Appendix 3

Traffic Impact Assessment

S12A Amendment of Plan Application for the Proposed Residential Care Homes for the Elderly and Hotel at 107-109 Wai Yip Street, Kwun Tong

Traffic Impact Assessment
Final Report
December 2024

Prepared by: CKM Asia Limited

S12A Amendment of Plan Application for the Proposed Residential Care Homes for the Elderly and Hotel at 107-109 Wai Yip Street, Kwun Tong

CONTENTS

CHAPTER **PAGE**

1.0 INTRODUCTION 1
Background
Scope of the Assessment
Contents of the Report

2.0 THE EXISTING SITUATION 2
The Subject Site
Traffic Survey
Adjustment of the traffic flows obtained from the traffic survey
Operational Performance of the Surveyed Junctions
Pedestrian Facilities
Availability of Public Transport Facilities

3.0 THE PROPOSED DEVELOPMENT 7
Development Parameters
Provision of Internal Transport Facilities
Reasons for Deviation from the HKPSG Maximum Recommendation for Hotel within the Proposed Development
Layout Plans
Swept Path Analysis
Traffic Management Plan

4.0 TRAFFIC IMPACT 12
Design Year
Traffic Forecast
Estimated Traffic Growth Rate from 2031 to 2032
Planned Developments in the Vicinity of the Proposed Development
Traffic Generated by the Proposed Development
Comparison of Traffic Generation between the Approved S16 Scheme and the Proposed Development
Planned Junction Improvement Schemes
2032 Traffic Flows
2032 Junction Operational Performance

S12A Amendment of Plan Application for the Proposed Residential Care Homes for the Elderly and Hotel at 107-109 Wai Yip Street, Kwun Tong

CONTENTS (Continued)

CHAPTER **PAGE**

5.0 PEDESTRIAN ASSESSMENT 17
Surveyed Pedestrian Locations
Existing Pedestrian Flows
Estimated growth from 2024 to 2032
Pedestrian Generated by the Proposed Development
Year 2032 Pedestrian Flows
Level-Of-Service ("LOS") Assessment

6.0 SENSITIVITY TEST 20
Permitted Maximum Number of Beds for RCHE
Traffic Impact for the Sensitivity Test
Pedestrian Impact for the Sensitivity Test

7.0 CONCLUSION 23

FIGURES
Appendix 1 – Calculation
Appendix 2 – Swept Path Analysis
Appendix 3 – Planned Junction Improvement Schemes

S12A Amendment of Plan Application for the Proposed Residential Care Homes for the Elderly and Hotel at 107-109 Wai Yip Street, Kwun Tong

TABLES

NUMBER

2.1 Existing junction operational performance

2.2 Franchised bus and GMB services operating close to the subject site

3.1 Details of provision of internal transport facilities for RCHE within the Proposed Development

3.2 Details of RCHEs surveyed

3.3 Survey results of the 2 surveyed RCHEs

3.4 Comparison of the HKPSG recommendations and proposed internal transport facilities for Hotel within the Proposed Development

3.5 Internal transport facilities provided for the Proposed Development

3.6 Goods vehicle trip generation for Hotel within the Proposed Development

4.1 2019-based TPEDM data produced by Planning Department for Kwun Tong district

4.2 Planned developments in the vicinity of the Proposed Development

4.3 Traffic generation of the Proposed Development

4.4 Comparison of Traffic Generation between the Approved S16 Scheme and The Proposed Development

4.5 Planned traffic improvement schemes in the vicinity of the Proposed Development

4.6 2032 junction operational performance

5.1 Surveyed pedestrian locations

5.2 In-house pedestrian generation rates

5.3 Pedestrian generated by the Proposed Development

5.4 Extract of exhibit 18-3 of the HCM 2000

TABLES (Continued)

NUMBER

5.5 Effective width of surveyed footpaths

5.6 Year 2032 LOS of footpath without and with the Proposed Development

5.7 Year 2032 LOS of pedestrian crossing waiting areas without and with the Proposed Development

6.1 Comparison of traffic generation

6.2 Comparison of 2032 junction operational performance

6.3 Comparison of pedestrian generation

6.4 Sensitivity test for Year 2032 LOS of footpath with the Proposed Development

6.5 Sensitivity test for Year 2032 pedestrian crossing waiting areas with the Proposed Development

S12A Amendment of Plan Application for the Proposed Residential Care Homes for the Elderly and Hotel at 107-109 Wai Yip Street, Kwun Tong

FIGURES

NUMBER

1.1 Location of subject site

2.1 Location of the surveyed junctions

2.2 Layout of Junction of Hoi Bun Road / Shun Yip Street

2.3 Layout of junction of Wai Yip Street / Shun Yip Street

2.4 Layout of junction of Tai Yip Street / Service Lane

2.5 Layout of junction of Hong Tak Road / Tai Yip Street

2.6 Layout of junction of Tai Yip Street / Tai Yip Lane

2.7 Layout of junction of Kwun Tong Road / Hong Tak Road

2.8 Layout of junction of Wai Yip Street / Lai Yip Street

2.9 Layout of junction of Kwun Tong Road / Lai Yip Street

2.10 Layout of junction of Hoi Bun Road / Lai Yip Street

2.11 Layout of junction of Lai Yip Street / Hung To Road

2.12 Adjusted 2024 peak hour traffic flows

2.13 The public transport services provided in the vicinity of the subject site

3.1 G/F layout plan

3.2 B1/F layout plan

4.1 Year 2032 peak hour traffic flows without the Proposed Development

4.2 Year 2032 peak hour traffic flows with the Proposed Development

S12A Amendment of Plan Application for the Proposed Residential Care Homes for the Elderly and Hotel at 107-109 Wai Yip Street, Kwun Tong

FIGURES (Continued)

NUMBER

4.3 The ingress / egress route for traffic generated by the Proposed Development (via Wai Yip Street)

4.4 The ingress / egress route for traffic generated by the Proposed Development (via the Service Lane)

5.1 Observed existing pedestrian flows

5.2 Year 2032 pedestrian flows without the Proposed Development

5.3 Year 2032 pedestrian flows with the Proposed Development

6.1 Sensitivity test 2032 peak hour traffic flows with the Proposed Development

6.2 The ingress / egress route of sensitivity test for traffic generated by the Proposed Development (via Wai Yip Street)

6.3 The ingress / egress route of sensitivity test for traffic generated by the Proposed Development (via the Service Lane)

6.4 Sensitivity test 2032 pedestrian flows with the Proposed Development

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 rezone the Subject Site and construct residential care home for the elderly ("RCHE") and a hotel (together known as "Proposed Development").

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 describes the traffic study undertaken.

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; and
Chapter Five - 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 Friday, 15th March 2024 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 2.11**.

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 and;
- J10: Lai Yip Street / Hung To Road

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.

Adjustment of the traffic flows obtained from the traffic survey

2.5 The traffic flows obtained from the traffic surveys conducted in March 2024 were reviewed against the traffic flows of the Traffic Impact Assessment of other approved planning applications and found to be of similar order. Nevertheless, adjustment of the traffic flows obtained from the traffic survey is made based on the Annual Average Daily Traffic ("AADT") of Annual Traffic Census ("ATC") station 3020 Wai Yip Street (from Lai Yip Street to Hoi Yuen Road), in order to produce adjusted annual average traffic flows.

2.6 In view that the AADT is only available up to 2022, and the AADT for 2019 to 2022, are not considered due to the impact of the social events in 2019, and COVID-19 pandemic in 2020 – 2022, reference is made to 2018 AADT. The March 2018 AADT is around 2% lower than the average for 2018, and is shown in Photo A below.

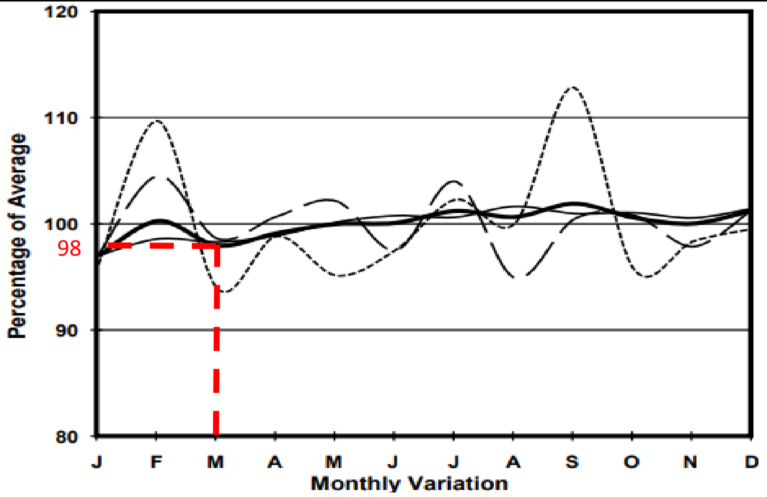


PHOTO A Monthly variable of ATC Station 3020 in 2018

2.7 Based on the above, a factor of 1.02 (i.e., (1 + 2%) = 1.02) is applied to the 2024 traffic flows, and the adjusted peak hour traffic flows are presented in **Figure 2.12**.

Operational Performance of the Surveyed Junctions

2.8 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	0.016	0.010
J4	Hong Tak Road / Tai Yip Street	Priority	RFC	0.226	0.181
J5	Tai Yip Street / Tai Yip Lane	Priority	RFC	0.058	0.025
J6	Kwun Tong Road / Hong Tak Road	Priority	RFC	0.365	0.454
J7	Wai Yip Street / Lai Yip Street	Signal	RC	69%	87%
J8	Kwun Tong Road / Lai Yip Street	Signal	RC	58%	43%
J9	Hoi Bun Road / Lai Yip Street	Signal	RC	81%	87%
J10	Lai Yip Street / Hung To Road(2)	Signal	RC	85%	104%

Notes: (1) RC – Reserve Capacity RFC – Ratio of Flow to Capacity
(2) Kerbside on-street activities are reflected in the junction performance

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

Pedestrian Facilities

2.10 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

2.11 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.

2.12 The Subject Site is located closest to the Ngau Tau Kok MTR Station and the nearest entrance is at Lai Yip Street, which is some 500 metres or 10 minutes' walk away.

2.13 Details of the road-based public transport services operating in the vicinity of the Subject Site are shown in **Figure 2.13** 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
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

Route	Routing	Frequency (minutes)
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
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

Route	Routing	Frequency (minutes)
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
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

3.1 The Proposed Development has a RCHE with (i) no less than 302, but not more than 557 beds ("RCHE within the Proposed Development"), and (ii) a Hotel with 200 guest rooms ("Hotel within the Proposed Development").

Provision of Internal Transport Facilities

(a) RCHE within the Proposed Development

3.2 The HKPSG has no recommendation on the provision of internal transport facilities for RCHE, hence, the parking provision for the RCHE within the Proposed Development, is provided based on the operational needs and also with reference to similar type RCHE in Kwun Tong.

3.3 The details of the provision of internal transport facilities for RCHE within the Proposed Development are shown in **Table 3.1**.

TABLE 3.1 DETAILS OF PROVISION OF INTERNAL TRANSPORT FACILITIES FOR RCHE WITHIN THE PROPOSED DEVELOPMENT

Item	**Proposed Provision**
Car Parking Space	**8 nos.** car parking spaces provided based on operational needs: (i) 5 parking spaces @ 5m (L) x 2.5m (W) x 2.4m (H) for senior management staff of RCHE; (ii) 3 parking spaces for RCHE visitors, including - 2 nos. @ 5m (L) x 2.5m (W) x 2.4m (H) ; and - 1 no accessible car parking space @ 5m (L) x 3.5m (W) x 2.4m (H)
Loading / Unloading Bay	**1 no.** Heavy Goods Vehicles loading / unloading bay @ 11.0m (L) x 3.5m (W) x 4.7m (H) are provided for shared use, i.e., for RCHE and hotel use
Ambulance lay-by	**1 no.** ambulance lay-by @ 9.0m (L) x 3.0m (W) x 3.6m (H) shared use by ambulance and mini-coach is provided based on the operational needs.

3.4 **Table 3.1** shows the provision of 8 car parking spaces and 1 ambulance lay-by. In addition, 1 HGV loading/unloading bay is also provided which is for shared used with the Hotel within the Proposed Development.

3.5 Most RCHEs in Hong Kong are located within buildings where there are other uses, and access to the RCHE is shared with other uses. Therefore, it is not possible to distinguish traffic generated by the RCHE from other uses for these type of RCHEs, i.e., those located within in a multi-use building. Nevertheless, several RCHEs located in a single use building were identified for the conduct of traffic surveys, and the surveyed RCHEs have similar characteristic as the Proposed Development, in terms of: (i) location; (ii) scale; (iii) accessibility to Public Transport Services, and (iv) availability of internal transport facilities.

3.6 The utilisation surveys were conducted from 0800 – 1959 hours on a weekday. Details of the surveyed RCHE are given in **Table 3.2**, and the survey results are presented in **Table 3.3**.

TABLE 3.2 DETAILS OF RCHES SURVEYED

Location of Elderly Home	No. of Beds	Accessibility to Public Transport Services	Car Park
(A) 8 Kung Lok Road, Kwun Tong	266	Access to public transport services from this RCHE is convenient with numerous bus and GMB routes operate in the vicinity. The nearest MTR Ngau Tau Kok Station is located within 500m from this RCHE.	Yes
(B) 88 Kung Lok Road, Kwun Tong	226	Access to public transport services from this RCHE is convenient with numerous bus and GMB routes operate in the vicinity. The nearest MTR Ngau Tau Kok Station is located within 500m from this elderly home.	Yes

TABLE 3.3 SURVEY RESULTS OF THE 2 SURVEYED RCHES

Time Period (hours)	Maximum Number of Vehicles Observed at any time				
	Private car and taxi	Light goods vehicle(1)	Medium / heavy goods vehicle	Mini coach	Ambulance
(A) 8 Kung Lok Road, Kwun Tong (266 beds)					
0800 – 0859	1	0	0	0	0
0900 – 0959	0	1	0	0	0
1000 – 1059	0	0	0	1	0
1100 – 1159	0	0	0	0	0
1200 – 1259	0	1	0	0	0
1300 – 1359	0	1	0	0	0
1400 – 1459	0	0	0	1	0
1500 – 1559	0	0	0	0	1
1600 – 1659	0	0	0	1	0
1700 – 1759	0	0	0	1	0
1800 – 1859	1	0	0	0	0
1900 – 1959	0	0	0	0	0
Maximum (0800 – 1959)	**1**	**1**	**0**	**1**	**1**
(B) 88 Kung Lok Road, Kwun Tong (226 beds)					
0800 – 0859	0	0	0	0	0
0900 – 0959	0	1	0	0	0
1000 – 1059	0	0	0	1	0
1100 – 1159	0	0	0	1	0
1200 – 1259	0	1	0	0	0
1300 – 1359	0	0	0	1	0
1400 – 1459	1	0	0	0	0
1500 – 1559	1	0	0	0	0
1600 – 1659	1	0	0	0	0
1700 – 1759	1	0	0	0	0
1800 – 1859	0	0	0	0	0
1900 – 1959	0	0	0	0	0
Maximum (0800 – 1959)	**1**	**1**	**0**	**1**	**0**

Note: (1) including goods van, light goods vehicle

3.7 **Table 3.3** shows the number of vehicles observed within the same hour but these vehicles are not present at the same time. For example, at Location (A) 8 Kung Lok Road, Kwun Tong, during the period 0800 – 0859 hours, the Private car and taxi were not observed at the same time as the Light goods vehicle.

3.8 **Table 3.3** also shows the following:

(i) Private car parking spaces

3.9 The maximum number of Private car and taxi observed at both surveyed RCHEs at the same time was 1. Based on this rate, the 557-bed RCHE within the Proposed Development is estimated to generate a maximum of 3 vehicles at the same time only. *[Calculation: 1 vehicle / 226 beds x 557 beds = 2.46, say, 3]*

3.10 Taxis stop momentarily to pick-up and drop-off. Therefore, taxis can use the private car parking spaces PC-09 or PC-10 on G/F as shown in **Figure 3.1**.

3.11 Hence, the provision of 8 car parking spaces is more than sufficient to serve the RCHE within the Proposed Development.

(ii) Goods Vehicle Loading / Unloading Bay

3.12 As shown in **Table 3.3**, no more than 1 goods vehicle was observed at any one time. Hence, the provision of 1 HGV loading/unloading bay for shared use by RCHE and Hotel is sufficient to serve the RCHE within the Proposed Development.

(iii) Layby for shared use by ambulance and mini-coach

3.13 As shown in **Table 3.3**, ambulance and mini-coach did not arrive at the same time. Hence, the ambulance layby is sufficient to serve the RCHE within the Proposed Development.

(b) Hotel within the Proposed Development

3.14 The internal transport facilities for Hotel within the Proposed Development are provided in accordance to the recommendations of the HKPSG, and are presented in **Table 3.4**.

TABLE 3.4 COMPARISON OF THE HKPSG RECOMMENDATIONS AND PROPOSED INTERNAL TRANSPORT FACILITIES FOR HOTEL WITHIN THE PROPOSED DEVELOPMENT

HKPSG Recommendation for a Hotel with 200 guest rooms	Proposed Provision
Car Parking Space	
1 car parking space per 100 rooms. 200/100 = **2 nos.**	**2 nos.** @ 5m (L) x 2.5m (W) x 2.4m (H) **= HKPSG recommendation**
Motorcycle Parking Space	
5 to 10% of the total provision for private cars Minimum = 2 x 5% = 0.1, **say 1 no.** Maximum = 2 x 10% = 0.2, **say 1 no.**	**1 no.** @ 2.4m (L) x 1m (W) x 2.4m (H) **= HKPSG recommendation**
Taxi and Private Car Layby	
Minimum 2 lay-by for taxi and private cars for ≤ 299 rooms **= 2 nos.**	**2 nos.** @ 5m (L) x 2.5m (W) x 2.4m (H) **= HKPSG recommendation**
Single-Deck Tour Bus Layby	
Minimum 1 lay-by for single-deck tour buses for ≤ 299 rooms **= 1 no.**	**1 no.** @ 12m (L) x 3.5m (W) x 3.8m (H) **= HKPSG recommendation**

HKPSG Recommendation for a Hotel with 200 guest rooms	**Proposed Provision**
Goods Vehicle Loading / Unloading Bay	
0.5 - 1 goods vehicle bay per 100 rooms Minimum = 200 / 100 x 0.5 = **1 no.** Maximum = 200 / 100 x 1 = **2 nos.**	**1 no.** @ 7m (L) x 3.5m (W) x 3.6m (H) for Light Goods Vehicles **= HKPSG recommendation**

3.15 With reference to **Tables 3.1** and **3.4**, the internal transport facilities provided are summarised in **Table 3.5**.

TABLE 3.5 INTERNAL TRANSPORT FACILITIES PROVIDED FOR THE PROPOSED DEVELOPMENT

Item	**Use**	**Proposed Provision**
Car Parking Space	RCHE	8
	Hotel	2
	Total	**10**
Ambulance Parking Space	RCHE	**1**
Motorcycle Parking Space	Hotel	**1**
Taxi and Private Car Layby	Hotel	**2**
Single-Deck Tour Bus Layby	Hotel	**1**
LGV Goods Vehicle Loading / Unloading Bay	Hotel	1
HGV Goods Vehicle Loading / Unloading Bay	Shared use by RCHE and Hotel	1
	Total	**2**

Reasons for Deviation from the HKPSG Maximum Recommendation for Hotel within the Proposed Development

(a) Site Constraint

3.16 The only internal transport facility for the Hotel within the Proposed Development, which deviates from the HKPSG maximum recommendation is the provision of 1 goods vehicles loading / unloading bay, instead of 2. However, a second goods vehicle loading / unloading bay is provided which is for shared use with the RCHE within the Proposed Development.

3.17 The provision of an additional goods vehicle loading / unloading bay on the ground floor was considered, but not found to be possible due to:

(1) The Outline Development Plan no. D/K14A/1H require setback along Wai Yip Street of 2.3m, and (ii) 1.5m setback and 1.5m non-building area along the service lane and;

(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 only 21.3m is further reduced to only 17.5m (reduction of length of 17.8%, which is substantial).

3.18 After accommodating the essential facilities such as, structural columns, staircases, escalators, lift lobby and vehicle ramp to the basement car park, etc, the provision of another goods vehicle loading / unloading bay is not possible. The Authorised Person has used his utmost effort to ensure the layout is arranged and utilised in good order.

(b) Limited Goods Vehicles Generated

3.19 Goods vehicles generated are mostly related to room cleaning services, deliveries of toiletry and beverages. The expected goods vehicle trip generated for the Hotel within the Proposed Development is summarised in **Table 3.6**.

TABLE 3.6 GOODS VEHICLE TRIP GENERATION FOR HOTEL WITHIN THE PROPOSED DEVELOPMENT

Item	**Activity**	**Expected goods vehicles generated**
Room cleaning service	Replenish cleaning material	4 trips per month
Toiletry	Restock toiletries, eg, shampoo, lotion, etc.	1 trip per month
Beverages	Deliver distilled water	8 trips per month
	Total goods vehicle trips =	**13 trips per month**

3.20 **Table 3.6** shows that the Hotel within the Proposed Development is expected to generate 13 goods vehicle trips per month, or 1 vehicle trip every 2.3 days, which is low. Hence, the provision of 1 LGV goods vehicle loading/unloading bay and 1 HGV loading/unloading bay which is for shared use by RCHE and Hotel, is sufficient to serve the loading / unloading activities of the Hotel.

Layout Plans

3.21 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 for the Proposed Development, and these are located at:

(i) The service lane at the northern side of the Proposed Development
(ii) Wai Yip Street

Swept Path Analysis

3.22 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.

Traffic Management Plan

3.23 Loading / unloading related to goods deliveries will be undertaken during the non-peak hours. The Management Office will ensure good maintenance of the turntable and should there the turntable fail to operate, the Management Office will immediately contact the turntable maintenance company to repair.

3.24 If necessary, the Management Office will stagger the delivery of goods so that only 1 goods vehicle will be present at the same time.

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 the (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 2019 – based Territorial Population and Employment Data Matrix ("TPEDM") data produced by Planning Department for Kwun Tong District, which are for 2019, 2026 and 2031 and are presented in **Table 4.1**.

TABLE 4.1 2019-BASED TPEDM DATA PRODUCED BY PLANNING DEPARTMENT FOR KWUN TONG DISTRICT

Item	**TPEDM Estimation / Projection**		
	2019	**2026**	**2031**
Population	693,900	769,400	741,300
Employment	395,350	410,550	408,250
Total	1,089,250	1,179,950	1,149,550
Average Growth%	From 2019 to 2026: +1.15% From 2019 to 2031: +0.45%	From 2026 to 2031: -0.52%	N/A

4.4 **Table 4.1** shows that the highest average annual growth rate is 1.15%. In view that there is no estimation beyond 2031 and to err on the high side, the growth rate of 1.15% 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**.

TABLE 4.2 PLANNED DEVELOPMENTS IN THE VICINITY OF THE PROPOSED DEVELOPMENT

Site	**Planning Application No. / Plan No.**	**Address**
1	A/K14/763	350 Kwun Tong Road
2	A/K14/766	41 King Yip Street
3	A/K14/771	32 Hung To Road
4	A/K14/773	82 Hung To Road
5	A/K14/774	7 Lai Yip Street
6	A/K14/775	132 Wai Yip Street
7	A/K14/777	71 How Ming Street
8	A/K14/778	203 Wai Yip Street
9	A/K14/782	4 Tai Yip Street
10	A/K14/787	33 Hung To Road
11	A/K14/796	28A Hung To Road

Site	Planning Application No. / Plan No.	Address
12	A/K14/804	334 -336 and 338 Kwun Tong Road
13	A/K14/806	11 Lai Yip Street
14	A/K14/807	Kun Tong Inland Lots 1 S.A , 1 RP, 3 and 15
15	A/K14/808	201 Wai Yip Street
16	A/K14/809	1 Tai Yip Street and 111 Wai Yip Street
17	A/K14/810	5 Lai Yip Street
18	A/K14/820	73 – 75 Hung To Road
19	A/K14/822	25 Tai Yip Street, Kwun Tong
20	S/K14S/URA1/3 Urban Renewal Authority's (URA) latest 'Vertical City' scheme of a mixed use development	Areas 4 and 5 of Kwun Tong Town Centre
21	N/A	EKEO Lai Yip Street Development
22	N/A	Kwun Tong Action Area
23	N/A	Kowloon Bay Action Area

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 In view that the TPDM does not provide trip generation rates for RCHE, the traffic generation associated with the RCHE is estimated based in-house trip generation rates. The surveyed RCHE are:

(i) 266-bed RCHE known as Buddhist Sum Ma Shui Ying Care & Attention Home for the Elderly at 8 Kung Lok Road, Kwun Tong
(ii) 110-bed known as Little Sisters of the Poor St. Mary's Home for the Aged at 2 Welfare Road, Wong Chuk Hang

4.8 As for Hotel, reference is also made to in-house trip generation rates because the hotels are of similar class, number of hotel rooms and traffic characteristics, i.e. proximity to the MTR and road-based public transport services to the Hotel within the Proposed Development. The surveyed hotels are:

(i) 254-room Nina Hotel Kowloon East at 38 Chong Yip St, Kwun Tong
(ii) 298-room Tuen Mun Pentahotel at 6 Tsun Wen Road, Tuen Mun

4.9 To be conservative, it is assumed that the RCHE has 557 beds. The adopted trip generation rates and the calculated traffic generation associated with the Proposed Development are presented in **Table 4.3**.

TABLE 4.3 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 RCHE (pcu/hour/bed)						
In-house trip generation for RCHE	0.0188	0.0182	NA	0.0273	0.0182	NA
Trip Generation Rates for hotel (pcu/hour/guest room)						
In-house trip generation for hotel	0.0591	0.0433	NA	0.0512	0.0472	NA
Traffic Generation of Proposed Development (pcu/hour)						
RCHE: 557 beds [a]	*11*	*11*	*22*	*16*	*11*	*27*
Hotel: 200 guest rooms [b]	*12*	*9*	*21*	*11*	*10*	*21*
Total [a] + [b]	**23**	**20**	**43**	**27**	**21**	**48**

4.10 **Table 4.3** shows the Proposed Development generates 43 and 48 more pcu (2-way) during the AM and PM peak hours respectively.

Comparison of Traffic Generation between the Approved S16 Scheme and the Proposed Development

4.11 The Approved S16 Scheme is a commercial building with 16,656.323m^2 Office and 200m^2 GFA. The traffic generated by this Approved S16 Scheme is compared with the Proposed Development and is presented in **Table 4.4**.

TABLE 4.4 COMPARISON OF TRAFFIC GENERATION BETWEEN THE APPROVED S16 SCHEME AND THE PROPOSED DEVELOPMENT

Scheme	**Traffic Generation (pcu/hour)**					
	AM Peak Hour			**PM Peak Hour**		
	In	**Out**	**2-way**	**In**	**Out**	**2-way**
Approved S16 Planning Application (TPB ref: A/K14/780) [A]	42	30	72	21	28	49
Proposed Development [B]	23	20	43	27	21	48
Difference [B] – [A]	***-19***	***-10***	***-29***	***6***	***-7***	***-1***

4.12 **Table 4.4** shows that compared with the Approved S16 Scheme, the Proposed Development generates 29 pcu and 1 pcu (2-way) less during the AM and PM peak hours, respectively. It can be concluded from traffic generation aspect that compared with the Approved S16 Scheme, **the Proposed Development is a better-off scheme**.

Planned Junction Improvement Schemes

4.13 The planned junction improvement schemes found in the vicinity of the Subject Site are summarized in **Table 4.5** and shown in **Appendix 3**.

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

Junction		**Description of Work**	**The Project Proponents**	**Estimated Completion Year[(1)]**
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

Junction		Description of Work	The Project Proponents	Estimated Completion Year(1)
J7	Wai Yip Street / Lai Yip Street	The road alignment is adjusted at Lai Yip Street Northbound	Kowloon Bay Action Area – Feasibility Study	
J8	Kwun Tong Road / Lai Yip Street	The road alignment is adjusted at Lai Yip Street Northbound	Kwun Tong Action Area – Feasibility Study	
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 converted to straight crossing	Technical study on the Lai Yip Street site in Kowloon East	

2032 Traffic Flows

4.14 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 4.3**)*

4.15 The 2032 peak hour traffic flows for the cases without and with the Proposed Development, are shown in **Figures 4.1 - 4.2**, 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 4.3 - 4.4.**

2032 Junction Operational Performance

4.16 Year 2032 capacity analysis for the cases without and with the Proposed Development are summarized 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%	22%	17%
J2	Wai Yip Street / Shun Yip Street	Signal / RC	21%	19%	20%	18%
J3	Tai Yip Street / Service Lane	Priority / RFC	0.044	0.036	0.054	0.046
J4	Hong Tak Road / Tai Yip Street	Priority / RFC	0.384	0.294	0.404	0.322
J5	Tai Yip Street / Tai Yip Lane	Priority / RFC	0.135	0.117	0.135	0.117
J6	Kwun Tong Road / Hong Tak Road	Priority / RFC	0.655	0.743	0.670	0.765
J7	Wai Yip Street / Lai Yip Street(3)	Signal / RC	26%	35%	26%	35%
J8	Kwun Tong Road / Lai Yip Street(3)	Signal / RC	23%	18%	23%	18%

Ref.	Junction	Type of Junction / Parameter[1]	Without the Proposed Development		With the Proposed Development	
			AM Peak	PM Peak	AM Peak	PM Peak
J9	Hoi Bun Road / Lai Yip Street[3]	Signal / RC	21%	23%	21%	23%
J10	Lai Yip Street / Hung To Road[2]	Signal / RC	33%	41%	33%	41%

Notes: [1] RC – reserve capacity RFC – Ratio of Flow to Capacity
[2] Kerbside on-street activities are reflected in the junction performance
[3] Junction Improvement Scheme has been incorporated in the assessment

4.17 **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 at the footpaths and waiting area of pedestrian crossing shown in **Figure 5.1** during the AM and PM peak periods. The survey locations are summarized in **Table 5.1.**

TABLE 5.1 SURVEYED PEDESTRIAN LOCATIONS

Ref.	**Location**
	Footpath
1	Northern footpath of Wai Yip Street between Shun Yip Lane and Tai Yip Street (Eastern side)
2	Northern footpath of Wai Yip Street between Shun Yip Lane and Tai Yip Street (Western side)
3	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 2024 to 2032

5.3 The 2032 reference pedestrian flows are estimated with the reference of the existing pedestrian flows and a growth rate of 1.15% per annum which is derived from the latest TPEDM data.

Pedestrian Generated by the Proposed Development

5.4 The pedestrian generations associated with the RCHE and Hotel within the Proposed Development, are estimated based on in-house pedestrian rates. The in-house pedestrian rates are presented in **Table 5.2**, and the estimated pedestrian generation of Proposed Development is found in **Table 5.3**.

TABLE 5.2 IN-HOUSE PEDESTRIAN GENERATION RATES

Use	**Pedestrian Generation Rates (pedestrian / 15 min / 100m^2)**			
	AM Peak		**PM Peak**	
	In	**Out**	**In**	**Out**
RCHE(1)	0.049	0.004	0.011	0.034
Hotel(2)	0.053	0.173	0.156	0.177

(1) 266-bed RCHE known as Buddhist Sum Ma Shui Ying Care & Attention Home for the Elderly at 8 Kung Lok Road, Kwun Tong

(2) 254-room Nina Hotel Kowloon East at 38 Chong Yip St, Kwun Tong

TABLE 5.3 PEDESTRIAN GENERATED BY THE PROPOSED DEVELOPMENT

Use	**GFA (m^2)**	**Pedestrian Generation (pedestrian / 15 min)**			
		AM Peak		**PM Peak**	
		In	**Out**	**In**	**Out**
RCHE	557 beds	28	3	7	19

Use	**GFA (m^2)**	**Pedestrian Generation (pedestrian / 15 min)**			
		AM Peak		**PM Peak**	
		In	**Out**	**In**	**Out**
Hotel	200 rooms	11	35	32	36
	Total	**39**	**38**	**39**	**55**

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] = *2024 observed pedestrian flows + growth from 2024 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*

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

(a) LOS of the Footpaths

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

TABLE 5.5 EFFECTIVE WIDTH OF SURVEYED FOOTPATHS

Ref	**Footpath width (m)**	**Effective width (m)(1)**
1	3.5	2.5
2	2.7	1.7
3	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
1	AM	350	9.3	A	369	9.8	A
	PM	317	8.5	A	340	9.1	A
2	AM	467	18.3	B	516	20.2	B
	PM	336	13.2	A	395	15.5	A
3	AM	969	7.3	A	1008	7.6	A
	PM	593	4.5	A	640	4.8	A

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

5.9 **Table 5.6** shows that the footpaths achieve LOS A and B during AM and PM peak for the 2032 cases without and with the Proposed Development.

(b) Waiting area of the Pedestrian Crossing

5.10 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	PM	AM	PM	AM	PM
Without the Proposed Development							
W1	150	47	11	3.2	13.6	C	A
W2	63	24	4	2.6	15.8	C	A
With the Proposed Development							
W1	150	48	12	3.1	12.5	C	A
W2	63	25	5	2.5	12.6	C	A

5.11 **Table 5.7** shows that the pedestrian crossing waiting areas achieve LOS A and C during AM and PM peak for the 2032 cases without and with the Proposed Development.

5.12 It is noted that *"In general, LOS C is desirable for most design at streets with dominant 'living' pedestrian activities"*. Since the LOS in **Tables 5.6 and 5.7** are A to C, it can be concluded that the Proposed Development will have no adverse impact to the footpaths and pedestrian crossing waiting areas in the vicinity.

6.0 SENSITIVITY TEST

Permitted Maximum Number of Beds for RCHE

6.1 Although the proposed maximum number of beds for RCHE is 557, based on the RCHE GFA and the minimum area of floor space per resident as per Code of Practice for Residential Care Homes (Elderly Persons) issued by Social Welfare Department, a total of 644 beds could be provided. Hence, a sensitivity test is undertaken for the RCHE with 644 beds and the hotel with 200 rooms.

6.2 As stated in paragraph 3.16 - 3.18, due to site constraints, the Authorised Person has used his utmost effort to ensure the layout is arranged and utilised in good order. Internal transport facilities will remain unchanged as the scheme with 557-bed RCHE and 200-room Hotel.

Traffic Impact for the Sensitivity Test

(a) Comparison of Traffic Generation

6.3 The comparison of traffic generated by the scheme with a 557-bed RCHE and 200-room Hotel, and the scheme with 644-bed RCHE and 200-room Hotel, is presented in **Table 6.1**.

TABLE 6.1 COMPARISON OF TRAFFIC GENERATION

Item	AM Peak Hour			PM Peak Hour		
	In	Out	2-way	In	Out	2-way
RCHE: 557 beds	*11*	*11*	*22*	*16*	*11*	*27*
Hotel: 200 guest rooms	*12*	*9*	*21*	*11*	*10*	*21*
Total [A]	**23**	**20**	**43**	**27**	**21**	**48**
RCHE: 644 beds	*13*	*12*	*25*	*18*	*12*	*30*
Hotel: 200 guest rooms	*12*	*9*	*21*	*11*	*10*	*21*
Total [B]	**25**	**21**	**46**	**29**	**22**	**51**
Difference in Traffic Generation (pcu/hour)						
[B] – [A]	**+2**	**+1**	**+3**	**+2**	**+1**	**+3**

6.4 **Table 6.1** shows that compared with the scheme with 557-bed RCHE and 200-room Hotel, the scheme with 644-bed RCHE and 200-room Hotel, generates 3 pcu / hour (2-way) more in both AM and PM peak hours, which is negligible.

(b) 2032 Traffic Flows

6.5 The sensitivity test 2032 peak hour traffic flows for the cases with the Proposed Development 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.**

(c) 2032 Junction Operational Performance

6.6 The comparison of junction capacity analysis for the scheme with 557-bed RCHE and 200-room Hotel, and the scheme with 644-bed RCHE and 200-room Hotel, is found in **Table 6.2** and detailed calculations of the scheme with 644-bed RCHE and 200-room Hotel are found in the **Appendix 1**.

TABLE 6.2 COMPARISON OF 2032 JUNCTION OPERATIONAL PERFORMANCE

Ref.	**Junction**	**Type of Junction / Parameter(1)**	**With the Proposed Development (557-bed RCHE and 200-room Hotel) [A]**		**With the Proposed Development (644-bed RCHE and 200-room Hotel) [B]**		**Difference [B] – [A]**	
			AM Peak	**PM Peak**	**AM Peak**	**PM Peak**	**AM Peak**	**PM Peak**
J1	Hoi Bun Road / Shun Yip Street(3)	Signal / RC	22%	17%	22%	17%	0%	0%
J2	Wai Yip Street / Shun Yip Street	Signal / RC	20%	18%	20%	17%	0%	-1%
J3	Tai Yip Street / Service Lane	Priority / RFC	0.054	0.046	0.054	0.047	0.000	0.001
J4	Hong Tak Road / Tai Yip Street	Priority / RFC	0.404	0.322	0.406	0.322	0.002	0.000
J5	Tai Yip Street / Tai Yip Lane	Priority / RFC	0.135	0.117	0.135	0.117	0.000	0.000
J6	Kwun Tong Road / Hong Tak Road	Priority / RFC	0.670	0.765	0.672	0.765	0.002	0.000
J7	Wai Yip Street / Lai Yip Street(3)	Signal / RC	26%	35%	26%	35%	0%	0%
J8	Kwun Tong Road / Lai Yip Street(3)	Signal / RC	23%	18%	23%	18%	0%	0%
J9	Hoi Bun Road / Lai Yip Street(3)	Signal / RC	21%	23%	21%	23%	0%	0%
J10	Lai Yip Street / Hung To Road(2)	Signal / RC	33%	41%	33%	41%	0%	0%

Notes: (1) RC – reserve capacity RFC – Ratio of Flow to Capacity
(2) Kerbside on-street activities are reflected in the junction performance
(3) Junction Improvement Scheme has been incorporated in the assessment

6.7 **Table 6.2** shows there is negligible difference in the junction capacity between the 2 schemes. Hence, the impact of the scheme with a 644-bed RCHE and a 200-room Hotel, is negligible.

Pedestrian Impact for the Sensitivity Test

(a) Comparison of Pedestrian Generation

6.8 The comparison of pedestrian generated by the scheme with a 557-bed RCHE and 200-room Hotel, and the scheme with 644-bed RCHE and 200-room Hotel, is presented in **Table 6.3**.

TABLE 6.3 COMPARISON OF PEDESTRIAN GENERATION

Item	**AM Peak Hour**			**PM Peak Hour**		
	In	**Out**	**2-way**	**In**	**Out**	**2-way**
RCHE: 557 beds	*28*	*3*	*31*	*7*	*19*	*26*
Hotel: 200 guest rooms	*11*	*35*	*46*	*32*	*36*	*68*
Total [A]	**39**	**38**	**77**	**39**	**55**	**94**
RCHE: 644 beds	*32*	*3*	*35*	*8*	*22*	*30*
Hotel: 200 guest rooms	*11*	*35*	*46*	*32*	*36*	*68*
Total [B]	**43**	**38**	**81**	**40**	**58**	**98**
Difference in Traffic Generation (pcu/hour)						
[B] – [A]	**+4**	**+0**	**+4**	**+1**	**+3**	**+4**

(b) 2032 Pedestrian Flows

6.9 The sensitivity test 2032 pedestrian flows with the Proposed Development is presented in **Figure 6.4**.

(c) LOS of the Footpaths

6.10 The sensitivity test year 2032 LOS with the Proposed Development is presented in **Table 6.4**.

TABLE 6.4 SENSITIVITY TEST FOR YEAR 2032 LOS OF FOOTPATH WITH THE PROPOSED DEVELOPMENT

Ref.	**Peak Period**	**Year 2032 with the Proposed Development (644-bed RCHE and 200-room Hotel)**		
		Flow (Ped/15 min)	**Rate[(1)] (Ped/ min/m)**	**LOS**
1	AM	370	9.9	A
	PM	341	9.1	A
2	AM	518	20.3	B
	PM	398	15.6	A
3	AM	1010	7.7	A
	PM	642	4.9	A

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

6.11 **Table 6.4** shows that the footpaths still achieve LOS A and B during AM and PM peak for the sensitivity test.

(d) Waiting Area of the Pedestrian Crossing

6.12 The sensitivity test for year 2032 pedestrian crossing waiting areas with the Proposed Development is presented in **Table 6.5**.

TABLE 6.5 SENSITIVITY TEST FOR YEAR 2032 PEDESTRIAN CROSSING WAITING AREAS 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	PM	AM	PM	AM	PM
With the Proposed Development (644-bed RCHE and 200-room Hotel)							
W1	150	48	12	3.1	12.5	C	A
W2	63	25	5	2.5	12.6	C	A

6.13 **Table 6.5** shows that the pedestrian crossing waiting areas still achieve LOS A and C during AM and PM peak for the sensitivity test.

6.14 Since the LOS in **Tables 6.4 and 6.5** are A to C, it can be concluded that the sensitivity test found no adverse impact to the footpaths and pedestrian crossing waiting areas in the vicinity.

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.

7.2 Subsequent to the approved S16 Scheme, the Applicant has the intention to rezone the Subject Site and construct a building which comprises of a RCHE with (i) no less than 302, but not more than 557 beds and (ii) hotel with 200 rooms.

7.3 Manual classified counts were conducted at the 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.

7.4 Similar to the Approved S16 Scheme, 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. Compared to the Approved S16 Scheme, the Proposed Development is expected to generate less traffic during the AM and PM peak hours.

7.5 The internal transport facilities provided for RCHE within the Proposed Development are based on the operational needs and also with reference to similar type RCHE in Kwun Tong. Those for the Hotel within 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.

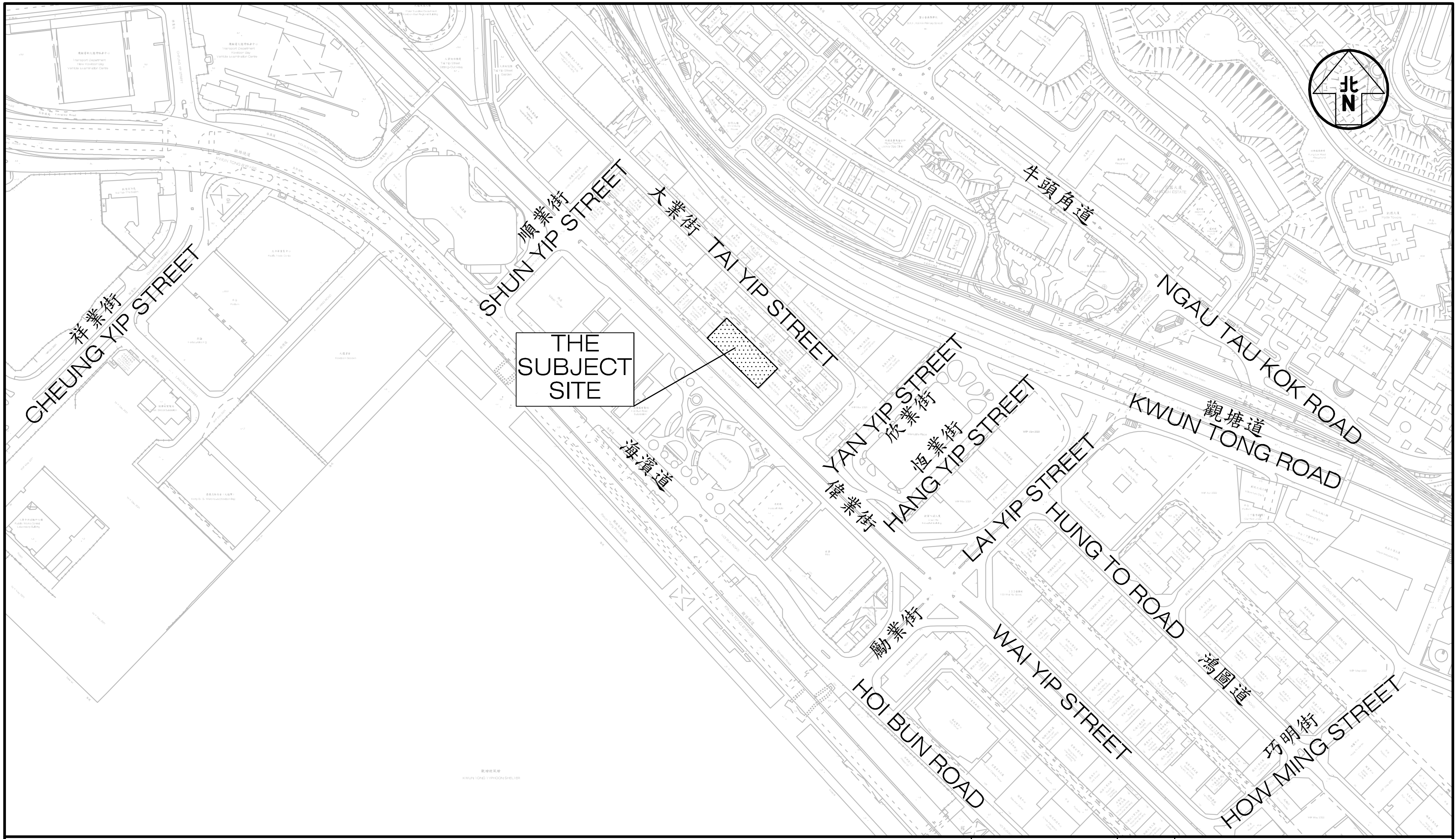
7.6 The Proposed Development is expected to be completed by 2029, and the junction capacity analysis is undertaken for year 2032. For the design year 2032, the junctions analysed are expected to operate with capacities during the peak hours for the case without and with Proposed Development.

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. Hence, it is concluded that the Proposed Development has **no** adverse impact to the footpaths and pedestrian crossing in the vicinity.

7.8 A sensitivity test for the scheme with 644-bed RCHE and 200-room Hotel is undertaken and found to have no adverse traffic and pedestrian impact.

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

Figures


北
N
THE SUBJECT SITE
祥業街
CHEUNG YIP STREET
順業街
SHUN YIP STREET
大業街
TAI YIP STREET
牛頭角道
NGAU TAU KOK ROAD
觀塘道
KWUN TONG ROAD
YAN YIP STREET
欣業街
恆業街
HANG YIP STREET
偉業街
LAI YIP STREET
勵業街
HUNG TO ROAD
鴻圖道
海濱道
HOI BUN ROAD
WAI YIP STREET
巧明街
HOW MING STREET

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107–109 WAI YIP STREET, KWUN TONG

J7333

Figure No.
1.1

Revision
R1B

Figure Title

LOCATION OF THE SUBJECT SITE

Designed by
C Y Y

Drawn by
N C M

Checked by
K C

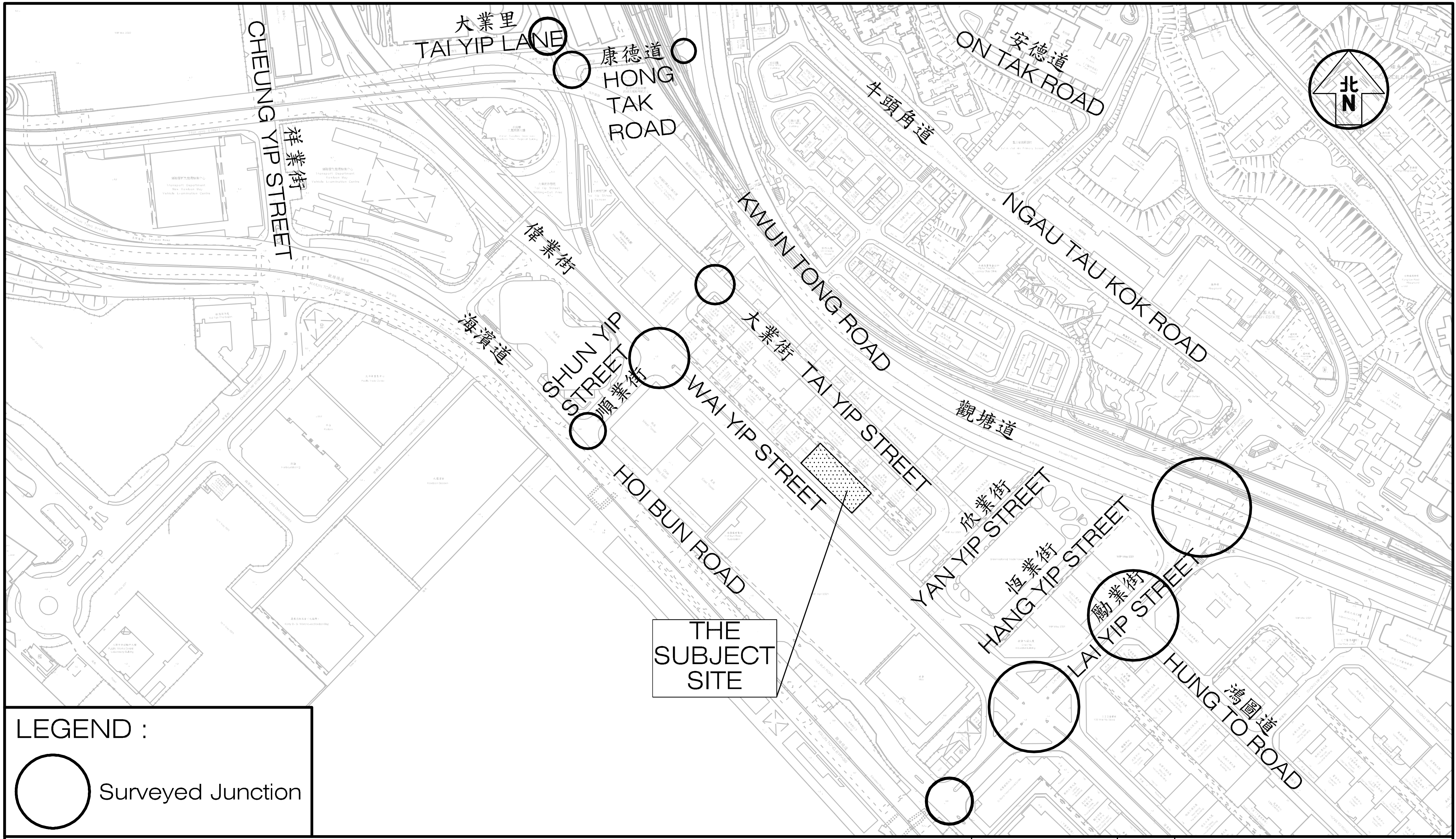
Scale in A4
1 : 4000

Date
09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig 1.1 RevR1B.dwg



大業里
TAI YIP LANE
康德道
HONG TAK ROAD
安德道
ON TAK ROAD
北
N
祥業街
CHEUNG YIP STREET
牛頭角道
NGAU TAU KOK ROAD
KWUN TONG ROAD
偉業街
海濱道
SHUN YIP STREET
順業街
大業街
TAI YIP STREET
WAI YIP STREET
觀塘道
HOI BUN ROAD
欣業街
YAN YIP STREET
恆業街
HANG YIP STREET
勵業街
LAI YIP STREET
HUNG TO ROAD
鴻圖道
THE SUBJECT SITE
LEGEND :
Surveyed Junction

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES FOR THE ELDERLY AND HOTEL AT 107–109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

LOCATION OF THE SURVEYED JUNCTIONS

Figure No. 2.1

Revision R1B

Designed by C Y Y

Drawn by N C M

Checked by K C

Scale in A4 1 : 4000

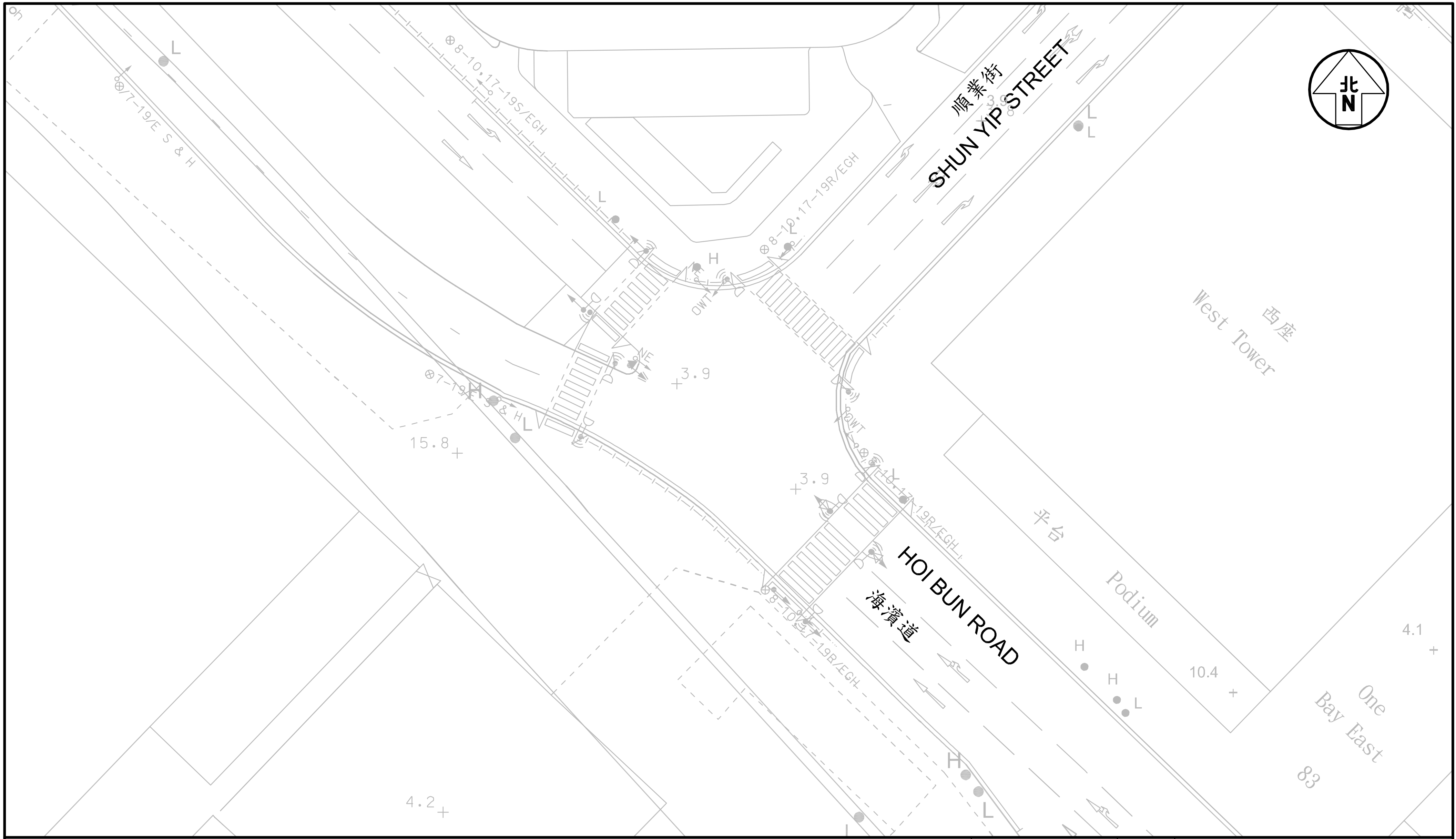
Date 09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig 2.1 RevR1B.dwg


北
N
順業街
SHUN YIP STREET
HOI BUN ROAD
海濱道
West Tower
西座
平台
Podium
One Bay East
83
8-10,17-19S/EGH
7-19/E S & H
8-10,17-19R/EGH
8-10,17-19R/EGH
7-19/E S & H
8-10,17-19R/EGH
OWT
OWT
3.9
3.9
3.9
15.8
4.2
4.1
10.4
H
L

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107–109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

LAYOUT OF JUNCTION OF HOI BUN ROAD / SHUN YIP STREET

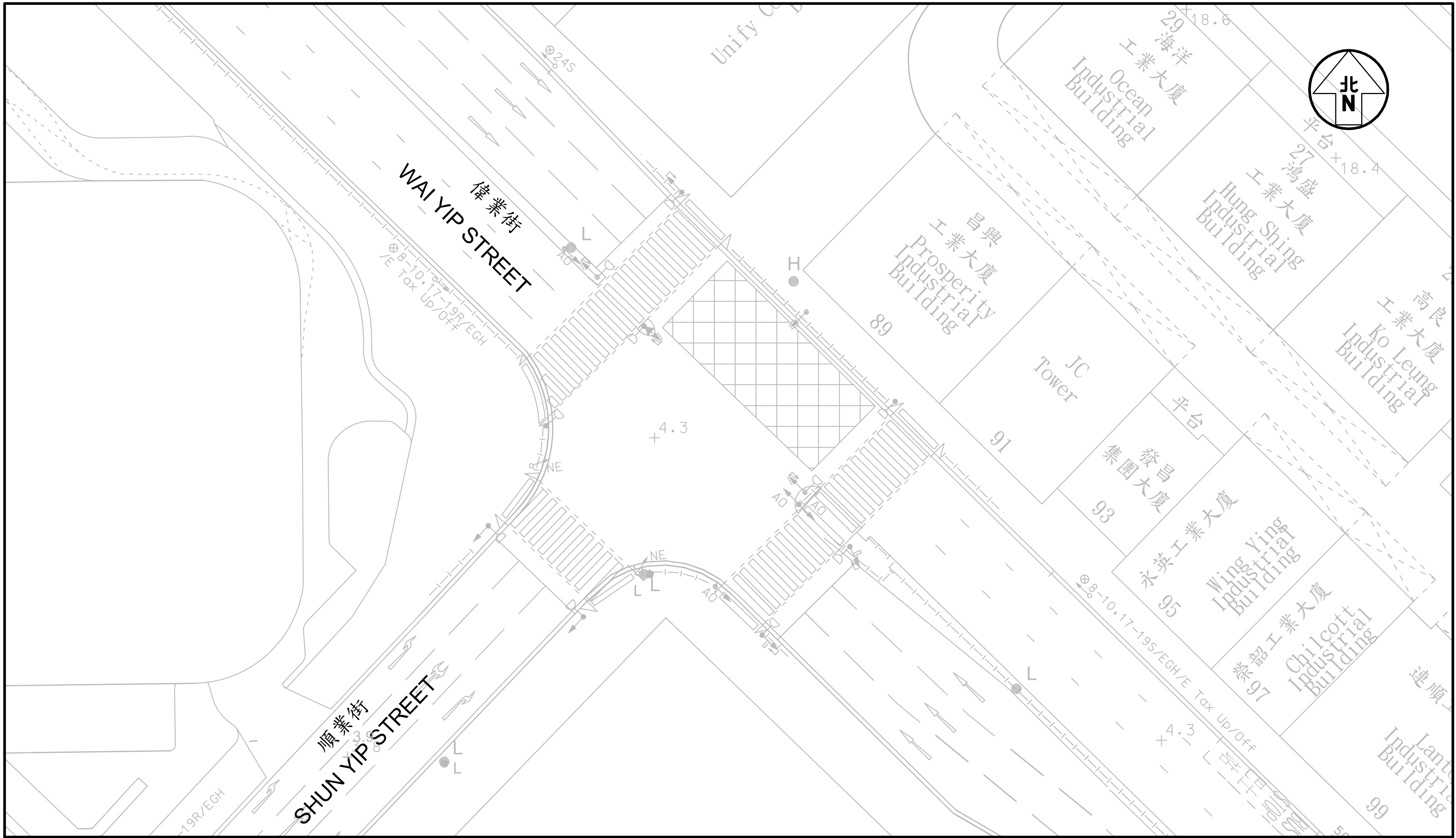
Figure No.	Revision
2.2	R1B

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

Scale in A4	Date
1 : 500	09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig 2.2 - 2.3, 2.10 - 2.11 RevR1B.dwg


北 N
WAI YIP STREET
偉業街
SHUN YIP STREET
順業街
Unify Co
29 海洋工業大廈 Ocean Industrial Building
×18.6
27 鴻盛工業大廈 Hung Shing Industrial Building
平台 ×18.4
昌興工業大廈 Prosperity Industrial Building
89
JC Tower
91
平台
發昌集團大廈
93
高良工業大廈 Ko Leung Industrial Building
永英工業大廈 Wing Ying Industrial Building
95
榮韶工業大廈 Chilcott Industrial Building
97
Lanto Industrial Building
99
⊗24S
⊗8-10,17-19R/EGH /E Tax Up/Off
⊗8-10,17-19S/EGH/E Tax Up/Off
19R/EGH
+4.3
×4.3
×3.8
H
L
AO
NE

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107–109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

LAYOUT OF JUNCTION OF WAI YIP STREET / SHUN YIP STREET

Figure No. 2.3

Revision R1B

Designed by C Y Y

Drawn by N C M

Checked by K C

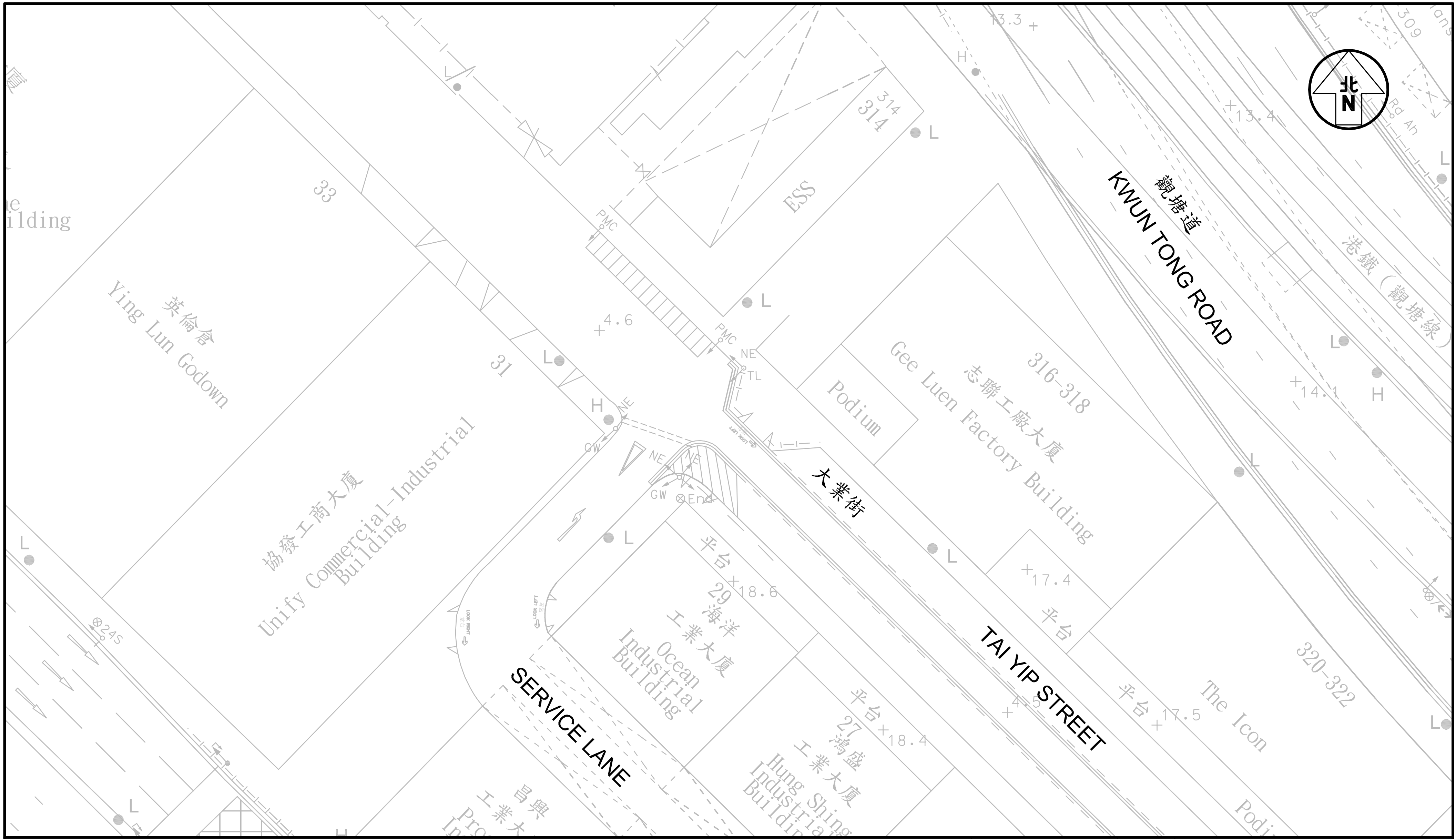
Scale in A4 1 : 500

Date 09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig 2.2 - 2.3, 2.10 - 2.11 RevR1B.dwg


KWUN TONG ROAD
觀塘道
港鐵（觀塘線）
TAI YIP STREET
大業街
SERVICE LANE
33
英倫倉
Ying Lun Godown
31
協發工商大廈
Unify Commercial-Industrial Building
ESS
314
316-318
志聯工廠大廈
Gee Luen Factory Building
Podium
29
海洋工業大廈
Ocean Industrial Building
27
鴻盛工業大廈
Hung Shing Industrial Building
320-322
The Icon
平台
+4.6
+13.3
+13.4
+14.1
+17.4
+17.5
+18.6
+18.4
+4.5
PMC
NE
TL
GW
End
L
H
北
N

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107–109 WAI YIP STREET, KWUN TONG

J7333

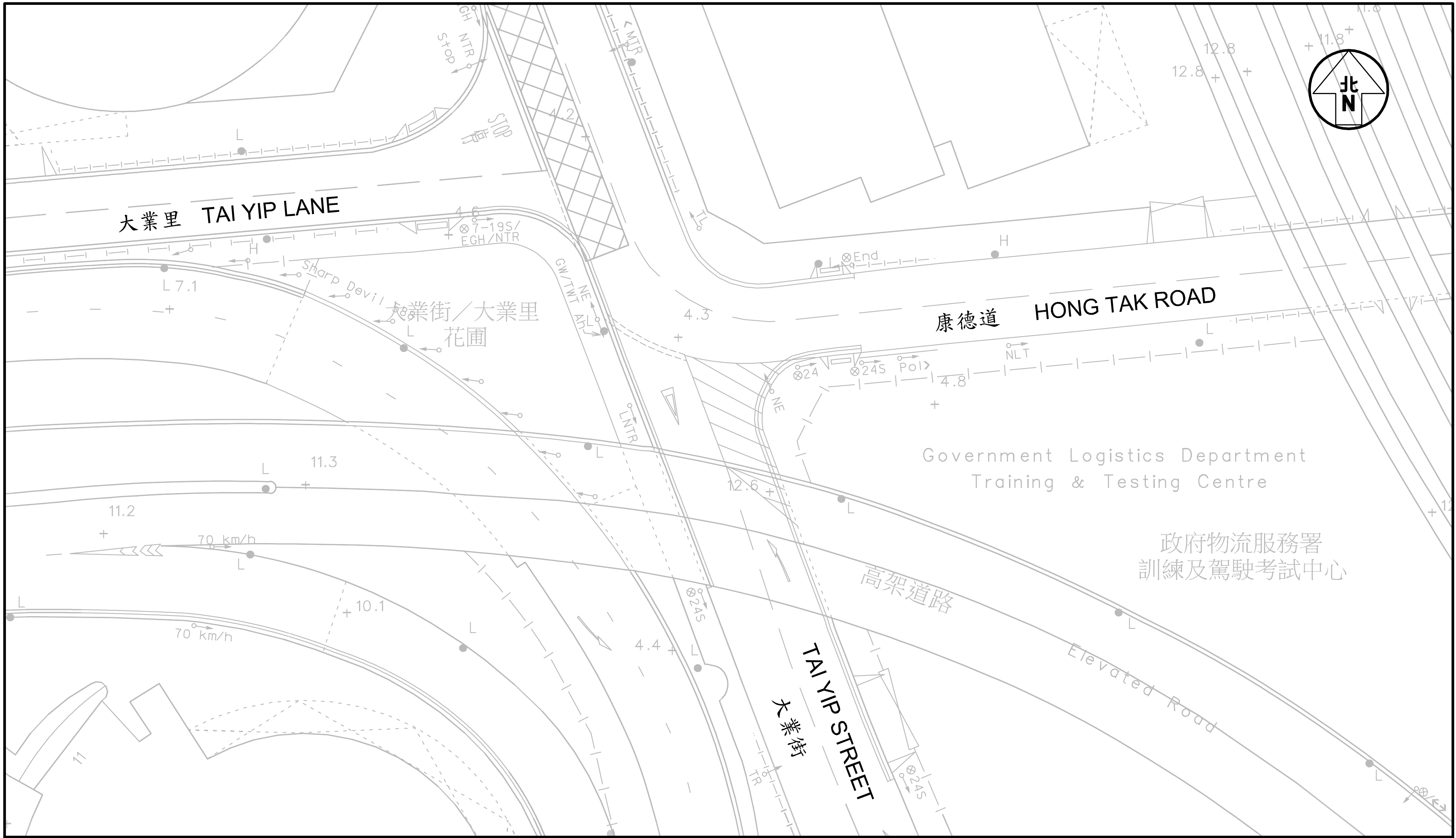
Figure Title

LAYOUT OF JUNCTION OF TAI YIP STREET / SERVICE LANE

Figure No.	Revision	Designed by	Drawn by	Checked by	Scale in A4	Date
2.4	R1B	C Y Y	N C M	K C	1 : 500	09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig 2.4 -2.7 RevR1B.dwg


北 N
大業里 TAI YIP LANE
康德道 HONG TAK ROAD
TAI YIP STREET 大業街
大業街／大業里花圃
Government Logistics Department Training & Testing Centre
政府物流服務署 訓練及駕駛考試中心
高架道路 Elevated Road
70 km/h
70 km/h
Sharp Devil
GW/TWT NE AH
LNTR
NE
7-19S/ EGH/NTR
24
24S
24S
24S
Pol
NLT
End
MTR
GH NTR Stop
STOP
TR
L 7.1
4.2
4.6
4.3
4.8
4.4
11.3
11.2
10.1
12.6
12.8
11.8
11

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

LAYOUT OF JUNCTION OF HONG TAK ROAD / TAI YIP STREET

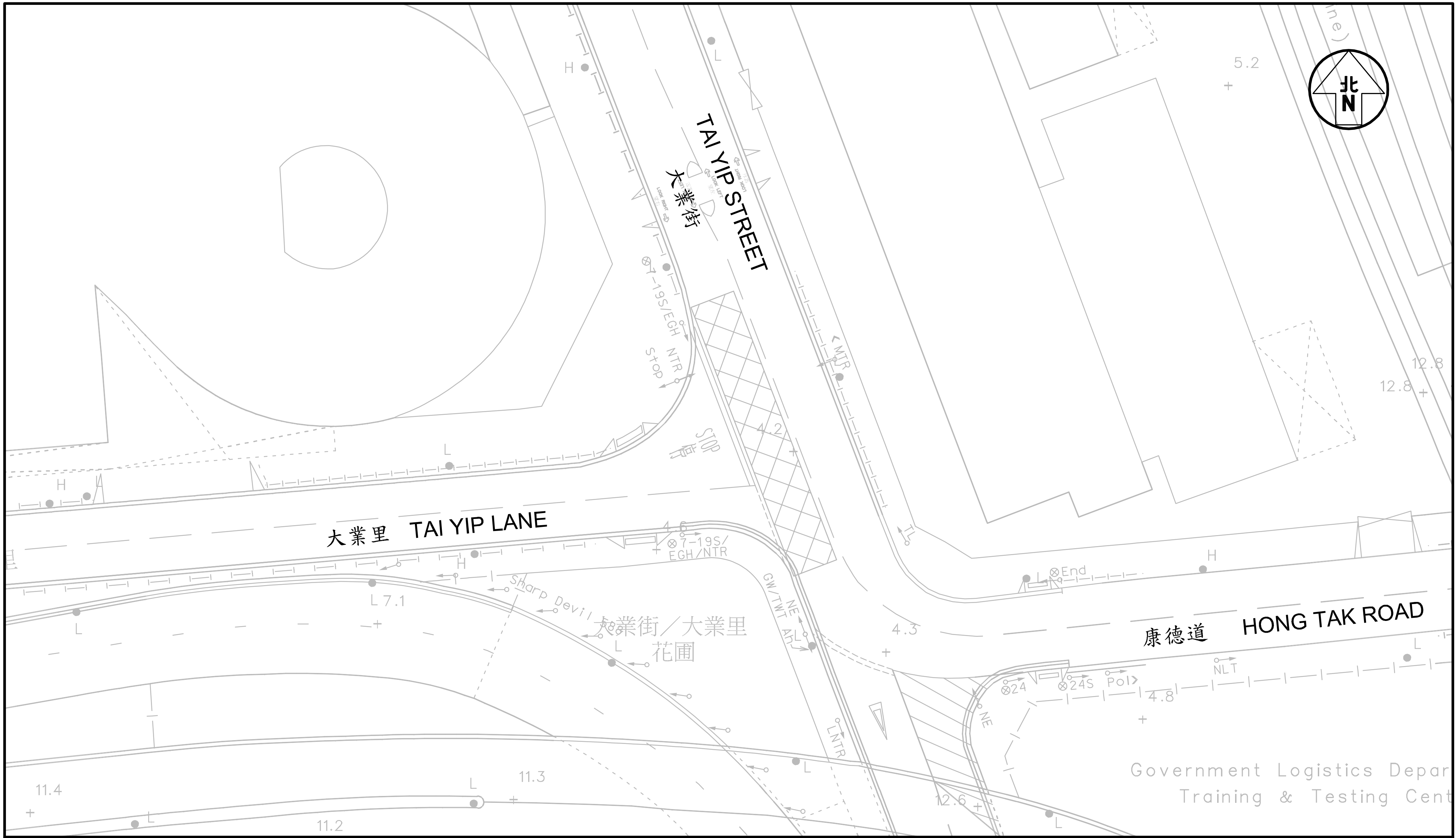
Figure No.	Revision
2.5	R1B

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

Scale in A4	Date
1 : 500	09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig 2.4 -2.7 RevR1B.dwg


北
N
TAI YIP STREET
大業街
LOOK RIGHT 望右
LOOK LEFT 望左
大業里 TAI YIP LANE
康德道 HONG TAK ROAD
大業街／大業里
花圃
STOP
停
7-19S/EGH NTR
Stop
7-19S/
EGH/NTR
GW/TWT
NE
Ah
Sharp Devil
MTR
LNTR
End
24
24S
Pol
NLT
NE
4.2
4.6
4.3
4.8
5.2
7.1
11.2
11.3
11.4
12.6
12.8
H
L
Government Logistics Depar
Training & Testing Cent

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107–109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

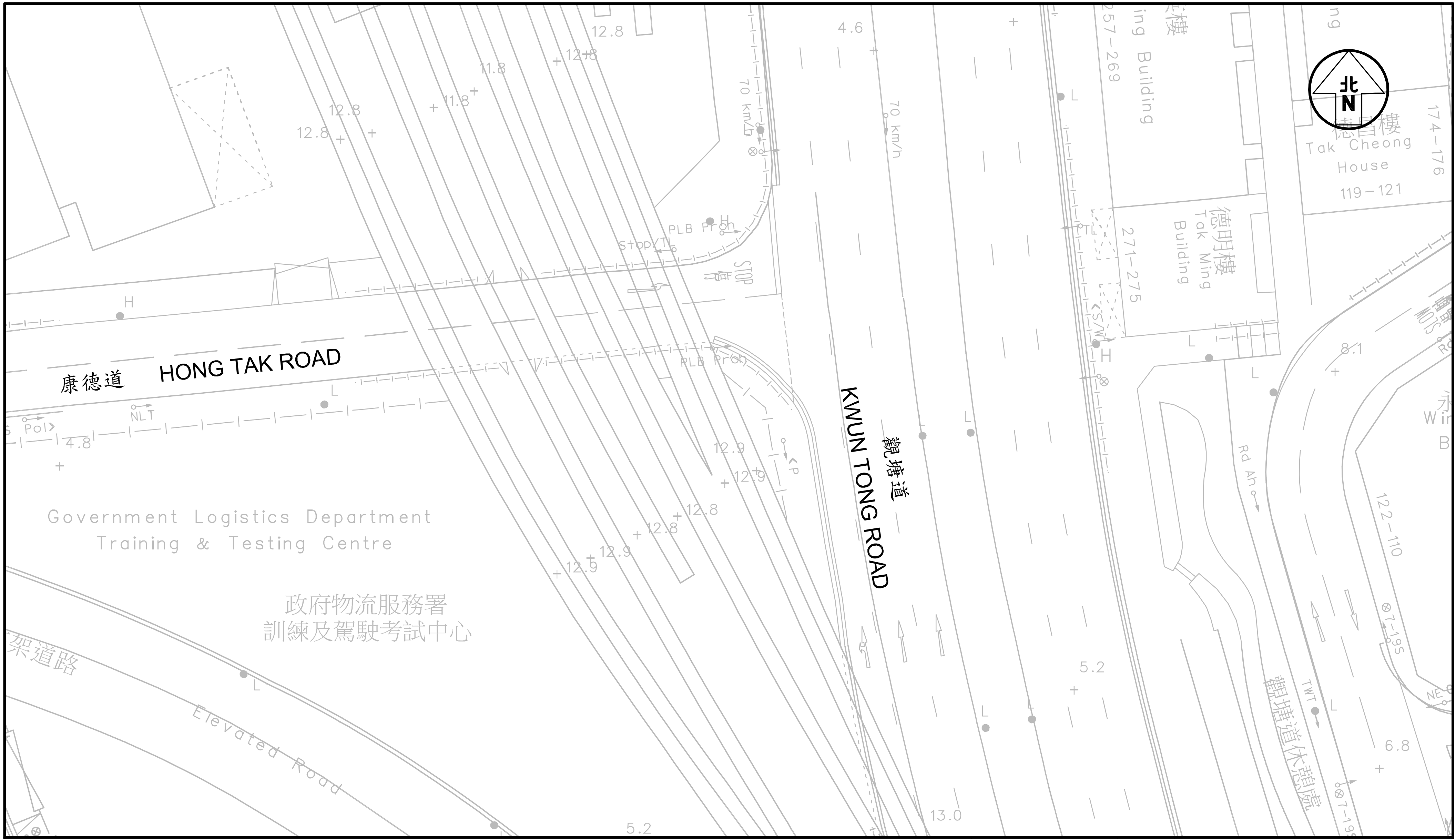
LAYOUT OF JUNCTION OF TAI YIP STREET / TAI YIP LANE

Figure No. 2.6		Revision R1B
Designed by C Y Y	Drawn by N C M	Checked by K C
Scale in A4 1 : 500	Date 09 DEC 2024	

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\J7300-J7349\J7333\2024 12\Fig 2.4 -2.7 RevR1B.dwg


北 N
康德道 HONG TAK ROAD
KWUN TONG ROAD 觀塘道
Government Logistics Department Training & Testing Centre
政府物流服務署 訓練及駕駛考試中心
架道路 Elevated Road
Tak Cheong House 119–121
174–176
德明樓 Tak Ming Building
271–275
257–269
Building
觀塘道休憩處
122–110
70 km/h
STOP
PLB Proh
NLT
12.8
11.8
12.9
4.6
4.8
5.2
6.8
8.1
13.0

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107–109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

LAYOUT OF JUNCTION OF KWUN TONG ROAD / HONG TAK ROAD

Figure No.	Revision
2.7	R1B

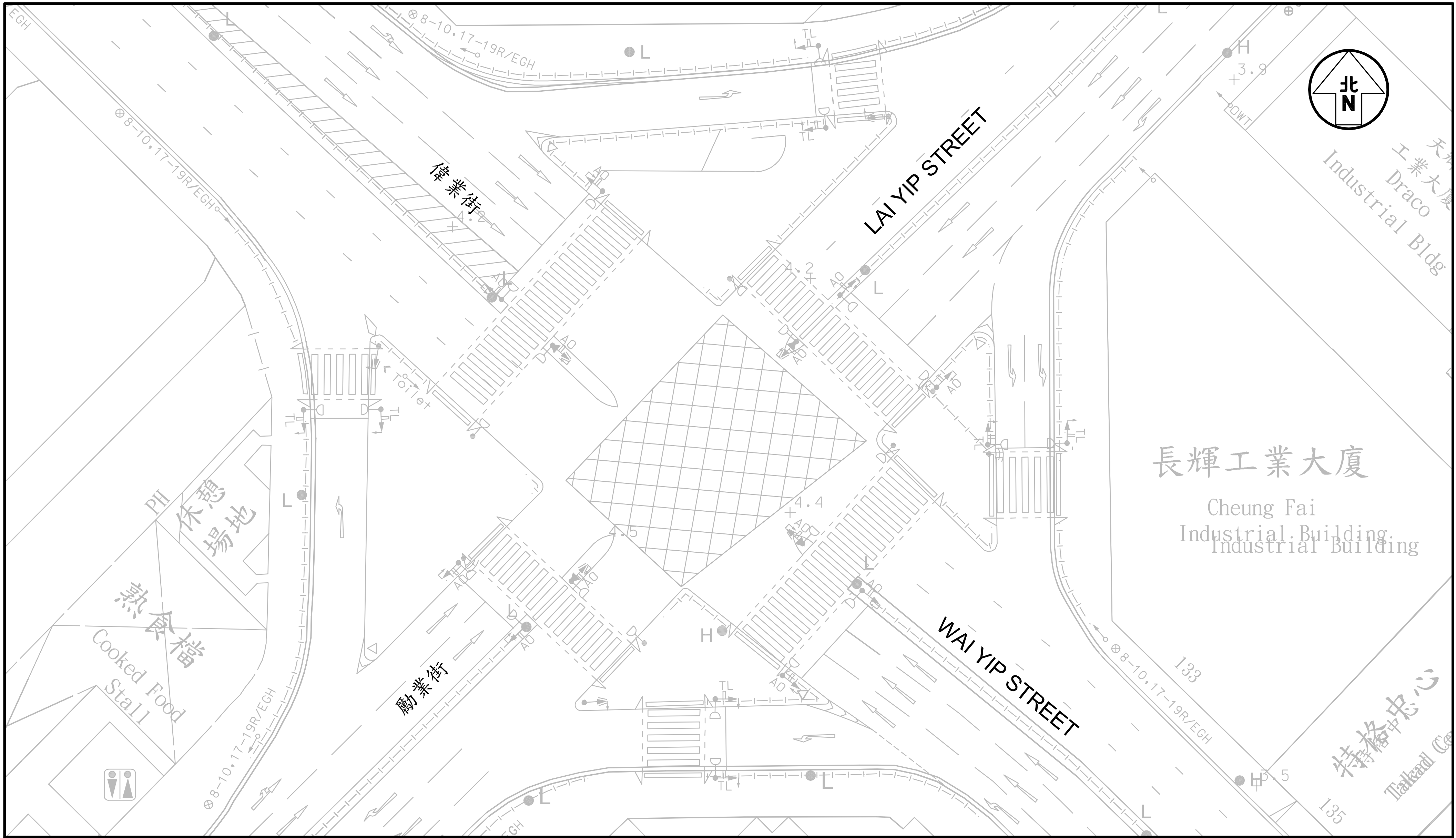
Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4	Date
1 : 500	09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig 2.4 -2.7 RevR1B.dwg


北
N
LAI YIP STREET
WAI YIP STREET
偉業街
勵業街
長輝工業大廈
Cheung Fai
Industrial Building
Draco
Industrial Bldg
工業大廈
休憩
場地
PH
熟食檔
Cooked Food
Stall
toilet
8-10,17-19R/EGH
L
H
TL
AD
D
4.2
4.4
4.5
3.9
133
135

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

LAYOUT OF JUNCTION OF WAI YIP STREET / LAI YIP STREET

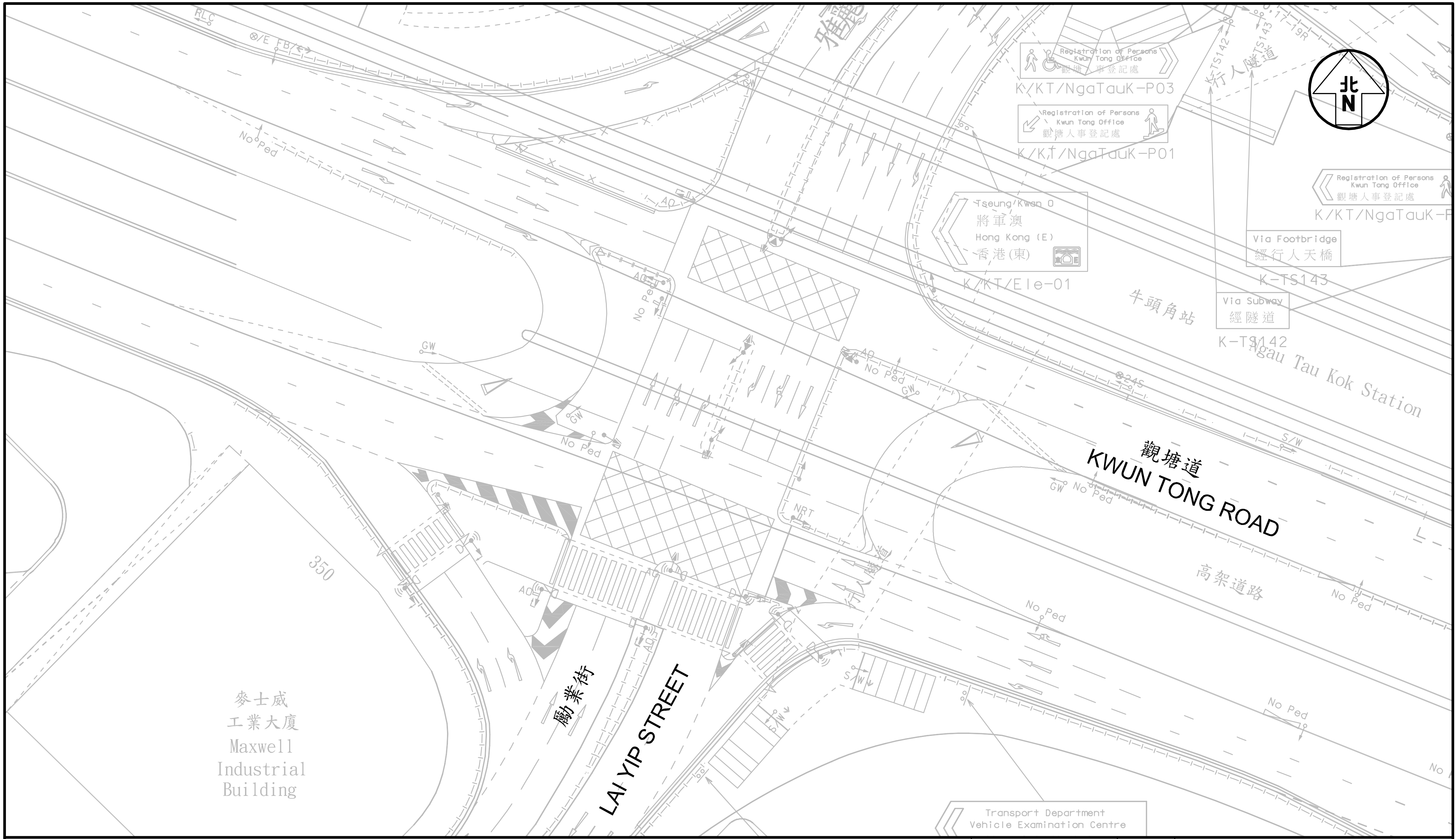
Figure No.	Revision
2.8	R1B

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

Scale in A4	Date
1 : 500	09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig 2.8 RevR1B.dwg


Registration of Persons
Kwun Tong Office
觀塘人事登記處
K/KT/NgaTauK-P03
K/KT/NgaTauK-P01
K/KT/NgaTauK-F
Tseung Kwan O
將軍澳
Hong Kong (E)
香港(東)
K/KT/Ele-01
Via Footbridge
經行人天橋
K-TS143
Via Subway
經隧道
K-TS142
牛頭角站
Ngau Tau Kok Station
觀塘道
KWUN TONG ROAD
高架道路
勵業街
LAI YIP STREET
麥士威
工業大廈
Maxwell
Industrial
Building
350
Transport Department
Vehicle Examination Centre
No Ped
GW
AO
NRT
S/W
RLC
行人隧道
雅麗
北
N

Project Title	S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES FOR THE ELDERLY AND HOTEL AT 107–109 WAI YIP STREET, KWUN TONG	J7333	Figure No. 2.9	Revision R1B

Figure Title

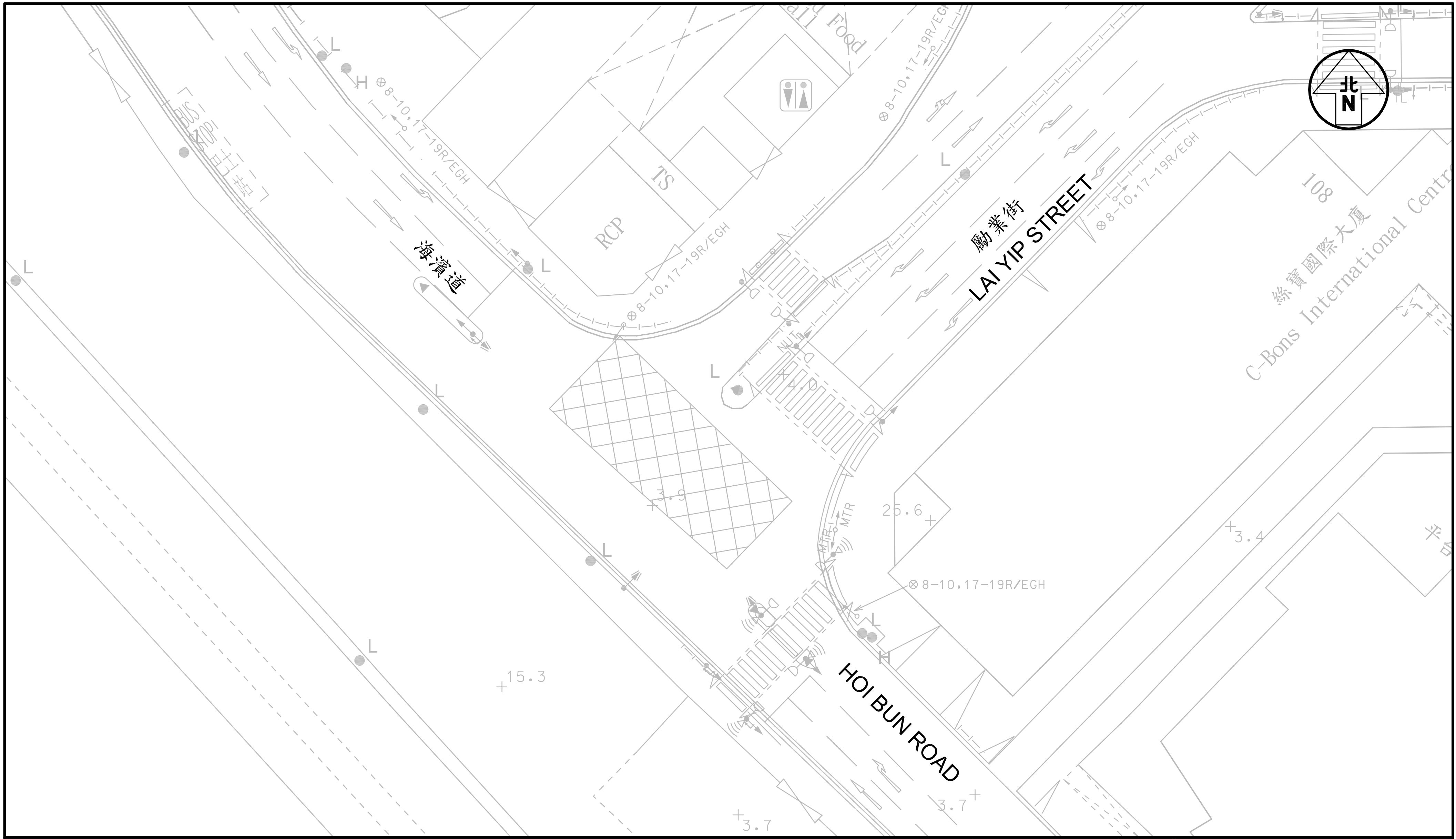
LAYOUT OF JUNCTION OF KWUN TONG ROAD / LAI YIP STREET

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

Scale in A4	Date
1 : 600	09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig 2.9 RevR1B.dwg


海濱道
勵業街
LAI YIP STREET
HOI BUN ROAD
C-Bons International Centre
綵寶國際大廈
108
RCP
TS
Food
MTR
8-10,17-19R/EGH
L
H
3.9
4.0
25.6
3.4
15.3
3.7
北
N

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

LAYOUT OF JUNCTION OF HOI BUN ROAD / LAI YIP STREET

Figure No. 2.10

Revision R1B

Designed by C Y Y

Drawn by N C M

Checked by K C

Scale in A4 1 : 500

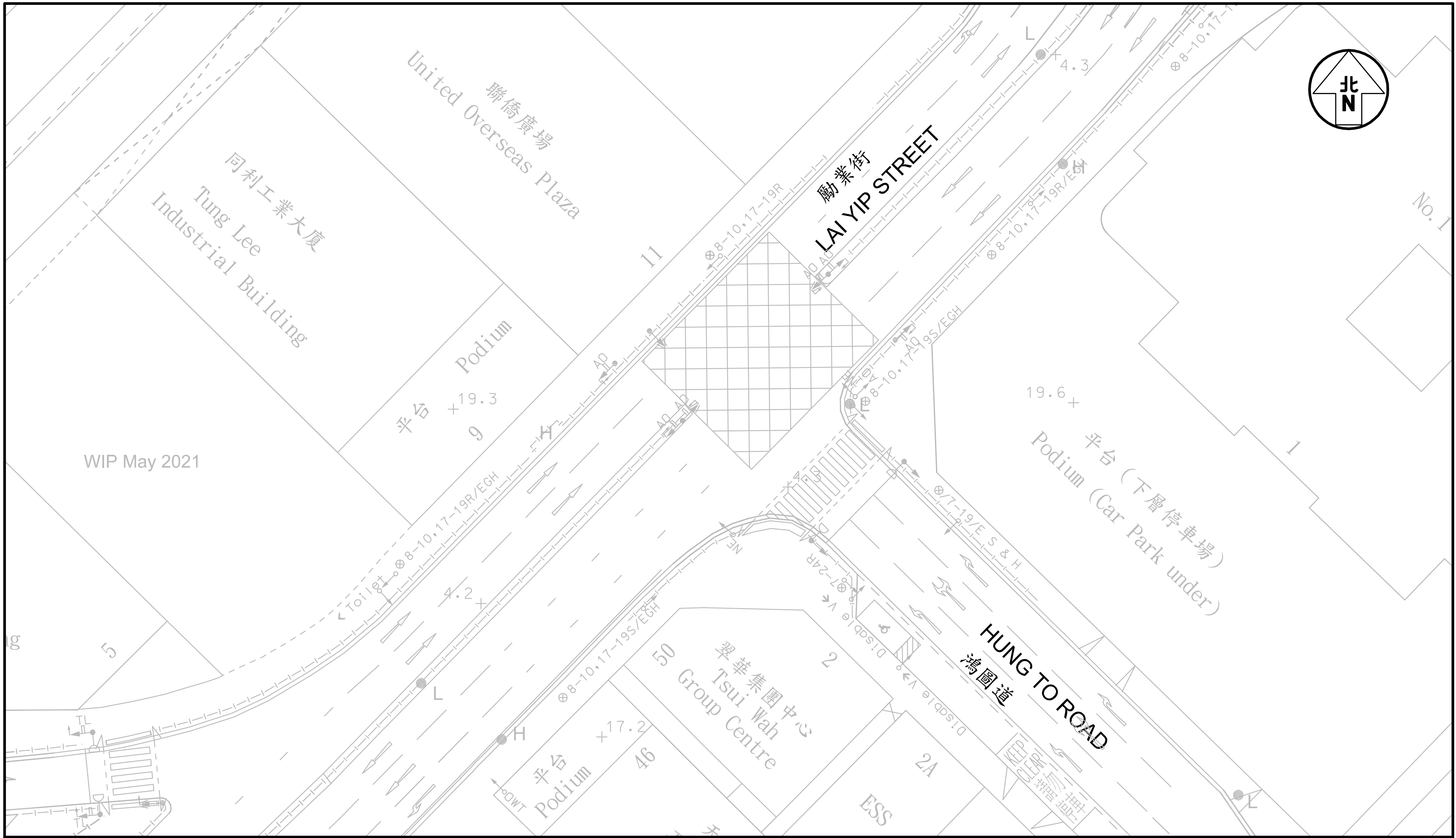
Date 09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig 2.2 - 2.3, 2.10 - 2.11 RevR1B.dwg



北 N
聯僑廣場
United Overseas Plaza
同利工業大廈
Tung Lee Industrial Building
勵業街
LAI YIP STREET
鴻圖道
HUNG TO ROAD
翠華集團中心
Tsui Wah Group Centre
平台 Podium
19.3
9
11
平台（下層停車場）
Podium (Car Park under)
19.6
No. 1
1
WIP May 2021
5
50
2
2A
46
平台 Podium
17.2
4.2
4.3
ESS
KEEP CLEAR
Toilet
Disable

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107–109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

LAYOUT OF JUNCTION OF LAI YIP STREET / HUNG TO ROAD

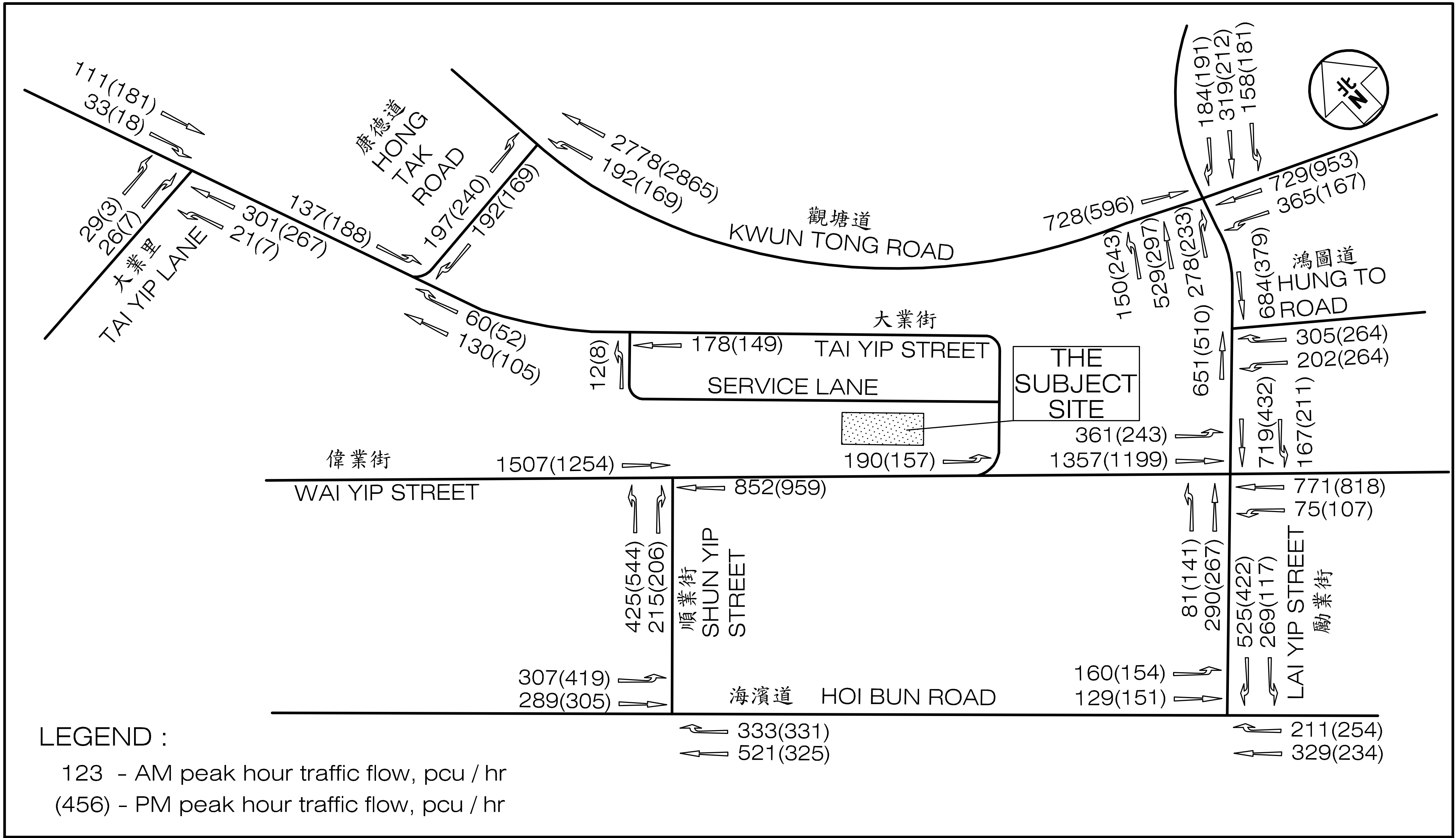
Figure No.	Revision
2.11	R1B

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

Scale in A4	Date
1 : 500	09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig 2.2 - 2.3, 2.10 - 2.11 RevR1B.dwg


111(181)
33(18)
29(3)
26(7)
大業里
TAI YIP LANE
301(267)
21(7)
137(188)
康德道
HONG TAK ROAD
197(240)
192(169)
2778(2865)
192(169)
觀塘道
KWUN TONG ROAD
60(52)
130(105)
12(8)
178(149)
大業街
TAI YIP STREET
SERVICE LANE
THE SUBJECT SITE
184(191)
319(212)
158(181)
729(953)
365(167)
728(596)
150(243)
529(297)
278(233)
684(379)
鴻圖道
HUNG TO ROAD
305(264)
202(264)
651(510)
719(432)
167(211)
361(243)
1357(1199)
190(157)
1507(1254)
偉業街
WAI YIP STREET
852(959)
771(818)
75(107)
425(544)
215(206)
順業街
SHUN YIP STREET
81(141)
290(267)
525(422)
269(117)
LAI YIP STREET
勵業街
307(419)
289(305)
海濱道
HOI BUN ROAD
160(154)
129(151)
333(331)
521(325)
211(254)
329(234)
北
N

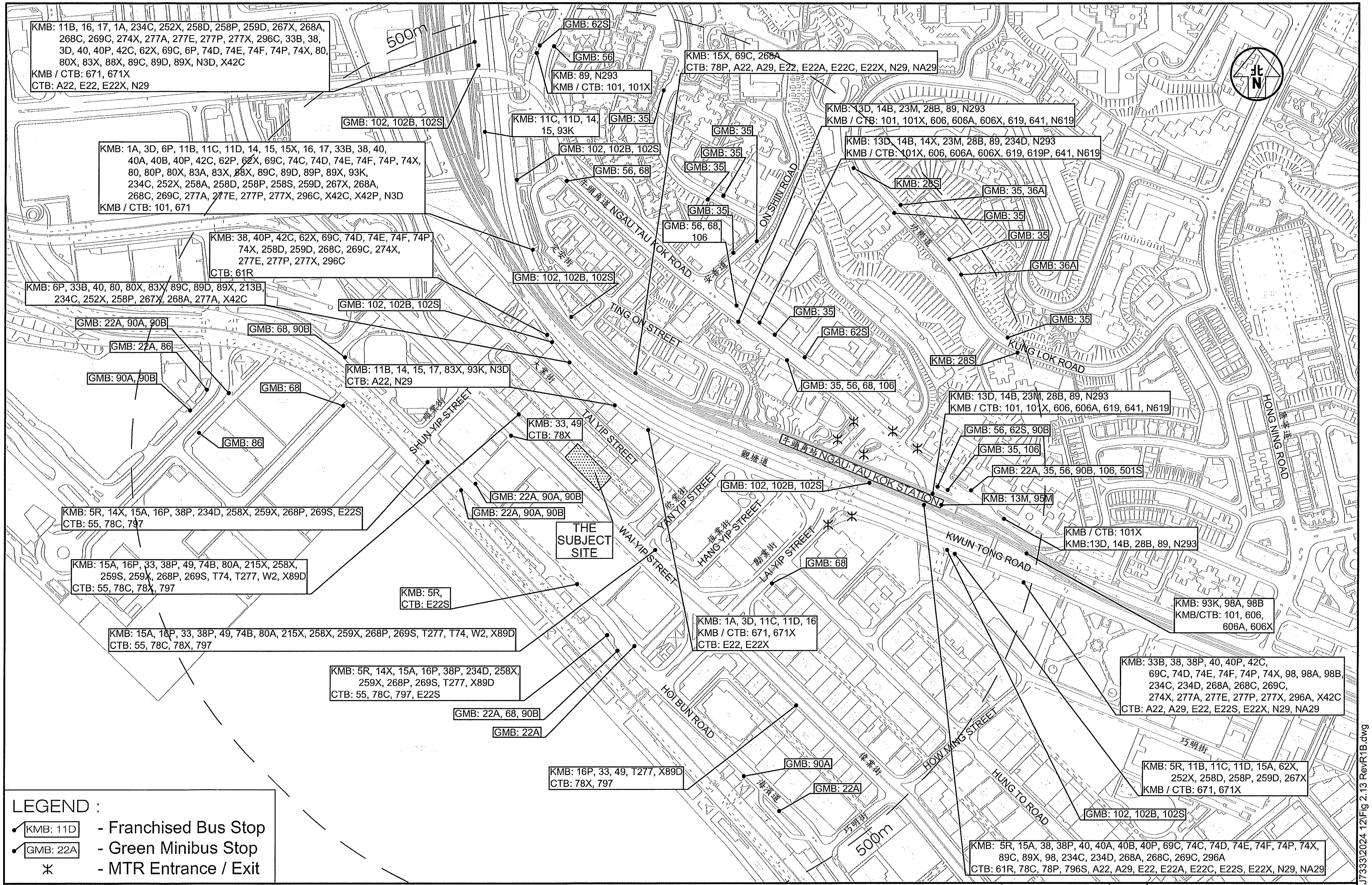
LEGEND :

123 - AM peak hour traffic flow, pcu / hr

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

Project Title S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG J7333	Figure No. 2.12		Revision R1B	CKM Asia Limited Traffic and Transportation Planning Consultants
Figure Title ADJUSTED 2024 PEAK HOUR TRAFFIC FLOWS	Designed by C Y Y	Drawn by N C M	Checked by K C	21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
	Scale in A4 N.T.S.	Date 09 DEC 2024		

T:\JOB\J7300-J7349\J7333\2024 12\Fig 2.12 RevR1B.dwg

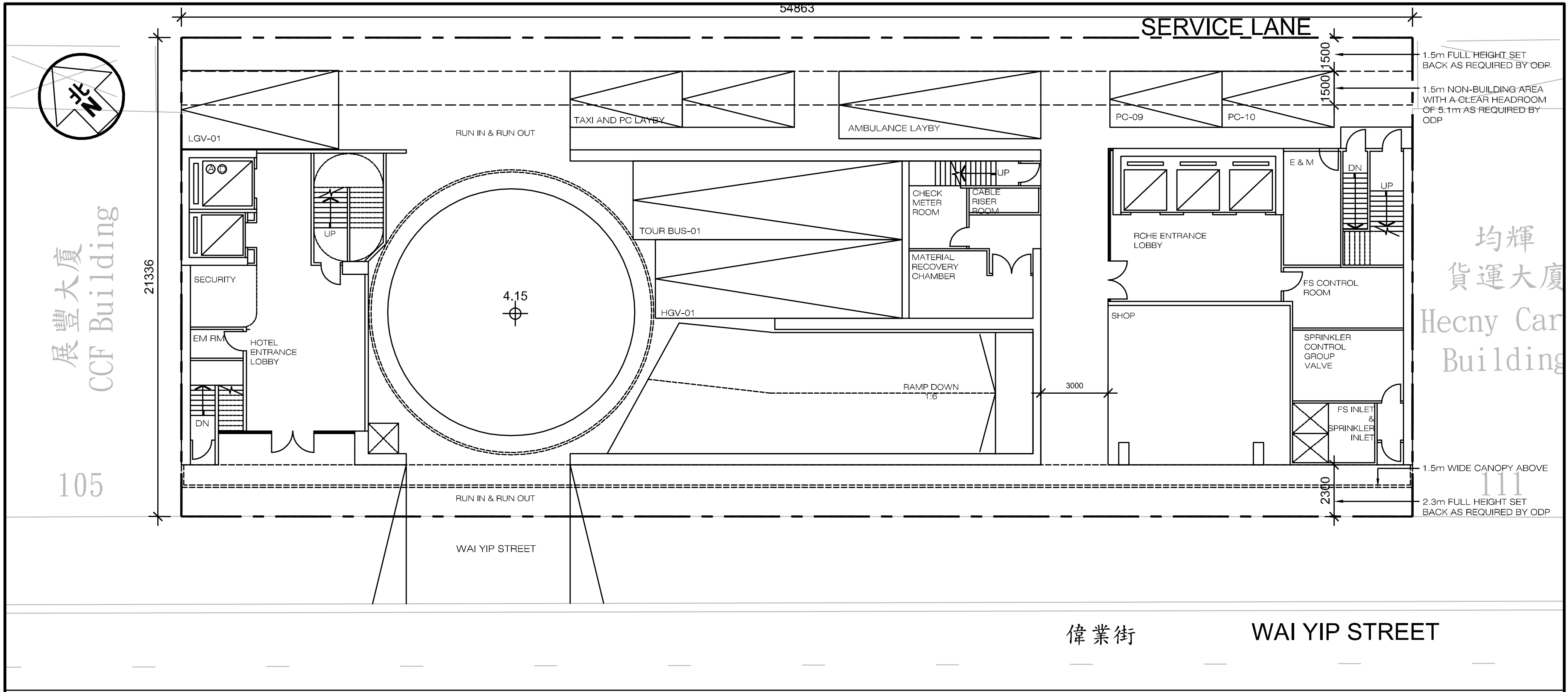

KMB: 11B, 16, 17, 1A, 234C, 252X, 258D, 258P, 259D, 267X, 268A, 268C, 269C, 274X, 277A, 277E, 277P, 277X, 296C, 33B, 38, 3D, 40, 40P, 42C, 62X, 69C, 6P, 74D, 74E, 74F, 74P, 74X, 80, 80X, 83X, 88X, 89C, 89D, 89X, N3D, X42C
KMB / CTB: 671, 671X
CTB: A22, E22, E22X, N29
500m
GMB: 62S
GMB: 56
KMB: 89, N293
KMB / CTB: 101, 101X
KMB: 15X, 69C, 268A
CTB: 78P, A22, A29, E22, E22A, E22C, E22X, N29, NA29
GMB: 102, 102B, 102S
KMB: 11C, 11D, 14, 15, 93K
GMB: 35
KMB: 13D, 14B, 23M, 28B, 89, N293
KMB / CTB: 101, 101X, 606, 606A, 606X, 619, 641, N619
KMB: 13D, 14B, 14X, 23M, 28B, 89, 234D, N293
KMB / CTB: 101X, 606, 606A, 606X, 619, 619P, 641, N619
GMB: 35
KMB: 1A, 3D, 6P, 11B, 11C, 11D, 14, 15, 15X, 16, 17, 33B, 38, 40, 40A, 40B, 40P, 42C, 62P, 62X, 69C, 74C, 74D, 74E, 74F, 74P, 74X, 80, 80P, 80X, 83A, 83X, 88X, 89C, 89D, 89P, 89X, 93K, 234C, 252X, 258A, 258D, 258P, 258S, 259D, 267X, 268A, 268C, 269C, 277A, 277E, 277P, 277X, 296C, X42C, X42P, N3D
KMB / CTB: 101, 671
GMB: 102, 102B, 102S
GMB: 35
GMB: 35
GMB: 56, 68
KMB: 28S
GMB: 35, 36A
GMB: 35
GMB: 35
GMB: 56, 68, 106
GMB: 35
GMB: 35
GMB: 36A
KMB: 38, 40P, 42C, 62X, 69C, 74D, 74E, 74F, 74P, 74X, 258D, 259D, 268C, 269C, 274X, 277E, 277P, 277X, 296C
CTB: 61R
GMB: 102, 102B, 102S
KMB: 6P, 33B, 40, 80, 80X, 83X, 89C, 89D, 89X, 213B, 234C, 252X, 258P, 267X, 268A, 277A, X42C
GMB: 102, 102B, 102S
GMB: 35
GMB: 35
GMB: 22A, 90A, 90B
GMB: 68, 90B
GMB: 62S
GMB: 22A, 86
KMB: 28S
GMB: 90A, 90B
KMB: 11B, 14, 15, 17, 83X, 93K, N3D
CTB: A22, N29
GMB: 35, 56, 68, 106
GMB: 68
KMB: 13D, 14B, 23M, 28B, 89, N293
KMB / CTB: 101, 101X, 606, 606A, 619, 641, N619
KMB: 33, 49
CTB: 78X
GMB: 56, 62S, 90B
GMB: 86
GMB: 35, 106
GMB: 22A, 35, 56, 90B, 106, 501S
GMB: 102, 102B, 102S
GMB: 22A, 90A, 90B
KMB: 13M, 95M
GMB: 22A, 90A, 90B
KMB: 5R, 14X, 15A, 16P, 38P, 234D, 258X, 259X, 268P, 269S, E22S
CTB: 55, 78C, 797
THE SUBJECT SITE
KMB / CTB: 101X
KMB:13D, 14B, 28B, 89, N293
GMB: 68
KMB: 15A, 16P, 33, 38P, 49, 74B, 80A, 215X, 258X, 259S, 259X, 268P, 269S, T74, T277, W2, X89D
CTB: 55, 78C, 78X, 797
KMB: 5R,
CTB: E22S
KMB: 93K, 98A, 98B
KMB/CTB: 101, 606, 606A, 606X
KMB: 1A, 3D, 11C, 11D, 16
KMB / CTB: 671, 671X
CTB: E22, E22X
KMB: 15A, 16P, 33, 38P, 49, 74B, 80A, 215X, 258X, 259X, 268P, 269S, T277, T74, W2, X89D
CTB: 55, 78C, 78X, 797
KMB: 33B, 38, 38P, 40, 40P, 42C, 69C, 74D, 74E, 74F, 74P, 74X, 98, 98A, 98B, 234C, 234D, 268A, 268C, 269C, 274X, 277A, 277E, 277P, 277X, 296A, X42C
CTB: A22, A29, E22, E22S, E22X, N29, NA29
KMB: 5R, 14X, 15A, 16P, 38P, 234D, 258X, 259X, 268P, 269S, T277, X89D
CTB: 55, 78C, 797, E22S
GMB: 22A, 68, 90B
GMB: 22A
KMB: 5R, 11B, 11C, 11D, 15A, 62X, 252X, 258D, 258P, 259D, 267X
KMB / CTB: 671, 671X
KMB: 16P, 33, 49, T277, X89D
CTB: 78X, 797
GMB: 90A
GMB: 22A
GMB: 102, 102B, 102S
500m
KMB: 5R, 15A, 38, 38P, 40, 40A, 40B, 40P, 69C, 74C, 74D, 74E, 74F, 74P, 74X, 89C, 89X, 98, 234C, 234D, 268A, 268C, 269C, 296A
CTB: 61R, 78C, 78P, 796S, A22, A29, E22, E22A, E22C, E22S, E22X, N29, NA29
牛頭角道 NGAU TAU KOK ROAD
安善道
ON SHIN ROAD
定安街
TING ON STREET
大業街
TAI YIP STREET
順業街
SHUN YIP STREET
偉業街
WAI YIP STREET
宏業街
HUNG YIP STREET
恆業街
HANG YIP STREET
勵業街
LAI YIP STREET
觀塘道
牛頭角站 NGAU TAU KOK STATION
KWUN TONG ROAD
功樂道
KUNG LOK ROAD
康寧道
HONG NING ROAD
巧明街
HOW MING STREET
鴻圖道
HUNG TO ROAD
海濱道
HOI BUN ROAD
北 N
LEGEND :
KMB: 11D - Franchised Bus Stop
GMB: 22A - Green Minibus Stop
MTR Entrance / Exit

Project Title	S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES FOR THE ELDERLY AND HOTEL AT 107–109 WAI YIP STREET, KWUN TONG	J7333
Figure Title	THE PUBLIC TRANSPORT SERVICES PROVIDED IN THE VICINITY OF THE SUBJECT SITE	

Figure No.		Revision
2.13		R1B
Designed by	Drawn by	Checked by
C Y Y	N C M	
Scale in A3	Date	
1 : 4000	09 DEC 2024	

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\J7300-J7349\J7333\2024 12\Fig 2.13 RevR1B.dwg


54863
SERVICE LANE
1500
1500
1.5m FULL HEIGHT SET BACK AS REQUIRED BY ODP
1.5m NON-BUILDING AREA WITH A CLEAR HEADROOM OF 5.1m AS REQUIRED BY ODP
北
N
LGV-01
TAXI AND PC LAYBY
RUN IN & RUN OUT
AMBULANCE LAYBY
PC-09
PC-10
展豐大廈
CCF Building
21336
SECURITY
EM RM
HOTEL ENTRANCE LOBBY
UP
DN
4.15
TOUR BUS-01
HGV-01
UP
CHECK METER ROOM
CABLE RISER ROOM
MATERIAL RECOVERY CHAMBER
RAMP DOWN 1:6
3000
E & M
DN
UP
RCHE ENTRANCE LOBBY
SHOP
FS CONTROL ROOM
SPRINKLER CONTROL GROUP VALVE
FS INLET & SPRINKLER INLET
均輝貨運大廈
Hecny Car Building
105
111
1.5m WIDE CANOPY ABOVE
2300
2.3m FULL HEIGHT SET BACK AS REQUIRED BY ODP
RUN IN & RUN OUT
WAI YIP STREET
偉業街
WAI YIP STREET

LEGEND :

TOUR BUS-01 Single-deck tour bus layby @12m(L) X 3.5m(W) X 3.8m(H)

LGV-01 LGV loading / unloading bay @7m(L) X 3.5m(W) X 3.6m(H)

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

HGV-01 HGV loading / unloading bay @11m(L) X 3.5m(W) X 4.7m(H)

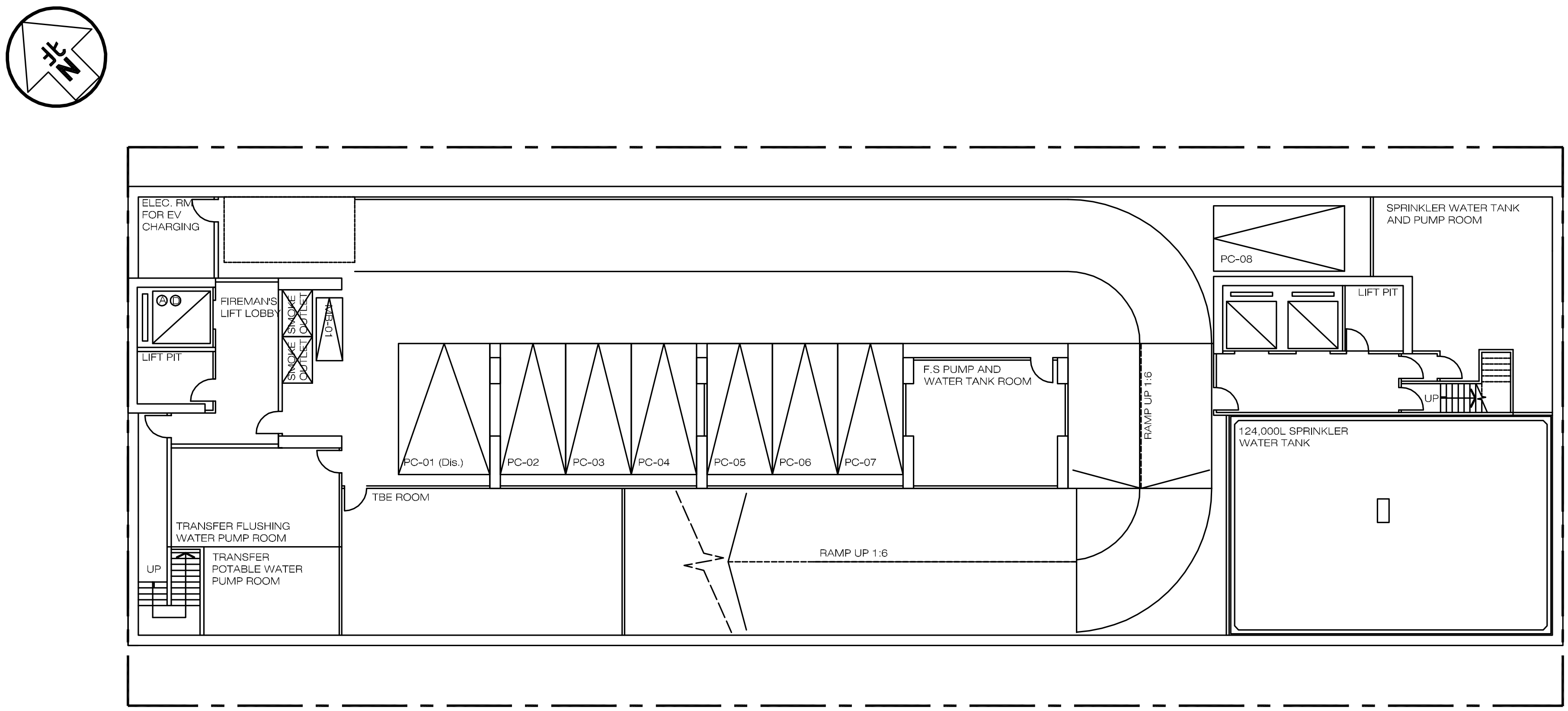
AMBULANCE LAYBY Ambulance layby @9m(L) X 3m(W) X 3.6m(H)

PC-09 Private car parking space @5m(L) X 2.5m(W) X 2.4m(H)

Project Title	S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG J7333	Figure No. 3.1	Revision R1B
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 09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig 3.1 - 3.2 RevR1B.dwg


北
N
ELEC. RM FOR EV CHARGING
FIREMAN'S LIFT LOBBY
SMOKE OUTLET
SMOKE OUTLET
MB-01
LIFT PIT
PC-01 (Dis.)
PC-02
PC-03
PC-04
PC-05
PC-06
PC-07
F.S PUMP AND WATER TANK ROOM
RAMP UP 1:6
PC-08
LIFT PIT
SPRINKLER WATER TANK AND PUMP ROOM
UP
124,000L SPRINKLER WATER TANK
TBE ROOM
TRANSFER FLUSHING WATER PUMP ROOM
TRANSFER POTABLE WATER PUMP ROOM
UP
RAMP UP 1:6

LEGEND :

PC-02 Private car parking space @5m(L) X 2.5m(W) X 2.4m(H)

PC-01 (Dis.) Accessible car parking space @5m(L) X 3.5m(W) X 2.4m(H)

MB-01 Motorcycle parking space @2.4m(L) X 1m(W) X 2.4m(H)

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

B1/F LAYOUT PLAN

Figure No. 3.2

Revision R1B

Designed by C Y Y

Drawn by N C M

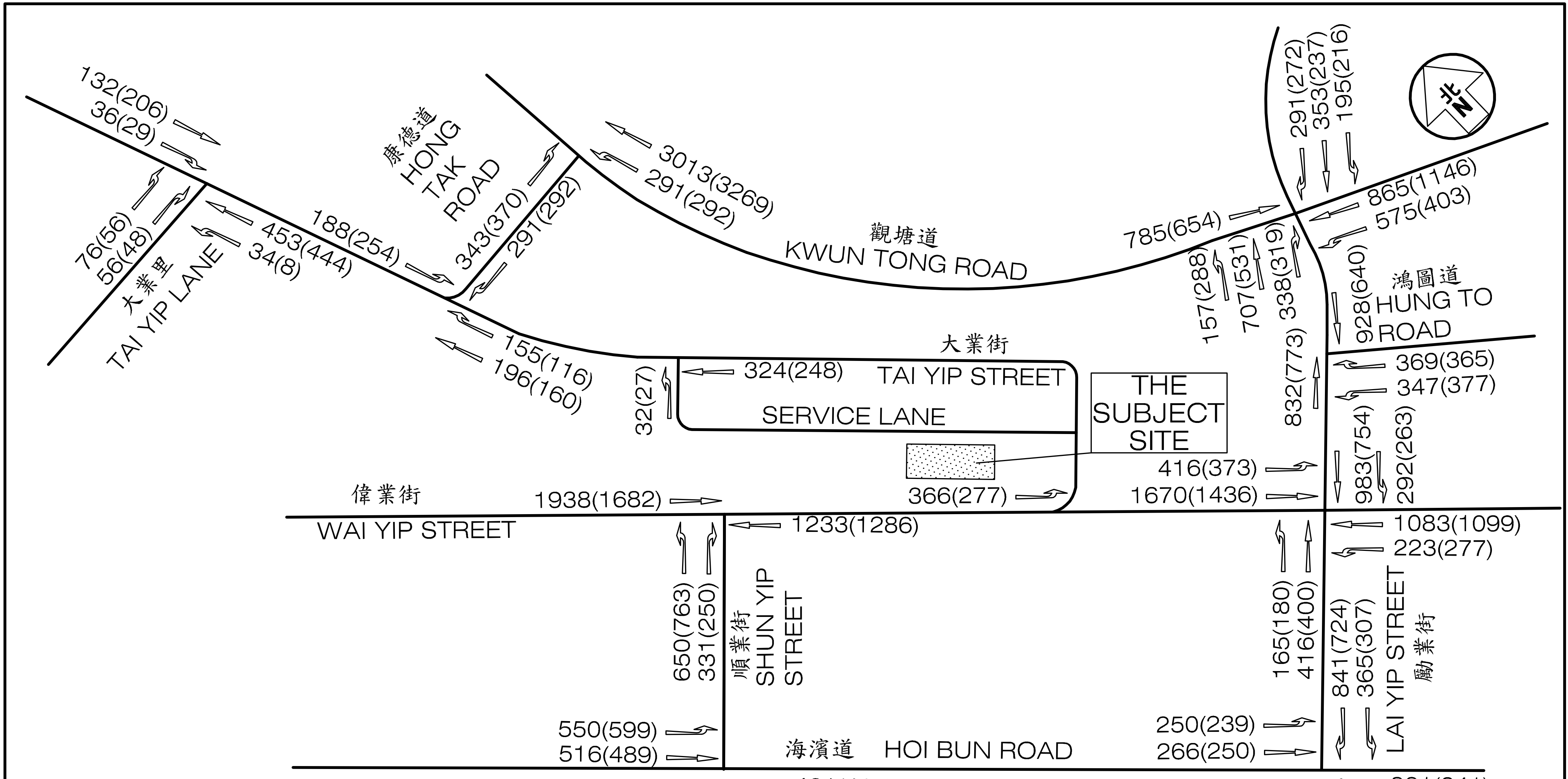
Checked by K C

Scale in A4 1 : 250

Date 09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig 3.1 - 3.2 RevR1B.dwg


132(206)
36(29)
76(56)
56(48)
大業里
TAI YIP LANE
453(444)
34(8)
188(254)
康德道
HONG TAK ROAD
343(370)
291(292)
3013(3269)
291(292)
觀塘道
KWUN TONG ROAD
155(116)
196(160)
32(27)
324(248)
大業街
TAI YIP STREET
SERVICE LANE
THE SUBJECT SITE
291(272)
353(237)
195(216)
北
N
785(654)
865(1146)
575(403)
157(288)
707(531)
338(319)
928(640)
鴻圖道
HUNG TO ROAD
832(773)
369(365)
347(377)
983(754)
292(263)
416(373)
1670(1436)
偉業街
WAI YIP STREET
1938(1682)
366(277)
1233(1286)
1083(1099)
223(277)
650(763)
331(250)
順業街
SHUN YIP STREET
165(180)
416(400)
841(724)
365(307)
LAI YIP STREET
勵業街
550(599)
516(489)
海濱道
HOI BUN ROAD
250(239)
266(250)
431(414)
838(711)
331(341)
428(401)

LEGEND :

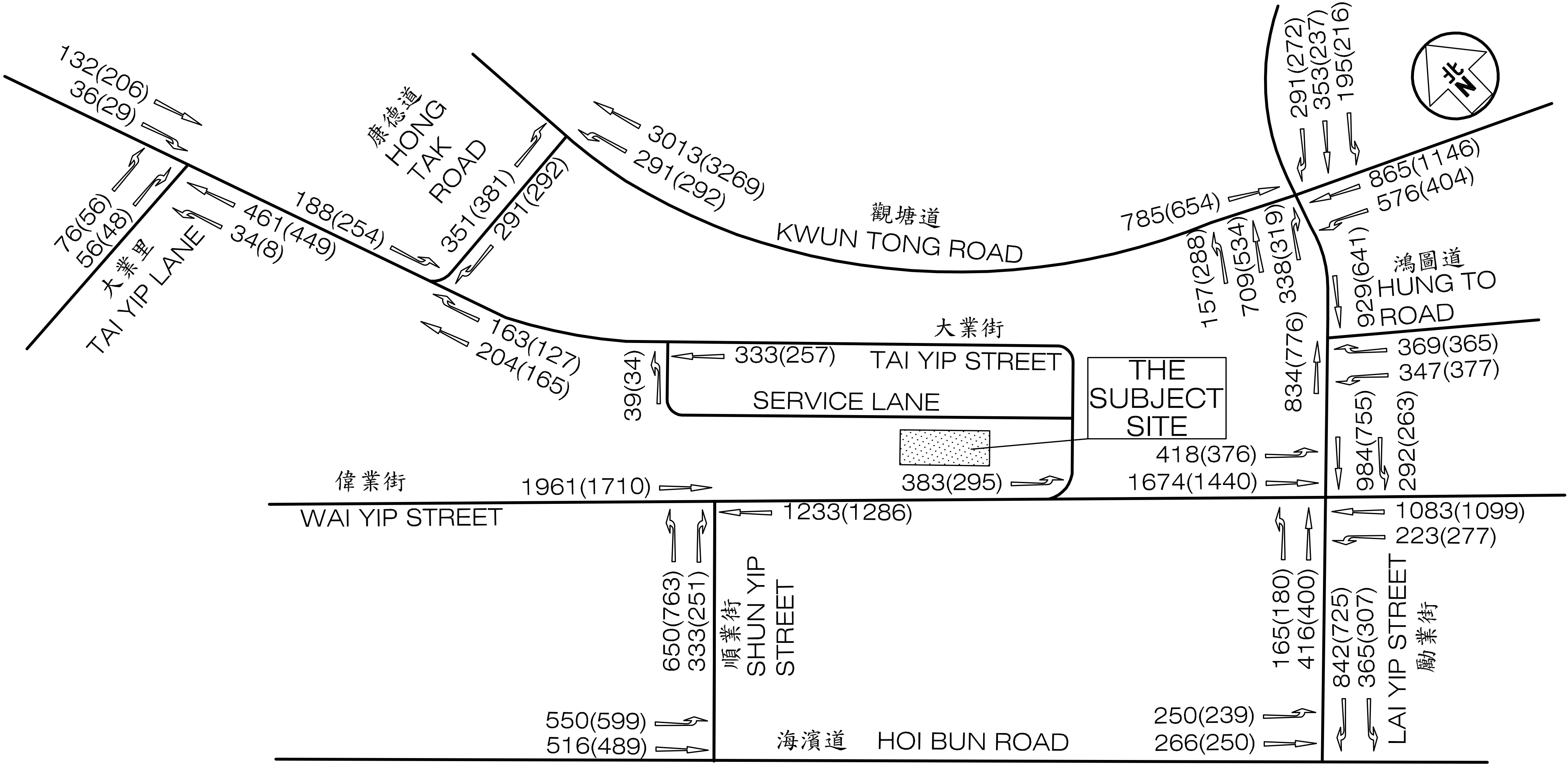
123 - AM peak hour traffic flow, pcu / hr

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

T:\JOB\J7300-J7349\J7333\2024 12\Fig 4.1 RevR1B.dwg

Project Title	S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG	J7333	Figure No. 4.1	Revision R1B
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 09 DEC 2024

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


北 N
132(206)
36(29)
76(56)
56(48)
461(449)
34(8)
188(254)
大業里
TAI YIP LANE
康德道
HONG TAK ROAD
351(381)
291(292)
3013(3269)
291(292)
觀塘道
KWUN TONG ROAD
163(127)
204(165)
39(34)
333(257)
大業街
TAI YIP STREET
SERVICE LANE
THE SUBJECT SITE
291(272)
353(237)
195(216)
785(654)
865(1146)
576(404)
157(288)
709(534)
338(319)
929(641)
鴻圖道
HUNG TO ROAD
369(365)
347(377)
834(776)
418(376)
1674(1440)
984(755)
292(263)
383(295)
偉業街
WAI YIP STREET
1961(1710)
1233(1286)
1083(1099)
223(277)
650(763)
333(251)
順業街
SHUN YIP STREET
165(180)
416(400)
842(725)
365(307)
LAI YIP STREET
勵業街
550(599)
516(489)
海濱道
HOI BUN ROAD
250(239)
266(250)
433(415)
838(711)
331(341)
429(401)

LEGEND :

123 - AM peak hour traffic flow, pcu / hr

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

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG

J7333

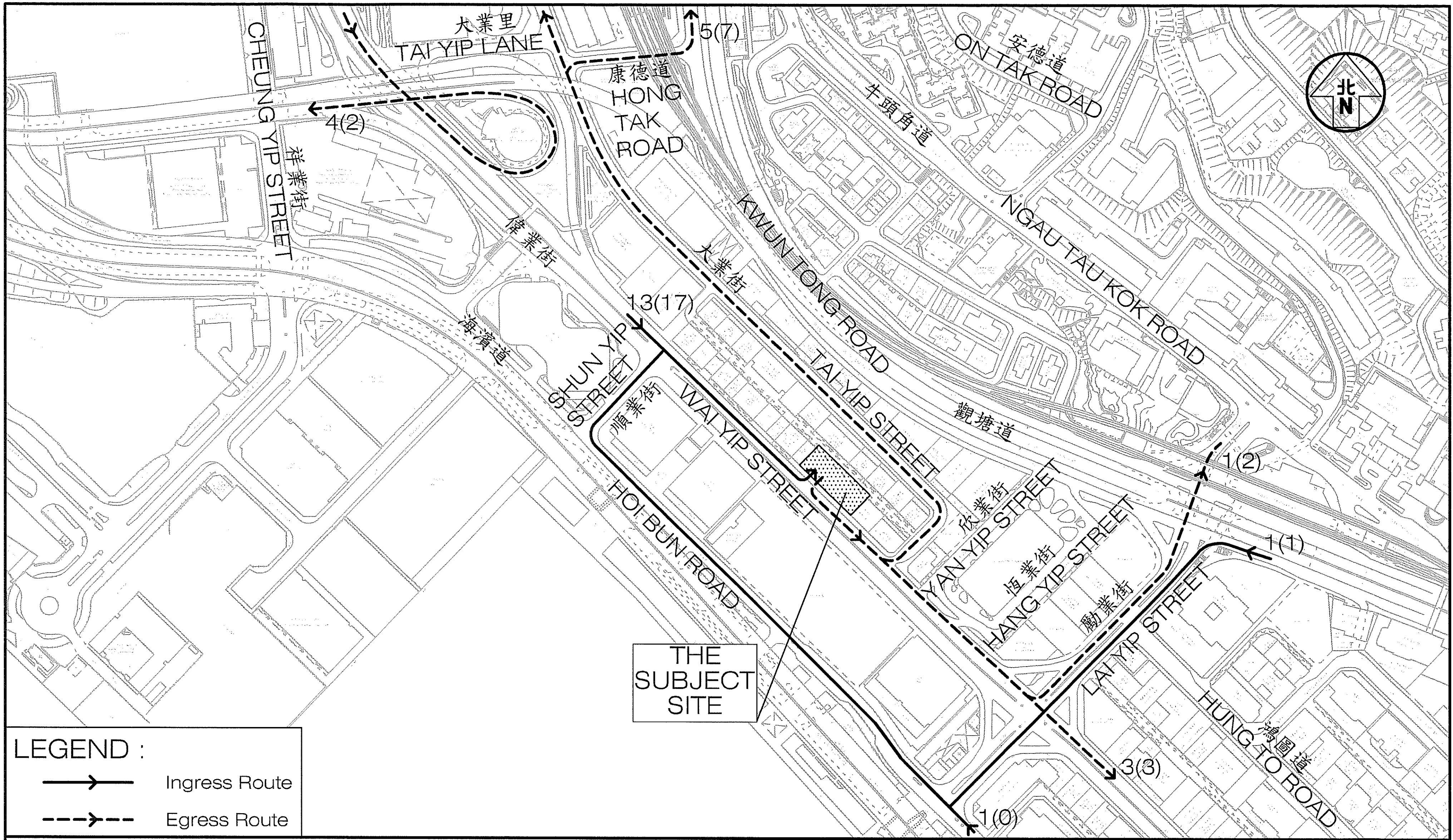
Figure Title

YEAR 2032 PEAK HOUR TRAFFIC FLOWS
WITH THE PROPOSED DEVELOPMENT

Figure No.		Revision
4.2		R1B
Designed by	Drawn by	Checked by
C Y Y	N C M	K C
Scale in A4	Date	
N.T.S.	09 DEC 2024	

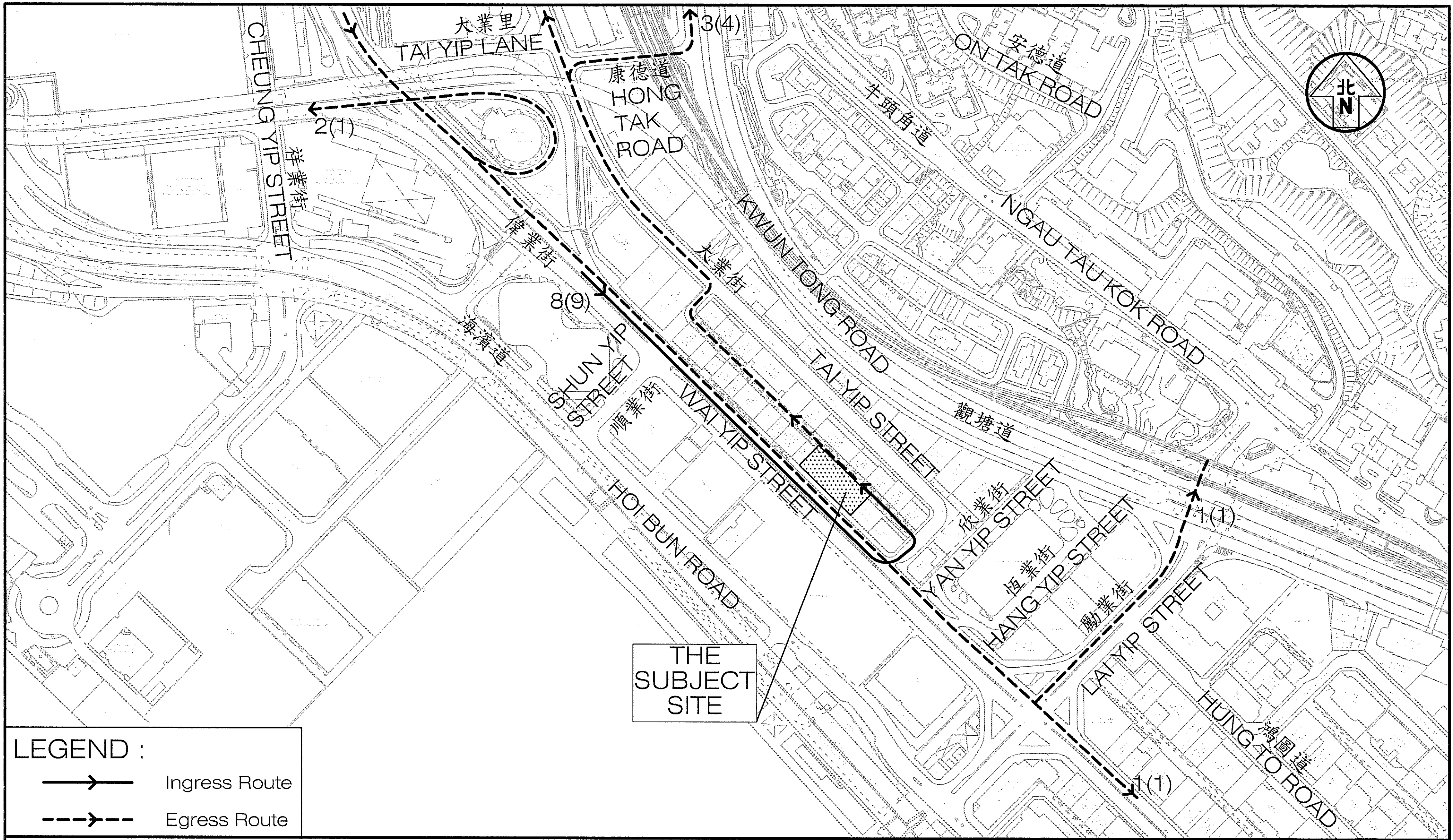
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7300-J7349\J7333\2024 12\Fig 4.2 RevR1B.dwg


大業里
TAI YIP LANE
5(7)
安德道
ON TAK ROAD
康德道
HONG TAK ROAD
CHEUNG YIP STREET
祥業街
4(2)
牛頭角道
NGAU TAU KOK ROAD
KWUN TONG ROAD
觀塘道
偉業街
大業街
TAI YIP STREET
13(17)
海濱道
SHUN YIP STREET
順業街
WAI YIP STREET
HOI BUN ROAD
欣業街
YAN YIP STREET
恆業街
HANG YIP STREET
勵業街
LAI YIP STREET
1(2)
1(1)
HUNG TO ROAD
鴻圖道
3(3)
1(0)
THE SUBJECT SITE
北
N
LEGEND :
Ingress Route
Egress Route

Project Title	S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES FOR THE ELDERLY AND HOTEL AT 107–109 WAI YIP STREET, KWUN TONG J7333	Figure No. 4.3	Revision R1B	CKM Asia Limited Traffic and Transportation Planning Consultants
Figure Title	THE INGRESS / EGRESS ROUTE FOR TRAFFIC GENERATED BY THE PROPOSED REDEVELOPMENT (VIA WAI YIP STREET)	Designed by C Y Y	Drawn by N C M	Checked by K C
		Scale in A4 1 : 4000	Date 09 DEC 2024	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\J7300-J7349\J7333\2024 12\Fig 4.3 - 4.4 RevR1B.dwg


大業里
TAI YIP LANE
3(4)
康德道
HONG TAK ROAD
ON TAK ROAD
安德道
北
N
CHEUNG YIP STREET
祥業街
2(1)
牛頭角道
NGAU TAU KOK ROAD
KWUN TONG ROAD
大業街
偉業街
8(9)
SHUN YIP STREET
順業街
WAI YIP STREET
TAI YIP STREET
觀塘道
海濱道
HOI BUN ROAD
欣業街
YAN YIP STREET
恒業街
HANG YIP STREET
勵業街
LAI YIP STREET
1(1)
1(1)
HUNG TO ROAD
鴻圖道
THE SUBJECT SITE
LEGEND :
Ingress Route
Egress Route

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES FOR THE ELDERLY AND HOTEL AT 107–109 WAI YIP STREET, KWUN TONG

J7333

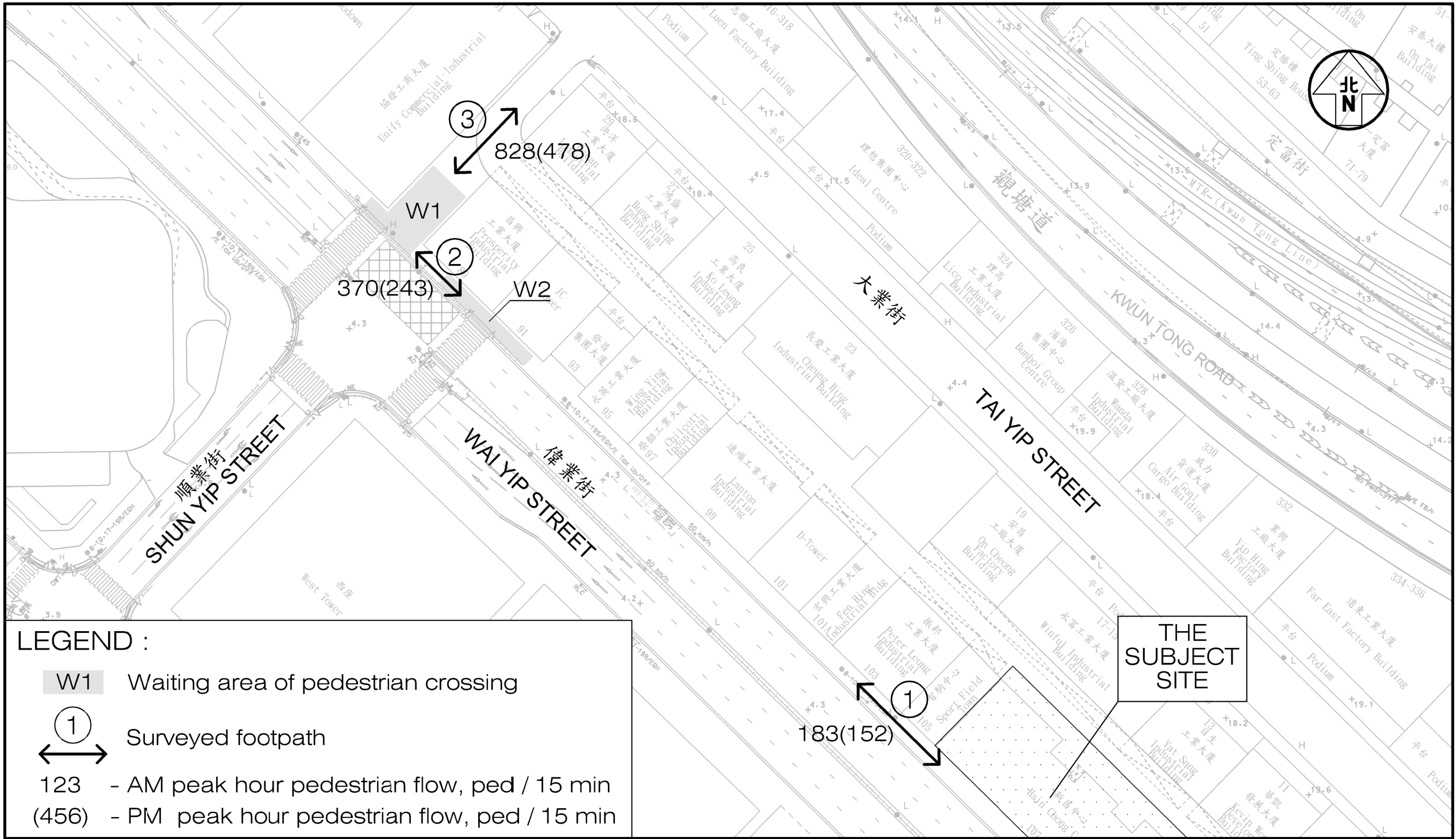
Figure Title

THE INGRESS / EGRESS ROUTE FOR TRAFFIC GENERATED BY THE PROPOSED REDEVELOPMENT (VIA THE SERVICE LANE)

Figure No.		Revision
4.4		R1B
Designed by	Drawn by	Checked by
C Y Y	N C M	K C
Scale in A4	Date	
1 : 4000	09 DEC 2024	

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\J7300-J7349\J7333\2024 12\Fig 4.3 - 4.4 RevR1B.dwg



③
828(478)
W1
②
370(243)
W2
①
183(152)
THE SUBJECT SITE
TAI YIP STREET
大業街
WAI YIP STREET
偉業街
SHUN YIP STREET
順業街
KWUN TONG ROAD
觀塘道
MTR (Kwun Tong Line)
定富街
北 N
LEGEND :
W1 Waiting area of pedestrian crossing
① Surveyed footpath
123 - AM peak hour pedestrian flow, ped / 15 min
(456) - PM peak hour pedestrian flow, ped / 15 min

Project Title	S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG	J7333
Figure Title	OBSERVED EXISTING PEDESTRIAN FLOWS	

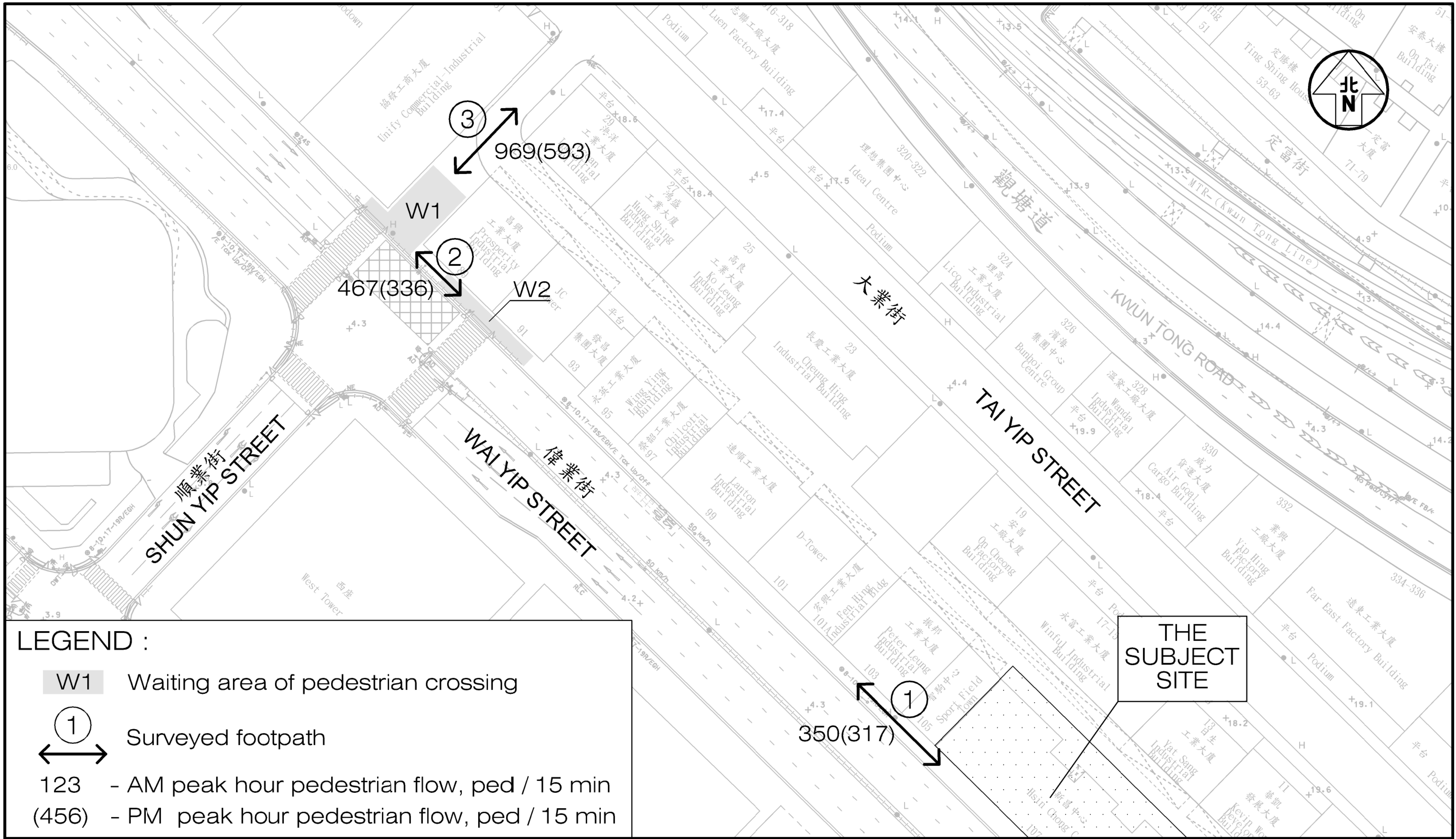
Figure No.	Revision
5.1	R1B

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

Scale in A4	Date
1 : 1000	09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig 5.1 - 5.3 RevR1B.dwg


③
969(593)
W1
②
467(336)
W2
①
350(317)
THE SUBJECT SITE
北 N
WAI YIP STREET
偉業街
SHUN YIP STREET
順業街
TAI YIP STREET
大業街
KWUN TONG ROAD
觀塘道
MTR (Kwun Tong Line)
Unify Commercial-Industrial Building
Prosperity Industrial Building
Hung Shing Industrial Building
Ko Leung Industrial Building
Ideal Centre
Lico Industrial Building
Cheung Hing Industrial Building
Bunhoi Group Centre
Wanda Industrial Building
Wing Ying Industrial Building
Chilcott Industrial Building
Lanton Industrial Building
D-Tower
Fen Hing Industrial Bldg
Peter Leung Industrial Building
On Cheong Factory Building
Winful Industrial Building
Air Goal Cargo Building
Yip Hing Factory Building
Far East Factory Building
Yat Sang Industrial Building
Luen Factory Building
Ting Shing House
On Tai Building
West Tower
Sport Field Tower
Hsin Chong Centre

LEGEND :

W1	Waiting area of pedestrian crossing
① ⟷	Surveyed footpath
123	- AM peak hour pedestrian flow, ped / 15 min
(456)	- PM peak hour pedestrian flow, ped / 15 min

Project Title
S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG
J7333

Figure Title

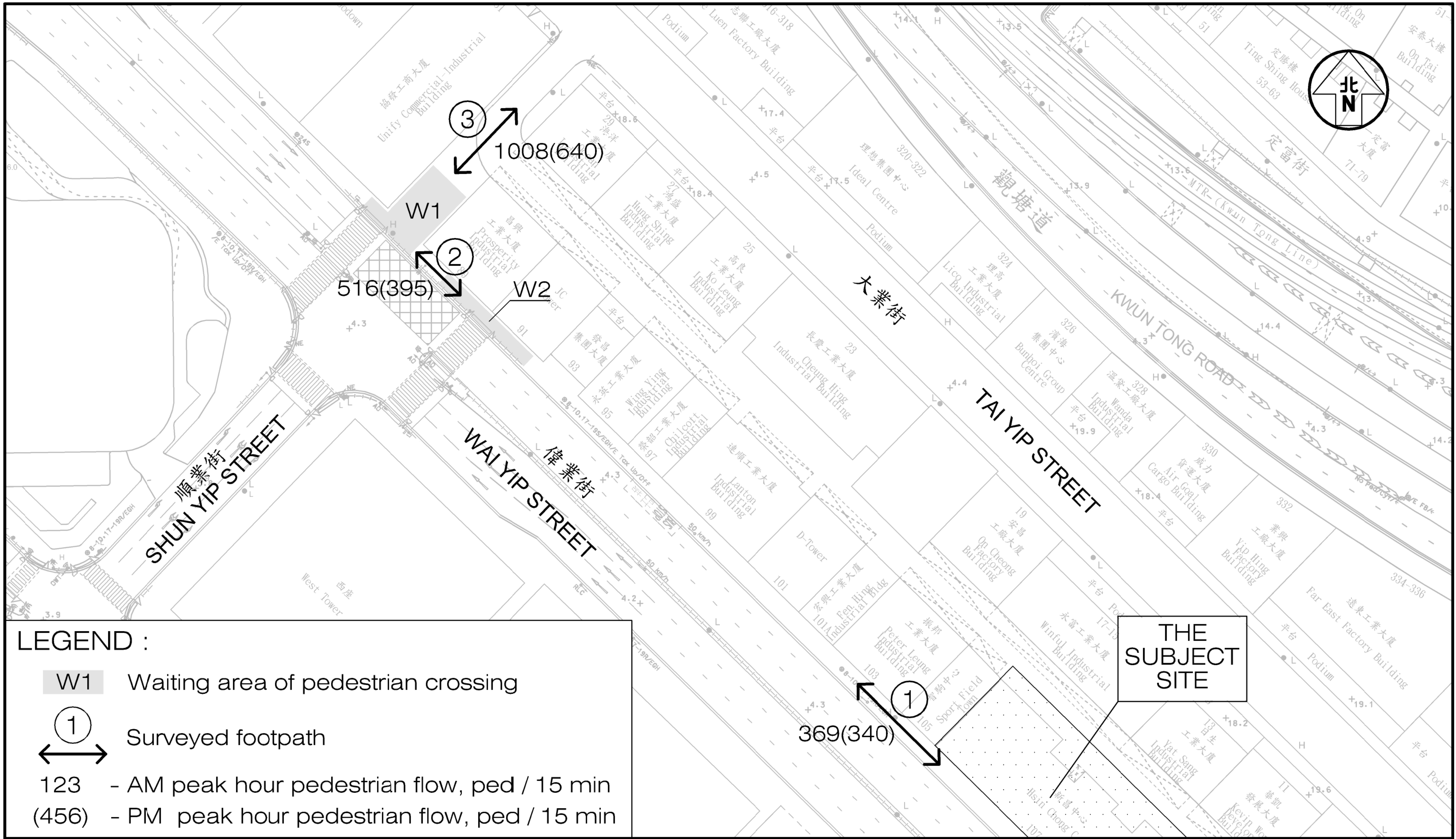
YEAR 2032 PEDESTRIAN FLOWS WITHOUT THE PROPOSED DEVELOPMENT

Figure No. 5.2		Revision R1B
Designed by C Y Y	Drawn by N C M	Checked by K C
Scale in A4 1 : 1000	Date 09 DEC 2024	

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\J7300-J7349\J7333\2024 12\Fig 5.1 - 5.3 RevR1B.dwg


③
1008(640)
W1
②
516(395)
W2
①
369(340)
THE SUBJECT SITE
SHUN YIP STREET
順業街
WAI YIP STREET
偉業街
TAI YIP STREET
大業街
KWUN TONG ROAD
觀塘道
MTR (Kwun Tong Line)
定富街
北 N
Unify Commercial-Industrial Building
Prosperity Industrial Building
Hung Shing Industrial Building
Ko Leung Industrial Building
Cheung Hing Industrial Building
Ideal Centre
Lico Industrial Building
Bunhoi Group Centre
Wanda Industrial Building
Air Goal Cargo Building
Yip Hing Factory Building
Far East Factory Building
Wing Ying Industrial Building
Chilcott Industrial Building
Lanton Industrial Building
D-Tower
Fen Hing Industrial Bldg
Peter Leung Industrial Building
On Cheong Factory Building
Winful Industrial Building
Yat Sang Industrial Building
Kevin Building
Hsin Chong Centre
Sport Field Town
West Tower
Tung Shing House
On Tai Building
Luen Factory Building

LEGEND :

W1	Waiting area of pedestrian crossing
① ⟷	Surveyed footpath
123	- AM peak hour pedestrian flow, ped / 15 min
(456)	- PM peak hour pedestrian flow, ped / 15 min

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

YEAR 2032 PEDESTRIAN FLOWS WITH THE PROPOSED DEVELOPMENT

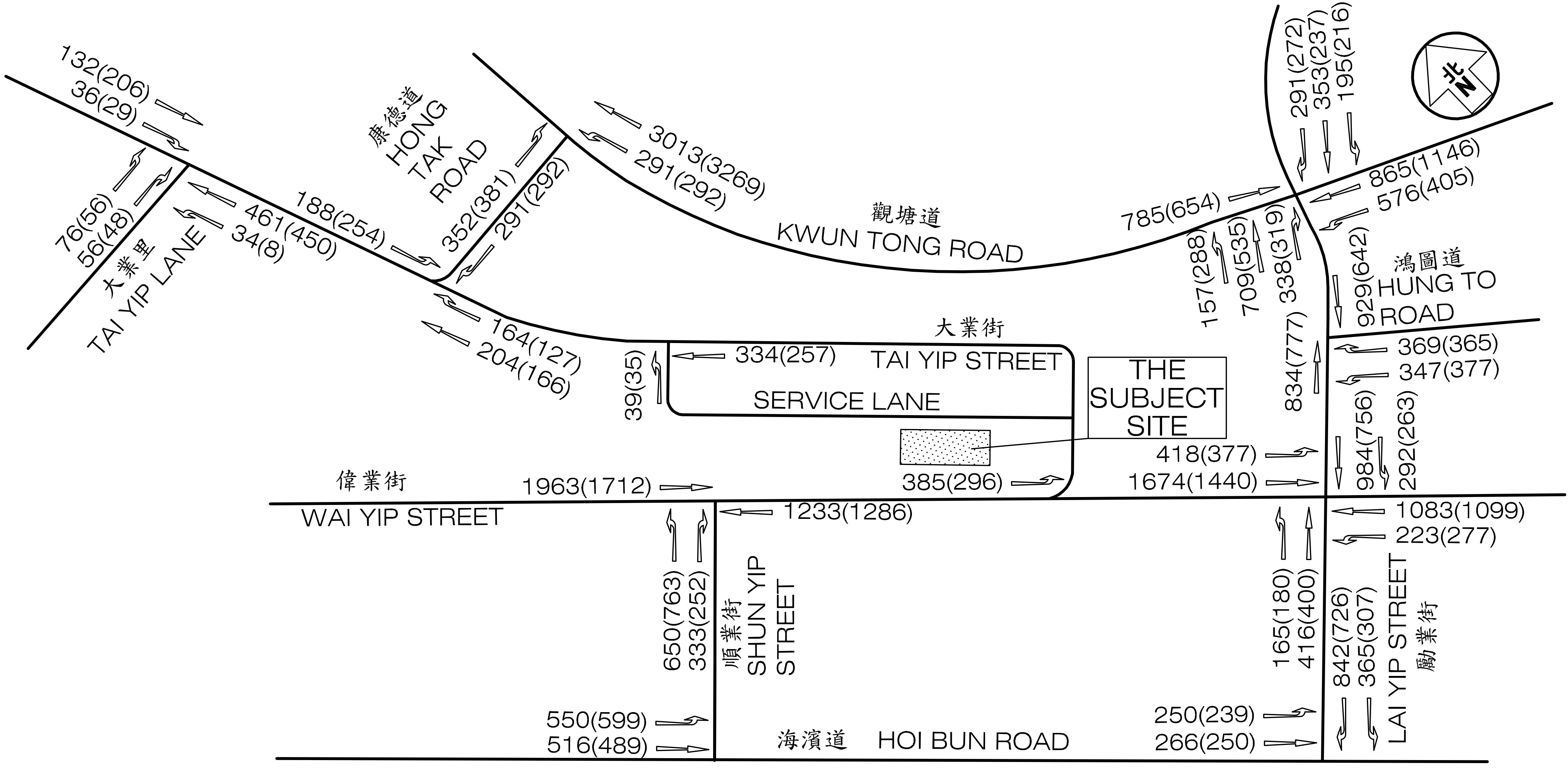
Figure No.	Revision
5.3	R1B

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

Scale in A4	Date
1 : 1000	09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig 5.1 - 5.3 RevR1B.dwg


132(206)
36(29)
76(56)
56(48)
大業里
TAI YIP LANE
461(450)
34(8)
188(254)
康德道
HONG TAK ROAD
352(381)
291(292)
3013(3269)
291(292)
觀塘道
KWUN TONG ROAD
164(127)
204(166)
39(35)
334(257)
大業街
TAI YIP STREET
SERVICE LANE
THE SUBJECT SITE
785(654)
157(288)
709(535)
338(319)
291(272)
353(237)
195(216)
北
N
865(1146)
576(405)
929(642)
鴻圖道
HUNG TO ROAD
369(365)
347(377)
834(777)
418(377)
1674(1440)
984(756)
292(263)
偉業街
WAI YIP STREET
1963(1712)
385(296)
1233(1286)
650(763)
333(252)
順業街
SHUN YIP STREET
165(180)
416(400)
1083(1099)
223(277)
842(726)
365(307)
LAI YIP STREET
勵業街
550(599)
516(489)
海濱道
HOI BUN ROAD
250(239)
266(250)
433(416)
838(711)
331(341)
429(401)

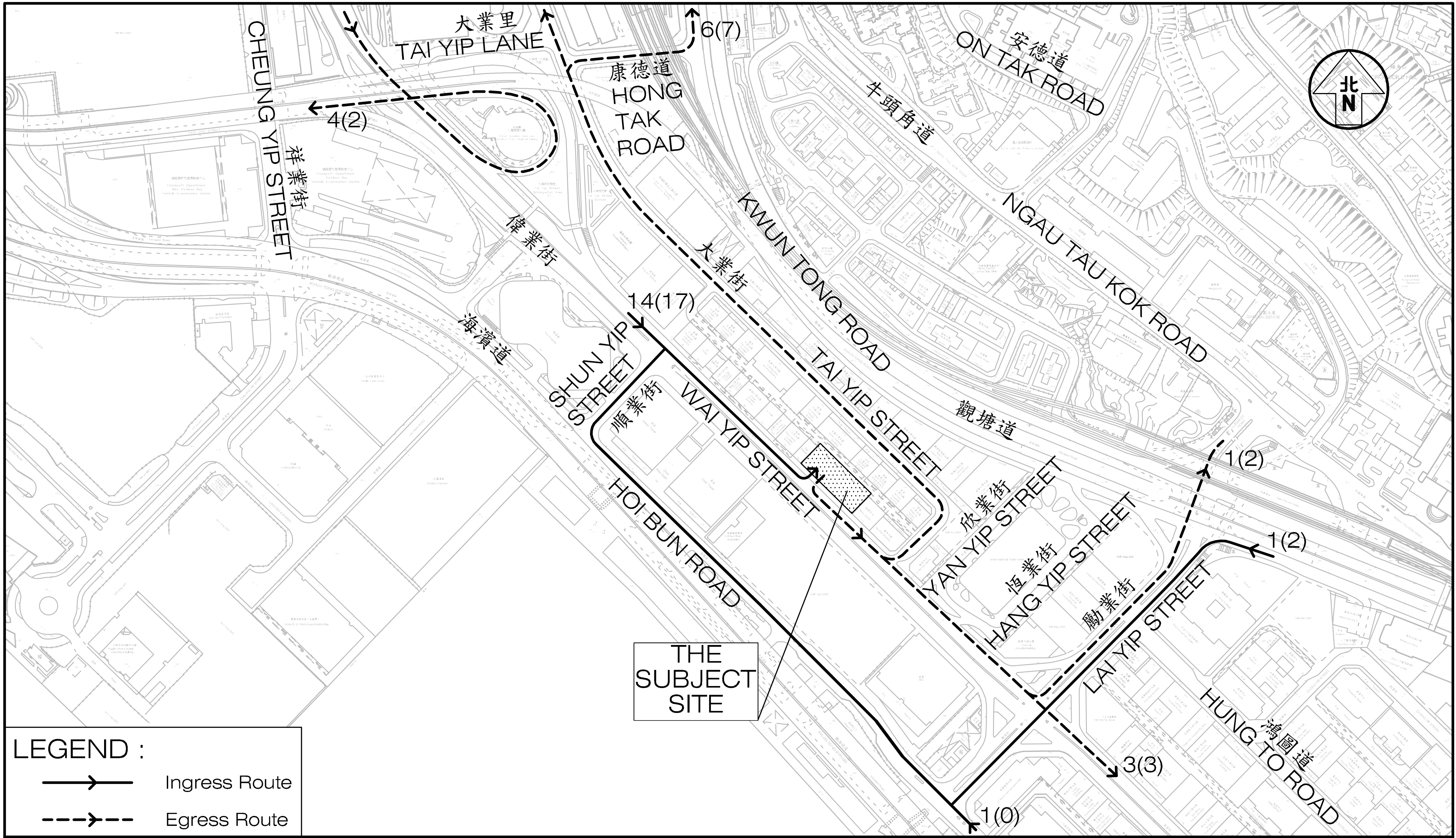
LEGEND :

123 - AM peak hour traffic flow, pcu / hr

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

Project Title S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG J7333	Figure No. 6.1	Revision R1B	**CKM Asia Limited** Traffic and Transportation Planning Consultants
Figure Title **SENSITIVITY TEST 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 09 DEC 2024	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\J7300-J7349\J7333\2024 12\Fig 6.1 RevR1B.dwg


大業里
TAI YIP LANE
6(7)
CHEUNG YIP STREET
祥業街
康德道
HONG TAK ROAD
安德道
ON TAK ROAD
牛頭角道
4(2)
偉業街
大業街
KWUN TONG ROAD
NGAU TAU KOK ROAD
14(17)
海濱道
SHUN YIP STREET
順業街
WAI YIP STREET
TAI YIP STREET
觀塘道
1(2)
欣業街
YAN YIP STREET
1(2)
恆業街
HANG YIP STREET
勵業街
HOI BUN ROAD
LAI YIP STREET
THE SUBJECT SITE
鴻圖道
HUNG TO ROAD
3(3)
1(0)
北
N
LEGEND :
Ingress Route
Egress Route

Project Title
S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107–109 WAI YIP STREET, KWUN TONG
J7333

Figure Title
THE INGRESS / EGRESS ROUTE OF SENSITIVITY TEST FOR TRAFFIC
GENERATED BY THE PROPOSED DEVELOPMENT (VIA WAI YIP STREET)

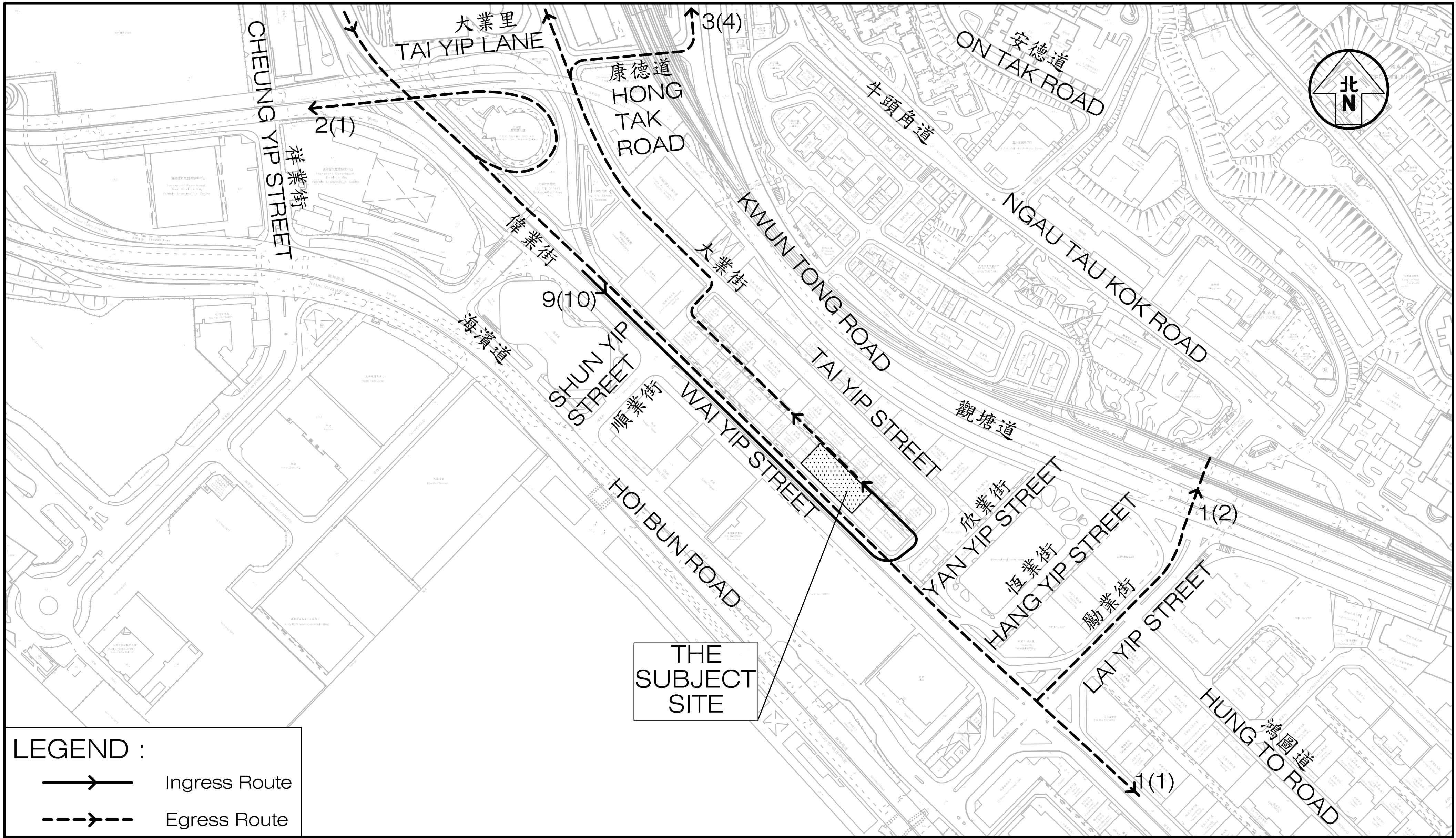
Figure No.	Revision
6.2	R1B

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

Scale in A4	Date
1 : 4000	09 DEC 2024

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\J7300–J7349\J7333\2024 12\Fig 4.3 - 4.4 RevR1B.dwg



大業里
TAI YIP LANE
3(4)
安德道
ON TAK ROAD
北
N
CHEUNG YIP STREET
祥業街
康德道
HONG TAK ROAD
2(1)
牛頭角道
NGAU TAU KOK ROAD
KWUN TONG ROAD
大業街
TAI YIP STREET
偉業街
9(10)
海濱道
SHUN YIP STREET
順業街
WAI YIP STREET
觀塘道
欣業街
YAN YIP STREET
1(2)
恆業街
HANG YIP STREET
勵業街
LAI YIP STREET
HOI BUN ROAD
THE SUBJECT SITE
鴻圖道
HUNG TO ROAD
1(1)
LEGEND :
Ingress Route
Egress Route

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

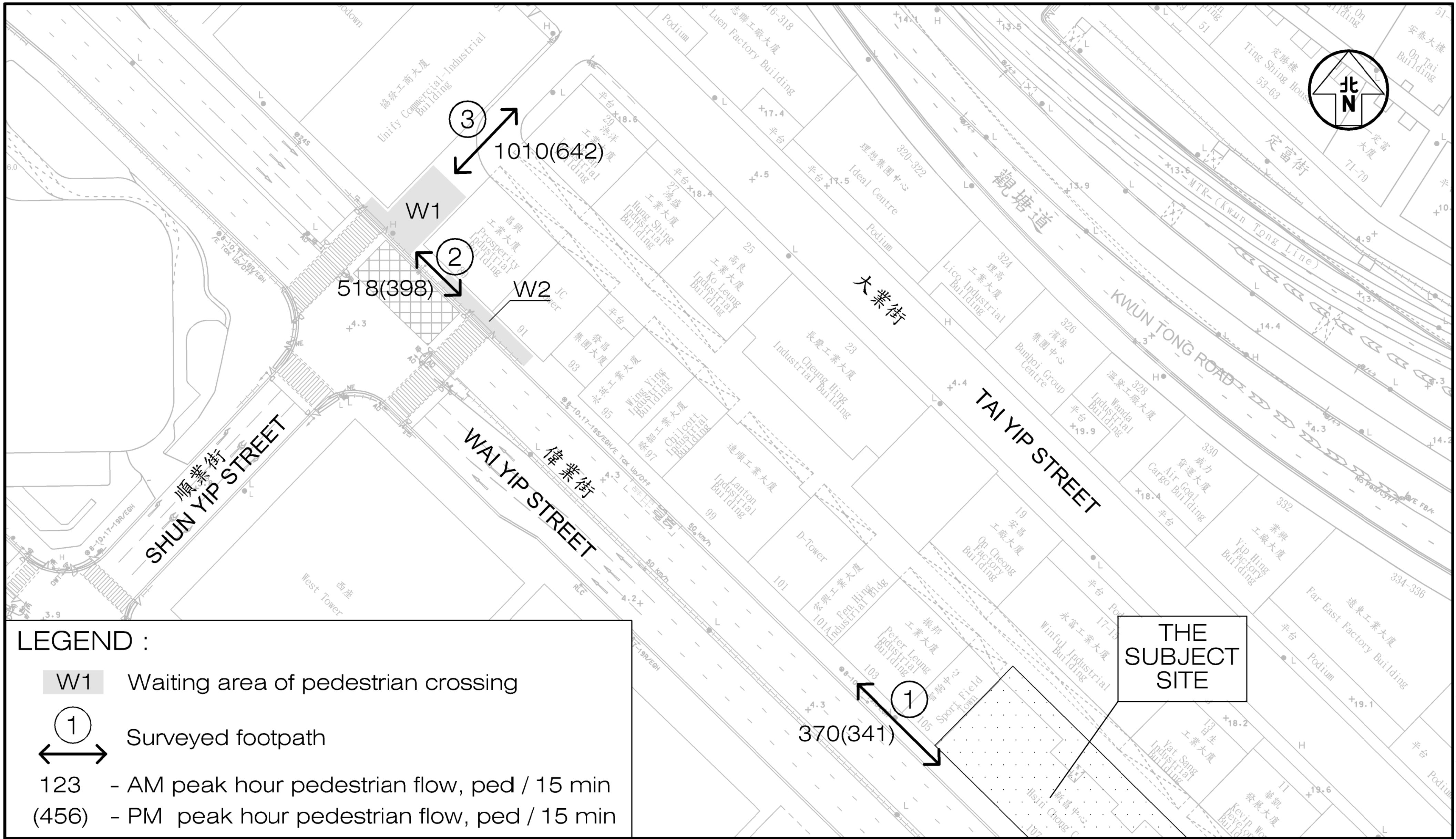
THE INGRESS / EGRESS ROUTE OF SENSITIVITY TEST FOR TRAFFIC GENERATED BY THE PROPOSED DEVELOPMENT (VIA THE SERVICE LANE)

Figure No. 6.3		Revision R1B
Designed by C Y Y	Drawn by N C M	Checked by K C
Scale in A4 1 : 4000	Date 09 DEC 2024	

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\J7300-J7349\J7333\2024 12\Fig 4.3 - 4.4 RevR1B.dwg


北
N
③
1010(642)
W1
②
518(398)
W2
①
370(341)
THE SUBJECT SITE
WAI YIP STREET
偉業街
SHUN YIP STREET
順業街
TAI YIP STREET
大業街
KWUN TONG ROAD
觀塘道
定富街
MTR (Kwun Tong Line)
Unify Commercial-Industrial Building
Prosperity Industrial Building
Hung Shing Industrial Building
Ko Leung Industrial Building
Ideal Centre
Lico Industrial Building
Cheung Hing Industrial Building
Bunhoi Group Centre
Wanda Industrial Building
Air Gael Cargo Building
Yip Hing Factory Building
Far East Factory Building
Wing Ying Industrial Building
Chilcott Industrial Building
Lanton Industrial Building
D-Tower
Fen Hing Industrial Bldg
On Cheong Factory Building
Peter Leung Industrial Building
Winful Industrial Building
Yat Sang Industrial Building
Kevin Development Building
Luen Factory Building
Ting Shing House
On Tai Building
West Tower
Hsin Chong Centre
Sport Field Town

LEGEND :

W1 Waiting area of pedestrian crossing

① Surveyed footpath

123 - AM peak hour pedestrian flow, ped / 15 min

(456) - PM peak hour pedestrian flow, ped / 15 min

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

SENSITIVITY TEST 2032 PEDESTRIAN FLOWS
WITH THE PROPOSED DEVELOPMENT

Figure No.	Revision	Designed by	Drawn by	Checked by	Scale in A4	Date
6.4	R1B	C Y Y	N C M	K C	1 : 1000	09 DEC 2024

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

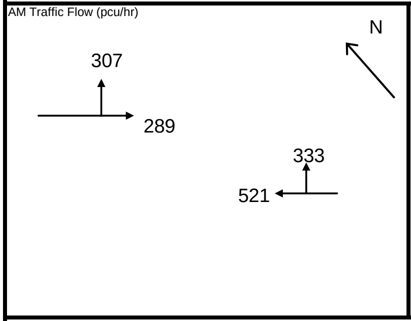
Appendix 1 – Calculation

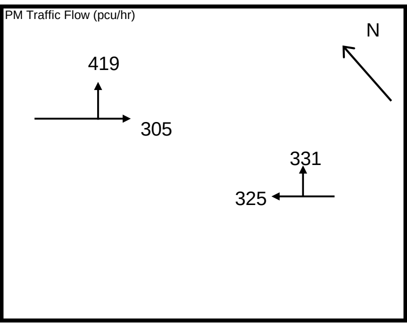
Signal Junction Analysis

Junction: Hoi Bun Road / Shun Yip Street — Job Number: J7333
Scenario: Existing Condition — P. 1
Design Year: 2024 — Designed By: — Checked By: — Date: 22 July 2024

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	422	0.215	0.215		1965	326	0.166	0.166
	SA+RT	A2	1	3.50	25.0		77	2012	432	0.215		100	1986	330	0.166	
Hoi Bun Road EB	LT	B1	2	3.50	15.0		100	1786	307	0.172	0.172	100	1786	419	0.235	0.235
	SA	B2	2	3.50				2105	289	0.137			2105	305	0.145	

	Phase	Stage								
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	



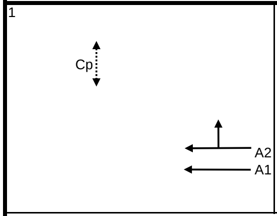


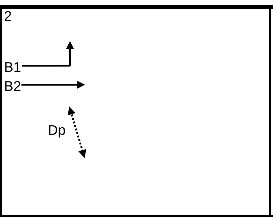
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

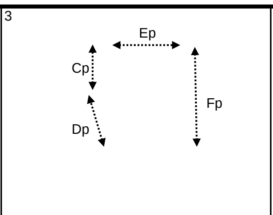
$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak		PM Peak	
	1+2		1+2	
Sum y	0.387		0.401	
L (s)	39		39	
C (s)	118		108	
practical y	0.603		0.575	
R.C. (%)	56%		43%	

Note:







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 =

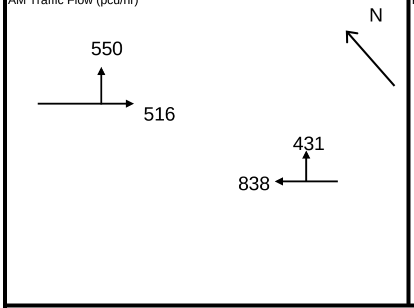
Signal Junction Analysis

Junction: Hoi Bun Road / Shun Yip Street — Job Number: J7333
Scenario: Without the Proposed Development — P. 2
Design Year: 2032 — Designed By: ____ — Checked By: ____ — Date: 22 July 2024

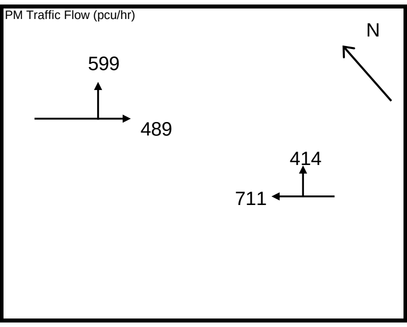
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hoi Bun Road WB	SA	A1	1,2	3.50				1965	838	0.426			1965	711	0.362	
	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	575	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)

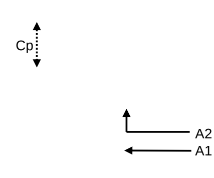
S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

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

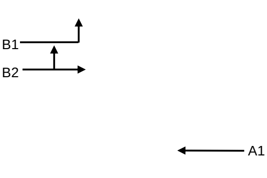
Note:

Junction Improvement Scheme by Other Project

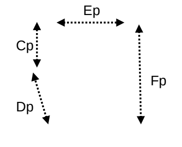
1



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: J7333

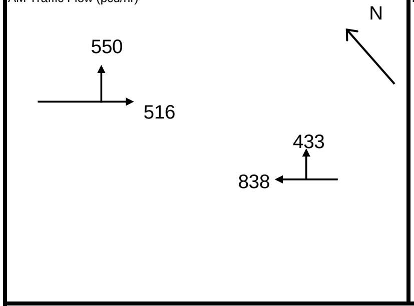
Scenario: With the Proposed Development — P. 3

Design Year: 2032 — Designed By: — Checked By: — Date: 22 July 2024

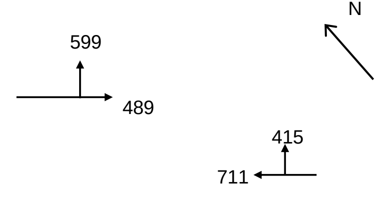
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hoi Bun Road WB	SA	A1	1,2	3.50				1965	838	0.426			1965	711	0.362	
	RT	A2	1	3.50	25.0		100	1986	433	0.218	0.218	100	1986	415	0.209	0.209
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	575	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)



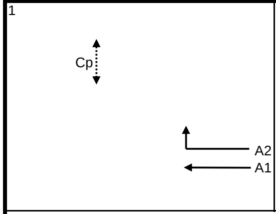
S=1940+100(W–3.25) — S=2080+100(W–3.25)

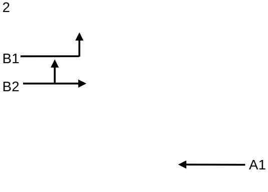
S_M=S÷(1+1.5f/r) — S_M=(S–230)÷(1+1.5f/r)

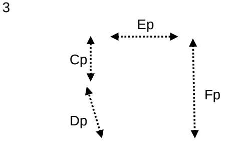
	AM Peak		PM Peak	
	1+2		1+2	
Sum y	0.493		0.491	
L (s)	39		39	
C (s)	118		108	
practical y	0.603		0.575	
R.C. (%)	22%		17%	

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 =

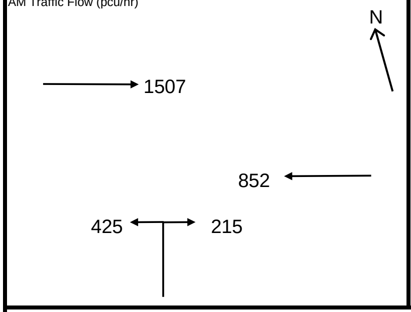
Signal Junction Analysis

Junction: Wai Yip Street / Shun Yip Street
Job Number: J7333
Scenario: Existing Condition
P. 4
Design Year: 2024
Designed By:
Checked By:
Date: 22 July 2024

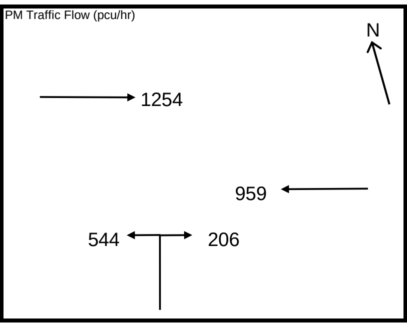
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street EB	SA	A1	1	3.50				1965	480	0.244	0.244		1965	399	0.203	
	SA	A2	1	3.50				2105	514	0.244			2105	427	0.203	0.203
	SA	A3	1	3.50				2105	513	0.244			2105	428	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	290	0.138			2105	327	0.155	
	SA	B3	1	3.50				2105	291	0.138			2105	327	0.155	
Shun Yip Street NB	LT	C1	3	3.50	15.0		100	1786	205	0.115	0.115	100	1786	261	0.146	0.146
	LT+RT	C2	3	3.50	18.0		100	1943	222	0.114		100	1943	283	0.146	
	RT	C3	3	3.50	25.0		100	1854	213	0.115		100	1854	206	0.111	

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)

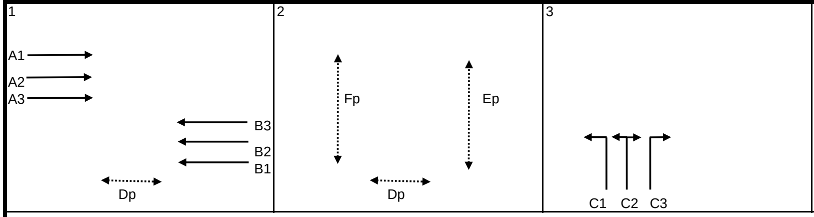


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

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

	AM Peak		PM Peak	
	1+3		1+3	
Sum y	0.359		0.349	
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 =

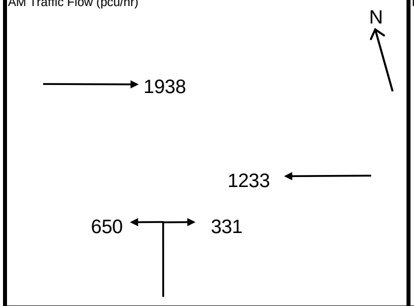
Signal Junction Analysis

Junction: Wai Yip Street / Shun Yip Street — Job Number: J7333
Scenario: Without the Proposed Development — P. 5
Design Year: 2032 — Designed By: — Checked By: — Date: 22 July 2024

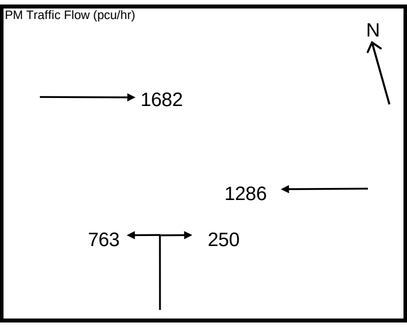
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street EB	SA	A1	1	3.50				1965	617	0.314			1965	535	0.272	
	SA	A2	1	3.50				2105	661	0.314	0.314		2105	573	0.272	
	SA	A3	1	3.50				2105	660	0.314			2105	574	0.273	0.273
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	421	0.200			2105	439	0.209	
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)

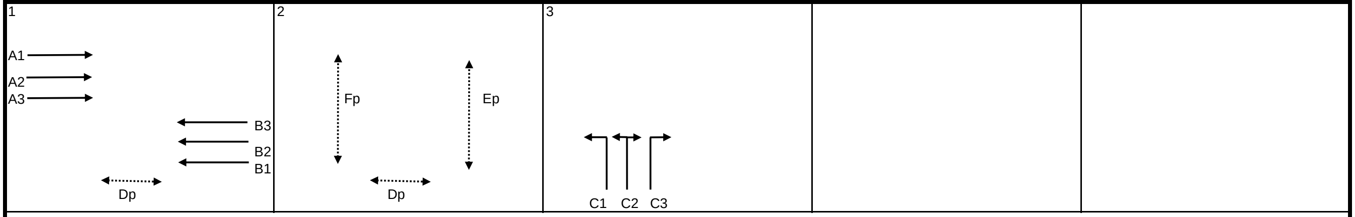


$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

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

	AM Peak		PM Peak	
	1+3		1+3	
Sum y	0.490		0.478	
L (s)	40		40	
C (s)	118		108	
practical y	0.595		0.567	
R.C. (%)	21%		19%	

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 =

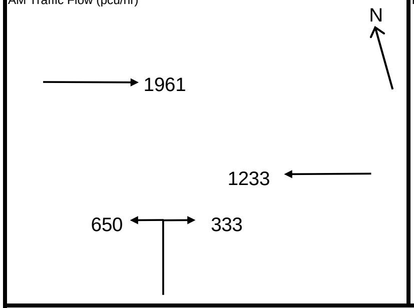
Signal Junction Analysis

Junction: Wai Yip Street / Shun Yip Street Job Number: J7333
Scenario: With the Proposed Development P. 6
Design Year: 2032 Designed By: ____________ Checked By: ____________ Date: 22 July 2024

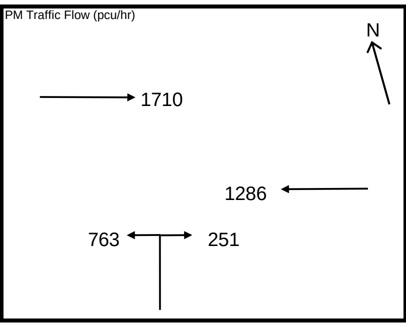
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street EB	SA	A1	1	3.50				1965	624	0.318	0.318		1965	544	0.277	
	SA	A2	1	3.50				2105	668	0.317			2105	583	0.277	0.277
	SA	A3	1	3.50				2105	669	0.318			2105	583	0.277	
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	421	0.200			2105	439	0.209	
Shun Yip Street NB	LT	C1	3	3.50	15.0		100	1786	314	0.176		100	1786	365	0.204	
	LT+RT	C2	3	3.50	18.0		100	1943	343	0.177	0.177	100	1943	398	0.205	0.205
	RT	C3	3	3.50	25.0		100	1854	326	0.176		100	1854	251	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)

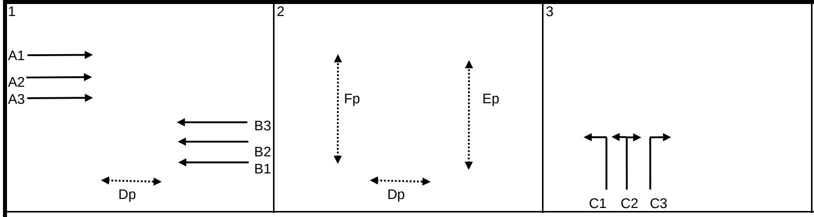


S=1940+100(W–3.25) S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak		PM Peak	
	1+3		1+3	
Sum y	0.494		0.482	
L (s)	40		40	
C (s)	118		108	
practical y	0.595		0.567	
R.C. (%)	20%		18%	

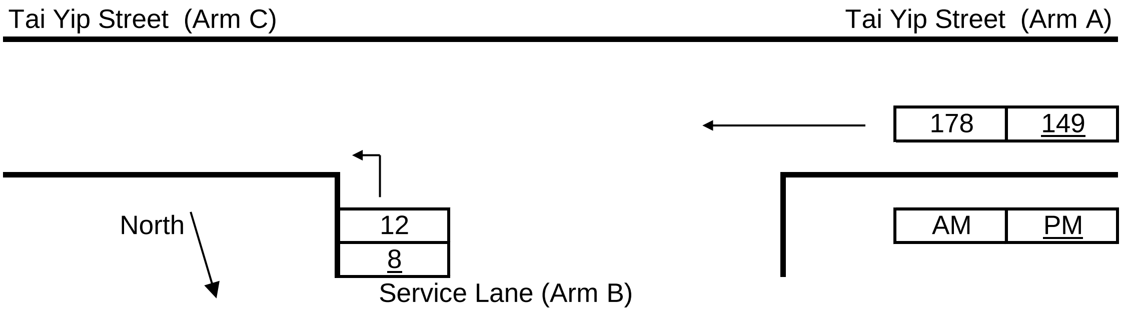
Note:



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 =

Priority Junction Analysis

Junction: Tai Yip Street / Service Lane
Design Year: 2024 Job Number: J7333 Date: 22 July 2024
Scenario: Existing Condition P. 7



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 :

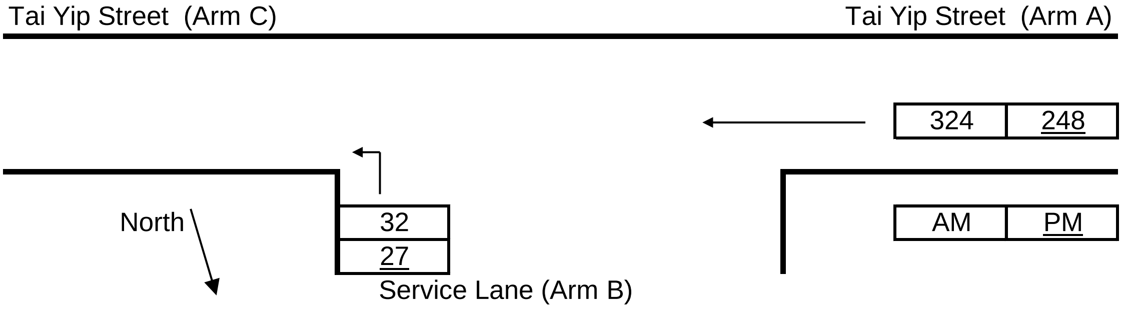
Traffic Flows, pcu/hr	AM	PM
q-CA	0	0
q-CB	0	0
q-AB	0	0
q-AC	178	149
q-BA	0	0
q-BC	12	8
f	1.000	1.000

Capacity, pcu/hr	AM	PM
Q-BA	307	312
Q-BC	769	778
Q-CB	407	412
Q-BAC	769	778

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.016	0.010
C-B	0.000	0.000

Priority Junction Analysis

Junction: Tai Yip Street / Service Lane
Design Year: 2032 Job Number: J7333 Date: 22 July 2024
Scenario: Without the Proposed Development P. 8



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

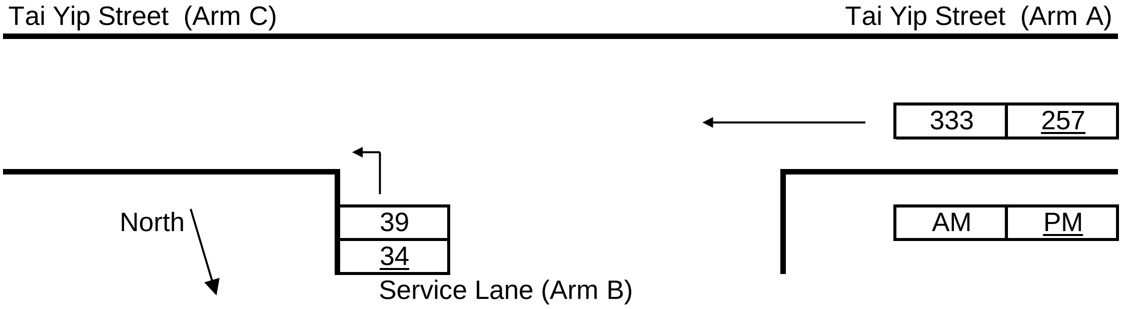
Analysis :

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	324	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: J7333 Date: 22 July 2024
Scenario: With the Proposed Development 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 :

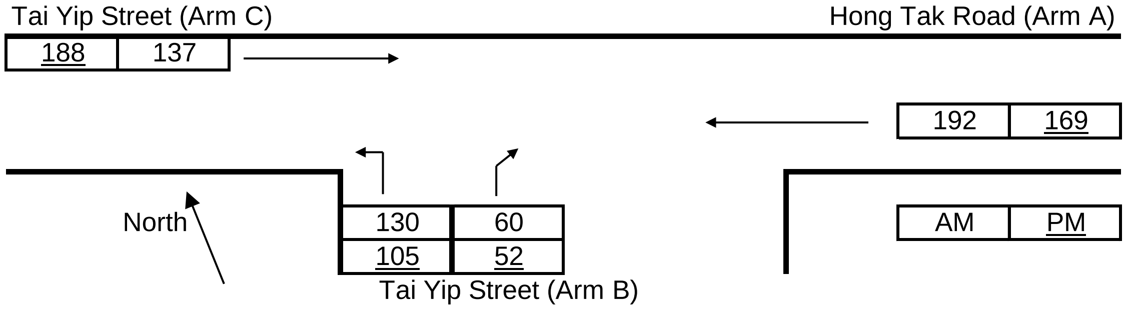
Traffic Flows, pcu/hr	AM	PM
q-CA	0	0
q-CB	0	0
q-AB	0	0
q-AC	333	257
q-BA	0	0
q-BC	39	34
f	1.000	1.000

Capacity, pcu/hr	AM	PM
Q-BA	284	295
Q-BC	720	744
Q-CB	381	394
Q-BAC	720	744

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.054	0.046
C-B	0.000	0.000

Priority Junction Analysis

Junction: Hong Tak Road / Tai Yip Street
Design Year: 2024 Job Number: J7333 Date: 22 July 2024
Scenario: Existing Condition 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	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

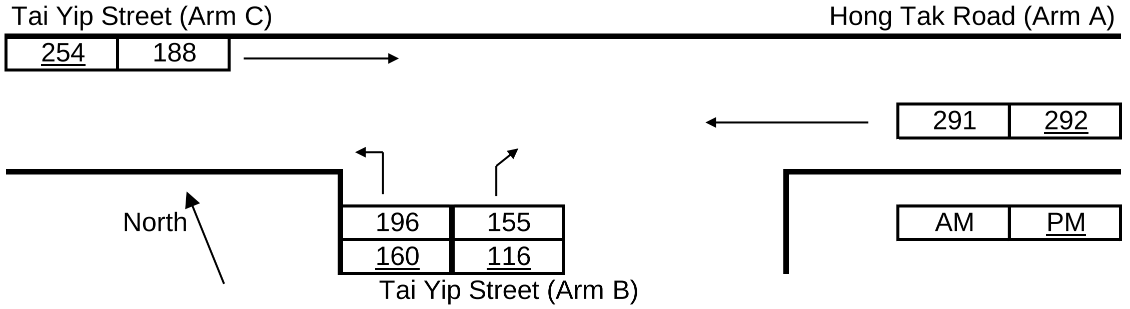
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	137	188	Q-BA	431	429
q-CB	0	0	Q-BC	575	580
q-AB	0	0	Q-CB	407	410
q-AC	192	169	Q-BAC	520	520
q-BA	60	52			
q-BC	130	105			
f	0.684	0.669			

Ratio-of-flow to Capacity	AM	PM
B-A	0.139	0.121
B-C	0.226	0.181
C-B	0.000	0.000

Priority Junction Analysis

Junction: Hong Tak Road / Tai Yip Street
Design Year: 2032 Job Number: J7333 Date: 22 July 2024
Scenario: Without 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	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 :

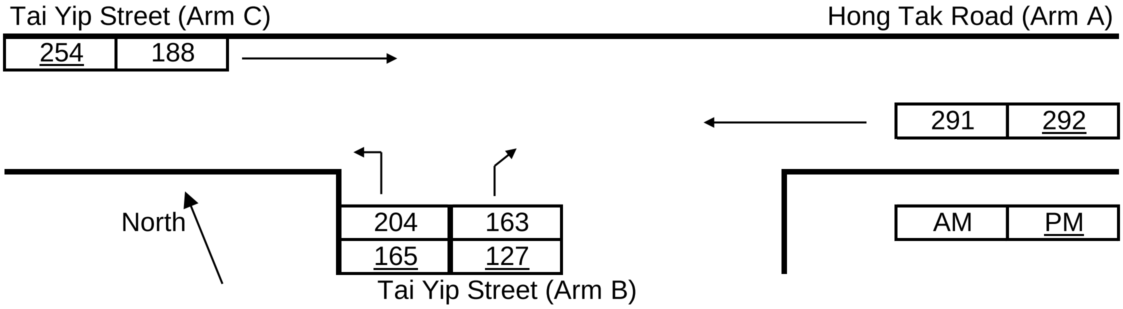
Traffic Flows, pcu/hr	AM	PM
q-CA	188	254
q-CB	0	0
q-AB	0	0
q-AC	291	292
q-BA	155	116
q-BC	196	160
f	0.558	0.580

Capacity, pcu/hr	AM	PM
Q-BA	404	395
Q-BC	553	553
Q-CB	391	391
Q-BAC	476	473

Ratio-of-flow to Capacity	AM	PM
B-A	0.384	0.294
B-C	0.354	0.289
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Hong Tak Road / Tai Yip Street				
Design Year:	2032	Job Number:	J7333	Date:	22 July 2024
Scenario:	With the Proposed Development				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	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

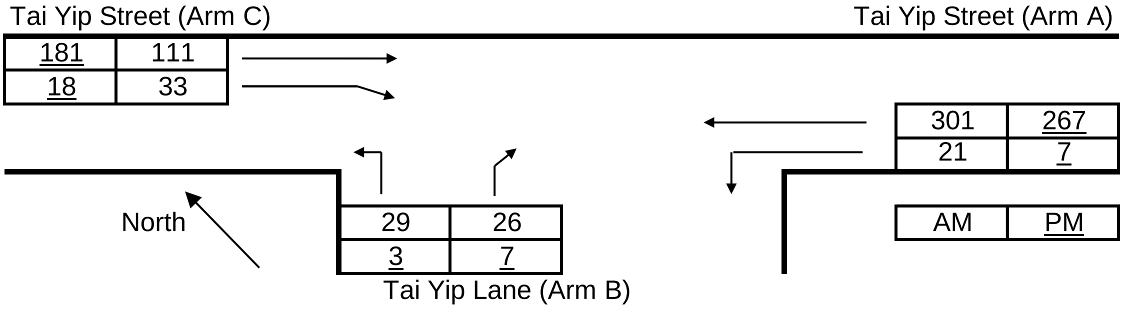
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	188	254	Q-BA	404	395
q-CB	0	0	Q-BC	553	553
q-AB	0	0	Q-CB	391	391
q-AC	291	292	Q-BAC	475	471
q-BA	163	127			
q-BC	204	165			
f	0.556	0.565			

Ratio-of-flow to Capacity	AM	PM
B-A	0.404	0.322
B-C	0.369	0.298
C-B	0.000	0.000

Priority Junction Analysis

Junction: Tai Yip Street / Tai Yip Lane
Design Year: 2024 Job Number: J7333 Date: 22 July 2024
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	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

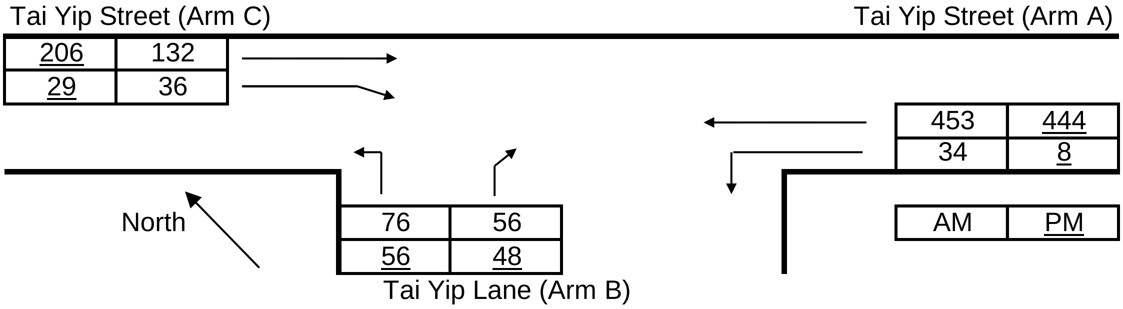
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	111	181	Q-BA	450	453
q-CB	33	18	Q-BC	640	648
q-AB	21	7	Q-CB	720	732
q-AC	301	267	Q-BAC	533	498
q-BA	26	7			
q-BC	29	3			
f	0.527	0.300			

Ratio-of-flow to Capacity	AM	PM
B-A	0.058	0.015
B-C	0.045	0.005
C-B	0.046	0.025

Priority Junction Analysis

Junction:	Tai Yip Street / Tai Yip Lane				
Design Year:	2032	Job Number:	J7333	Date:	22 July 2024
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	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

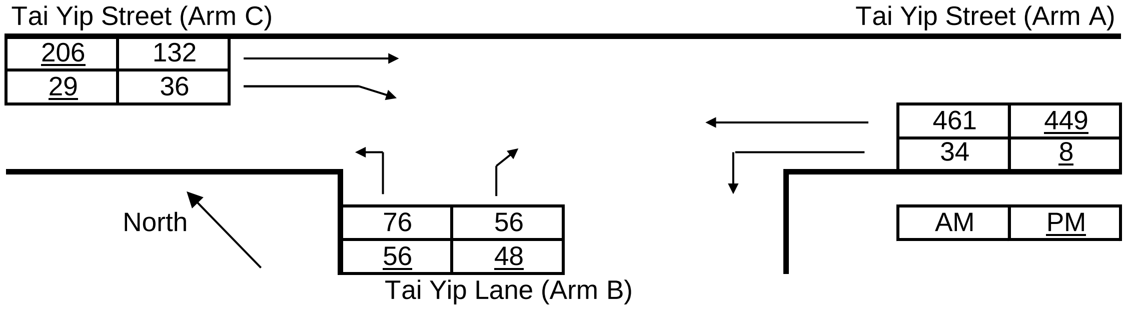
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	132	206	Q-BA	415	412
q-CB	36	29	Q-BC	605	609
q-AB	34	8	Q-CB	679	687
q-AC	453	444	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	0.117
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: J7333 Date: 22 July 2024
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	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

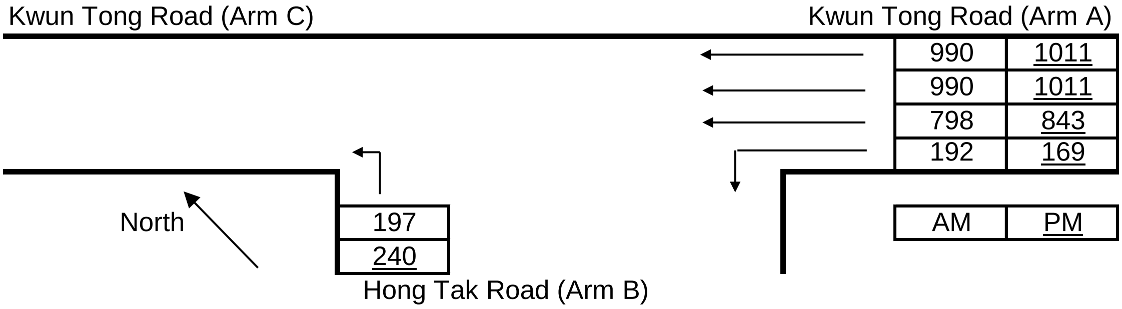
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	132	206	Q-BA	414	411
q-CB	36	29	Q-BC	603	608
q-AB	34	8	Q-CB	677	686
q-AC	461	449	Q-BAC	505	498
q-BA	56	48			
q-BC	76	56			
f	0.576	0.538			

Ratio-of-flow to Capacity	AM	PM
B-A	0.135	0.117
B-C	0.126	0.092
C-B	0.053	0.042

Priority Junction Analysis

Junction: Kwun Tong Road / Hong Tak Road
Design Year: 2024 Job Number: J7333 Date: 22 July 2024
Scenario: Existing Condition 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	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

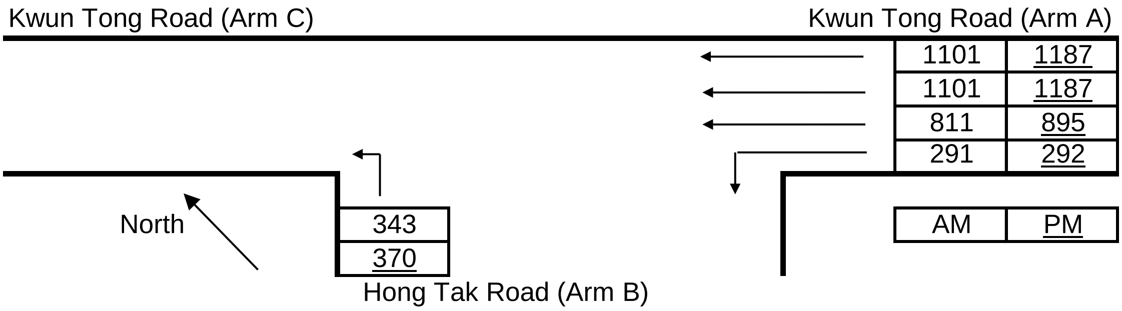
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	204	199
q-CB	0	0	Q-BC	539	529
q-AB	192	169	Q-CB	274	271
q-AC	798	843	Q-BAC	539	529
q-BA	0	0			
q-BC	197	240			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.365	0.454
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Kwun Tong Road / Hong Tak Road				
Design Year:	2032	Job Number:	J7333	Date:	22 July 2024
Scenario:	Without the Proposed Development				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	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

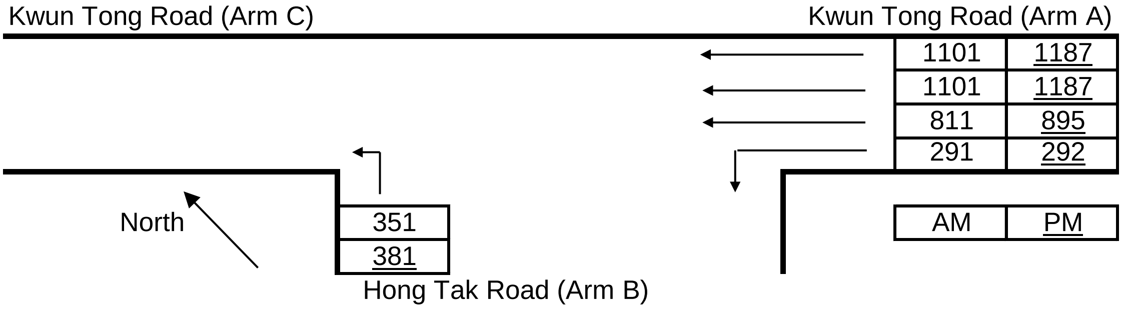
Analysis :

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	292	Q-CB	256	242
q-AC	811	895	Q-BAC	524	498
q-BA	0	0			
q-BC	343	370			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.655	0.743
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Kwun Tong Road / Hong Tak Road				
Design Year:	2032	Job Number:	J7333	Date:	22 July 2024
Scenario:	With 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	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	292	Q-CB	256	242
q-AC	811	895	Q-BAC	524	498
q-BA	0	0			
q-BC	351	381			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.670	0.765
C-B	0.000	0.000

Signal Junction Analysis

Junction: Wai Yip Street / Lai Yip Street — Job Number: J7333

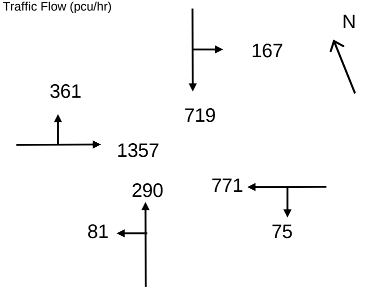
Scenario: Existing Condition — P. 19

Design Year: 2024 — Designed By: — Checked By: — Date: 22 July 2024

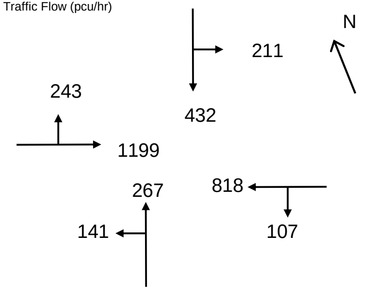
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street WB*	LT	A1	3	2.80	20.0		100	1763	75	0.043		100	1763	107	0.061	
	SA	A2	3	2.80				2035	386	0.190			2035	409	0.201	
	SA	A3	3	2.80				2035	385	0.189			2035	409	0.201	
Lai Yip Street SB	LT	B1	2	3.10	20.0		100	1971	167	0.085		100	1991	211	0.106	0.106
	SA	B2	1,2	3.10				2185	370	0.169	0.169		2198	223	0.101	
	SA	B3	1,2	3.10				2065	349	0.169			2065	209	0.101	
Wai Yip Street EB	SA+LT	C1	3	3.30	20.0		63	2097	575	0.274		50	2142	489	0.228	0.229
	SA	C2	3	3.30				2085	572	0.274	0.274		2085	476	0.228	
	SA	C3	3	3.30				2085	571	0.274			2085	477	0.229	
Lai Yip Street NB	SA+LT	D1	1,2	3.80	20.0		44	2111	184	0.087		70	2095	202	0.096	
	SA	D2	1,2	3.80				2135	187	0.088			2135	206	0.096	

	Phase	Stage							
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	3	min crossing time =	5	sec GM +	7	sec FGM =	12	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S=1940+100(W–3.25) **S=2080+100(W–3.25)**

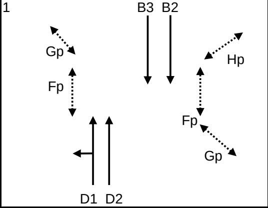
S_M=S÷(1+1.5f/r) **S_M=(S–230)÷(1+1.5f/r)**

	AM Peak		PM Peak	
	2+3	1,2+3	2+3	1,2+3
Sum y	0.359	0.444	0.335	0.330
L (s)	33	20	33	20
C (s)	120	120	108	108
practical y	0.653	0.750	0.625	0.733
R.C. (%)	82%	69%	87%	122%

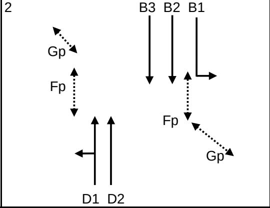
Note:

* Temporary Traffic Arrangement is facilities at the junction

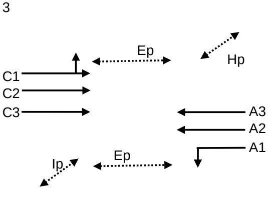
1



2



3



AM	G = 11	I/G = 2	G =	I/G = 13	G =	I/G = 9	G =	I/G =	G =
	G =	I/G =	G =	I/G = 13	G =	I/G = 9	G =	I/G =	G =
PM	G = 11	I/G = 2	G =	I/G = 13	G =	I/G = 9	G =	I/G =	G =
	G =	I/G =	G =	I/G = 13	G =	I/G = 9	G =	I/G =	G =

Signal Junction Analysis

Junction: Wai Yip Street / Lai Yip Street

Job Number: J7333

Scenario: Without the Proposed Development

P. 20

Design Year: 2032

Designed By:

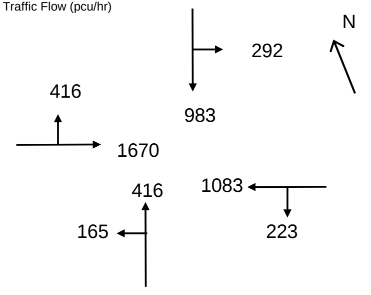
Checked By:

Date: 22 July 2024

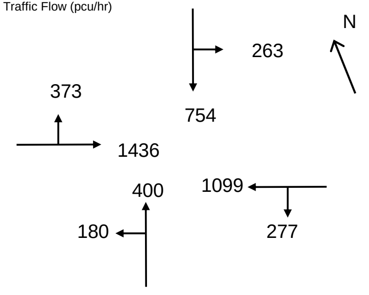
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Wai Yip Street WB	SA+LT	A1	3	2.80	20.0		53	1943	422	0.217		62	1944	445	0.229	
	SA	A2	3	2.80				2035	442	0.217			2035	466	0.229	
	SA	A3	3	2.80				2035	442	0.217			2035	465	0.229	
Lai Yip Street SB	LT	B1	2	3.10	20.0		100	1971	292	0.148		100	1991	263	0.132	0.138
	SA	B2	1,2	3.10				2185	505	0.231			2198	389	0.177	
	SA	B3	1,2	3.10				2065	478	0.231			2065	365	0.177	
Wai Yip Street EB	SA+LT	C1	3	3.30	20.0		60	2101	699	0.333	0.333	61	2127	611	0.287	0.287
	SA	C2	3	3.30				2085	694	0.333			2085	599	0.287	
	SA	C3	3	3.30				2085	693	0.332			2085	599	0.287	
Lai Yip Street NB	SA+LT	D1	2	3.80	15.0		58	2066	286	0.138	0.148	63	2077	286	0.138	
	SA	D2	2	3.80				2135	295	0.138			2135	294	0.138	

pedestrian phase	Ep	3	min crossing time =	11	sec GM +	10	sec FGM =	21 sec
	Fp	1	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

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S=1940+100(W–3.25) **S=2080+100(W–3.25)**

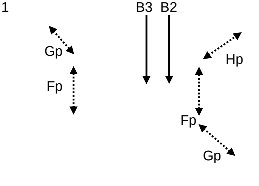
S_M=S÷(1+1.5f/r) **S_M=(S–230)÷(1+1.5f/r)**

	AM Peak		PM Peak	
	2+3	1,2+3	2+3	1,2+3
Sum y	0.481	0.564	0.425	0.464
L (s)	39	10	39	10
C (s)	120	120	108	108
practical y	0.608	0.825	0.575	0.817
R.C. (%)	26%	46%	35%	76%

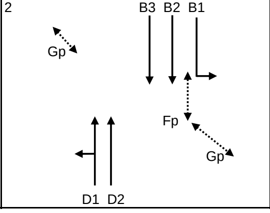
Note:

Junction Improvement Scheme by Other Project

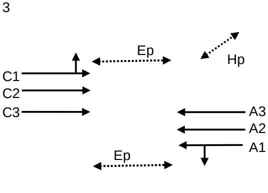
1



2



3



AM	G = 18	I/G = 5	G =	I/G = 12	G =	I/G = 6	G =	I/G =	G =	
	G =	I/G =	G =	I/G = 6	G =	I/G = 6	G =	I/G =	G =	
PM	G = 18	I/G = 5	G =	I/G = 12	G =	I/G = 6	G =	I/G =	G =	
	G =	I/G =	G =	I/G = 6	G =	I/G = 6	G =	I/G =	G =	

Signal Junction Analysis

Junction: Wai Yip Street / Lai Yip Street

Job Number: J7333

Scenario: With the Proposed Development

P. 21

Design Year: 2032

Designed By:

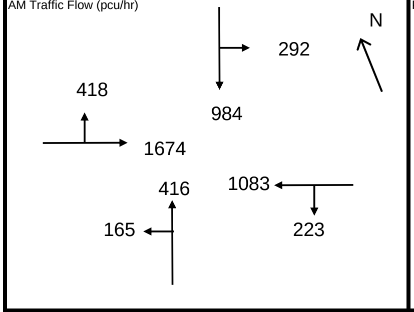
Checked By:

Date: 22 July 2024

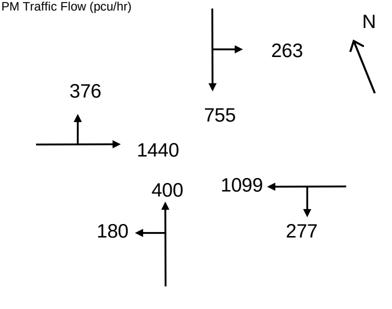
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street WB	SA+LT	A1	3	2.80	20.0		53	1943	422	0.217		62	1944	445	0.229	
	SA	A2	3	2.80				2035	442	0.217			2035	466	0.229	
	SA	A3	3	2.80				2035	442	0.217			2035	465	0.229	
Lai Yip Street SB	LT	B1	2	3.10	20.0		100	1971	292	0.148		100	1991	263	0.132	0.138
	SA	B2	1,2	3.10				2185	506	0.232			2198	389	0.177	
	SA	B3	1,2	3.10				2065	478	0.231			2065	366	0.177	
Wai Yip Street EB	SA+LT	C1	3	3.30	20.0		60	2101	701	0.334		61	2127	613	0.288	0.289
	SA	C2	3	3.30				2085	696	0.334	0.334		2085	601	0.288	
	SA	C3	3	3.30				2085	695	0.333			2085	602	0.289	
Lai Yip Street NB	SA+LT	D1	2	3.80	15.0		58	2066	286	0.138	0.148	63	2077	286	0.138	
	SA	D2	2	3.80				2135	295	0.138			2135	294	0.138	

pedestrian phase	Ep	3	min crossing time =	11	sec GM +	10	sec FGM =	21	sec	
	Fp	1	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	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



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

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

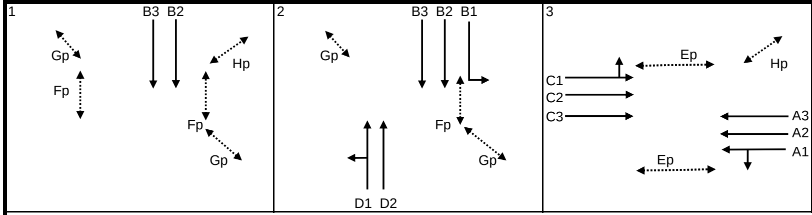
$S_M=S\div(1+1.5f/r)$

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

	AM Peak		PM Peak	
	2+3	1,2+3	2+3	1,2+3
Sum y	0.482	0.565	0.426	0.466
L (s)	39	10	39	10
C (s)	120	120	108	108
practical y	0.608	0.825	0.575	0.817
R.C. (%)	26%	46%	35%	75%

Note:

Junction Improvement Scheme by Other Project



AM	G = 18	I/G = 5	G =	I/G = 12	G =	I/G = 6	G =	I/G =	G =	
	G =	I/G =	G =	I/G = 6	G =	I/G = 6	G =	I/G =	G =	
PM	G = 18	I/G = 5	G =	I/G = 12	G =	I/G = 6	G =	I/G =	G =	
	G =	I/G =	G =	I/G = 6	G =	I/G = 6	G =	I/G =	G =	

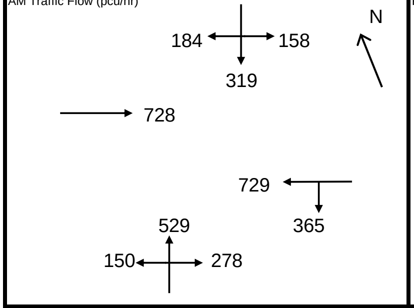
Signal Junction Analysis

Junction: Kwun Tong Road / Lai Yip Street
Job Number: J7333
Scenario: Existing Condition
P. 22
Design Year: 2024
Designed By:
Checked By:
Date: 22 July 2024

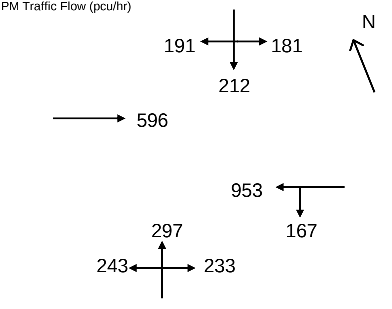
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kwun Tong Road EB	SA	A1	1,2	3.20				1935	351	0.181			1935	288	0.149	
	SA	A2	1,2	3.20				2075	377	0.182	0.182		2075	308	0.148	
Lai Yip Street NB	LT+SA	B1	5	3.50	30.0		31	2118	480	0.227		63	2105	387	0.184	0.184
	SA	B2	5	3.50				2105	477	0.227	0.227		2105	386	0.183	
Elegance Road NB	SA	B3	5	3.50				2105	278	0.132			2105	184	0.087	
	SA+RT	B4	5	3.50	18.0		9	2089	276	0.132		37	2042	179	0.088	
	RT	B5	5	3.50	15.0		100	1914	253	0.132		100	1914	167	0.087	
Kwun Tong Road WB	LT	C1	1,5	3.30	15.0		100	1768	365	0.206		100	1768	167	0.094	
	SA	C2	1,2	3.50				2105	365	0.173			2105	477	0.227	0.227
	SA	C3	1,2	3.50				2105	364	0.173			2105	476	0.226	
Elegance Road SB	LT	D1	3,4	3.50	15.0		100	1786	158	0.088	0.088	100	1786	181	0.101	0.101
	SA	D2	3,4	3.50				2105	174	0.083			2105	140	0.067	
	SA+RT	D3	3,4	3.50	18.0		15	2079	171	0.082		47	2026	135	0.067	
	RT	D4	3,4	3.50	15.0		100	1914	158	0.083		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)



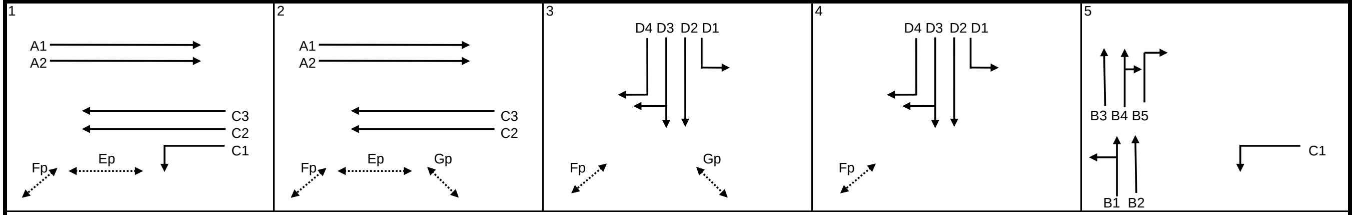
PM Traffic Flow (pcu/hr)



S=1940+100(W–3.25)
S_M=S÷(1+1.5f/r)
S=2080+100(W–3.25)
S_M=(S–230)÷(1+1.5f/r)

	AM Peak		PM Peak	
	2+4+5		2+3+5	
Sum y	0.497		0.512	
L (s)	15		20	
C (s)	118		108	
practical y	0.786		0.733	
R.C. (%)	58%		43%	

Note:
1) In AM Peak, Stage Sequence : 2>4>5>2
2) In PM Peak, Stage Sequence : 2>3>5>2



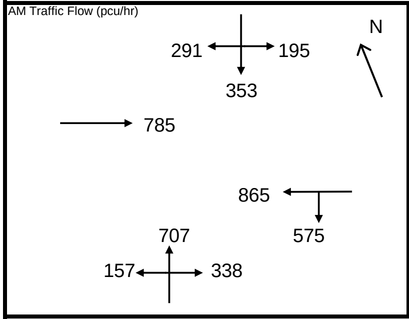
AM	I/G =	I/G =	I/G = 5	I/G = 10	I/G = 3
PM	I/G =	I/G = 7	I/G = 7	I/G = 6	I/G = 3

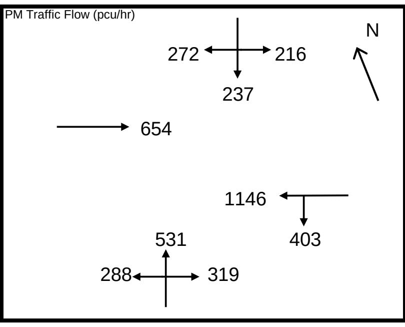
Signal Junction Analysis

Junction: Kwun Tong Road / Lai Yip Street   Job Number: J7333
Scenario: Without the Proposed Development   P. 23
Design Year: 2032   Designed By: ____________   Checked By: ____________   Date: 22 July 2024

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	LT	B1	5	3.30	30.0		100	2035	157	0.077		100	2052	288	0.140	
	SA	B2	5	3.30				2085	523	0.251			2085	425	0.204	
	SA	B3	5	3.30				2085	522	0.250			2085	425	0.204	
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	359	0.171		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	575	0.325	0.325	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	573	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		40	2037	217	0.107		65	1997	169	0.085	
	RT	D4	3,4	3.50	15.0		100	1914	203	0.106		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÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

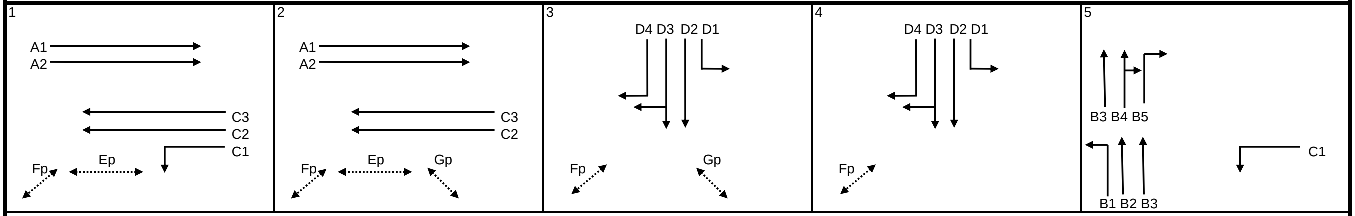
	AM Peak		PM Peak	
	2+4+5		2+3+5	
Sum y	0.640		0.621	
L (s)	15		20	
C (s)	118		108	
practical y	0.786		0.733	
R.C. (%)	23%		18%	

Note:

1) Junction Improvement Scheme by Other Project

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

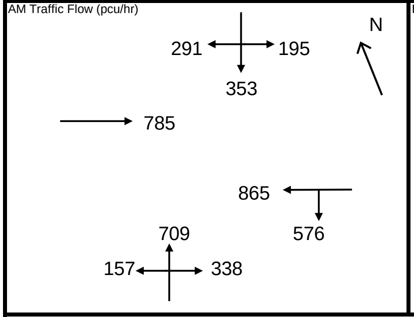
Signal Junction Analysis

Junction: Kwun Tong Road / Lai Yip Street
Job Number: J7333
Scenario: With the Proposed Development
P. 24
Design Year: 2032
Designed By:
Checked By:
Date: 22 July 2024

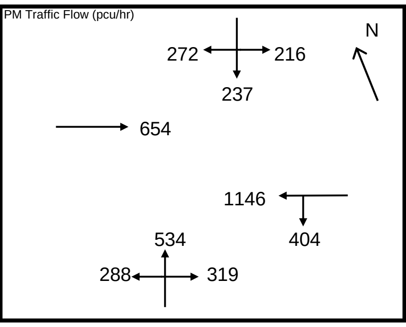
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kwun Tong Road EB	SA	A1	1,2	3.20				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	LT	B1	5	3.30	30.0		100	2035	157	0.077		100	2052	288	0.140	
	SA	B2	5	3.30				2085	524	0.251			2085	427	0.205	
	SA	B3	5	3.30				2085	523	0.251			2085	426	0.204	
Elegance Road NB	SA	B4	5	3.50				2105	360	0.171			2105	295	0.140	
	SA+RT	B5	5	3.50	18.0		3	2100	359	0.171		18	2074	290	0.140	
	RT	B6	5	3.50	15.0		100	1914	328	0.171		100	1914	268	0.140	
Kwun Tong Road WB	LT	C1	1,5	3.30	15.0		100	1768	576	0.326	0.326	100	1768	404	0.229	0.229
	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	573	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		40	2037	217	0.107		65	1997	169	0.085	
	RT	D4	3,4	3.50	15.0		100	1914	203	0.106		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		0.622	
L (s)	15		20	
C (s)	118		108	
practical y	0.786		0.733	
R.C. (%)	23%		18%	

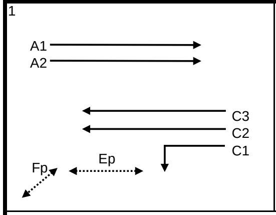
Note:

1) Junction Improvement Scheme by Other Project

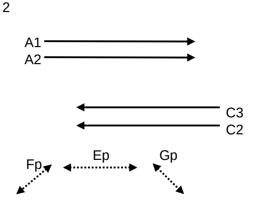
2) In AM Peak, Stage Sequence : 2>4>5>2

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

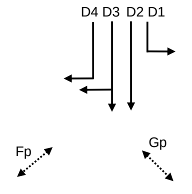
1



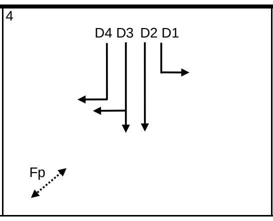
2



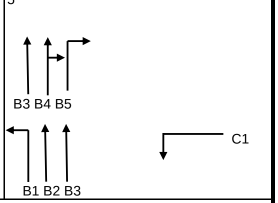
3



4



5



	1	2	3	4	5
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: J7333

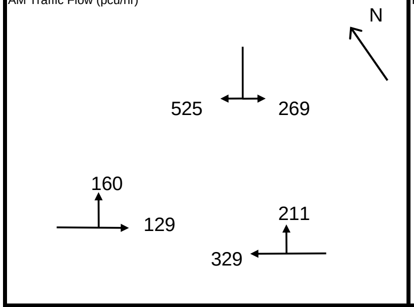
Scenario: Existing Condition — P. 25

Design Year: 2024 — Designed By: — Checked By: — Date: 22 July 2024

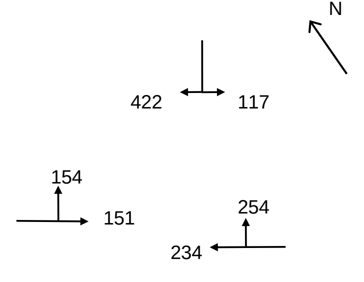
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hoi Bun Road EB	LT	A1	1	3.30	15.0		100	1768	160	0.090	0.090	100	1768	154	0.087	0.087
	SA	A2	1	3.30				2085	129	0.062			2085	151	0.072	
Hoi Bun Road WB	SA	B1	1,2	3.30				1945	329	0.169			1945	234	0.120	
	RT	B2	2	3.30	20.0		100	1940	211	0.109	0.109	100	1940	254	0.131	0.131
Lai Yip Street SB	LT	C1	3	3.30	18.0		100	1795	269	0.150	0.150	100	1795	117	0.065	
	RT	C2	3	3.30	25.0		100	1967	264	0.134		100	1967	212	0.108	
	RT	C3	3	3.30	22.0		100	1952	261	0.134		100	1952	210	0.108	0.108

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)

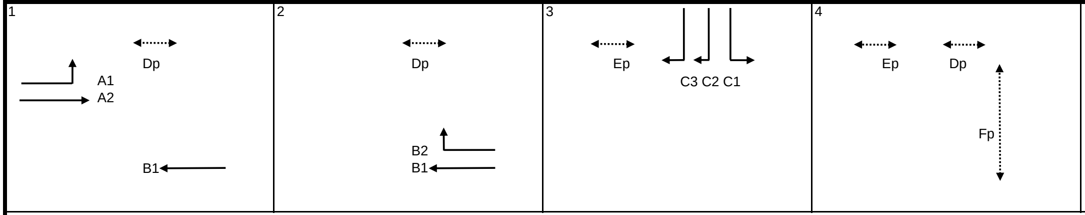


S=1940+100(W–3.25)   S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak		PM Peak	
	1+2+3		1+2+3	
Sum y	0.349		0.326	
L (s)	35		35	
C (s)	118		108	
practical y	0.633		0.608	
R.C. (%)	81%		87%	

Note:



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 =

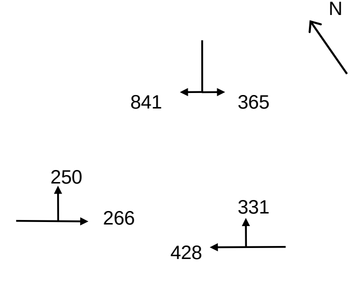
Signal Junction Analysis

Junction: Hoi Bun Road / Lai Yip Street — Job Number: J7333
Scenario: Without the Proposed Development — P. 26
Design Year: 2032 — Designed By: ______ — Checked By: ______ — Date: 22 July 2024

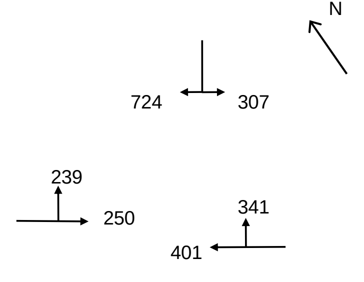
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hoi Bun Road EB	LT*	A1	1	3.65	15.0		100	1800	250	0.139	0.139	100	1800	239	0.133	0.133
	SA*	A2	1	3.65				2120	266	0.125			2120	250	0.118	
Hoi Bun Road WB	SA	B1	1,2	3.30				1945	428	0.220			1945	401	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		100	1795	307	0.171	
	RT	C2	3	3.30	25.0		100	1967	422	0.215	0.215	100	1967	363	0.185	0.185
	RT	C3	3	3.30	22.0		100	1952	419	0.215		100	1952	361	0.185	

	Phase	Stage									
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)**

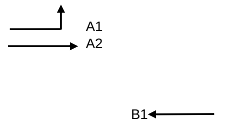
S_M=S÷(1+1.5f/r) **S_M=(S–230)÷(1+1.5f/r)**

	AM Peak		PM Peak	
	1+2+3		1+2+3	
Sum y	0.524		0.493	
L (s)	35		35	
C (s)	118		108	
practical y	0.633		0.608	
R.C. (%)	21%		23%	

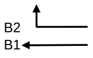
Note:

*Junction Improvement Scheme by Other Project

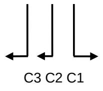
1



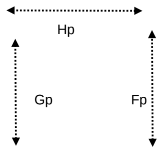
2



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 =			

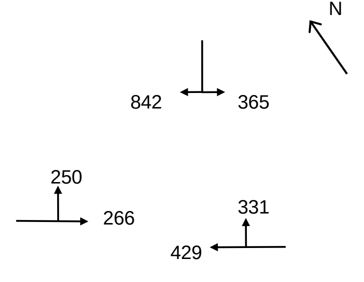
Signal Junction Analysis

Junction: Hoi Bun Road / Lai Yip Street
Job Number: J7333
Scenario: With the Proposed Development
P. 27
Design Year: 2032
Designed By: ____________
Checked By: ____________
Date: 22 July 2024

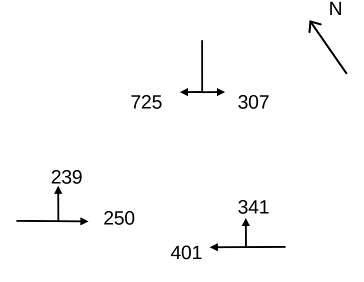
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hoi Bun Road EB	LT*	A1	1	3.65	15.0		100	1800	250	0.139	0.139	100	1800	239	0.133	0.133
	SA*	A2	1	3.65				2120	266	0.125			2120	250	0.118	
Hoi Bun Road WB	SA	B1	1,2	3.30				1945	429	0.221			1945	401	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		100	1795	307	0.171	0.185
	RT	C2	3	3.30	25.0		100	1967	423	0.215	0.215	100	1967	364	0.185	
	RT	C3	3	3.30	22.0		100	1952	419	0.215		100	1952	361	0.185	

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)

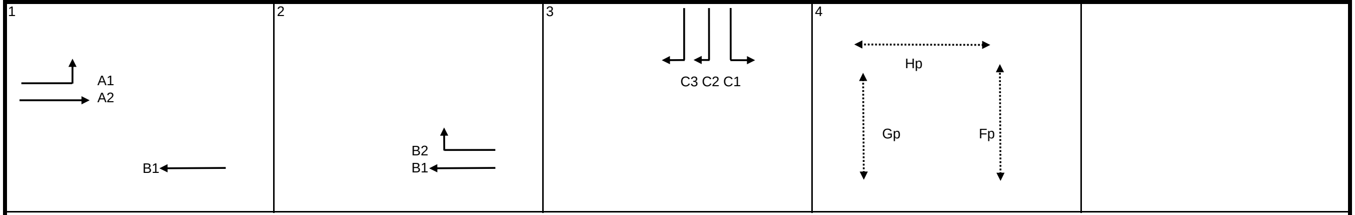


S=1940+100(W–3.25)
S=2080+100(W–3.25)
S_M=S÷(1+1.5f/r)
S_M=(S–230)÷(1+1.5f/r)

	AM Peak		PM Peak	
	1+2+3		1+2+3	
Sum y	0.525		0.494	
L (s)	35		35	
C (s)	118		108	
practical y	0.633		0.608	
R.C. (%)	21%		23%	

Note:

*Junction Improvement Scheme by Other Project



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: J7333

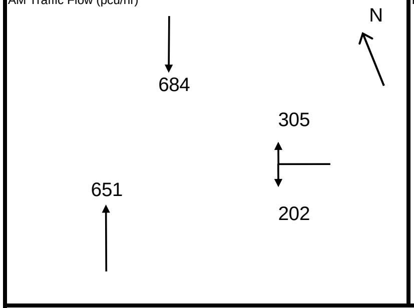
Scenario: Existing Condition P. 28

Design Year: 2024 Designed By: ____________ Checked By: ____________ Date: 22 July 2024

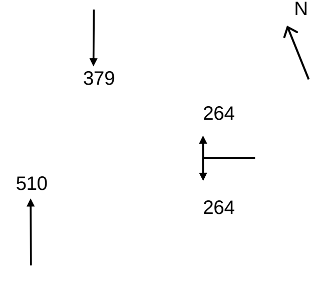
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Lai Yip Street SB	SA	A1	1	3.50				1965	330	0.168	0.168		1965	183	0.093	
	SA	A2	1	3.50				2105	354	0.168			2105	196	0.093	
Lai Yip Street NB	SA	B1	1	3.50				1965	314	0.160			1965	246	0.125	0.125
	SA	B2	1	3.50				2105	337	0.160			2105	264	0.125	
Hung To Road WB	LT	C1	2	3.50	15.0											
	LT+RT	C2*	2	3.50	18.0		100	1943	507	0.261	0.261	100	1943	528	0.272	0.272
	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)



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

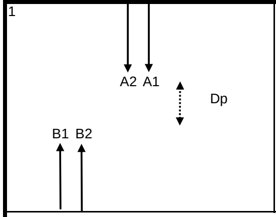
$S_M=S\div(1+1.5f/r)$ $S_M=(S-230)\div(1+1.5f/r)$

	AM Peak		PM Peak	
	1+2		1+2	
Sum y	0.429		0.397	
L (s)	14		11	
C (s)	120		108	
practical y	0.795		0.808	
R.C. (%)	85%		104%	

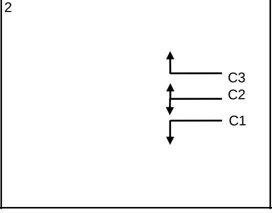
Note:

Assume that phases C1 and C3 are blocked due to on-street parking activities along Hung To Road

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: J7333

Scenario: Without the Proposed Development

P. 29

Design Year: 2032

Designed By:

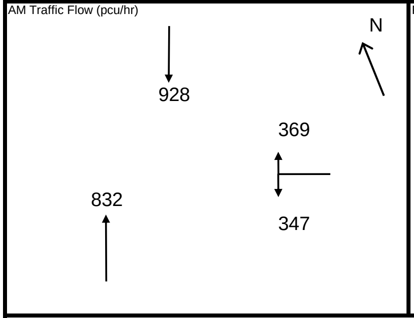
Checked By:

Date: 22 July 2024

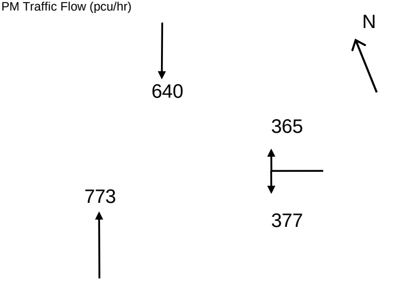
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Lai Yip Street SB	SA	A1	1	3.50				1965	448	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	1943	716	0.369	0.369	100	1943	742	0.382	0.382
	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)



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

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

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

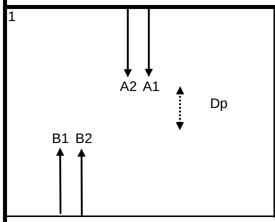
$S_M=(S-230)\div(1+1.5f/r)$

	AM Peak		PM Peak	
	1+2		1+2	
Sum y	0.597		0.572	
L (s)	14		11	
C (s)	120		108	
practical y	0.795		0.808	
R.C. (%)	33%		41%	

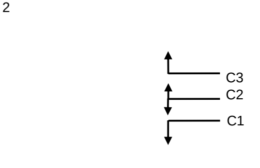
Note:

Assume that phases C1 and C3 are blocked due to on-street parking activities along Hung To Road

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

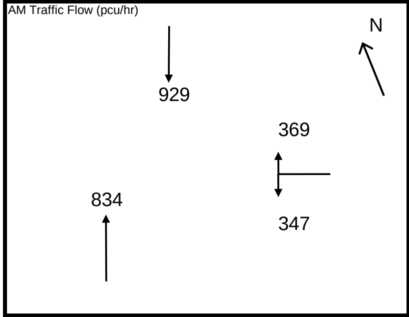
Junction: Lai Yip Street / Hung To Road — Job Number: J7333

Scenario: With the Proposed Development — P. 30

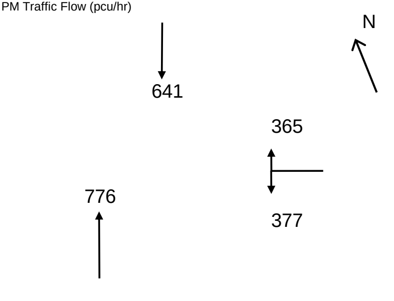
Design Year: 2032 — Designed By: ____ — Checked By: ____ — Date: 22 July 2024

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	332	0.158	
Lai Yip Street NB	SA	B1	1	3.50				1965	403	0.205			1965	375	0.191	0.191
	SA	B2	1	3.50				2105	431	0.205			2105	401	0.190	
Hung To Road WB	LT	C1	2	3.50	15.0											
	LT+RT	C2*	2	3.50	18.0		100	1943	716	0.369	0.369	100	1943	742	0.382	0.382
	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)

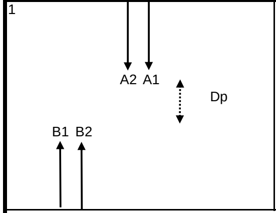
S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak		PM Peak	
	1+2		1+2	
Sum y	0.597		0.573	
L (s)	14		11	
C (s)	120		108	
practical y	0.795		0.808	
R.C. (%)	33%		41%	

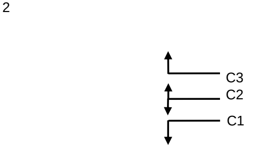
Note:

Assume that phases C1 and C3 are blocked due to on-street parking activities along Hung To Road

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 =

Sensitivity Test
(644-bed RCHE and 200-room Hotel)

Signal Junction Analysis

Junction: Hoi Bun Road / Shun Yip Street　Job Number: J7333

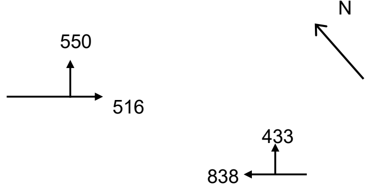
Scenario: With the Proposed Development (644-bed RCHE and 200-room Hotel)　P. A-1

Design Year: 2032　Designed By: ____________　Checked By: ____________　Date: 13 November 2024

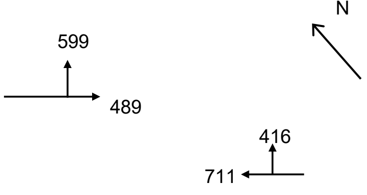
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hoi Bun Road WB	SA	A1	1,2	3.50				1965	838	0.426			1965	711	0.362	
	RT	A2	1	3.50	25.0		100	1986	433	0.218	0.218	100	1986	416	0.209	0.209
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	575	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)



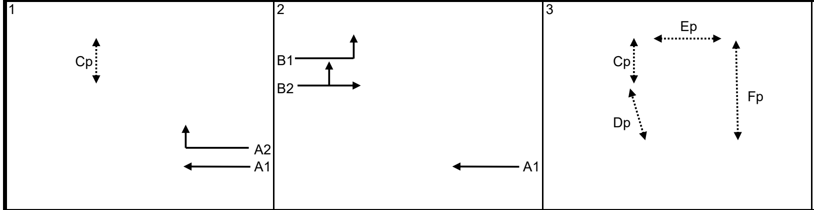
S=1940+100(W–3.25)　**S=2080+100(W–3.25)**

S_M=S÷(1+1.5f/r)　**S_M=(S–230)÷(1+1.5f/r)**

	AM Peak		PM Peak	
	1+2		1+2	
Sum y	0.493		0.491	
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 =

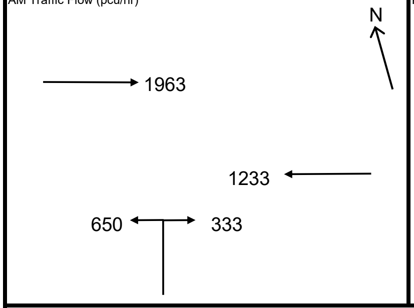
Signal Junction Analysis

Junction: Wai Yip Street / Shun Yip Street — Job Number: J7333
Scenario: With the Proposed Development (644-bed RCHE and 200-room Hotel) — P. A-2
Design Year: 2032 — Designed By: — Checked By: — Date: 13 November 2024

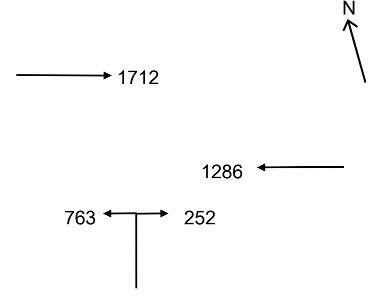
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street EB	SA	A1	1	3.50				1965	625	0.318	0.318		1965	545	0.277	
	SA	A2	1	3.50				2105	669	0.318			2105	584	0.277	0.277
	SA	A3	1	3.50				2105	669	0.318			2105	583	0.277	
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	421	0.200			2105	439	0.209	
Shun Yip Street NB	LT	C1	3	3.50	15.0		100	1786	314	0.176		100	1786	365	0.204	
	LT+RT	C2	3	3.50	18.0		100	1943	343	0.177	0.177	100	1943	398	0.205	0.205
	RT	C3	3	3.50	25.0		100	1854	326	0.176		100	1854	252	0.136	

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)

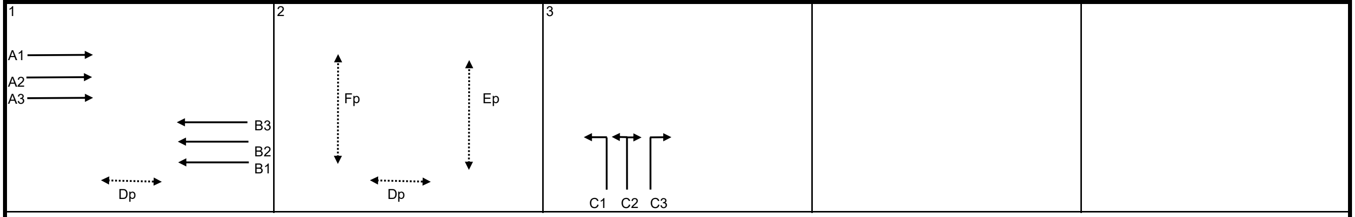


S=1940+100(W–3.25) — S=2080+100(W–3.25)

S_M=S÷(1+1.5f/r) — S_M=(S–230)÷(1+1.5f/r)

	AM Peak		PM Peak	
	1+3		1+3	
Sum y	0.495		0.482	
L (s)	40		40	
C (s)	118		108	
practical y	0.595		0.567	
R.C. (%)	20%		17%	

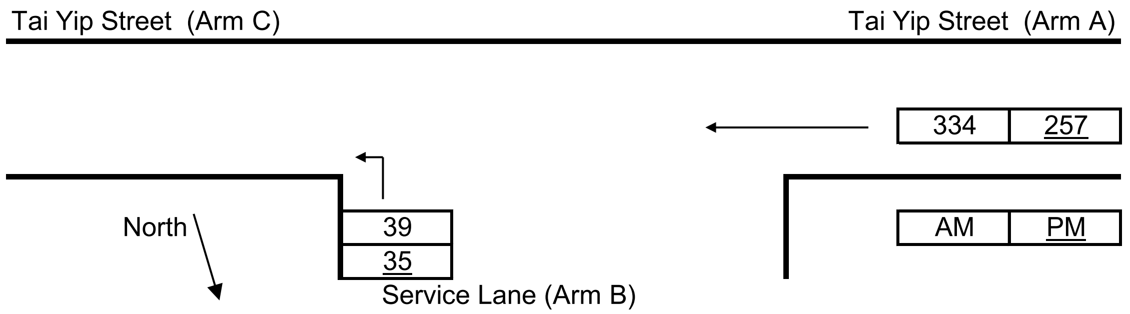
Note:



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 =

Priority Junction Analysis

Junction: Tai Yip Street / Service Lane
Design Year: 2032 Job Number: J7333 Date: 13 November 2024
Scenario: With the Proposed Development (644-bed RCHE and 200-room Hotel) P. A-3



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

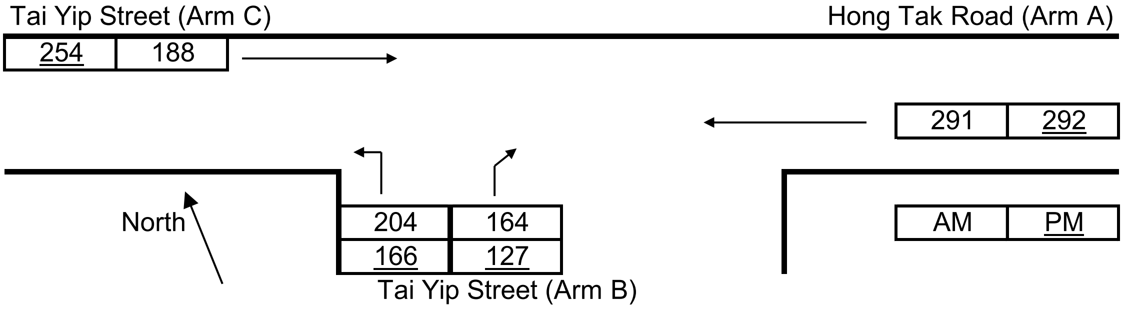
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	283	295
q-CB	0	0	Q-BC	720	744
q-AB	0	0	Q-CB	381	394
q-AC	334	257	Q-BAC	720	744
q-BA	0	0			
q-BC	39	35			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.054	0.047
C-B	0.000	0.000

Priority Junction Analysis

Junction: Hong Tak Road / Tai Yip Street
Design Year: 2032 Job Number: J7333 Date: 13 November 2024
Scenario: With the Proposed Development (644-bed RCHE and 200-room Hotel) P. A-4



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 :

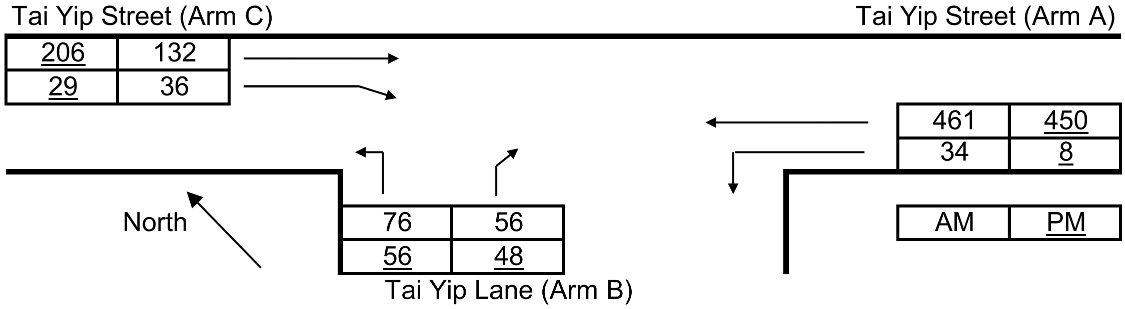
Traffic Flows, pcu/hr	AM	PM
q-CA	188	254
q-CB	0	0
q-AB	0	0
q-AC	291	292
q-BA	164	127
q-BC	204	166
f	0.554	0.567

Capacity, pcu/hr	AM	PM
Q-BA	404	395
Q-BC	553	553
Q-CB	391	391
Q-BAC	475	471

Ratio-of-flow to Capacity	AM	PM
B-A	0.406	0.322
B-C	0.369	0.300
C-B	0.000	0.000

Priority Junction Analysis

Junction: Tai Yip Street / Tai Yip Lane
Design Year: 2032 Job Number: J7333 Date: 13 November 2024
Scenario: With the Proposed Development (644-bed RCHE and 200-room Hotel) P. A-5



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

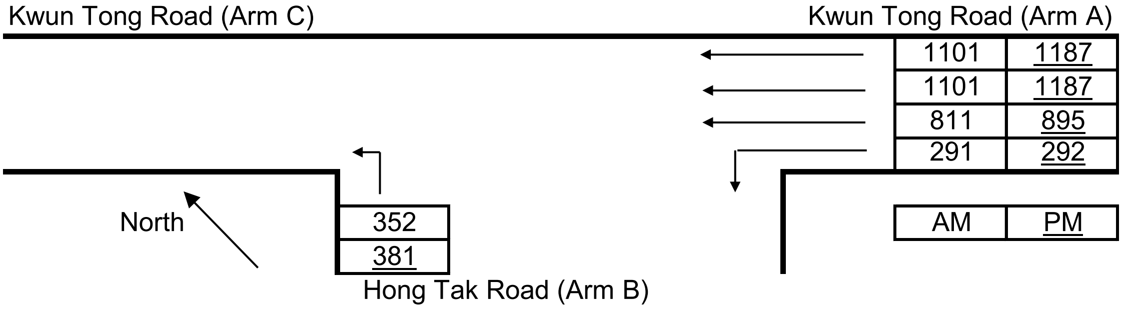
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	132	206	Q-BA	414	411
q-CB	36	29	Q-BC	603	608
q-AB	34	8	Q-CB	677	686
q-AC	461	450	Q-BAC	505	498
q-BA	56	48			
q-BC	76	56			
f	0.576	0.538			

Ratio-of-flow to Capacity	AM	PM
B-A	0.135	0.117
B-C	0.126	0.092
C-B	0.053	0.042

Priority Junction Analysis

Junction:	Kwun Tong Road / Hong Tak Road				
Design Year:	2032	Job Number:	J7333	Date:	13 November 2024
Scenario:	With the Proposed Development (644-bed RCHE and 200-room Hotel)				P. A-6



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	292	Q-CB	256	242
q-AC	811	895	Q-BAC	524	498
q-BA	0	0			
q-BC	352	381			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.672	0.765
C-B	0.000	0.000

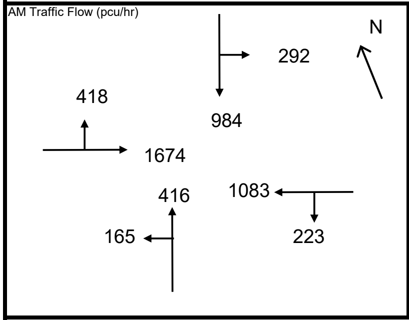
Signal Junction Analysis

Junction: Wai Yip Street / Lai Yip Street   Job Number: J7333
Scenario: With the Proposed Development (644-bed RCHE and 200-room Hotel)   P. A-7
Design Year: 2032   Designed By: ____________   Checked By: ____________   Date: 13 November 2024

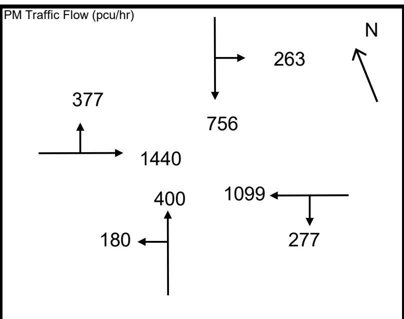
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street WB	SA+LT	A1	3	2.80	20.0		53	1943	422	0.217		62	1944	445	0.229	
	SA	A2	3	2.80				2035	442	0.217			2035	466	0.229	
	SA	A3	3	2.80				2035	442	0.217			2035	465	0.229	
Lai Yip Street SB	LT	B1	2	3.10	20.0		100	1971	292	0.148		100	1991	263	0.132	0.138
	SA	B2	1,2	3.10				2185	506	0.232			2198	390	0.177	
	SA	B3	1,2	3.10				2065	478	0.231			2065	366	0.177	
Wai Yip Street EB	SA+LT	C1	3	3.30	20.0		60	2101	701	0.334		61	2127	614	0.289	0.289
	SA	C2	3	3.30				2085	696	0.334	0.334		2085	602	0.289	
	SA	C3	3	3.30				2085	695	0.333			2085	601	0.288	
Lai Yip Street NB	SA+LT	D1	2	3.80	15.0		58	2066	286	0.138	0.148	63	2077	286	0.138	
	SA	D2	2	3.80				2135	295	0.138			2135	294	0.138	

pedestrian phase	Ep	3	min crossing time =	11	sec GM +	10	sec FGM =	21	sec
	Fp	1	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

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



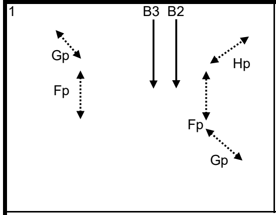
S=1940+100(W−3.25)   **S=2080+100(W−3.25)**

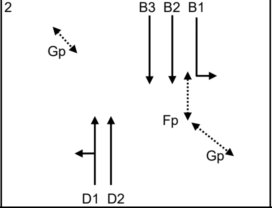
S_M=S÷(1+1.5f/r)   **S_M=(S−230)÷(1+1.5f/r)**

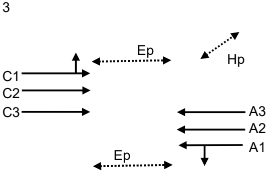
	AM Peak		PM Peak	
	2+3	1,2+3	2+3	1,2+3
Sum y	0.482	0.565	0.426	0.466
L (s)	39	10	39	10
C (s)	120	120	108	108
practical y	0.608	0.825	0.575	0.817
R.C. (%)	26%	46%	35%	75%

Note:

Junction Improvement Scheme by Other Project







AM	G = 18	I/G = 5	G =	I/G = 12	G =	I/G = 6	G =	I/G =	G =
	G =	I/G =	G =	I/G = 6	G =	I/G = 6	G =	I/G =	G =
PM	G = 18	I/G = 5	G =	I/G = 12	G =	I/G = 6	G =	I/G =	G =
	G =	I/G =	G =	I/G = 6	G =	I/G = 6	G =	I/G =	G =

Signal Junction Analysis

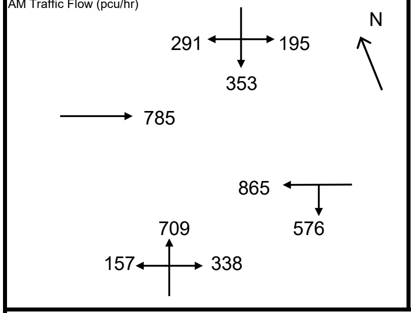
Junction: Kwun Tong Road / Lai Yip Street — Job Number: J7333

Scenario: With the Proposed Development (644-bed RCHE and 200-room Hotel) — P. A-8

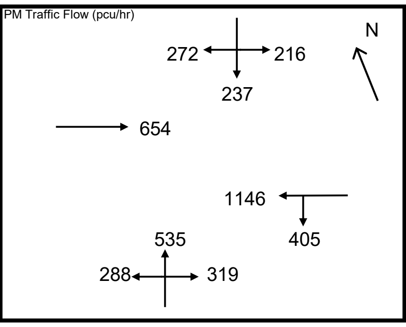
Design Year: 2032 — Designed By: ______ — Checked By: ______ — Date: 13 November 2024

							AM Peak					PM Peak				
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	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	LT	B1	5	3.30	30.0		100	2035	157	0.077		100	2052	288	0.140	
	SA	B2	5	3.30				2085	524	0.251			2085	427	0.205	
	SA	B3	5	3.30				2085	523	0.251			2085	427	0.205	
Elegance Road NB	SA	B4	5	3.50				2105	360	0.171			2105	295	0.140	
	SA+RT	B5	5	3.50	18.0		3	2100	359	0.171		18	2074	291	0.140	
	RT	B6	5	3.50	15.0		100	1914	328	0.171		100	1914	268	0.140	
Kwun Tong Road WB	LT	C1	1,5	3.30	15.0		100	1768	576	0.326	0.326	100	1768	405	0.229	0.229
	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	573	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)



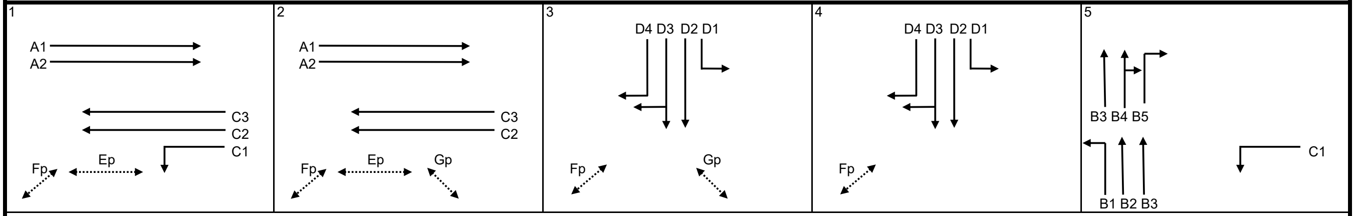
$S=1940+100(W-3.25)$		$S=2080+100(W-3.25)$		
$S_M=S\div(1+1.5f/r)$		$S_M=(S-230)\div(1+1.5f/r)$		
	AM Peak		PM Peak	
	2+4+5		2+3+5	
Sum y	0.641		0.622	
L (s)	15		20	
C (s)	118		108	
practical y	0.786		0.733	
R.C. (%)	23%		18%	

Note:

1) Junction Improvement Scheme by Other Project

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

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



	1	2	3	4	5
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

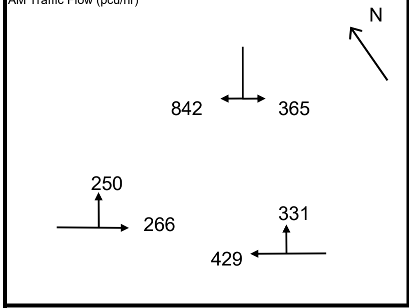
Signal Junction Analysis

Junction: Hoi Bun Road / Lai Yip Street   Job Number: J7333
Scenario: With the Proposed Development (644-bed RCHE and 200-room Hotel)   P. A-9
Design Year: 2032   Designed By: ____________   Checked By: ____________   Date: 13 November 2024

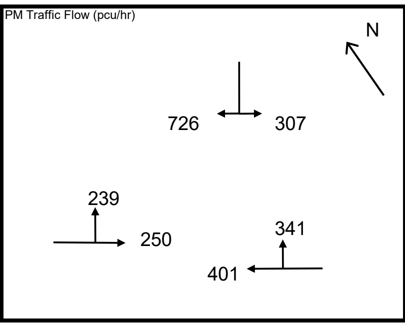
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hoi Bun Road EB	LT*	A1	1	3.65	15.0		100	1800	250	0.139	0.139	100	1800	239	0.133	0.133
	SA*	A2	1	3.65				2120	266	0.125			2120	250	0.118	
Hoi Bun Road WB	SA	B1	1,2	3.30				1945	429	0.221			1945	401	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		100	1795	307	0.171	0.185
	RT	C2	3	3.30	25.0		100	1967	423	0.215	0.215	100	1967	364	0.185	
	RT	C3	3	3.30	22.0		100	1952	419	0.215		100	1952	362	0.185	

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)



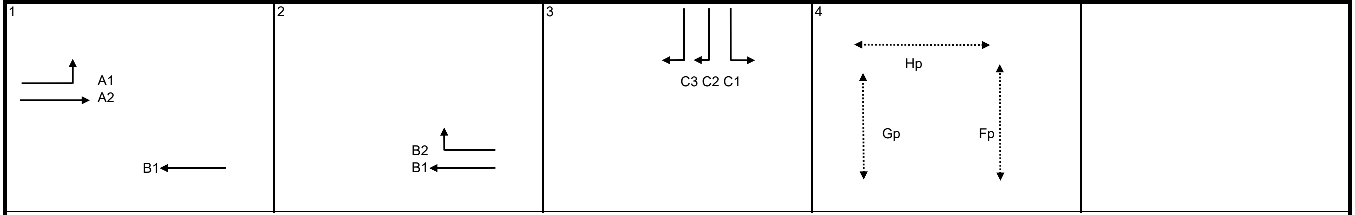
$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$

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

	AM Peak		PM Peak	
	1+2+3		1+2+3	
Sum y	0.525		0.494	
L (s)	35		35	
C (s)	118		108	
practical y	0.633		0.608	
R.C. (%)	21%		23%	

Note:

*Junction Improvement Scheme by Other Project



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 =

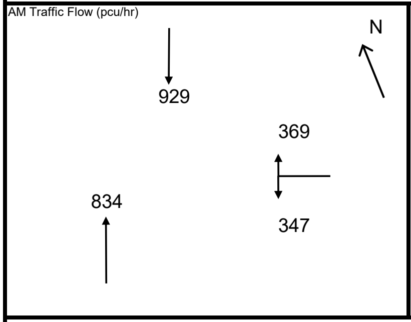
Signal Junction Analysis

Junction: Lai Yip Street / Hung To Road — Job Number: J7333
Scenario: With the Proposed Development (644-bed RCHE and 200-room Hotel) — P. A-10
Design Year: 2032 — Designed By: ____ — Checked By: ____ — Date: 13 November 2024

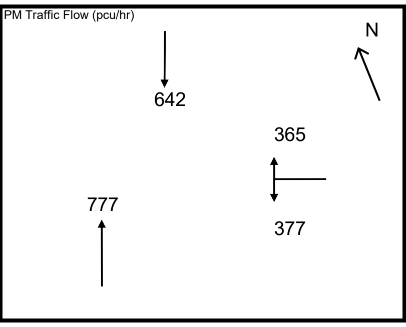
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Lai Yip Street SB	SA	A1	1	3.50				1965	449	0.228	0.228		1965	310	0.158	
	SA	A2	1	3.50				2105	480	0.228			2105	332	0.158	
Lai Yip Street NB	SA	B1	1	3.50				1965	403	0.205			1965	375	0.191	0.191
	SA	B2	1	3.50				2105	431	0.205			2105	402	0.191	
Hung To Road WB	LT	C1	2	3.50	15.0											
	LT+RT	C2*	2	3.50	18.0		100	1943	716	0.369	0.369	100	1943	742	0.382	0.382
	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)

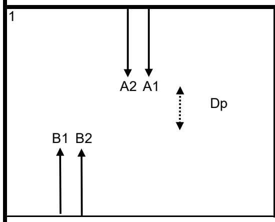
S_M=S÷(1+1.5f/r) S_M=(S–230)÷(1+1.5f/r)

	AM Peak		PM Peak	
	1+2		1+2	
Sum y	0.597		0.573	
L (s)	14		11	
C (s)	120		108	
practical y	0.795		0.808	
R.C. (%)	33%		41%	

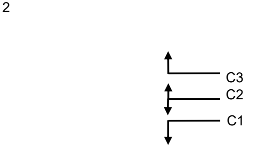
Note:

Assume that phases C1 and C3 are blocked due to on-street parking activities along Hung To Road

1

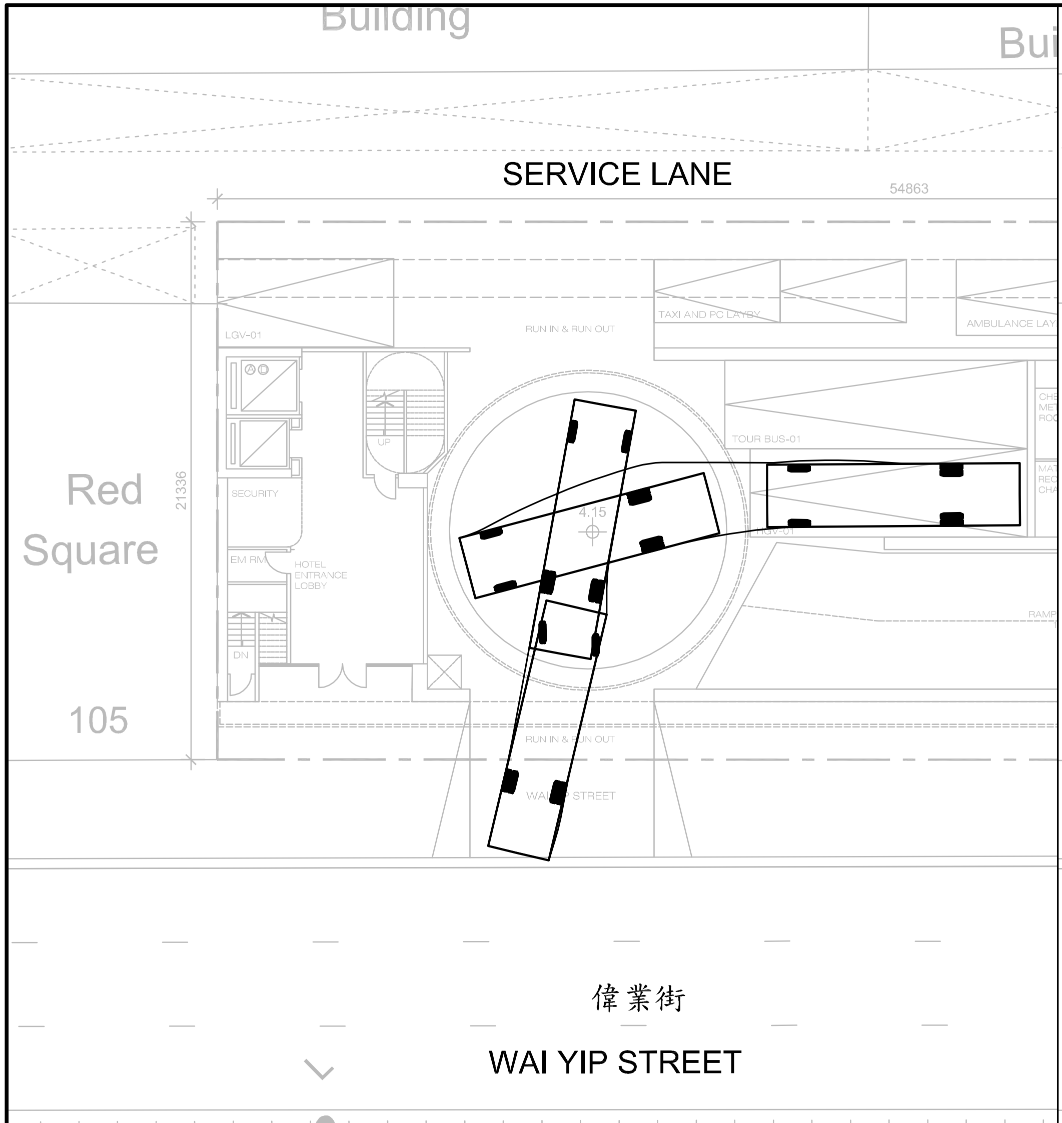


2

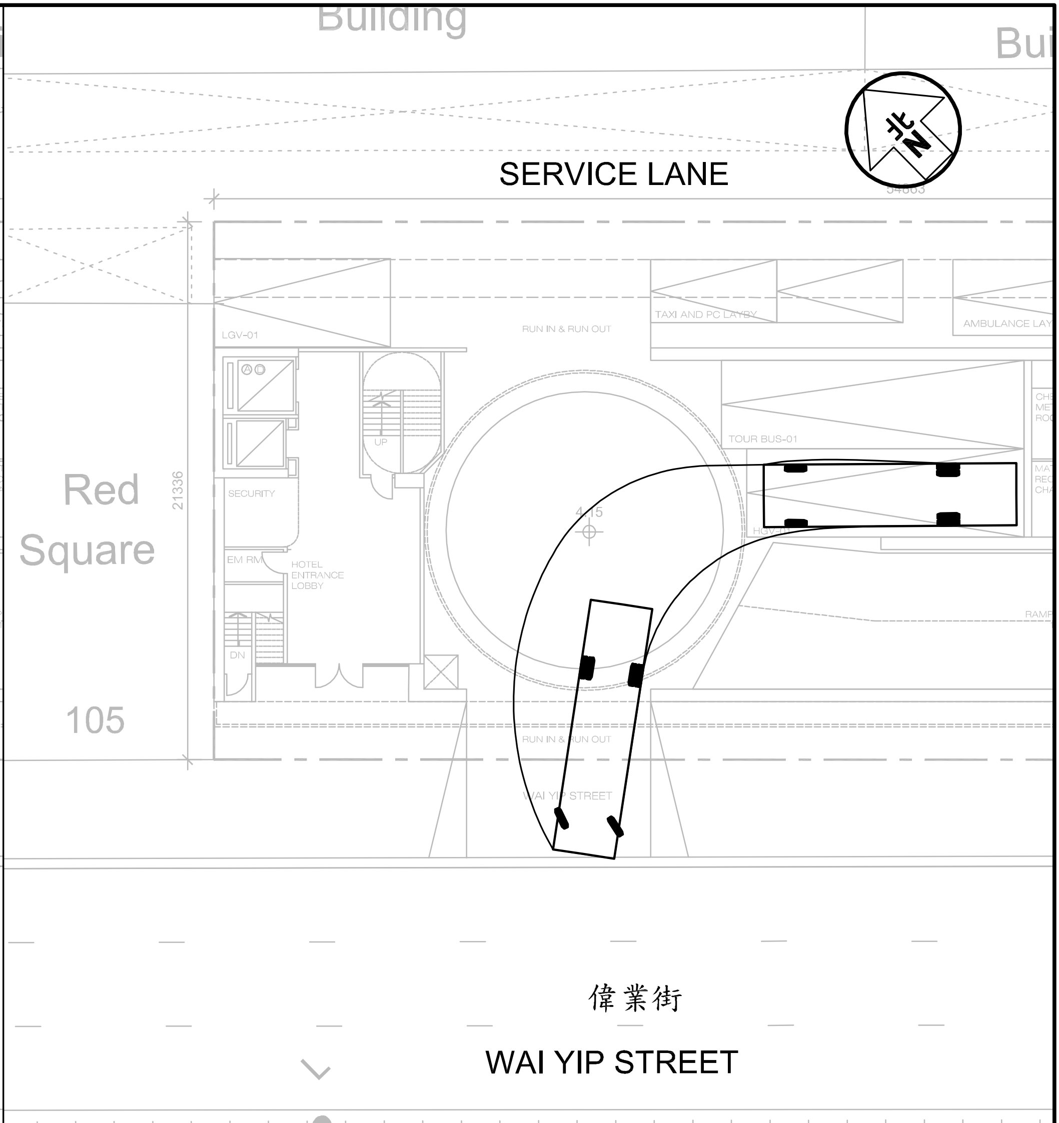


AM	G =	I/G = 10	G =	I/G = 6	G =	I/G =	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	

Appendix 2 –
Swept Path Analysis


Building
Bui
SERVICE LANE
54863
Red Square
105
21336
LGV-01
RUN IN & RUN OUT
TAXI AND PC LAYBY
AMBULANCE LAY
SECURITY
EM RM
HOTEL ENTRANCE LOBBY
UP
DN
TOUR BUS-01
4.15
RAMP
WAI YIP STREET
偉業街
WAI YIP STREET

HGV ENTERING THE
LOADING / UNLOADING BAY


Building
Bui
北
N
SERVICE LANE
Red Square
105
21336
LGV-01
RUN IN & RUN OUT
TAXI AND PC LAYBY
AMBULANCE LAY
SECURITY
EM RM
HOTEL ENTRANCE LOBBY
UP
DN
TOUR BUS-01
4.15
RAMP
WAI YIP STREET
偉業街
WAI YIP STREET

HGV LEAVING THE
LOADING / UNLOADING BAY

Project Title
S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG
J7333

Figure Title
SWEPT PATH OF HEAVY GOODS VEHICLE ENTERING AND LEAVING
THE HGV LOADING / UNLOADING BAY HGV-01 ON G/F

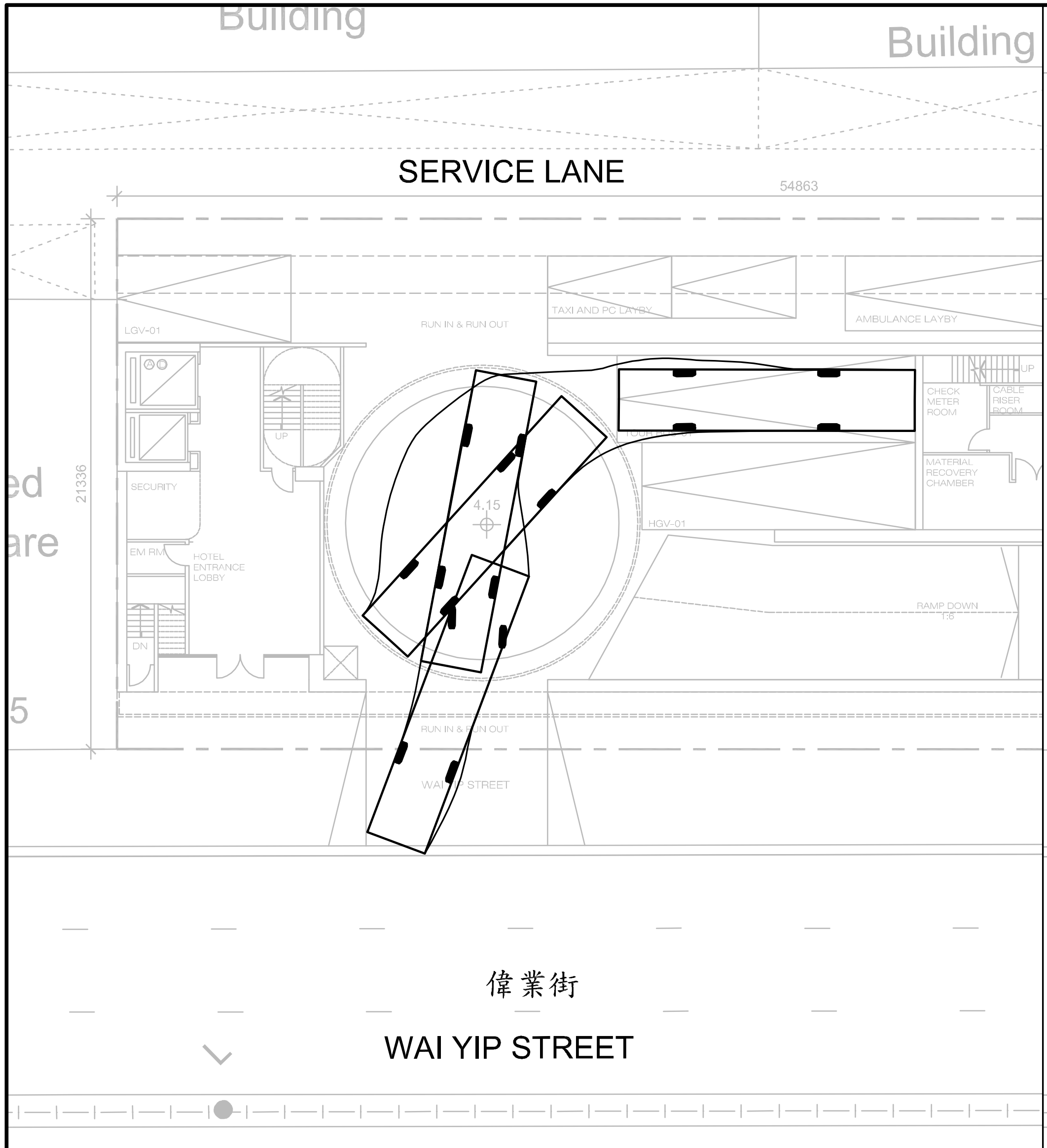
Figure No.	Revision
SP1	R1B

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

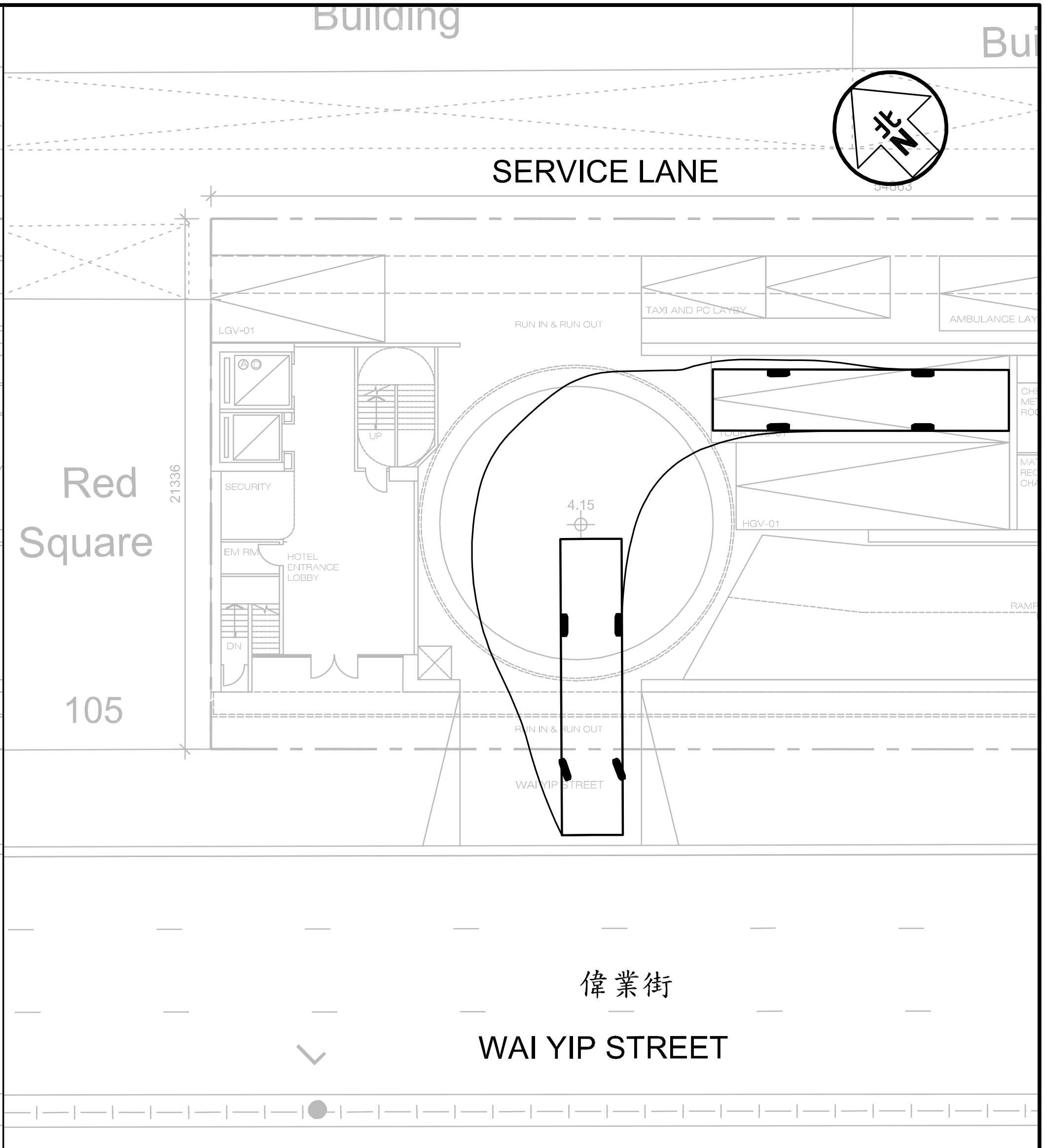
Scale in A4	Date
1 : 300	09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig SP1 - SP8 RevR1B.dwg


Building
Building
SERVICE LANE
54863
21336
LGV-01
RUN IN & RUN OUT
TAXI AND PC LAYBY
AMBULANCE LAYBY
CHECK METER ROOM
CABLE RISER ROOM
UP
SECURITY
EM RM
HOTEL ENTRANCE LOBBY
DN
4.15
HGV-01
MATERIAL RECOVERY CHAMBER
RAMP DOWN 1:8
RUN IN & RUN OUT
WAI YIP STREET
ed
are
5
偉業街
WAI YIP STREET

COACH ENTERING

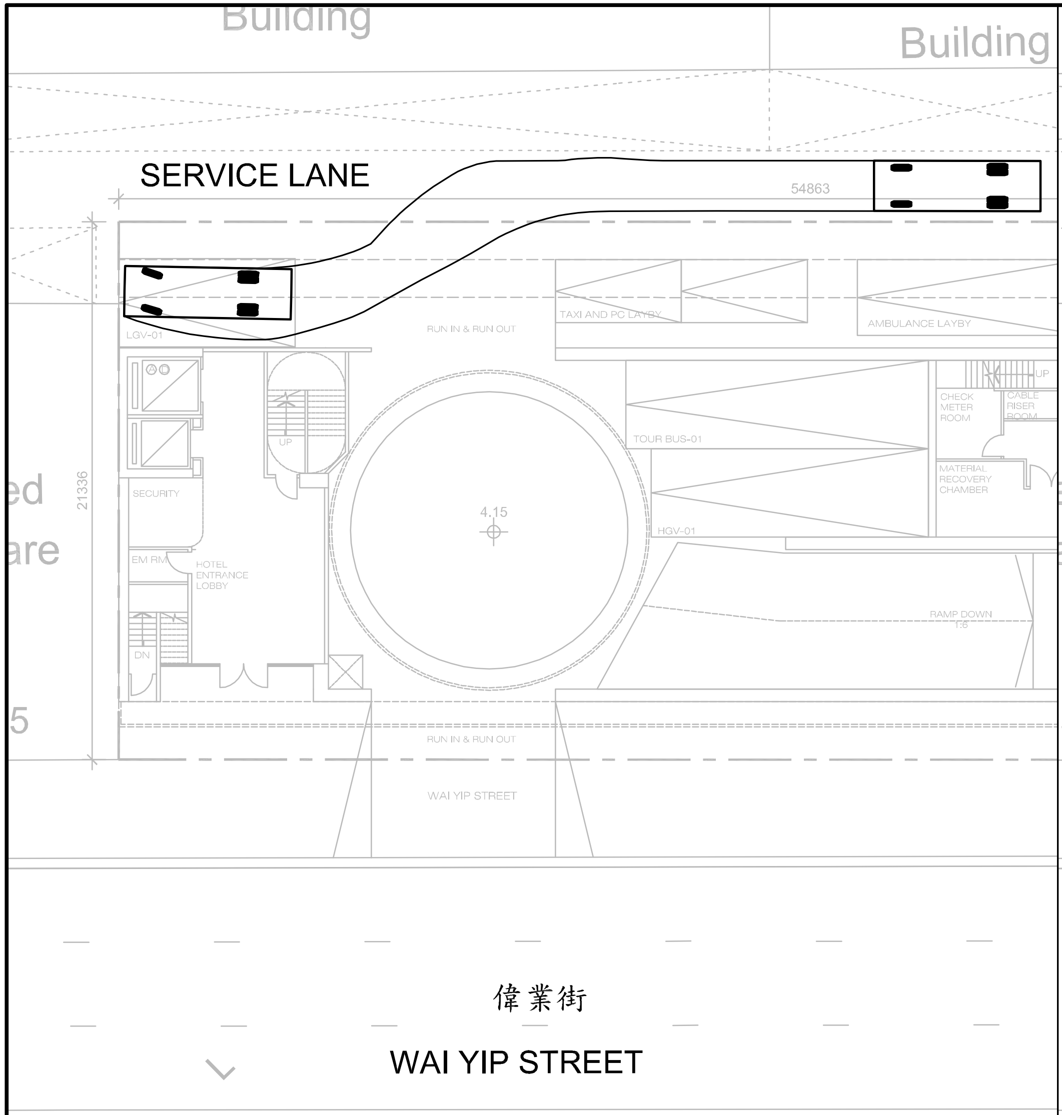

Building
Bui
SERVICE LANE
54863
21336
北 N
LGV-01
RUN IN & RUN OUT
TAXI AND PC LAYBY
AMBULANCE LAY
UP
SECURITY
EM RM
HOTEL ENTRANCE LOBBY
DN
4.15
HGV-01
Red
Square
105
RUN IN & RUN OUT
WAI YIP STREET
偉業街
WAI YIP STREET

COACH LEAVING

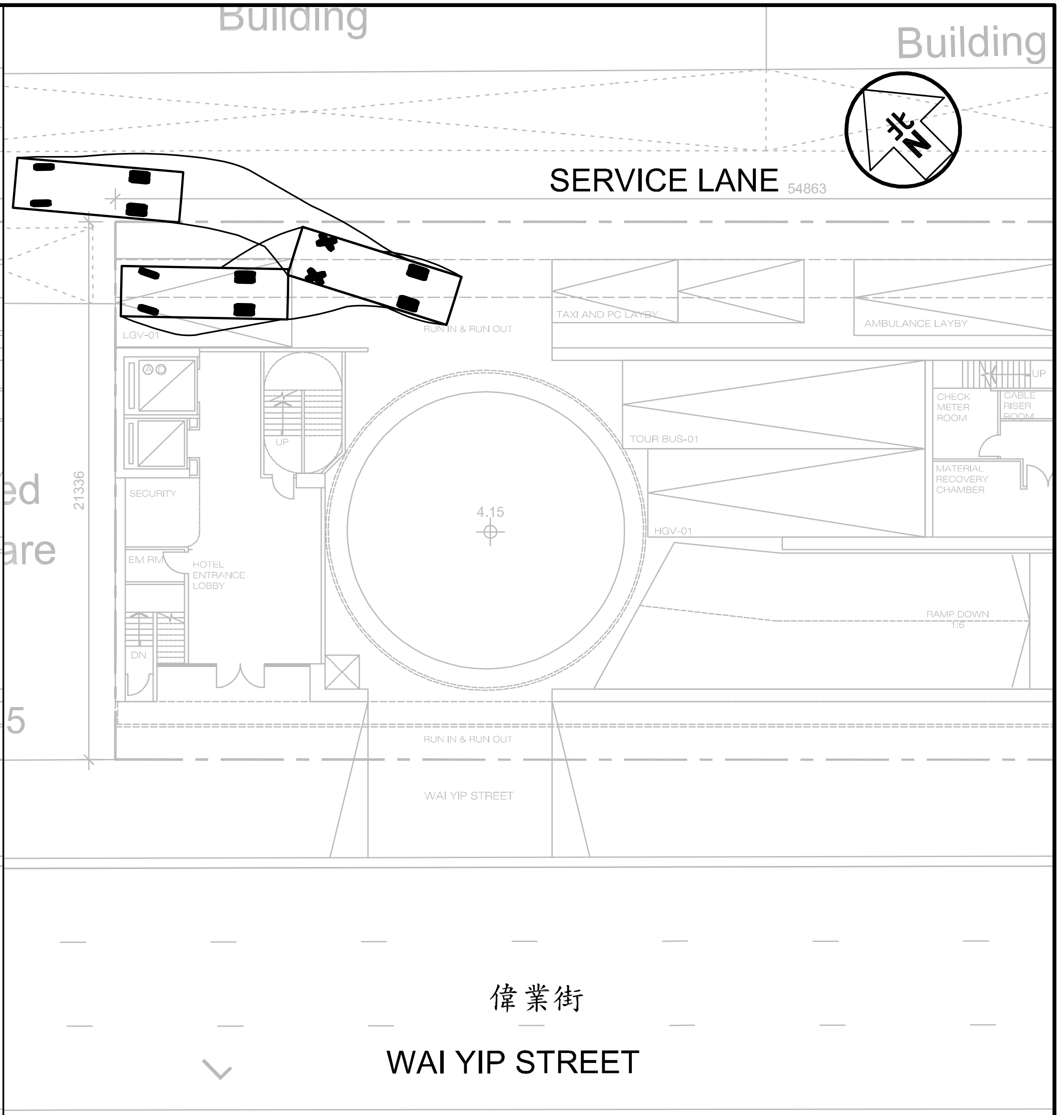
Project Title	S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG J7333
Figure Title	SWEPT PATH OF COACH ENTERING AND LEAVING THE SINGLE-DECK TOUR BUS LAYBY TOUR BUS-01 ON G/F
Figure No.	SP2
Revision	R1B
Designed by	C Y Y
Drawn by	N C M
Checked by	K C
Scale in A4	1 : 300
Date	09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig SP1 - SP8 RevR1B.dwg


Building
Building
SERVICE LANE
54863
LGV-01
RUN IN & RUN OUT
TAXI AND PC LAYBY
AMBULANCE LAYBY
21336
SECURITY
EM RM
HOTEL ENTRANCE LOBBY
UP
DN
4.15
TOUR BUS-01
HGV-01
CHECK METER ROOM
CABLE RISER ROOM
MATERIAL RECOVERY CHAMBER
RAMP DOWN 1:8
RUN IN & RUN OUT
WAI YIP STREET
偉業街
WAI YIP STREET
ed
are
5

LGV ENTERING THE LOADING / UNLOADING


Building
Building
北
N
SERVICE LANE
54863
LGV-01
RUN IN & RUN OUT
TAXI AND PC LAYBY
AMBULANCE LAYBY
21336
SECURITY
EM RM
HOTEL ENTRANCE LOBBY
UP
DN
4.15
TOUR BUS-01
HGV-01
CHECK METER ROOM
CABLE RISER ROOM
MATERIAL RECOVERY CHAMBER
RAMP DOWN 1:8
RUN IN & RUN OUT
WAI YIP STREET
偉業街
WAI YIP STREET
ed
are
5

LGV LEAVING THE LOADING / UNLOADING

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

SWEPT PATH OF LGV ENTERING AND LEAVING
THE LGV LOADING / UNLOADING BAY LGV-01 ON G/F

Figure No.	Revision
SP3	R1B

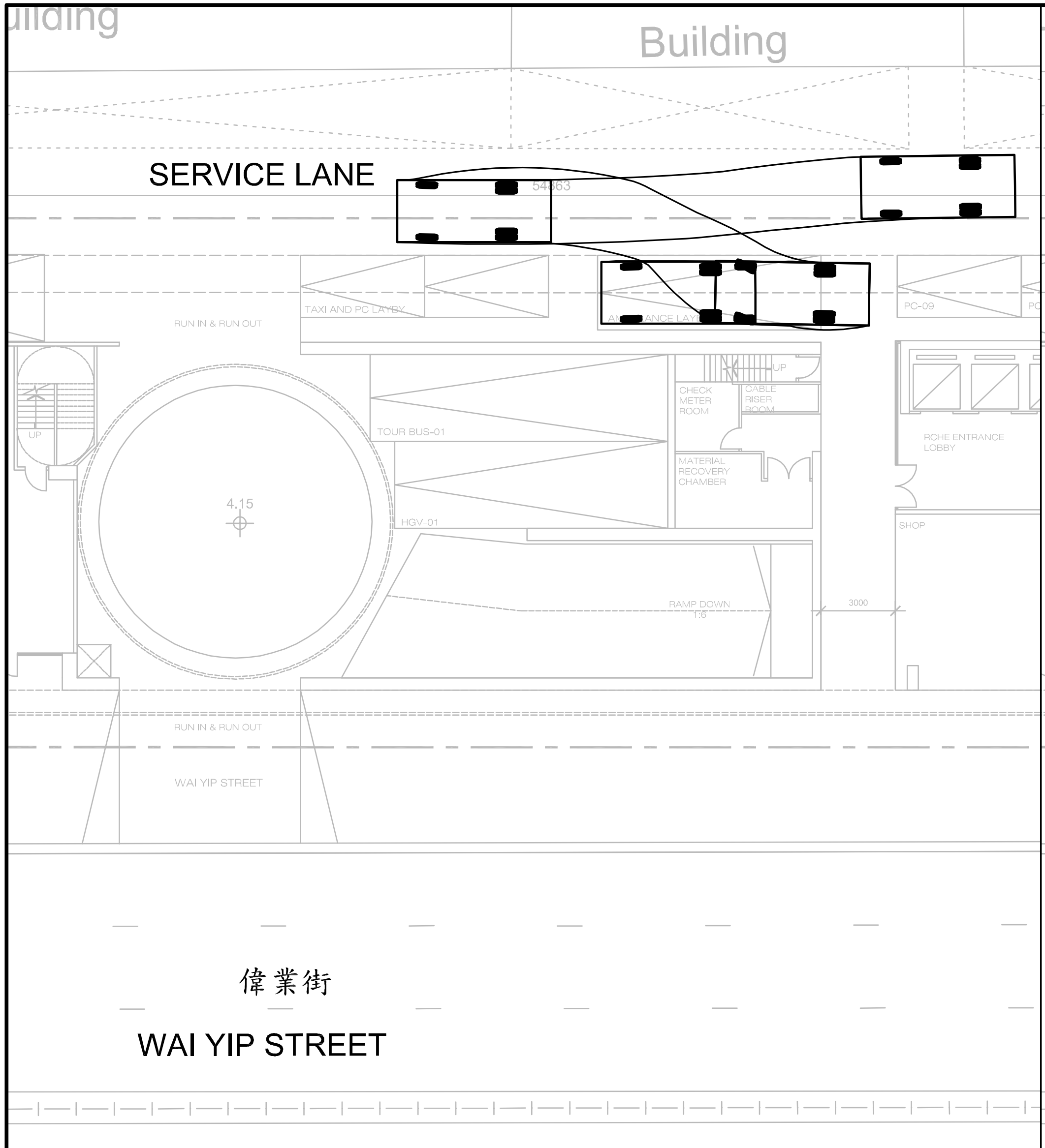
Designed by	Drawn by	Checked by
C Y Y	N C M	K C

Scale in A4	Date
1 : 300	09 DEC 2024

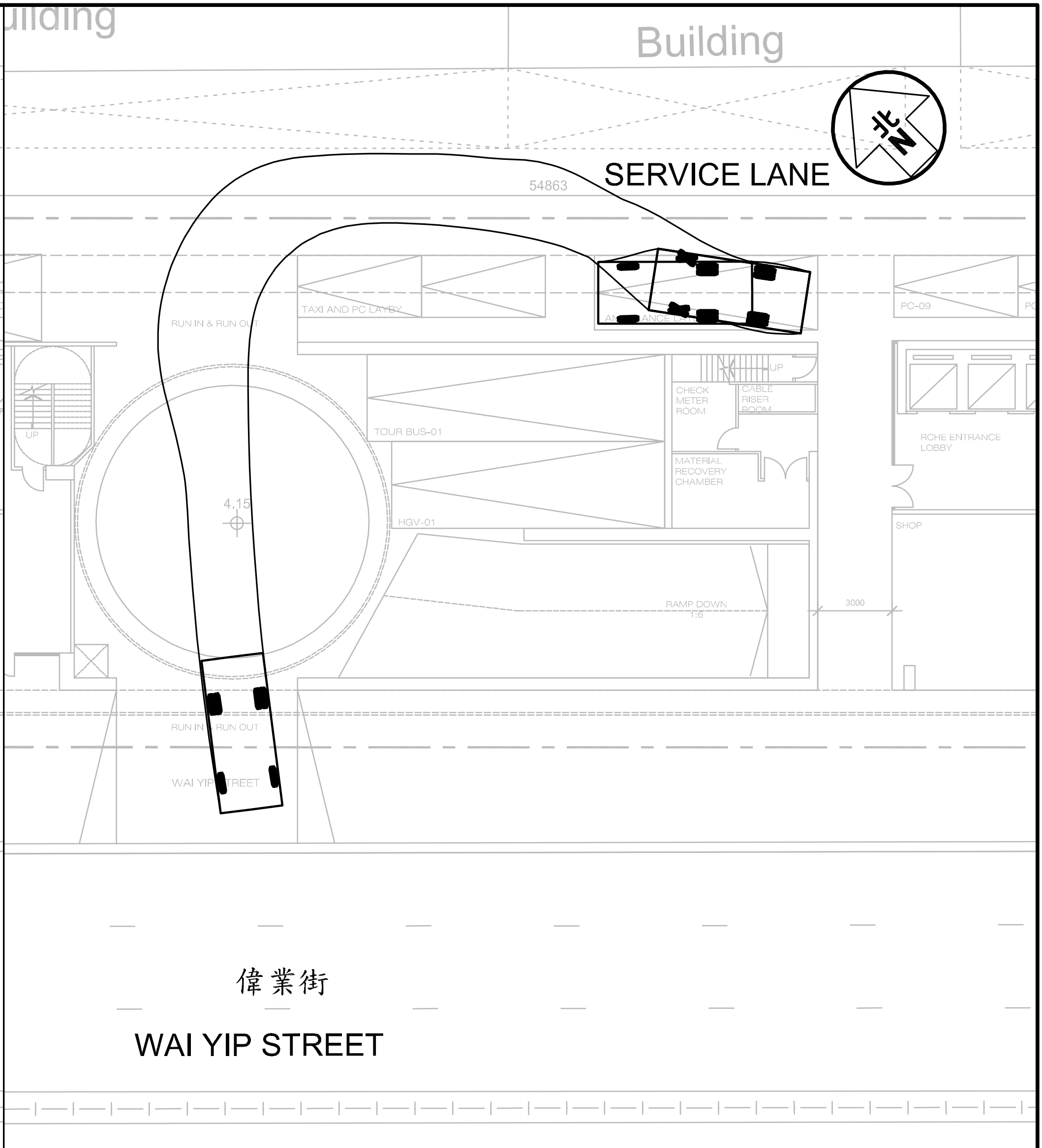
CKM Asia Limited
Traffic and Transportation Planning Consultants

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\J7300-J7349\J7333\2024 12\Fig SP1 - SP8 RevR1B.dwg


Building
SERVICE LANE
54863
TAXI AND PC LAYBY
AMBULANCE LAYBY
PC-09
RUN IN & RUN OUT
UP
CHECK METER ROOM
CABLE RISER ROOM
TOUR BUS-01
MATERIAL RECOVERY CHAMBER
RCHE ENTRANCE LOBBY
4.15
HGV-01
SHOP
RAMP DOWN 1:6
3000
RUN IN & RUN OUT
WAI YIP STREET
偉業街
WAI YIP STREET

AMBULANCE ENTERING


Building
北
N
SERVICE LANE
54863
TAXI AND PC LAYBY
AMBULANCE LAYBY
PC-09
RUN IN & RUN OUT
UP
CHECK METER ROOM
CABLE RISER ROOM
TOUR BUS-01
MATERIAL RECOVERY CHAMBER
RCHE ENTRANCE LOBBY
4.15
HGV-01
SHOP
RAMP DOWN 1:6
3000
RUN IN & RUN OUT
WAI YIP STREET
偉業街
WAI YIP STREET

AMBULANCE LEAVING

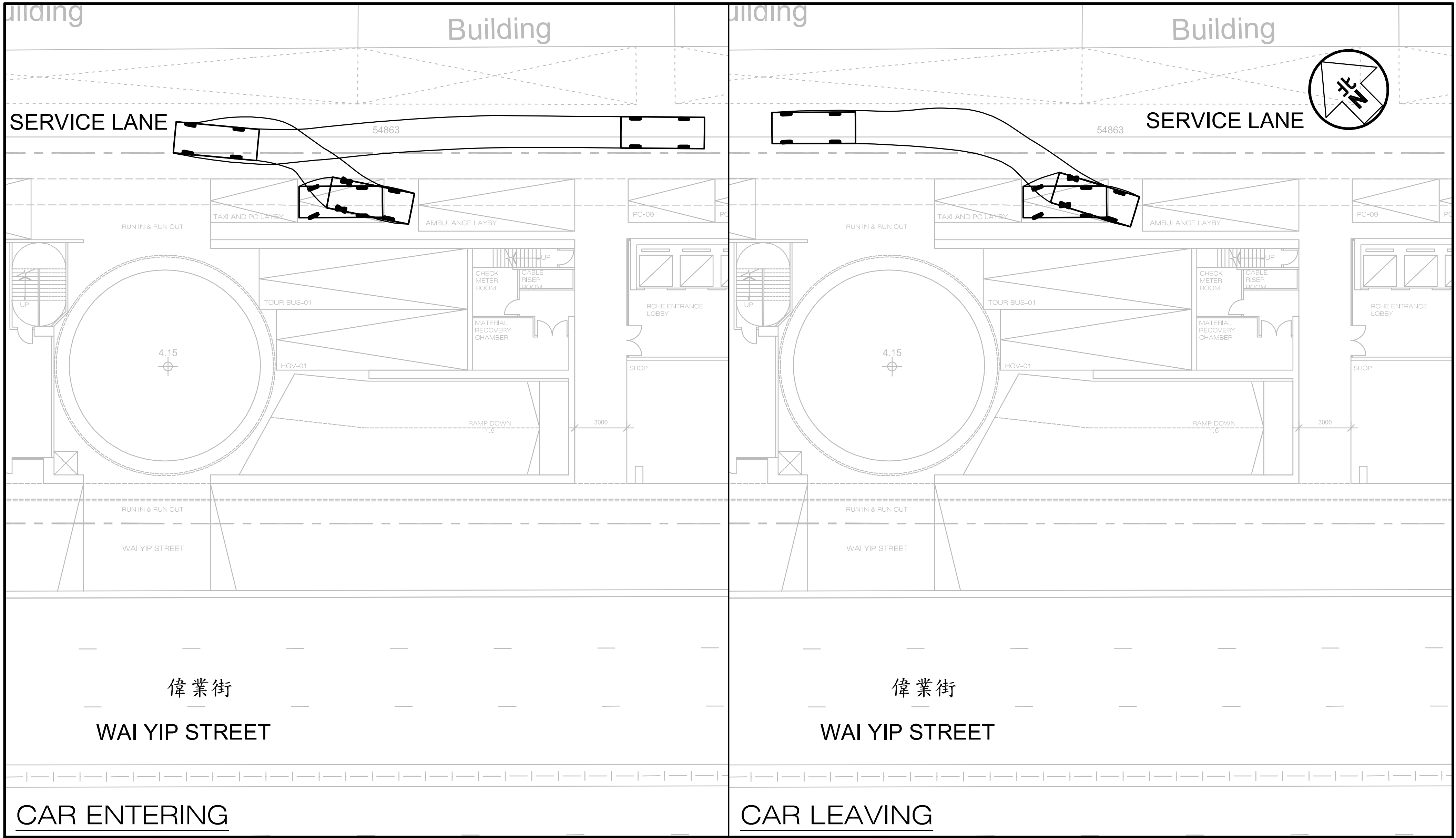
Project Title
S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES FOR THE ELDERLY AND HOTEL AT 107–109 WAI YIP STREET, KWUN TONG
J7333

Figure Title
SWEPT PATH OF AMBULANCE ENTERING AND LEAVING THE AMBULANCE LAYBY ON G/F

Figure No. SP4
Revision R1B
Designed by C Y Y
Drawn by N C M
Checked by K C
Scale in A4 1 : 300
Date 09 DEC 2024

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\J7300-J7349\J7333\2024 12\Fig SP1 - SP8 RevR1B.dwg


Building
SERVICE LANE
54863
北 N
TAXI AND PC LAYBY
AMBULANCE LAYBY
PC-09
RUN IN & RUN OUT
UP
CHECK METER ROOM
CABLE RISER ROOM
TOUR BUS-01
RCHE ENTRANCE LOBBY
MATERIAL RECOVERY CHAMBER
4.15
HGV-01
SHOP
RAMP DOWN 1:6
3000
WAI YIP STREET
偉業街
WAI YIP STREET
CAR ENTERING
CAR LEAVING

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE TAXI AND PRIVATE CAR LAYBY ON G/F

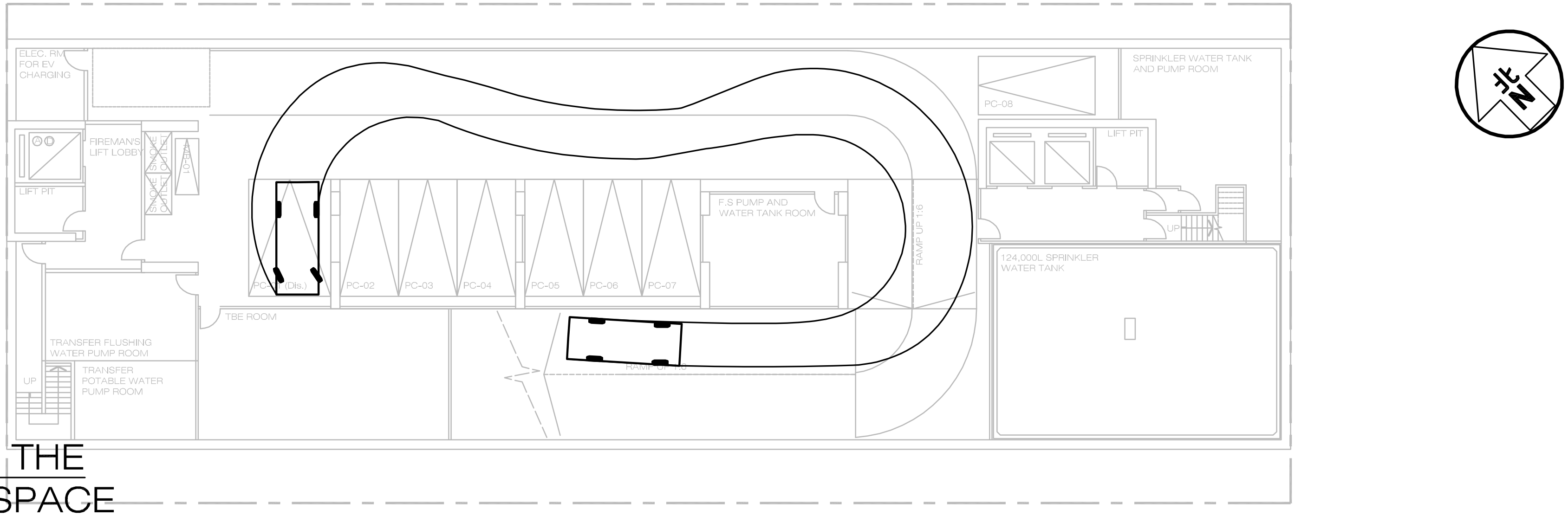
Figure No.	Revision
SP5	R1B

Designed by	Drawn by	Checked by
CYY	NCM	KC

Scale in A4	Date
1 : 300	09 DEC 2024

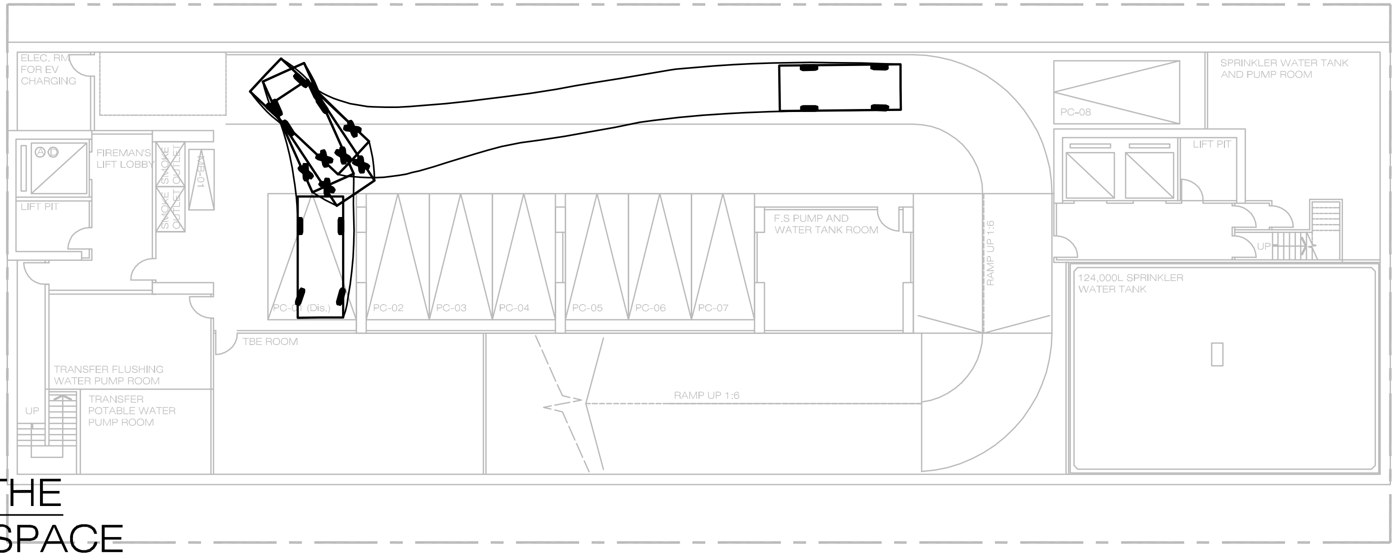
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7300-J7349\J7333\2024 12\Fig SP1 - SP8 RevR1B.dwg



ELEC. RM FOR EV CHARGING
FIREMAN'S LIFT LOBBY
LIFT PIT
SMOKE OUTLET
PC-01 (Dis.)
PC-02
PC-03
PC-04
PC-05
PC-06
PC-07
PC-08
F.S PUMP AND WATER TANK ROOM
RAMP UP 1:6
SPRINKLER WATER TANK AND PUMP ROOM
LIFT PIT
UP
124,000L SPRINKLER WATER TANK
TBE ROOM
TRANSFER FLUSHING WATER PUMP ROOM
TRANSFER POTABLE WATER PUMP ROOM
UP
北 N

CAR ENTERING THE CAR PARKING SPACE



ELEC. RM FOR EV CHARGING
FIREMAN'S LIFT LOBBY
LIFT PIT
SMOKE OUTLET
PC-01 (Dis.)
PC-02
PC-03
PC-04
PC-05
PC-06
PC-07
PC-08
F.S PUMP AND WATER TANK ROOM
RAMP UP 1:6
SPRINKLER WATER TANK AND PUMP ROOM
LIFT PIT
UP
124,000L SPRINKLER WATER TANK
TBE ROOM
RAMP UP 1:6
TRANSFER FLUSHING WATER PUMP ROOM
TRANSFER POTABLE WATER PUMP ROOM
UP

CAR LEAVING THE CAR PARKING SPACE

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG

J7333

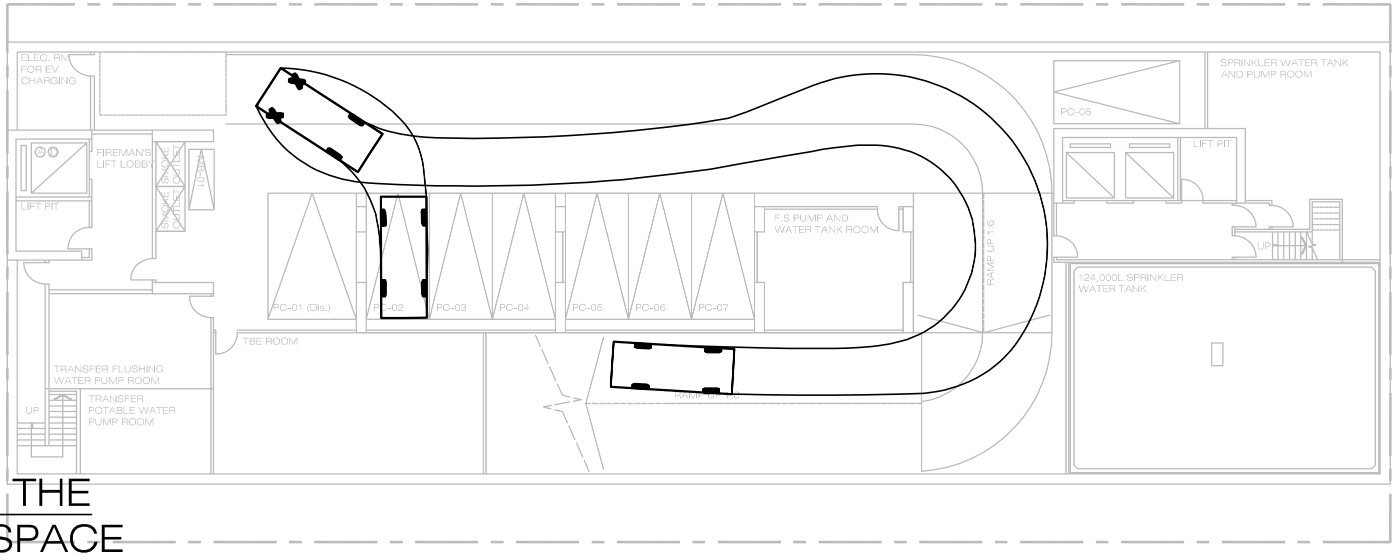
Figure Title

SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE PC-01 ON B1/F

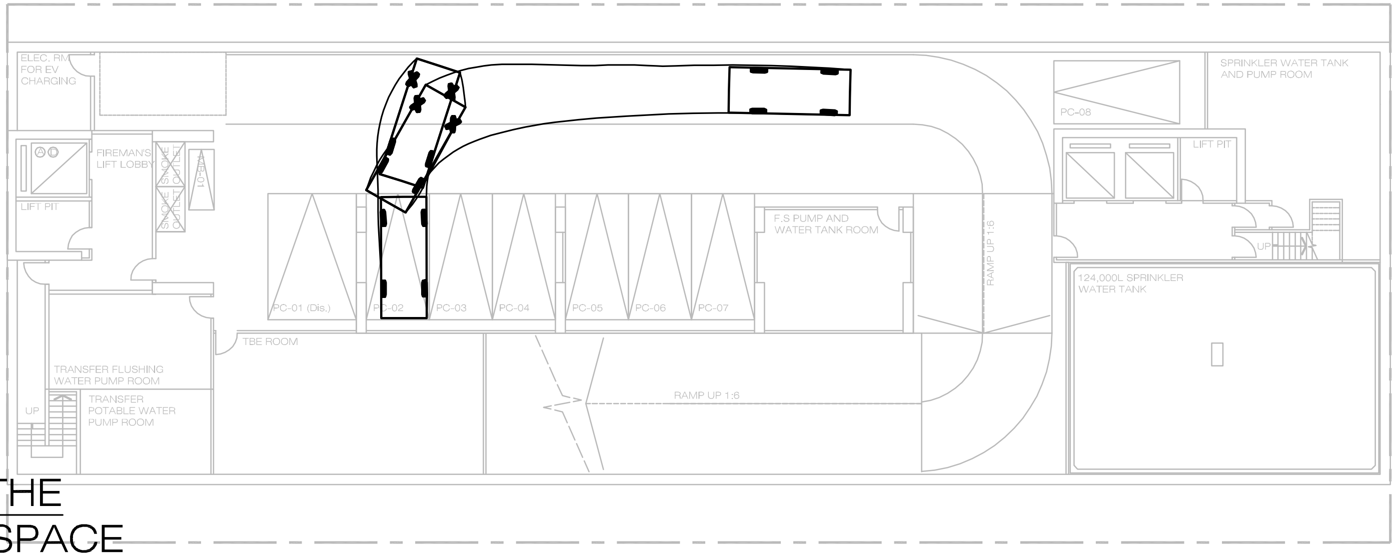
Figure No.		Revision
SP6		R1B
Designed by	Drawn by	Checked by
C Y Y	N C M	K C
Scale in A4	Date	
1 : 300	09 DEC 2024	

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\J7300-J7349\J7333\2024 12\Fig SP1 - SP8 RevR1B.dwg


ELEC. RM FOR EV CHARGING
FIREMAN'S LIFT LOBBY
LIFT PIT
TBE ROOM
TRANSFER FLUSHING WATER PUMP ROOM
TRANSFER POTABLE WATER PUMP ROOM
UP
PC-01 (Dis.)
PC-02
PC-03
PC-04
PC-05
PC-06
PC-07
PC-08
F.S PUMP AND WATER TANK ROOM
RAMP UP 1:6
SPRINKLER WATER TANK AND PUMP ROOM
LIFT PIT
124,000L SPRINKLER WATER TANK
UP

CAR ENTERING THE
CAR PARKING SPACE


ELEC. RM FOR EV CHARGING
FIREMAN'S LIFT LOBBY
LIFT PIT
TBE ROOM
TRANSFER FLUSHING WATER PUMP ROOM
TRANSFER POTABLE WATER PUMP ROOM
UP
PC-01 (Dis.)
PC-02
PC-03
PC-04
PC-05
PC-06
PC-07
PC-08
F.S PUMP AND WATER TANK ROOM
RAMP UP 1:6
RAMP UP 1:6
SPRINKLER WATER TANK AND PUMP ROOM
LIFT PIT
124,000L SPRINKLER WATER TANK
UP

CAR LEAVING THE
CAR PARKING SPACE

Project Title
S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107-109 WAI YIP STREET, KWUN TONG
J7333

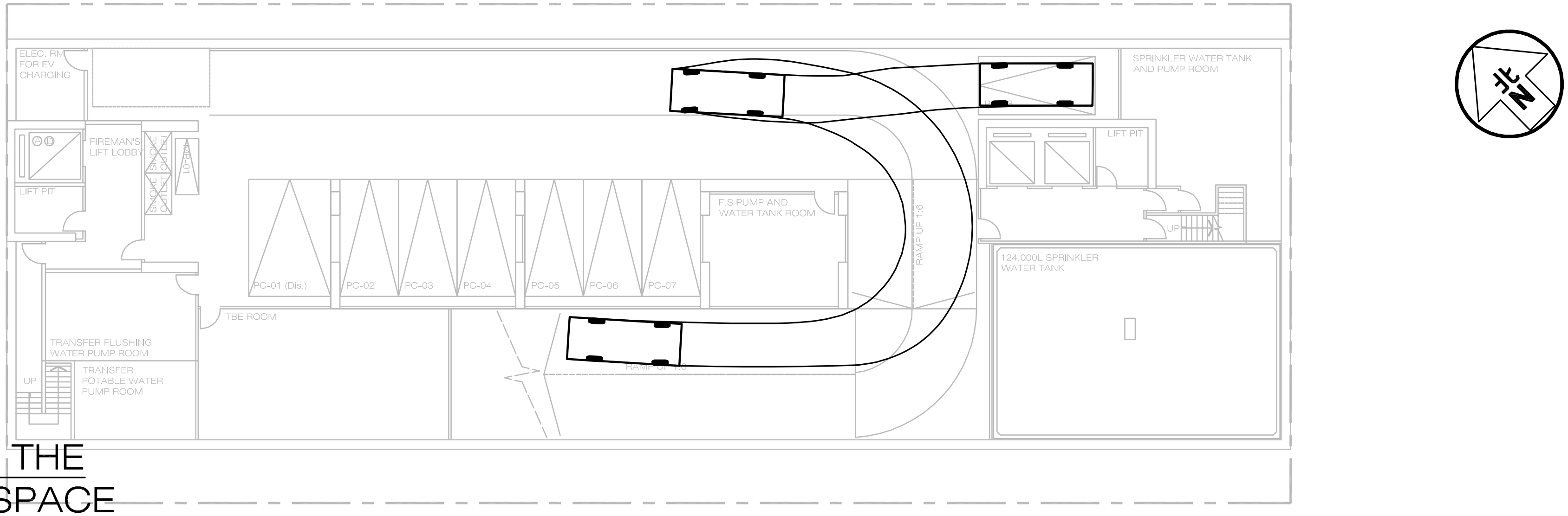
Figure Title
SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING
THE CAR PARKING SPACE PC-02 ON B1/F

Figure No.		Revision
SP7		R1B
Designed by	Drawn by	Checked by
C Y Y	N C M	K C
Scale in A4	Date	
1 : 300	09 DEC 2024	

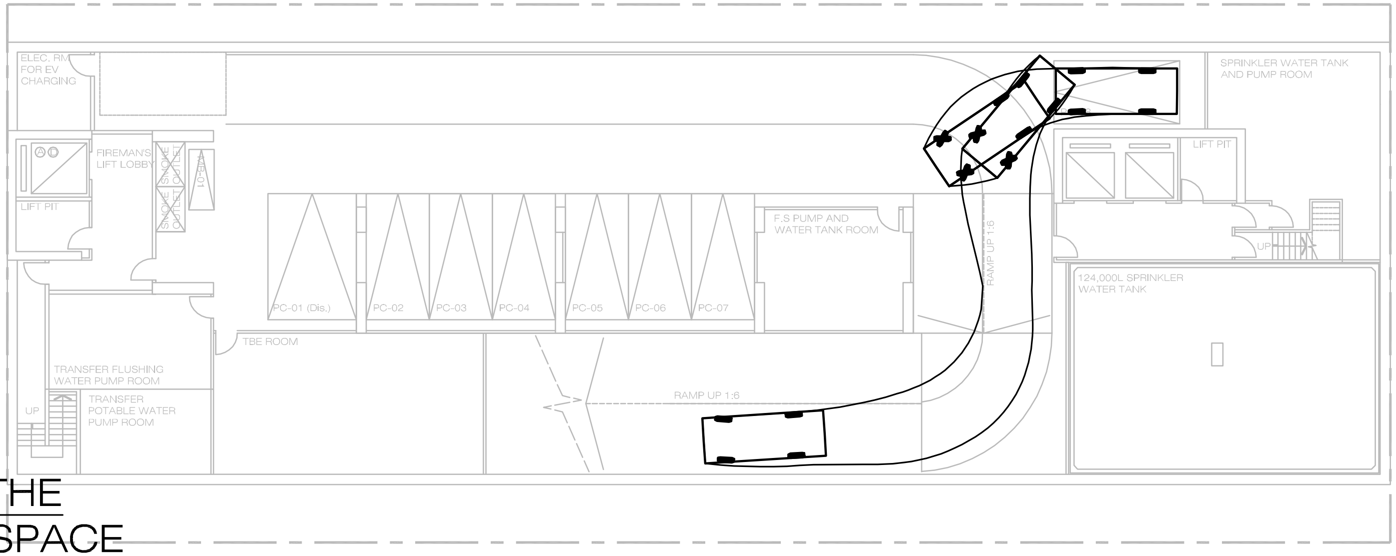
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7300-J7349\J7333\2024 12\Fig SP1 - SP8 RevR1B.dwg

CAR ENTERING THE CAR PARKING SPACE


ELEC. RM FOR EV CHARGING
FIREMAN'S LIFT LOBBY
LIFT PIT
PC-01 (Dis.)
PC-02
PC-03
PC-04
PC-05
PC-06
PC-07
F.S PUMP AND WATER TANK ROOM
RAMP UP 1:6
SPRINKLER WATER TANK AND PUMP ROOM
LIFT PIT
UP
124,000L SPRINKLER WATER TANK
TBE ROOM
TRANSFER FLUSHING WATER PUMP ROOM
TRANSFER POTABLE WATER PUMP ROOM
UP
RAMP UP 1:6
北
N

CAR LEAVING THE CAR PARKING SPACE


ELEC. RM FOR EV CHARGING
FIREMAN'S LIFT LOBBY
LIFT PIT
PC-01 (Dis.)
PC-02
PC-03
PC-04
PC-05
PC-06
PC-07
F.S PUMP AND WATER TANK ROOM
RAMP UP 1:6
SPRINKLER WATER TANK AND PUMP ROOM
LIFT PIT
UP
124,000L SPRINKLER WATER TANK
TBE ROOM
TRANSFER FLUSHING WATER PUMP ROOM
TRANSFER POTABLE WATER PUMP ROOM
UP
RAMP UP 1:6

Project Title

S12A AMENDMENT OF PLAN APPLICATION FOR THE PROPOSED RESIDENTIAL CARE HOMES
FOR THE ELDERLY AND HOTEL AT 107–109 WAI YIP STREET, KWUN TONG

J7333

Figure Title

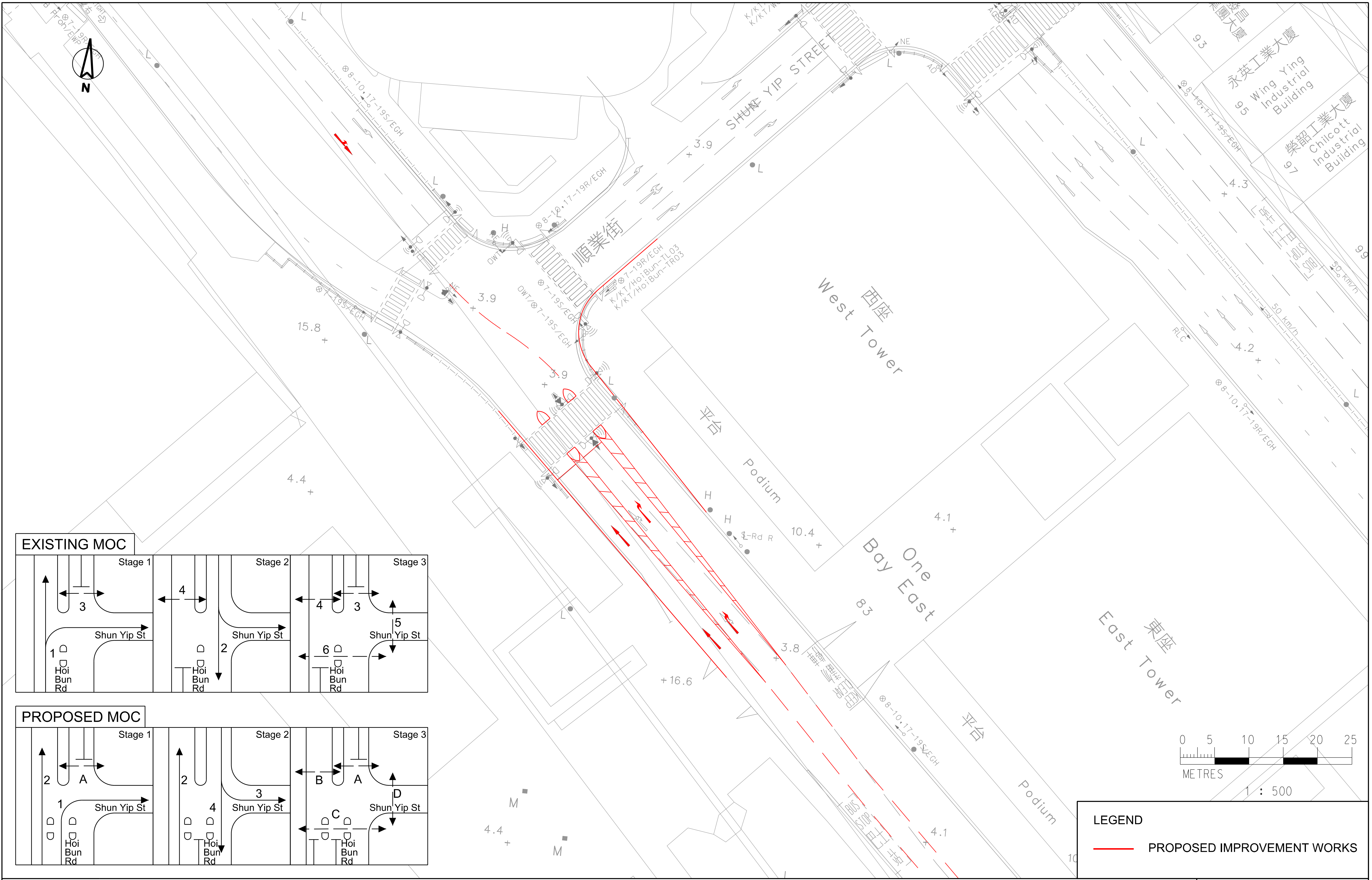
SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING
THE CAR PARKING SPACE PC–08 ON B1/F

Figure No.		Revision
SP8		R1B
Designed by	Drawn by	Checked by
C Y Y	N C M	K C
Scale in A4	Date	
1 : 300	09 DEC 2024	

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\J7300-J7349\J7333\2024 12\Fig SP1 - SP8 RevR1B.dwg

Appendix 3 –
Planned Developments in the Vicinity of the Proposed Redevelopment


N
SHUN YIP STREET
順業街
West Tower
西座
One Bay East
East Tower
東座
平台
Podium
平台
Podium
永英工業大廈
95 Wing Ying Industrial Building
榮昭工業大廈
97 Chilcott Industrial Building
93
99
83
50 km/h
3.9
3.9
3.9
15.8
4.4
4.4
10.4
4.1
4.1
3.8
4.3
4.2
16.6
EXISTING MOC
Stage 1
Stage 2
Stage 3
Shun Yip St
Hoi Bun Rd
1
2
3
4
5
6
PROPOSED MOC
A
B
C
D
0
5
10
15
20
25
METRES
1 : 500
LEGEND
PROPOSED IMPROVEMENT WORKS

Job Title

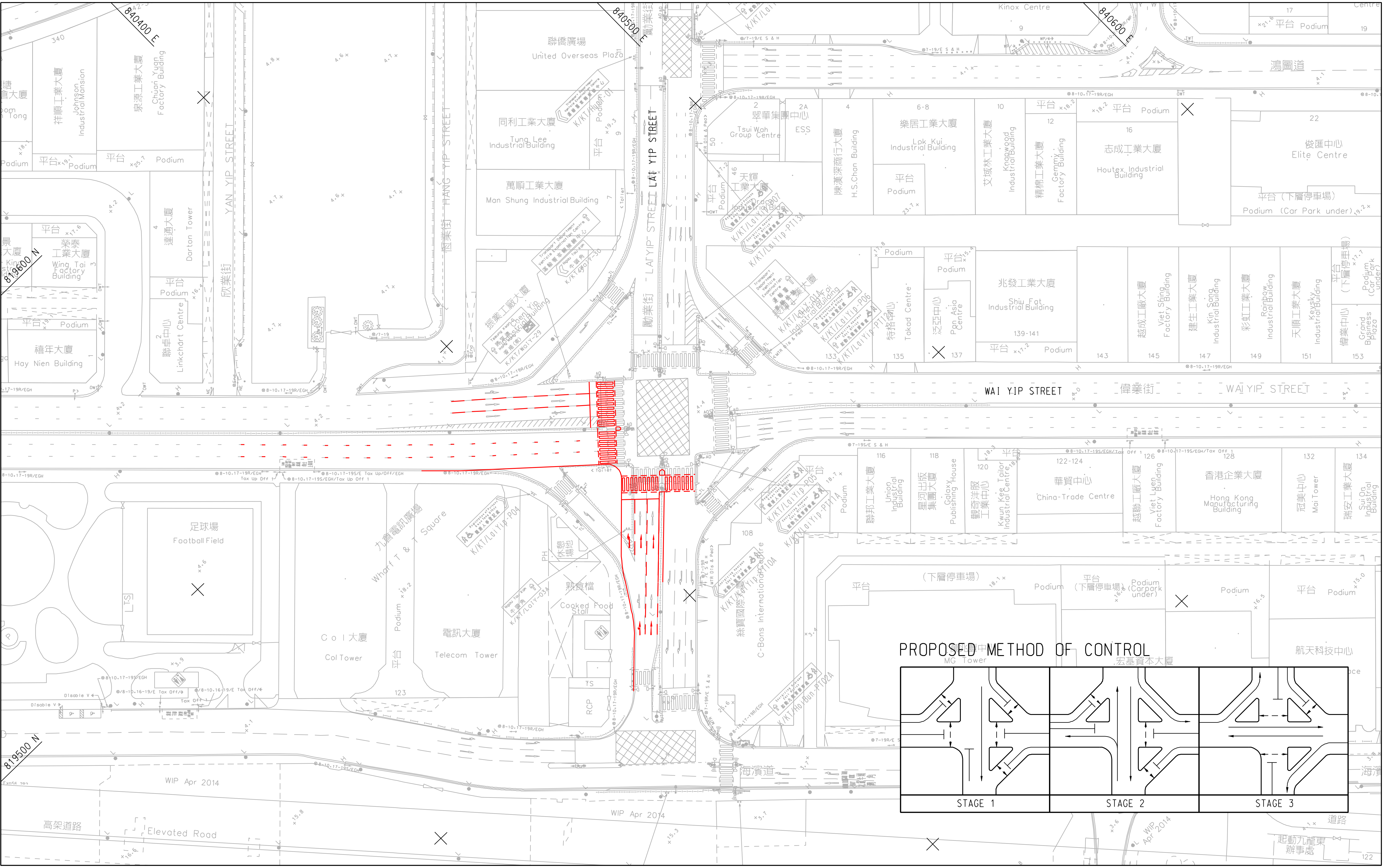
AGREEMENT NO. CE 4/2014 (TP) PLANNING AND ENGINEERING STUDY FOR THE DEVELOPMENT AT KOWLOON BAY ACTION AREA OF KOWLOON EAST - FEASIBILITY STUDY

FIGURE 6.4.2

Date	Scale	Drawing Title
20MAR20	1:500 @ A3	PROPOSED JUNCTION IMPROVEMENT AT J4 - HOI BUN ROAD / SHUN YIP STREET
Drawn	Job No.	
WSTW	237938	

ARUP

PRINTED BY: KH Cheuk 13/11/2020 15:42:40
FILENAME: \\hkgnts69\Traffic\Drawing\237000\237938-02 (KBAA)\Drawing\20200106 (Annex B)\FinalLayout\J4.dgn


840400 E
840500 E
840600 E
819600 N
819500 N
聯僑廣場
United Overseas Plaza
同利工業大廈
Tung Lee Industrial Building
萬順工業大廈
Man Shung Industrial Building
祥順工業大廈
Johnson Industrial Mansion
泉源工業大廈
Chuan Yuan Factory Building
榮泰工業大廈
Wing Tai Factory Building
達通大廈
Darton Tower
聯卓中心
Linkchart Centre
禧年大廈
Hay Nien Building
YAN YIP STREET
欣業街
HANG YIP STREET
恒業街
LAI YIP STREET
勵業街
WAI YIP STREET
偉業街
鴻圖道
海濱道
翠華集團中心
Tsui Wah Group Centre
樂居工業大廈
Lok Kui Industrial Building
志成工業大廈
Houtex Industrial Building
俊匯中心
Elite Centre
兆發工業大廈
Shiu Fat Industrial Building
振業工廠大廈
Chen Yip Industrial Building
華貿中心
China-Trade Centre
香港企業大廈
Hong Kong Manufacturing Building
足球場
Football Field
九倉電訊廣場
Wharf T & T Square
電訊大廈
Telecom Tower
Col Tower
熟食檔
Cooked Food Stall
高架道路
Elevated Road
WIP Apr 2014
PROPOSED METHOD OF CONTROL
STAGE 1
STAGE 2
STAGE 3

Project:

Agreement No. CE 61/2015 (TP)
Planning and Engineering Study on
Kwun Tong Action Area - Feasibility Study

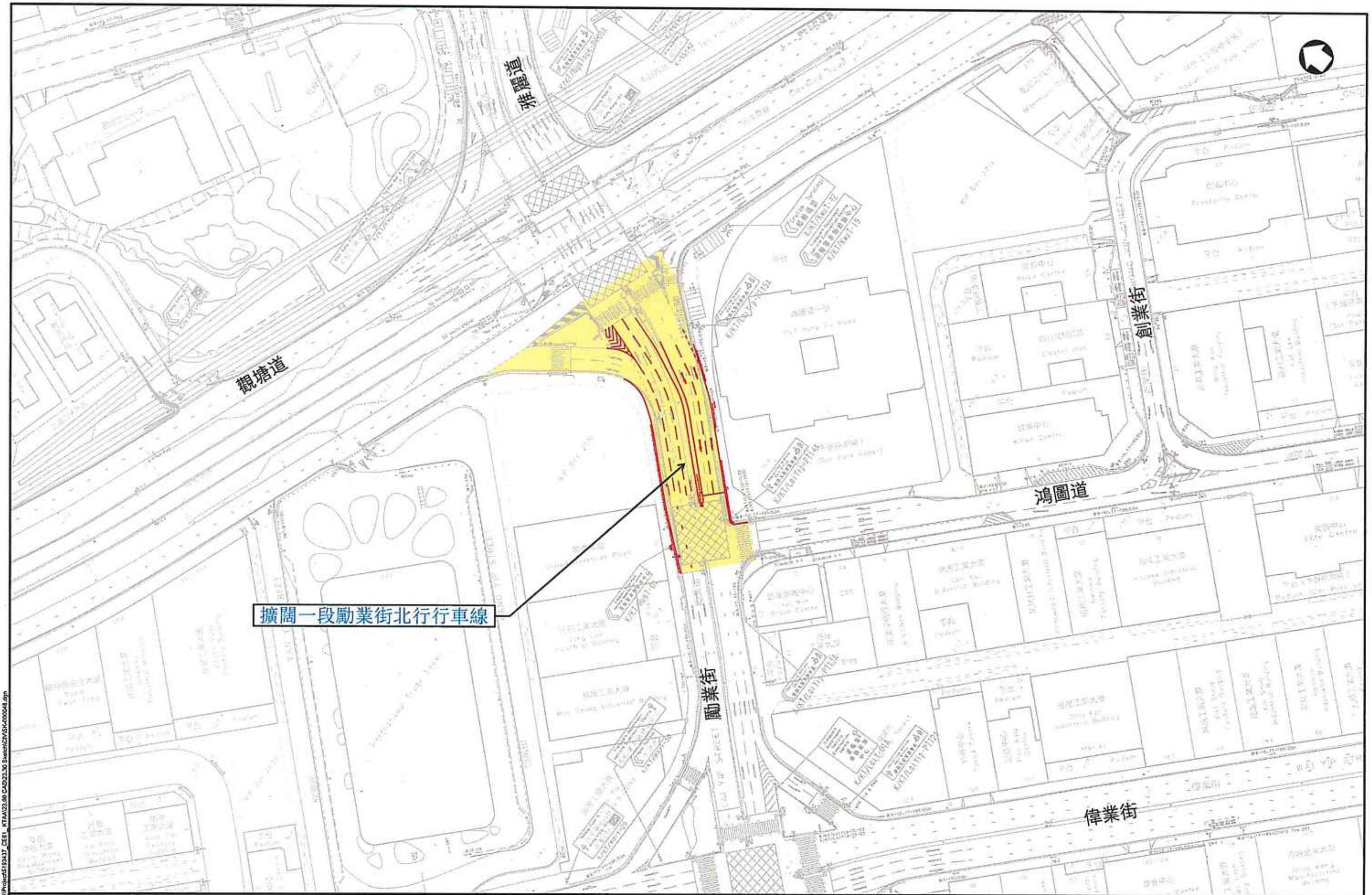
Title:

IMPROVEMENT SCHEME OF LAI YIP STREET / WAI YIP STREET (J3) BY HyD NTK STUDY

Drawing No: TIA/545
Date: JUL 2019
Scale: 1 : 1000

AECOM

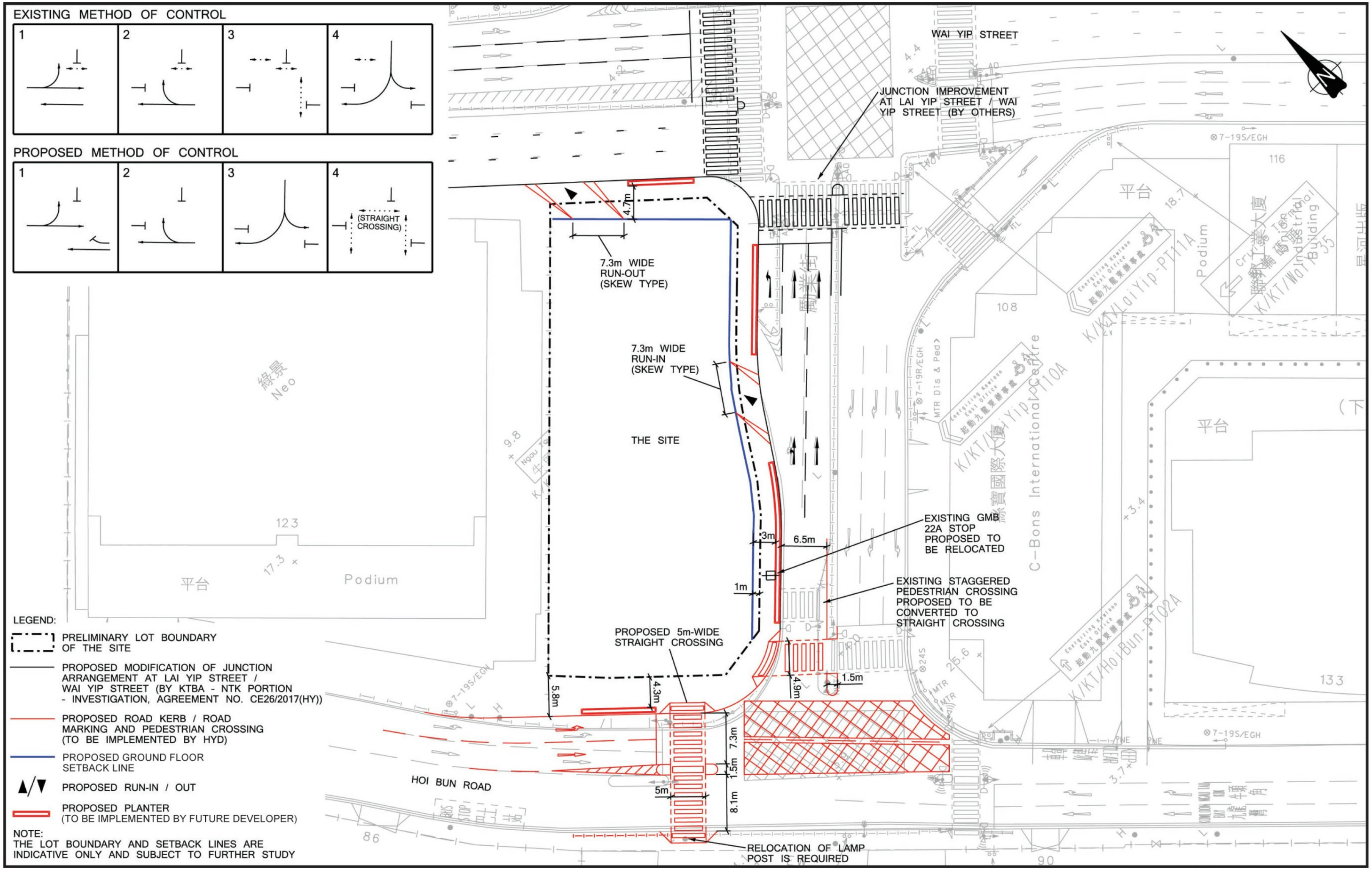
Plot File by: LIUH9 01/08/2019
PATH P:\PROJECTS\60493364\DRAWING\REPROT\TIA\TIA_545.dgn


雅麗道
觀塘道
創業街
鴻圖道
擴闊一段勵業街北行行車線
勵業街
LAI YIP STREET
偉業街

User name: YEUN8479 Date:3/17/2021 Time: 11:35:10 AM
Filename: P:\CNHKA\Project\5193437_CE61_KTAA\23.00 CAD\23.30 Sketch\CIV\SK-000048.dgn

圖則名稱 道路工程計劃(三) – 擬議擴闊勵業街道路工程	圖2c

Copyright © Atkins Limited


EXISTING METHOD OF CONTROL
1
2
3
4
PROPOSED METHOD OF CONTROL
1
2
3
4
(STRAIGHT CROSSING)
WAI YIP STREET
JUNCTION IMPROVEMENT AT LAI YIP STREET / WAI YIP STREET (BY OTHERS)
7-19S/EGH
116
平台
18.7
Podium
108
4.7m
7.3m WIDE RUN-OUT (SKEW TYPE)
7.3m WIDE RUN-IN (SKEW TYPE)
THE SITE
綠景
Neo
9.8
123
17.3
平台
Podium
C-Bons International Centre
K/KT/LaiYip-PT10A
K/KT/LaiYip-PT11A
K/KT/HoiBun-PT02A
Energizing Kowloon East Office
起動九龍東辦事處
+3.4
EXISTING GMB 22A STOP PROPOSED TO BE RELOCATED
3m
6.5m
1m
EXISTING STAGGERED PEDESTRIAN CROSSING PROPOSED TO BE CONVERTED TO STRAIGHT CROSSING
PROPOSED 5m-WIDE STRAIGHT CROSSING
1.5m
4.9m
25.6
133
5.8m
4.3m
7.3m
1.5m
8.1m
5m
7-19S/EGH
HOI BUN ROAD
3.7
86
90
RELOCATION OF LAMP POST IS REQUIRED

LEGEND:

- PRELIMINARY LOT BOUNDARY OF THE SITE
- PROPOSED MODIFICATION OF JUNCTION ARRANGEMENT AT LAI YIP STREET / WAI YIP STREET (BY KTBA - NTK PORTION - INVESTIGATION, AGREEMENT NO. CE26/2017(HY))
- PROPOSED ROAD KERB / ROAD MARKING AND PEDESTRIAN CROSSING (TO BE IMPLEMENTED BY HYD)
- PROPOSED GROUND FLOOR SETBACK LINE
- ▲/▼ PROPOSED RUN-IN / OUT
- PROPOSED PLANTER (TO BE IMPLEMENTED BY FUTURE DEVELOPER)

NOTE:
THE LOT BOUNDARY AND SETBACK LINES ARE INDICATIVE ONLY AND SUBJECT TO FURTHER STUDY

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