1	5	3.40	15.0		42	1876	375	0.200		83	1805	346	0.192	
	SA	B2	5	3.30				2085	416	0.200			2085	400	0.192	
	SA	B3	5	3.30				2085	416	0.200			2085	401	0.192	
Elegance Road NB	SA	B4	5	3.50				2105	361	0.171			2105	297	0.141	
	SA+RT	B5	5	3.50	18.0		3	2100	360	0.171		17	2076	293	0.141	
	RT	B6	5	3.50	15.0		100	1914	329	0.172		100	1914	269	0.141	
Kwun Tong Road WB	LT	C1	1,5	3.30	15.0		100	1768	580	0.328	0.328	100	1768	407	0.230	0.230
	SA	C2	1,2	3.50				2105	433	0.206	0.206		2105	573	0.272	0.272
	SA	C3	1,2	3.50				2105	432	0.205			2105	572	0.272	
Elegance Road SB	LT	D1	3,4	3.50	15.0		100	1786	195	0.109	0.109	100	1786	216	0.121	0.121
	SA	D2	3,4	3.50				2105	224	0.106			2105	178	0.085	
	SA+RT	D3	3,4	3.50	18.0		41	2035	216	0.106		65	1997	169	0.085	
	RT	D4	3,4	3.50	15.0		100	1914	204	0.107		100	1914	162	0.085	

pedestrian phase	Ep	1,2		min crossing time =	12	sec GM +	10	sec FGM =	22	sec
	Fp	1,2,3,4		min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	Gp	2,3		min crossing time =	5	sec GM +	5	sec FGM =	10	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

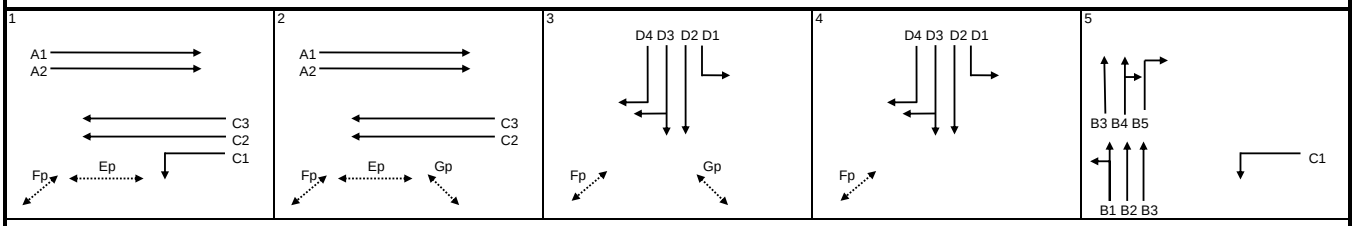
	AM Peak		PM Peak	
	2+4+5		2+3+5	
Sum y	0.643		0.623	
L (s)	15		20	
C (s)	118		108	
practical y	0.786		0.733	
R.C. (%)	22%		18%	

Note:

1) Junction Improvement Works proposed in District Council Traffic Development and Transport Committee Discussion Paper No. 3/2023

2) In AM Peak, Stage Sequence : 2>4>5>2

3) In PM Peak, Stage Sequence : 2>3>5>2



AM	I/G =	I/G =	I/G = 5	I/G = 10	I/G = 3
PM	I/G =	I/G = 7	I/G = 7	I/G = 6	I/G = 3

Signal Junction Analysis

Junction: Kwun Tong Road / Lai Yip Street — Job Number: J7409

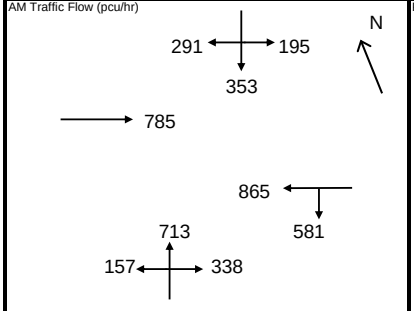
Scenario: With the Proposed Development (Sensitivity Test for adopting mean rate) — P. 32

Design Year: 2032 — Designed By: — Checked By: — Date: 19 September 2025

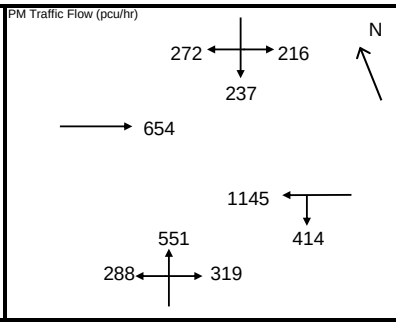
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kwun Tong Road EB	SA	A1	1,2	3.20				1935	379	0.196			1935	316	0.163	
	SA	A2	1,2	3.20				2075	406	0.196			2075	338	0.163	
Lai Yip Street NB	SA+LT	B1	5	3.40	15.0		42	1876	375	0.200		82	1807	350	0.194	
	SA	B2	5	3.30				2085	417	0.200			2085	404	0.194	
	SA	B3	5	3.30				2085	416	0.200			2085	404	0.194	
Elegance Road NB	SA	B4	5	3.50				2105	362	0.172			2105	300	0.143	
	SA+RT	B5	5	3.50	18.0		3	2100	361	0.172		17	2076	296	0.143	
	RT	B6	5	3.50	15.0		100	1914	328	0.171		100	1914	274	0.143	
Kwun Tong Road WB	LT	C1	1,5	3.30	15.0		100	1768	581	0.329	0.329	100	1768	414	0.234	0.234
	SA	C2	1,2	3.50				2105	433	0.206	0.206		2105	573	0.272	0.272
	SA	C3	1,2	3.50				2105	432	0.205			2105	572	0.272	
Elegance Road SB	LT	D1	3,4	3.50	15.0		100	1786	195	0.109	0.109	100	1786	216	0.121	0.121
	SA	D2	3,4	3.50				2105	224	0.106			2105	178	0.085	
	SA+RT	D3	3,4	3.50	18.0		41	2035	216	0.106		65	1997	169	0.085	
	RT	D4	3,4	3.50	15.0		100	1914	204	0.107		100	1914	162	0.085	

pedestrian phase	Ep	1,2		min crossing time =	12	sec GM +	10	sec FGM =	22	sec
	Fp	1,2,3,4		min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	Gp	2,3		min crossing time =	5	sec GM +	5	sec FGM =	10	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

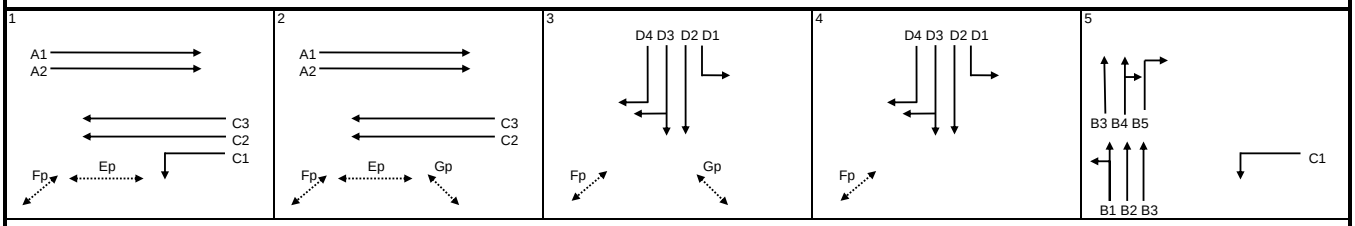
	AM Peak		PM Peak	
	2+4+5		2+3+5	
Sum y	0.644		0.627	
L (s)	15		20	
C (s)	118		108	
practical y	0.786		0.733	
R.C. (%)	22%		17%	

Note:

1) Junction Improvement Works proposed in District Council Traffic Development and Transport Committee Discussion Paper No. 3/2023

2) In AM Peak, Stage Sequence : 2>4>5>2

3) In PM Peak, Stage Sequence : 2>3>5>2



AM	I/G =	I/G =	I/G = 5	I/G = 10	I/G = 3
PM	I/G =	I/G = 7	I/G = 7	I/G = 6	I/G = 3

Signal Junction Analysis

Junction: Hoi Bun Road / Lai Yip Street — Job Number: J7409

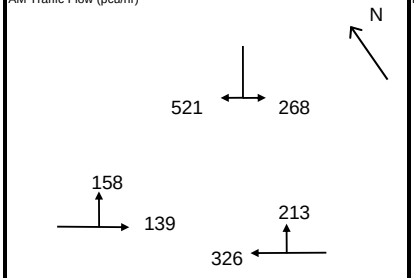
Scenario: Existing Condition — P. 33

Design Year: 2025 — Designed By: — Checked By: — Date: 19 September 2025

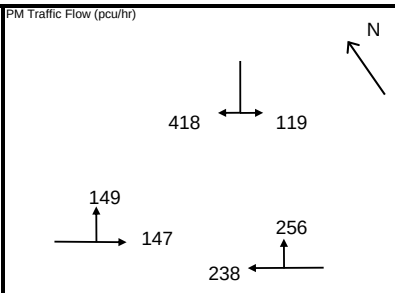
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hoi Bun Road EB	LT	A1	1	3.30	15.0		100	1768	158	0.089	0.089	100	1768	149	0.084	0.084
	SA	A2	1	3.30				2085	139	0.067			2085	147	0.071	
Hoi Bun Road WB	SA	B1	1,2	3.30				1945	326	0.168			1945	238	0.122	
	RT	B2	2	3.30	20.0		100	1940	213	0.110	0.110	100	1940	256	0.132	0.132
Lai Yip Street SB	LT	C1	3	3.30	18.0		100	1795	268	0.149		100	1795	119	0.066	
	RT^	C2	3	3.30	25.0		100	1869	262	0.140	0.149	100	1869	210	0.112	
	RT^	C3	3	3.30	22.0		100	1854	259	0.140		100	1854	208	0.112	0.112

pedestrian phase	Dp	1,2,4		min crossing time =	12	sec GM +	9	sec FGM =	21	sec				
	Ep	3,4		min crossing time =	7	sec GM +	6	sec FGM =	13	sec				
	Fp	4		min crossing time =	7	sec GM +	7	sec FGM =	14	sec				

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



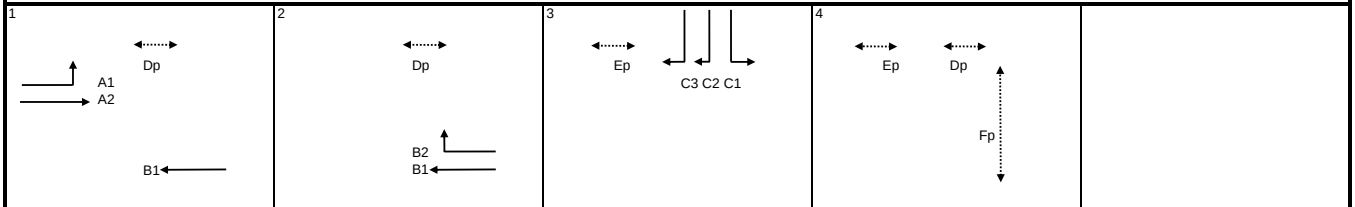
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak 1+2+3	AM Peak	PM Peak 1+2+3	PM Peak
Sum y	0.348		0.329	
L (s)	35		35	
C (s)	118		108	
practical y	0.633		0.608	
R.C. (%)	82%		85%	

Note:

^ Site Factor is applied



AM	G =	I/G = 8	G =	I/G = 5	G =	I/G = 8	G = 14	I/G = 3	G =							
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =							
PM	G =	I/G = 8	G =	I/G = 5	G =	I/G = 8	G = 14	I/G = 3	G =							
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =							

Signal Junction Analysis

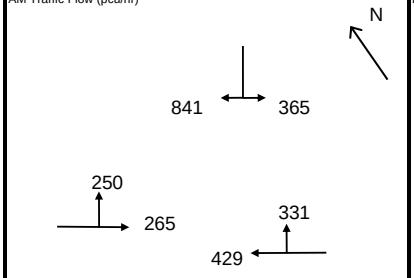
Junction: Hoi Bun Road / Lai Yip Street — Job Number: J7409

Scenario: Without the Proposed Development — P. 34

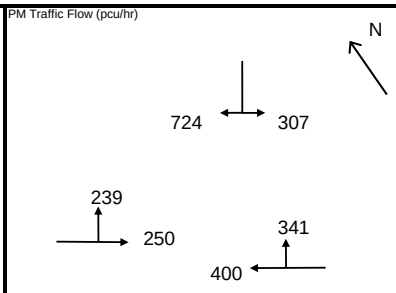
Design Year: 2032 — Designed By: _____ — Checked By: _____ — Date: 19 September 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hoi Bun Road EB	LT*	A1	1	3.65	15.0		100	1800	250	0.139	0.139	100	1800	239	0.133	0.133
	SA*	A2	1	3.65				2120	265	0.125			2120	250	0.118	
Hoi Bun Road WB	SA	B1	1,2	3.30				1945	429	0.221			1945	400	0.206	
	RT	B2	2	3.30	20.0		100	1940	331	0.171	0.171	100	1940	341	0.176	0.176
Lai Yip Street SB	LT	C1	3	3.30	18.0		100	1795	365	0.203	0.226	100	1795	307	0.171	
	RT^	C2	3	3.30	25.0		100	1869	422	0.226		100	1869	363	0.194	
	RT^	C3	3	3.30	22.0		100	1854	419	0.226		100	1854	361	0.195	0.195
pedestrian phase*		Fp	4		min crossing time =		7	sec GM +		7	sec FGM =		14	sec		
		Gp	4		min crossing time =		8	sec GM +		8	sec FGM =		16	sec		
		Hp	4		min crossing time =		10	sec GM +		9	sec FGM =		19	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

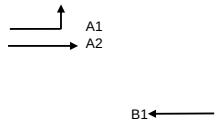
	AM Peak 1+2+3		PM Peak 1+2+3	
Sum y	0.536		0.503	
L (s)	35		35	
C (s)	118		108	
practical y	0.633		0.608	
R.C. (%)	18%		21%	

Note:

*Junction Improvement Scheme by Other Project

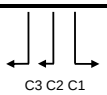
^ Site Factor is applied

1

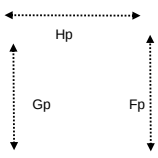


2

3



4



AM	G =	I/G = 8	G =	I/G = 5	G =	I/G = 8	G = 14	I/G = 3	G =							
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =							
PM	G =	I/G = 8	G =	I/G = 5	G =	I/G = 8	G = 14	I/G = 3	G =							
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =							

Signal Junction Analysis

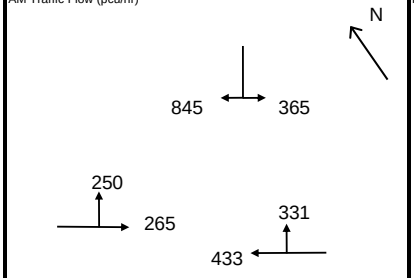
Junction: Hoi Bun Road / Lai Yip Street — Job Number: J7409

Scenario: With the Proposed Development — P. 35

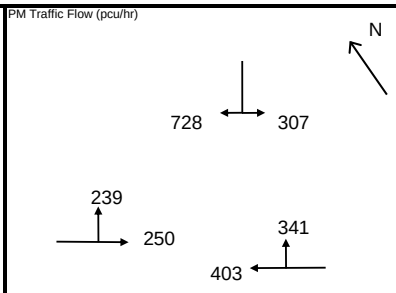
Design Year: 2032 — Designed By: _____ — Checked By: _____ — Date: 19 September 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hoi Bun Road EB	LT*	A1	1	3.65	15.0		100	1800	250	0.139	0.139	100	1800	239	0.133	0.133
	SA*	A2	1	3.65				2120	265	0.125			2120	250	0.118	
Hoi Bun Road WB	SA	B1	1,2	3.30				1945	433	0.223			1945	403	0.207	
	RT	B2	2	3.30	20.0		100	1940	331	0.171	0.171	100	1940	341	0.176	0.176
Lai Yip Street SB	LT	C1	3	3.30	18.0		100	1795	365	0.203		100	1795	307	0.171	
	RT^	C2	3	3.30	25.0		100	1869	424	0.227		100	1869	365	0.195	
	RT^	C3	3	3.30	22.0		100	1854	421	0.227	0.227	100	1854	363	0.196	0.196
pedestrian phase*		Fp	4		min crossing time =		7	sec GM +		7	sec FGM =		14	sec		
		Gp	4		min crossing time =		8	sec GM +		8	sec FGM =		16	sec		
		Hp	4		min crossing time =		10	sec GM +		9	sec FGM =		19	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

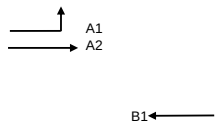
	AM Peak 1+2+3		PM Peak 1+2+3	
Sum y	0.537		0.504	
L (s)	35		35	
C (s)	118		108	
practical y	0.633		0.608	
R.C. (%)	18%		21%	

Note:

*Junction Improvement Scheme by Other Project

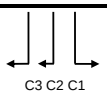
^ Site Factor is applied

1

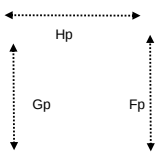


2

3



4



AM	G =	I/G = 8	G =	I/G = 5	G =	I/G = 8	G = 14	I/G = 3	G =							
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =							
PM	G =	I/G = 8	G =	I/G = 5	G =	I/G = 8	G = 14	I/G = 3	G =							
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =							

Signal Junction Analysis

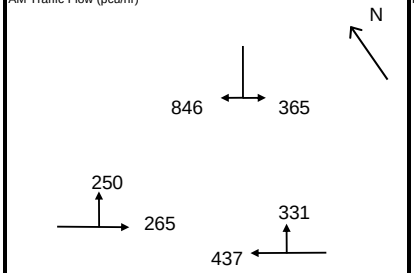
Junction: Hoi Bun Road / Lai Yip Street — Job Number: J7409

Scenario: With the Proposed Development (Sensitivity Test for adopting mean rate) — P. 36

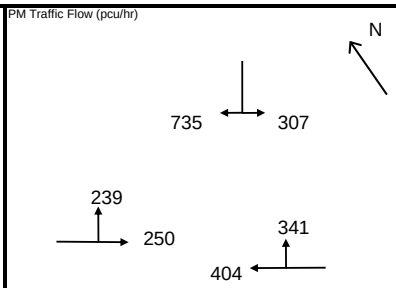
Design Year: 2032 — Designed By: _____ — Checked By: _____ — Date: 19 September 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hoi Bun Road EB	LT*	A1	1	3.65	15.0		100	1800	250	0.139	0.139	100	1800	239	0.133	0.133
	SA*	A2	1	3.65				2120	265	0.125			2120	250	0.118	
Hoi Bun Road WB	SA	B1	1,2	3.30				1945	437	0.225			1945	404	0.208	
	RT	B2	2	3.30	20.0		100	1940	331	0.171	0.171	100	1940	341	0.176	0.176
Lai Yip Street SB	LT	C1	3	3.30	18.0		100	1795	365	0.203		100	1795	307	0.171	
	RT^	C2	3	3.30	25.0		100	1869	425	0.227		100	1869	369	0.197	
	RT^	C3	3	3.30	22.0		100	1854	421	0.227	0.227	100	1854	366	0.197	0.197
pedestrian phase*		Fp	4		min crossing time =		7	sec GM +		7	sec FGM =		14	sec		
		Gp	4		min crossing time =		8	sec GM +		8	sec FGM =		16	sec		
		Hp	4		min crossing time =		10	sec GM +		9	sec FGM =		19	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

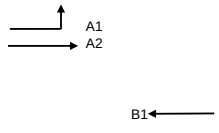
	AM Peak 1+2+3		PM Peak 1+2+3	
Sum y	0.537		0.506	
L (s)	35		35	
C (s)	118		108	
practical y	0.633		0.608	
R.C. (%)	18%		20%	

Note:

*Junction Improvement Scheme by Other Project

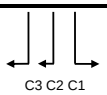
^ Site Factor is applied

1

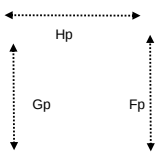


2

3



4



AM	G =	I/G = 8	G =	I/G = 5	G =	I/G = 8	G = 14	I/G = 3	G =							
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =							
PM	G =	I/G = 8	G =	I/G = 5	G =	I/G = 8	G = 14	I/G = 3	G =							
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =							

Signal Junction Analysis

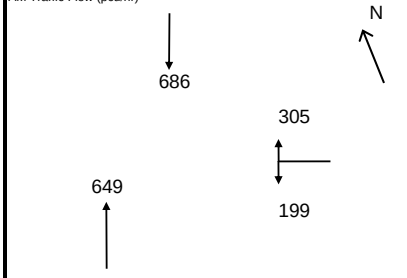
Junction: Lai Yip Street / Hung To Road — Job Number: J7409

Scenario: Existing Condition — P. 37

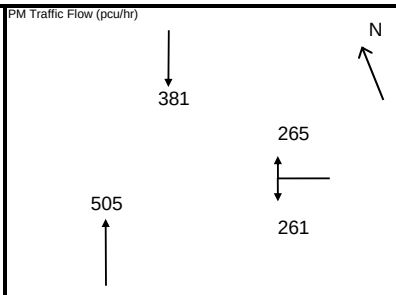
Design Year: 2025 — Designed By: — Checked By: — Date: 22 September 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Lai Yip Street SB	SA	A1	1	3.50				1965	331	0.168	0.169		1965	184	0.094	
	SA	A2	1	3.50				2105	355	0.169			2105	197	0.094	
Lai Yip Street NB	SA	B1	1	3.50				1965	313	0.159			1965	244	0.124	0.124
	SA	B2	1	3.50				2105	336	0.160			2105	261	0.124	
Hung To Road WB	LT	C1	2	3.50	15.0											
	LT+RT	C2*	2	3.50	18.0		100	1846	504	0.273	0.273	100	1846	526	0.285	0.285
	RT	C3	2	3.50	25.0											
pedestrian phase		Dp	1		min crossing time =			7	sec GM +		16		sec FGM =		23	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

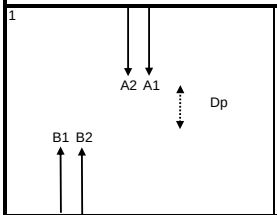
$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak 1+2	AM Peak	PM Peak 1+2	PM Peak
Sum y	0.442		0.409	
L (s)	14		11	
C (s)	120		108	
practical y	0.795		0.808	
R.C. (%)	80%		98%	

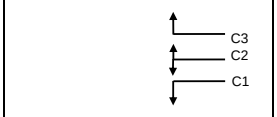
Note:

Assume that phases C1 and C3 are blocked due to on-street parking activities along Hung To Road & Site Factor is applied

1



2



AM	G =	I/G = 10	G =	I/G = 6	G =	I/G =	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	

Signal Junction Analysis

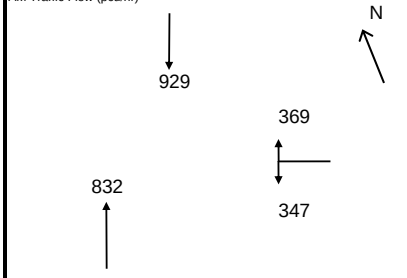
Junction: Lai Yip Street / Hung To Road — Job Number: J7409

Scenario: Without the Proposed Development — P. 38

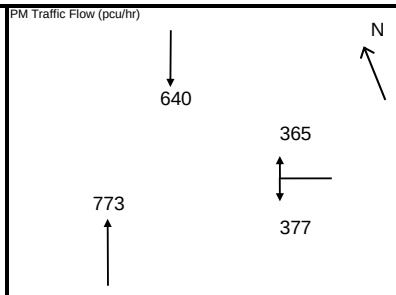
Design Year: 2032 — Designed By: — Checked By: — Date: 22 September 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Lai Yip Street SB	SA	A1	1	3.50				1965	449	0.228	0.228		1965	309	0.157	
	SA	A2	1	3.50				2105	480	0.228			2105	331	0.157	
Lai Yip Street NB	SA	B1	1	3.50				1965	402	0.205			1965	373	0.190	0.190
	SA	B2	1	3.50				2105	430	0.204			2105	400	0.190	
Hung To Road WB	LT	C1	2	3.50	15.0											
	LT+RT	C2*	2	3.50	18.0		100	1846	716	0.388	0.388	100	1846	742	0.402	0.402
	RT	C3	2	3.50	25.0											
pedestrian phase		Dp	1		min crossing time =			7	sec GM +		16	sec FGM =		23	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



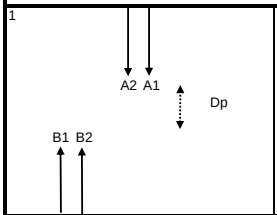
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

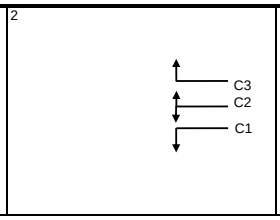
$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak 1+2	AM Peak	PM Peak 1+2	PM Peak
Sum y	0.616		0.592	
L (s)	14		11	
C (s)	120		108	
practical y	0.795		0.808	
R.C. (%)	29%		37%	

Note:

Assume that phases C1 and C3 are blocked due to on-street parking activities along Hung To Road & Site Factor is applied





AM	G =	I/G = 10	G =	I/G = 6	G =	I/G =	G =	I/G =	G =		
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =		
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G =	G =		
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =		

Signal Junction Analysis

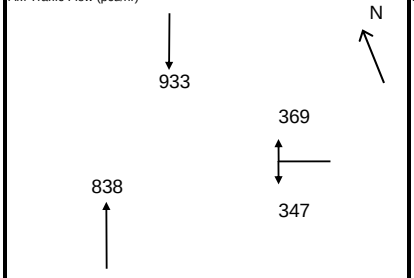
Junction: Lai Yip Street / Hung To Road — Job Number: J7409

Scenario: With the Proposed Development — P. 39

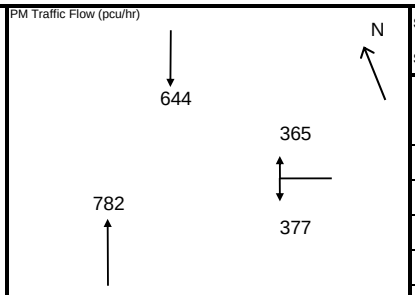
Design Year: 2032 — Designed By: — Checked By: — Date: 22 September 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Lai Yip Street SB	SA	A1	1	3.50				1965	450	0.229	0.229		1965	311	0.158	
	SA	A2	1	3.50				2105	483	0.229			2105	333	0.158	
Lai Yip Street NB	SA	B1	1	3.50				1965	405	0.206			1965	378	0.192	0.192
	SA	B2	1	3.50				2105	433	0.206			2105	404	0.192	
Hung To Road WB	LT	C1	2	3.50	15.0											
	LT+RT	C2*	2	3.50	18.0		100	1846	716	0.388	0.388	100	1846	742	0.402	0.402
	RT	C3	2	3.50	25.0											
pedestrian phase		Dp	1		min crossing time =			7	sec GM +		16	sec FGM =		23	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

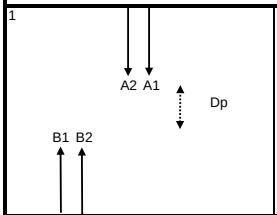
$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak 1+2	AM Peak	PM Peak 1+2	PM Peak
Sum y	0.617		0.594	
L (s)	14		11	
C (s)	120		108	
practical y	0.795		0.808	
R.C. (%)	29%		36%	

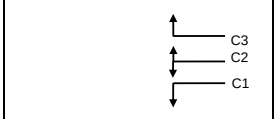
Note:

Assume that phases C1 and C3 are blocked due to on-street parking activities along Hung To Road & Site Factor is applied

1



2



AM	G =	I/G = 10	G =	I/G = 6	G =	I/G =	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	

Signal Junction Analysis

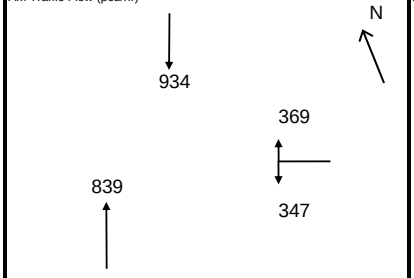
Junction: Lai Yip Street / Hung To Road — Job Number: J7409

Scenario: With the Proposed Development (Sensitivity Test for adopting mean rate) — P. 40

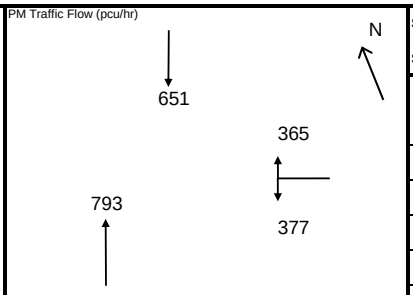
Design Year: 2032 — Designed By: — Checked By: — Date: 22 September 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Lai Yip Street SB	SA	A1	1	3.50				1965	451	0.230	0.230		1965	314	0.160	
	SA	A2	1	3.50				2105	483	0.229			2105	337	0.160	
Lai Yip Street NB	SA	B1	1	3.50				1965	405	0.206			1965	383	0.195	0.195
	SA	B2	1	3.50				2105	434	0.206			2105	410	0.195	
Hung To Road WB	LT	C1	2	3.50	15.0											
	LT+RT	C2*	2	3.50	18.0		100	1846	716	0.388	0.388	100	1846	742	0.402	0.402
	RT	C3	2	3.50	25.0											
pedestrian phase		Dp	1		min crossing time =			7	sec GM +		16	sec FGM =		23	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

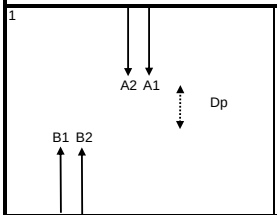
$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak 1+2	AM Peak	PM Peak 1+2	PM Peak
Sum y	0.617		0.597	
L (s)	14		11	
C (s)	120		108	
practical y	0.795		0.808	
R.C. (%)	29%		35%	

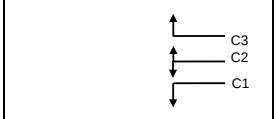
Note:

Assume that phases C1 and C3 are blocked due to on-street parking activities along Hung To Road & Site Factor is applied

1



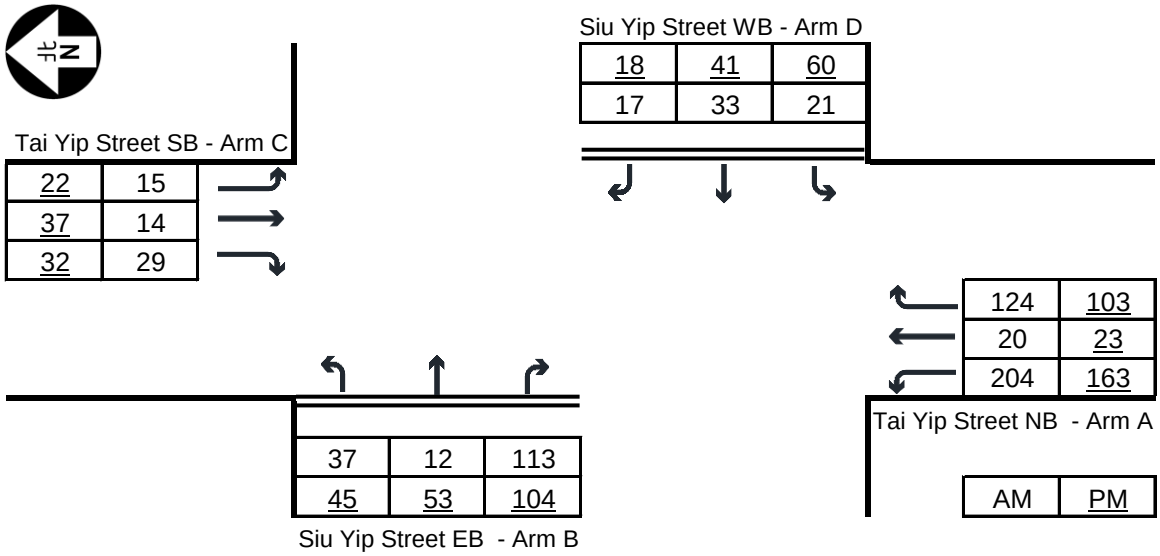
2



AM	G =	I/G = 10	G =	I/G = 6	G =	I/G =	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	

Priority Junction Analysis

Junction:	Tai Yip Street / Siu Yip Street				
Design Year:	2025	Job Number:	J7409	Date:	19 Sep 2025
Scheme:	Existing Condition				Page 41



Geometry :

Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

where W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

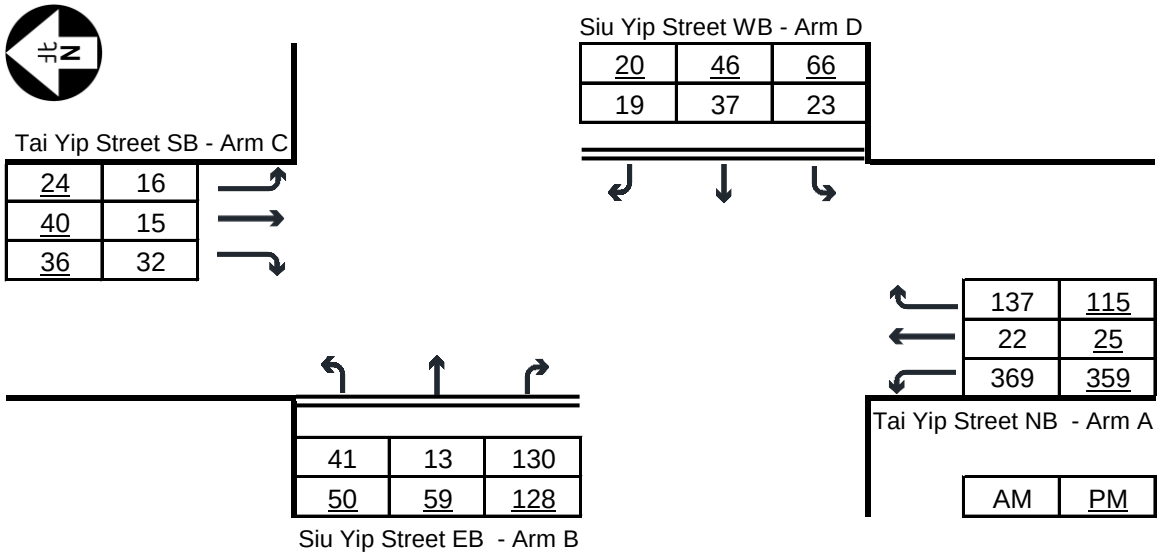
	Input		Input		Input		Input	
	W	7.80	V-CB	250	V-AD	100	w-BA	5.00
Geometry :	W-CR	0.00	V-lBA	35	V-lDC	55	w-BC	5.00
	W-CB	4.00	V-rBC	40	V-rDA	20	w-DA	5.00
	W-AD	4.00					w-DC	5.00

Traffic Flows, pcu/hr		AM	PM	Capacity, pcu/hr	AM	PM
Analysis :	q-B-ACD	178	222	Q-B-ACD	554	552
	q-A-BCD	201	157	Q-A-BCD	777	742
	q-A-B	166	141			
	q-A-C	16	20			
	q-D-ABC	78	131	Q-D-ABC	513	554
	q-C-ABD	34	39	Q-C-ABD	626	667
	q-C-D	16	23			
	q-C-A	15	38			

Ratio-of-flow to Capacity		AM	PM
	B-ACD	0.322	0.403
	A-BCD	0.258	0.212
	D-ABC	0.152	0.237
	C-ABD	0.054	0.059

Priority Junction Analysis

Junction:	Tai Yip Street / Siu Yip Street				
Design Year:	2032	Job Number:	J7409	Date:	19 Sep 2025
Scheme:	Without the Proposed Development			Page	42



Geometry :

Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

where W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

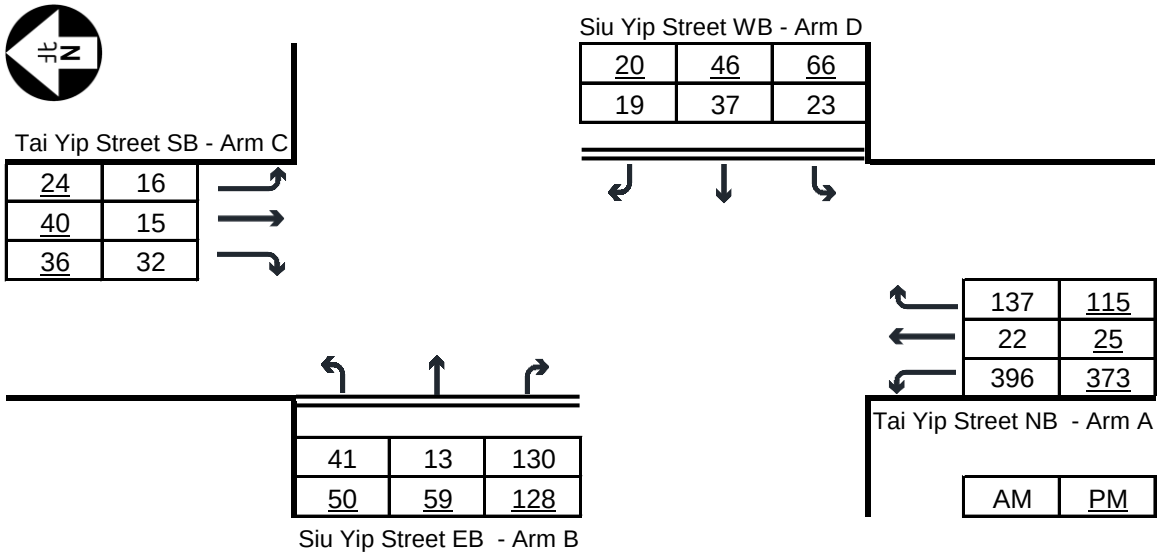
	Input		Input		Input		Input	
	W	7.80	V-CB	250	V-AD	100	w-BA	5.00
Geometry :	W-CR	0.00	V-lBA	35	V-lDC	55	w-BC	5.00
	W-CB	4.00	V-rBC	40	V-rDA	20	w-DA	5.00
	W-AD	4.00					w-DC	5.00

Traffic Flows, pcu/hr		AM	PM	Capacity, pcu/hr		AM	PM
Analysis :	q-B-ACD	203	261		Q-B-ACD	527	519
	q-A-BCD	292	244		Q-A-BCD	898	885
	q-A-B	273	286				
	q-A-C	16	20				
	q-D-ABC	87	145		Q-D-ABC	489	530
	q-C-ABD	37	45		Q-C-ABD	576	611
	q-C-D	16	24				
	q-C-A	15	41				

Ratio-of-flow to Capacity	AM	PM
B-ACD	0.384	0.503
A-BCD	0.325	0.276
D-ABC	0.178	0.274
C-ABD	0.065	0.073

Priority Junction Analysis

Junction:	Tai Yip Street / Siu Yip Street				
Design Year:	2032	Job Number:	J7409	Date:	19 Sep 2025
Scheme:	With the Proposed Development				Page 43



Geometry :

Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

where W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

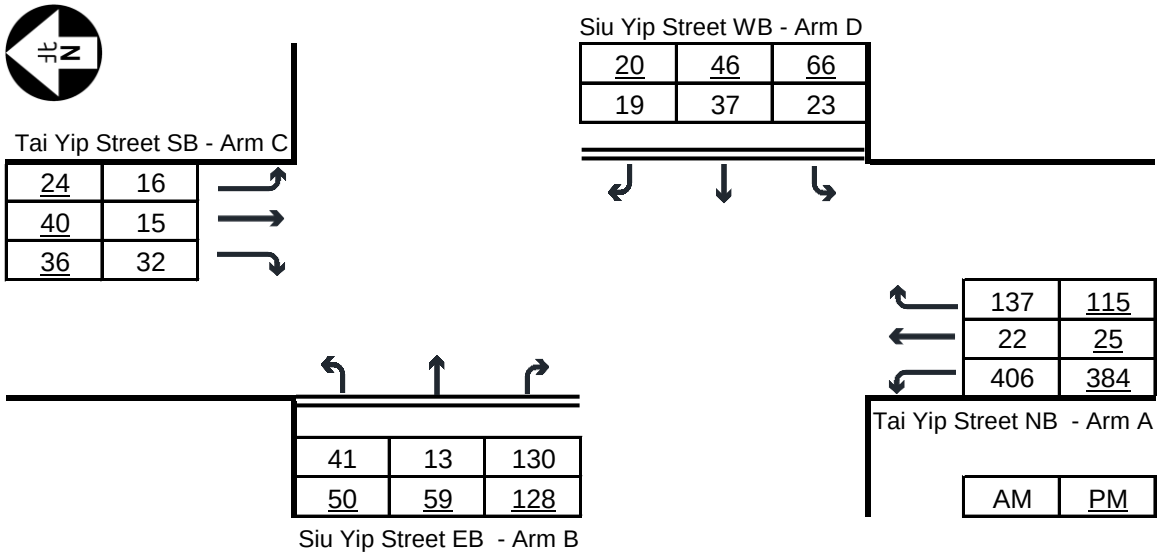
	Input		Input		Input		Input	
	W	7.80	V-CB	250	V-AD	100	w-BA	5.00
Geometry :	W-CR	0.00	V-lBA	35	V-lDC	55	w-BC	5.00
	W-CB	4.00	V-rBC	40	V-rDA	20	w-DA	5.00
	W-AD	4.00					w-DC	5.00

Traffic Flows, pcu/hr		AM	PM	Capacity, pcu/hr	AM	PM
Analysis :	q-B-ACD	203	261	Q-B-ACD	524	517
	q-A-BCD	305	250	Q-A-BCD	917	895
	q-A-B	290	295			
	q-A-C	16	20			
	q-D-ABC	87	145	Q-D-ABC	486	529
	q-C-ABD	38	45	Q-C-ABD	568	608
	q-C-D	16	24			
	q-C-A	15	41			

Ratio-of-flow to Capacity		AM	PM
	B-ACD	0.387	0.505
	A-BCD	0.332	0.279
	D-ABC	0.179	0.275
	C-ABD	0.066	0.074

Priority Junction Analysis

Junction:	Tai Yip Street / Siu Yip Street				
Design Year:	2032	Job Number:	J7409	Date:	19 Sep 2025
Scheme:	With the Proposed Development (Sensitivity Test for adopting mean rate)			Page	44



Geometry :

Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

where W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

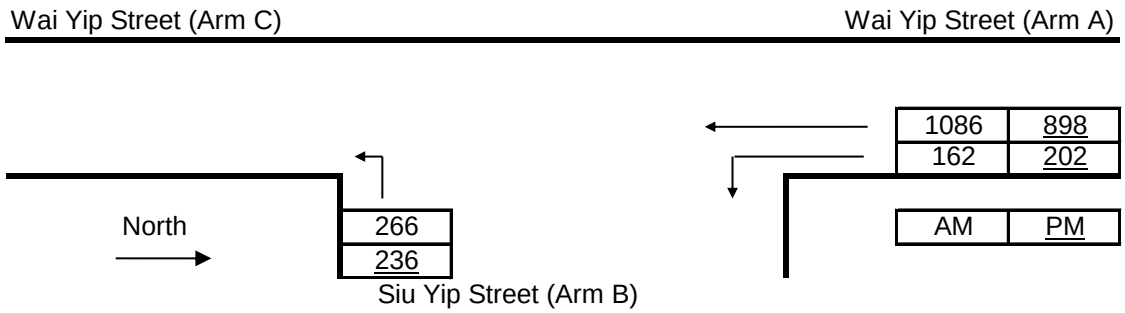
	Input		Input		Input		Input	
	W	7.80	V-CB	250	V-AD	100	w-BA	5.00
Geometry :	W-CR	0.00	V-lBA	35	V-lDC	55	w-BC	5.00
	W-CB	4.00	V-rBC	40	V-rDA	20	w-DA	5.00
	W-AD	4.00					w-DC	5.00

Traffic Flows, pcu/hr		AM	PM	Capacity, pcu/hr	AM	PM
Analysis :	q-B-ACD	203	261	Q-B-ACD	523	514
	q-A-BCD	310	260	Q-A-BCD	925	913
	q-A-B	296	313			
	q-A-C	16	20			
	q-D-ABC	87	145	Q-D-ABC	485	527
	q-C-ABD	38	45	Q-C-ABD	565	601
	q-C-D	16	24			
	q-C-A	15	41			

Ratio-of-flow to Capacity		AM	PM
	B-ACD	0.387	0.507
	A-BCD	0.335	0.285
	D-ABC	0.179	0.276
	C-ABD	0.066	0.075

Priority Junction Analysis

Junction:	Wai Yip Street / Siu Yip Street				
Design Year:	2025	Job Number:	J7409	Date:	19 September 2025
Scenario:	Existing Condition				P. 45



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	19.00	V-rBA	45	w-BA	5.00	D	0.9846
	W-CR	0.00	V-lBA	45	w-BC	5.00	E	1.0508
			V-rBC	45	w-CB	0.00	F	0.7338
			V-rCB	250			Y	0.3445

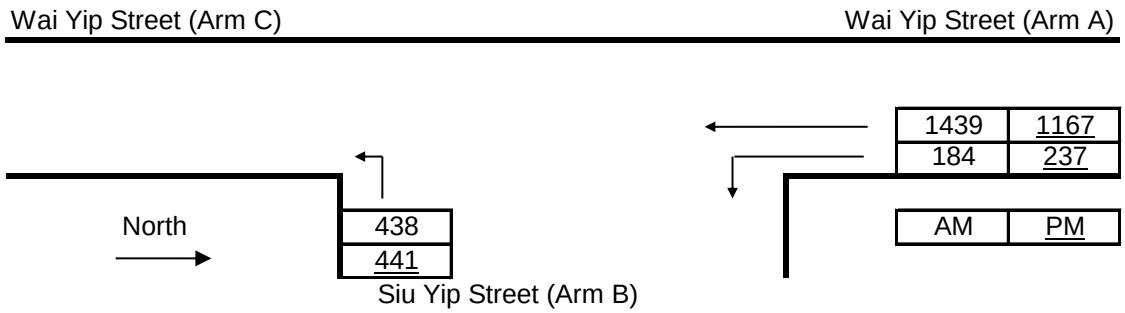
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	475	497
q-CB	0	0	Q-BC	631	654
q-AB	162	202	Q-CB	432	445
q-AC	1086	898	Q-BAC	631	654
q-BA	0	0			
q-BC	266	236			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.421	0.361
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Wai Yip Street / Siu Yip Street				
Design Year:	2032	Job Number:	J7409	Date:	19 September 2025
Scenario:	Without the Proposed Development				P. 46



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	19.00	V-rBA	45	w-BA	5.00	D	0.9846
	W-CR	0.00	V-lBA	45	w-BC	5.00	E	1.0508
			V-rBC	45	w-CB	0.00	F	0.7338
			V-rCB	250			Y	0.3445

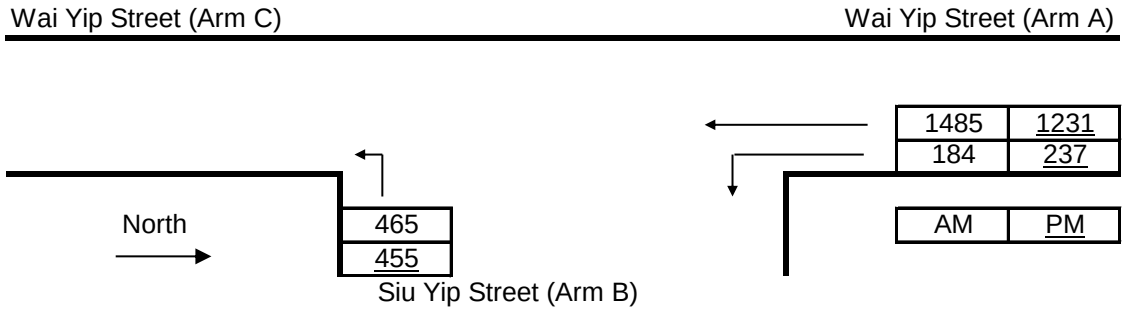
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	431	462
q-CB	0	0	Q-BC	584	617
q-AB	184	237	Q-CB	397	417
q-AC	1439	1167	Q-BAC	584	617
q-BA	0	0			
q-BC	438	441			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.750	0.715
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Wai Yip Street / Siu Yip Street				
Design Year:	2032	Job Number:	J7409	Date:	19 September 2025
Scenario:	With the Proposed Development				P. 47



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	19.00	V-rBA	45	w-BA	5.00	D	0.9846
	W-CR	0.00	V-lBA	45	w-BC	5.00	E	1.0508
			V-rBC	45	w-CB	0.00	F	0.7338
			V-rCB	250			Y	0.3445

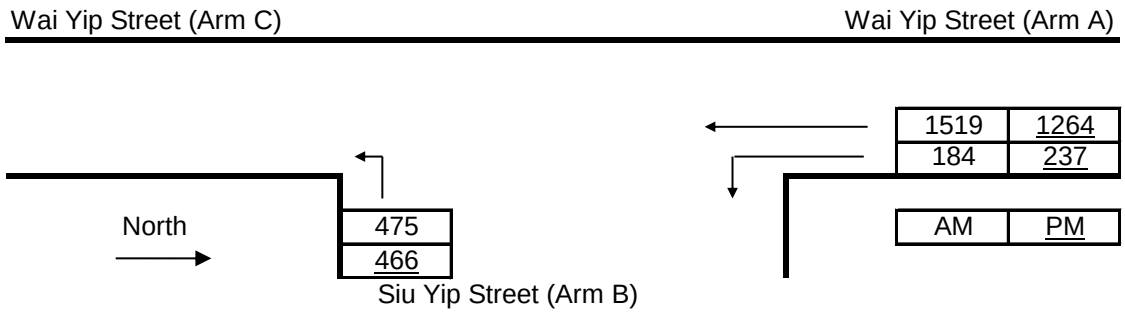
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	425	454
q-CB	0	0	Q-BC	578	608
q-AB	184	237	Q-CB	393	412
q-AC	1485	1231	Q-BAC	578	608
q-BA	0	0			
q-BC	465	455			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.805	0.748
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Wai Yip Street / Siu Yip Street				
Design Year:	2032	Job Number:	J7409	Date:	19 September 2025
Scenario:	With the Proposed Development (Sensitivity Test for adopting mean rate)				P. 48



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

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

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

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

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

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

Geometry :	Input		Input		Input		Calculated	
	W	19.00	V-rBA	45	w-BA	5.00	D	0.9846
	W-CR	0.00	V-lBA	45	w-BC	5.00	E	1.0508
			V-rBC	45	w-CB	0.00	F	0.7338
			V-rCB	250			Y	0.3445

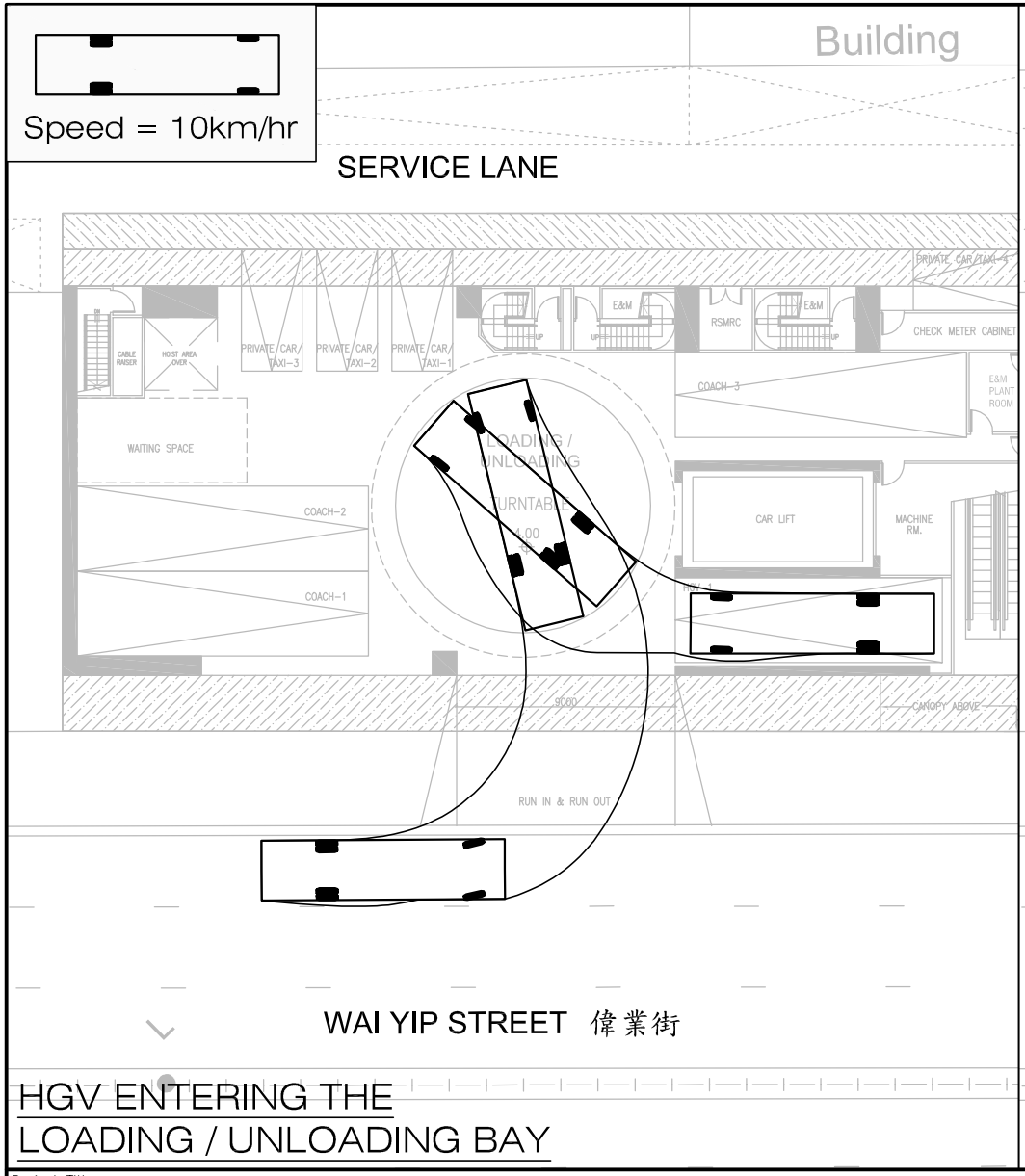
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	421	450
q-CB	0	0	Q-BC	573	604
q-AB	184	237	Q-CB	390	409
q-AC	1519	1264	Q-BAC	573	604
q-BA	0	0			
q-BC	475	466			
f	1.000	1.000			

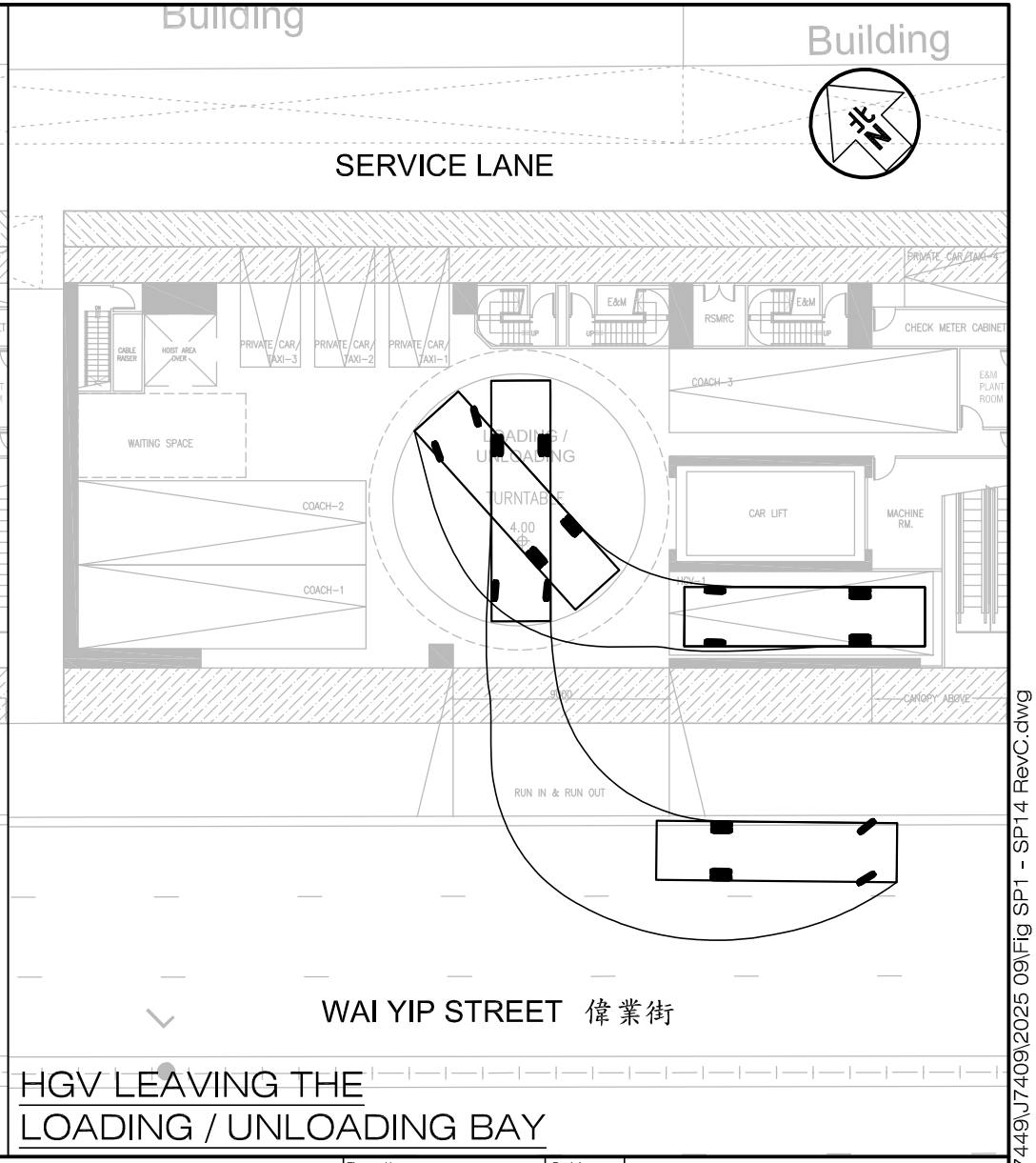
Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.829	0.772
C-B	0.000	0.000

Appendix 2 –
Swept Path Analysis

Speed = 10km/hr



HGV ENTERING THE LOADING / UNLOADING BAY



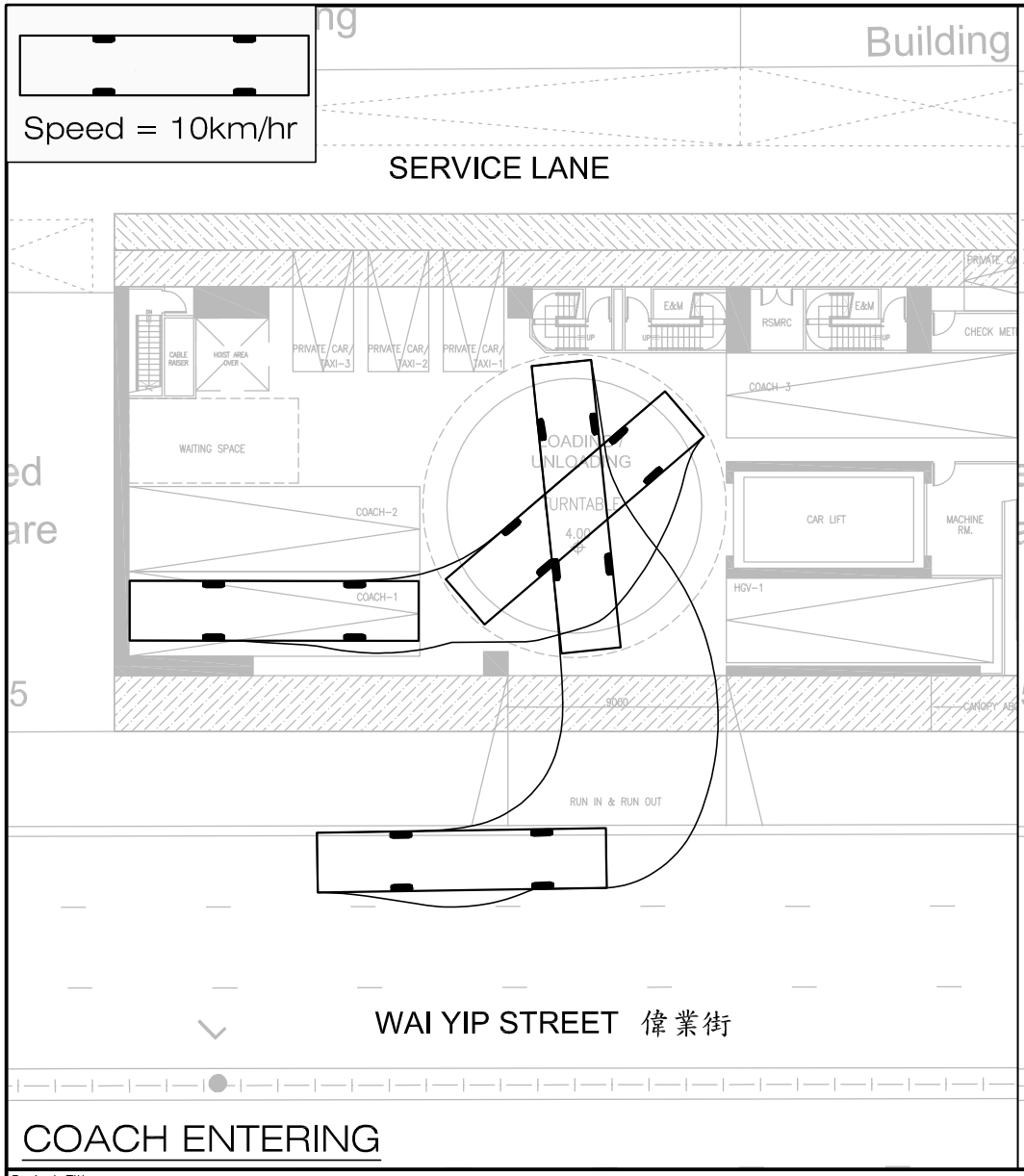
HGV LEAVING THE LOADING / UNLOADING BAY

Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON	J7409	Figure No. SP1 / Revision C
Figure Title	SWEPT PATH OF HEAVY GOODS VEHICLE ENTERING AND LEAVING THE HGV LOADING / UNLOADING BAY HGV-1 ON G/F		Designed by C Y Y / Drawn by N C M / Checked by K C
			Scale in A4 1 : 300 / Date 19 SEP 2025

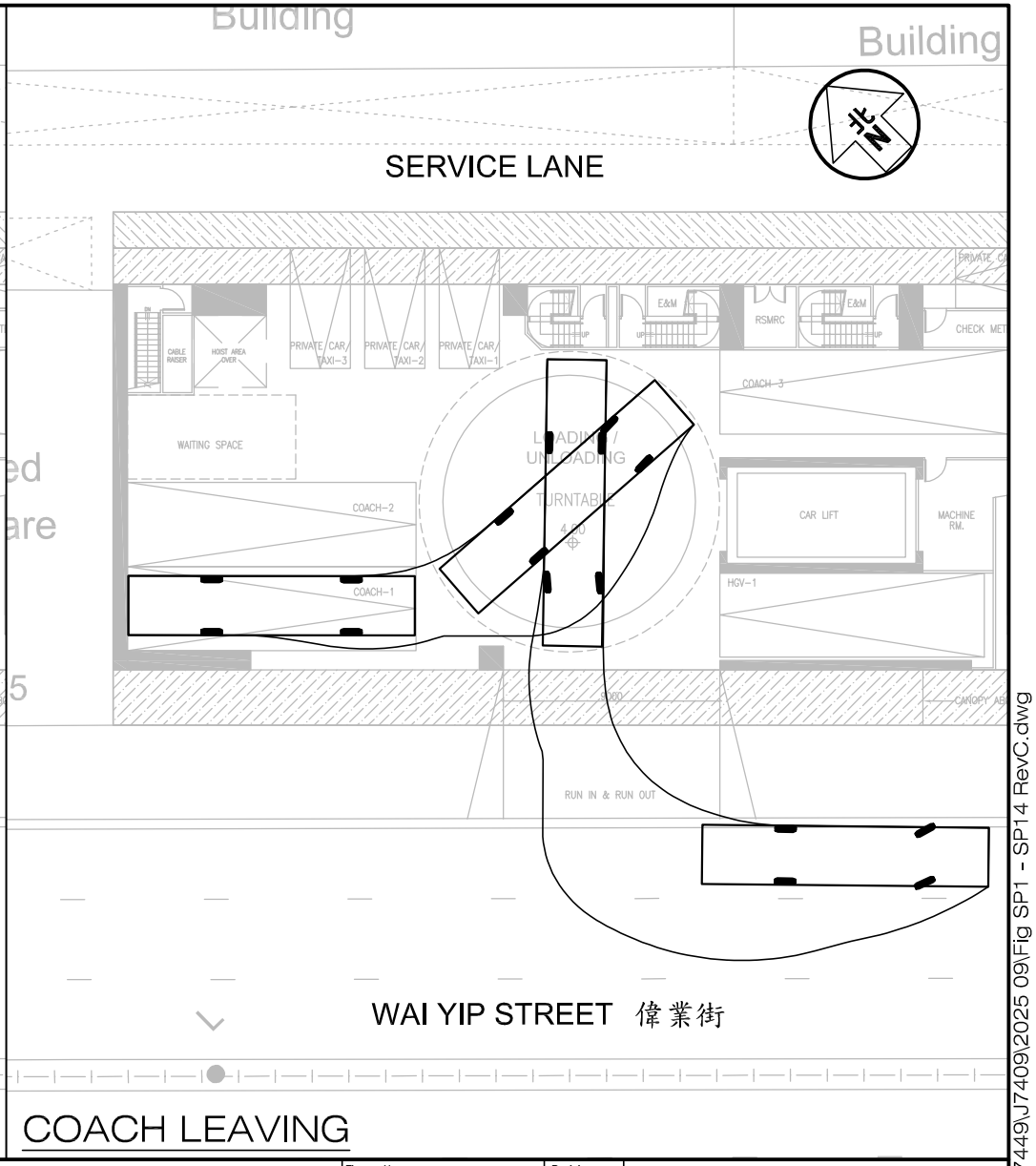
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig SP1 - SP14 RevC.dwg

Speed = 10km/hr



COACH ENTERING



COACH LEAVING

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON — J7409

Figure Title: SWEPT PATH OF COACH ENTERING AND LEAVING THE "SHARED-USE" FOR COACHES/BUSES AND M/HGV LAYBY COACH-1 ON G/F

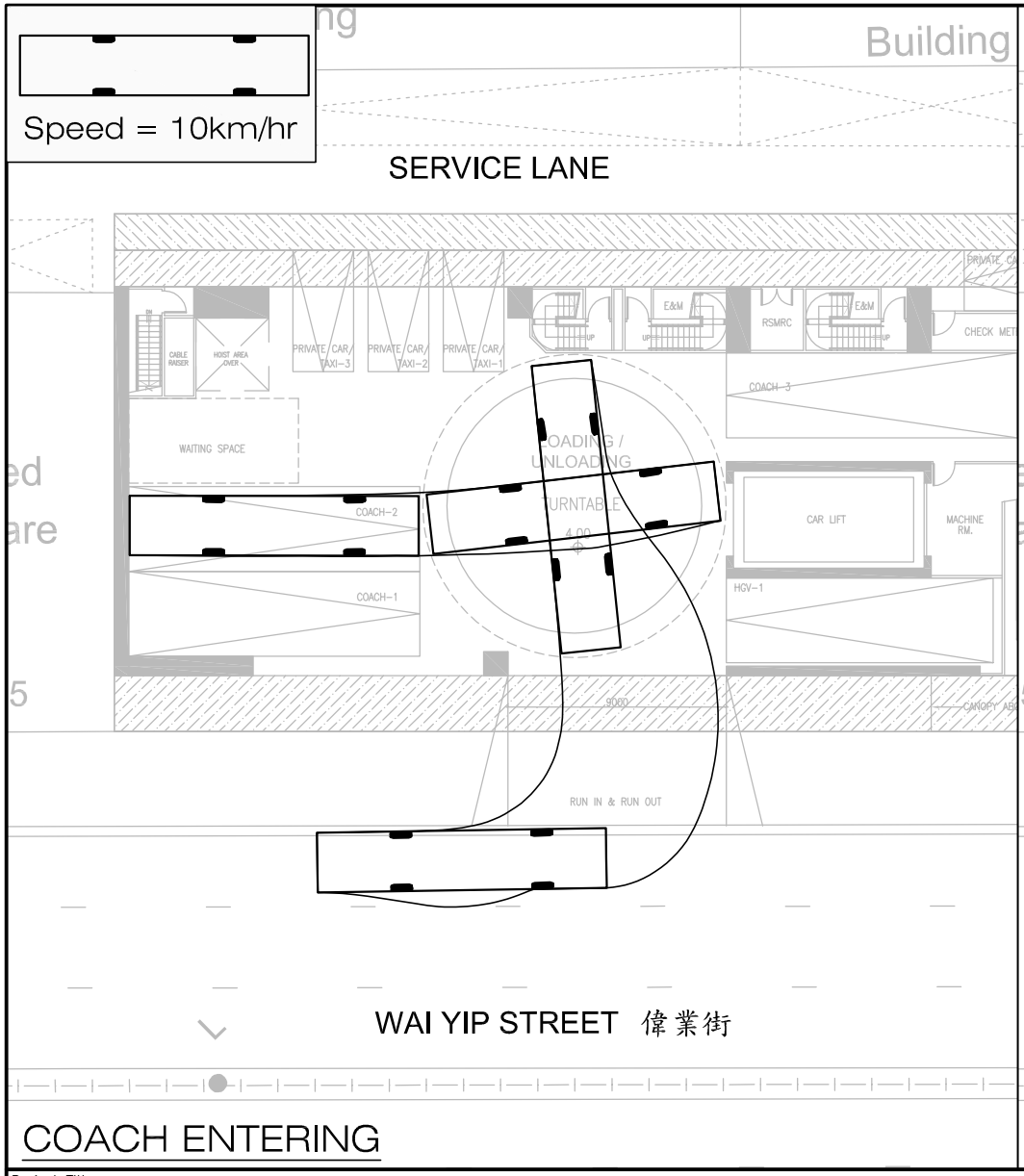
Figure No.	Revision
SP2	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

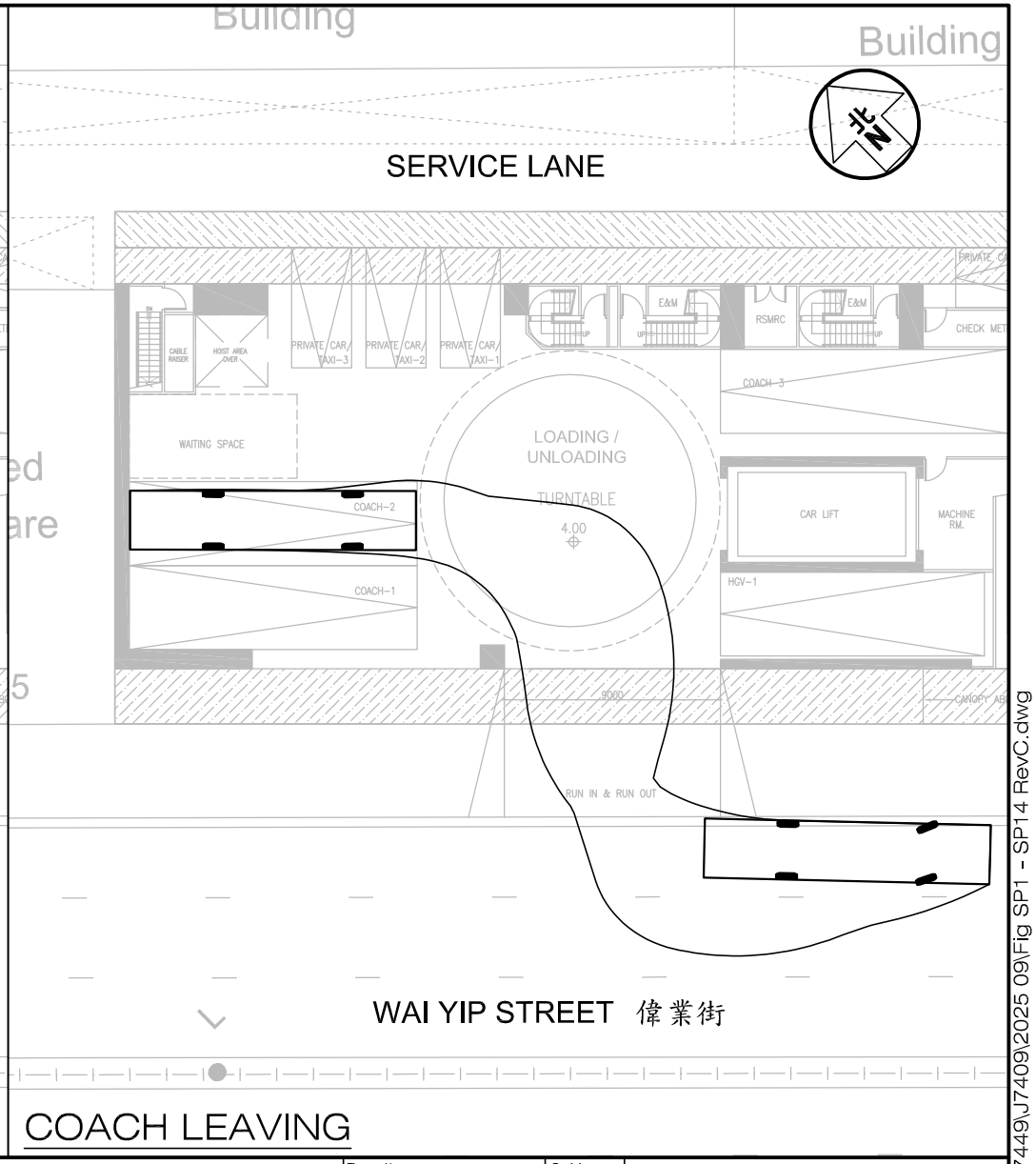
Scale in A4	Date
1 : 300	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig SP1 - SP14 RevC.dwg



COACH ENTERING



COACH LEAVING

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title: SWEPT PATH OF COACH ENTERING AND LEAVING THE "SHARED-USE" FOR COACHES/BUSES AND M/HGV LAYBY COACH-2 ON G/F

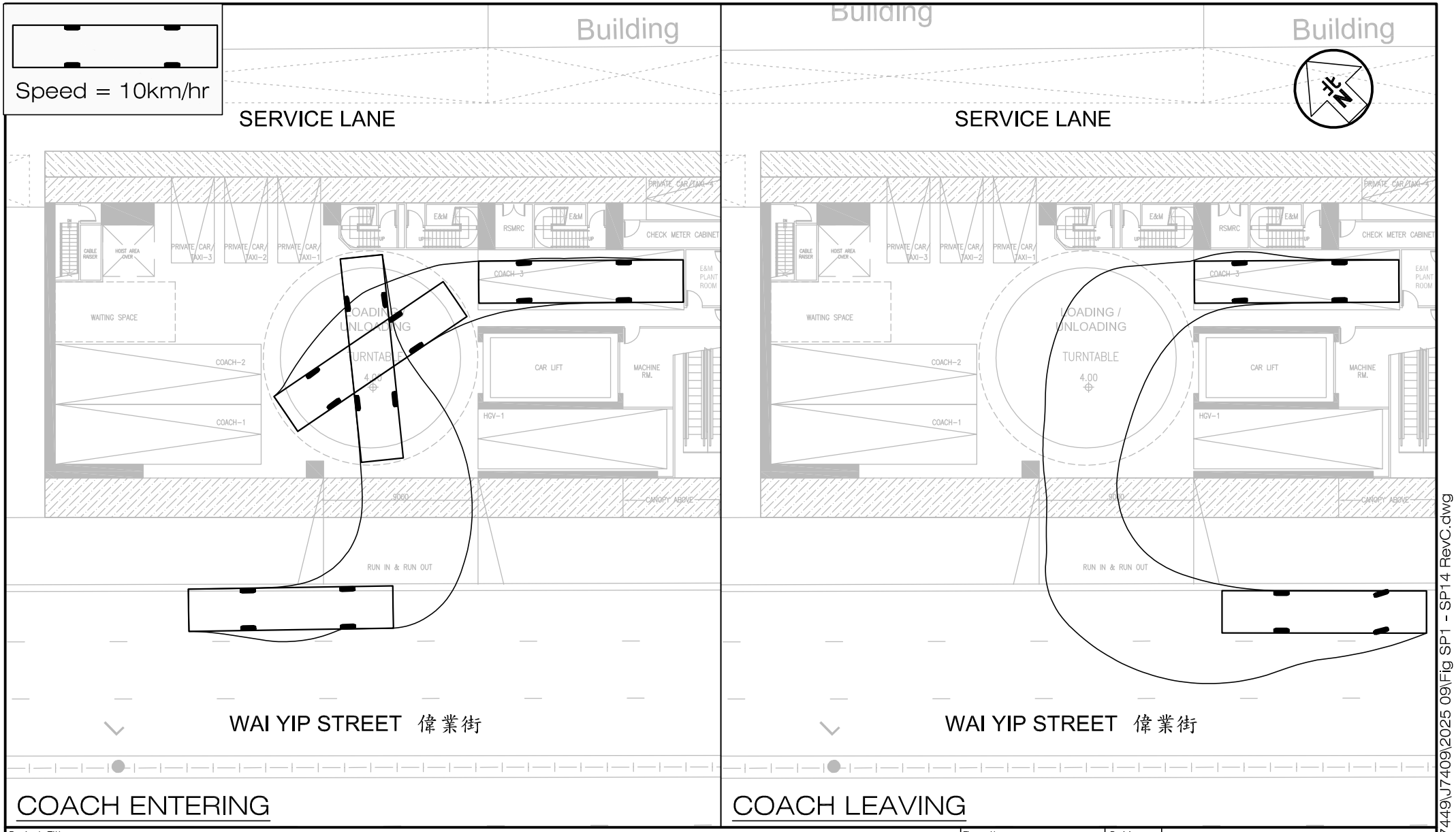
Figure No.	Revision
SP3	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4	Date
1 : 300	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig SP1 - SP14 RevC.dwg



Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title: SWEPT PATH OF COACH ENTERING AND LEAVING THE "SHARED-USE" FOR COACHES/BUSES AND M/HGV LAYBY COACH-3 ON G/F

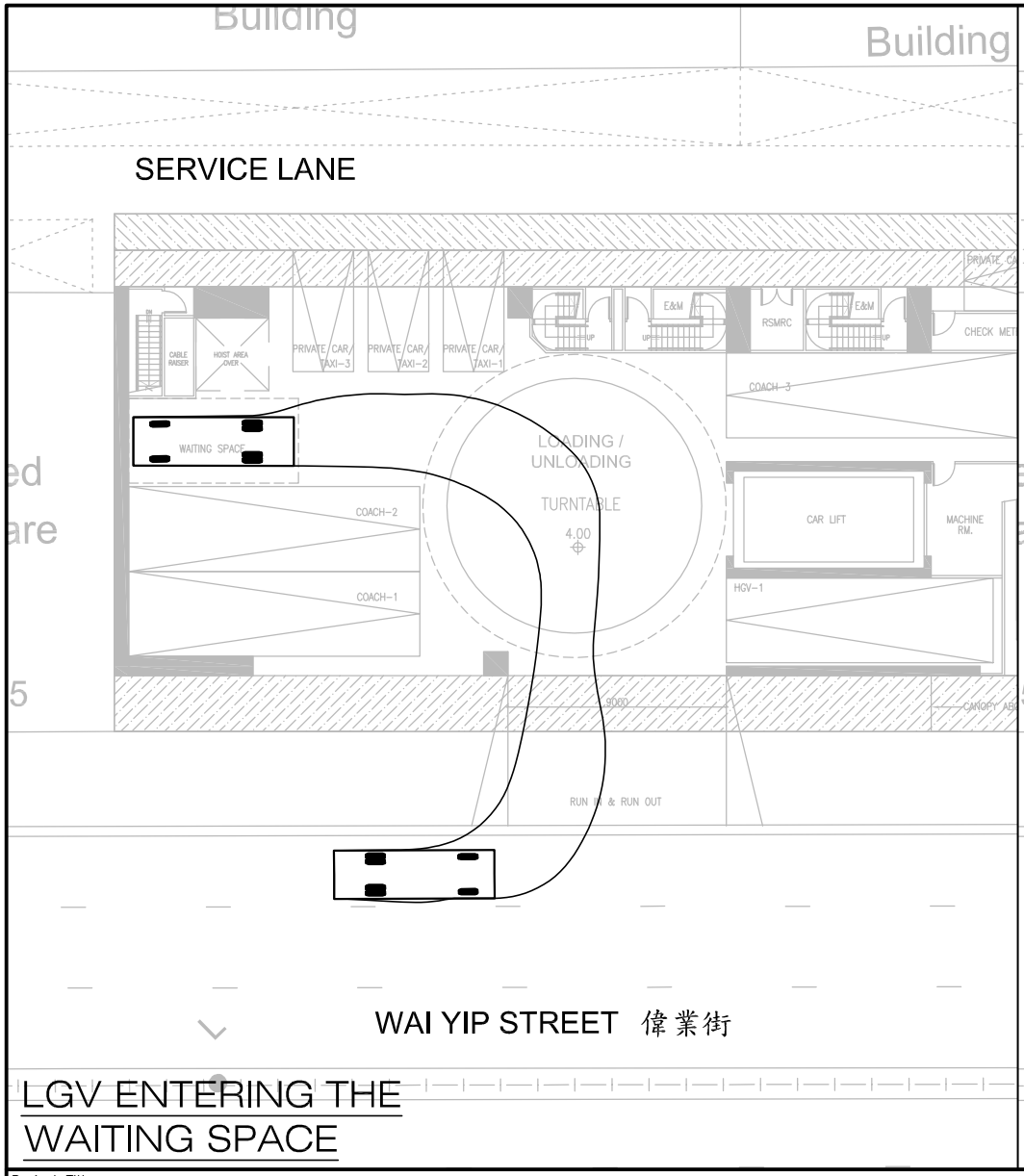
Figure No.	Revision
SP4	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

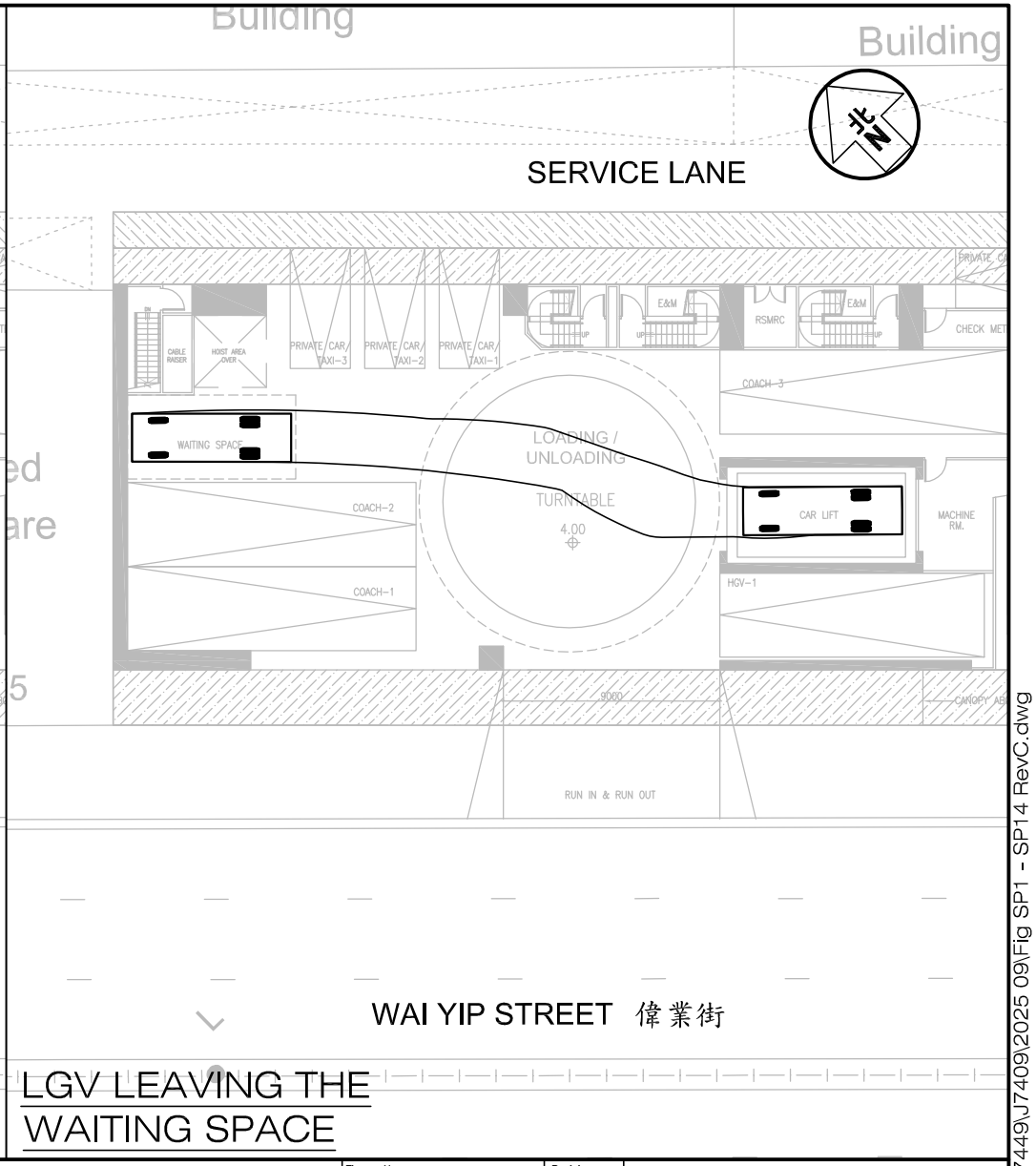
Scale in A4	Date
1 : 300	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig SP1 - SP14 RevC.dwg



LGV ENTERING THE WAITING SPACE



LGV LEAVING THE WAITING SPACE

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title

SWEPT PATH OF LGV ENTERING AND LEAVING THE WAITING SPACE ON G/F

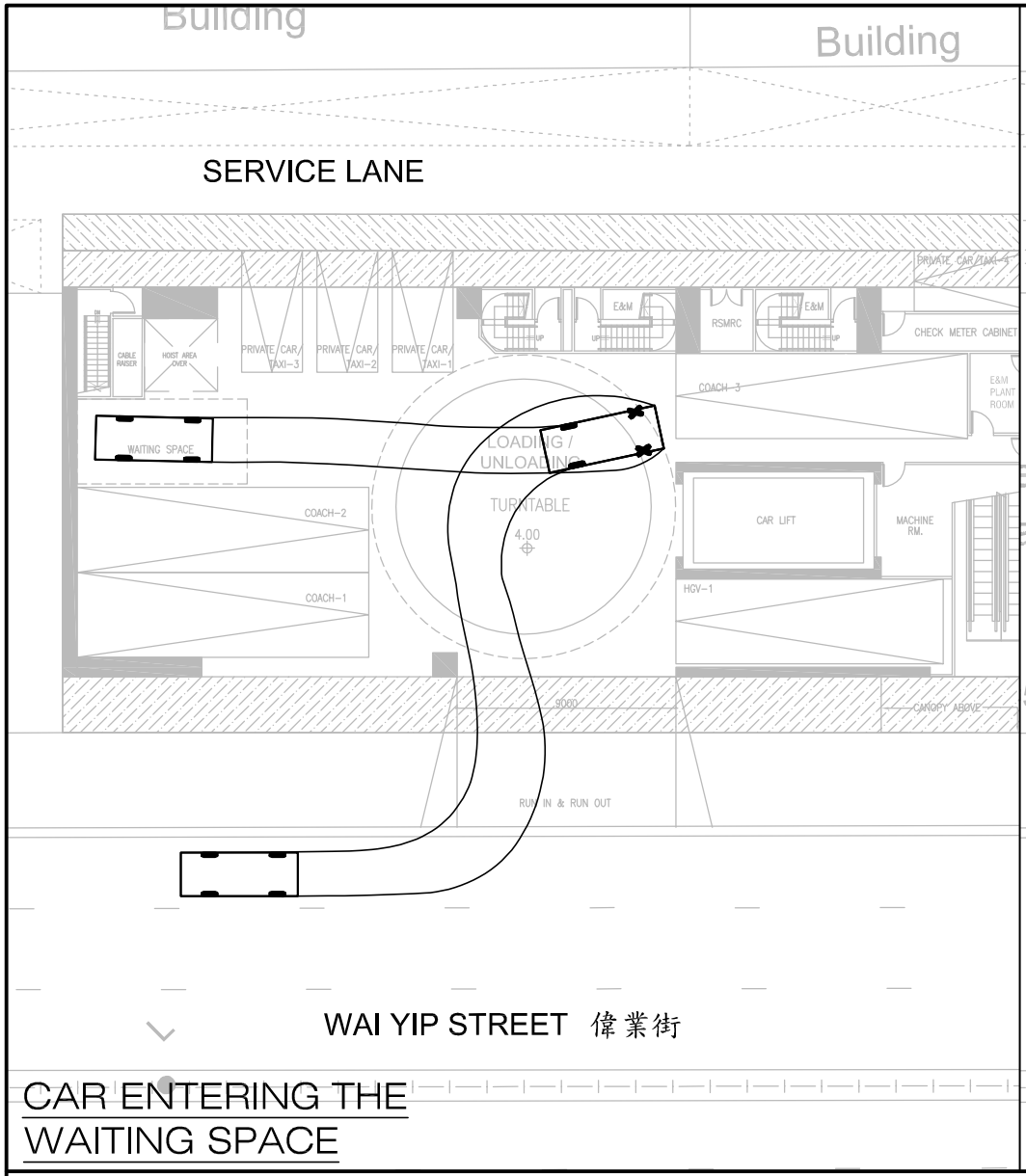
Figure No.	Revision
SP5	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

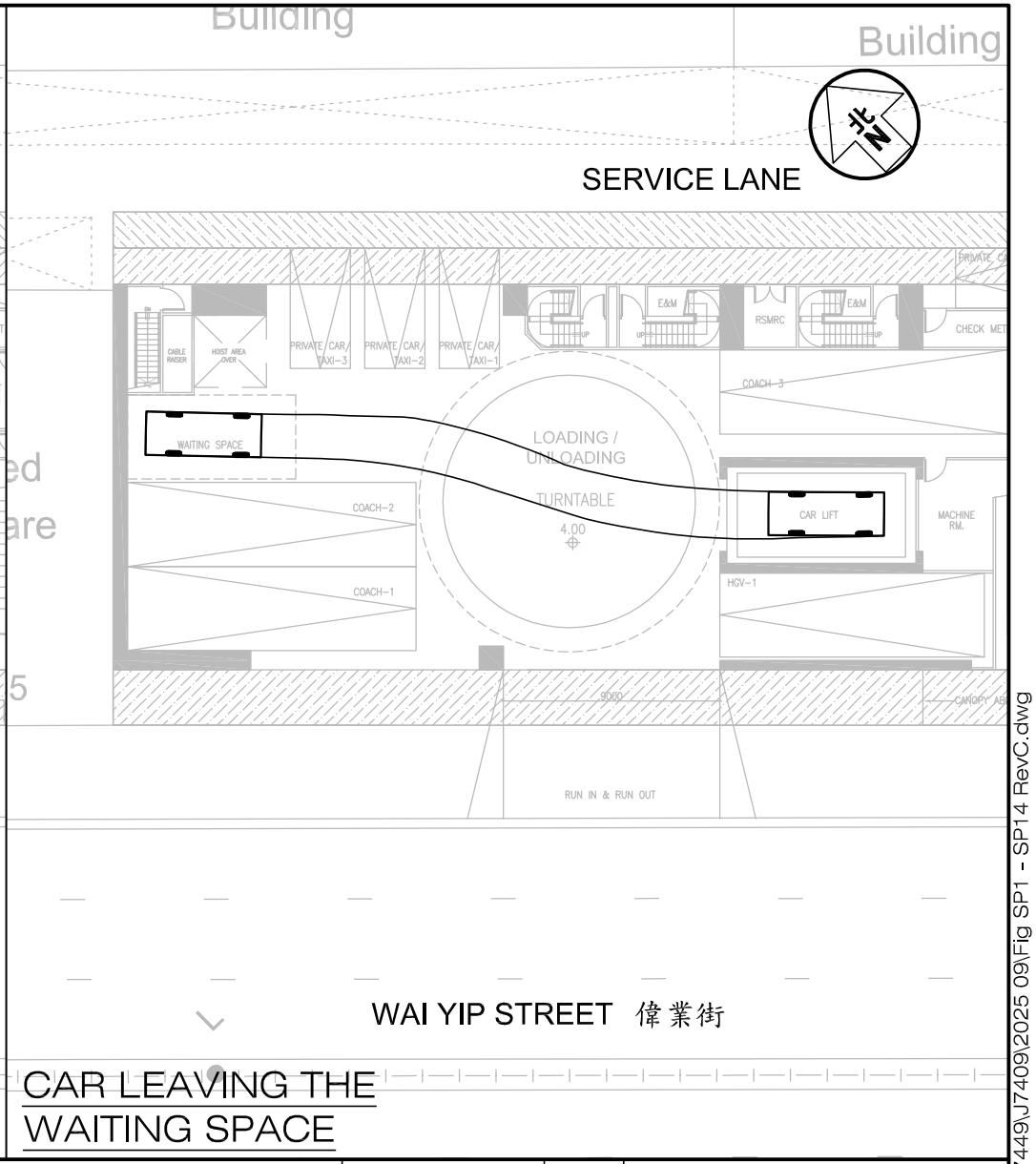
Scale in A4	Date
1 : 300	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig SP1 - SP14 RevC.dwg



CAR ENTERING THE WAITING SPACE

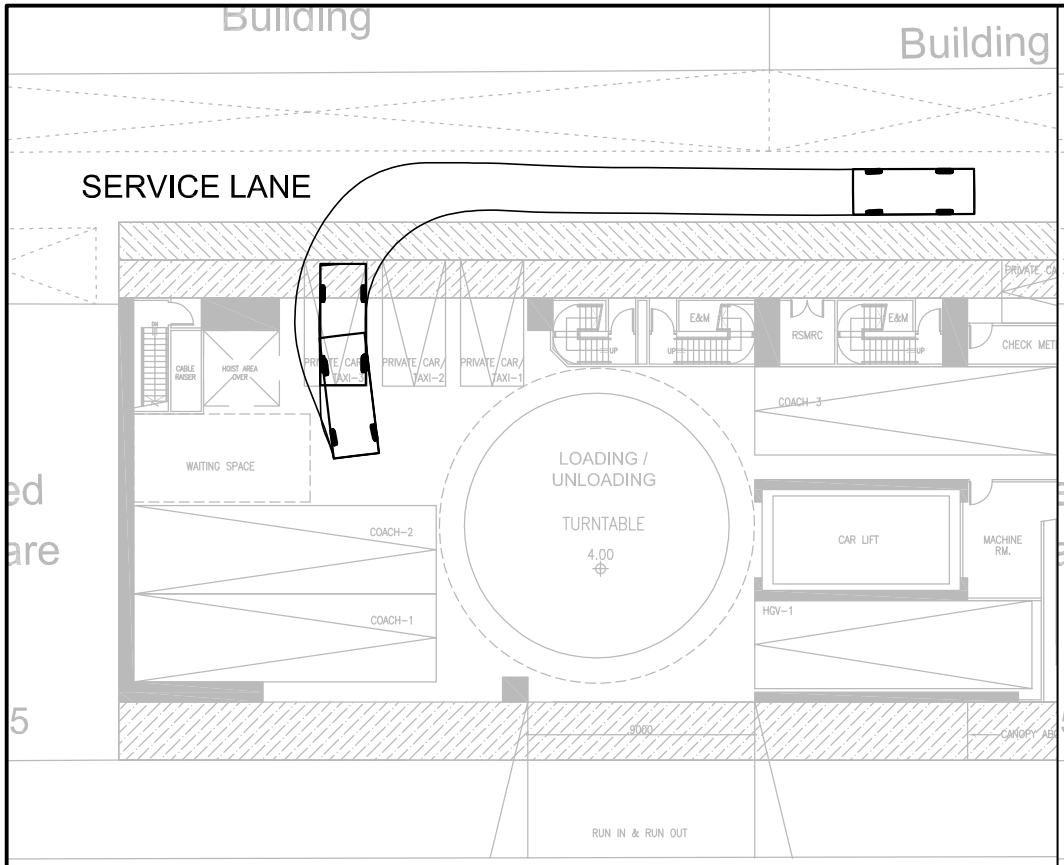


CAR LEAVING THE WAITING SPACE

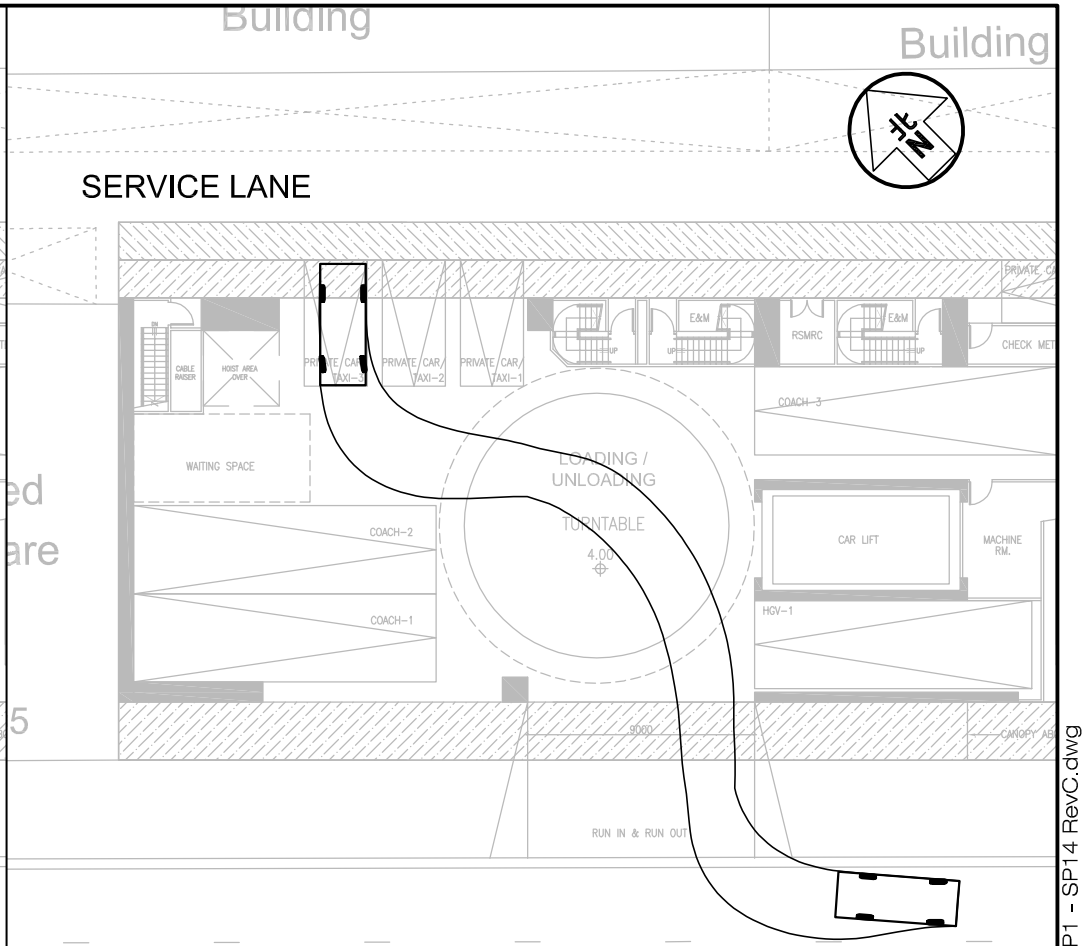
Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON	J7409	Figure No. SP6 / Revision C
Figure Title	SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE WAITING SPACE ON G/F	Designed by C Y Y / Drawn by N C M / Checked by K C	Scale in A4 1 : 300 / Date 19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig SP1 - SP14 RevC.dwg



CAR ENTERING THE TAXI AND PRIVATE CAR LAY-BY



CAR LEAVING THE TAXI AND PRIVATE CAR LAY-BY

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON — J7409

Figure Title: SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE TAXI AND PRIVATE CAR LAYBY TAXI-1 ON G/F

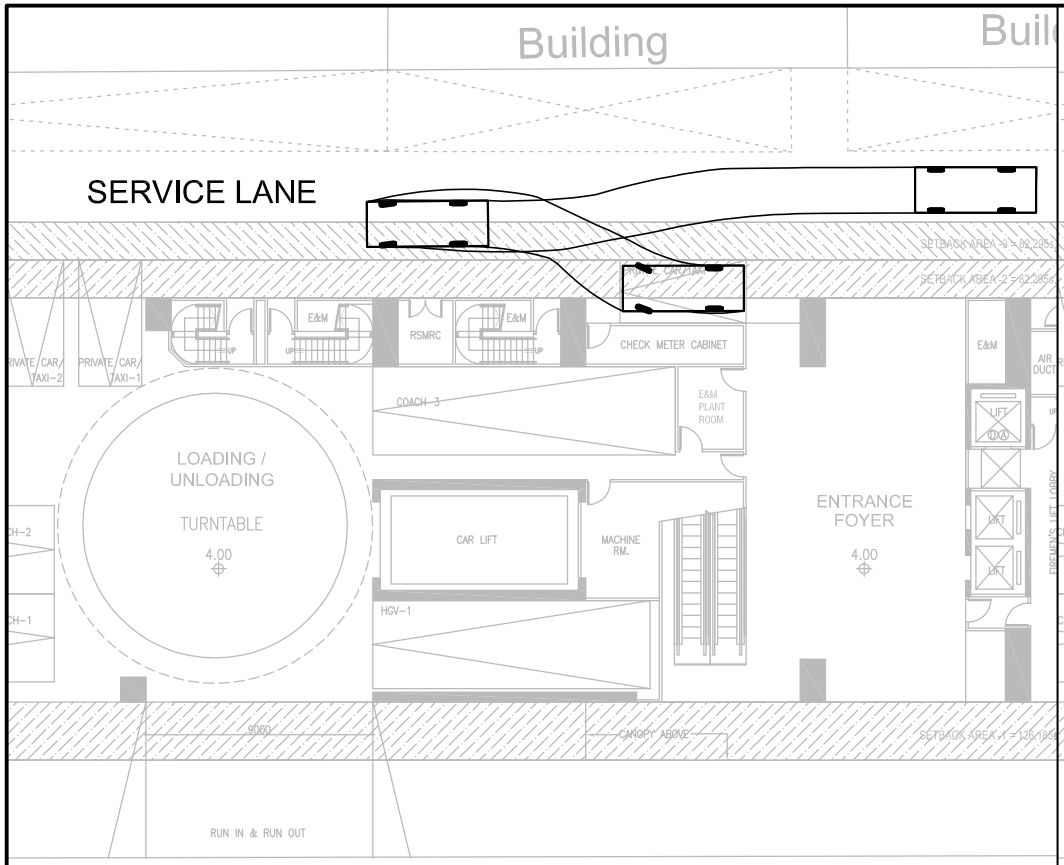
Figure No.	Revision
SP7	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

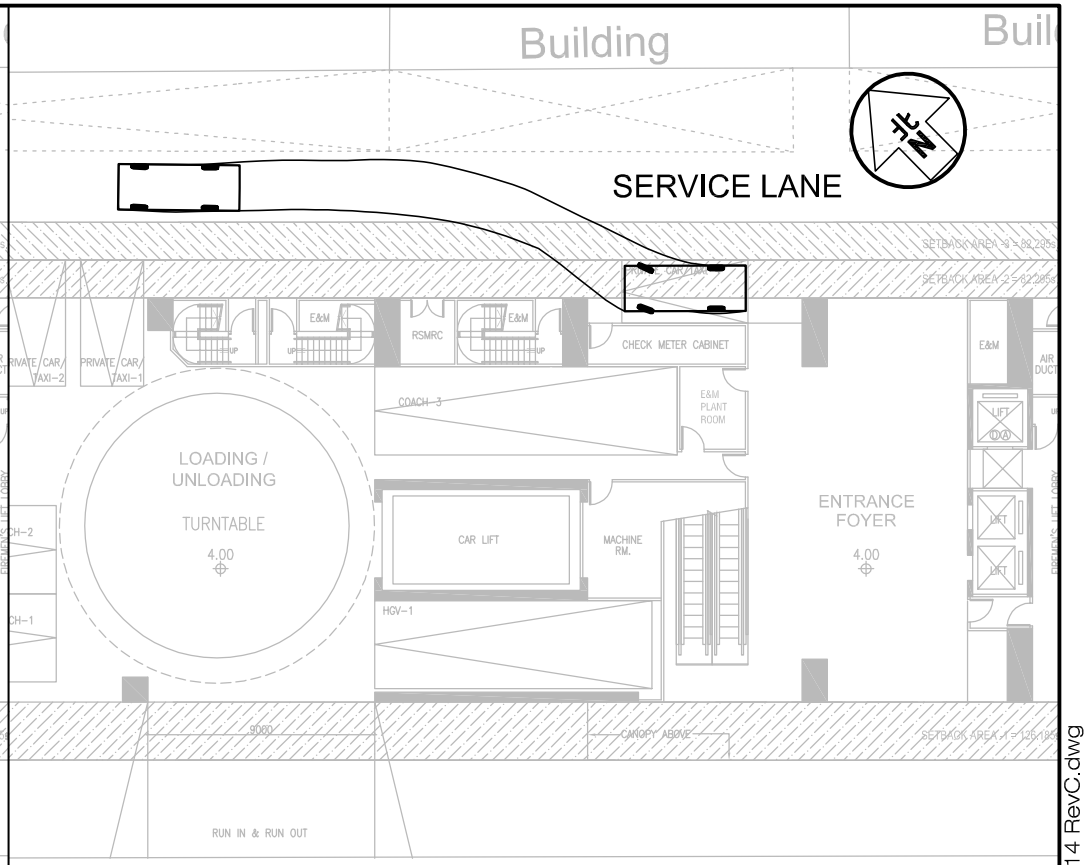
Scale in A4	Date
1 : 300	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig SP1 - SP14 RevC.dwg



CAR ENTERING THE TAXI AND PRIVATE CAR LAY-BY



CAR LEAVING THE TAXI AND PRIVATE CAR LAY-BY

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON — J7409

Figure Title: SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE TAXI AND PRIVATE CAR LAYBY TAXI-4 ON G/F

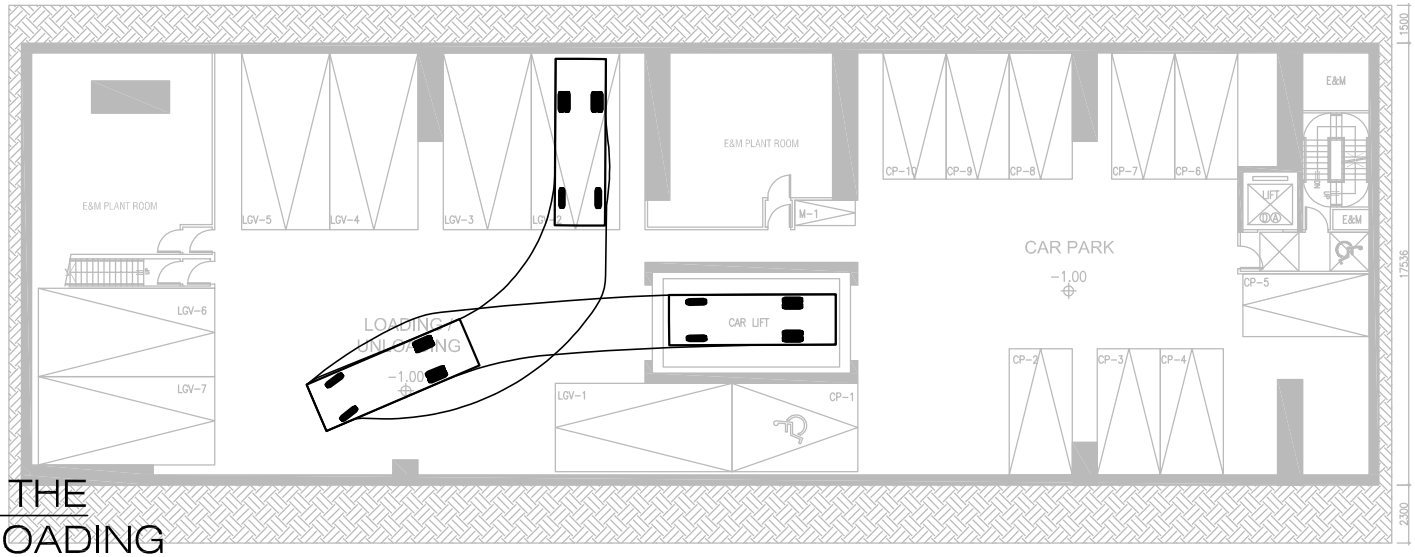
Figure No.	Revision
SP8	C

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

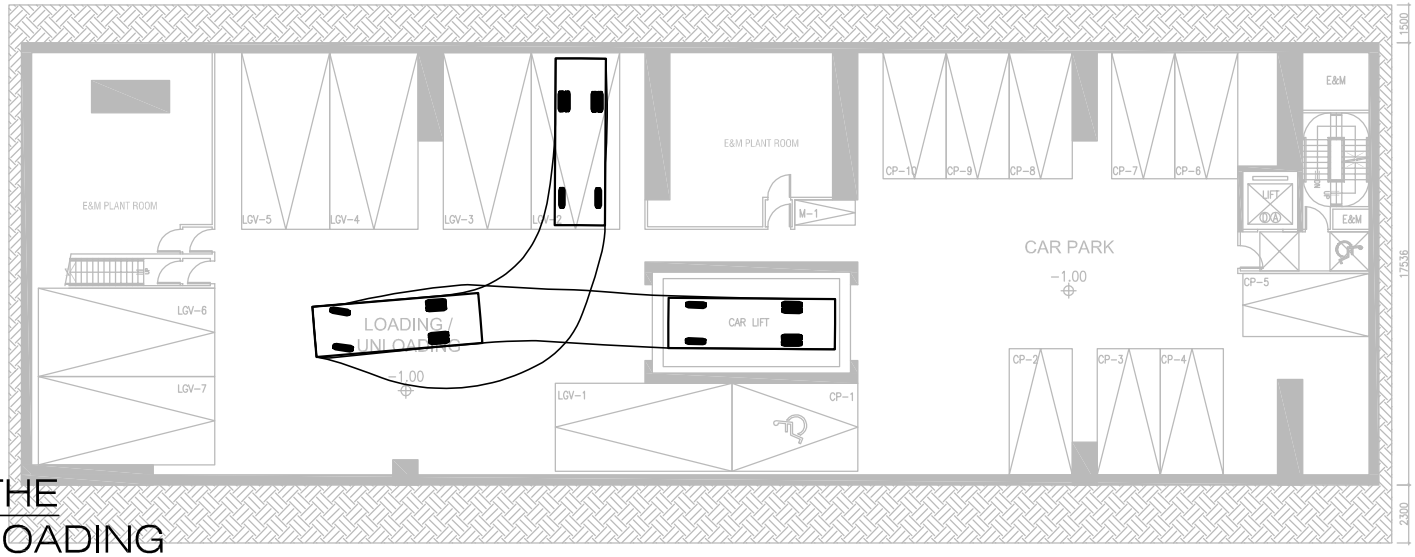
Scale in A4	Date
1 : 300	19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig SP1 - SP14 RevC.dwg



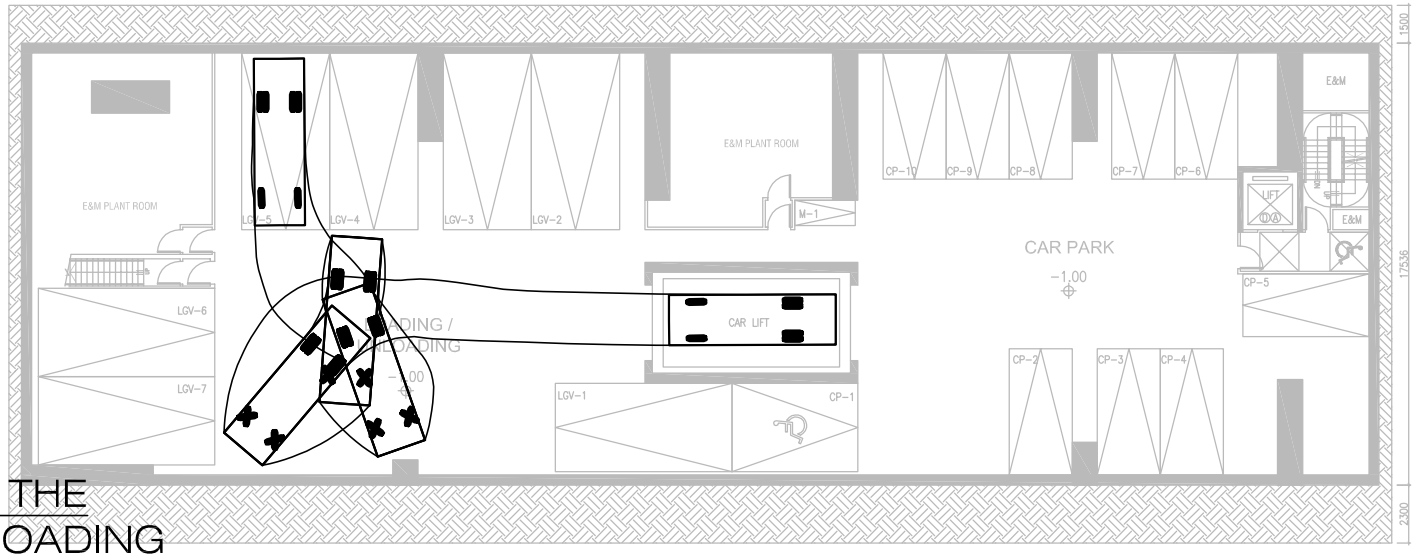
LGV ENTERING THE LOADING / UNLOADING



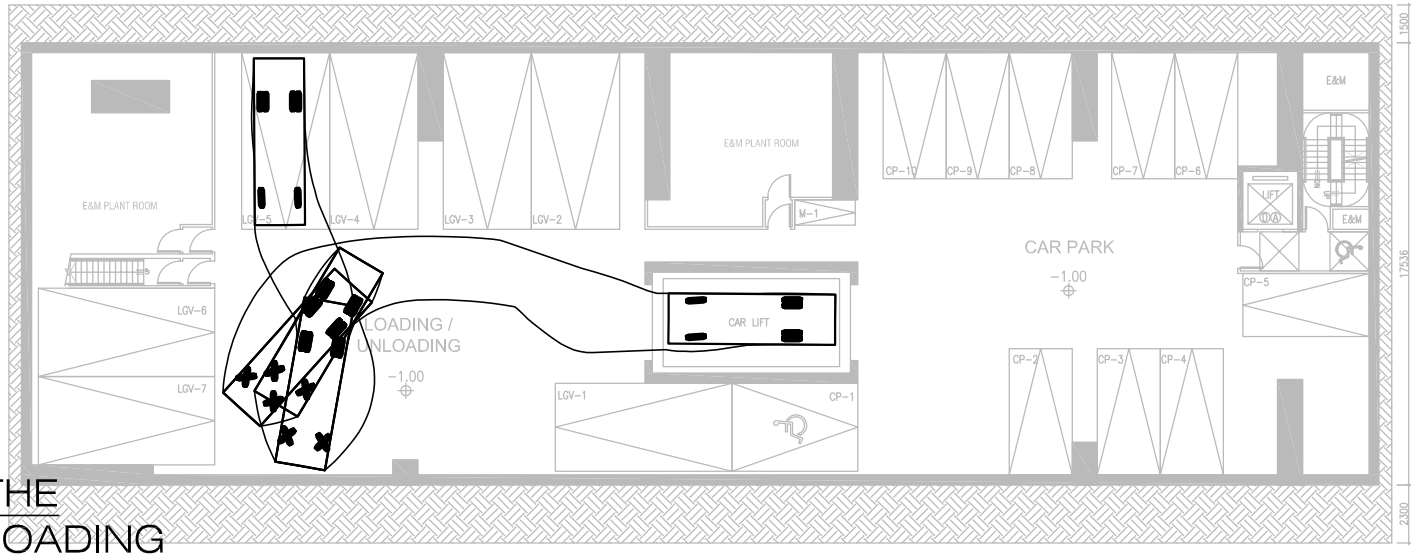
LGV LEAVING THE LOADING / UNLOADING

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON J7409	Figure No. SP9	Revision C	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
Figure Title: SWEPT PATH OF LGV ENTERING AND LEAVING THE LGV LOADING / UNLOADING BAY LGV-2 ON B1/F	Designed by C Y Y / Drawn by N C M / Checked by K C		
	Scale in A4 1 : 300	Date 19 SEP 2025	

T:\JOB\J7400-J7449\J7409\2025 09\Fig SP1 - SP14 RevC.dwg



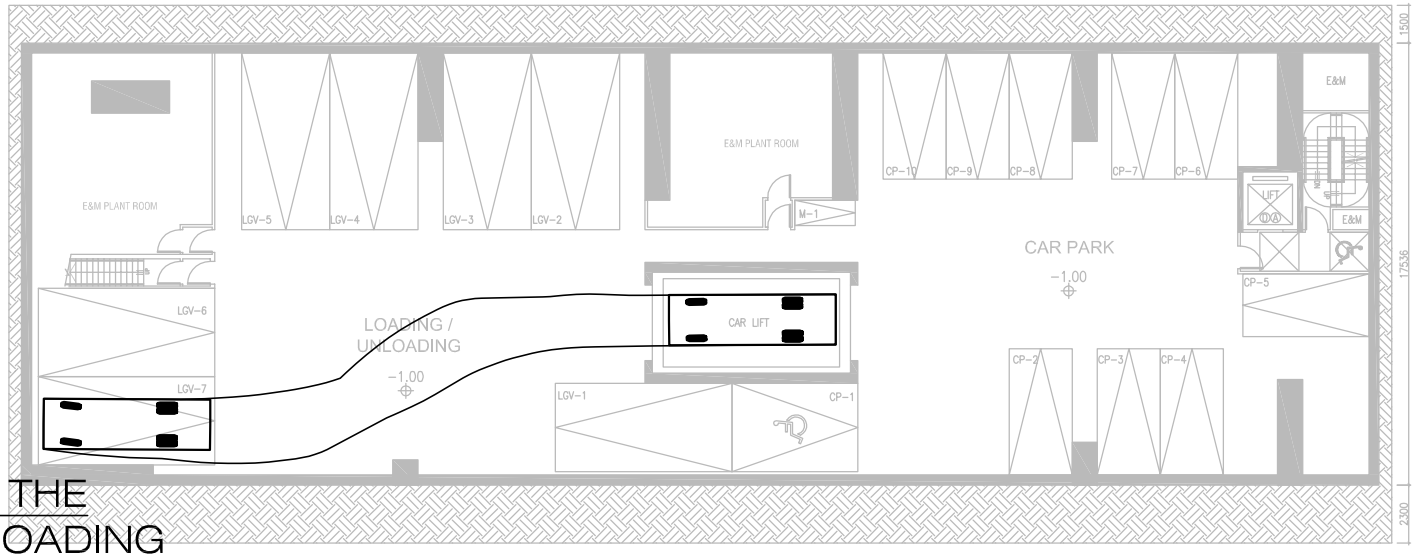
LGV ENTERING THE
LOADING / UNLOADING



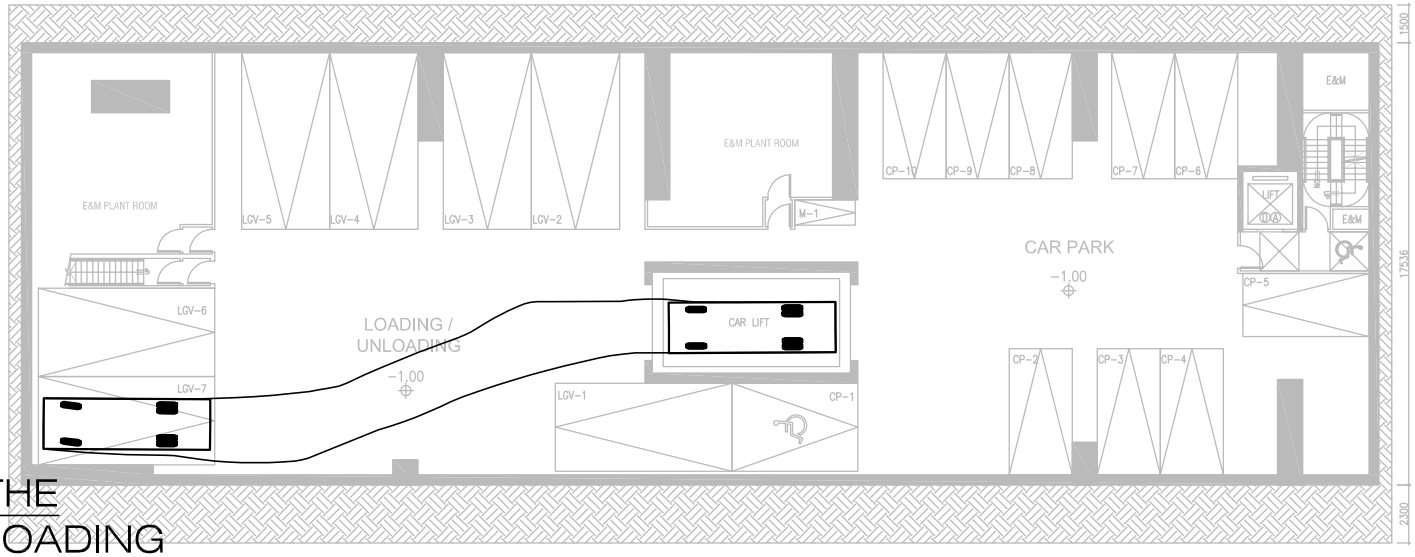
LGV LEAVING THE
LOADING / UNLOADING

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON — J7409	Figure No.: SP10	Revision: C	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
Figure Title: SWEPT PATH OF LGV ENTERING AND LEAVING THE LGV LOADING / UNLOADING BAY LGV-5 ON B1/F	Designed by: C Y Y / Drawn by: N C M / Checked by: K C		
	Scale in A4: 1 : 300	Date: 19 SEP 2025	

T:\JOB\J7400-J7449\J7409\2025 09\Fig SP1 - SP14 RevC.dwg



LGV ENTERING THE
LOADING / UNLOADING

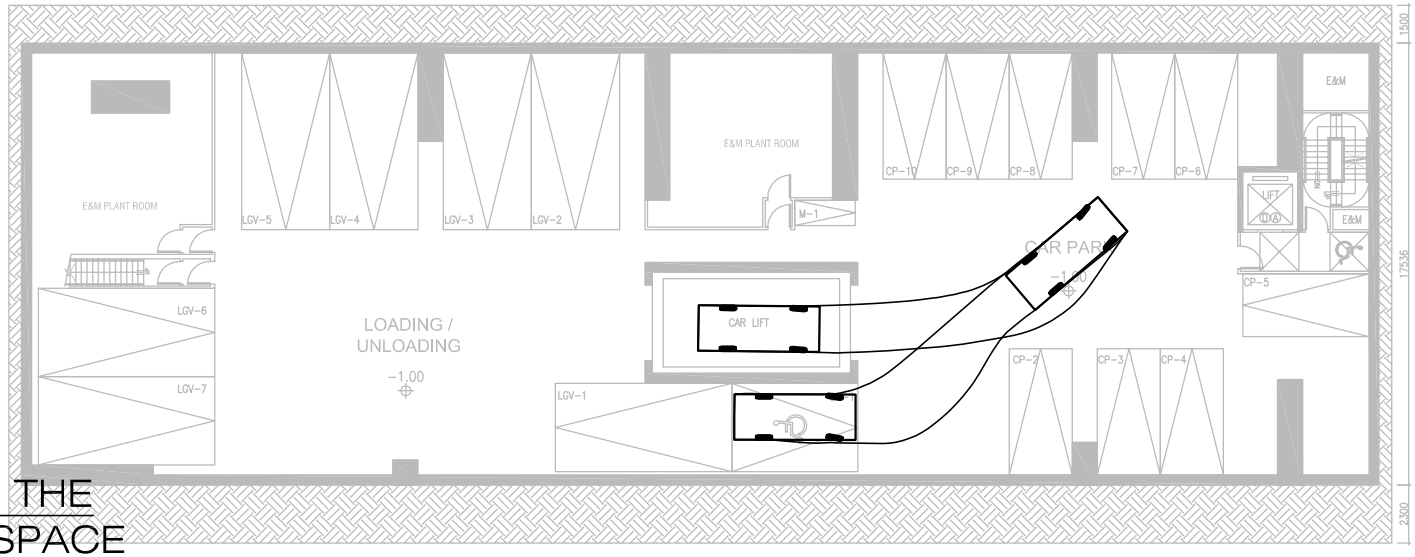


LGV LEAVING THE
LOADING / UNLOADING

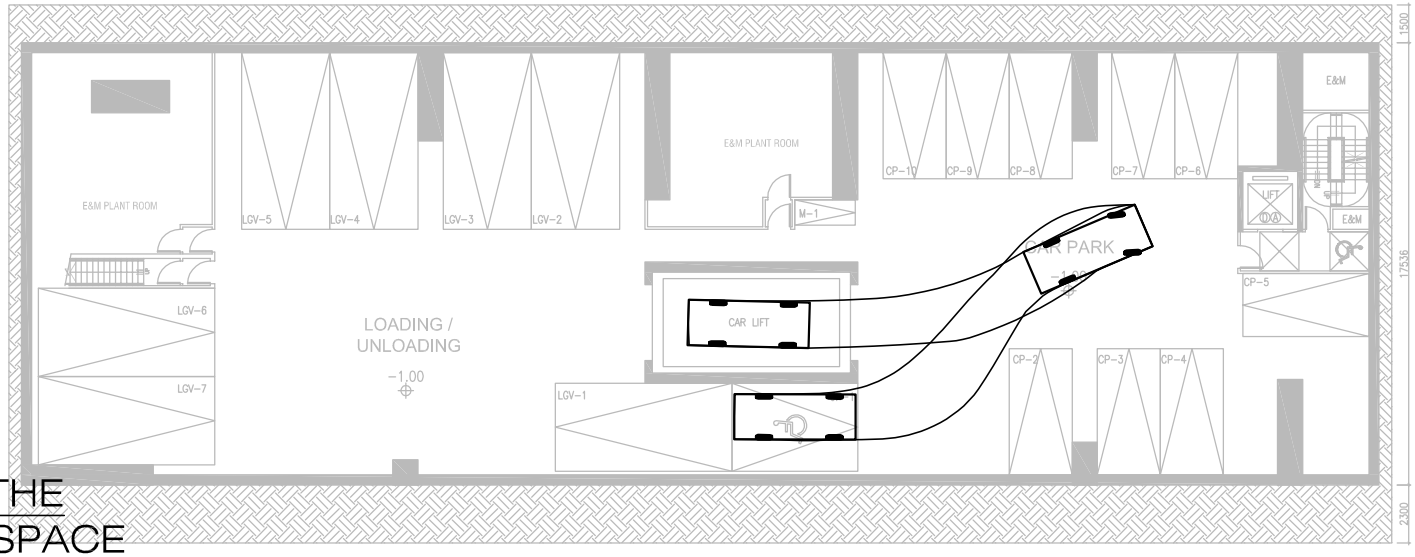
Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON	J7409	Figure No. SP11 / Revision C
Figure Title	SWEPT PATH OF LGV ENTERING AND LEAVING THE LGV LOADING / UNLOADING BAY LGV-7 ON B1/F		Designed by C Y Y / Drawn by N C M / Checked by K C Scale in A4 1 : 300 / Date 19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig SP1 - SP14 RevC.dwg



CAR ENTERING THE
CAR PARKING SPACE



CAR LEAVING THE
CAR PARKING SPACE

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure No.: SP12

Revision: C

Figure Title

SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE CP-1 ON B1/F

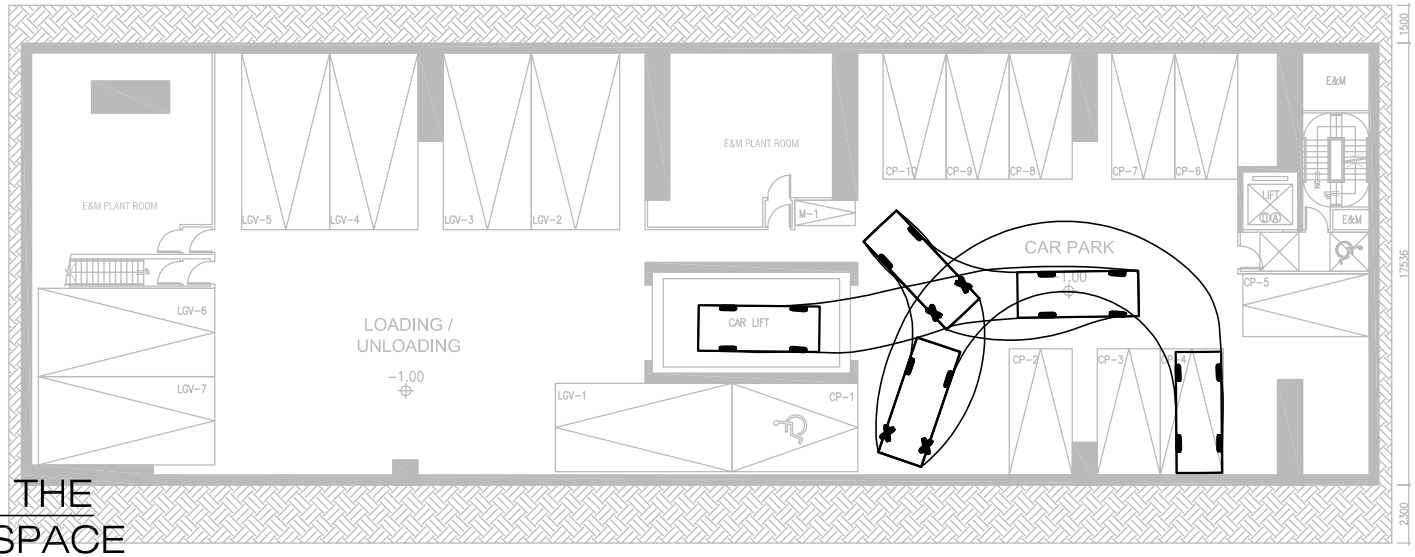
Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4: 1 : 300

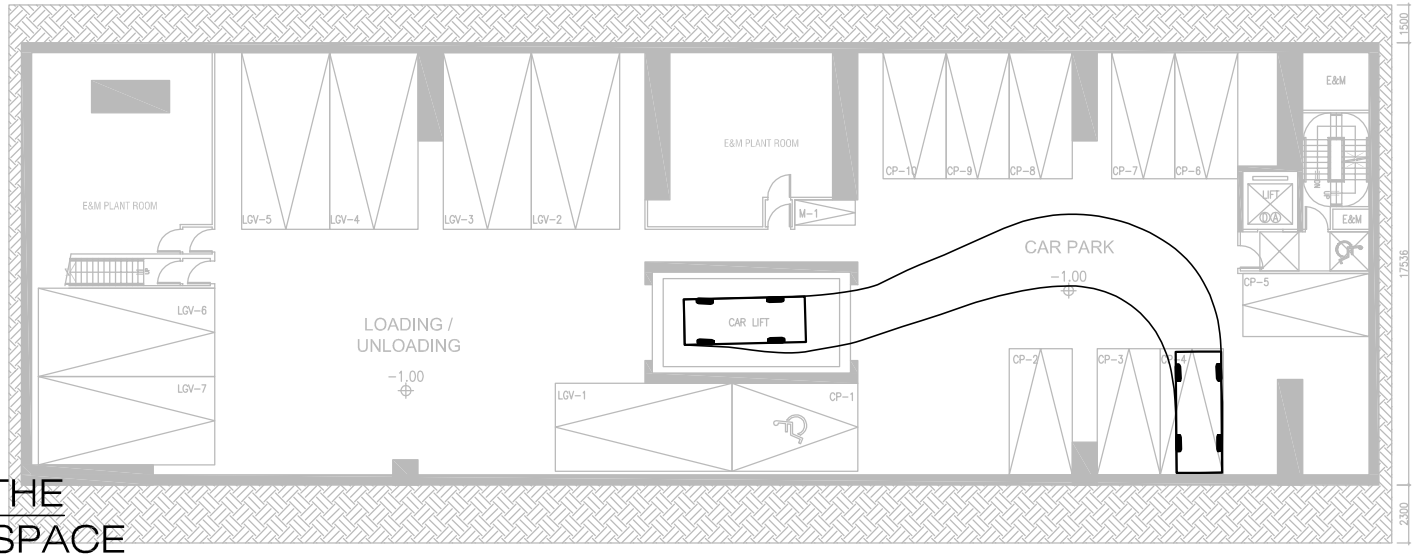
Date: 19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig SP1 - SP14 RevC.dwg



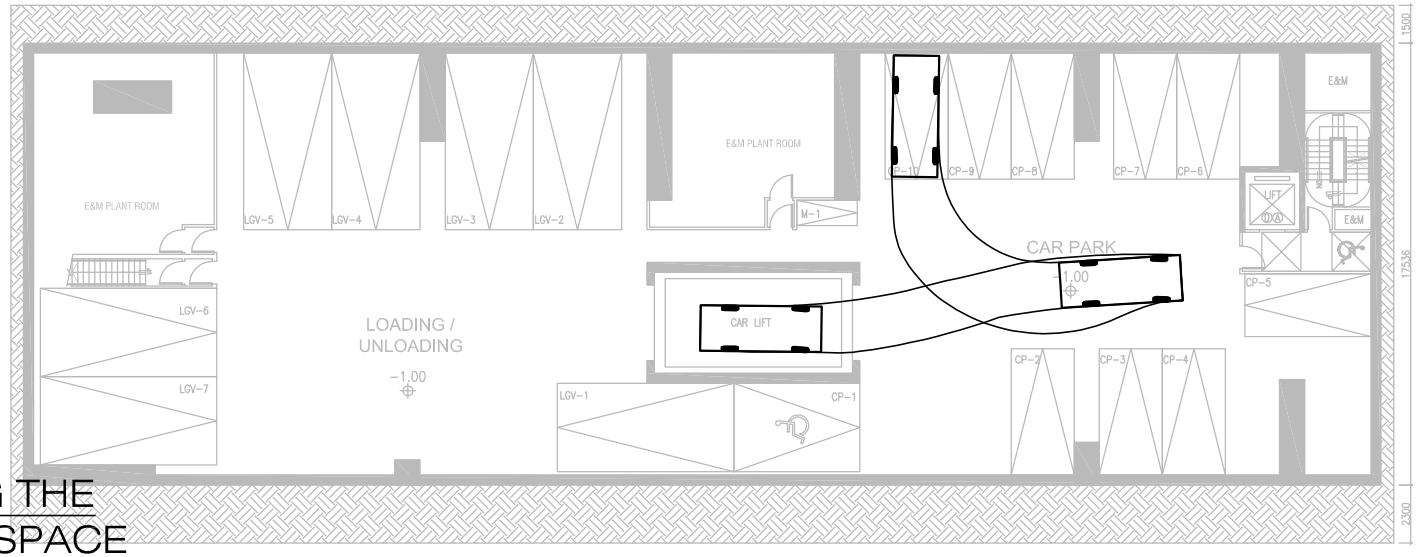
CAR ENTERING THE
CAR PARKING SPACE



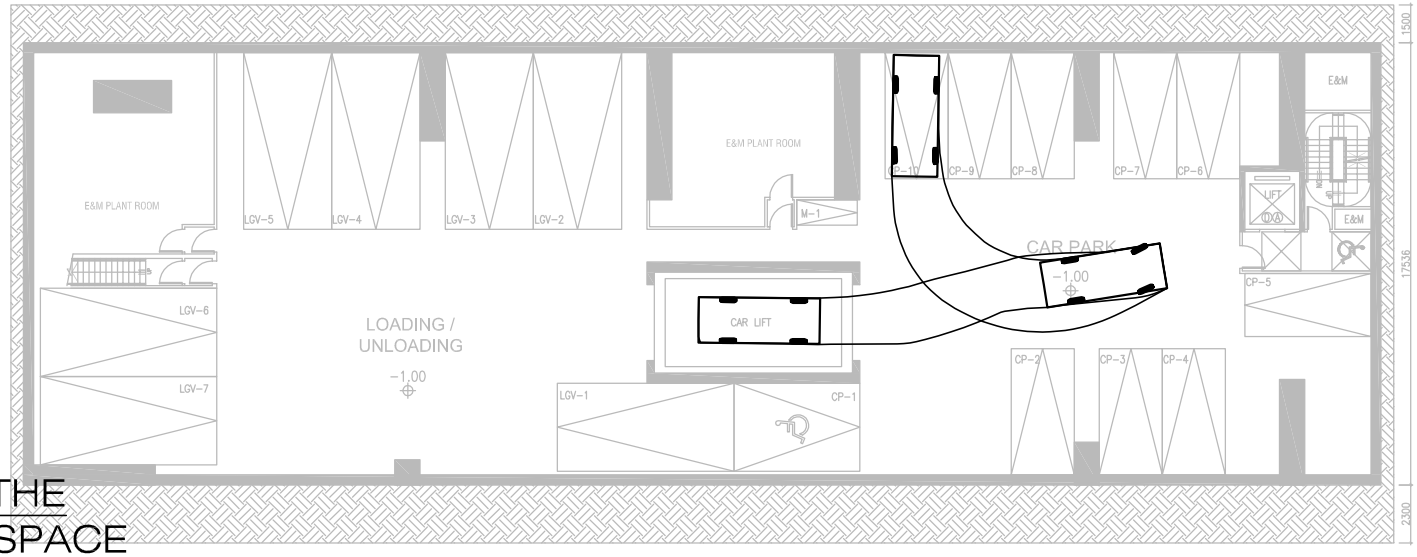
CAR LEAVING THE
CAR PARKING SPACE

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107–109 WAI YIP STREET, KWUN TONG, KOWLOON J7409	Figure No. SP13	Revision C	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
Figure Title: SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE CP-4 ON B1/F	Designed by C Y Y / Drawn by N C M / Checked by K C		
	Scale in A4 1 : 300 / Date 19 SEP 2025		

T:\JOB\J7400-J7449\J7409\2025 09\Fig SP1 - SP14 RevC.dwg



CAR ENTERING THE
CAR PARKING SPACE



CAR LEAVING THE
CAR PARKING SPACE

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure No.: SP14

Revision: C

Figure Title

SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE CP-10 ON B1/F

Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4: 1 : 300

Date: 19 SEP 2025

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7400-J7449\J7409\2025 09\Fig SP1 - SP14 RevC.dwg

Appendix 3 –
Vehicle Lift Analysis

Car Lift Analysis

Job Title Proposed Minor Relaxation of Plot Ratio and Building Height Restrictions for Proposed Hotel Use in "Other Specified Uses" annotated "Business" Zone, 107-109 Wai Yip Street, Kwun Tong

Ground floor to typical car park floor (m)	5.00
Average Speed (m/s)	0.50
Travel time (s)	10.00

Activity	**Time (s)**
Car lift travels from ground floor to typical car park floor	10
Lift door opens	5
Car exits lift in foward gear on typical car park floor	5
Car enters lift in reverse gear on typical car park floor	10
Door closes	5
Car lift travels from typical car park floor to ground floor	10
Lift door opens	5
Car exits lift in forward gear on ground floor	5
Car enters lift in reverse gear on ground floor	10
Door closes	5
Total	70

Number of lift servers, **k**	1
Number of waiting space(s)	1
Cycle time ω (s)	70
Arrival rate λ (veh / hr)	18
Service rate μ of one lift server (veh / hr)	51

Number of Cars N	**Probability of Exact N Cars in the Lift System**	**Probability of N Cars or Less in the Lift System**	**Probability of More Than N Cars in the Lift System**
0	65.00%	65.00%	35.00%
1	22.75%	87.75%	12.25%
2	**7.96%**	**95.71%**	**4.29%**
3	2.79%	98.50%	1.50%
4	0.98%	99.47%	0.53%
5	0.34%	99.82%	0.18%
6	0.12%	99.94%	0.06%
7	0.04%	99.98%	0.02%

Conclusion

The probability of a vehicle arriving when 1 car lift and 1 waiting space are occupied is 4.29%.

Formulae:		[A]	[B]	
Floor	Level (m)	Distance from G/F	No. of parking spaces	[A] * [B]
8/F				
7/F				
6/F				
5/F				
4/F				
3/F				
2/F				
1/F				
G/F	0.00	0.0	0	0
B1/F	-5.00	5.0	18	90
B2/F				
B3/F				
B4/F				
B5/F				
B6/F				
B7/F				
B8/F				

total parking spaces	typical floor distance
18	5

Note:
k is the number of lift servers.
λ is the arrival rate in vehicles per hour.
μ is the service rate of a lift server in vehicles per hour.

N	1/N!*(λ/μ)^	summation from N=0 to N=k-1
0	1	1
1	0	1
2	0	1
3	0	1
4	0	1
5	0	1
6	0	1
7	0	1
8	0	1
9	0	1
10	0	1

The assessment is based on the mutli-server queuing (M/M/N) theory, and the equations applied are listed below :

Probability of having exactly zero cars in the lift system:

$$P(0) = \frac{1}{\left[\sum_{N=0}^{k-1} \frac{1}{N!}\left(\frac{\lambda}{\mu}\right)^N\right] + \frac{1}{k!}\left(\frac{\lambda}{\mu}\right)^k \frac{k\mu}{k\mu - \lambda}}$$

Probability of having exactly N cars in the lift system:

For $N < k$:

$$P(N) = \frac{1}{N!}\left(\frac{\lambda}{\mu}\right)^N P(0)$$

For $N \geq k$:

$$P(N) = \frac{1}{k!\,k^{N-k}}\left(\frac{\lambda}{\mu}\right)^N P(0)$$

k - -number of lift servers
λ - -arrival rate
μ - -service rate

Appendix 4 –
Planned Junction Improvement Schemes

N

SHUN YIP STREET

順業街

西座
West Tower

平台
Podium

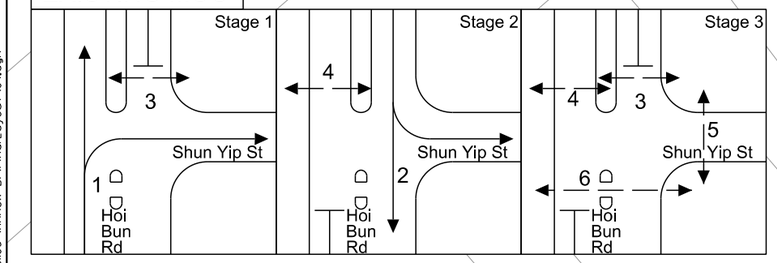
東座
East Tower

One Bay East

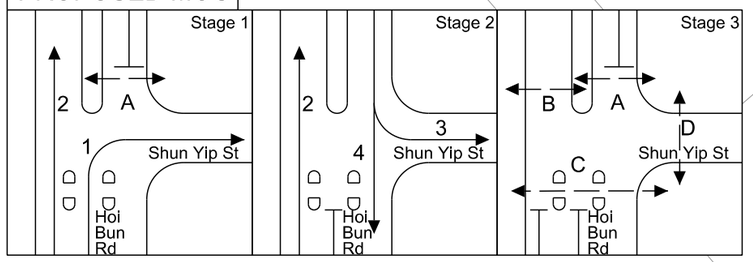
永英工業大廈
Wing Ying Industrial Building

榮記工業大廈
Chilcott Industrial Building

EXISTING MOC



PROPOSED MOC



0 5 10 15 20 25
METRES
1 : 500

LEGEND

PROPOSED IMPROVEMENT WORKS

Job Title

AGREEMENT NO. CE 4/2014 (TP) PLANNING AND ENGINEERING STUDY FOR THE DEVELOPMENT AT KOWLOON BAY ACTION AREA OF KOWLOON EAST - FEASIBILITY STUDY

FIGURE 6.4.2

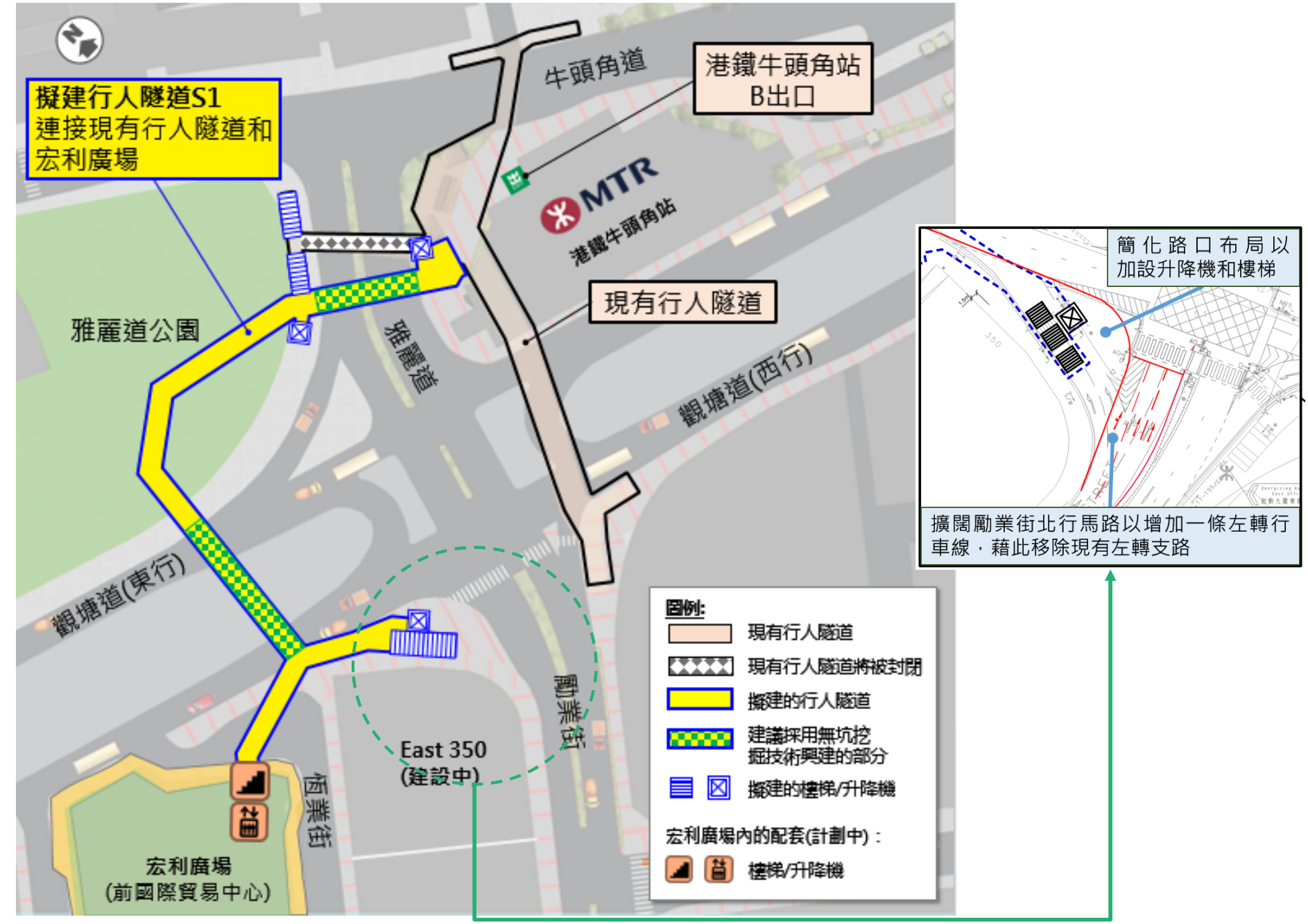
Date 20MAR20 | Scale 1:500 @ A3 | Drawn WSTW | Job No. 237938

Drawing Title

PROPOSED JUNCTION IMPROVEMENT AT J4 - HOI BUN ROAD / SHUN YIP STREET

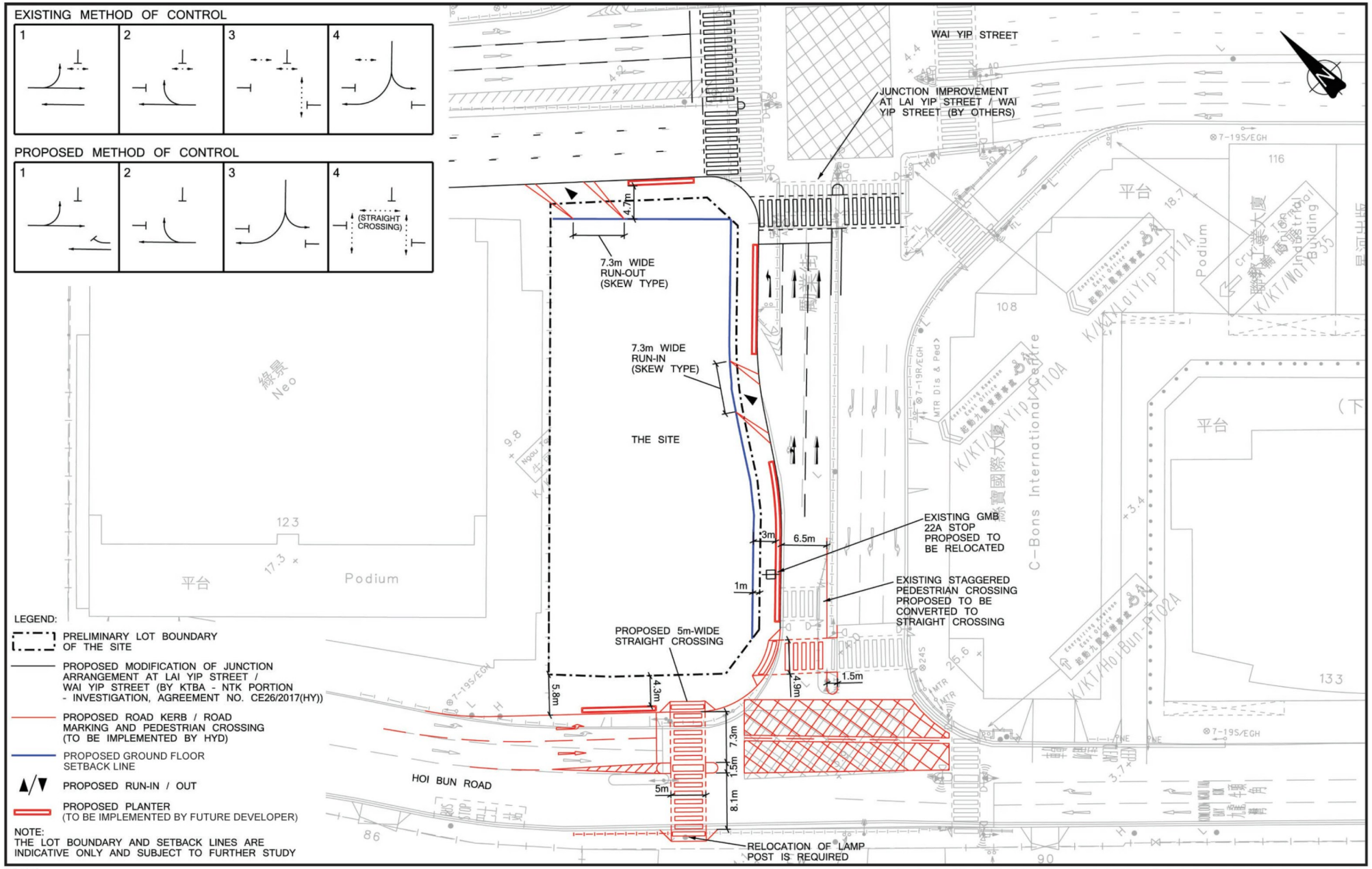
ARUP

PRINTED BY: KH Cheuk 13/11/2020 15:42:40
FILENAME: \\hkgnts69\Traffic\Drawing\237000\237938-02 (KBAA1\Drawing\20201106 (Annex B)\FinalLayout\J4.dgn



NGAUTAUKOK

附圖二: 擬議行人隧道S1 – 優化後的新走線



DB/LYS

FIGURE 4.1.4 PROPOSED JUNCTION MODIFICATION

(資料來源：由起動九龍東辦事處提供)
(Source: Provided by Energizing Kowloon East Office)

參考編號 REFERENCE No.	繪圖 DRAWING
M/K14S/23/35	5b