

Appendix 2

Traffic Impact Assessment (TIA)

**Proposed Composite Redevelopment with
Trade Mart / Exhibition and Commercial,
Residential, Social Welfare Facilities and School Uses
and Minor Relaxation of Building Height Restriction,
New Kowloon Inland Lot No. 6032,
1 Trademart Drive, Kowloon Bay, Kowloon**

Traffic Impact Assessment

**Final Report
January 2025**

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Prepared for: International Trademart Company Limited

**Proposed Composite Redevelopment with Trade Mart / Exhibition
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1.0 INTRODUCTION

Background

- 1.1 The subject site is located at New Kowloon Inland Lot No. 6032 at 1 Trademart Drive in Kowloon Bay. The existing building at the subject site known as the Kowloon bay International Trade & Exhibition Centre (KITEC) was closed effective 30th June 2024. The location of the subject site is shown in Figure 1.1.
- 1.2 ***On 17th March 2023, the Town Planning Board (TPB) approved the s16 planning application (TPB No. A/K22/34) for the redevelopment of KITEC with total commercial GFA of 164,872m² (the “Approved Redevelopment”), which includes 132,437m² for “Office”, 21,150m² for “Eating Place” and “Shop and Services”, and 11,285m² for “Exhibition or Convention Hall”.***
- 1.3 The Owner of KITEC (the “Applicant”) has the intention to modify the Approved Redevelopment into a residential cum commercial development with total GFA of 164,872m² (the “Proposed Redevelopment”). The Proposed Redevelopment consists of the following uses:
- i. 1,494 residential flats;
 - ii. 35,600m² GFA “Office”;
 - iii. 13,403m² GFA “Eating Place” and “Shop and Services”;
 - iv. 20,773m² GFA “Exhibition or Convention Hall”;
 - v. 1,800-seat “Place of Entertainment”;
 - vi. 720-room “Hotel”;
 - vii. 2,090m² “Social Welfare Facility”; and
 - viii. 6-classroom “School (Kindergarten).
- 1.4 The subject site is zoned “Other Specified Uses (OU)” annotated “Trade Mart and Commercial Development” under the Approved Kai Tak Outline Zoning Plan (OZP) No. S/K22/8. “Office”, “Eating Place”, “Shop and Services”, “Exhibition or Convention Hall” and “School” are under “Column 1” uses of the OZP, while “Flat” and “Social Welfare Facility (not elsewhere specified)” are “Column 2” uses.
- 1.5 CKM Asia Limited, a traffic and transportation planning consultancy firm, was commissioned to conduct a Traffic Impact Assessment (TIA) in support of the Proposed Redevelopment. This report describes the TIA undertaken.

Scope of the TIA

- 1.6 The main objectives of this TIA are as follows:
- To assess the existing traffic issues in the vicinity of the subject site;
 - To provide adequate internal transport facilities for the Proposed Redevelopment;
 - To quantify the traffic generated by the Proposed Redevelopment; and
 - To examine the traffic impact of the Proposed Redevelopment on the local road network.

Contents of the Report

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

- chapter two – describes the existing situation;
- chapter three – presents the Proposed Redevelopment;
- chapter four – describes the traffic and pedestrian impact analysis; and
- chapter five – presents the overall conclusion.

2.0 THE EXISTING SITUATION

Site and Road Network

- 2.1 The subject site fronts onto Trademart Drive to the east, Kai Fuk Road to the west and Kai Cheung Road to the north. The run-in / out of KITEC is located at Trademart Drive near its southern end.
- 2.2 The section of Trademart Drive and Wang Chin Street fronting KITEC are local roads. Lay-bys, taxi stand and motorcycle parking spaces are provided along these roads.
- 2.3 Kai Cheung Road is a dual carriageway 3-lane District Distributor, which connects with Kwun Tong Road to the east and Kai Fuk Road to the west. This road serves the Kowloon Bay Business Area.
- 2.4 Kai Fuk Road is a dual carriageway 3-lane Urban Trunk Road connecting Kai Tak Tunnel to the west and Kwun Tong Road to the east. It connects the central Kowloon and Kwun Tong. The section of Kai Fuk Road fronting KITEC is at grade and slip roads are provided connecting to / from Kwun Tong Bypass.

Traffic and Pedestrian Surveys

- 2.5 Traffic and pedestrian counts were conducted from 0700 – 1100 hours and 1600 – 2000 hours on Friday 26th September 2024, which was after the closure of KITEC.

Manual Classified Counts

- 2.6 Manual classified counts were conducted at junctions shown in Figure 2.1 in order to establish the peak hour traffic flows. The surveyed junctions include the following:
- J1 – Kai Cheung Road / Trademart Drive
 - J2 – Kai Cheung Road / Wang Kwong Road
 - J3 – Wang Kwong Road / Lam Hing Street
 - J4 – Wang Kwong Road / Wang Chin Street
 - J5 – Kai Cheung Road / Wang Chiu Road
 - J6 – Wang Chiu Road / Lam Hing Street
 - J7 – Wang Chiu Road / Sheung Yuet Road
 - J8 – Wang Chiu Road / Lam Fung Street
 - J9 – Sheung Yee Road / Wang Chiu Road
 - J10 – Shing Kai Road / Muk On Street / Kai Shing Street
 - J11 – Wang Chiu Road / Kai Lai Road / Kai Lok Street
 - J12 – Wang Kwong Road / Kai Wah Street
- 2.7 The traffic counts were classified by vehicle type to enable traffic flows in passenger car units (pcu) to be calculated. The vehicle classifications are presented in Table 2.1, and the layout of the surveyed junctions is shown in Figures 2.2 – 2.13.

TABLE 2.1 VEHICLE CLASSIFICATIONS OF TRAFFIC SURVEYS

Ref.	Vehicle Class	Abbreviation
1	Motorcycle	MC
2	Private Car	PC
3	Taxi	TAXI
4	Light Goods Vehicle	LGV
5	Medium Goods Vehicle	MGV
6	Heavy Goods Vehicle	HGV
7	Public Light Bus	PLB
8	Private Light Bus	PrLB
9	Non-franchised Bus	NFB
10	Single Deck Franchised Bus	FBSD
11	Double Deck Franchised Bus	FBDD

2.8 The AM and the PM peak hour traffic flows were found to occur at 0800 – 0900 and 1700 – 1800 hours respectively, and the peak hour traffic flows are illustrated in Figure 2.14.

Existing Junction and Link Operational Performance

2.9 The existing operational performance of the surveyed junctions was calculated based on the analysis method found in Volumes 2 and 4 of Transport Planning and Design Manual (TPDM). The analysis results are summarised in Table 2.2 and detailed calculations are found in Appendix A.

TABLE 2.2 EXISTING JUNCTION OPERATIONAL PERFORMANCE

Ref.	Junction	Type of Junction	Performance Indicator	AM Peak	PM Peak
J1	Kai Cheung Road / Trademart Drive	Priority	RFC	0.086	0.120
J2	Kai Cheung Road / Wang Kwong Road	Signal	RC	31%	46%
J3	Wang Kwong Road / Lam Hing Street	Signal	RC	90%	>100%
J4	Wang Kwong Road / Wang Chin Street	Priority	RFC	0.147	0.135
J5	Kai Cheung Road / Wang Chiu Road	Signal	RC	49%	49%
J6	Wang Chiu Road / Lam Hing Street	Signal	RC	63%	97%
J7	Wang Chiu Road / Sheung Yuet Road	Signal	RC	40%	58%
J8	Wang Chiu Road / Lam Fung Street	Signal	RC	>100%	>100%
J9	Sheung Yee Road / Wang Chiu Road	Signal	RC	34%	45%
J10	Shing Kai Road / Muk On Street / Kai Shing Street	Signal	RC	69%	84%
J11	Wang Chiu Road / Kai Lai Road / Kai Lok Street	Signal	RC	54%	74%
J12	Wang Kwong Road / Kai Wah Street	Signal	RC	51%	61%

Note: RC – Reserve Capacity RFC – Ratio-of-Flow to Capacity

2.10 The above results indicate that the surveyed junctions currently operate with capacities during the AM and PM peak hours.

2.11 The existing link capacity for the local road network is assessed, and the link capacity analysis results are shown in Table 2.3.

TABLE 2.3 EXISTING LINK CAPACITY ASSESSMENT

Road Section ⁽¹⁾	Bound	Capacity (veh/hr)	Traffic Flows (veh/hr)		Volume to Capacity Ratio	
			AM Peak	PM Peak	AM Peak	PM Peak
Kai Cheung Road	Eastbound	3,348 ⁽²⁾	1,026	1,005	0.31	0.30
	Westbound	3,600	1,989	1,938	0.55	0.54
Wang Kwong Road	2-way	1,600	801	690	0.50	0.43
Wang Chiu Road	2-way	4,000	1,546	1,277	0.39	0.32
Sheung Yee Road	Eastbound	2,400	1,260	1,136	0.53	0.47
	Westbound	3,600	217	236	0.06	0.07
Trademart Drive	Northbound	1,100	103	109	0.09	0.10
	Southbound	3,600	105	84	0.03	0.02
Lam Hing Street	2-way	800	515	526	0.64	0.66
Sheung Yuet Road	Eastbound	2,200	177	169	0.08	0.08
	Westbound	2,200	242	292	0.11	0.13

Note: ⁽¹⁾ highest traffic flow along the surveyed road sections

⁽²⁾ with reduction factor of 7% to account for 15 – 20% of heavy vehicles

2.12 Table 2.3 shows that the analysed road links currently operate with capacities during the AM and PM peak hours.

Level-of-Service of Pedestrian Facilities

2.13 To quantify the existing pedestrian flows, pedestrian counts were conducted during the weekday AM and PM peak periods at footpaths which are located in the vicinity of the subject site, and these include the following:

- F1 – Western footpath of Trademart Drive
- F2 – Eastern footpath of Trademart Drive
- F3 – Northern footpath of Lam Hing Street
- F4 – Southern footpath of Lam Hing Street
- F5 – Western footpath of Wang Chin Street
- F6 – Eastern footpath of Wang Chin Street

2.14 The level-of-service (LOS) of a pedestrian walkway is dependent on its width and number of pedestrians using the facility. Description of the LOS is obtained from Volume 6 of the TPDM, and is presented in Table 2.4.

TABLE 2.4 DESCRIPTION OF PEDESTRIAN WALKWAY LOS

LOS	Flow Rate (ped/min/m)	Description
A	≤ 16	Pedestrians basically move in desired paths without altering their movements in response to other pedestrians. Walking speeds are freely selected, and conflicts between pedestrians are unlikely.
B	16 – 23	Sufficient space is provided for pedestrians to freely select their walking speeds, to bypass other pedestrians and to avoid crossing conflicts with others. At this level, pedestrians begin to be aware of other pedestrians and to respond to their presence in the selection of walking paths.
C	23 – 33	Sufficient space is available to select normal walking speeds and to bypass other pedestrians primarily in unidirectional stream. Where reverse direction or crossing movement exist, minor conflicts will occur, and speed and volume will be somewhat lower.

TABLE 2.4 DESCRIPTION OF PEDESTRIAN WALKWAY LOS (CONT'D)

LOS	Flow Rate (ped/min/m)	Description
D	33 – 49	Freedom to select individual walking speeds and bypass other pedestrians is restricted. Where crossing or reverse-flow movements exist, the probability of conflicts is high and its avoidance requires changes of speeds and position. The LOS provides reasonable fluid flow; however considerable friction and interactions between pedestrians are likely to occur.
E	49 – 75	Virtually, all pedestrians would have their normal walking speeds restricted. At the lower range of this LOS, forward movement is possible only by shuffling. Space is insufficient to pass over slower pedestrians. Cross- and reverse-movement are possible only with extreme difficulties. Design volumes approach the limit of walking capacity with resulting stoppages and interruptions to flow.
F	> 75	Walking speeds are severely restricted. Forward progress is made only by shuffling. There are frequent and unavoidable conflicts with other pedestrians. Cross- and reverse-movements are virtually impossible. Flow is sporadic and unstable. Space is more characteristics of queued pedestrians than of moving pedestrian streams.

Source: Volume 6 Chapter 10 of the TPDM

2.15 The peak 15-minute pedestrian flows are illustrated in Figure 2.15, and the corresponding LOS assessment is presented in Table 2.5.

TABLE 2.5 EXISTING LEVEL-OF-SERVICE ASSESSMENT

Ref.	Footpath	Total Width	Effective Width ⁽¹⁾	Peak Period	2-way Peak Pedestrian Flows ⁽²⁾		LOS
					Flow (ped/15-min)	Rate (ped/min/m) ⁽³⁾	
F1	Western footpath of Trademart Drive	4.0	3.0	AM	39	0.9	A
				PM	58	1.3	A
F2	Eastern footpath of Trademart Drive	4.6	3.6	AM	24	0.4	A
				PM	20	0.4	A
F3	Northern footpath of Lam Hing Street	2.8	1.8	AM	22	0.8	A
				PM	40	1.5	A
F4	Southern footpath of Lam Hing Street	4.5	3.5	AM	30	0.6	A
				PM	23	0.4	A
F5	Western footpath of Wang Chin Street	3.0	2.0	AM	18	0.6	A
				PM	23	0.8	A
F6	Eastern footpath of Wang Chin Street	3.3	2.3	AM	29	0.8	A
				PM	35	1.0	A

Note: ⁽¹⁾ effective width = total width – (0.5m × 2)

⁽²⁾ highest pedestrian flows along the whole section of footpath

⁽³⁾ pedestrian flow rate = pedestrian flow ÷ 15 minutes ÷ effective width

2.16 The above results indicate that the surveyed footpaths currently operate with LOS A during the AM and PM peak hours. As stated in the TPDM, “LOS C is desirable for most design at streets with dominant ‘living’ pedestrian activities”. Hence, LOS A is considered as an acceptable level of service.

Traffic Generation of KITEC

2.17 The peak hour traffic generation of KITEC prior to its closure is presented in Table 2.6.

TABLE 2.6 TRAFFIC GENERATION OF KITEC

Item	Unit	AM Peak		PM Peak	
		IN	OUT	IN	OUT
Traffic Generation ⁽¹⁾	pcu/hr	312	230	288	348

Note: ⁽¹⁾ survey period from 0700 – 1100 and 1600 – 2000 hours on Friday 24th March 2023. No “Exhibition or Convention Hall” and “Place of Entertainment” events were held on this day.

Public Transport Services and Surveys

2.18 Access to road-based and rail-based public transport services from the subject site is convenient. Numerous franchised bus and green minibus routes operate along Kai Fuk Road, Kai Cheung Road, Wang Kwong Road and Wang Chiu Road, which are within 500m or about 8 – 10 minutes’ walk away.

2.19 Details of the road-based public transport services operating close to the subject site are presented in Table 2.7 and Figure 2.16.

TABLE 2.7 PUBLIC TRANSPORT SERVICES OPERATING CLOSE TO THE SUBJECT SITE

Route No.	Routing	Frequency (min)
KMB 5D	Telford Gardens – Hung Hom (circular)	13 – 30
KMB 5M	MTR Kowloon Bay Station (circular) – Kai Tak (Tak Long Estate)	15 – 30
KMB 11X	On Tai (North) – MTR Hung Hom Station	9 – 25
KMB 13X	Po Tat – Tsim Sha Tsui East	10 – 25
KMB 14X	Tsim Sha Tsui (circular) – Yau Tong (Shung Tak Wai)	15 – 30
KMB 15A	Ping Tin – Tsz Wan Shan (North)	20 – 30
KMB 15X	Lam Tin (Kwong Tin Estate) – MTR Hung Hom Station	20
KMB 23M	Lok Wah – Shun Lee (circular)	15 – 25
KMB 24	Kai Yip – Mong Kok (circular)	20 – 30
KMB 28	Lok Wah – Star Ferry	10 – 25
KMB 28B	Choi Fook – Kai Tak (Kai Ching Estate)	15 – 25
KMB 33	MTR Tsuen Wan West Station – Yau Tong	15 – 30
KMB 38P	Kwai Shing (Central) – Ping Tin	AM & PM peak
KMB 74A	Tai Wo – Kai Yip	60
KMB 74B	Kowloon Bay – Tai Po Central	6 – 15
KMB 80A	Mei Lam – Kwun Tong Ferry	AM peak
KMB 93P	Po Lam – Mong Kok (Park Avenue)	AM & PM peak
KMB 98D	Tsim Sha Tsui East – Hang Hau (North) (Tseung Kwan O Hospital)	8 – 30
KMB 98P	Tsim Sha Tsui East – Hang Hau (North) (Tseung Kwan O Hospital)	AM & PM peak
KMB 108	Kai Yip – Braemar Hill	10 – 30
KMB 213X	On Tai (South) (Hang Tai House) – Tsim Sha Tsui (circular)	12 – 30
KMB 215X	MTR Kowloon Station – Lam Tin (Kwong Tin Estate)	5 – 20
KMB 219X	Tsim Sha Tsui (circular) – Laguna City	15 – 40

**TABLE 2.7 PUBLIC TRANSPORT SERVICES OPERATING CLOSE TO THE
SUBJECT SITE (CONT'D)**

Route No.	Routing	Frequency (min)
KMB 224X	Kai Yip – Tsim Sha Tsui East (circular)	25 – 30
KMB 234D	Tsing Lung Tau – Kwun Tong (Tsui Ping North Estate)	AM & PM peak
KMB 258X	Tuen Mun (Po Tin Estate) – Kwun Tong Ferry	AM & PM peak
KMB 259S	Tuen Mun (Lung Mun Oasis) – Kwun Tong Ferry	AM peak
KMB / CTB 107	Kowloon Bay – Wah Kwai	5 – 20
KMB / CTB 606	Siu Sai Wan (Island Resort) – Choi Wan (Fung Shing Street)	20 – 25
KMB / CTB 606A	Shau Kei Wan (Yiu Tung Estate) – Choi Wan (Fung Shing Street)	AM peak
KMB / CTB 606X	Kowloon Bay – Siu Sai Wan (Island Resort)	AM & PM peak
CTB 20	Kai Tak (Muk On Street) – Cheung Sha Wan (Hoi Tat)	12 – 30
CTB 20A	High Speed Rail West Kowloon Station – Kai Tak Cruise Terminal	25 – 30
CTB 22	Kai Tak Cruise Terminal – Kowloon Tong (Festival Walk)	20 – 35
CTB 22D	Kai Tak Station – Kai Tak Runway Area	AM & PM peak
CTB 22M	Kai Tak Cruise Terminal – To Kwa Wan	20 – 30
CTB 55	Tuen Mun (Chung Tin and Wo Tin) – Kwun Tong Ferry Pier	AM & PM peak
CTB 78X	Queen’s Hill Fanling – Kai Tak	15 – 60
CTB 608	Kowloon City (Shing Tak Street) – Shau Kei Wan	10 – 30
CTB 608P	Siu Sai Wan (Island Resort) – Kowloon City (Shing Tak Street)	AM peak
CTB 790	Tsim Sha Tsui (Mody Road) – Oscar By The Sea	AM & PM peak
CTB 793	Tseung Kwan O Industrial Estate – So Uk	15 – 20
CTB 795X	So Uk – Oscar by The Sea	20 – 30
CTB 796P	Tsim Sha Tsui (East) – LOHAS Park	20 – 30
CTB 797	San Po Kong - LOHAS Park	20 – 30
CTB A25	Kai Tak – Airport	30 – 60
CTB E22S	Tung Chung (Mun Tung Estate) – Tseung Kwan O (Po Lam)	AM & PM peak
CTB N20	Island Harbourview – Kai Tak (Muk On Street)	overnight
CTB N796	LOHAS Park – Mong Kok	overnight
GMB 46	Richland Gardens – Island Harbourview	3 – 15
GMB 48	Shun Lee Estate – Kowloon Bay (Enterprise Square)	4 – 8
GMB 56	Richland Gardens – Kwun Tong (Shung Yan Street)	10 – 20
GMB 62S	Lam Tin Estate – Tsim Sha Tsui (Haiphong Road)	overnight
GMB 68	Choi Wan Estate – Kowloon Bay (Enterprise Square)	8 – 12
GMB 69	Laguna City – Kowloon Bay (Lion Rock Road)	20 – 30
GMB 87	Lei Yue Mun Estate – Richland Gardens (circular)	15 – 20
GMB 89B	On Tai Estate – Kowloon Bay (MegaBox)	12 – 20
GMB 106	Tseung Kwan O (Po Lam) – Kowloon Bay (Enterprise Square)	7 – 25
GMB 110	Tiu Keng Leng Station – Kowloon City (circular)	15 – 30
GMB 110A	Tiu Keng Leng Station – Kowloon Bay	10 – 30
GMB 111	Tseung Kwan O (Po Lam) – San Po Kong (Hong Keung Street)	8 – 30

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

3.0 THE PROPOSED REDEVELOPMENT

Comparison of Development Parameters

3.1 A comparison of development parameters for (i) Approved Redevelopment and (ii) Proposed Redevelopment is presented in Table 3.1.

TABLE 3.1 COMPARISON OF DEVELOPMENT PARAMETERS

Item		Development Parameters			
		KITEC ⁽¹⁾	Approved Redevelopment [A] ⁽²⁾	Proposed Redevelopment [B]	Difference between [A] and [B]
Site Area		22,280m ²	22,280m ²	22,280m ²	No change
Plot Ratio		7.4	7.4	7.4 ⁽³⁾	No change
Domestic GFA		0	0	65,949m ²	+ 65,949m ²
No. of Flat		0	0	1,494 ⁽⁴⁾	+ 1,494 flats
Non-domestic GFA	Office	63,934m ²	132,437m ²	35,600m ²	- 96,837m ² (- 73%)
	Eating Place and Shop and Services	73,982m ²	21,150m ²	13,403m ²	- 7,747m ² (- 37%)
	Exhibition or Convention Hall	17,598m ² ⁽⁵⁾	11,285m ²	20,773m ²	+ 9,488m ² (+ 84%)
	Hotel	0	0	24,000m ² (720 rooms)	+ 24,000m ²
	Place of Entertainment	9,325m ² (4,729 seats) ⁽⁶⁾	0	2,500m ² (1,800 seats)	+ 2,500m ²
	Social Welfare Facility	0	0	around 2,090m ² ⁽⁷⁾	+ 2,090m ²
	School (Kindergarten)	0	0	557m ² (6 classrooms)	+ 557m ²
	Total	164,839m ²	164,872m ²	98,923m ² ⁽⁸⁾	- 65,949m ² (- 40%)
Internal Transport Facilities	Car Parking Space	763 ⁽⁹⁾	548 – 604	904	
	Motorcycle Parking Space	0	56 – 60	69	
	Loading / Unloading Bay	33	103 – 113	78	
	Taxi / Private Car Lay-by	9	7	13	
	Tour Bus Lay-by	0	0	5	
	Private Light Bus Parking Space	0	0	3	

Note: ⁽¹⁾ based on 2018 A&A works

⁽²⁾ extract from TPB No. A/K22/34 approved on 17th March 2023

⁽³⁾ include domestic plot ratio of 2.96 and non-domestic plot ratio of 4.44

⁽⁴⁾ average flat size = around 45m²

⁽⁵⁾ include 11,312m² showroom and 6,286m² exhibition-related venues

⁽⁶⁾ include Star Hall with 3,600 seats and cinema with 1,129 seats

⁽⁷⁾ include a Day Care Centre for the Elderly (DE), a Residential Care Home for the Elderly (RCHE) and an Office Base of Social Work Service for Pre-primary Institutions (SWSPPI)

⁽⁸⁾ exclude non-domestic GFA of 1,114m² for the Northern Footbridge Extension and Southern Footbridge, and GFA for the social welfare facilities to be exempted

⁽⁹⁾ According to the existing Lease, the 763 car parking spaces in KITEC are ancillary and belong "to the owners or occupiers of the building or buildings ... and their bona fide guests, visitors or invitees ..."

Provision of Internal Transport Facilities

3.2 The internal transport facilities for the Proposed Redevelopment will be provided on the following basis:

(i) “Flat”, “Office” and “Hotel”

3.3 The internal transport facilities for “Flat”, “Office” and “Hotel” are provided based on the **maximum** recommendations found in Chapter 8 of the Hong Kong Planning Standards and Guidelines (HKPSG). The flat mix used to calculate the provision of internal transport facilities for “Flat” is found in Table 3.2, and the GFA for “Office” and “Hotel” are found in Table 3.1.

TABLE 3.2 DETAILS OF RESIDENTIAL FLATS

Size of Residential Flat (GFA)	No. of Flat
≤ 40m ²	426
40 – 70m ²	924
70 – 100m ²	144
Total No. of Flat	<u>1,494</u>

(ii) “Eating Place”, “Shop and Services” and “Exhibition or Convention Hall”

3.4 Internal transport facilities for “Eating Place”, “Shop and Services” and “Exhibition or Convention Hall” are calculated based on the GFA found in Table 3.1, and as per the maximum HKPSG recommendation for “Retail”.

(iii) “Place of Entertainment”

3.5 To ensure adequate provision of internal transport facilities for the “Place of Entertainment”, reference is made to HKPSG maximum recommendations for “Commercial Entertainment Facilities (e.g. cinemas, theatres)” and “Retail” are adopted.

(iv) “Social Welfare Facility” and “School (Kindergarten)”

3.6 The internal transport facilities for social welfare facilities are provided to **meet the operational needs** of the privately-financed RCHE and DE.

3.7 Reference is made to a previous application, TPB no. ref: A/K22/37 (withdrawn in December 2024), which has the same social welfare facilities at the subject site. The comment from SWD is, “no objection in principle from service perspective for the applicant’s proposed development of 60-place RCHE and 30-place DE on conditions that the RCHE and DE including the associated parking spaces and loading and unloading bay are running on privately-financing mode ...”. The comment from SWD is found in Appendix B.

(v) Flexibility in Parking Provision

3.8 According to LAO Practice Note No. 4/2006 “Car Parking Requirement in Special Conditions for Residential Developments” issued by Lands Department, “developers are given further flexibility to adjust the number of parking spaces upward or downward by either up to 10% or 5% plus 50 spaces, whichever is the less”.

3.9 In view that the Developer will seek modification of the lease subsequent to the approval of this s16 planning application, design flexibility is applied to the parking provision for the Proposed Redevelopment.

(vi) Calculation of Internal Transport Facilities

3.10 Based on the above information, the calculation on the provision of internal transport facilities is found in Table 3.3.

TABLE 3.3 PROVISION OF INTERNAL TRANSPORT FACILITIES FOR THE PROPOSED REDEVELOPMENT

Type	Use	HKPSG Recommendations	Proposed Provision
Car Parking Space	Flat (for Residents)	Recommendation = $GPS \times R1 \times R2 \times R3$ GPS = 1 car space per 4 – 7 flats R1 = 0.5 for flat size $\leq 40m^2$ (426 flats) = 1.2 for flat size 40 – $70m^2$ (924 flats) = 2.4 for flat size 70 – $100m^2$ (144 flats) R2 = 1 for development outside 500m of rail station R3 = 1 for domestic plot ratio 2 – 5 Min = $(426 \times 0.5 + 924 \times 1.2 + 144 \times 2.4) \div 7 \times 1 \times 1 = 239$ nos. Max = $(426 \times 0.5 + 924 \times 1.2 + 144 \times 2.4) \div 4 \times 1 \times 1 = 417$ nos. Design Flexibility [a] ⁽¹⁾ = $417 \times 5\% = \pm 20$ nos. Design Flexibility [b] ⁽²⁾ = $417 \times 5\% = \pm 20$ nos.	377 nos. [Calculation: 417 – 20 – 20]
	Flat (for Visitor)	5 visitor car parking spaces for developments with more than 75 units per block Max = $5 \times 4 = 20$ nos. Design Flexibility [a] ⁽¹⁾ = $20 \times 5\% = \pm 1$ no.	19 nos. [Calculation: 20 – 1]
	Office	1 space per 150 – $200m^2$ for first 15,000m ² GFA; 1 space per 200 – $300m^2$ for remaining GFA Min = $15000 \div 200 + 20600 \div 300 = 144$ nos. Max = $15000 \div 150 + 20600 \div 200 = 203$ nos. Design Flexibility [a] ⁽¹⁾ = $203 \times 5\% = \pm 10$ nos.	193 nos. [Calculation: 203 – 10]
	Eating Place and Shop and Services	1 space per 150 – $300m^2$ GFA Min = $13403 \div 300 = 45$ nos. Max = $13403 \div 150 = 90$ nos. Design Flexibility [a] ⁽¹⁾ = $90 \times 5\% = \pm 4$ nos.	86 nos. [Calculation: 90 – 4]
	Exhibition or Convention Hall	1 space per 150 – $300m^2$ GFA Min = $20773 \div 300 = 70$ nos. Max = $20773 \div 150 = 139$ nos. Design Flexibility [a] ⁽¹⁾ = $139 \times 5\% = \pm 6$ nos.	133 nos. [Calculation: 139 – 6]
	Hotel	1 space per 100 rooms Max = $720 \div 100 = 8$ nos.	8 nos.
	Place of Entertainment	<u>“Retail”</u> under HKPSG 1 space per 150 – $300m^2$ GFA Min = $2500 \div 300 = 9$ nos. Max = $2500 \div 150 = 17$ nos. <u>“Commercial Entertainment Facilities”</u> under HKPSG 1 car parking space for every 20 seats Max = $1800 \div 20 = 90$ nos. (greater) Design Flexibility [a] ⁽¹⁾ = $90 \times 5\% = \pm 4$ nos.	86 nos. [Calculation: 90 – 4]

TABLE 3.3 PROVISION OF INTERNAL TRANSPORT FACILITIES FOR THE
PROPOSED REDEVELOPMENT (CONT'D)

Type	Use	HKPSG Recommendations	Proposed Provision	
Car Parking Space	School (Kindergarten)	0 – 1 car parking space for every 4 – 6 classrooms Max = $6 \div 4 \times 1$ = 2 nos.	2 nos.	
	Total	377 + 19 + 193 + 86 + 133 + 8 + 86 + 2 = 904 nos.	904 nos.⁽³⁾	
Motorcycle Parking Space	Flat	1 space per 100 – 150 flats Min = $1494 \div 150$ = 10 nos. Max = $1494 \div 100$ = 15 nos.	15 nos.	
	Office	5 – 10% of total provision of car parking space Min = $203 \times 5\%$ = 11 nos. Max = $203 \times 10\%$ = 21 nos.	21 nos.	
	Eating Place and Shop and Services	5 – 10% of total provision of car parking space Min = $90 \times 5\%$ = 5 nos. Max = $90 \times 10\%$ = 9 nos.	9 nos.	
	Exhibition or Convention Hall	5 – 10% of total provision of car parking space Min = $139 \times 5\%$ = 7 nos. Max = $139 \times 10\%$ = 14 nos.	14 nos.	
	Hotel	5 – 10% of total provision of car parking space Min = $8 \times 5\%$ = 1 no. Max = $8 \times 10\%$ = 1 no.	1 no.	
	Place of Entertainment	5 – 10% of total provision of car parking space Min = $90 \times 5\%$ = 5 nos. Max = $90 \times 10\%$ = 9 nos.	9 nos.	
	Total	15 + 21 + 9 + 14 + 9 + 1 = 69 nos.	69 nos.	
Goods Vehicle Loading / Unloading Bay	Flat	Minimum 1 bay for every 800 flats or part thereof, subject to minimum 1 bay for each housing block	4 nos. (4 HGV)	
	Office	1 bay per 2,000 – 3,000m ² of GFA Min = $35600 \div 3000$ = 12 nos. Max = $35600 \div 2000$ = 18 nos.	18 nos. ⁽⁴⁾ (7 HGV + 11 LGV)	
	Eating Place and Shop and Services	1 bay per 800 – 1,200m ² of GFA Min = $13403 \div 1200$ = 12 nos. Max = $13403 \div 800$ = 17 nos.	17 nos. ⁽⁴⁾ (6 HGV + 11 LGV)	
	Exhibition or Convention Hall	1 bay per 800 – 1,200m ² of GFA Min = $20773 \div 1200$ = 18 nos. Max = $20773 \div 800$ = 26 nos.	26 nos. ⁽⁴⁾ (10 HGV + 16 LGV)	
	Hotel	0.5 – 1 bay per 100 rooms Min = $720 \div 100 \times 0.5$ = 4 nos. Max = $720 \div 100 \times 1$ = 8 nos.	8 nos. ⁽⁴⁾ (3 HGV + 5 LGV)	
	Place of Entertainment	<u>"Retail"</u> under HKPSG 1 bay per 800 – 1,200m ² GFA Min = $2500 \div 1200$ = 3 nos. Max = $2500 \div 800$ = 4 nos. (greater)	<u>"Commercial Entertainment Facilities"</u> under HKPSG 1 bay where practicable Min = 1 no.	4 nos. ⁽⁴⁾ (2 HGV + 2 LGV)
	Total	4 + 18 + 17 + 26 + 4 + 8 = 77 nos.	77 nos. (32 HGV + 45 LGV)	

TABLE 3.3 PROVISION OF INTERNAL TRANSPORT FACILITIES FOR THE PROPOSED REDEVELOPMENT (CONT'D)

Type	Use	HKPSG Recommendations	Proposed Provision	
Taxi / Private Car Lay-by	Office	1 lay-by for every 20,000m ² of GFA Max = $35600 \div 20000$ = 2 nos.	2 nos.	
	Hotel	4 lay-bys for ≥ 600 rooms	4 nos.	
	Place of Entertainment	<i>"Retail"</i> under HKPSG No requirements	<i>"Commercial Entertainment Facilities"</i> under HKPSG 1 lay-by for every 400 seats Max = $1800 \div 400$ = 5 nos.	5 nos.
		School (Kindergarten)	1 lay-by for every 5 – 8 classrooms Min = $6 \div 8$ = 1 no. Max = $6 \div 5$ = 2 nos.	2 nos.
	Total	Min = 2 + 5 + 4 + 1 = 12 nos. Max = 2 + 5 + 4 + 2 = 13 nos.	13 nos.	
Tour Bus Lay-by	Hotel	2 – 3 tour bus lay-bys for 300 – 899 rooms	3 nos.	
	School (Kindergarten)	Minimum 2 lay-bys for school bus	2 nos.	
	Total	Min = 2 + 2 = 4 nos. Max = 3 + 2 = 5 nos.	5 nos.	
Others	Social Welfare Facility	1 shared-use loading / unloading bay for goods vehicle / ambulance [Dimensions: 11m(L) × 3.5m(W) × 4.7m(H)]	1 HGV	
		2 private light bus parking spaces for DE and 1 private light bus parking space for RCHE [Dimensions: 8m(L) × 3m(W) × 3.3m(H)]	3 PrLB	

- Note: (1) Design flexibility [a] is assumed as $\pm 5\%$ and is calculated based on the HKPSG maximum recommendations (applicable to car parking space only)
(2) Design flexibility [b] is assumed as $\pm 5\%$ and is calculated based on the HKPSG maximum recommendations (applicable to car parking space for residents only)
(4) According to Chapter 8 of HKPSG, 6 car parking spaces for persons with disabilities shall be provided for number of car parking spaces over 450
(4) Goods vehicle provision is divided into 65% LGV and 35% HGV for "Office", "Eating Place and Shop and Services", "Exhibition or Convention Hall" and "Place of Entertainment"

Parking Demand for "Exhibition or Convention Hall"

- 3.11 To estimate the occupancy of the KITEC car park, occupancy data were obtained for large-scale events held in 2023 in KITEC for the uses categorised under "Exhibition or Convention Hall". Details of these events are presented in Table 3.4.

TABLE 3.4 DETAILS OF "EXHIBITION OR CONVENTION HALL" EVENTS

Date	Large-scale Event	Time (hours)	Type of Event	No. of Participants (Approx.)
Weekday				
19/09/2023 (Tuesday)	23 rd SISTERS BeautyPro Trade Fair 第 23 屆姊妹專業美容展	1000 – 1759	Expo	5,000
20/09/2023 (Wednesday)	23 rd SISTERS BeautyPro Trade Fair 第 23 屆姊妹專業美容展	1000 – 1759	Expo	5,000
21/09/2023 (Thursday)	23 rd SISTERS BeautyPro Trade Fair 第 23 屆姊妹專業美容展	1000 – 1759	Expo	5,000
	Seminar	Day-time	Seminar	1,000
27/10/2023 (Friday)	HK Taiwan Higher Education Exhibition 2023 年香港臺灣高等教育展	1100 – 1859	Expo	2,000
	Meeting and Seminar	Day-time	Seminar	3,000
02/11/2023 (Thursday)	NotTooBig Mega Baby Expo NotTooBig 優質母嬰用品展	1200 – 1959	Expo	5,000
Weekend				
22/04/2023 (Saturday)	41 st HK Wedding Showcase 2023 第 41 屆婚展會	1200 – 1959	Expo	20,000
23/04/2023 (Sunday)	41 st HK Wedding Showcase 2023 第 41 屆婚展會	1200 – 1959	Expo	30,000
24/06/2023 (Saturday)	HK Illustration and Creative Show 5 香港插畫及文創展 5	1200 – 1959	Expo	5,000
23/09/2023 (Saturday)	42 nd HK Wedding Showcase 2023 第 42 屆婚展會	1200 – 1959	Expo	20,000
24/09/2023 (Sunday)	42 nd HK Wedding Showcase 2023 第 42 屆婚展會	1200 – 1959	Expo	20,000
25/11/2023 (Saturday)	HK Illustration and Creative Show 7 香港插畫及文創展 7	1200 – 1959	Expo	5,000

3.12 To ascertain the parking demand associated to the "Exhibition or Convention Hall" events, the average weekday and weekend car park occupancies for the event dates in Table 3.4 are compared to days without any event in KITEC. The comparison is found in Table 3.5.

TABLE 3.5 AVERAGE OCCUPANCY OF KITEC CAR PARK FOR
"EXHIBITION OR CONVENTION HALL"

Time Period (hours)	Average KITEC Car Park Occupancy				Parking Demand Associated to "Exhibition or Convention Hall" [a] – [b]
	On the day with "Exhibition or Convention Hall" Event ⁽¹⁾		On the day without any Event ⁽²⁾		
	Vehicle [a]	Percentage ⁽³⁾	Vehicle [b]	Percentage ⁽³⁾	
Weekday					
0800 – 0900	208	27%	204	27%	4
0900 – 1000	312	41%	272	36%	40
1000 – 1100	359	47%	314	41%	45
1100 – 1200	394	52%	340	45%	54
1200 – 1300	401	53%	345	45%	56
1300 – 1400	416	55%	351	46%	65
1400 – 1500	423	55%	370	48%	53
1500 – 1600	416	55%	367	48%	49
1600 – 1700	409	54%	367	48%	42
1700 – 1800	352	46%	312	41%	40
1800 – 1900	271	36%	233	31%	38
1900 – 2000	229	30%	176	23%	53
2000 – 2100	203	27%	157	21%	46
2100 – 2200	164	21%	146	19%	18
Maximum					<u>65</u>
Weekend					
0800 – 0900	144	19%	135	18%	9
0900 – 1000	179	23%	174	23%	5
1000 – 1100	213	28%	210	28%	3
1100 – 1200	259	34%	247	32%	12
1200 – 1300	333	44%	314	41%	19
1300 – 1400	391	51%	368	48%	23
1400 – 1500	448	59%	382	50%	66
1500 – 1600	474	62%	406	53%	68
1600 – 1700	468	61%	402	53%	66
1700 – 1800	415	54%	363	48%	52
1800 – 1900	346	45%	317	42%	29
1900 – 2000	263	34%	240	31%	23
2000 – 2100	201	26%	193	25%	8
2100 – 2200	173	23%	165	22%	8
Maximum					<u>68</u>

Note: ⁽¹⁾ refer to Table 3.4 for survey dates with "Exhibition or Convention Hall" event

⁽²⁾ survey dates without any event as follows:

weekday – 19/06/2023 (Monday), 06/07/2023 (Thursday) and 24/10/2023 (Tuesday)

weekend – 15/04/2023 (Saturday), 18/06/2023 (Saturday) and 02/07/2023 (Sunday)

⁽³⁾ capacity of KITEC car park = 763 car parking spaces

3.13 Table 3.5 shows the maximum weekday and weekend parking demand associated to the "Exhibition or Convention Hall" events is **65 and 68 car parking spaces** respectively.

Parking Demand for “Place of Entertainment”

3.14 Similar to the “Exhibition or Convention Hall” events, occupancy data were obtained for large-scale events held in the Star Hall of KITEC for the uses categorised under “Place of Entertainment”. Details of these events are presented in Table 3.6.

TABLE 3.6 DETAILS OF “PLACE OF ENTERTAINMENT” EVENTS

Date	Large-scale Event	Time (hours)	Type of Event	Venue
Weekday				
05/05/2023 (Friday)	Beauty and the Beast in Concert 美女與野獸：電影與管弦樂	2000 – 2230	Concert	Star Hall
20/10/2023 (Friday)	My Little Airport Live 2023 My Little Airport 演唱會 2023	2000 – 2230	Concert	Star Hall
27/10/2023 (Friday)	One Circle “Guide Us” Worship Concert 同心圓「引領」敬拜音樂會 2023	1930 – 2230	Concert	Star Hall
Weekend				
06/05/2023 (Saturday)	Beauty and the Beast in Concert 美女與野獸：電影與管弦樂	2000 – 2230	Concert	Star Hall
24/06/2023 (Saturday)	Nickthereal Concert 2023 Hong Kong 周湯豪 2023 巡迴演唱會香港站	2000 – 2300	Concert	Star Hall
16/07/2023 (Sunday)	King Maker V Final Competition 全民造星 V 總決賽	2000 – 2300	Concert	Star Hall
21/10/2023 (Saturday)	My Little Airport Live 2023 My Little Airport 演唱會 2023	2000 – 2230	Concert	Star Hall
12/11/2023 (Sunday)	ANSW1R PG One 2023 World Tour PG One 王唯楚演唱會 2023 香港站	1930 – 2230	Concert	Star Hall

3.15 To ascertain the parking demand associated to the “Place of Entertainment” events, the average weekday and weekend car park occupancies for the event dates in Table 3.6 are compared to days without any event in KITEC. The comparison is found in Table 3.7.

TABLE 3.7 AVERAGE OCCUPANCY OF KITEC CAR PARK FOR “PLACE OF ENTERTAINMENT”

Time Period (hours)	Average KITEC Car Park Occupancy				Parking Demand Associated to “Place of Entertainment” [a] – [b]
	On the day with “Place of Entertainment” Event ⁽¹⁾		On the day without any Event ⁽²⁾		
	Vehicle [a]	Percentage ⁽³⁾	Vehicle [b]	Percentage ⁽³⁾	
Weekday					
1800 – 1900	281	37%	233	31%	48
1900 – 2000	322	42%	176	23%	146
2000 – 2100	315	41%	157	21%	158
2100 – 2200	297	39%	146	19%	151
2200 – 2300	283	37%	138	18%	145
2300 – 0000	152	20%	120	16%	32
Maximum					158

TABLE 3.7 AVERAGE OCCUPANCY OF KITEC CAR PARK FOR “PLACE OF ENTERTAINMENT” (CONT'D)

Time Period (hours)	Average KITEC Car Park Occupancy				Parking Demand Associated to “Place of Entertainment” [a] – [b]
	On the day with “Place of Entertainment” Event ⁽¹⁾		On the day without any Event ⁽²⁾		
	Vehicle [a]	Percentage ⁽³⁾	Vehicle [b]	Percentage ⁽³⁾	
Weekend					
1800 – 1900	373	49%	317	42%	56
1900 – 2000	389	51%	240	31%	149
2000 – 2100	357	47%	193	25%	164
2100 – 2200	322	42%	165	22%	157
2200 – 2300	281	37%	148	19%	133
2300 – 0000	157	21%	118	15%	39
Maximum					<u>164</u>

Note: ⁽¹⁾ refer to Table 3.6 for survey dates with “Place of Entertainment” event

⁽²⁾ survey dates without any event as follows:

weekday – 19/06/2023 (Monday), 06/07/2023 (Thursday) and 24/10/2023 (Tuesday)

weekend – 15/04/2023 (Saturday), 18/06/2023 (Saturday) and 02/07/2023 (Sunday)

⁽³⁾ capacity of KITEC car park = 763 car parking spaces

3.16 Table 3.7 shows the maximum weekday and weekend parking demand associated to the “Place of Entertainment” events is **158 and 164 car parking spaces** respectively.

Adequacy of Car Parking Provision

3.17 Based on the findings from Tables 3.5 and 3.7, the parking demand for “Exhibition or Convention Hall” and “Place of Entertainment” events are summarised in Table 3.8.

TABLE 3.8 SUMMARY OF PARKING DEMAND ANALYSIS

Type of Event	Capacity in KITEC [a]	Day of Week	Maximum Parking Demand (veh) [b]	Demand Rate [b] ÷ [a]
“Exhibition or Convention Hall”	11,312m ²	Weekday	65	0.5746 veh/100m ²
		Weekend	68	0.6011 veh/100m ²
“Place of Entertainment”	3,600 seats	Weekday	158	0.0439 veh/seat
		Weekend	164	0.0456 veh/seat

(i) “Exhibition or Convention Hall”

3.18 Based on the maximum weekend parking demand, i.e. 0.6011 veh/100m², the “Exhibition or Convention Hall” use in the Proposed Redevelopment would require 125 car parking spaces [Calculation: 0.6011 × 20773 ÷ 100]. Hence, the provision of 133 car parking spaces for “Exhibition or Convention Hall” is **sufficient to accommodate the maximum weekday and weekend parking demand.**

(ii) ***“Place of Entertainment”***

- 3.19 Based on the maximum weekend parking demand, i.e. 0.0456 veh/seat, the “Place of Entertainment” use in the Proposed Redevelopment would require some 82 car parking spaces [Calculation: 0.0456×1800]. Hence, the provision of 86 car parking spaces for “Exhibition or Convention Hall” is **sufficient to accommodate the maximum weekday and weekend parking demand.**

Internal Transport Layout

- 3.20 The run-in / out of the Proposed Redevelopment is provided at Trademart Drive near the southern site boundary, and is **close to the existing run-in / out for KITEC.** The proposed run-in / out and layout plans with the internal transport facilities, i.e. ground, 1st, basement 1st and 2nd, are presented in Figures 3.1 – 3.4.
- 3.21 According to Volume 2 of TPDM, *“the width of run-ins should be kept to the minimum compatible with satisfactory operation of vehicles using the run-in. The minimum width should be such that a vehicle can enter the run in from the near side lane without encroachment onto an adjacent lane”.* As shown in Figures SP/GF/101 – 102, the 8m run-in / out is required so that the 11m HGV and 12m tour bus could enter / leave the Proposed Redevelopment **without encroaching into the road kerb / adjacent traffic lane.**
- 3.22 In view that internal pick-up / drop-off area is not available in the existing KITEC, the pick-up / drop-off activities, including car, taxi and coach / shuttle bus are conducted at Trademart Drive. To minimise the pick-up / drop-off activities along Trademart Drive, internal pick-up / drop-off area is provided for the Proposed Redevelopment which is on G/F as shown in Figure 3.2.
- 3.23 To minimise the likelihood of vehicle tailback when entering the basement car park, the car park entry gates will be positioned as far away as possible from the run-in / out. Detailed design of internal transport layout including the internal pick-up / drop-off area will be submitted in the GBP stage.

Improvement to Pedestrian Connectivity and Accessibility

- 3.24 The Kai Tak OZP shows that the existing footbridge across Kai Fuk Road (the existing “Kai Fuk Road footbridge”) will connect to the future commercial sites located at the South Apron Area and to the future waterfront promenade via an elevated walkway. To enhance the connectivity and accessibility between Kowloon Bay Business Area and the Kai Tak Development (KTD), the Owner of KITEC has proposed to construct two footbridges, namely the Northern Footbridge Extension and Southern Footbridge.

3.25 The Applicant will provide internal walkway(s) to link up the Northern Footbridge Extension (via the Kai Cheung Road footbridge) and the Southern Footbridge with the footpaths at Trademart Drive and / or Kai Cheung Road in accordance to the Lease. The provision of the Northern Footbridge Extension and Southern Footbridge, will form part of the comprehensive elevated pedestrian network for the purpose to enhance the connectivity and accessibility between South Apron Area of KTD, MTR Kai Tak Station and the Kowloon Bay Business Area. Public can access the Northern Footbridge Extension and Southern Footbridge free of charge.

3.26 The general layout of the Northern Footbridge Extension and Southern Footbridge is shown in Figure 3.5, and details are described below:

(I) Northern Footbridge Extension

3.27 The Proposed Northern Footbridge is an **extension of the existing Kai Cheung Road footbridge**, which currently link KITEC and Electrical and Mechanical Services Department (EMSD) Headquarters. From the Kai Cheung Road footbridge, the Northern Footbridge Extension runs along the western side of EMSD Headquarters, and across Shing Kai Road and terminates at the Kai Tak River Bank, some 500m from MTR Kai Tak Station.

3.28 Barrier-free facility will be provided at the Kai Tak River Bank end of the Proposed Northern Footbridge. Within the Proposed Redevelopment, barrier-free and 24-hour access will be provided connecting the Kai Cheung Road footbridge to the street level.

(II) Southern Footbridge

3.29 The eastern landing of Kai Fuk Road footbridge is located adjacent to KITEC, and the western landing will connect to the future commercial sites located at the South Apron Area and to the future waterfront promenade.

3.30 The Southern Footbridge will conveniently and directly connect the Proposed Redevelopment with the Kai Fuk Road footbridge. Within the Proposed Redevelopment, barrier-free and 24-hour access will be provided connecting the Proposed Southern Footbridge to the street level.

3.31 Detailed design of these two footbridges is on-going and will be dealt with under separate application procedures. After the s16 planning application has been approved, and during the detailed design stage, the design of the internal pedestrian routings between the footbridges and street level will be carried out.

Planned Cautionary Crossing at Trademart Drive

3.32 The Applicant is willing to implement the planned cautionary crossing, as per the design drawing from Energizing Kowloon East Office (EKEO) found in Appendix C, at Trademart Drive as part of the KITEC redevelopment project.

Provision of Feeder Service

3.33 Concurrent with the closure of KITEC, the free shuttle bus service was suspended on 30th June 2024.

- 3.34 For the Approved Redevelopment (TPB No. A/K22/34), the TPB advised the Applicant *“to provide sufficient shuttle bus service between the proposed development and MTR Kowloon Bay Station and to explore the possibility to provide additional shuttle bus services for connections with other nearby destinations”*.
- 3.35 To address the TPB advice and subject to the approval by Transport Department, the Applicant is willing to resume the operation of free shuttle bus service upon completion of the Proposed Redevelopment. Alternatively, feeder service operated by franchised buses could be provided to connect the Proposed Redevelopment and MTR Kowloon Bay or Kai Tak Stations. Descriptions on the feeder service are presented in Paragraphs 4.41 – 4.46.

Swept Path Analysis

- 3.36 The CAD-based swept path analysis programme, *Autodesk Vehicle Tracking*, was used to check the ease of manoeuvring of vehicles, and are found to have no problems. The swept path analysis drawings are found in the Appendix D.

4.0 TRAFFIC IMPACT

Design Year

- 4.1 The Proposed Redevelopment is expected to be completed in 2029, thus, the design years adopted for the capacity analysis are 2029 and 2032.

Traffic and Pedestrian Growth

- 4.2 In order to produce the traffic forecast for year 2032, reference is made to the population and employment data found in the latest “Territorial Population and Employment Data Matrix” (“TPEDM”) published by Planning Department and is presented in Table 4.1.

TABLE 4.1 TPEDM DATA FOR KWUN TONG

Year	Population	Employment	Total
2019	693,900	395,350	1,089,250
2031	741,300	408,250	1,149,550
Annual Growth Rate			<u>0.45%</u>

- 4.3 Table 4.1 shows that the annual growth rate for population and employment is 0.45% from 2019 – 2031. To err on the high side, the traffic and pedestrian growth rate of **0.5%** per annum is adopted to produce the traffic forecast for year 2032.

Traffic Forecast

- 4.4 The BDTM from “Quotation No. TD 311/2019 – Base District Traffic Models for the Urban Area – 2020 Update” (the “BDTM Study”) obtained from Transport Department (TD) was adopted to produce the traffic forecast. The Proposed Redevelopment is located within the K2 Base District Traffic Model (BDTM), and the BDTM traffic forecast for year 2031 is used.

- 4.5 To produce the traffic forecast for the design years, traffic flows are estimated with reference to the following:
- i. peak hour traffic models from the 2026 BDTM (for design year 2029) and 2031 BDTM (for design year 2032);
 - ii. traffic growth rates to the design years, i.e. 0.5% per annum;
 - iii. planned developments located in the vicinity; and
 - iv. traffic generation of the Proposed Redevelopment.

Comparison of Traffic Generation

- 4.6 Trip generation rates used to estimate the traffic generation of the various uses in the Proposed Redevelopment are described as follows:

(i) **“Flat”, “Office”, “Eating Place”, “Shop and Services”, “Exhibition or Convention Hall” and “Hotel”**

- 4.7 To estimate traffic generation, trip generation rates found in Volume 1 of the TPDM are adopted for “Flat”, “Office” and “Hotel”.

4.8 “Eating Place”, “Shop and Services” and “Exhibition or Convention Hall” are regarded similar as “Retail”, hence, the trip generation rates for “Retail” are adopted for these uses.

(ii) “Social Welfare Facility” and “School (Kindergarten)”

4.9 The TPDM has no trip generation rates for social welfare facilities and kindergarten, therefore, reference is made to “Community Facilities” and “Kindergarten (Private)” found in the Data Record (DR) No. 439, and the BDTM Study Final Report respectively, both which are published by TD. The extracts of DR 439 and the BDTM Study Final Report are attached in Appendix E.

(iii) “Place of Entertainment”

4.10 The peak hour traffic generation for “Place of Entertainment” occurs before the start and end of the events. To estimate the trip generation rate, the weekday peak hour traffic generation obtained for the event dates in Table 3.6 are compared to the days without any event in KITEC. The comparison is found in Table 4.2.

TABLE 4.2 TRIP GENERATION RATE FOR “PLACE OF ENTERTAINMENT”

Item	Unit	Event Start Time		Event Finish Time		
		IN	OUT	IN	OUT	
Traffic Generation	With “Place of Entertainment” Event [a]	pcu/hr	357	333	219	366
	Without any Event [b]	pcu/hr	171	217	70	106
	Difference [c] = [a] – [b]	pcu/hr	186	116	149	260
Trip Generation Rate for “Place of Entertainment” [d] = [c] ÷ 3,600 seats		pcu/hr/seat	0.0516	0.0321	0.0414	0.0722
			<u>0.0837</u>		<u>0.1136</u>	

Note: (1) survey period from 1800 – 2000 and 2200 – 0000 hours
(2) refer to Table 3.6 for survey dates with “Place of Entertainment” event
(3) survey dates without any event: 19/06/2023 (Monday), 06/07/2023 (Thursday) and 24/10/2023 (Tuesday)

(iii) Adopted Trip Generation Rate

4.11 As mentioned in Table 2.7 and shown in Figure 2.16, the subject site is served by no less than five bus and minibus routes which are located within 500m walk away. Based on Volume 1 of TPDM, the subject site has Accessibility Level A.

4.12 To conduct the worst case scenario, the event start time for “Place of Entertainment” is assumed to coincide with the AM peak hour. During the PM peak hour, the higher trip generation rates among the event start and finish times are adopted, i.e. 0.1136 pcu/hr/seat (2-way).

4.13 The adopted trip generation rates are presented in Table 4.3, and the calculated traffic generation in Table 4.4.

TABLE 4.3 TRIP GENERATION RATES

Use	Unit	Trip Generation Rates			
		AM Peak		PM Peak	
		IN	OUT	IN	OUT
Residential (average flat size 60m ²) ^{(1) (2)}	pcu/hr/flat	0.0425	0.0718	0.0370	0.0286
Office ⁽²⁾	pcu/hr/100m ²	0.2452	0.1703	0.1175	0.1573
Eating Place / Shop and Services / Exhibition or Convention Hall ⁽²⁾	pcu/hr/100m ²	0.2434	0.2296	0.3563	0.3100
Hotel	pcu/hr/room	0.1457	0.1329	0.1546	0.1290
Place of Entertainment	pcu/hr/seat	0.0516	0.0321	0.0414	0.0722
Social Welfare Facility ⁽³⁾	pcu/hr/100m ²	0.2350	0.2350	0.1150	0.1150
School (Kindergarten) ⁽⁴⁾	pcu/hr/class	6.9375	6.9375	5.4375	5.4375

Note: ⁽¹⁾ Accessibility Level = A, i.e. well served by public transport systems with railway station / light rail transit station / bus terminus or with no less than five bus / mini-bus routes, within 500m of the development site
⁽²⁾ extract from Volume 1 of TPDM
⁽³⁾ extract from DR 439
⁽⁴⁾ extract from Final Report of the BDTM Study

TABLE 4.4 COMPARISON OF TRAFFIC GENERATION

Use	Quantity	Traffic Generation (pcu/hr)					
		AM Peak			PM Peak		
		IN	OUT	2-way	IN	OUT	2-way
KITEC⁽¹⁾							
Office	63,934m ²	157	109	266	76	101	177
Eating Place / Shop and Services	73,982m ²	181	170	351	264	230	494
Exhibition or Convention Hall	17,598m ²	43	41	84	63	55	118
Place of Entertainment	4,729 seats	244	152	396	196	341	537
Total [a]		625	472	1,097	599	727	1,326
Approved Redevelopment (for information only)⁽²⁾							
Office	132,437m ²	325	226	551	156	209	365
Eating Place / Shop and Services	21,150m ²	52	49	101	76	66	142
Exhibition or Convention Hall	11,285m ²	28	26	54	41	35	76
Total [b]		405	301	706	273	310	583
Proposed Redevelopment							
Flat	1,494 flats	64	108	172	56	43	99
Office	35,600m ²	88	61	149	42	56	98
Eating Place / Shop and Services	13,403m ²	33	31	64	48	42	90
Exhibition or Convention Hall	20,773m ²	51	48	99	75	65	140
Hotel	720 rooms	105	96	201	112	93	205
Place of Entertainment	1,800 seats	93	58	151	75	130	205
Social Welfare Facility	2,090m ²	5	5	10	3	3	6
School (Kindergarten)	6 classes	42	42	84	33	33	66
Total [c]		481	449	930	444	465	908
Difference [c] – [b]		76 (19%)	148 (49%)	224 (32%)	171 (63%)	155 (50%)	325 (56%)
Difference [c] – [a]		-144 (-23%)	-23 (-5%)	-167 (-15%)	-155 (-26%)	-262 (-36%)	-418 (-32%)

Note: ⁽¹⁾ based on 2018 A&A works
⁽²⁾ extract from TPB No. A/K22/34 approved on 17th March 2023

4.14 Compared with KITEC, the Proposed Redevelopment is expected to generate **less traffic**, i.e. 167 and 418 pcu/hour (2-way), or equivalent to reduction of **15% and 32% traffic** during the AM and PM peak hours.

Planned Developments

4.15 According to the “BDTM Study”, KTD and the strategic road network, e.g. Central Kowloon Route and Trunk Road T2, have been included in the 2031 BDTM.

4.16 Reference is made to the Town Planning Board (TPB) Paper No. 10236 “Further Consideration of Review Study of Kai Tak Development and Proposed Amendments to the Approved Kai Tak Outline Zoning Plan No. S/K22/4” published in 2017, MPC Paper No. 9/21: “Proposed Amendments to the Approved Kai Tak Outline Zoning Plan No. S/K22/6” published in 2021 and TPB Paper No. 10860 “... on Proposed Amendments to the Draft Kai Tak Outline Zoning Plan No. S/K22/7 ...” published in 2022. It is noted that the development intensity in KTD has changed and details are found in Appendix F. To reflect the change in traffic generation, the BDTM is updated accordingly.

4.17 Apart from the KTD, the development parameters of other major planned developments found in the vicinity of the subject site are also summarised in Table 4.5.

TABLE 4.5 DETAILS OF MAJOR PLANNED DEVELOPMENTS

Ref.	Location	Use	Development Parameters (Approx.)	Planned Completion Year
A	Public Housing Development at Wang Chiu Road	Public Housing	around 4,070 flats and around 1,850m ² GFA retail with community facilities	2025
B	20 Kai Cheung Road	Commercial	office GFA of around 131,421m ² and retail GFA of around 5,840m ²	2025
C	NKIL 5890 at 13 Sheung Yuet Road	Office	office GFA of around 24,423m ²	2023 ⁽¹⁾
D	Development at Kowloon Bay Action Area	Commercial	total GFA of around 500,000m ²	from 2028
E	Public Housing Development at Yip On Factory Estate	Public Housing	around 2,200 flats with associated welfare facilities	2029/30
F	7 Wang Tai Road	Office	office GFA of around 38,500m ²	2026
G	New Acute Hospital at Kai Tak Development Area	Hospital	around 2,400 beds	2026
H	1 – 5 Kai Hing Road	Residential	around 1,782 flats and retail GFA of around 600m ²	2025
I	7 Kai Hing Road	Office	office GFA of around 43,440m ² and retail GFA of around 5,500m ²	2026

Note: ⁽¹⁾ redevelopment is yet to complete and construction works were not observed on-site. To err on the high side, traffic generation remains included in the traffic forecast.

4.18 The major planned developments listed in Table 4.5 have been included in the traffic forecast.

2029 and 2032 Junction and Link Capacity Analysis

4.19 The 2029 and 2032 junction capacity analyses are conducted for the following scenarios:

- with KITEC;
- with Approved Redevelopment; and
- with Proposed Redevelopment.

4.20 The 2029 and 2032 peak hour traffic flows for the 3 scenarios are shown in Figures 4.1 – 4.6 respectively.

4.21 The design year junction capacity analysis for the cases with the Approved Redevelopment and with the Proposed Redevelopment are summarised in Table 4.6, and detailed calculations are found in Appendix A.

TABLE 4.6 DESIGN YEAR JUNCTION OPERATIONAL PERFORMANCE

Ref.	Signal Junction	Reserve Capacity / Ratio-of-Flow to Capacity ⁽¹⁾					
		With KITEC		With Approved Redevelopment		With Proposed Redevelopment	
		AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Year 2029							
J1	Kai Cheung Road / Trademart Drive	0.555	0.745	0.418	0.464	0.537	0.568
J2	Kai Cheung Road / Wang Kwong Road ⁽²⁾	22%	29%	23%	32%	22%	31%
J3	Wang Kwong Road / Lam Hing Street ⁽²⁾	33%	24%	34%	25%	34%	25%
J4	Wang Kwong Road / Wang Chin Street	0.213	0.223	0.196	0.188	0.202	0.205
J5	Kai Cheung Road / Wang Chiu Road ⁽²⁾	28%	26%	29%	29%	29%	28%
J6	Wang Chiu Road / Lam Hing Street ⁽²⁾	20%	38%	20%	38%	20%	38%
J7	Wang Chiu Road / Sheung Yuet Road ⁽²⁾	27%	33%	27%	33%	27%	33%
J8	Wang Chiu Road / Lam Fung Street ⁽²⁾	57%	54%	59%	55%	58%	54%
J9	Sheung Yee Road / Wang Chiu Road ⁽²⁾	22%	29%	22%	29%	22%	29%
J10	Shing Kai Road / Muk On Street / Kai Shing Street	34%	55%	35%	58%	35%	57%
J11	Wang Chiu Road / Kai Lai Road / Kai Lok Street	32%	44%	32%	44%	32%	44%
J12	Wang Kwong Road / Kai Wah Street	28%	44%	28%	44%	28%	44%

(i) **“Flat”, “Office”, “Eating Place”, “Shop and Services”, “Exhibition or Convention Hall”, “Hotel”, “Social Welfare Facility” and “School (Kindergarten)”**

4.25 As mentioned in Paragraph 4.8, “Eating Place”, “Shop and Services” and “Exhibition or Convention Hall” are regarded similar as “Retail”. Details of the surveyed developments, regarded as similar in terms of location, use and accessibility to public transport services, which are used to derive the pedestrian generate for residential, office, retail, hotel, social welfare facility and kindergarten are given in Table 4.8.

TABLE 4.8 DETAILS OF SURVEYED DEVELOPMENTS

Use	Development	Location	Acc. Level ⁽¹⁾	Development Parameters (Approx.)
Residential	Grand Waterfront	38 San Ma Tau Street, To Kwa Wan	A	1,782 flats (average flat size = 51m ²)
Office	Millennium City Phase II	376 – 378 Kwun Tong Road, Kwun Tong	A	office GFA of around 24,800m ²
Retail	The ONE	100 Nathan Road, Tsim Sha Tsui	A	retail GFA of around 37,500m ²
Hotel	Harbour Plaza 8 Degrees	199 Kowloon City Road, Ma Tau Chung	A	704 rooms
Social Welfare Facility	On Tai Estate Ancillary Facilities Block	23 On Sau Road, Kwun Tong	A	around 8,000m ² welfare facilities for elderly and disabled persons
Kindergarten	Kowloon City Baptist Church Kindergarten	206 Argyle Street Kowloon City	A	6 classrooms

Note: ⁽¹⁾ Accessibility (Acc.) Level = A, i.e. well served by public transport systems with railway station / light rail transit station / bus terminus or with no less than five bus / mini-bus routes, within 500m of the development site

(ii) **“Place of Entertainment”**

4.26 From the operation of KITEC, it is understood that the event finish time is after the operating hours of most offices, restaurants and shops. Hence, pedestrian generation for “Place of Entertainment” is obtained based on the number of pedestrians leaving KITEC after the event finish time on the dates as shown in Table 3.6.

4.27 However, pedestrian generation associated to “Place of Entertainment” during the event start time could not be quantified because the pedestrian entering KITEC could not be distinguished from those visiting other uses, i.e. shops, offices, etc. To err on the high side, the pedestrian generation rate during the event start time is assumed to be the same as the event finish time, and the adopted pedestrian generation rates are presented in Table 4.9.

TABLE 4.9 PEDESTRIAN GENERATION RATE FOR "PLACE OF ENTERTAINMENT"

Item	Unit	On the day with "Place of Entertainment" Event ⁽¹⁾	
		Event Start Time	Event Finish Time
Pedestrian Generation [a]	ped/15-min		681
Pedestrian Generation Rate = [a] ÷ 3,600 seats	ped/15-min/seat	0.1892 ⁽²⁾	0.1892

Note: ⁽¹⁾ refer to Table 3.6 for survey dates with "Place of Entertainment" event

⁽²⁾ assume the same as the event finish time

(iii) Adopted Pedestrian Generation Rate

4.28 By adopting the same assumption mentioned in Paragraph 4.12, the event start time for "Place of Entertainment" is assumed to coincide with the AM peak hour. To conduct the worst case scenario, the event finish time is assumed to coincide with the PM peak hour. Based on the survey findings, the adopted pedestrian generation rates are presented in Table 4.10.

TABLE 4.10 PEDESTRIAN GENERATION RATES

Use	Unit	Pedestrian Generation Rates			
		AM Peak		PM Peak	
		IN	OUT	IN	OUT
Residential	ped/15-min/flat	0.0202	0.0875	0.0853	0.0348
Office	ped/15-min/100m ²	0.6250	0.1935	0.1613	0.3669
Eating Place / Shop and Services / Exhibition or Convention Hall	ped/15-min/100m ²	0.2347	0.1147	1.0348	0.8641
Hotel	ped/15-min/room	0.0355	0.0668	0.0696	0.0483
Place of Entertainment	ped/15-min/seat	0.1892	0	0	0.1892
Social Welfare Facility	ped/15-min/100m ²	0.1111	0.0889	0.0222	0.3000
School (Kindergarten)	ped/15-min/class	6.6667	5.1667	1.3333	9.8333

4.29 The pedestrian generation rates presented in Table 4.10 are used to calculate the pedestrian generated by Proposed Redevelopment, and the calculated pedestrian generation is presented in Table 4.11.

TABLE 4.11 COMPARISON OF PEDESTRIAN GENERATION

Use	Quantity	Pedestrian Generation (ped/15-min)					
		AM Peak			PM Peak		
		IN	OUT	2-way	IN	OUT	2-way
KITEC⁽¹⁾							
Office	63,934m ²	400	124	524	104	235	339
Eating Place / Shop and Services	73,982m ²	174	85	259	766	640	1,406
Exhibition or Convention Hall	17,598m ²	42	21	63	183	152	335
Place of Entertainment	4,729 seats	895	0	895	0	895	895
Total [a]		1,511	230	1,741	1,053	1,922	2,975
Approved Redevelopment (for information only)⁽²⁾							
Office	132,437m ²	828	257	1,085	214	486	700
Eating Place / Shop and Services	21,150m ²	50	25	75	219	183	402
Exhibition or Convention Hall	11,285m ²	27	13	40	117	98	215
Total [b]		905	295	1,200	550	767	1,317
Proposed Redevelopment							
Flat	1,494 flats	31	131	162	128	52	180
Office	35,600m ²	223	69	292	58	131	189
Eating Place / Shop and Services	13,403m ²	32	16	48	139	116	255
Exhibition or Convention Hall	20,773m ²	49	24	73	215	180	395
Hotel	720 rooms	26	49	75	51	35	86
Place of Entertainment	1,800 seats	341	0	341	0	341	341
Social Welfare Facility	2,090m ²	3	2	5	1	7	8
School (Kindergarten)	6 classes	41	32	73	8	59	67
Total [c]		746	323	1,069	600	921	1,521
Difference [c] – [b]		-159 (-18%)	28 (9%)	-131 (-11%)	50 (9%)	154 (20%)	204 (15%)
Difference [c] – [a]		-765 (-51%)	93 (40%)	-672 (-39%)	-453 (-43%)	-1,001 (-52%)	-1,454 (-49%)

Note: ⁽¹⁾ based on 2018 A&A works

⁽²⁾ extract from TPB No. A/K22/34 approved on 17th March 2023

- 4.30 Compared with the existing KITEC, the Proposed Redevelopment is expected to generate **less pedestrians**, i.e. 672 and 1,454 ped/15-min (2-way), or equivalent to reduction of **39% and 49% pedestrians** during the AM and PM peak hours.

2029 and 2032 Level-of-Service Assessment

- 4.31 The design year pedestrian flows are derived with reference to the following:
- observed peak 15-minute pedestrian flows in year 2023;
 - annual growth rate from 2023 to the design years, i.e. 0.5%; and
 - pedestrian generation for 3 scenarios, i.e. with (i) KITEC; (ii) Approved Redevelopment; and (iii) Proposed Redevelopment.
- 4.32 The 2029 and 2032 peak 15-minute pedestrian flows for the 3 scenarios are shown in Figures 4.14 – 4.19 respectively, and the corresponding LOS assessment is presented in Table 4.12.

TABLE 4.12 DESIGN YEAR LEVEL-OF-SERVICE ASSESSMENT

Ref.	Footpath	Peak Period	2-way Peak Pedestrian Flows ⁽¹⁾								
			With KITEC			With Approved Redevelopment			With Proposed Redevelopment		
			Flow (ped/15-min)	Rate (ped/min/m)	LOS	Flow (ped/15-min)	Rate (ped/min/m)	LOS	Flow (ped/15-min)	Rate (ped/min/m)	LOS
Year 2029											
F1	Western footpath of Trademart Drive	AM	825	18.3	B	701	15.6	A	629	14.0	A
		PM	1400	31.1	C	785	17.4	B	898	20.0	B
F2	Eastern footpath of Trademart Drive	AM	26	0.5	A	26	0.5	A	26	0.5	A
		PM	22	0.4	A	22	0.4	A	22	0.4	A
F3	Northern footpath of Lam Hing Street	AM	198	7.3	A	145	5.4	A	132	4.9	A
		PM	339	12.6	A	174	6.4	A	195	7.2	A
F4	Southern footpath of Lam Hing Street	AM	205	3.9	A	151	2.9	A	138	2.6	A
		PM	322	6.1	A	156	3.0	A	177	3.4	A
F5	Western footpath of Wang Chin Street	AM	239	8.0	A	207	6.9	A	203	6.8	A
		PM	340	11.3	A	168	5.6	A	189	6.3	A
F6	Eastern footpath of Wang Chin Street	AM	31	0.9	A	31	0.9	A	31	0.9	A
		PM	37	1.1	A	37	1.1	A	37	1.1	A
Year 2032											
F1	Western footpath of Trademart Drive	AM	826	18.4	B	702	15.6	A	630	14.0	A
		PM	1400	31.1	C	785	17.4	B	898	20.0	B
F2	Eastern footpath of Trademart Drive	AM	26	0.5	A	26	0.5	A	26	0.5	A
		PM	22	0.4	A	22	0.4	A	22	0.4	A
F3	Northern footpath of Lam Hing Street	AM	198	7.3	A	145	5.4	A	132	4.9	A
		PM	340	12.6	A	175	6.5	A	196	7.3	A
F4	Southern footpath of Lam Hing Street	AM	206	3.9	A	152	2.9	A	139	2.6	A
		PM	322	6.1	A	156	3.0	A	177	3.4	A
F5	Western footpath of Wang Chin Street	AM	239	8.0	A	207	6.9	A	203	6.8	A
		PM	340	11.3	A	168	5.6	A	189	6.3	A
F6	Eastern footpath of Wang Chin Street	AM	31	0.9	A	31	0.9	A	31	0.9	A
		PM	37	1.1	A	37	1.1	A	37	1.1	A

Note: ⁽¹⁾ highest pedestrian flows along the whole section of walkway

- 4.33 The above results indicate that the analysed footpaths are expected to operate with LOS A to C during the peak hours in 2029 and 2032. The results show that the footpaths analysed has sufficient capacity to accommodate the (i) expected pedestrian growth; and (ii) change in pedestrian flows associated to the Proposed Redevelopment.

Modal Split of Transport Demand

- 4.34 The projected public transport demand of the Proposed Redevelopment by various transport modes is estimated with reference to the “2021 Population Census” published by Census and Statistics Department (C&SD). The estimated modal split is presented in Table 4.13.

TABLE 4.13 MODAL SPLIT OF PUBLIC TRANSPORT DEMAND FOR KWUN TONG

Public Transport Mode		No. of Persons			Percentage
		Working Population	Students	Total	
Railway		99,580	31,832	131,412	41%
Road-based Public Transport Service	Bus / Minibus	87,194	32,514	119,708	37%
	Company Bus / School Bus / Shuttle Service	7,378	11,699	19,077	6%
	Taxi	1,844	519	2,363	1%
On foot only		24,659	23,665	48,324	15%
Total		220,655	100,229	320,884	100%

Source: 2021 Population Census

- 4.35 Table 4.13 shows that around 41% of daily travellers use railway and 44% use the road-based public transport service, e.g. franchised bus, minibus, taxi, etc. The remaining 15% of population travel to their work places / schools on foot only.

Impact to Public Transport Services

- 4.36 Based on the findings in Table 4.11, the maximum number of pedestrians generated by the Proposed Redevelopment is found to be 6,084 ped/hr (two-way) [Calculation: 1521×4] during the PM peak hour. With the modal split estimated in Table 4.13, the public transport demand of the Proposed Redevelopment is presented in Table 4.14.

TABLE 4.14 PUBLIC TRANSPORT DEMAND OF THE PROPOSED REDEVELOPMENT

Public Transport Mode	Percentage ⁽¹⁾	No. of 2-way Pedestrian Trips (ped/hr)
Railway	41%	2,495
Road-based Public Transport Service	44%	2,677
On foot only	15%	912
Total	100%	6,084

Note: ⁽¹⁾ from Table 4.13

- 4.37 To be conservative, it is assumed that all rail passengers will travel to the MTR Kowloon Bay or Kai Tak Stations by interchanging with bus / minibus services, taking into consideration their distances to the Proposed Redevelopment. Hence, the maximum road-based passenger demand is found to be 5,172 ped/hr [Calculation: $2495 + 2677$].
- 4.38 As mentioned in Paragraph 2.21, the existing franchised bus and GMB services have surplus capacity of over 8,500 and 6,500 passengers during the AM and PM peak hours respectively. Hence, the surplus capacity would be **capable to absorb the additional road-based passenger demand** associated to the Proposed Redevelopment.

4.39 With reference to Serial No. TLB162 of “*Examination of Estimates of Expenditure 2024 – 25*” for Legislative Council Finance Committee Meetings, the maximum carrying capacities of MTR Kwun Tong Line and Tuen Ma Line per direction are 71,400 and 70,000 persons per hour (pph) respectively.

4.40 From the findings in Table 4.14, the maximum rail-based passenger demand is found to be 2,495 ped/hr. This is equivalent to only **0.88%** of the maximum carrying capacity of the MTR Kwun Tong Line and Tuen Ma Line [= 2495 ÷ (71400 + 70000) ÷ 2], which is **insignificant**.

Enhancement of Feeder Services to / from MTR Stations

4.41 Serial No. TLB162 of “*Examination of Estimates of Expenditure 2024 – 25*” also advises that the current patronages of MTR Kwun Tong Line and Tuen Ma Line are 40,000 and 36,100 pph respectively. By adopting the patronage split for the Proposed Redevelopment, say, 53% of rail-based passengers will use MTR Kowloon Bay Station and the remaining 47% will use MTR Kai Tak Station.

4.42 Apart from the existing road-based public transport services, new franchised bus routes or re-routing of existing bus routes are proposed as feeder services to connect the Proposed Redevelopment and MTR Kowloon Bay or Kai Tak Stations. The analysis of proposed feeder services is presented in Table 4.15.

TABLE 4.15 ANALYSIS FOR FEEDER SERVICE TO / FROM MTR STATIONS

Item		Calculation	AM Peak		PM Peak	
			IN ⁽¹⁾	OUT ⁽²⁾	IN ⁽¹⁾	OUT ⁽²⁾
Pedestrian Generation	ped/15-min ⁽³⁾	[a]	746	323	600	921
	ped/hr	[b] = [a] × 4	2,984	1,292	2,400	3,684
Total Rail-based Passenger Demand (pph)		[c] = [b] × 41% ⁽⁴⁾	1,224	530	984	1,511
MTR Kowloon Bay Station	Passenger Demand (pph)	[d ₁] = [c] × 53% ⁽⁵⁾	649	281	522	801
	Carrying Capacity of Double-Deck Bus (per) ⁽⁶⁾	[e ₁]	102	102	102	102
	Number of Trips per hour	[f ₁] = [d ₁] ÷ [e ₁]	7	3	6	8
	Headway (min)	[g ₁] = 60 ÷ [f ₁]	8	20	10	7
MTR Kai Tak Station	Passenger Demand (pph)	[d ₂] = [c] × 47% ⁽⁵⁾	576	250	463	711
	Carrying Capacity of Double-Decked Bus (per) ⁽⁶⁾	[e ₂]	102	102	102	102
	Number of Trips per hour	[f ₂] = [d ₂] ÷ [e ₂]	6	3	5	7
	Headway (min)	[g ₂] = 60 ÷ [f ₂]	10	20	12	8

- Note:
- ⁽¹⁾ from MTR stations to the Proposed Redevelopment
 - ⁽²⁾ from the Proposed Redevelopment to MTR stations
 - ⁽³⁾ from Table 4.11
 - ⁽⁴⁾ from Table 4.13
 - ⁽⁵⁾ from Paragraph 4.41
 - ⁽⁶⁾ The assumed carrying capacity of a double-deck bus is 120 passengers. To be conservative, a loading of 102 passengers per double-deck bus, i.e. 85% full, is adopted.

4.43 Table 4.15 shows that 7 and 8 bus trips (one-way) are required connecting the Proposed Redevelopment and MTR Kowloon Bay Station during the AM and PM peak hours respectively. Similarly, 6 and 7 trips (one-way) are required for MTR Kai Tak Station respectively.

4.44 Figure 3.1 shows that a 120m lay-by is currently provided at Trademart Drive fronting the Proposed Redevelopment. Hence, a section of this lay-by could be designated as bus stop / terminus for feeder services.

4.45 Alternatively, some existing urban local bus routes operating close to KITEC may include a new enroute bus stop at Trademart Drive to strengthen the connection between the Proposed Redevelopment and MTR Kowloon Bay or Kai Tak Stations. The indicative enhancement proposal is presented in Table 4.16.

TABLE 4.16 INDICATIVE ENHANCEMENT PROPOSAL TO EXISTING BUS SERVICES

Route No.	Routing	Frequency (min)	Possible Service Enhancement
KMB 5D	Telford Gardens – Hung Hom (circular)	13 – 30	add enroute bus stop at Trademart Drive for journeys to Telford Gardens
KMB 5M	MTR Kowloon Bay Station (circular) – Kai Tak (Tak Long Estate)	15 – 30	add enroute bus stop at Trademart Drive for journeys from MTR Kowloon Bay Station to Kai Tak (Tak Long Estate)
CTB 22M	Kai Tak Cruise Terminal – To Kwa Wan	20 – 30	add enroute bus stop at Trademart Drive for both bounds

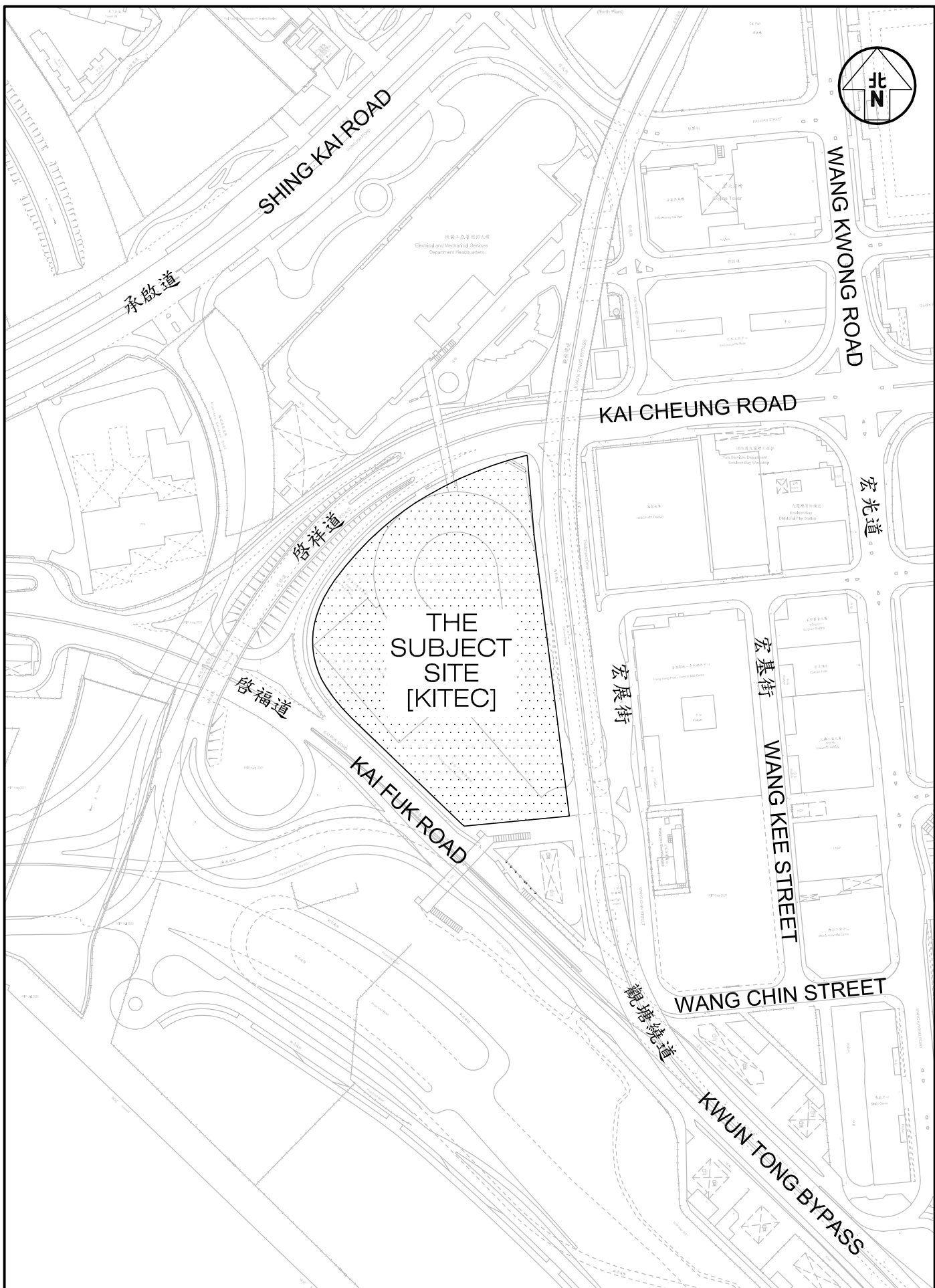
Note: KMB – Kowloon Motor Bus CTB – CityBus

4.46 It is noted that the public transport service network in Kowloon East, including the Kowloon Bay Business Area, is being strengthened progressively to cater for the rapid development and transformation. Hence, the provision of feeder services for the Proposed Redevelopment shall be further reviewed by Transport Department together with the regional public transport service network to suit the operational need in future.

5.0 SUMMARY

- 5.1 The subject site is located at New Kowloon Inland Lot No. 6032 at 1 Trademart Drive in Kowloon Bay. This s16 planning application is for the redevelopment of KITEC with 1,494 flats, 35,600m² for “Office”, 13,403m² for “Eating Place” and “Shop and Services”, 20,773m² for “Exhibition or Convention Hall”, “Place of Entertainment” with 1,800 seats, 720-room “Hotel” with supporting “Social Welfare Facility” and “School (Kindergarten)”.
- 5.2 The internal transport facilities provided for the uses within the Proposed Development comply with the **maximum recommendations of HKPSG**, except for welfare facilities, which are provided to meet the operational needs of the privately-financed RCHE and DE.
- 5.3 Manual classified counts were conducted at key junctions, which are located in the vicinity in order to establish the existing traffic flows during the AM and PM peak hours. The 2029 and 2032 design traffic flows are derived with reference to the latest BDTM and have taken into account the planned developments in the vicinity of the subject site.
- 5.4 The 2029 and 2032 junction and link capacity analyses were undertaken for 3 scenarios with: (i) the existing KITEC; (ii) the Approved Redevelopment (i.e. TPB No. A/K22/34); and (iii) the Proposed Redevelopment. The junctions and road links analysed have sufficient capacity to accommodate the expected traffic volume in 2032 and traffic generated by the Proposed Redevelopment.
- 5.5 Pedestrian counts were conducted at the footpaths in the vicinity of the subject site in order to estimate the future pedestrian flows during the AM and PM peak periods. The LOS assessment demonstrates that the analysed footpaths have sufficient capacity to accommodate the estimated pedestrian flows in 2029 and 2032.
- 5.6 The surplus capacity of the existing franchised bus and GMB services would be capable to absorb the additional road-based passenger demand from the Proposed Redevelopment. The provision of feeder services shall be further reviewed by Transport Department together with the regional public transport service network to suit the operational need in future. In addition, the Proposed Redevelopment is expected to generate insignificant rail-based passenger demand to the MTR Kwun Tong Line and Tuen Ma Line during the AM and PM peak hours.
- 5.7 The TIA concluded that the Proposed Redevelopment will result in **no** adverse traffic impact to the surrounding road network. From traffic engineering grounds, the Proposed Redevelopment is acceptable.

Figures

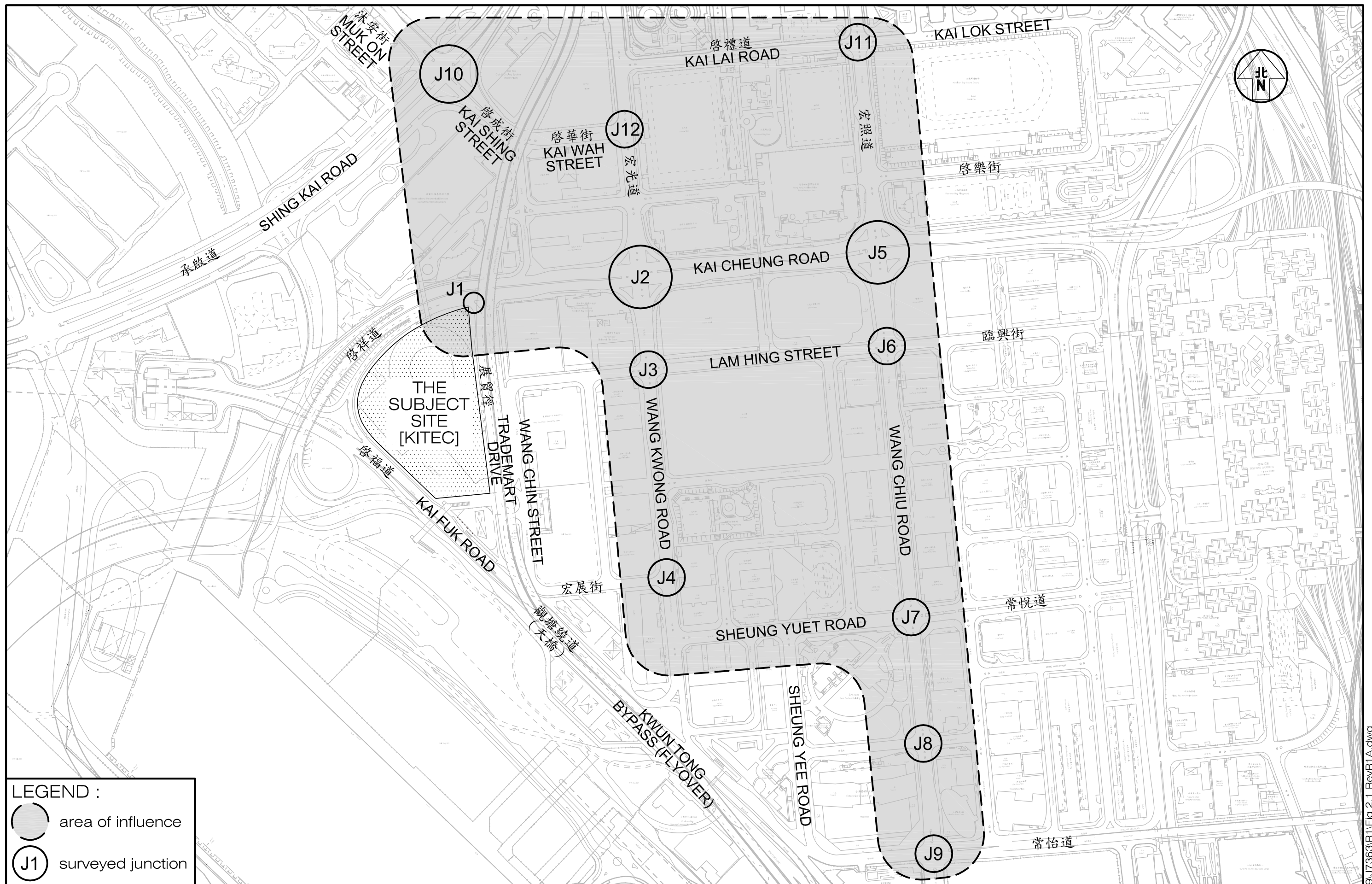


Project Title
**PROPOSED COMPOSITE REDEVELOPMENT AT
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Job No. J7363	Figure No. 1.1	Scale in A4 1 : 3,000	
Designed by THC	Drawn by CCL	Checked by KC	Revision Date R1A 08 JAN 2025

Figure Title
LOCATION OF THE SUBJECT SITE

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LEGEND :

● area of influence

○ J1 surveyed junction

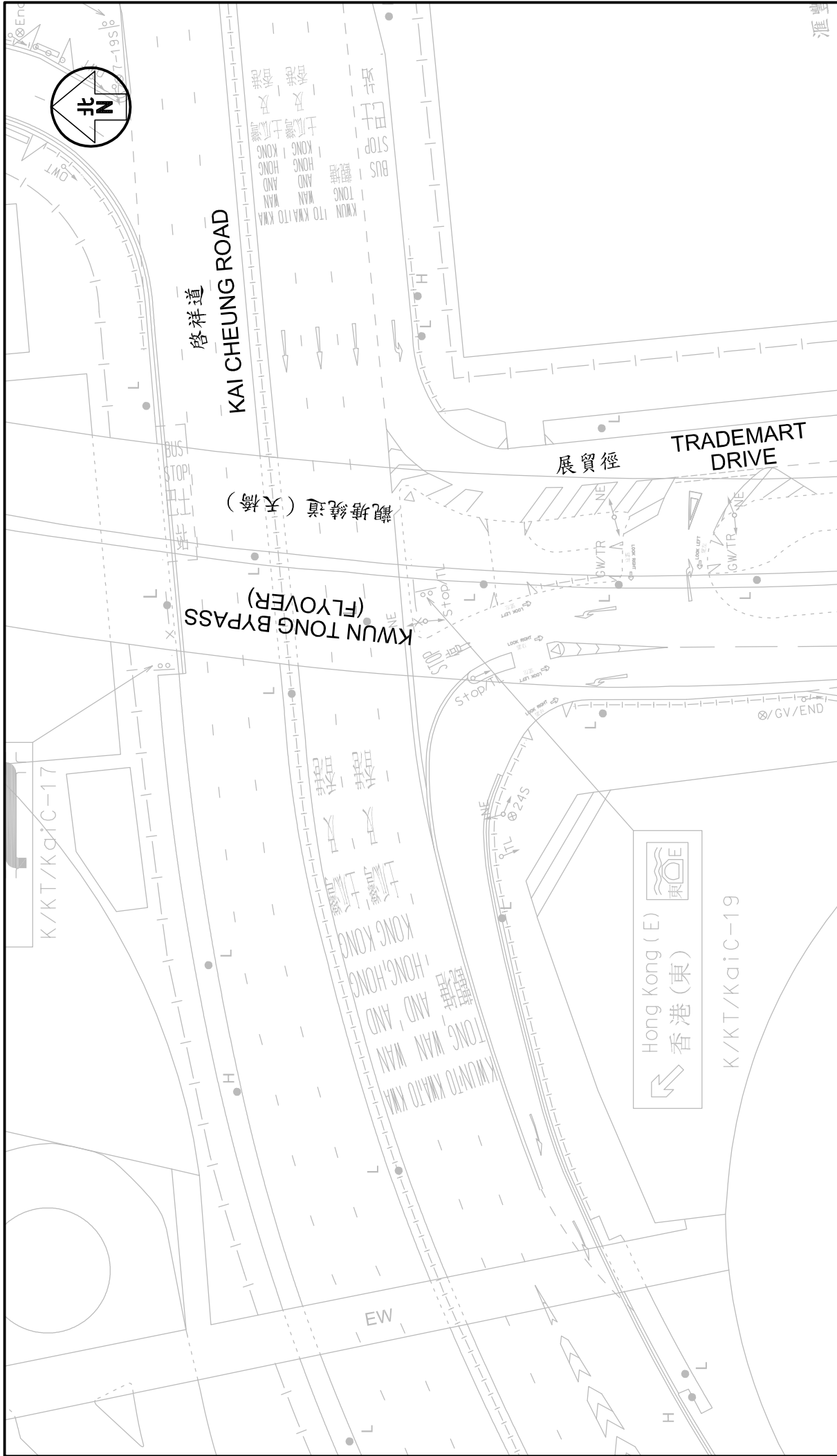
Project Title **PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY**

Figure Title **SURVEYED JUNCTIONS**

Figure No.	2.1		Revision	R1A
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				KC
Scale in A3	1 : 4,000		Date	08 JAN 2025

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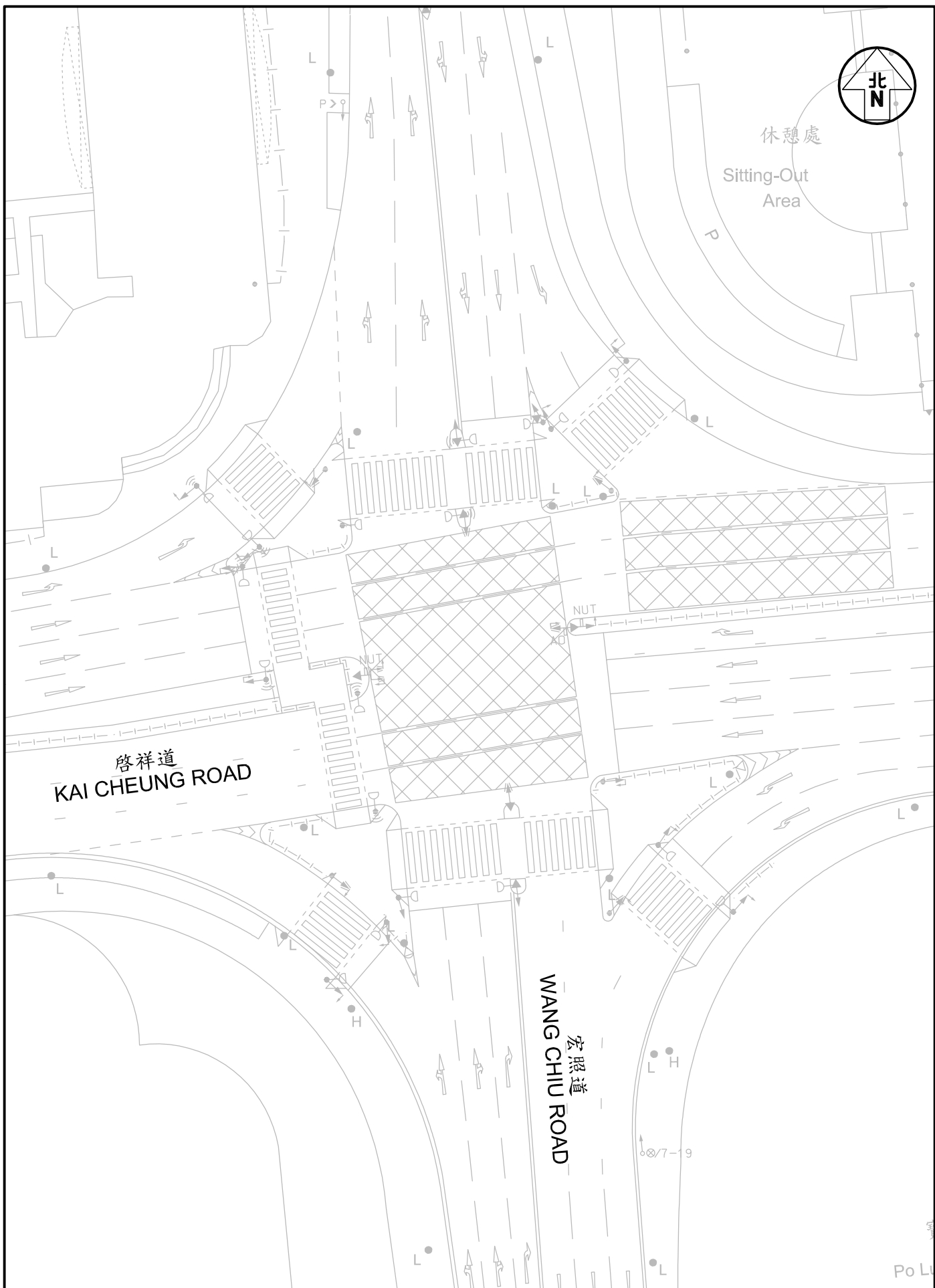


Project Title NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	Figure No. 2.2		Revision R1A
	Designed by T H C	Drawn by C C L	Checked by K C
Figure Title (J1) JUNCTION OF KAI CHEUNG ROAD / TRADEMART DRIVE	Scale in A4 1 : 500		Date 08 JAN 2025
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Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT	
	NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	
Figure Title	(J4) JUNCTION OF WANG KWONG ROAD / WANG CHIN STREET	
	Figure No.	J7363
Revision	R1A	
Figure No.	2.5	
Designed by	T H C	Checked by
Drawn by	C C L	Checked by
Scale in A4	1 : 500	Date
		08 JAN 2025
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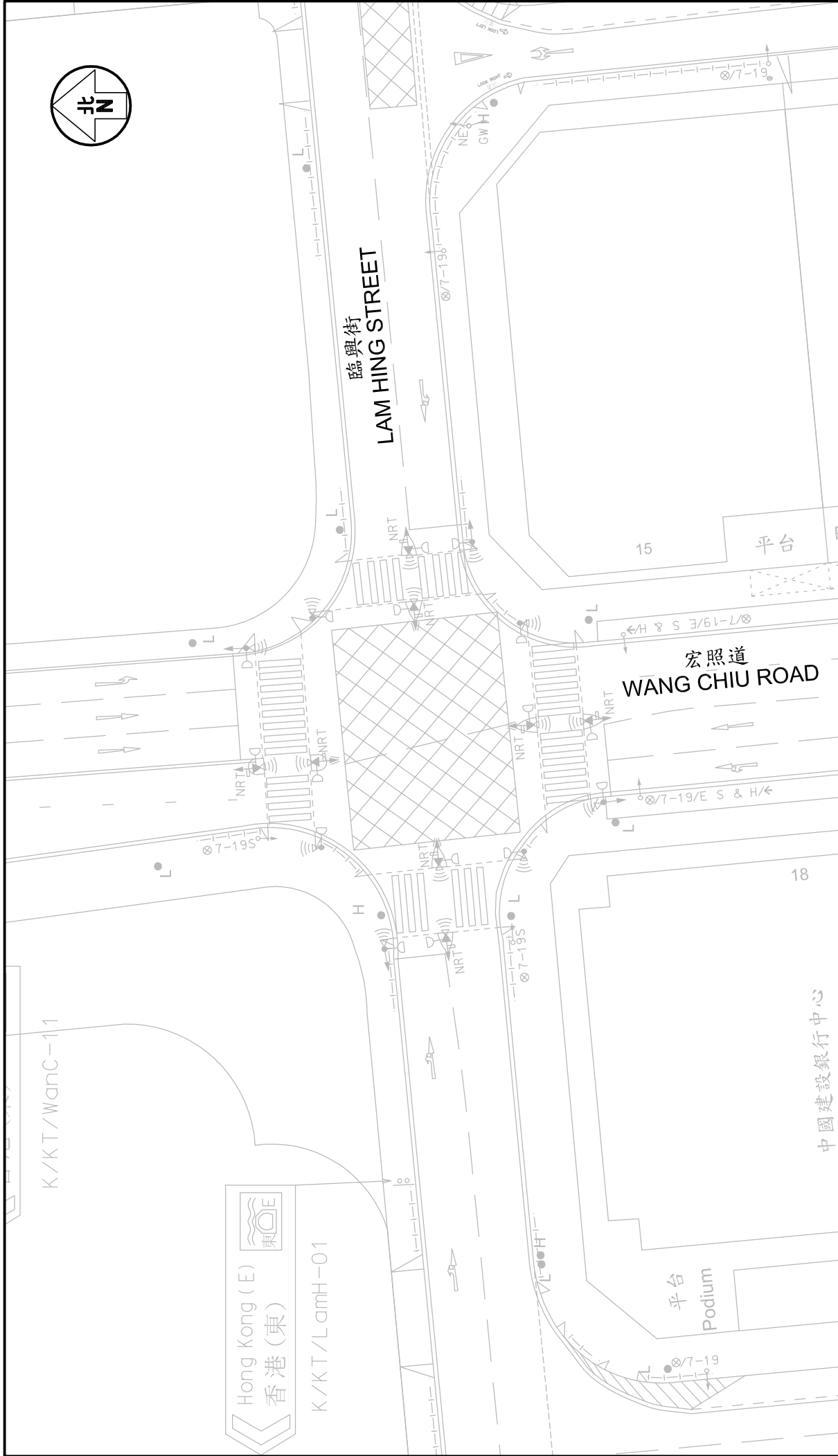
Project Title
**PROPOSED COMPOSITE REDEVELOPMENT AT
 NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY**

Figure Title
(J5) JUNCTION OF KAI CHEUNG ROAD / WANG CHIU ROAD

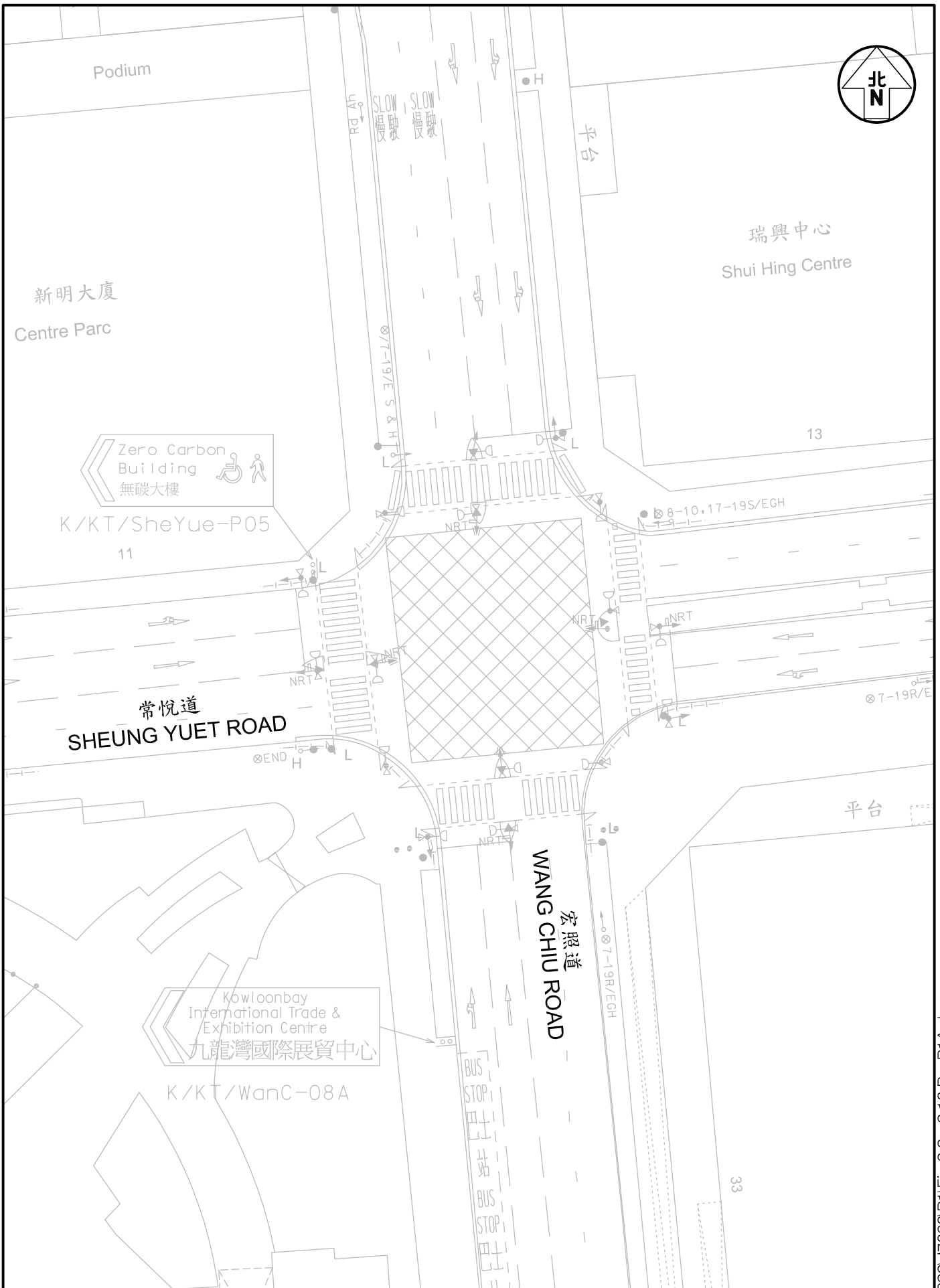
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		Date 08 JAN 2025	

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Project Title NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	Figure No.	2.7	Revision	R1A
	Designed by T H C	Drawn by C C L	Checked by K C	
Figure Title (J6) JUNCTION OF WANG CHIU ROAD / LAM HING STREET	Scale in A4	1 : 500	Date	08 JAN 2025
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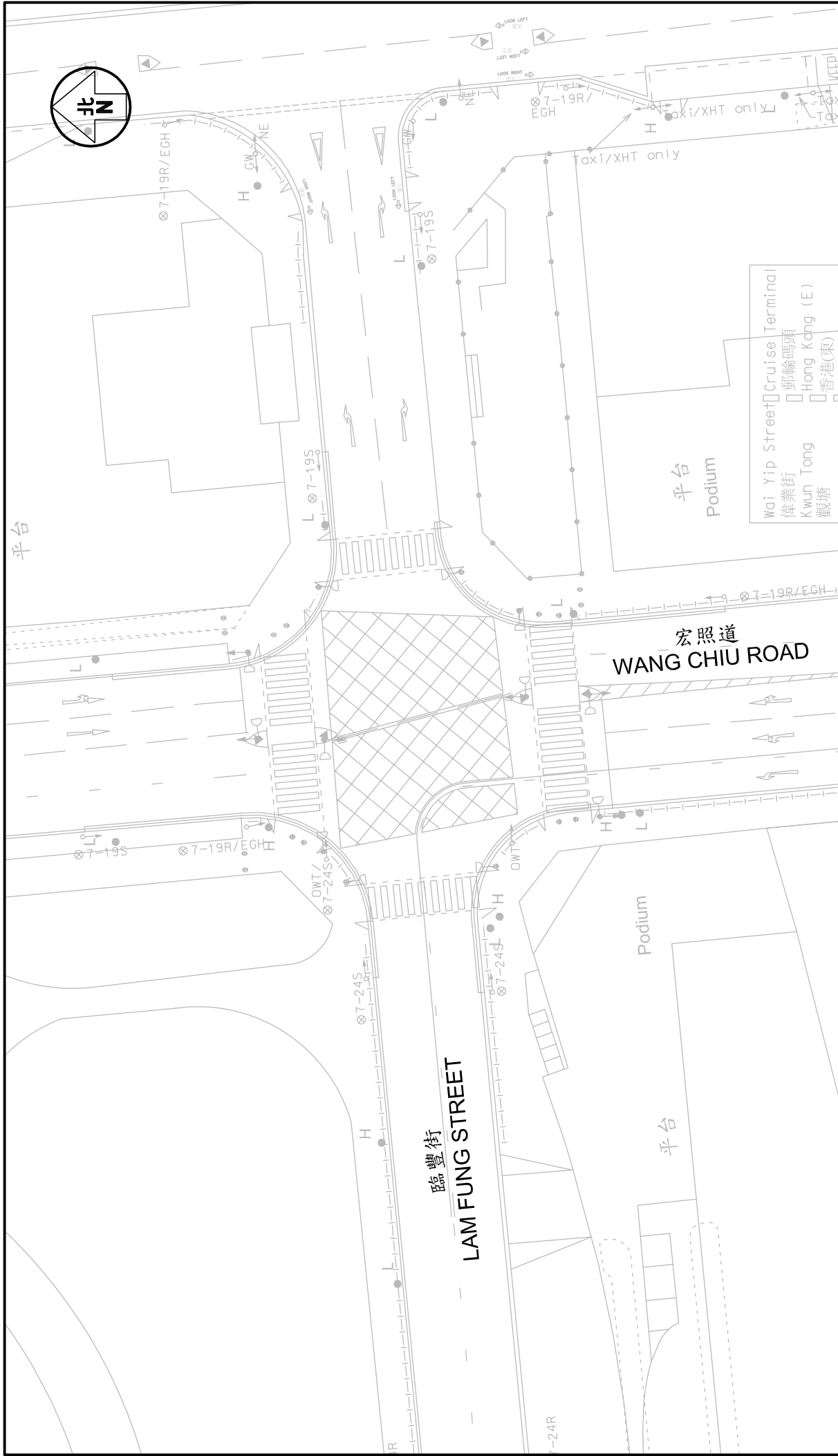


Project Title
**PROPOSED COMPOSITE REDEVELOPMENT AT
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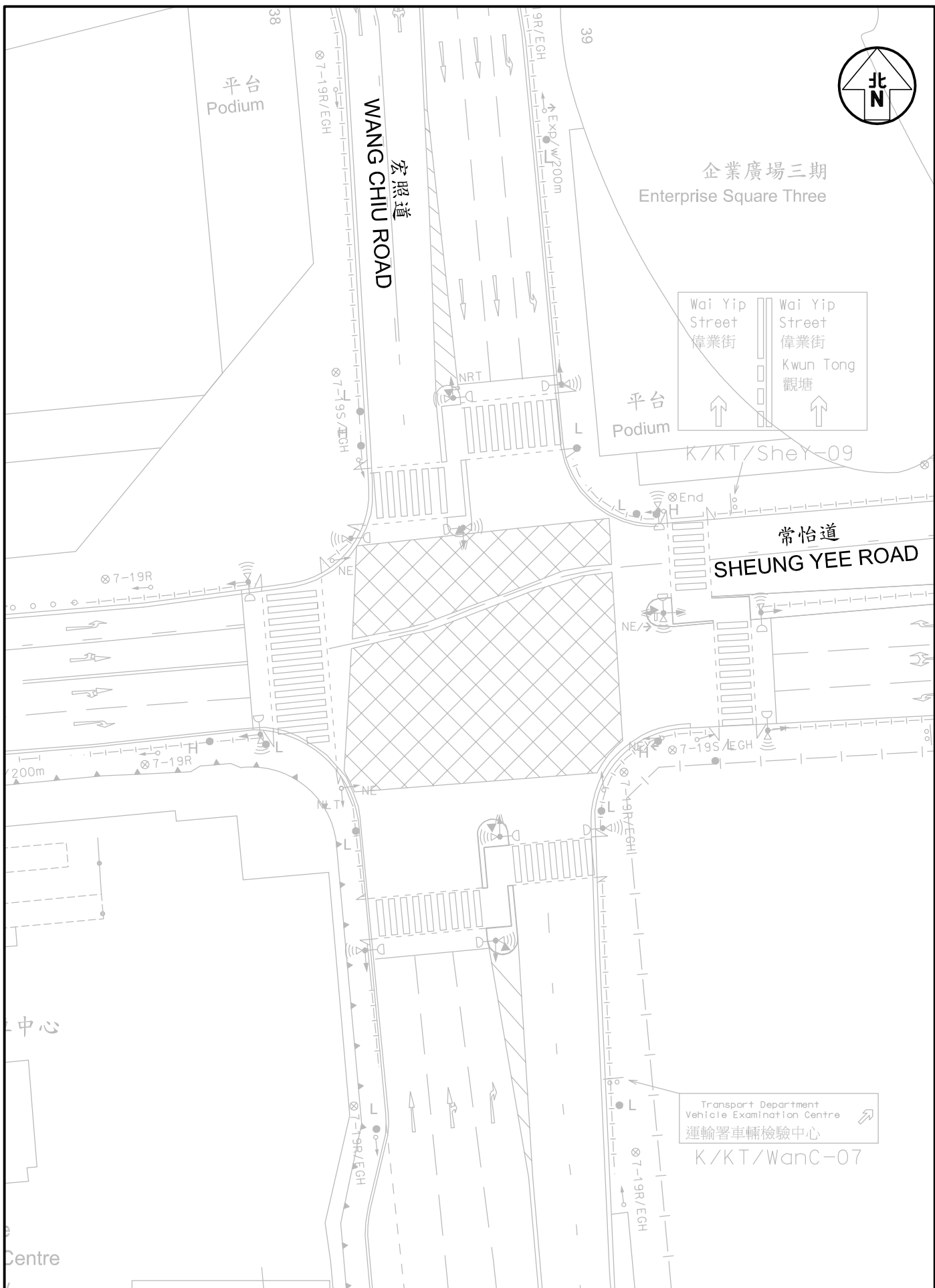
Job No. J7363	Figure No. 2.8	Scale in A4 1 : 500	
Designed by T H C	Drawn by C C L	Checked by K C	Revision R1A
		Date 08 JAN 2025	

Figure Title
(J7) JUNCTION OF WANG CHIU ROAD / SHEUNG YUET ROAD

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Project Title PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	Figure No. J7363	Revision R1A	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	
	Designed by T H C	Drawn by C C L	Checked by K C	Date 08 JAN 2025
Figure Title (J8) JUNCTION OF WANG CHIU ROAD / LAM FUNG STREET	Scale in A4 1 : 500			



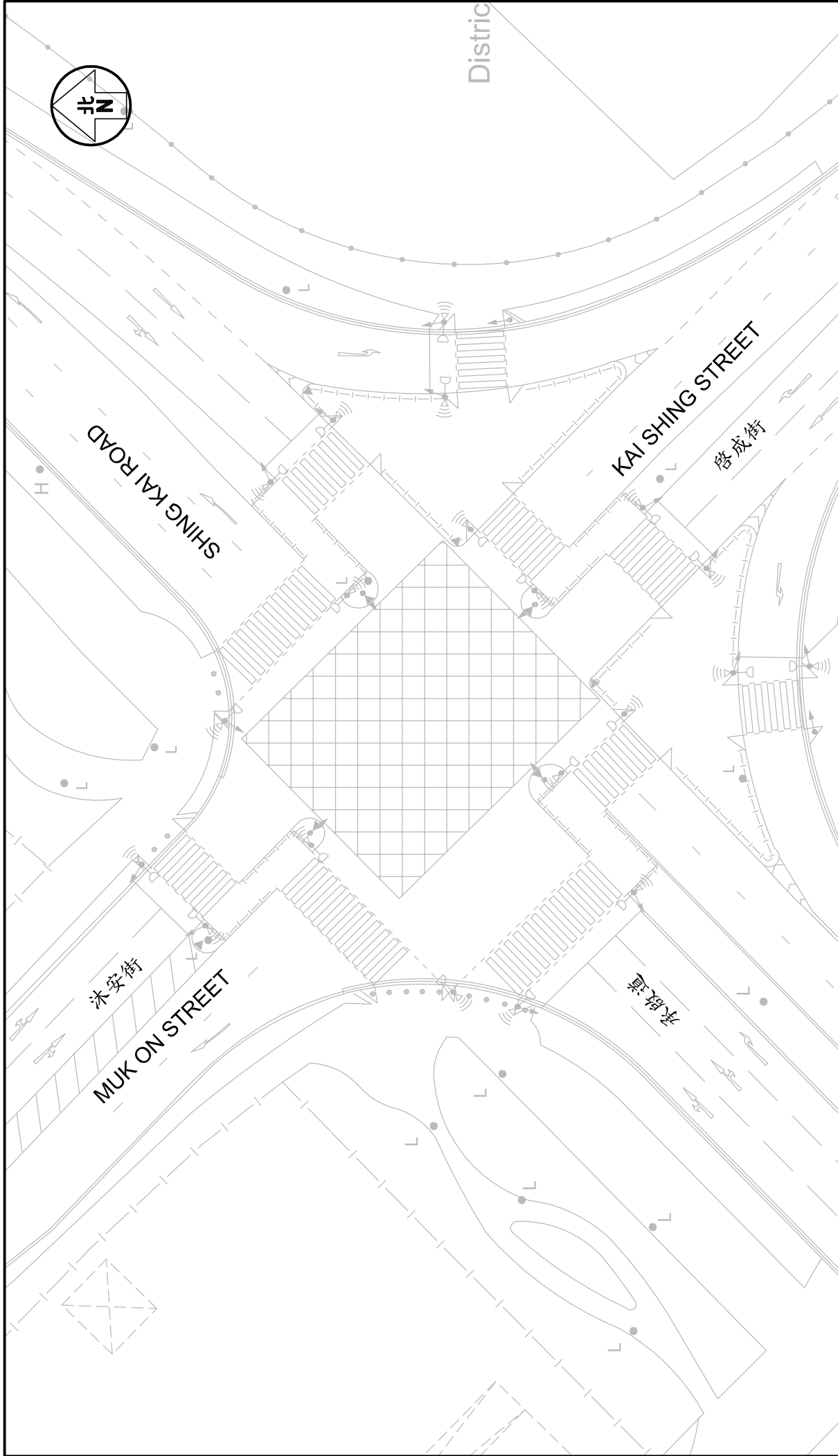
Project Title
**PROPOSED COMPOSITE REDEVELOPMENT AT
 NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY**

Figure Title
(J9) JUNCTION OF SHEUNG YEE ROAD / WANG CHIU ROAD

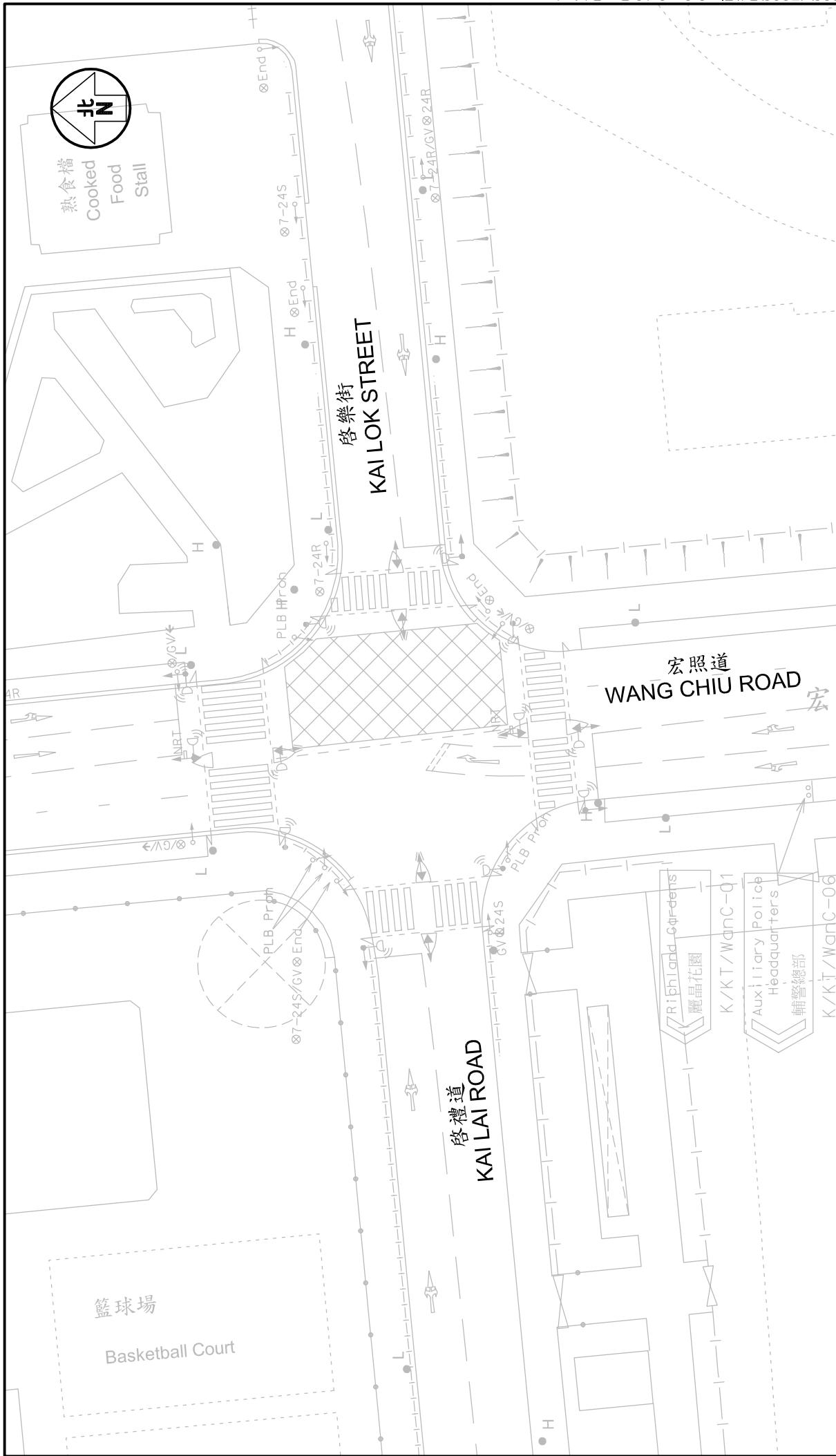
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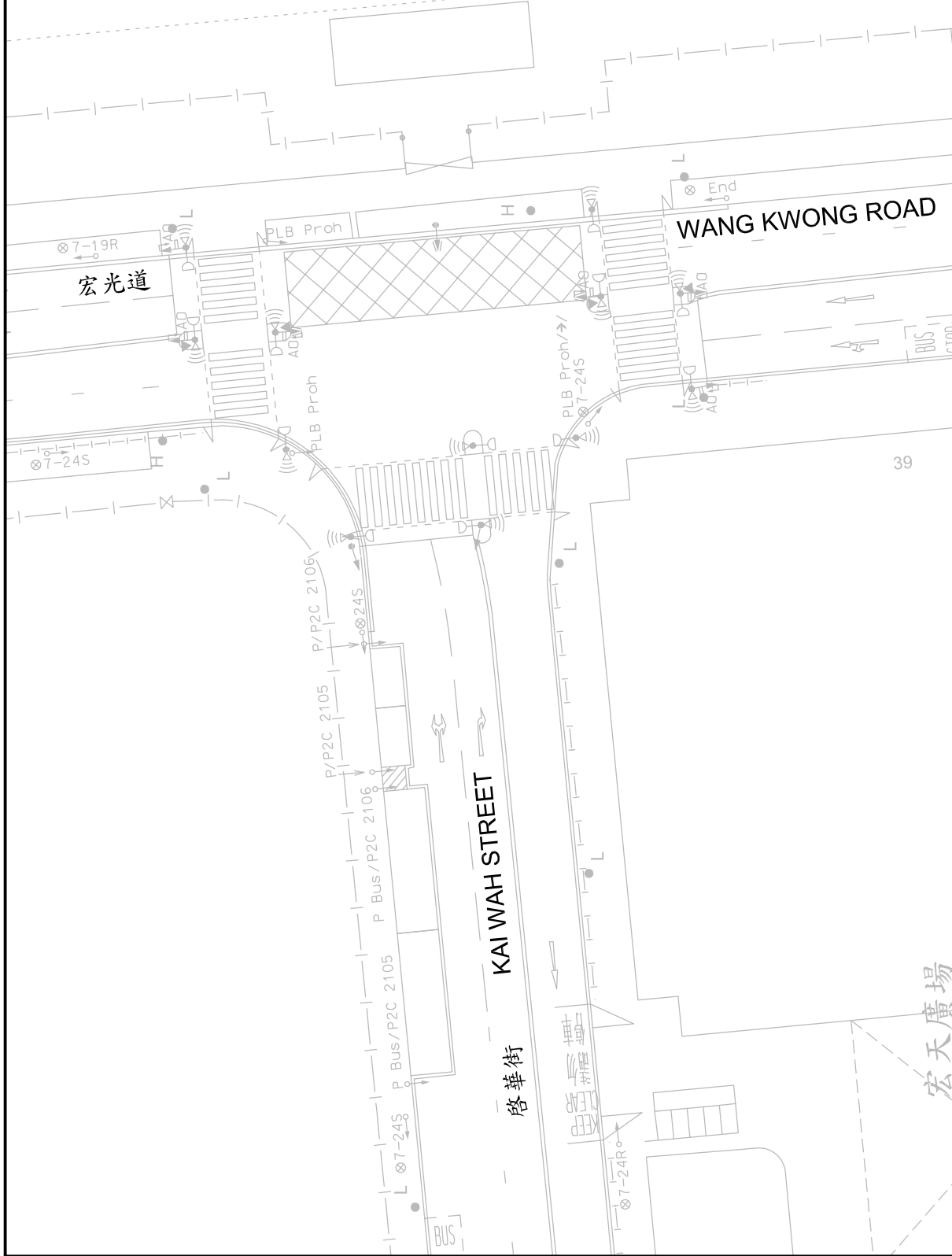
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			Drawn by	C C L		
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	Figure No.	2.12	Designed by	T H C
Figure Title	(J11) JUNCTION OF WANG CHIU ROAD / KAI LAI ROAD / KAI LOK STREET		Drawn by	C C L
	Scale in A4	1 : 500	Checked by	K C
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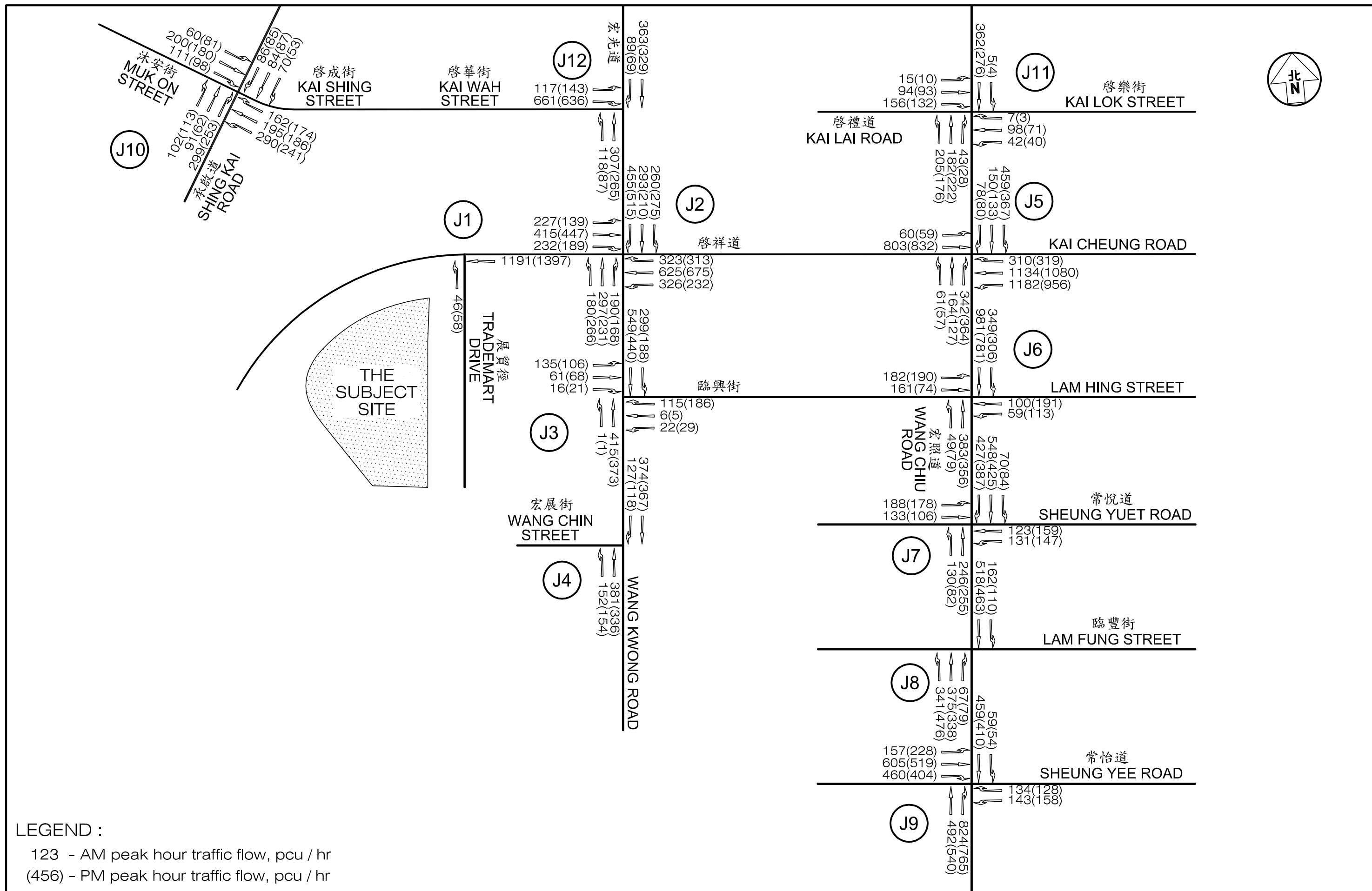
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Revision	R1A
Figure No.	2.13
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Project Title
 PROPOSED COMPOSITE REDEVELOPMENT AT
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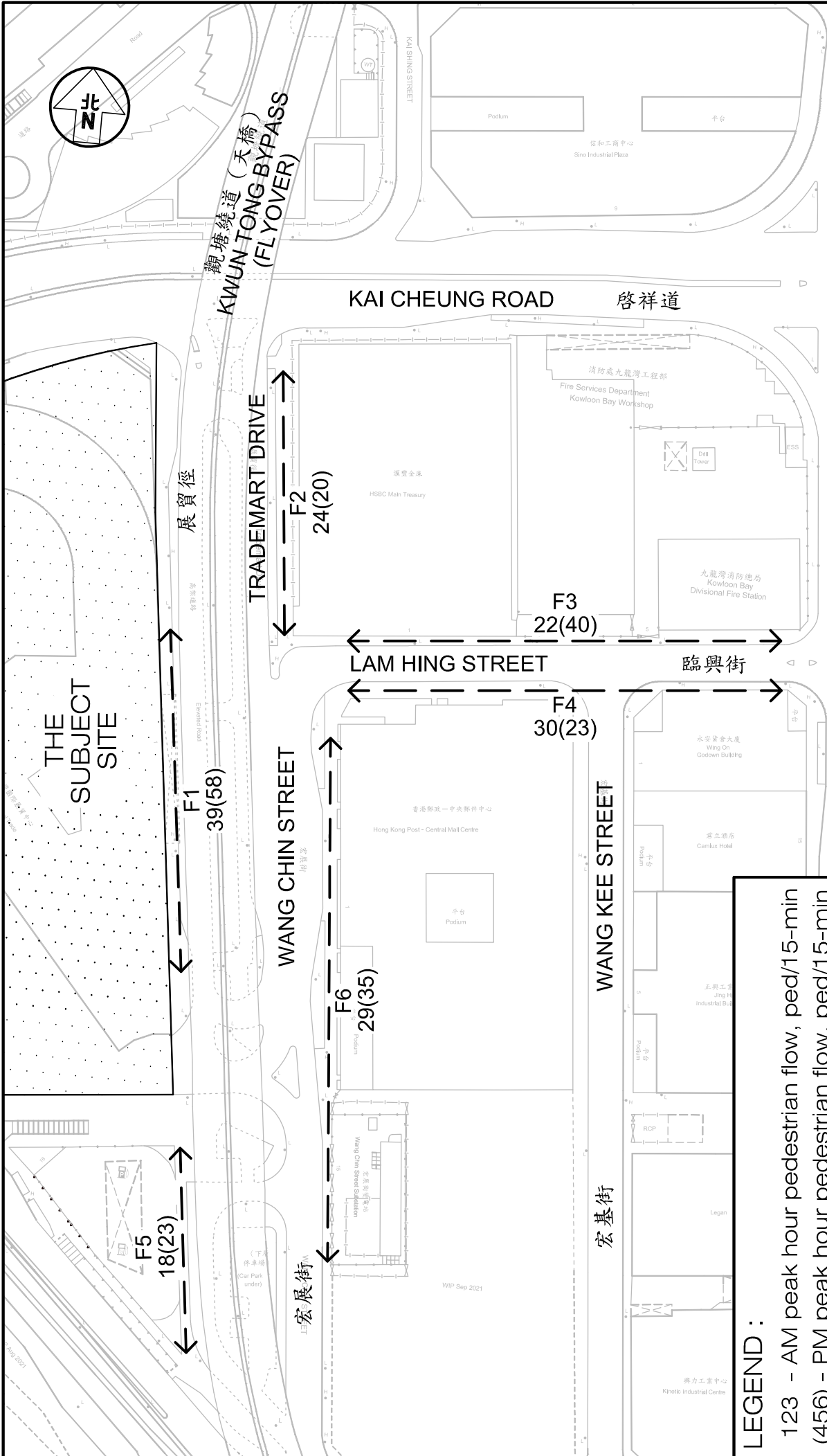
Figure Title
 (J12) JUNCTION OF WANG KWONG ROAD / KAI WAH STREET

J7363




Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY			Figure No.	2.14		Revision	R1A	
Figure Title	EXISTING PEAK HOUR TRAFFIC FLOWS			Designed by	THC	Drawn by	CC L	Checked by	K C
				Scale in A3	N.T.S.		Date	08 JAN 2025	
				CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk					

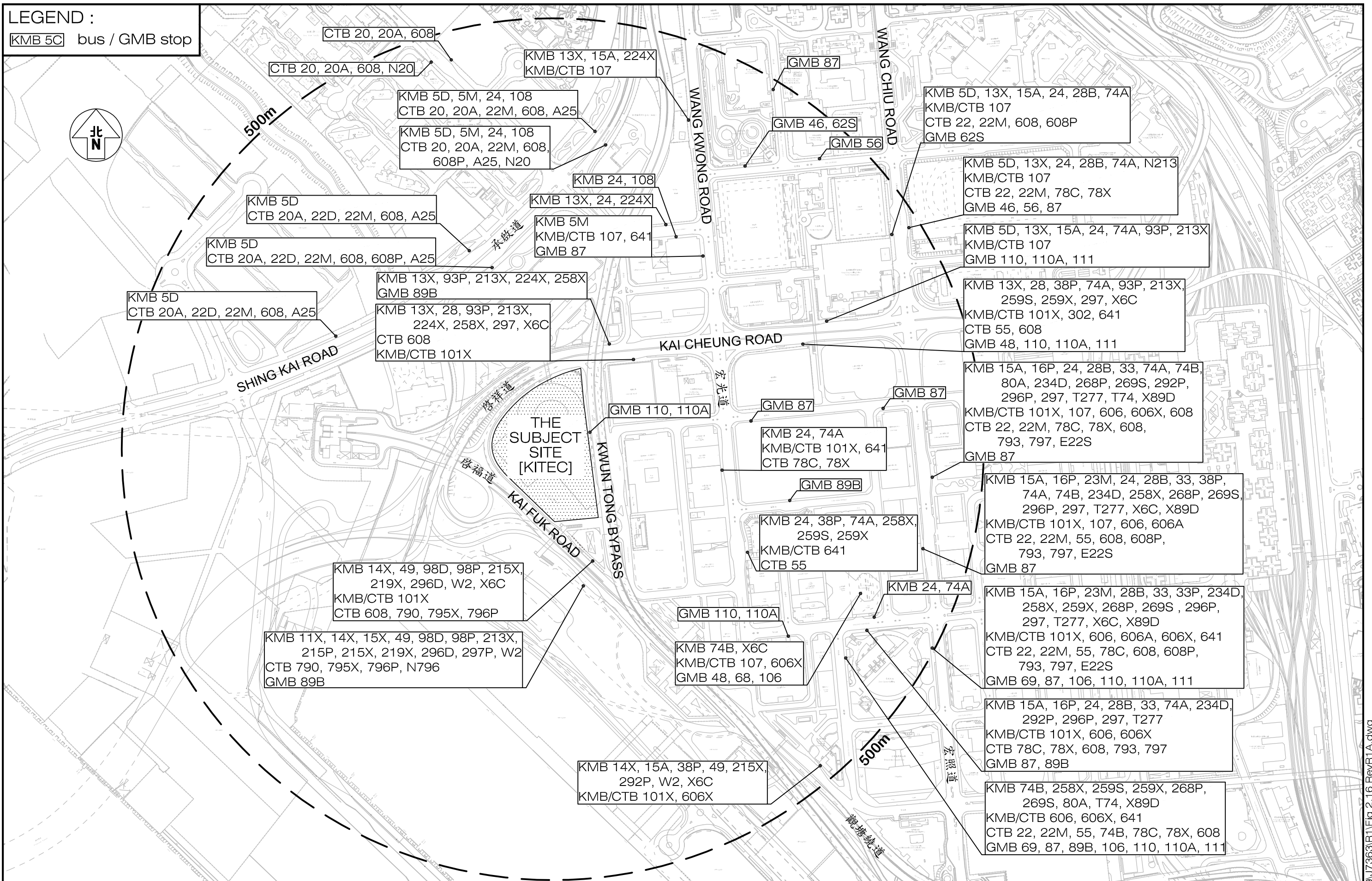
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Project Title PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	Figure No.	2.15	Revision	R1A
	Designed by	T H C	Checked by	K C
Figure Title EXISTING PEAK 15-MINUTE PEDESTRIAN FLOWS	Drawn by	C C L	Date	08 JAN 2025
	Scale in A4	1 : 1,500		

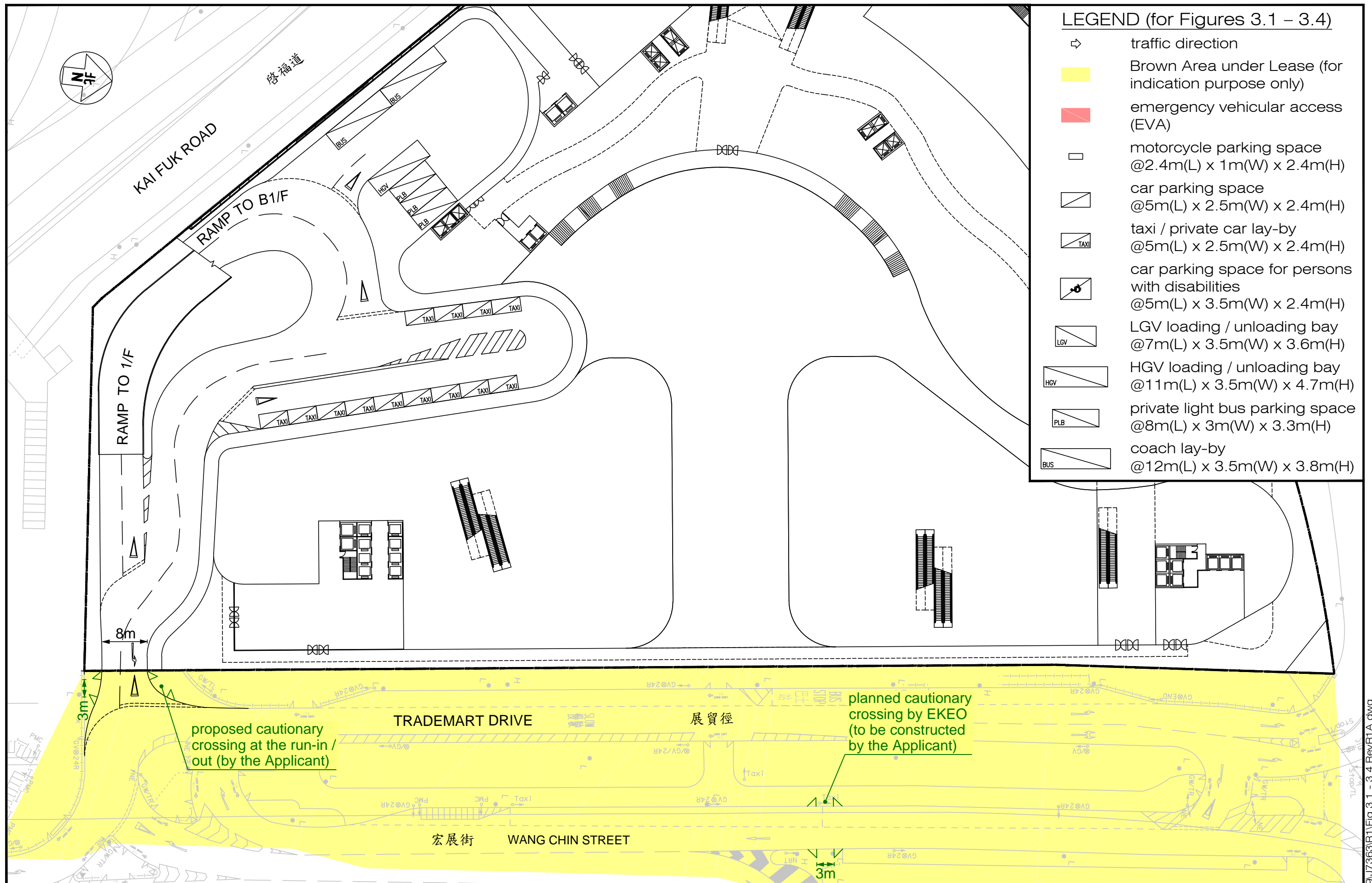
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LEGEND :
 bus / GMB stop



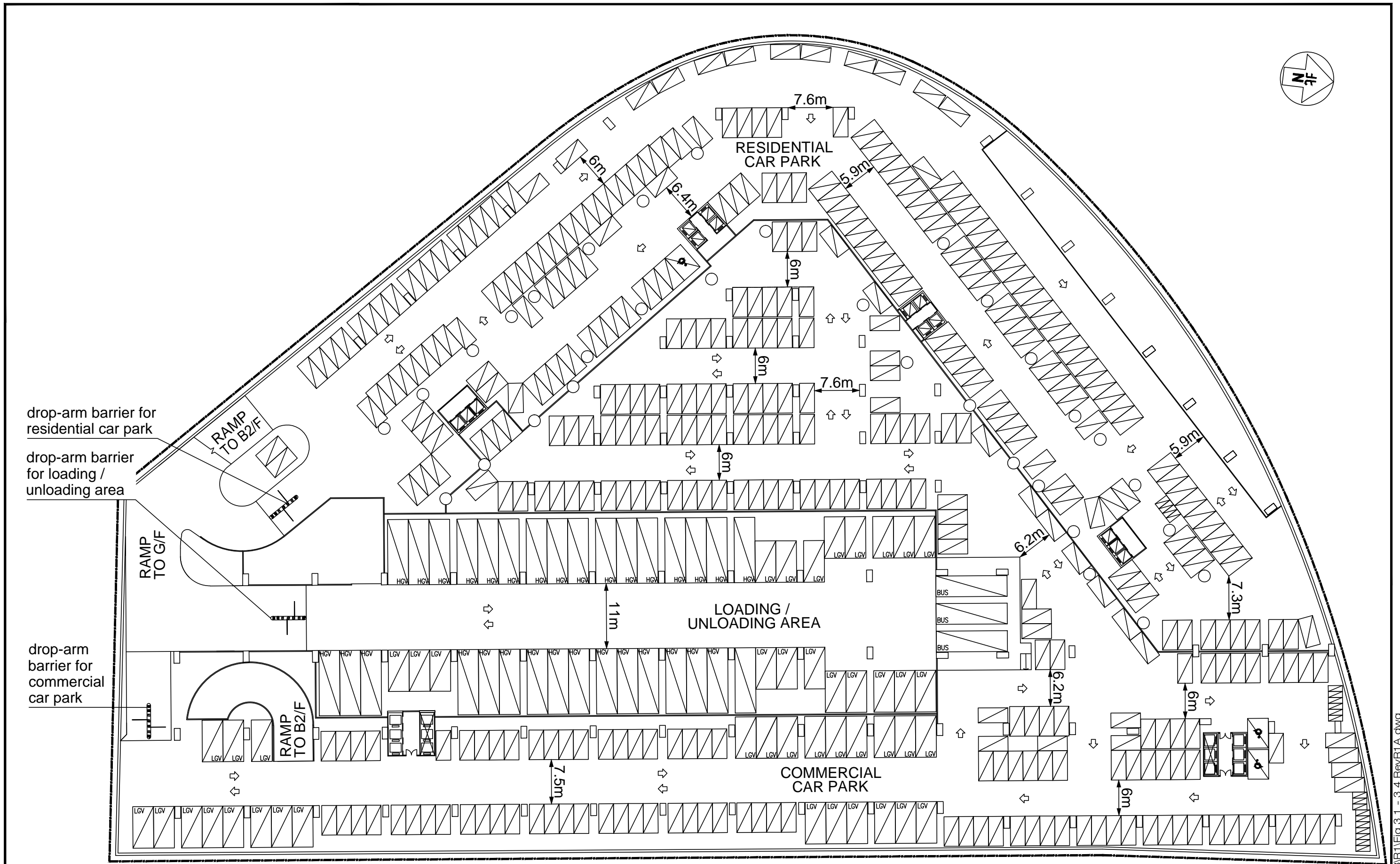
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Figure Title	DETAILS OF THE PUBLIC TRANSPORT SERVICES IN THE VICINITY OF THE SUBJECT SITE			Designed by	THC	Drawn by	CCL	Checked by	KC	
				Scale in A3	N.T.S.		Date	08 JAN 2025		

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Figure Title	GROUND FLOOR PLAN			Designed by	THC	Drawn by	CCL	
				Checked by	KC	Date	08 JAN 2025	
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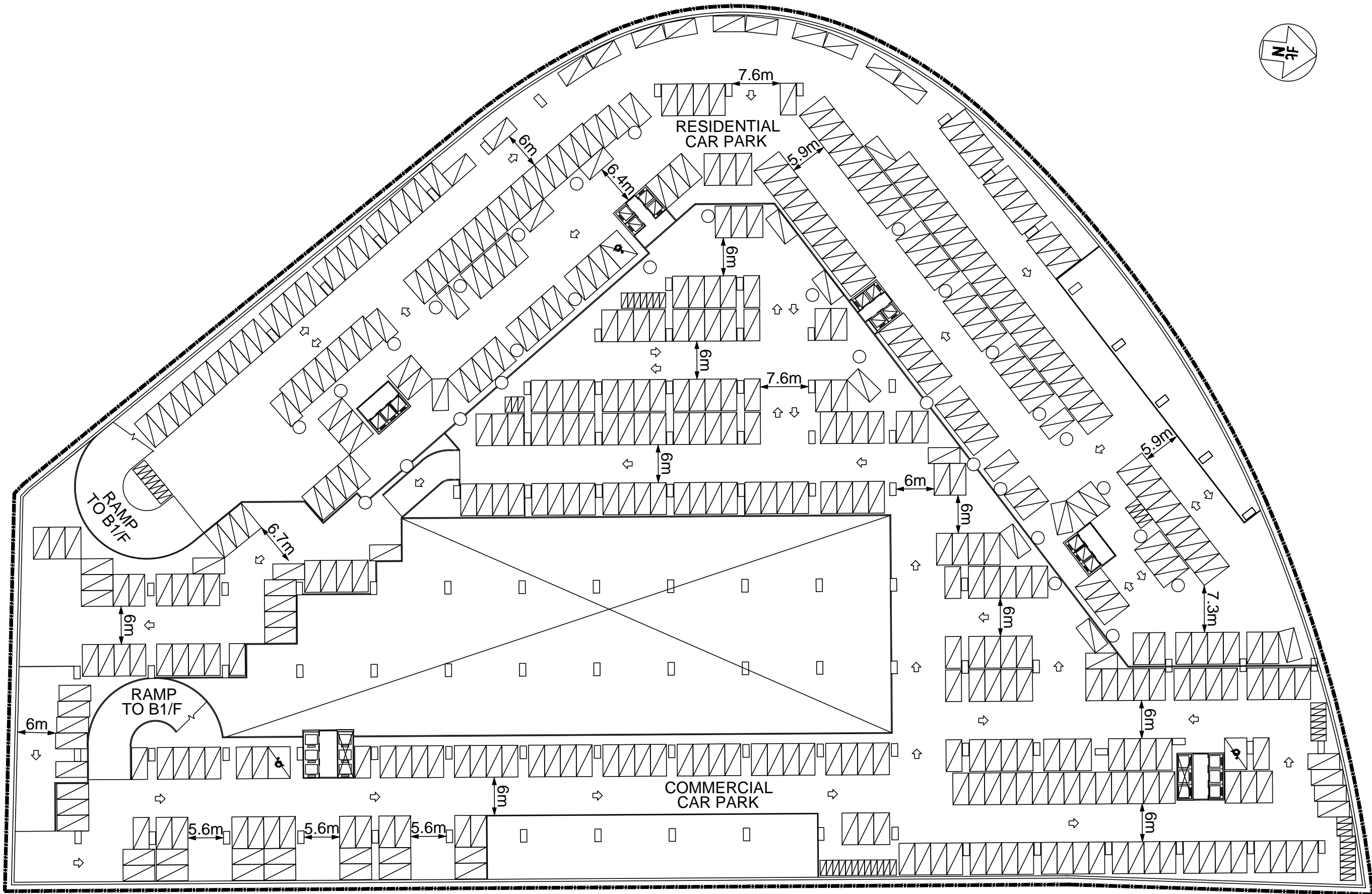
Project Title
**PROPOSED COMPOSITE REDEVELOPMENT AT
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Figure Title
BASEMENT FIRST FLOOR PLAN

Figure No. 3.2	Revision R1A
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Project Title
**PROPOSED COMPOSITE REDEVELOPMENT AT
 NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY**

Figure Title
BASEMENT SECOND FLOOR PLAN

Figure No.
J7363

3.3

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R1A

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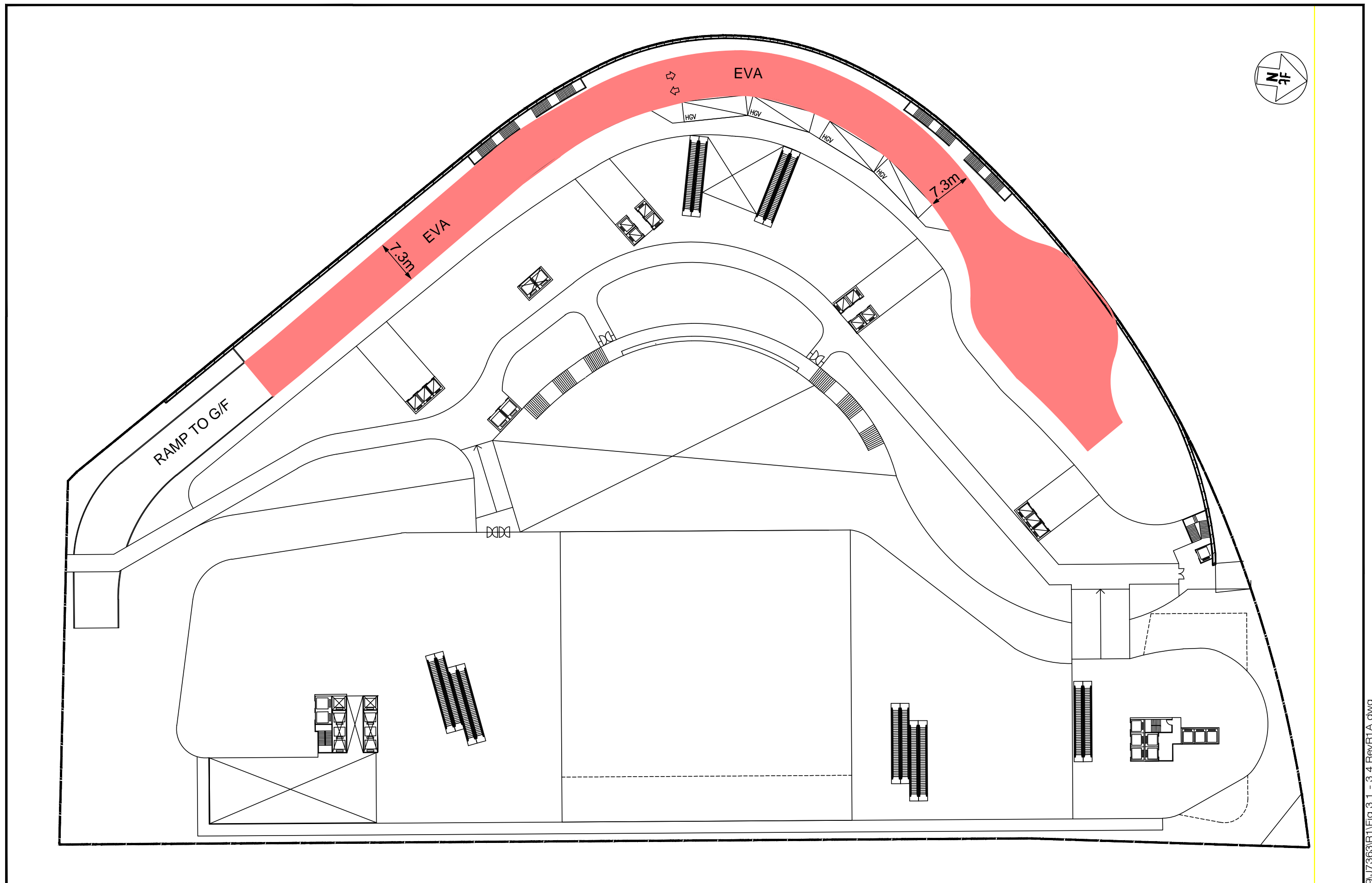
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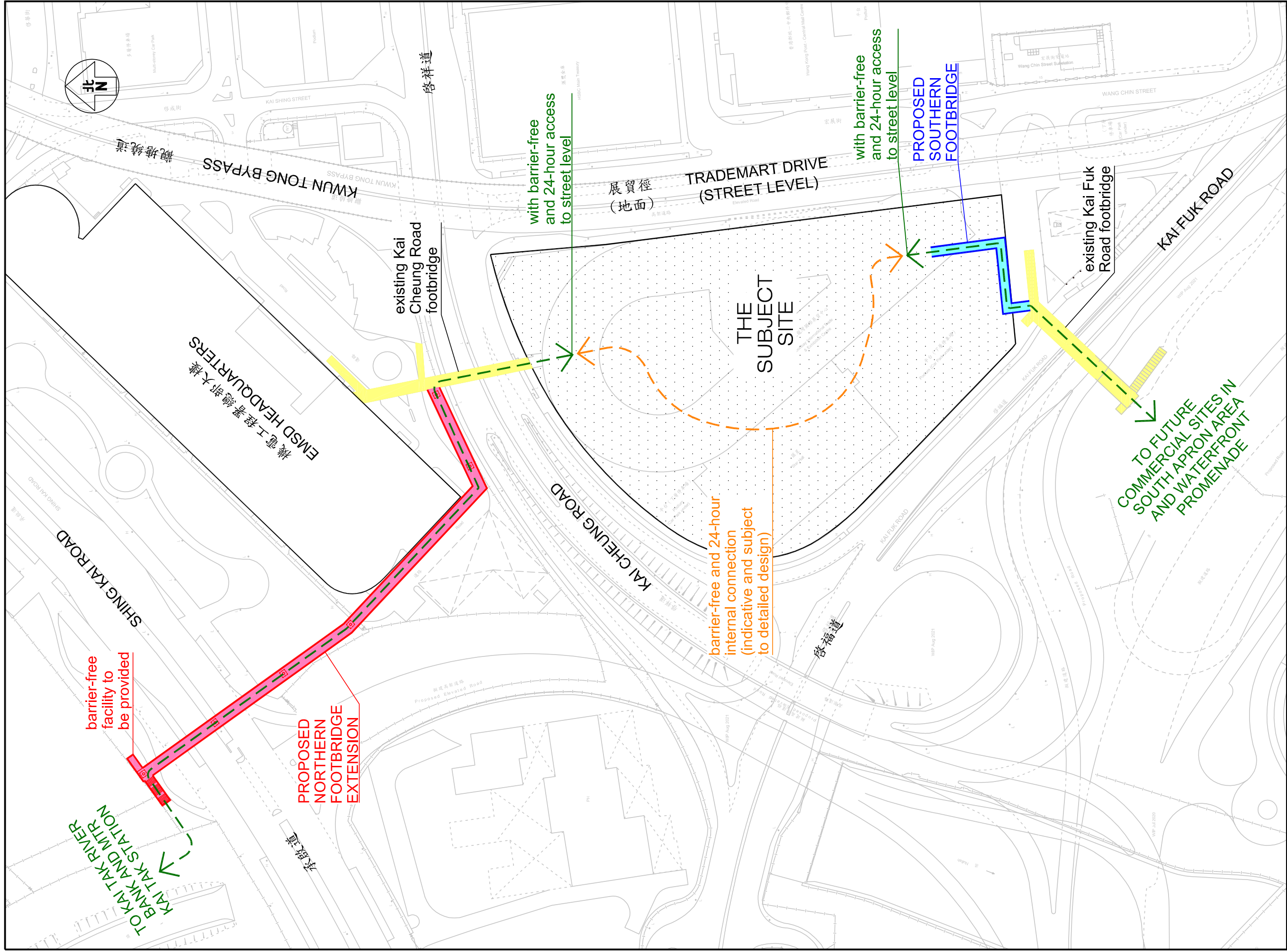
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Figure Title	FIRST FLOOR PLAN	Designed by T H C	Drawn by C C L		Checked by K C
		Scale in A3 1 : 600	Date 08 JAN 2025		

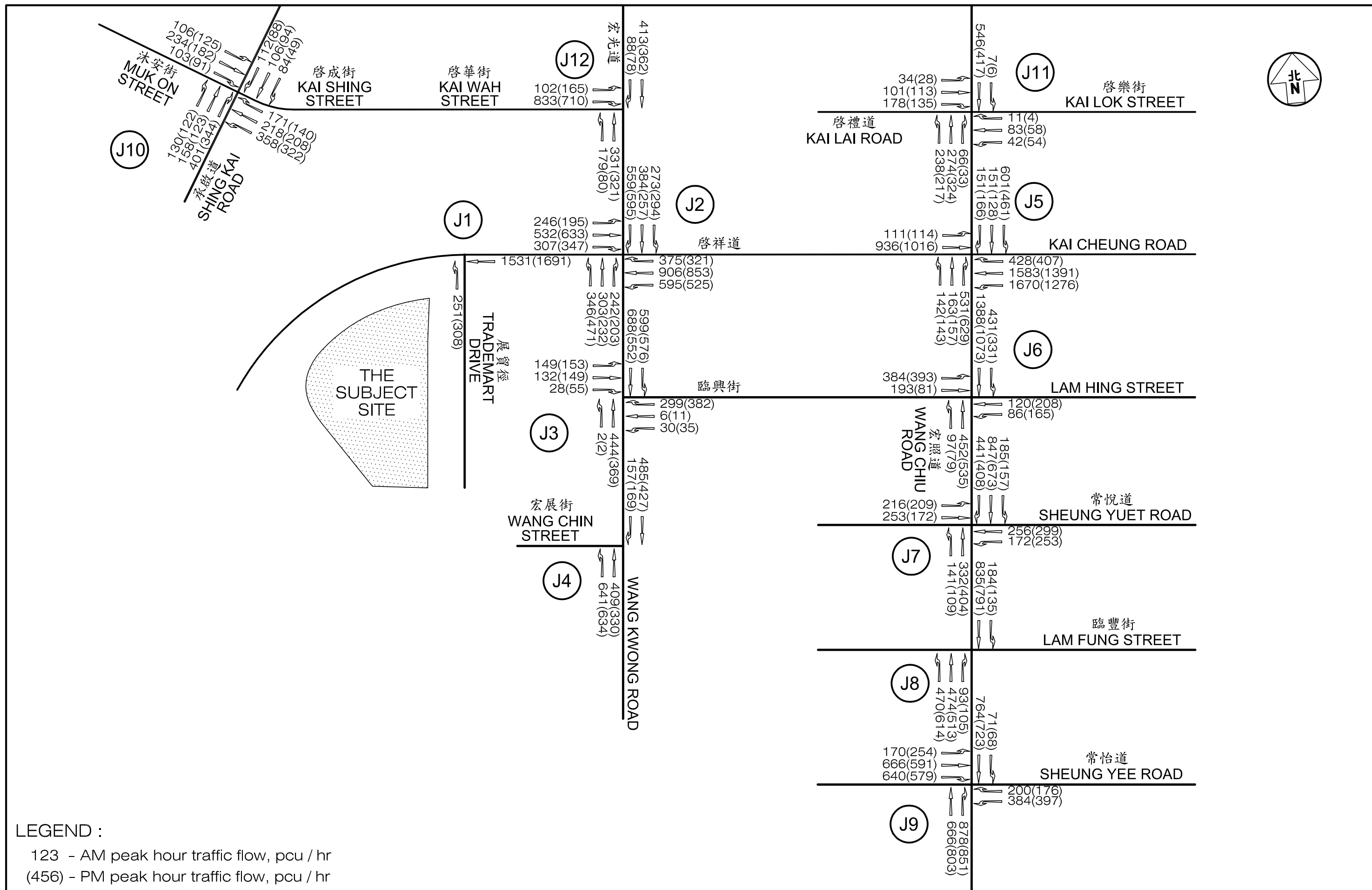
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Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY				Job No.	J7363	Figure No.	3.5	Scale in A3	1 : 1,500
	Figure Title		GENERAL LAYOUT OF THE PROPOSED NORTHERN AND SOUTHERN FOOTBRIDGES		Designed by	T H C	Drawn by	C C L	Checked by	K C
				Revision	R1A	Date	08 JAN 2025			

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LEGEND :

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

Project Title
**PROPOSED COMPOSITE REDEVELOPMENT AT
 NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY**

Figure Title
2029 PEAK HOUR TRAFFIC FLOWS WITH KITEC

Figure No.
4.1

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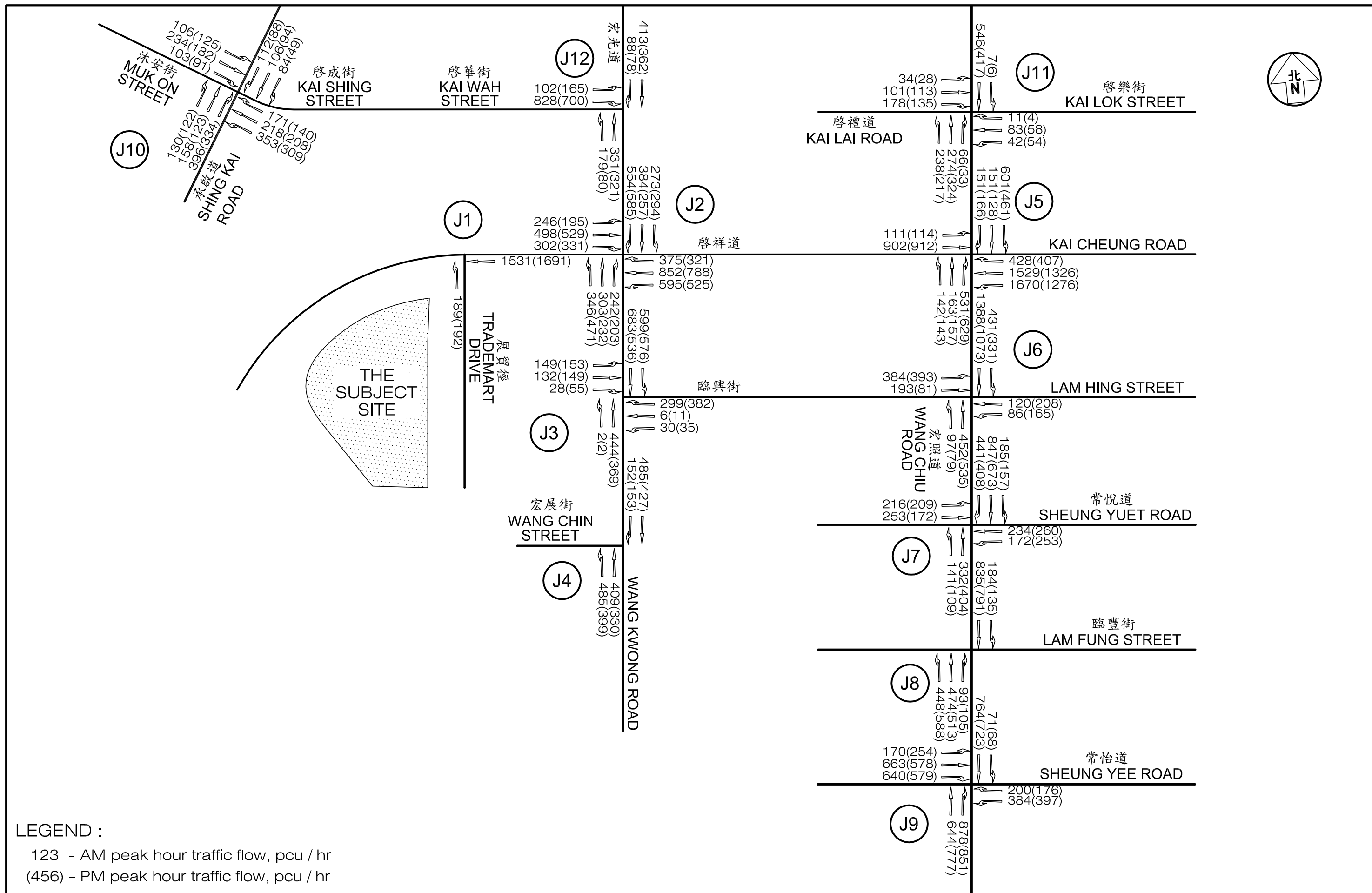
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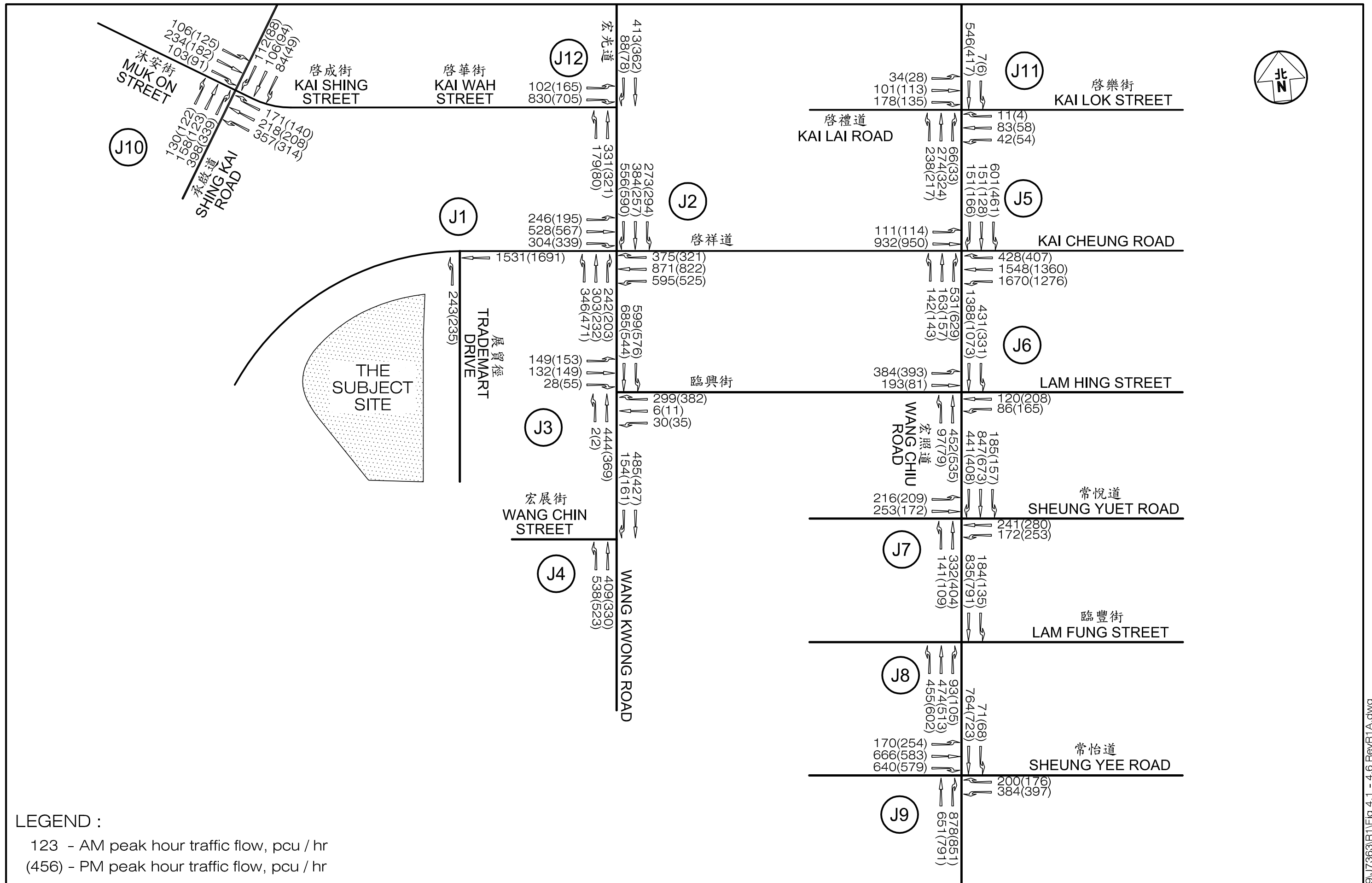
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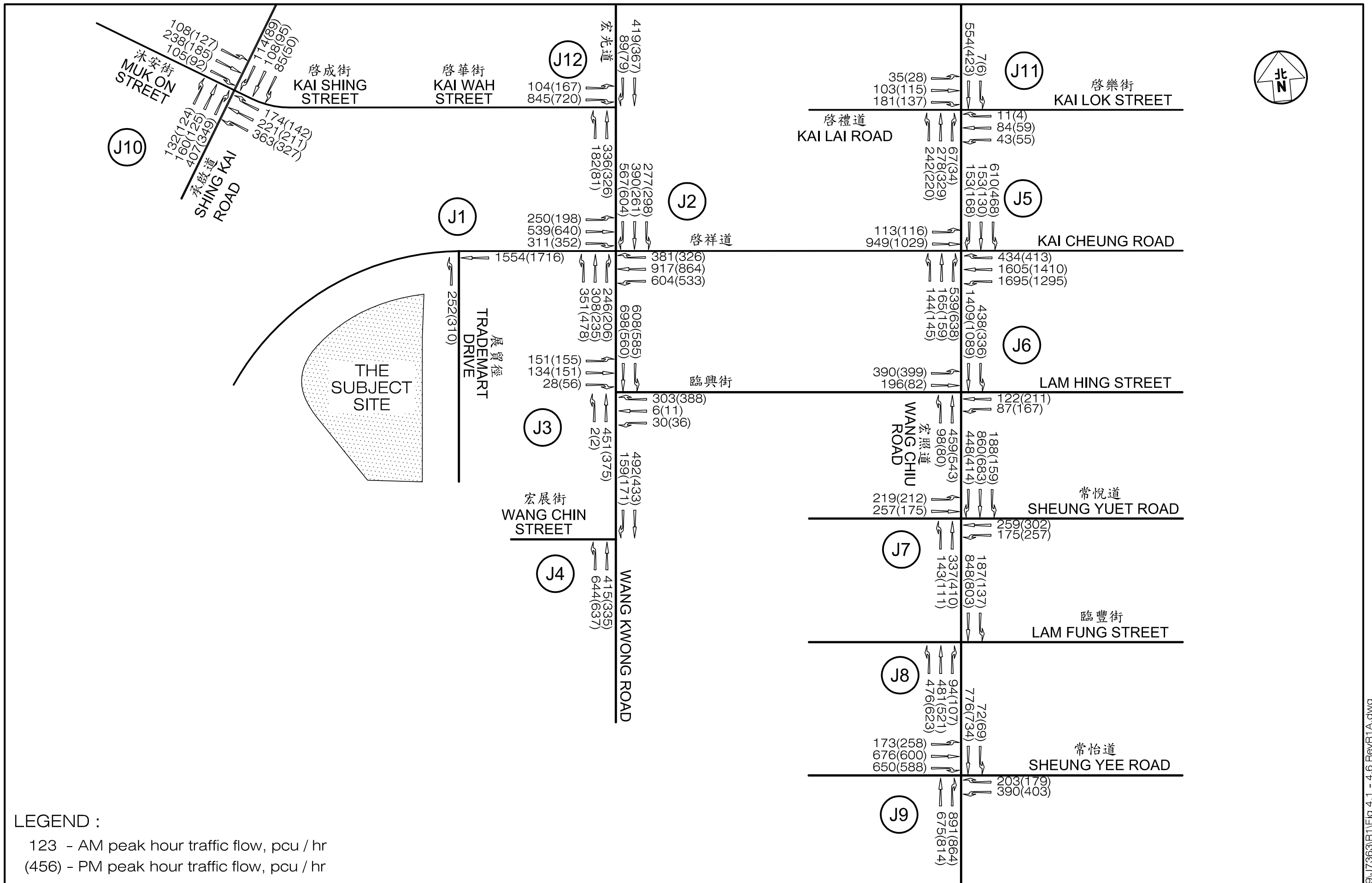


Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY			Figure No.	4.2	Revision	R1A	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
Figure Title	2029 PEAK HOUR TRAFFIC FLOWS WITH APPROVED REDEVELOPMENT			Designed by	T H C	Drawn by	C C L	
				Checked by	K C	Date	08 JAN 2025	
				Scale in A3	N.T.S.			



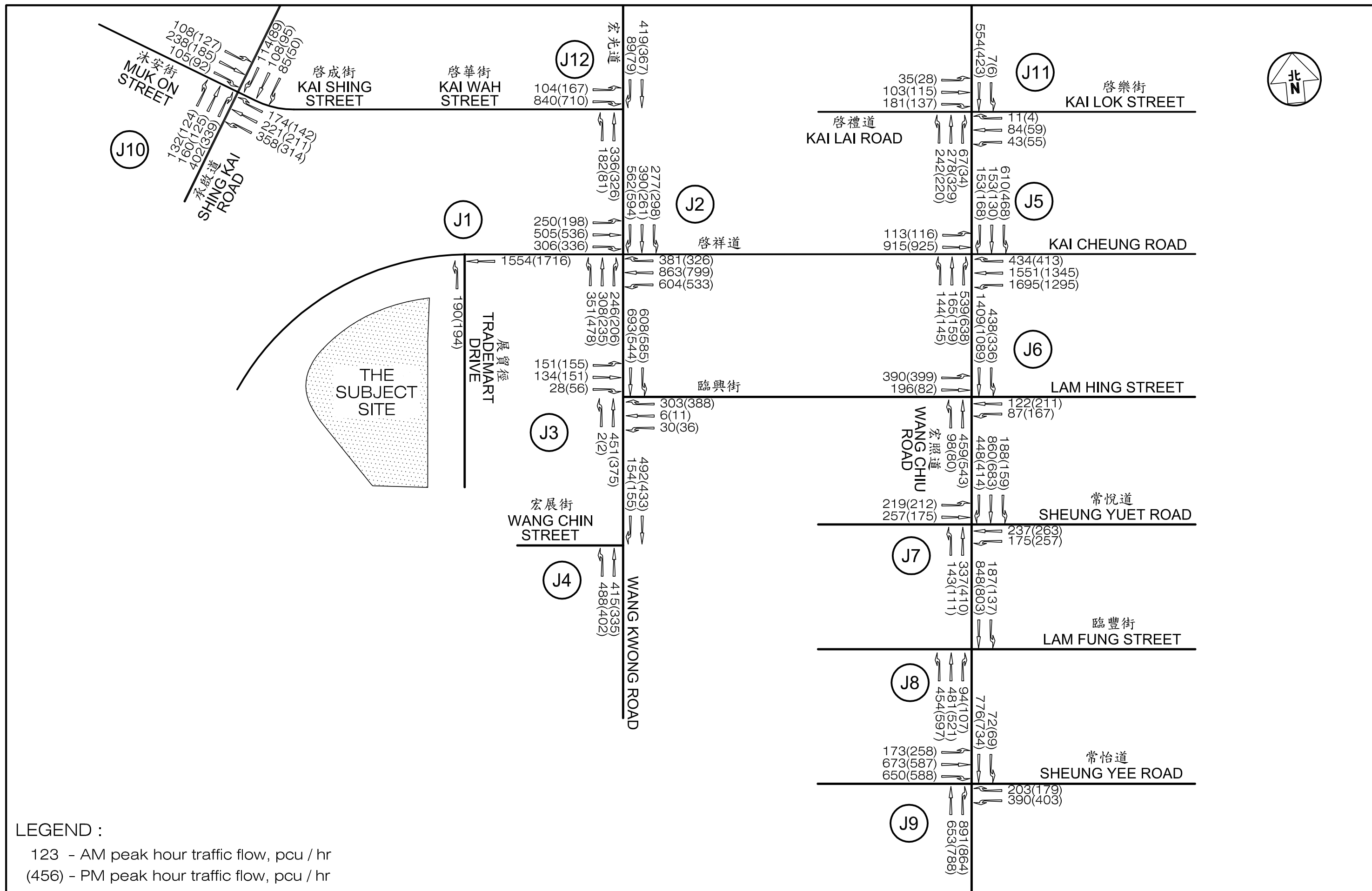
Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY			Figure No.	4.3	Revision	R1A	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
Figure Title	2029 PEAK HOUR TRAFFIC FLOWS WITH PROPOSED REDEVELOPMENT			Designed by	THC	Drawn by	CC L	
				Checked by	K C	Date	08 JAN 2025	
				Scale in A3	N.T.S.			

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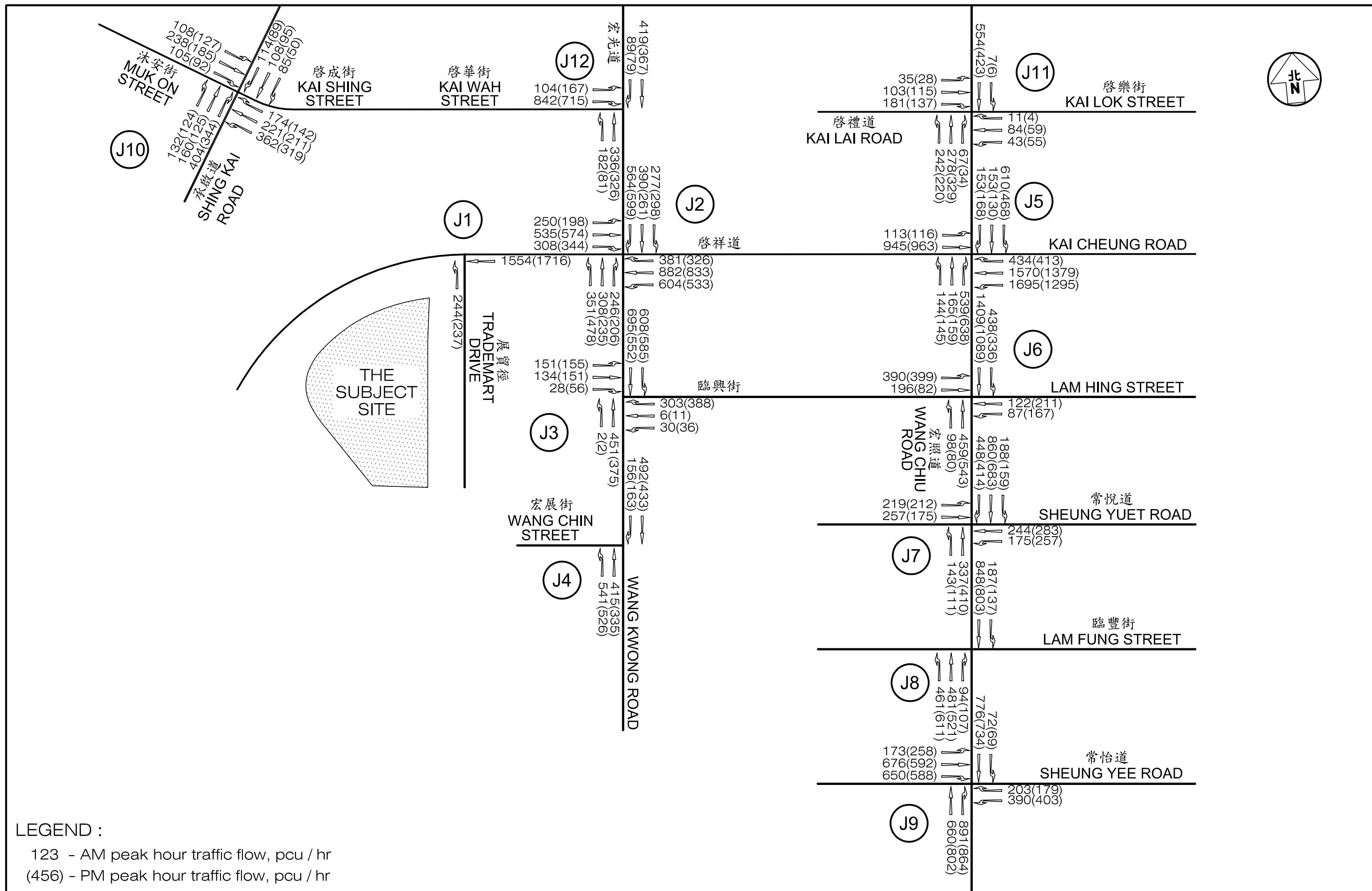


Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY			Figure No.	4.4	Revision	R1A	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
Figure Title	2032 PEAK HOUR TRAFFIC FLOWS WITH KITEC			Designed by	T H C	Drawn by	C C L	
				Checked by	K C	Date	08 JAN 2025	
				Scale in A3	N.T.S.			

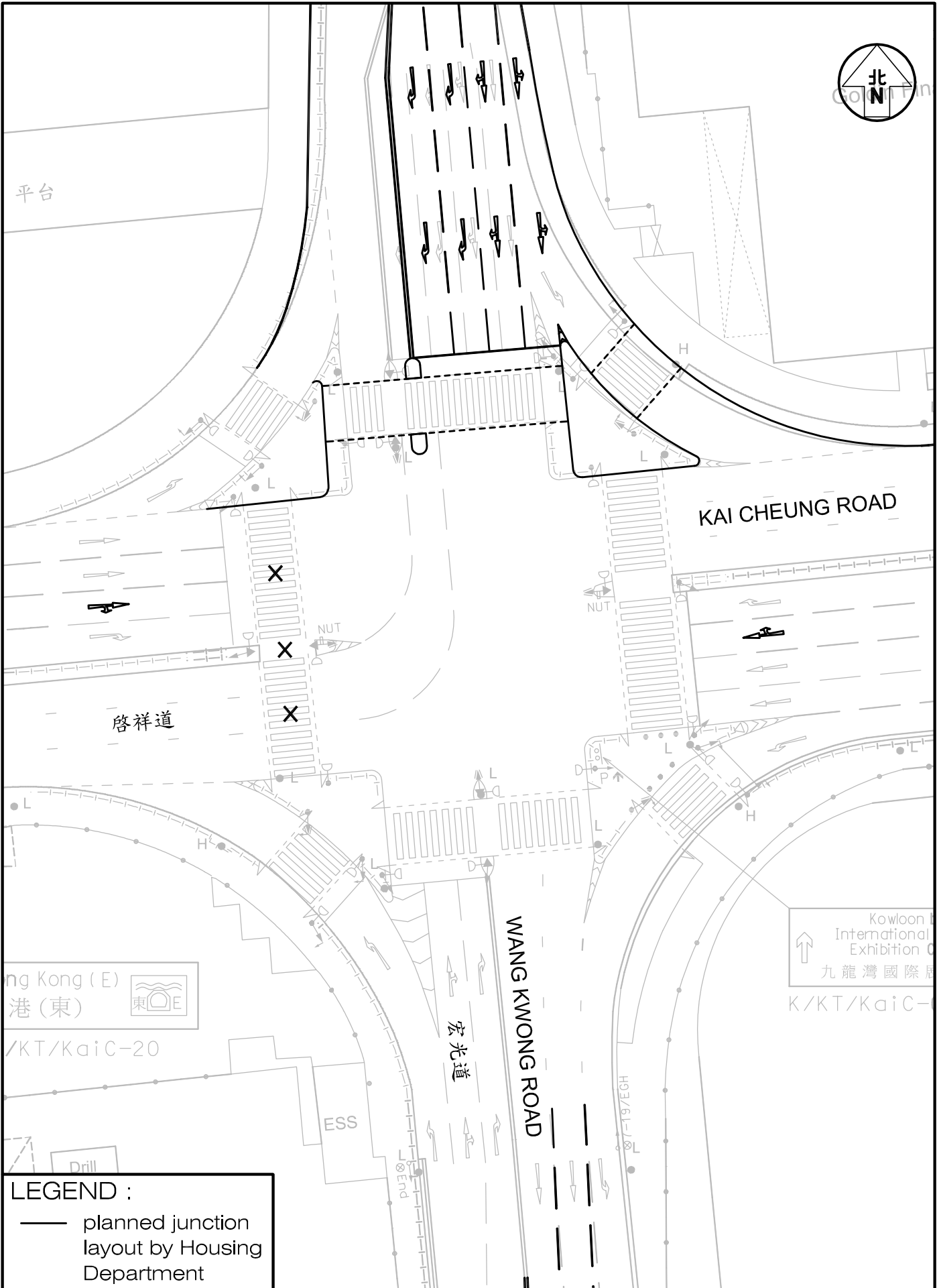
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Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY			Figure No.	4.5	Revision	R1A	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
Figure Title	2032 PEAK HOUR TRAFFIC FLOWS WITH APPROVED REDEVELOPMENT			Designed by	T H C	Drawn by	C C L	
				Checked by	K C	Date	08 JAN 2025	
				Scale in A3	N.T.S.			



Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY			Figure No.	4.6		Revision	R1A		CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
Figure Title	2032 PEAK HOUR TRAFFIC FLOWS WITH PROPOSED REDEVELOPMENT			Designed by	T H C		Drawn by	C C L		
				Checked by	K C		Date	08 JAN 2025		
				Scale in A3	N.T.S.					



LEGEND :

— planned junction layout by Housing Department

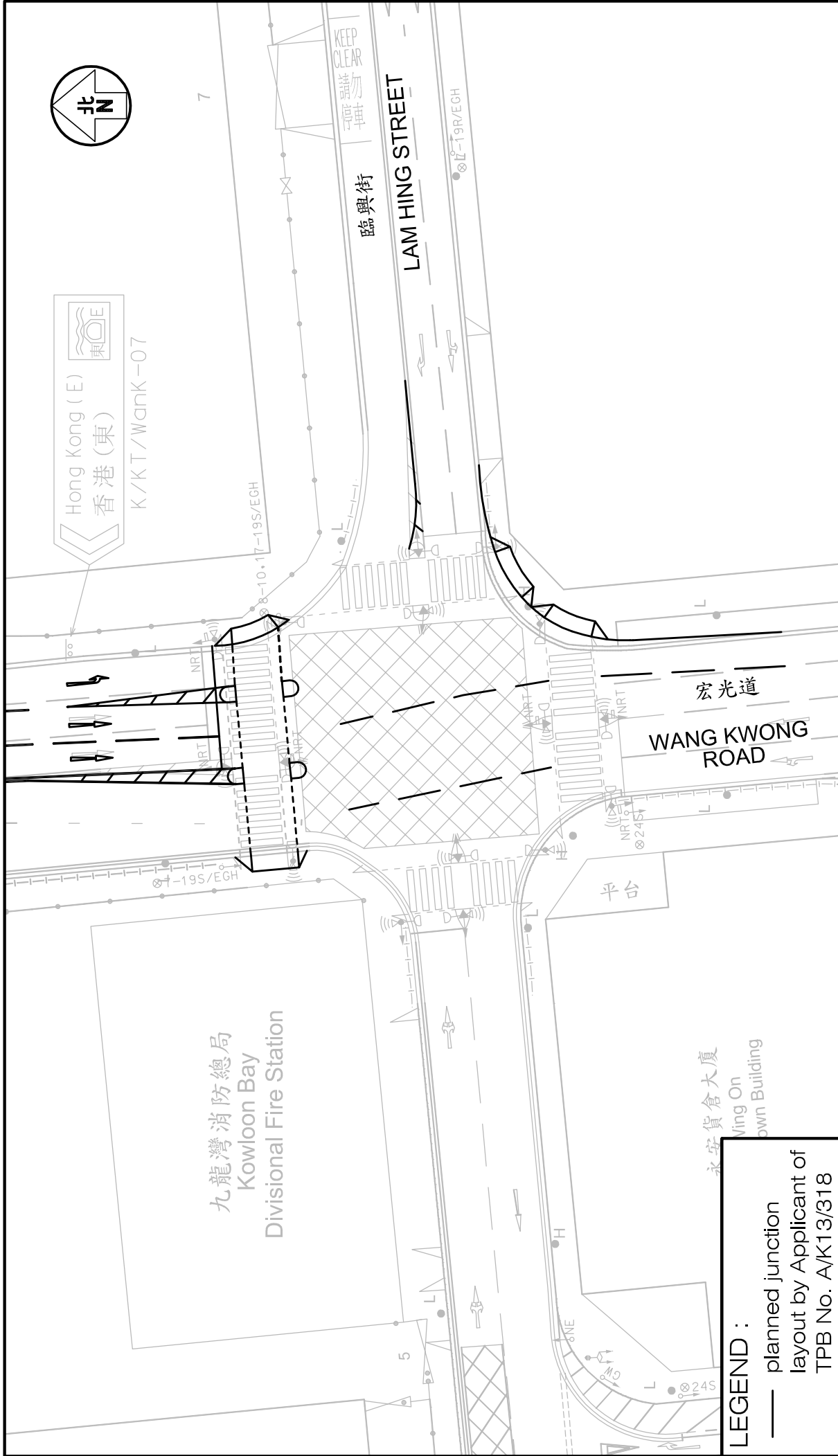
Project Title
**PROPOSED COMPOSITE REDEVELOPMENT AT
 NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY**

Job No. J7363	Figure No. 4.7	Scale in A4 1 : 500
Designed by THC	Drawn by CCL	Checked by KC
	Revision R1A	Date 08 JAN 2025

Figure Title
**(J2) PLANNED IMPROVEMENT FOR
 JUNCTION OF KAI CHEUNG ROAD / WANG KWONG ROAD**

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Hong Kong (E)
香港 (東)
K/KT/Wank-07

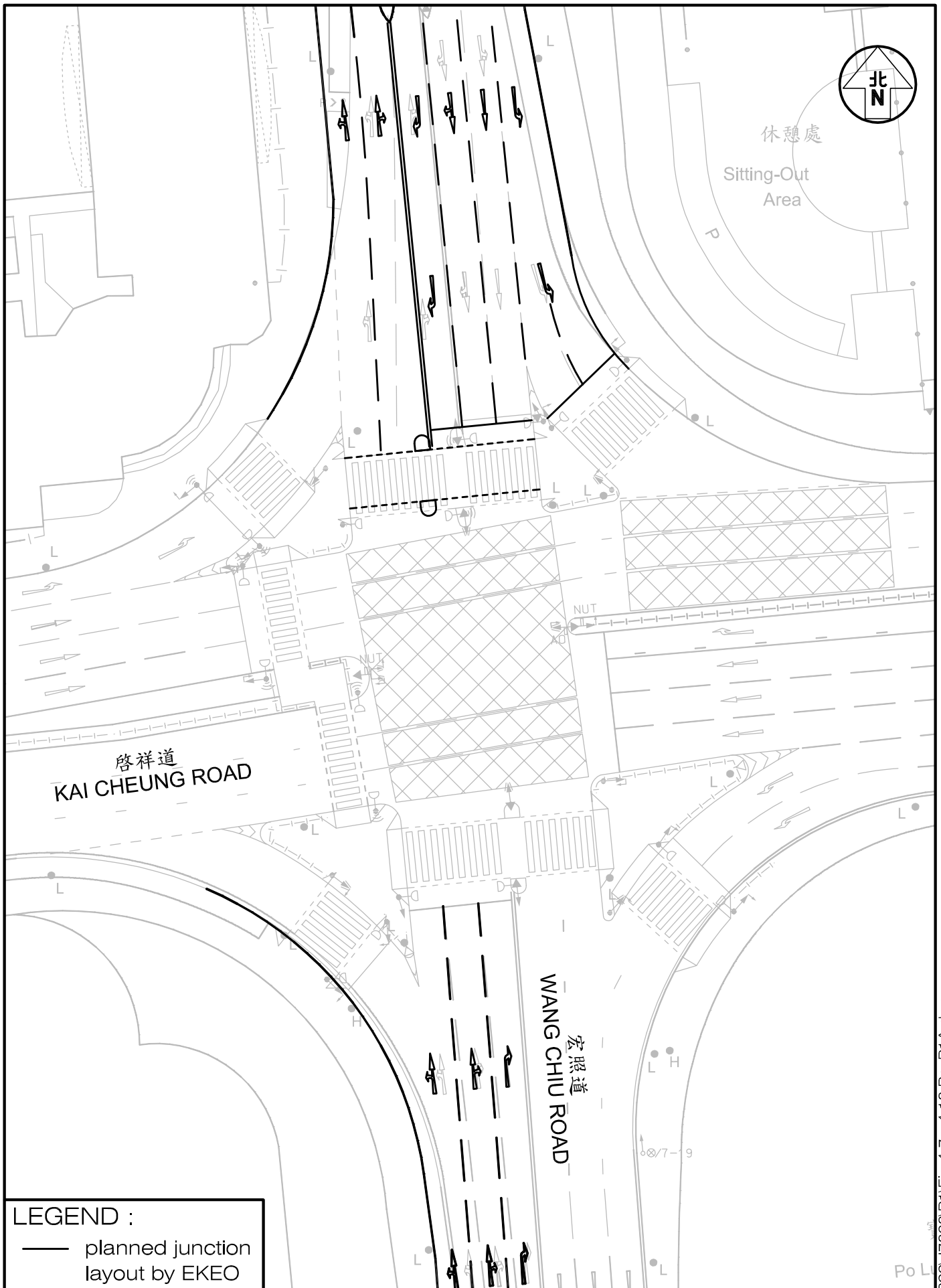
九龍灣消防總局
Kowloon Bay
Divisional Fire Station

宏光道
WANG KWONG
ROAD

臨興街
LAM HING STREET

LEGEND :
 —— planned junction
 layout by Applicant of
 TPB No. A/K13/318

Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY		Figure No.	4.8	Revision	R1A
	Figure Title		Designed by	T H C	Checked by	K C
		Scale in A4		1 : 500	Date	08 JAN 2025
<p align="center">(J3) PLANNED IMPROVEMENT FOR JUNCTION OF WANG KWONG ROAD / LAM HING STREET</p>						
<p align="right">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</p>						



LEGEND :
 ——— planned junction layout by EKEO

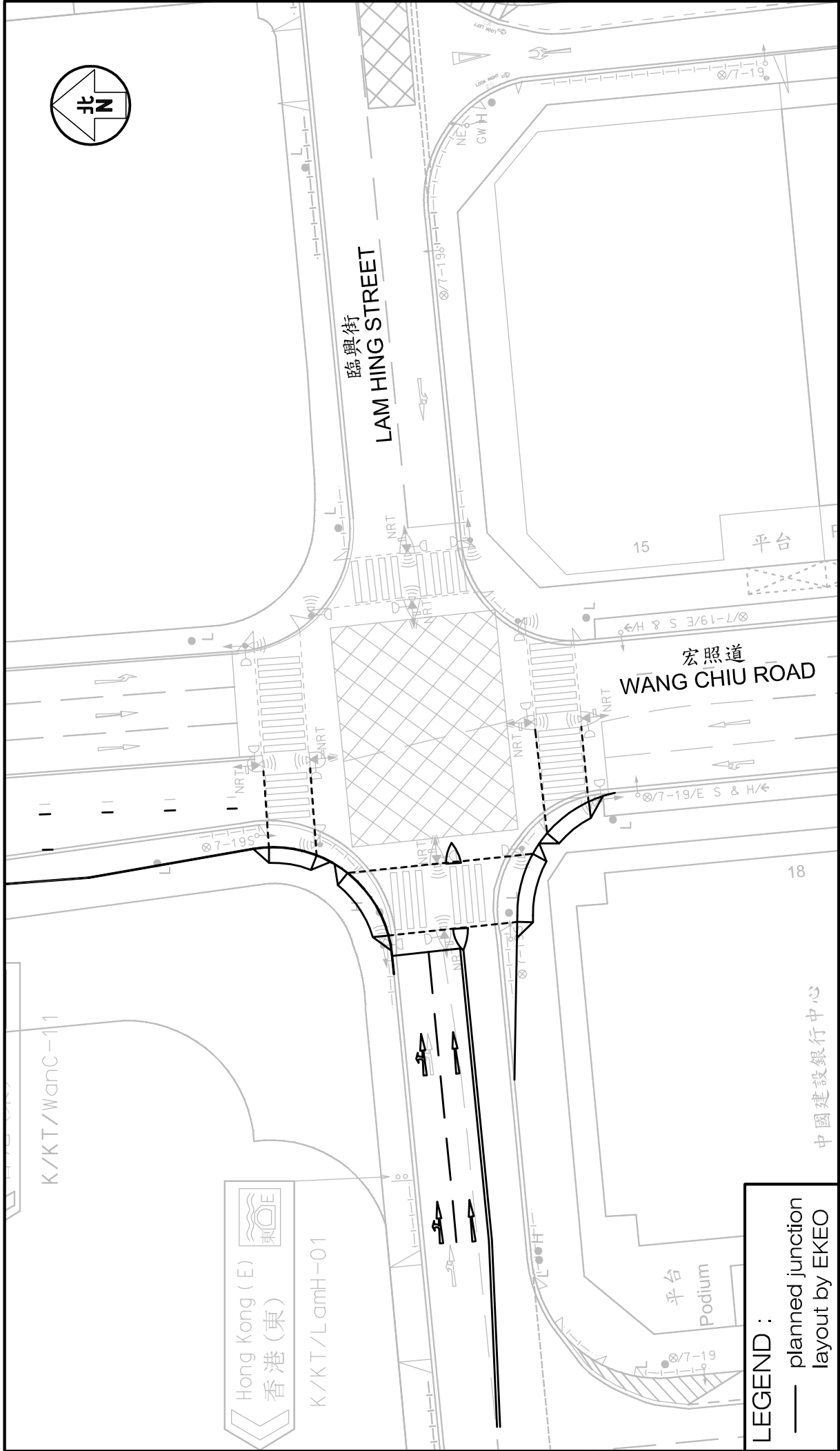
Project Title
**PROPOSED COMPOSITE REDEVELOPMENT AT
 NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY**

Figure Title
**(J5) PLANNED IMPROVEMENT FOR
 JUNCTION OF KAI CHEUNG ROAD / WANG CHIU ROAD**

Job No. J7363	Figure No. 4.9	Scale in A4 1 : 500	
Designed by THC	Drawn by CCL	Checked by KC	Revision R1A
		Date 08 JAN 2025	

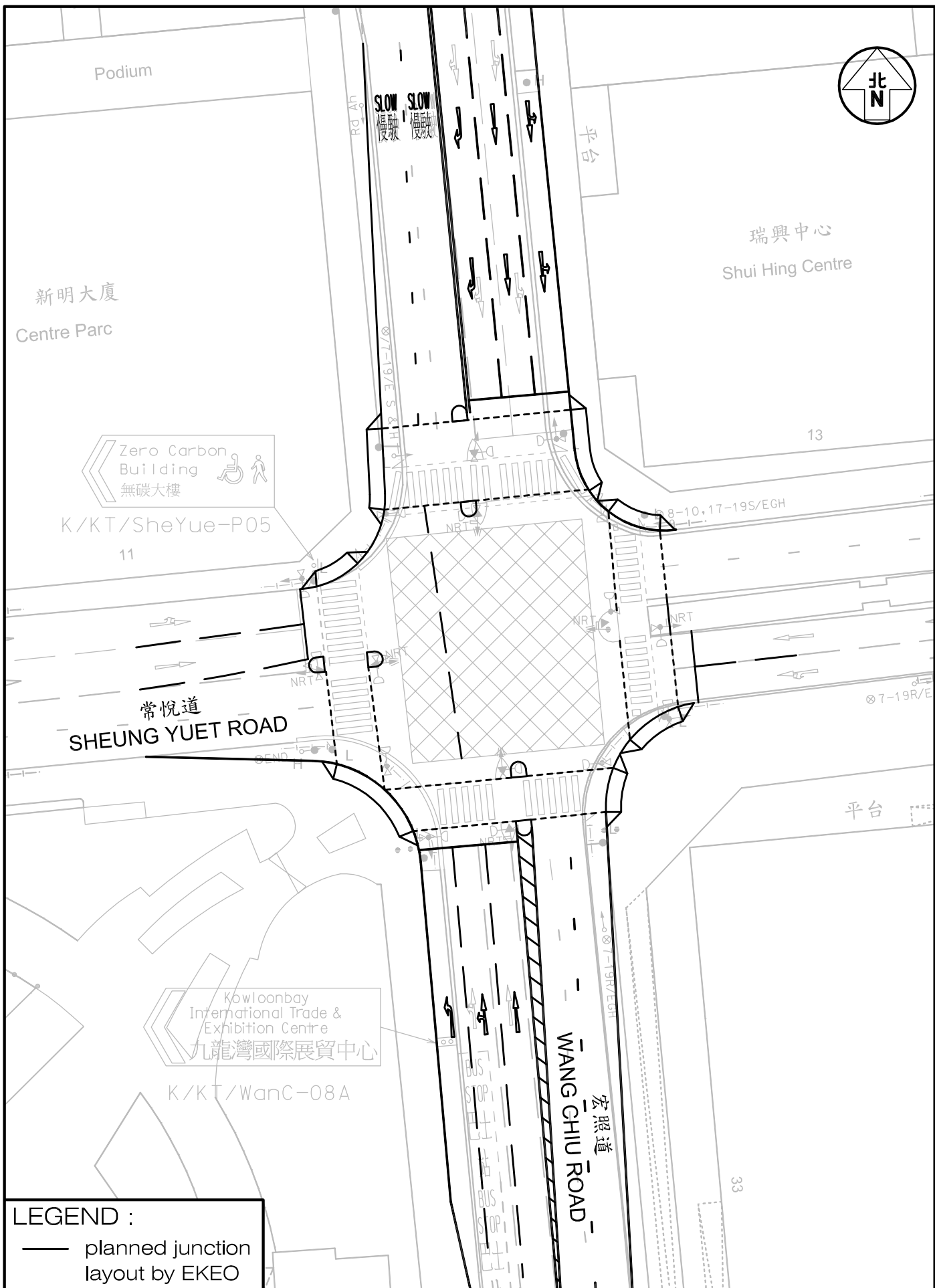
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T:\JOB\J7350-J7399\J7363\R1\FIG 4.7 - 4.13 RevR1A.dwg



LEGEND :
 — planned junction layout by EKEO

Project Title NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	Figure No. 4.10		Revision R1A	
	Designed by T H C	Drawn by C C L	Checked by K C	K C
Figure Title (J6) PLANNED IMPROVEMENT FOR JUNCTION OF WANG CHIU ROAD / LAM HING STREET	Scale in A4 1 : 500		Date 08 JAN 2025	
	<p>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</p>			



LEGEND :
 — planned junction layout by EKEO

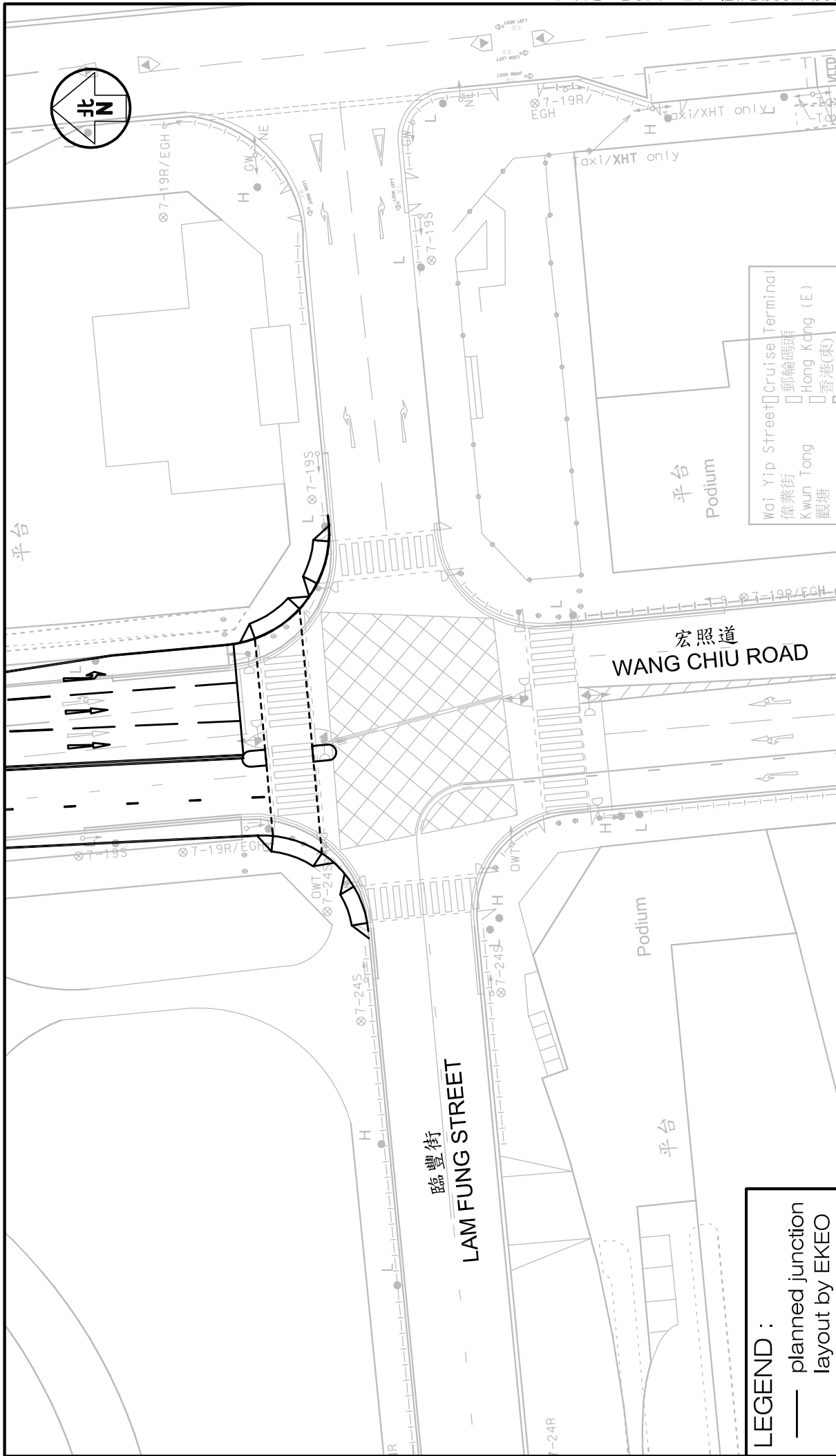
Project Title
**PROPOSED COMPOSITE REDEVELOPMENT AT
 NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY**

Job No. J7363	Figure No. 4.11	Scale in A4 1 : 500	
Designed by T H C	Drawn by C C L	Checked by K C	Revision R1A
		Date 08 JAN 2025	

Figure Title
**(J7) PLANNED IMPROVEMENT FOR
 JUNCTION OF WANG CHIU ROAD / SHEUNG YUET ROAD**

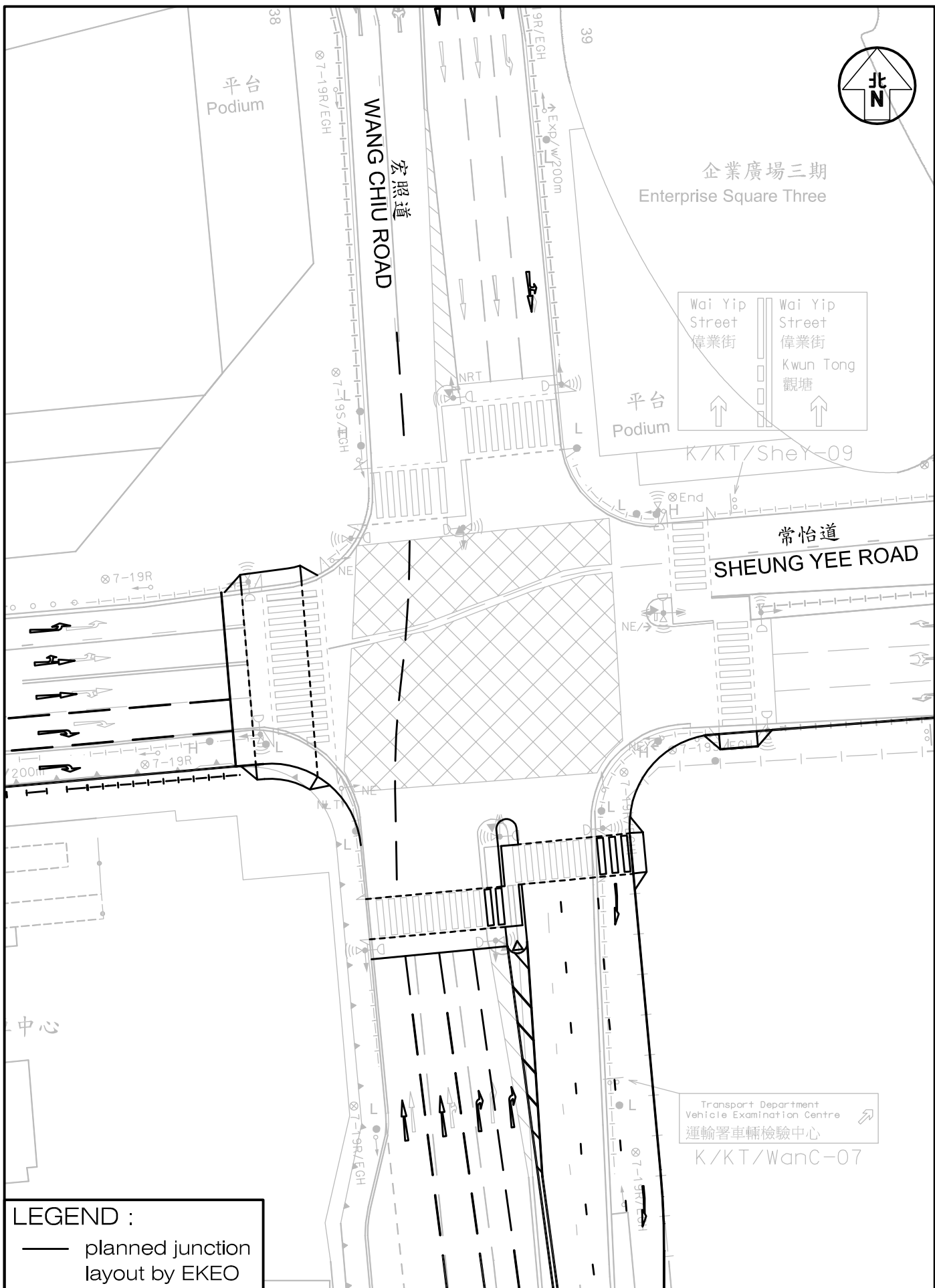
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LEGEND :
 — planned junction layout by EKEO

Project Title		PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	
Figure Title		(J8) PLANNED IMPROVEMENT FOR JUNCTION OF WANG CHIU ROAD / LAM FUNG STREET	
Figure No.	4.12	Revision	R1A
Designed by	T H C	Checked by	K C
Drawn by	C C L	Date	08 JAN 2025
Scale in A4	1 : 500	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	



LEGEND :
 ——— planned junction layout by EKEO

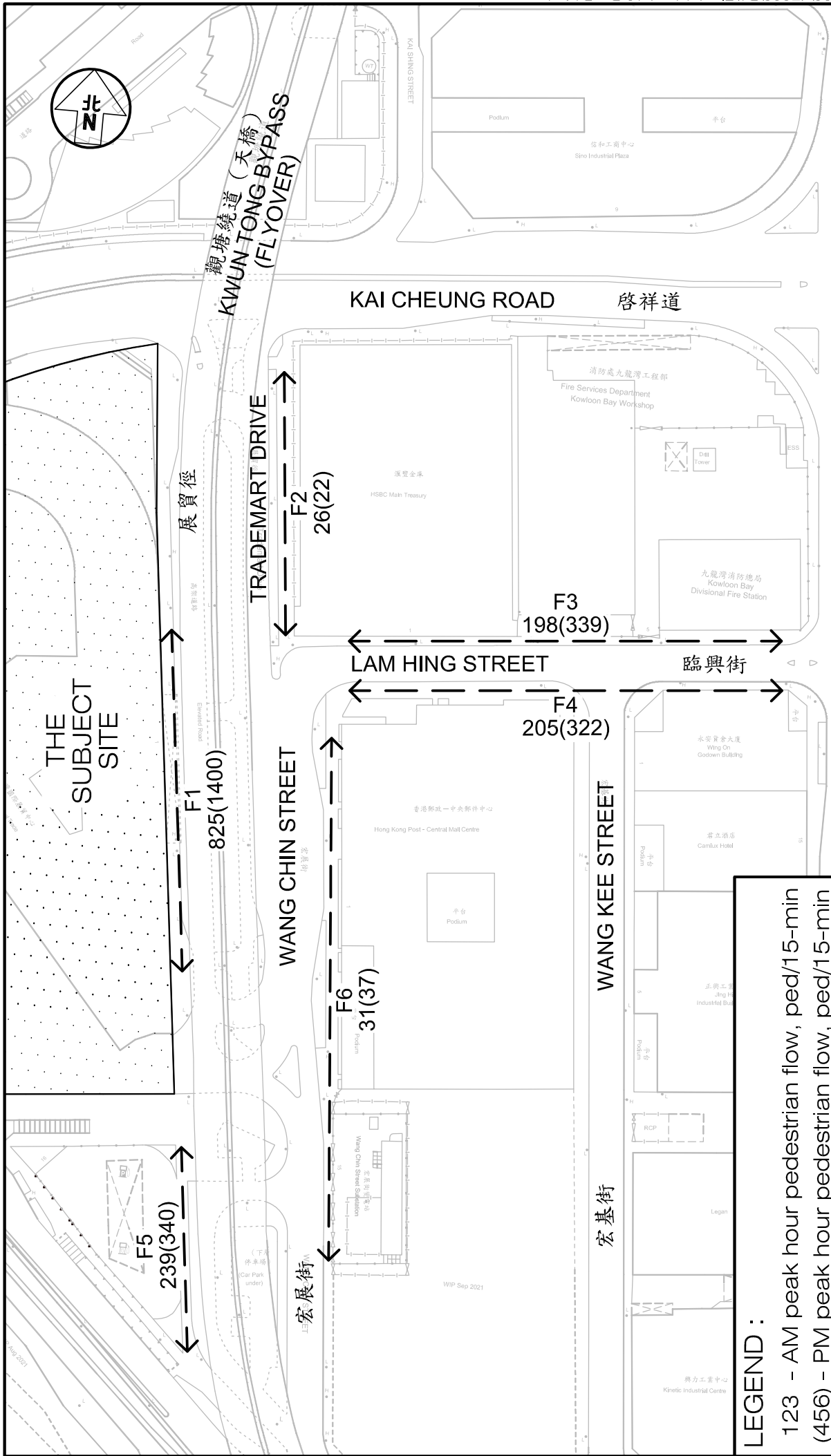
Project Title
**PROPOSED COMPOSITE REDEVELOPMENT AT
 NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY**

Figure Title
**(J9) PLANNED IMPROVEMENT FOR
 JUNCTION OF SHEUNG YEE ROAD / WANG CHIU ROAD**

Job No. J7363	Figure No. 4.13	Scale in A4 1 : 500
Designed by THC	Drawn by CCL	Checked by KC
	Revision R1A	Date 08 JAN 2025

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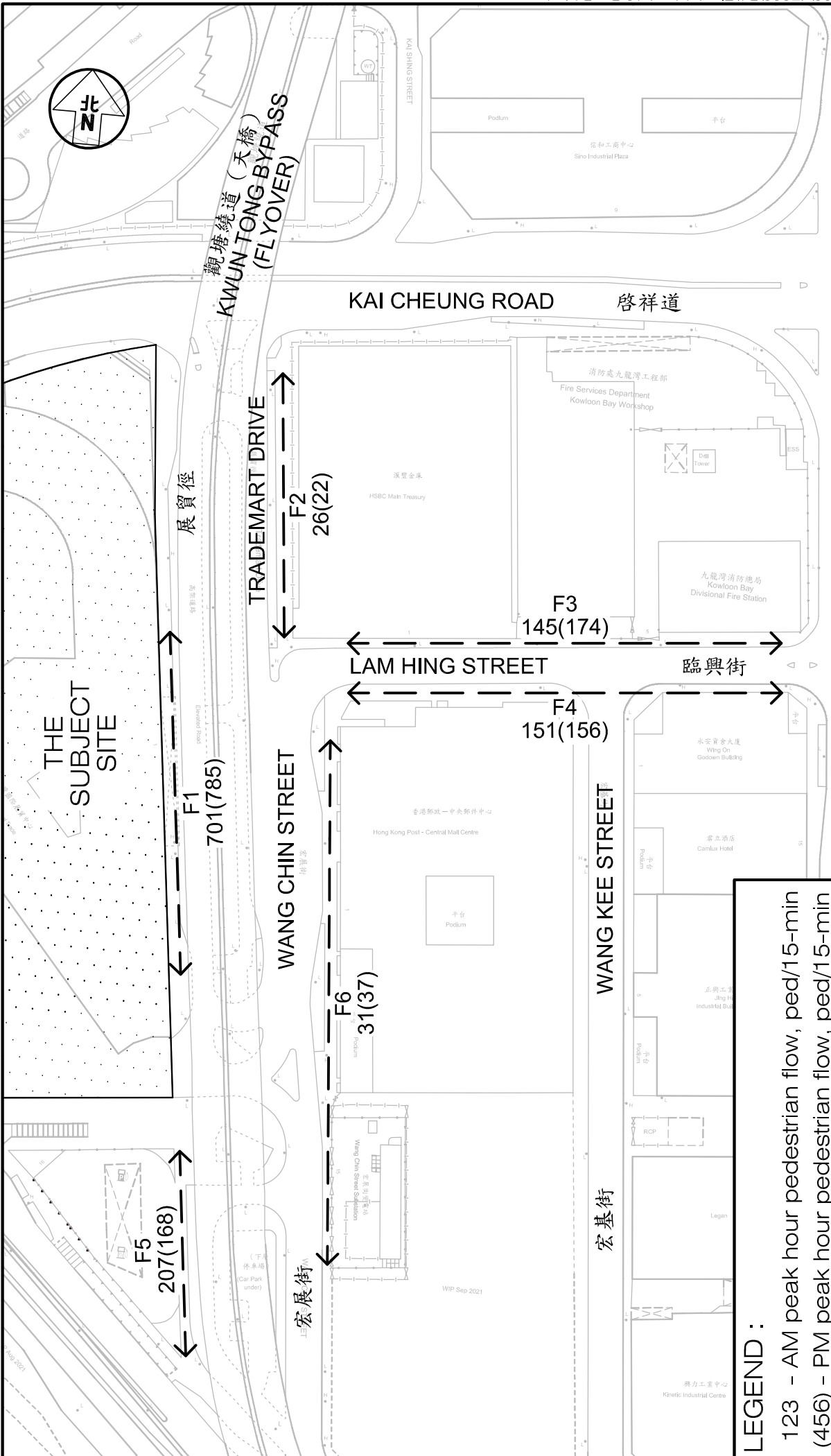
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THE SUBJECT SITE

LEGEND :
 123 - AM peak hour pedestrian flow, ped/15-min
 (456) - PM peak hour pedestrian flow, ped/15-min

Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	
Figure No.	4.14	Revision
Figure Title	J7363	R1A
Designed by	T H C	Checked by
Drawn by	C C L	K C
Scale in A4	1 : 1,500	Date
		08 JAN 2025
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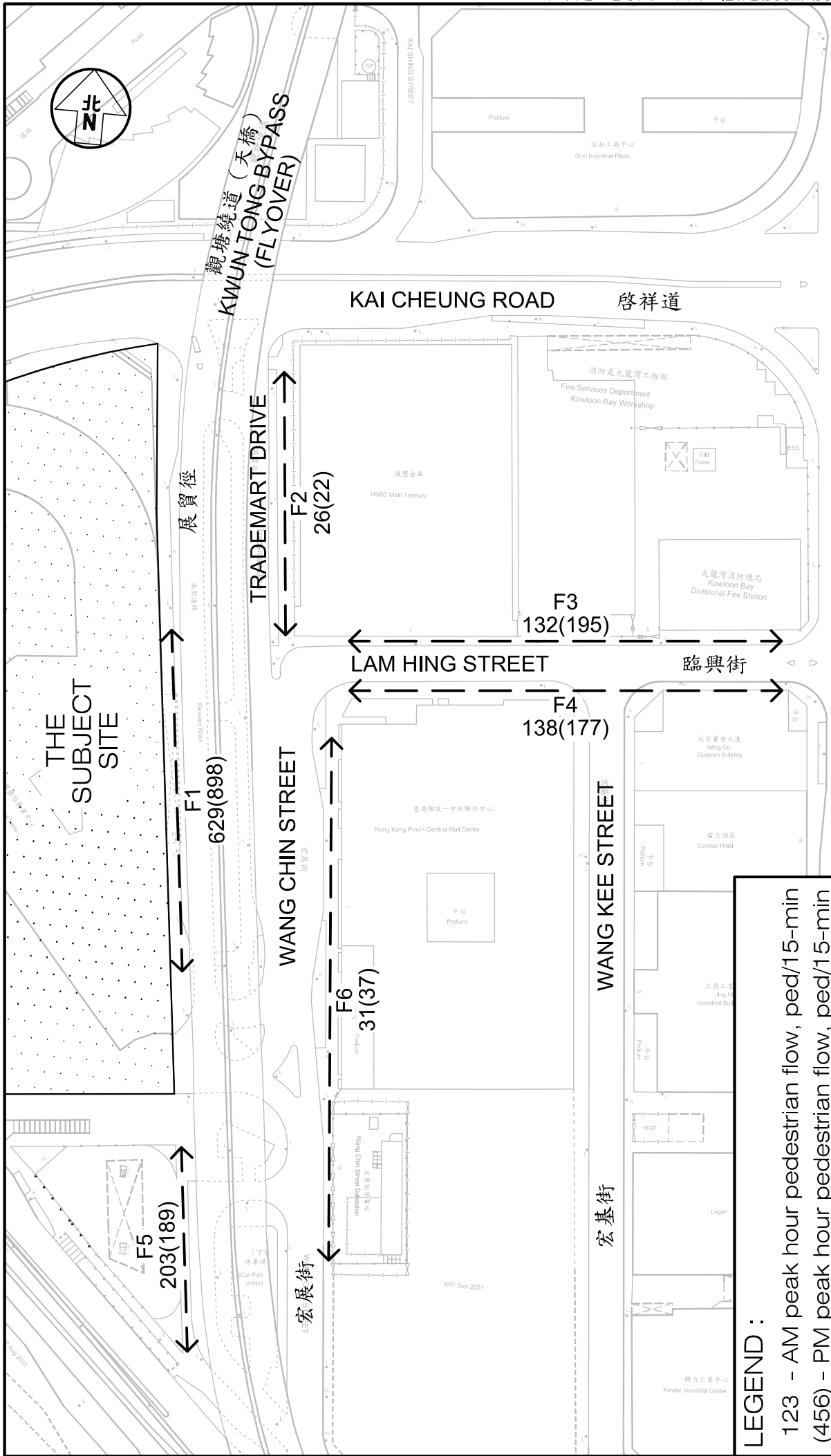


THE SUBJECT SITE

LEGEND :
 123 - AM peak hour pedestrian flow, ped/15-min
 (456) - PM peak hour pedestrian flow, ped/15-min

Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	
Figure Title	2029 PEAK 15-MINUTE PEDESTRIAN FLOWS WITH APPROVED REDEVELOPMENT	
Figure No.	4.15	Revision
Designed by	T H C	R1A
Drawn by	C C L	Checked by
Scale in A4	1 : 1,500	K C
Date	08 JAN 2025	K C

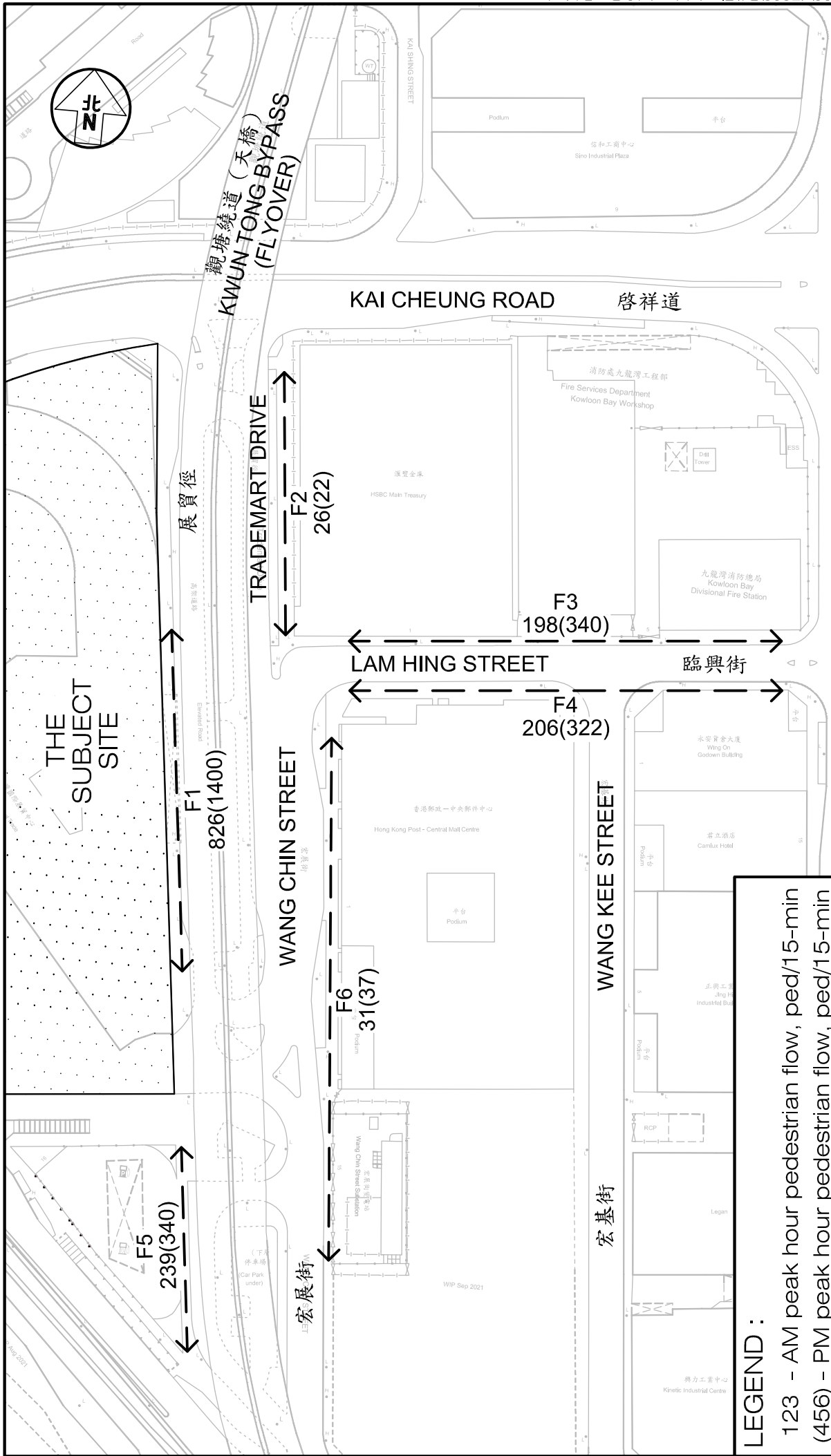
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 Email : mail@ckmasia.com.hk



LEGEND :
 123 - AM peak hour pedestrian flow, ped/15-min
 (456) - PM peak hour pedestrian flow, ped/15-min

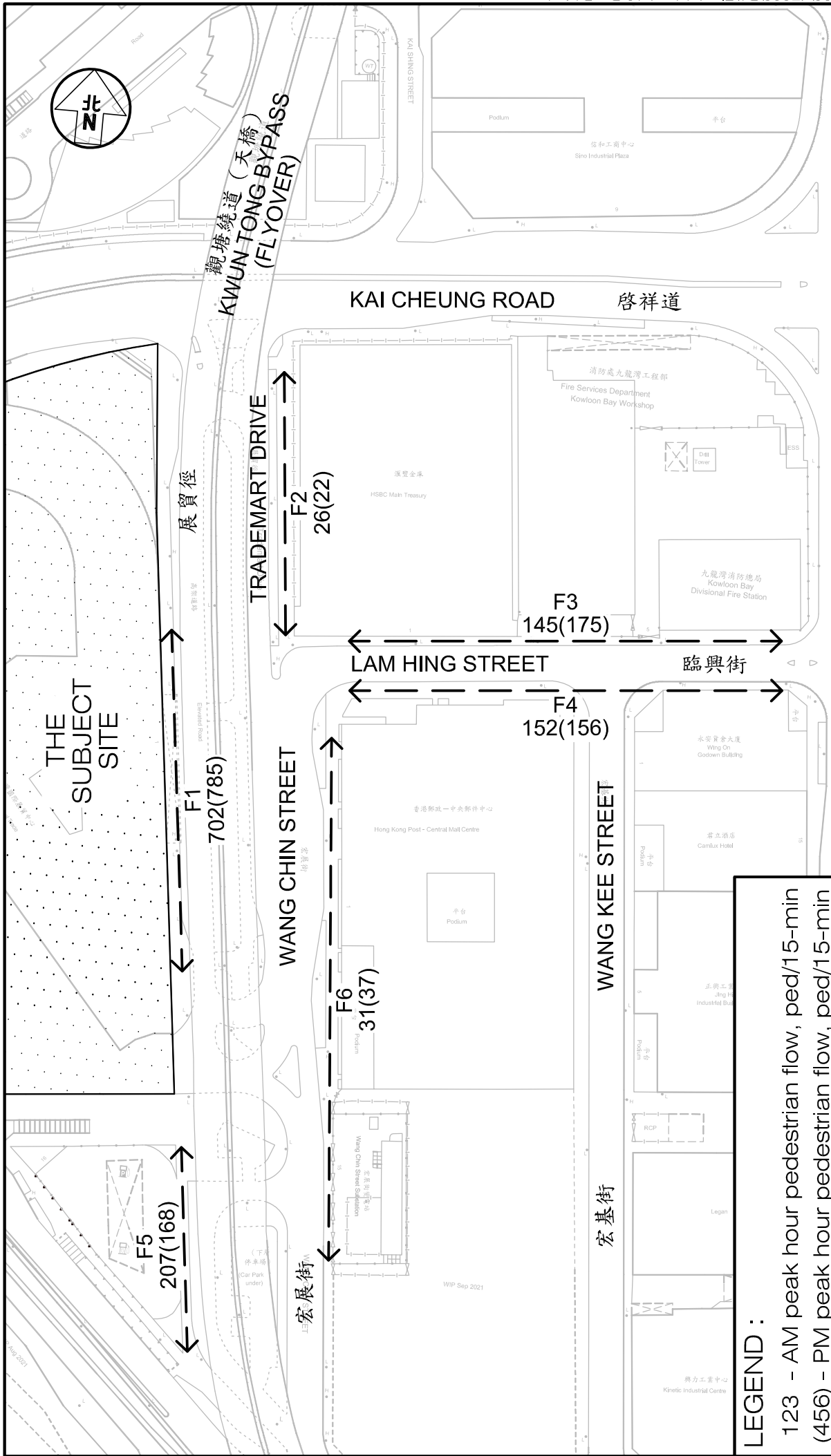
Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY		Figure No.	4.16	Revision	R1A
	2029 PEAK 15-MINUTE PEDESTRIAN FLOWS WITH PROPOSED REDEVELOPMENT		Designed by	T H C	Checked by	K C
Figure Title			Drawn by	C C L	Date	08 JAN 2025
			Scale in A4	1 : 1,500		

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LEGEND :
 123 - AM peak hour pedestrian flow, ped/15-min
 (456) - PM peak hour pedestrian flow, ped/15-min

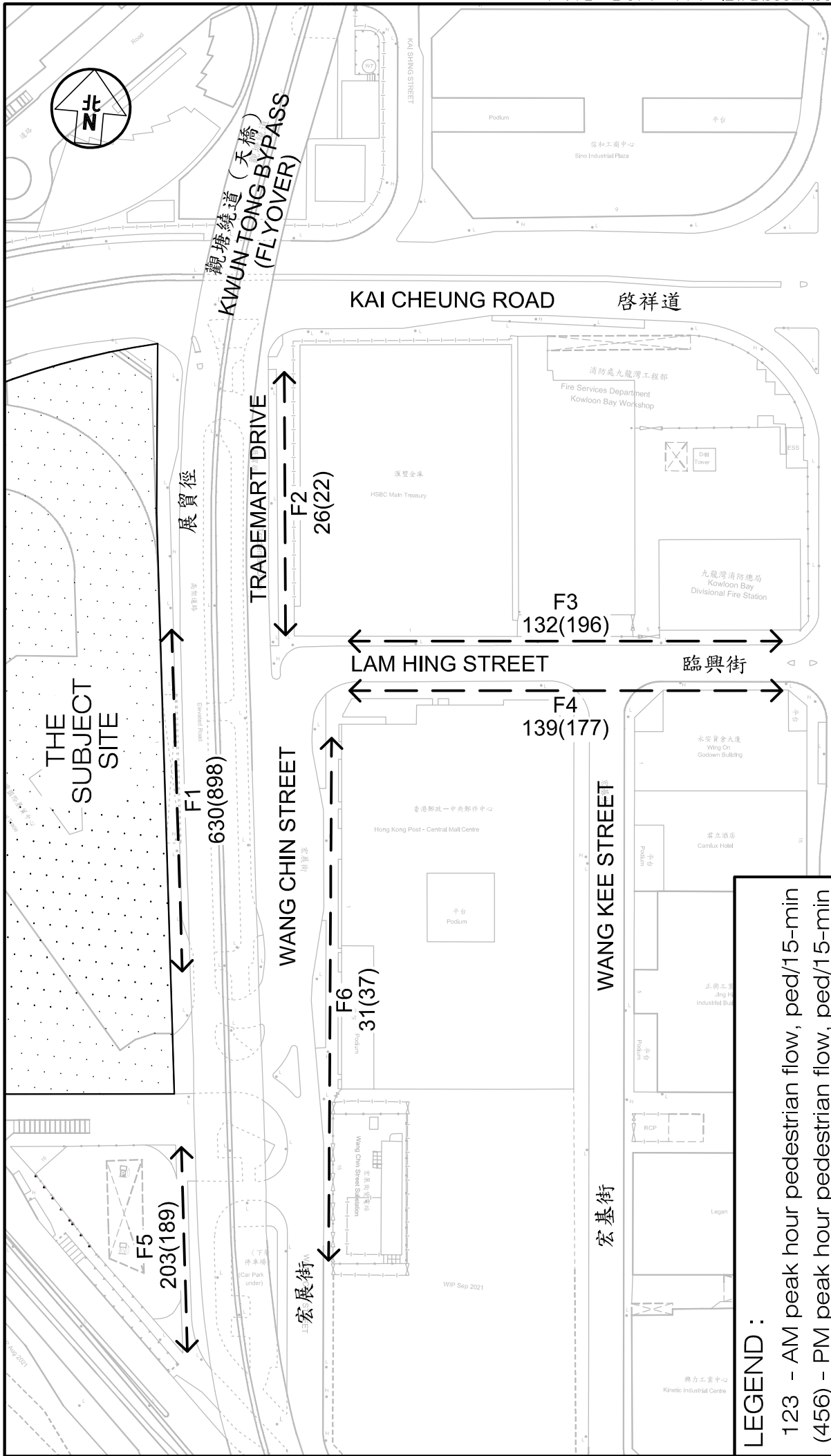
Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	
Figure No.	4.17	Revision R1A
Designed by	T H C	Checked by K C
Drawn by	C C L	K C
Scale in A4	1 : 1,500	Date 08 JAN 2025
Client	2032 PEAK 15-MINUTE PEDESTRIAN FLOWS WITH KITEC	
Company	CKM 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	



LEGEND :
 123 - AM peak hour pedestrian flow, ped/15-min
 (456) - PM peak hour pedestrian flow, ped/15-min

Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	
Figure Title	2032 PEAK 15-MINUTE PEDESTRIAN FLOWS WITH APPROVED REDEVELOPMENT	
Figure No.	4.18	Revision R1A
Designed by	T H C	Checked by K C
Drawn by	C C L	K C
Scale in A4	1 : 1,500	Date 08 JAN 2025

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LEGEND :
 123 - AM peak hour pedestrian flow, ped/15-min
 (456) - PM peak hour pedestrian flow, ped/15-min

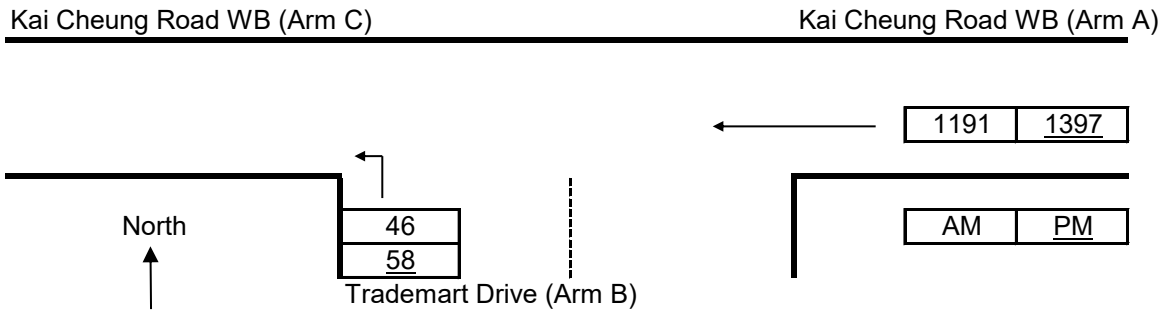
Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY		Figure No.	4.19	Revision	R1A
	2032 PEAK 15-MINUTE PEDESTRIAN FLOWS WITH PROPOSED REDEVELOPMENT		Designed by	T H C	Checked by	K C
Figure Title			Drawn by	C C L	Date	08 JAN 2025
			Scale in A4	1 : 1,500		

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**Appendix A –
Junction Capacity Analysis**

Priority Junction Analysis

Junction: J1 - Kai Cheung Road / Trademart Drive
 Design Year: 2024 Job Number: J7363 Date: 08 January 2025
 Scenario: existing condition R1 / P.1-1



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	11.50	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	5.00	E	1.1066
			V-rBC	100	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.6033

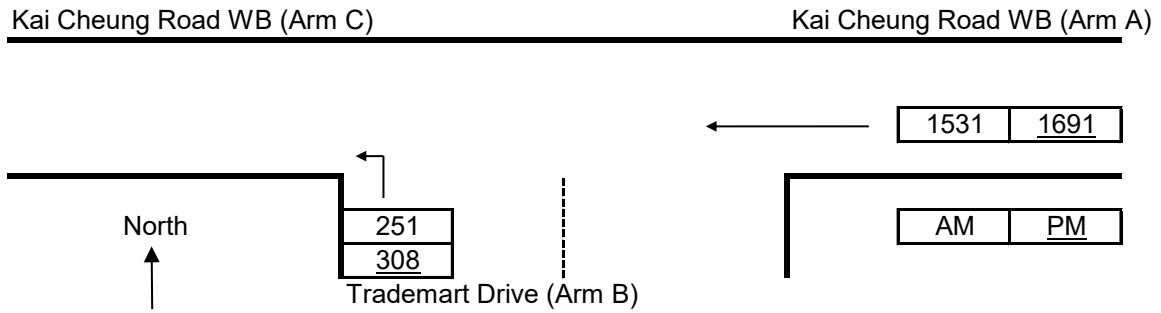
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	195	171
q-CB	0	0	Q-BC	535	485
q-AB	0	0	Q-CB	283	257
q-AC	1191	1397	Q-BAC	535	485
q-BA	0	0			
q-BC	46	58			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.086	0.120
C-B	0.000	0.000
B-AC	0.086	0.120

Priority Junction Analysis

Junction: J1 - Kai Cheung Road / Trademart Drive
 Design Year: 2029 Job Number: J7363 Date: 08 January 2025
 Scenario: with KITEC R1 / P.1-2



The predictive equations of capacity of movement are:

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

$$Q\text{-BC} = E[745 - Y(0.364q\text{-AC} + 0.144q\text{-AB})]$$

$$Q\text{-CB} = F[745 - 0.364Y(q\text{-AC} + q\text{-AB})]$$

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

$$D = [1 + 0.094(w\text{-BA} - 3.65)][1 + 0.0009(V\text{-rBA} - 120)][1 + 0.0006(V\text{-IBA} - 150)]$$

$$E = [1 + 0.094(w\text{-BC} - 3.65)][1 + 0.0009(V\text{-rBC} - 120)]$$

$$F = [1 + 0.094(w\text{-CB} - 3.65)][1 + 0.0009(V\text{-rCB} - 120)]$$

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

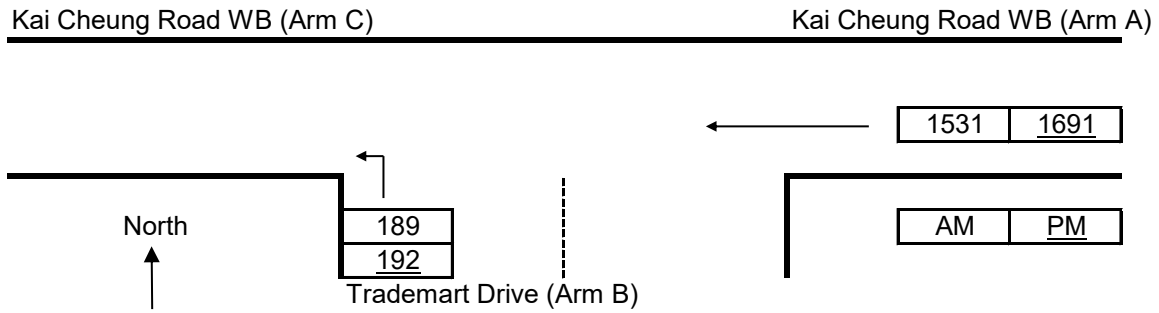
Geometry :	Input	Input	Input	Calculated
	W	11.50	V-rBA	0
	W-CR	0.00	V-IBA	0
			V-rBC	100
			V-rCB	0
			w-BA	0.00
			w-BC	5.00
			w-CB	0.00
			D	0.5332
			E	1.1066
			F	0.5860
			Y	0.6033

Analysis :	Traffic Flows, pcu/hr		Capacity, pcu/hr	
	AM	PM	AM	PM
q-CA	0	0	Q-BA	155
q-CB	0	0	Q-BC	452
q-AB	0	0	Q-CB	240
q-AC	1531	1691	Q-BAC	452
q-BA	0	0		
q-BC	251	308		
f	1.000	1.000		

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.555	0.745
C-B	0.000	0.000
B-AC	0.555	0.745

Priority Junction Analysis

Junction: J1 - Kai Cheung Road / Trademart Drive
 Design Year: 2029 Job Number: J7363 Date: 08 January 2025
 Scenario: with Approved Redevelopment R1 / P.1-3



The predictive equations of capacity of movement are:

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

$$Q\text{-BC} = E[745 - Y(0.364q\text{-AC} + 0.144q\text{-AB})]$$

$$Q\text{-CB} = F[745 - 0.364Y(q\text{-AC} + q\text{-AB})]$$

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

$$D = [1 + 0.094(w\text{-BA} - 3.65)][1 + 0.0009(V\text{-rBA} - 120)][1 + 0.0006(V\text{-IBA} - 150)]$$

$$E = [1 + 0.094(w\text{-BC} - 3.65)][1 + 0.0009(V\text{-rBC} - 120)]$$

$$F = [1 + 0.094(w\text{-CB} - 3.65)][1 + 0.0009(V\text{-rCB} - 120)]$$

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

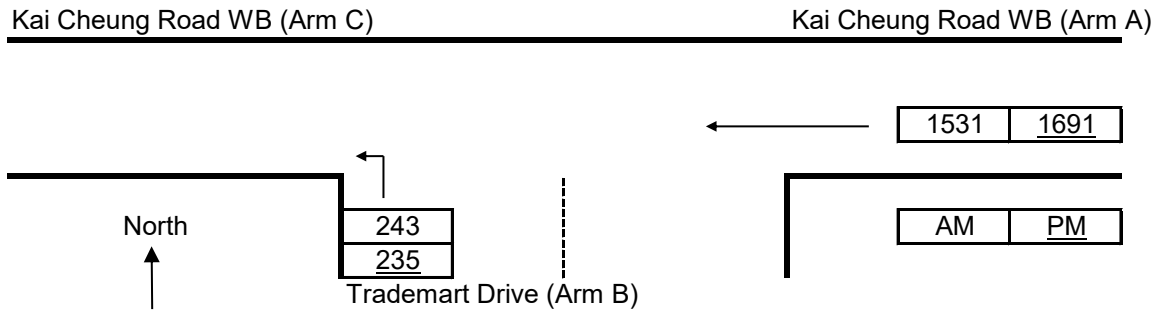
v-IBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input	Input	Input	Calculated
	W	11.50	V-rBA	0
	W-CR	0.00	V-IBA	0
			V-rBC	100
			V-rCB	0
			w-BA	0.00
			w-BC	5.00
			w-CB	0.00
			D	0.5332
			E	1.1066
			F	0.5860
			Y	0.6033

Analysis :	Traffic Flows, pcu/hr		Capacity, pcu/hr	
	AM	PM	AM	PM
q-CA	0	0	Q-BA	155
q-CB	0	0	Q-BC	452
q-AB	0	0	Q-CB	240
q-AC	1531	1691	Q-BAC	452
q-BA	0	0		
q-BC	189	192		
f	1.000	1.000		
	Ratio-of-flow to Capacity		AM	PM
	B-A		0.000	0.000
	B-C		0.418	0.464
	C-B		0.000	0.000
	B-AC		0.418	0.464

Priority Junction Analysis

Junction: J1 - Kai Cheung Road / Trademart Drive
 Design Year: 2029 Job Number: J7363 Date: 08 January 2025
 Scenario: with Proposed Redevelopment R1 / P.1-4



The predictive equations of capacity of movement are:

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

$$Q\text{-BC} = E[745 - Y(0.364q\text{-AC} + 0.144q\text{-AB})]$$

$$Q\text{-CB} = F[745 - 0.364Y(q\text{-AC} + q\text{-AB})]$$

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

$$D = [1 + 0.094(w\text{-BA} - 3.65)][1 + 0.0009(V\text{-rBA} - 120)][1 + 0.0006(V\text{-IBA} - 150)]$$

$$E = [1 + 0.094(w\text{-BC} - 3.65)][1 + 0.0009(V\text{-rBC} - 120)]$$

$$F = [1 + 0.094(w\text{-CB} - 3.65)][1 + 0.0009(V\text{-rCB} - 120)]$$

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

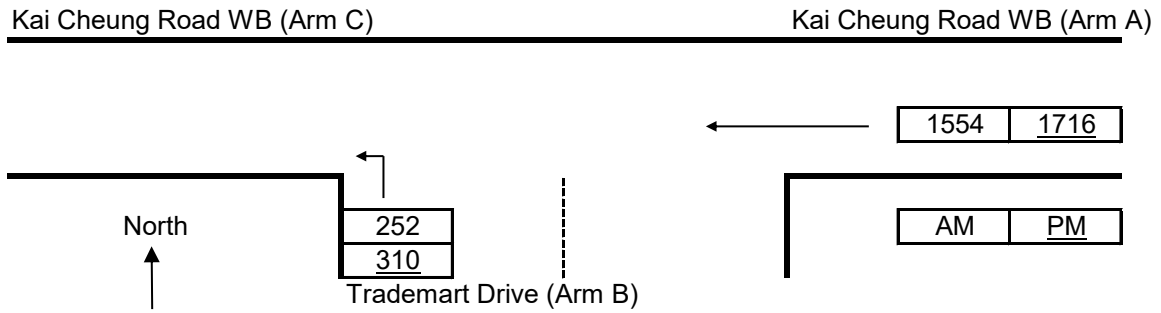
Geometry :	Input	Input	Input	Calculated				
	W	11.50	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-IBA	0	w-BC	5.00	E	1.1066
			V-rBC	100	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.6033

Analysis :	Traffic Flows, pcu/hr		Capacity, pcu/hr		
	AM	PM	AM	PM	
q-CA	0	0	Q-BA	155	136
q-CB	0	0	Q-BC	452	414
q-AB	0	0	Q-CB	240	219
q-AC	1531	1691	Q-BAC	452	414
q-BA	0	0			
q-BC	243	235			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.537	0.568
C-B	0.000	0.000
B-AC	0.537	0.568

Priority Junction Analysis

Junction: J1 - Kai Cheung Road / Trademart Drive
 Design Year: 2032 Job Number: J7363 Date: 08 January 2025
 Scenario: with KITEC R1 / P.1-5



The predictive equations of capacity of movement are:

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

$$Q\text{-BC} = E[745 - Y(0.364q\text{-AC} + 0.144q\text{-AB})]$$

$$Q\text{-CB} = F[745 - 0.364Y(q\text{-AC} + q\text{-AB})]$$

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

$$D = [1 + 0.094(w\text{-BA} - 3.65)][1 + 0.0009(V\text{-rBA} - 120)][1 + 0.0006(V\text{-IBA} - 150)]$$

$$E = [1 + 0.094(w\text{-BC} - 3.65)][1 + 0.0009(V\text{-rBC} - 120)]$$

$$F = [1 + 0.094(w\text{-CB} - 3.65)][1 + 0.0009(V\text{-rCB} - 120)]$$

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

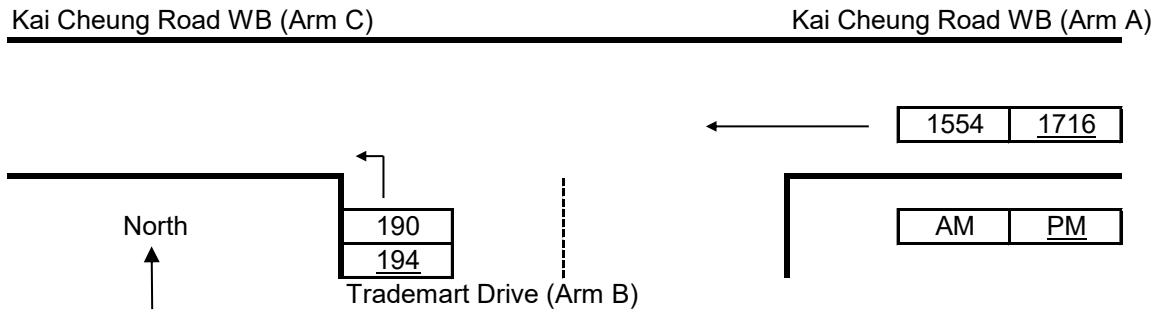
Geometry :	Input	Input	Input	Calculated
	W	11.50	V-rBA	0
	W-CR	0.00	V-IBA	0
			V-rBC	100
			V-rCB	0
	w-BA	0.00	w-BC	5.00
	w-CB	0.00		
	D	0.5332		
	E	1.1066		
	F	0.5860		
	Y	0.6033		

Analysis :	Traffic Flows, pcu/hr		Capacity, pcu/hr	
	AM	PM	AM	PM
q-CA	0	0	Q-BA	152
q-CB	0	0	Q-BC	447
q-AB	0	0	Q-CB	237
q-AC	1554	1716	Q-BAC	447
q-BA	0	0		
q-BC	252	310		
f	1.000	1.000		

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.564	0.761
C-B	0.000	0.000
B-AC	0.564	0.761

Priority Junction Analysis

Junction: J1 - Kai Cheung Road / Trademart Drive
 Design Year: 2032 Job Number: J7363 Date: 08 January 2025
 Scenario: with Approved Redevelopment R1 / P.1-6



The predictive equations of capacity of movement are:

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

$$Q\text{-BC} = E[745 - Y(0.364q\text{-AC} + 0.144q\text{-AB})]$$

$$Q\text{-CB} = F[745 - 0.364Y(q\text{-AC} + q\text{-AB})]$$

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

$$D = [1 + 0.094(w\text{-BA} - 3.65)][1 + 0.0009(V\text{-rBA} - 120)][1 + 0.0006(V\text{-IBA} - 150)]$$

$$E = [1 + 0.094(w\text{-BC} - 3.65)][1 + 0.0009(V\text{-rBC} - 120)]$$

$$F = [1 + 0.094(w\text{-CB} - 3.65)][1 + 0.0009(V\text{-rCB} - 120)]$$

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

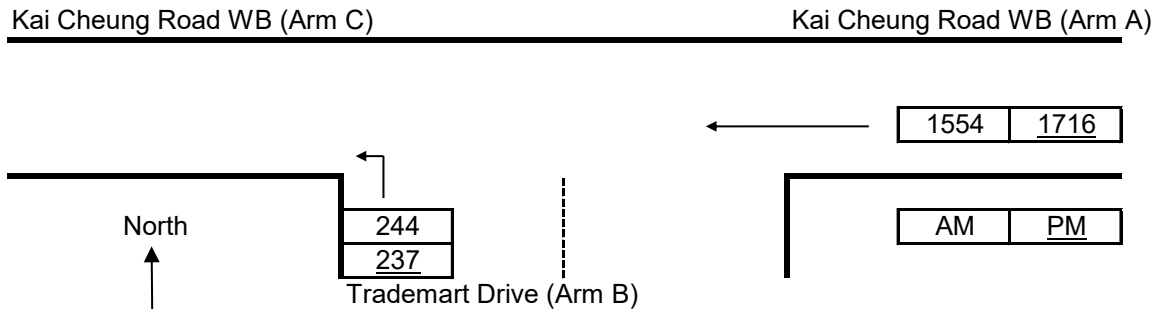
v-IBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input	Input	Input	Calculated
	W	11.50	V-rBA	0
	W-CR	0.00	V-IBA	0
			V-rBC	100
			V-rCB	0
			w-BA	0.00
			w-BC	5.00
			w-CB	0.00
			D	0.5332
			E	1.1066
			F	0.5860
			Y	0.6033

Analysis :	Traffic Flows, pcu/hr		Capacity, pcu/hr	
	AM	PM	AM	PM
q-CA	0	0	Q-BA	152
q-CB	0	0	Q-BC	447
q-AB	0	0	Q-CB	237
q-AC	1554	1716	Q-BAC	447
q-BA	0	0		
q-BC	190	194		
f	1.000	1.000		
	Ratio-of-flow to Capacity		AM	PM
	B-A		0.000	0.000
	B-C		0.425	0.476
	C-B		0.000	0.000
	B-AC		0.425	0.476

Priority Junction Analysis

Junction: J1 - Kai Cheung Road / Trademart Drive
 Design Year: 2032 Job Number: J7363 Date: 08 January 2025
 Scenario: with Proposed Redevelopment R1 / P.1-7



The predictive equations of capacity of movement are:

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

$$Q\text{-BC} = E[745 - Y(0.364q\text{-AC} + 0.144q\text{-AB})]$$

$$Q\text{-CB} = F[745 - 0.364Y(q\text{-AC} + q\text{-AB})]$$

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

$$D = [1 + 0.094(w\text{-BA} - 3.65)][1 + 0.0009(V\text{-rBA} - 120)][1 + 0.0006(V\text{-IBA} - 150)]$$

$$E = [1 + 0.094(w\text{-BC} - 3.65)][1 + 0.0009(V\text{-rBC} - 120)]$$

$$F = [1 + 0.094(w\text{-CB} - 3.65)][1 + 0.0009(V\text{-rCB} - 120)]$$

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

Geometry :	Input	Input	Input	Calculated
	W	11.50	V-rBA	0
	W-CR	0.00	V-IBA	0
			V-rBC	100
			V-rCB	0
	w-BA	0.00	w-BC	5.00
			w-CB	0.00
	D		E	1.1066
	F		Y	0.6033

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	152	133
q-CB	0	0	Q-BC	447	407
q-AB	0	0	Q-CB	237	216
q-AC	1554	1716	Q-BAC	447	407
q-BA	0	0			
q-BC	244	237			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.546	0.582
C-B	0.000	0.000
B-AC	0.546	0.582

Signal Junction Analysis

Junction: J2 - Kai Cheung Road / Wang Kwong Road

Job Number: J7363

Scenario: existing condition

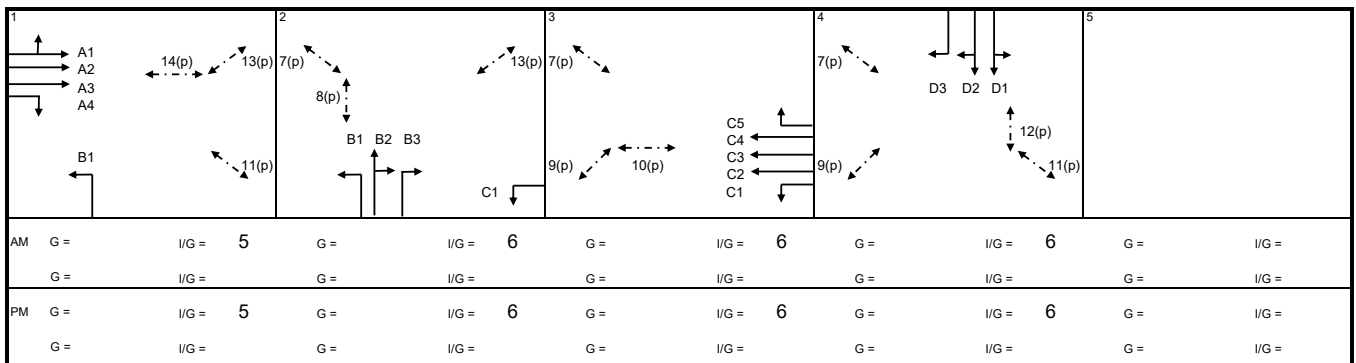
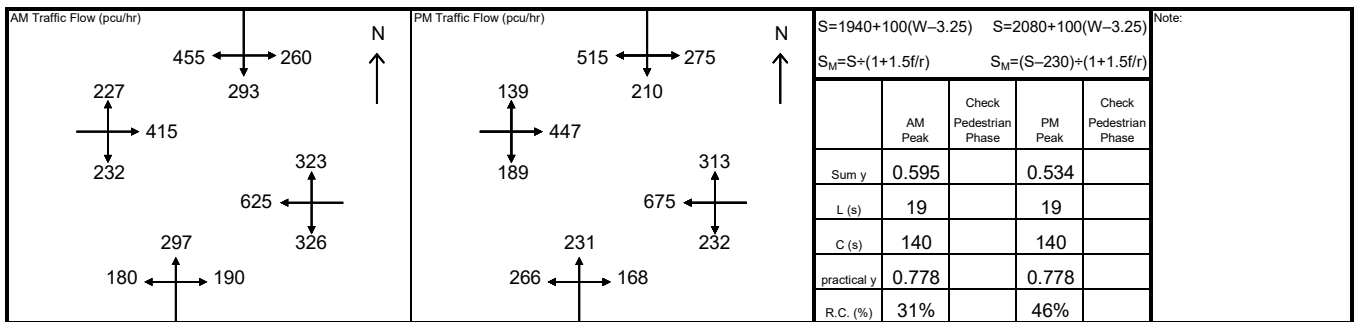
R2 / P.2-1

Design Year: 2024 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Kai Cheung Road EB	LT+SA	A1	1	3.50	35.0	100	1936	227	0.117		74	1956	187	0.096	
	SA	A2	1	3.30			2085	208	0.100			2085	199	0.095	
	SA	A3	1	3.30			2085	207	0.099			2085	200	0.096	
	RT	A4	1	3.30	20.0	100	1940	232	0.120	0.120	100	1940	189	0.097	0.097
Wang Kwong Road NB	LT	B1	1, 2	4.00	35.0	100	1932	180	0.093		100	1932	266	0.138	
	SA+RT	B2	2	3.30	30.0	0	2085	297	0.142	0.142	0	2085	231	0.111	0.111
	RT	B3	2	3.30	25.0	100	1967	190	0.097		100	1967	168	0.085	
Kai Cheung Road WB	LT	C1	2, 3	3.50	35.0	100	1884	326	0.173		100	1884	232	0.123	
	SA	C2	3	3.30			2085	208	0.100			2085	225	0.108	
	SA	C3	3	3.30			2085	208	0.100			2085	225	0.108	
	SA	C4	3	3.30			2085	208	0.100			2085	225	0.108	
	RT	C5	3	3.30	20.0	100	1940	323	0.167	0.167	100	1940	313	0.161	0.161
Wang Kwong Road SB	LT+SA	D1	4	3.50	35.0	80	1951	325	0.167	0.167	86	1947	321	0.165	0.165
	SA+RT	D2	4	3.50	25.0	34	2063	343	0.166		51	2042	337	0.165	
	RT	D3	4	3.50	15.0	100	2042	340	0.166		100	2068	342	0.165	
pedestrian phase	7(p)	2, 3, 4			min crossing time =	5	sec GM +	5	sec FGM =	10	sec				
	8(p)	2			min crossing time =	13	sec GM +	12	sec FGM =	25	sec				
	9(p)	3, 4			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	10(p)	3			min crossing time =	10	sec GM +	9	sec FGM =	19	sec				
	11(p)	1, 4			min crossing time =	5	sec GM +	5	sec FGM =	10	sec				
	12(p)	4			min crossing time =	14	sec GM +	12	sec FGM =	26	sec				
	13(p)	1, 2			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	14(p)	1			min crossing time =	13	sec GM +	12	sec FGM =	25	sec				



Signal Junction Analysis

Junction: J2 - Kai Cheung Road / Wang Kwong Road

Job Number: J7363

Scenario: with KITEC

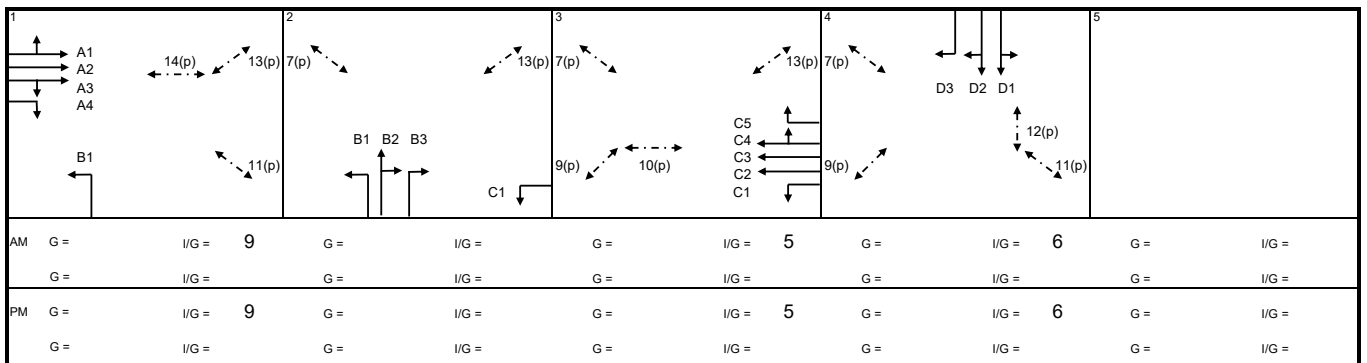
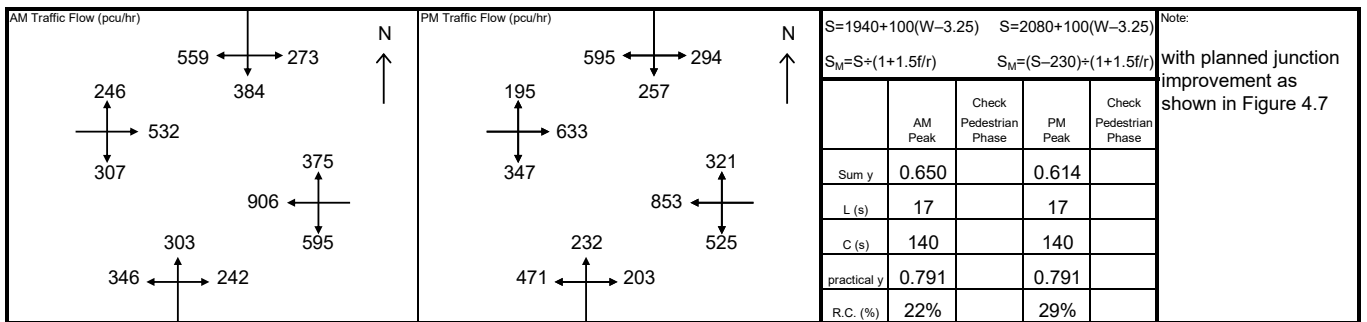
R1 / P.2-2

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Kai Cheung Road EB	LT+SA	A1	1	3.50	35.0	94	1940	262	0.135		68	1961	286	0.146	
	SA	A2	1	3.30			2085	282	0.135			2085	305	0.146	
	SA+RT	A3	1	3.30	25.0	16	2065	279	0.135		21	2059	301	0.146	
	RT	A4	1	3.30	20.0	100	1940	262	0.135	0.135	100	1940	283	0.146	0.146
Wang Kwong Road NB	LT	B1	1, 2	4.00	35.0	100	1932	346	0.179		100	1932	471	0.244	
	SA+RT	B2	2	3.30	30.0	0	2085	303	0.145		0	2085	232	0.111	
	RT	B3	2	3.30	25.0	100	1967	242	0.123		100	1967	203	0.103	
Kai Cheung Road WB	LT	C1	2, 3	3.50	35.0	100	1884	595	0.316	0.316	100	1884	525	0.279	0.279
	SA	C2	3	3.30			2085	327	0.157			2085	284	0.136	
	SA	C3	3	3.30			2085	327	0.157			2085	284	0.136	
	SA+RT	C4	3	3.30	25.0	22	2058	323	0.157		0	2085	285	0.137	
	RT	C5	3	3.30	20.0	100	1940	304	0.157		100	1940	321	0.166	
Wang Kwong Road SB	LT+SA	D1	4	3.50	35.0	70	1959	390	0.199		80	1952	369	0.189	
	SA+RT	D2	4	3.50	25.0	35	2062	410	0.199		53	2040	386	0.189	
	RT	D3	4	3.50	15.0	100	2094	416	0.199	0.199	100	2068	391	0.189	0.189
pedestrian phase	7(p)	2, 3, 4			min crossing time =	5	sec GM +	5	sec FGM =	10	sec				
	9(p)	3, 4			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	10(p)	3			min crossing time =	10	sec GM +	9	sec FGM =	19	sec				
	11(p)	1, 4			min crossing time =	5	sec GM +	5	sec FGM =	10	sec				
	12(p)	4			min crossing time =	14	sec GM +	12	sec FGM =	26	sec				
	13(p)	1, 2			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	14(p)	1			min crossing time =	13	sec GM +	12	sec FGM =	25	sec				



Signal Junction Analysis

Junction: J2 - Kai Cheung Road / Wang Kwong Road

Job Number: J7363

Scenario: with Approved Redevelopment

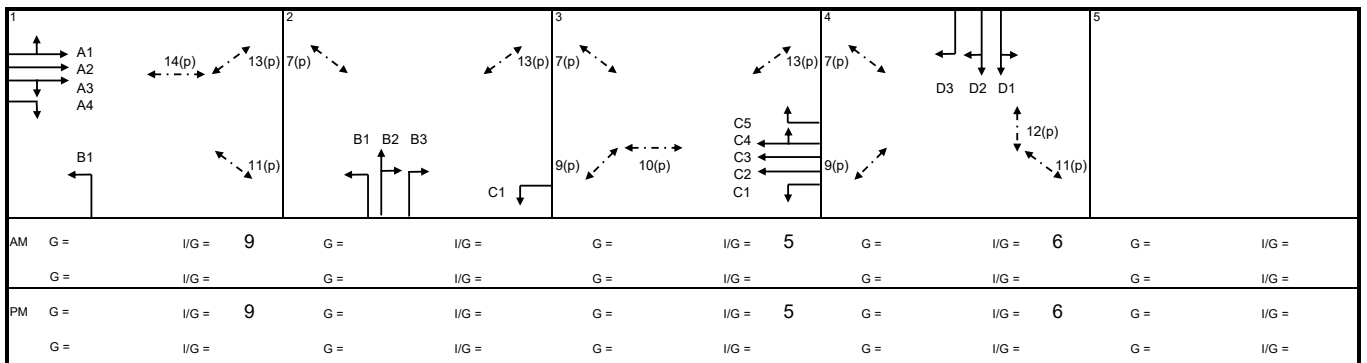
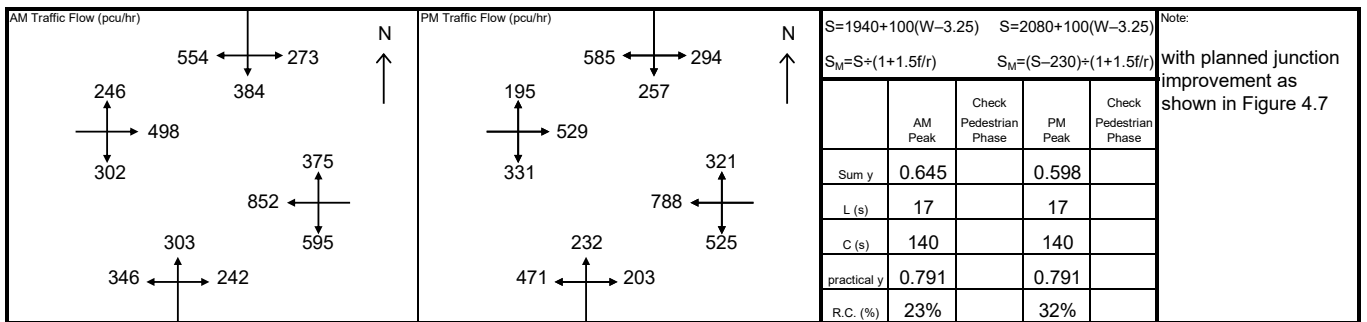
R1 / P.2-3

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Kai Cheung Road EB	LT+SA	A1	1	3.50	35.0	97	1938	253	0.131	0.131	76	1955	257	0.131	
	SA	A2	1	3.30			2085	272	0.130			2085	274	0.131	
	SA+RT	A3	1	3.30	25.0	19	2061	269	0.130		28	2050	269	0.131	
	RT	A4	1	3.30	20.0	100	1940	252	0.130		100	1940	255	0.131	0.131
Wang Kwong Road NB	LT	B1	1, 2	4.00	35.0	100	1932	346	0.179		100	1932	471	0.244	
	SA+RT	B2	2	3.30	30.0	0	2085	303	0.145		0	2085	232	0.111	
	RT	B3	2	3.30	25.0	100	1967	242	0.123		100	1967	203	0.103	
Kai Cheung Road WB	LT	C1	2, 3	3.50	35.0	100	1884	595	0.316	0.316	100	1884	525	0.279	0.279
	SA	C2	3	3.30			2085	313	0.150			2085	263	0.126	
	SA	C3	3	3.30			2085	313	0.150			2085	263	0.126	
	SA+RT	C4	3	3.30	25.0	27	2052	309	0.151		0	2085	262	0.126	
	RT	C5	3	3.30	20.0	100	1940	292	0.151		100	1940	321	0.166	
Wang Kwong Road SB	LT+SA	D1	4	3.50	35.0	70	1959	388	0.198		80	1951	366	0.188	
	SA+RT	D2	4	3.50	25.0	34	2063	408	0.198		52	2042	383	0.188	0.188
	RT	D3	4	3.50	15.0	100	2094	415	0.198	0.198	100	2068	387	0.187	
pedestrian phase	7(p)	2, 3, 4			min crossing time =	5	sec GM +	5	sec FGM =	10	sec				
	9(p)	3, 4			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	10(p)	3			min crossing time =	10	sec GM +	9	sec FGM =	19	sec				
	11(p)	1, 4			min crossing time =	5	sec GM +	5	sec FGM =	10	sec				
	12(p)	4			min crossing time =	14	sec GM +	12	sec FGM =	26	sec				
	13(p)	1, 2			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	14(p)	1			min crossing time =	13	sec GM +	12	sec FGM =	25	sec				



Signal Junction Analysis

Junction: J2 - Kai Cheung Road / Wang Kwong Road

Job Number: J7363

Scenario: with Proposed Redevelopment

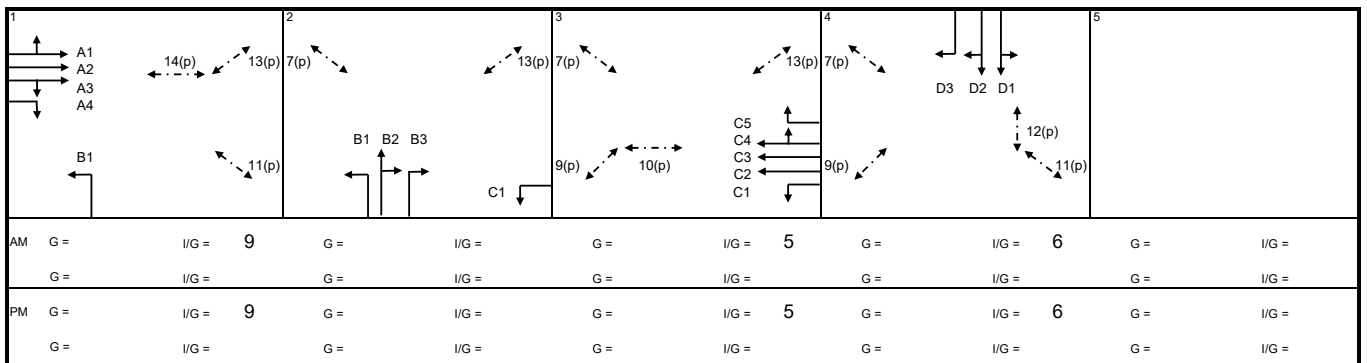
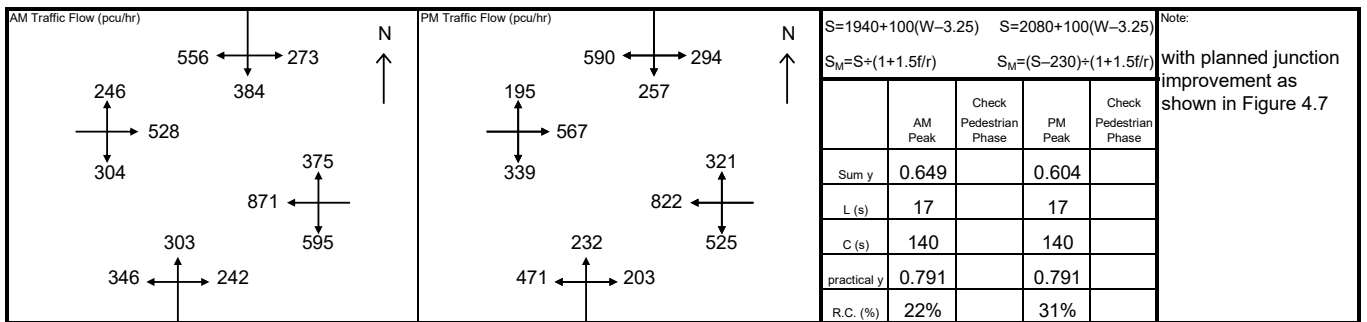
R1 / P.2-4

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Kai Cheung Road EB	LT+SA	A1	1	3.50	35.0	95	1940	260	0.134		73	1957	268	0.137	
	SA	A2	1	3.30			2085	280	0.134			2085	286	0.137	
	SA+RT	A3	1	3.30	25.0	16	2065	277	0.134		26	2053	281	0.137	
	RT	A4	1	3.30	20.0	100	1940	261	0.135	0.135	100	1940	266	0.137	0.137
Wang Kwong Road NB	LT	B1	1, 2	4.00	35.0	100	1932	346	0.179		100	1932	471	0.244	
	SA+RT	B2	2	3.30	30.0	0	2085	303	0.145		0	2085	232	0.111	
	RT	B3	2	3.30	25.0	100	1967	242	0.123		100	1967	203	0.103	
Kai Cheung Road WB	LT	C1	2, 3	3.50	35.0	100	1884	595	0.316	0.316	100	1884	525	0.279	0.279
	SA	C2	3	3.30			2085	318	0.153			2085	274	0.131	
	SA	C3	3	3.30			2085	318	0.153			2085	274	0.131	
	SA+RT	C4	3	3.30	25.0	25	2054	314	0.153		0	2085	274	0.131	
	RT	C5	3	3.30	20.0	100	1940	296	0.153		100	1940	321	0.166	
Wang Kwong Road SB	LT+SA	D1	4	3.50	35.0	70	1959	389	0.199	0.199	80	1951	367	0.188	
	SA+RT	D2	4	3.50	25.0	34	2062	409	0.198		52	2041	384	0.188	
	RT	D3	4	3.50	15.0	100	2094	415	0.198		100	2068	390	0.189	0.189
pedestrian phase	7(p)	2, 3, 4			min crossing time =	5	sec GM +	5	sec FGM =	10	sec				
	9(p)	3, 4			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	10(p)	3			min crossing time =	10	sec GM +	9	sec FGM =	19	sec				
	11(p)	1, 4			min crossing time =	5	sec GM +	5	sec FGM =	10	sec				
	12(p)	4			min crossing time =	14	sec GM +	12	sec FGM =	26	sec				
	13(p)	1, 2			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	14(p)	1			min crossing time =	13	sec GM +	12	sec FGM =	25	sec				



Signal Junction Analysis

Junction: J2 - Kai Cheung Road / Wang Kwong Road

Job Number: J7363

Scenario: with KITEC

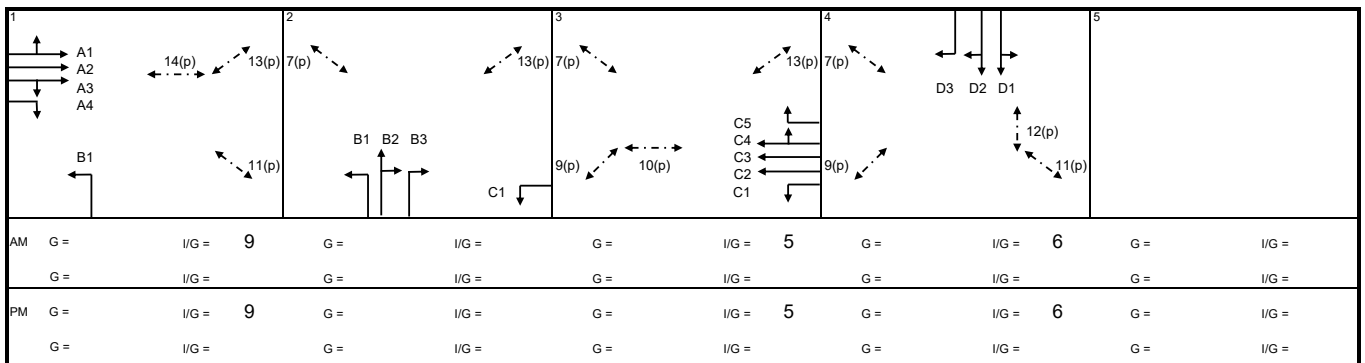
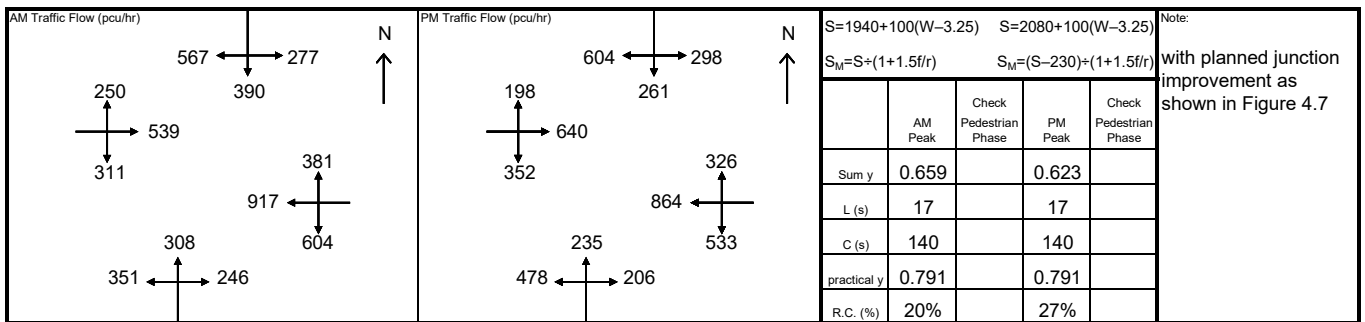
R1 / P.2-5

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Kai Cheung Road EB	LT+SA	A1	1	3.50	35.0	94	1940	266	0.137		68	1961	290	0.148	
	SA	A2	1	3.30			2085	286	0.137			2085	308	0.148	
	SA+RT	A3	1	3.30	25.0	16	2065	283	0.137		21	2059	305	0.148	
	RT	A4	1	3.30	20.0	100	1940	265	0.137	0.137	100	1940	287	0.148	0.148
Wang Kwong Road NB	LT	B1	1, 2	4.00	35.0	100	1932	351	0.182		100	1932	478	0.247	
	SA+RT	B2	2	3.30	30.0	0	2085	308	0.148		0	2085	235	0.113	
	RT	B3	2	3.30	25.0	100	1967	246	0.125		100	1967	206	0.105	
Kai Cheung Road WB	LT	C1	2, 3	3.50	35.0	100	1884	604	0.321	0.321	100	1884	533	0.283	0.283
	SA	C2	3	3.30			2085	331	0.159			2085	288	0.138	
	SA	C3	3	3.30			2085	331	0.159			2085	288	0.138	
	SA+RT	C4	3	3.30	25.0	22	2058	327	0.159		0	2085	288	0.138	
	RT	C5	3	3.30	20.0	100	1940	309	0.159		100	1940	326	0.168	
Wang Kwong Road SB	LT+SA	D1	4	3.50	35.0	70	1959	395	0.202		79	1952	375	0.192	
	SA+RT	D2	4	3.50	25.0	35	2062	416	0.202		53	2040	392	0.192	0.192
	RT	D3	4	3.50	15.0	100	2094	423	0.202	0.202	100	2068	396	0.191	
pedestrian phase	7(p)	2, 3, 4			min crossing time =	5	sec GM +	5	sec FGM =	10	sec				
	9(p)	3, 4			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	10(p)	3			min crossing time =	10	sec GM +	9	sec FGM =	19	sec				
	11(p)	1, 4			min crossing time =	5	sec GM +	5	sec FGM =	10	sec				
	12(p)	4			min crossing time =	14	sec GM +	12	sec FGM =	26	sec				
	13(p)	1, 2			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	14(p)	1			min crossing time =	13	sec GM +	12	sec FGM =	25	sec				



Signal Junction Analysis

Junction: J2 - Kai Cheung Road / Wang Kwong Road

Job Number: J7363

Scenario: with Approved Redevelopment

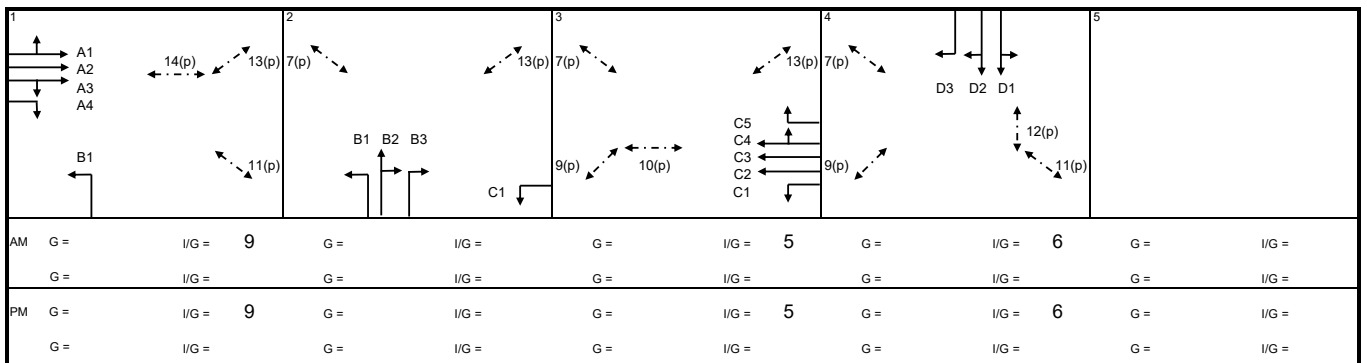
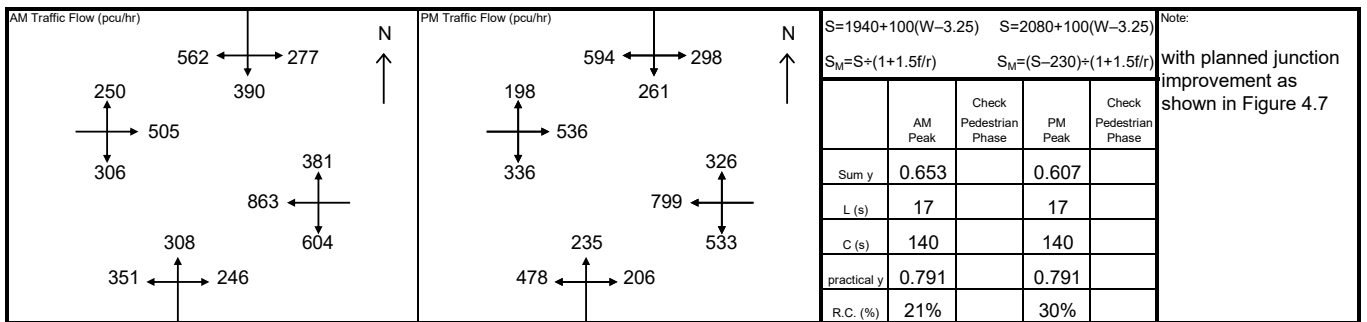
R1 / P.2-6

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Kai Cheung Road EB	LT+SA	A1	1	3.50	35.0	98	1937	256	0.132		76	1954	260	0.133	
	SA	A2	1	3.30			2085	276	0.132			2085	278	0.133	
	SA+RT	A3	1	3.30	25.0	18	2063	273	0.132		28	2050	273	0.133	
	RT	A4	1	3.30	20.0	100	1940	256	0.132	0.132	100	1940	259	0.134	0.134
Wang Kwong Road NB	LT	B1	1, 2	4.00	35.0	100	1932	351	0.182		100	1932	478	0.247	
	SA+RT	B2	2	3.30	30.0	0	2085	308	0.148		0	2085	235	0.113	
	RT	B3	2	3.30	25.0	100	1967	246	0.125		100	1967	206	0.105	
Kai Cheung Road WB	LT	C1	2, 3	3.50	35.0	100	1884	604	0.321	0.321	100	1884	533	0.283	0.283
	SA	C2	3	3.30			2085	318	0.153			2085	266	0.128	
	SA	C3	3	3.30			2085	318	0.153			2085	266	0.128	
	SA+RT	C4	3	3.30	25.0	27	2051	313	0.153		0	2085	267	0.128	
	RT	C5	3	3.30	20.0	100	1940	295	0.152		100	1940	326	0.168	
Wang Kwong Road SB	LT+SA	D1	4	3.50	35.0	70	1959	394	0.201		80	1951	371	0.190	
	SA+RT	D2	4	3.50	25.0	34	2063	415	0.201		52	2042	388	0.190	
	RT	D3	4	3.50	15.0	100	2094	420	0.201	0.201	100	2068	394	0.191	0.191
pedestrian phase	7(p)	2, 3, 4			min crossing time =	5	sec GM +	5	sec FGM =	10	sec				
	9(p)	3, 4			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	10(p)	3			min crossing time =	10	sec GM +	9	sec FGM =	19	sec				
	11(p)	1, 4			min crossing time =	5	sec GM +	5	sec FGM =	10	sec				
	12(p)	4			min crossing time =	14	sec GM +	12	sec FGM =	26	sec				
	13(p)	1, 2			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	14(p)	1			min crossing time =	13	sec GM +	12	sec FGM =	25	sec				



Signal Junction Analysis

Junction: J2 - Kai Cheung Road / Wang Kwong Road

Job Number: J7363

Scenario: with Proposed Redevelopment

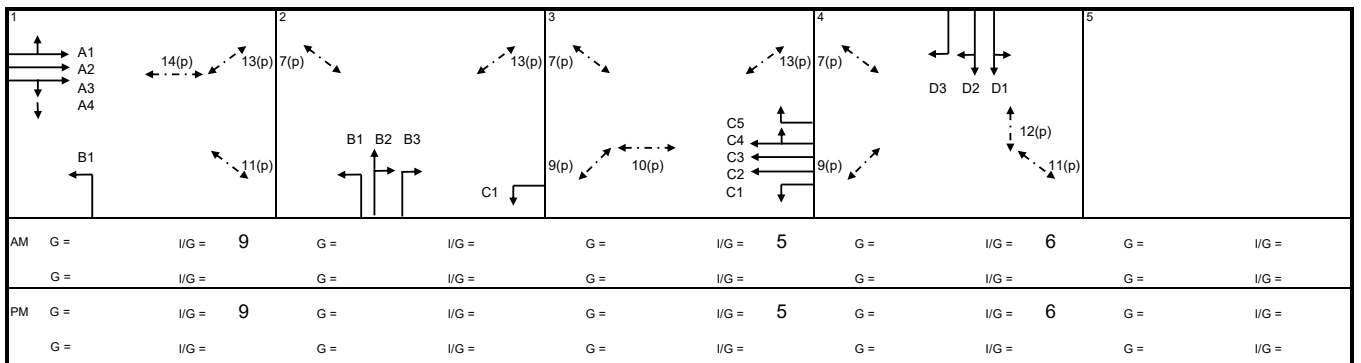
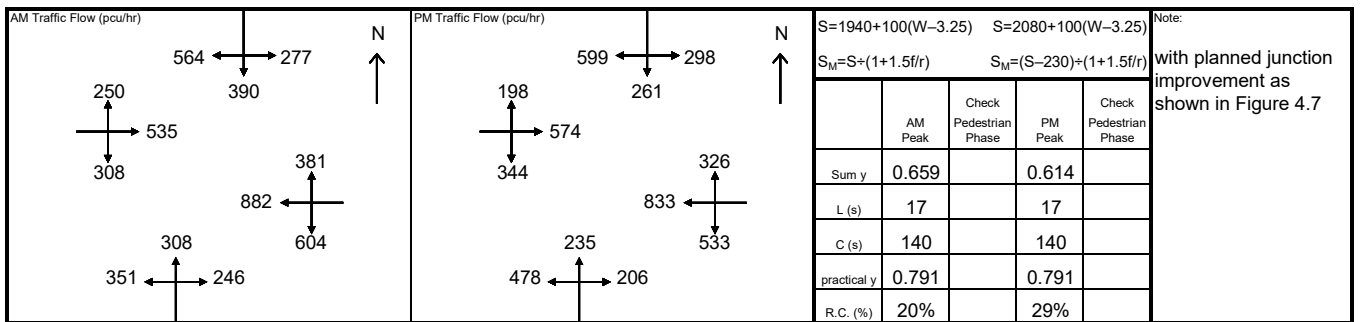
R1 / P.2-7

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Kai Cheung Road EB	LT+SA	A1	1	3.50	25.0	96	1910	261	0.137		74	1933	269	0.139	
	SA	A2	1	3.30			2085	285	0.137			2085	290	0.139	
	SA+RT	A3	1	3.30	25.0	15	2066	282	0.136		26	2054	286	0.139	
	RT	A4	1	3.30	20.0	100	1940	265	0.137	0.137	100	1940	271	0.140	0.140
Wang Kwong Road NB	LT	B1	1, 2	4.00	35.0	100	1932	351	0.182		100	1932	478	0.247	
	SA+RT	B2	2	3.30	30.0	0	2085	308	0.148		0	2085	235	0.113	
	RT	B3	2	3.30	25.0	100	1967	246	0.125		100	1967	206	0.105	
Kai Cheung Road WB	LT	C1	2, 3	3.50	35.0	100	1884	604	0.321	0.321	100	1884	533	0.283	0.283
	SA	C2	3	3.30			2085	323	0.155			2085	278	0.133	
	SA	C3	3	3.30			2085	323	0.155			2085	278	0.133	
	SA+RT	C4	3	3.30	25.0	26	2053	318	0.155		0	2085	277	0.133	
	RT	C5	3	3.30	20.0	100	1940	299	0.154		100	1940	326	0.168	
Wang Kwong Road SB	LT+SA	D1	4	3.50	35.0	70	1959	394	0.201		80	1951	373	0.191	
	SA+RT	D2	4	3.50	25.0	34	2063	415	0.201		52	2041	390	0.191	
	RT	D3	4	3.50	15.0	100	2094	422	0.202	0.202	100	2068	395	0.191	0.191
pedestrian phase	7(p)	2, 3, 4			min crossing time =	5	sec GM +	5	sec FGM =	10	sec				
	9(p)	3, 4			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	10(p)	3			min crossing time =	10	sec GM +	9	sec FGM =	19	sec				
	11(p)	1, 4			min crossing time =	5	sec GM +	5	sec FGM =	10	sec				
	12(p)	4			min crossing time =	14	sec GM +	12	sec FGM =	26	sec				
	13(p)	1, 2			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	14(p)	1			min crossing time =	13	sec GM +	12	sec FGM =	25	sec				



Signal Junction Analysis

Junction: J3 - Wang Kwong Road / Lam Hing Street

Job Number: J7363

Scenario: existing condition

R1 / P.3-1

Design Year: 2024 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Kwong Road NB	LT+SA	A1	1	3.70	15.0	0	1984	201	0.101		1	1984	181	0.091	
	SA	A2	1	3.70				2125	215	0.101		2125	193	0.091	
Wang Kwong Road SB	LT	B1	1	3.40	20.0	100	1819	299	0.164	0.164	100	1819	188	0.103	
	SA	B2	1	3.50				2105	275	0.131		2105	220	0.105	
	SA	B3	1	3.50				2105	274	0.130		2105	220	0.105	0.105
Lam Hing Street EB	LT+SA+RT	C1	3	5.10	15.0	71	1984	212	0.107	0.107	65	1995	195	0.098	0.098
Lam Hing Street WB	LT+SA	D1	4	3.10	10.0	79	1722	28	0.016		85	1707	34	0.020	
	RT	D2	4	3.20	20.0	100	1930	115	0.060	0.060	100	1930	186	0.096	0.096
pedestrian phase		5(p)	2			min crossing time =	11	sec GM +	10	sec FGM =	21	sec			
		6(p)	2			min crossing time =	7	sec GM +	6	sec FGM =	13	sec			
		7(p)	2			min crossing time =	9	sec GM +	8	sec FGM =	17	sec			
		8(p)	2			min crossing time =	10	sec GM +	9	sec FGM =	19	sec			

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.331</td> <td></td> <td>0.299</td> <td></td> </tr> <tr> <td>L (s)</td> <td>42</td> <td></td> <td>42</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.630</td> <td></td> <td>0.630</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>90%</td> <td></td> <td>111%</td> <td></td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.331		0.299		L (s)	42		42		C (s)	140		140		practical y	0.630		0.630		R.C. (%)	90%		111%		<p>Note:</p>
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																													
Sum y	0.331		0.299																														
L (s)	42		42																														
C (s)	140		140																														
practical y	0.630		0.630																														
R.C. (%)	90%		111%																														

1	2	3	4	5
AM G = I/G = 9 G = 21 I/G = 2 G = I/G = 7 G = I/G = 6 G = I/G =				
G = I/G = G = I/G = G = I/G = G = I/G = G = I/G =				
PM G = I/G = 9 G = 21 I/G = 2 G = I/G = 7 G = I/G = 6 G = I/G =				
G = I/G = G = I/G = G = I/G = G = I/G = G = I/G =				

Signal Junction Analysis

Junction: J3 - Wang Kwong Road / Lam Hing Street

Job Number: J7363

Scenario: with KITEC

R1 / P.3-2

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Kwong Road NB	LT+SA	A1	1	3.70	15.0		1	1983	215	0.108		1	1983	179	0.090	
	SA	A2	1	3.70				2125	231	0.109			2125	192	0.090	
Wang Kwong Road SB	LT	B1	1, 4	3.40	20.0		100	1819	599	0.329		100	1819	576	0.317	
	SA	B2	1	3.50				2105	344	0.163			2105	276	0.131	
	SA	B3	1	3.50				2105	344	0.163	0.163		2105	276	0.131	0.131
Lam Hing Street EB	LT+SA+RT	C1	3	5.10	15.0		57	2010	309	0.154	0.154	58	2008	357	0.178	0.178
Lam Hing Street WB	LT+SA	D1	4	3.10	10.0		83	1711	36	0.021		76	1728	46	0.027	
	RT	D2	4	3.20	20.0		100	1930	299	0.155	0.155	100	1930	382	0.198	0.198
pedestrian phase		5(p)	2			min crossing time =	14	sec GM +	6	sec FGM =	20	sec				
		6(p)	2			min crossing time =	7	sec GM +	6	sec FGM =	13	sec				
		7(p)	2			min crossing time =	9	sec GM +	8	sec FGM =	17	sec				
		8(p)	2			min crossing time =	11	sec GM +	10	sec FGM =	21	sec				

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M = S + (1 + 1.5f/r)$ $S_M = (S - 230) + (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td></td> <td>AM Peak</td> <td>Check Pedestrian Phase</td> <td>PM Peak</td> <td>Check Pedestrian Phase</td> </tr> <tr> <td>Sum y</td> <td>0.472</td> <td></td> <td>0.507</td> <td></td> </tr> <tr> <td>L (s)</td> <td>42</td> <td></td> <td>42</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.630</td> <td></td> <td>0.630</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>33%</td> <td></td> <td>24%</td> <td></td> </tr> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.472		0.507		L (s)	42		42		C (s)	140		140		practical y	0.630		0.630		R.C. (%)	33%		24%	
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
Sum y	0.472		0.507																													
L (s)	42		42																													
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practical y	0.630		0.630																													
R.C. (%)	33%		24%																													
<p>Note: with planned junction improvement as shown in Figure 4.8</p>																																

1	2	3	4	5
AM G = I/G = 9	G = 21 I/G = 2	G = I/G = 7	G = I/G = 6	G = I/G =
PM G = I/G = 9	G = 21 I/G = 2	G = I/G = 7	G = I/G = 6	G = I/G =

Signal Junction Analysis

Junction: J3 - Wang Kwong Road / Lam Hing Street

Job Number: J7363

Scenario: with Approved Redevelopment

R1 / P.3-3

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Kwong Road NB	LT+SA	A1	1	3.70	15.0		1	1983	215	0.108		1	1983	179	0.090	
	SA	A2	1	3.70				2125	231	0.109			2125	192	0.090	
Wang Kwong Road SB	LT	B1	1, 4	3.40	20.0		100	1819	599	0.329		100	1819	576	0.317	
	SA	B2	1	3.50				2105	342	0.162			2105	268	0.127	
	SA	B3	1	3.50				2105	341	0.162	0.162		2105	268	0.127	0.127
Lam Hing Street EB	LT+SA+RT	C1	3	5.10	15.0		57	2010	309	0.154	0.154	58	2008	357	0.178	0.178
Lam Hing Street WB	LT+SA	D1	4	3.10	10.0		83	1711	36	0.021		76	1728	46	0.027	
	RT	D2	4	3.20	20.0		100	1930	299	0.155	0.155	100	1930	382	0.198	0.198
pedestrian phase		5(p)	2			min crossing time =	14	sec GM +	6	sec FGM =	20	sec				
		6(p)	2			min crossing time =	7	sec GM +	6	sec FGM =	13	sec				
		7(p)	2			min crossing time =	9	sec GM +	8	sec FGM =	17	sec				
		8(p)	2			min crossing time =	11	sec GM +	10	sec FGM =	21	sec				

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M = S + (1 + 1.5f/r)$ $S_M = (S - 230) + (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td>AM Peak</td> <td>Check Pedestrian Phase</td> <td>PM Peak</td> <td>Check Pedestrian Phase</td> </tr> <tr> <td>Sum y</td> <td>0.471</td> <td></td> <td>0.503</td> <td></td> </tr> <tr> <td>L (s)</td> <td>42</td> <td></td> <td>42</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.630</td> <td></td> <td>0.630</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>34%</td> <td></td> <td>25%</td> <td></td> </tr> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.471		0.503		L (s)	42		42		C (s)	140		140		practical y	0.630		0.630		R.C. (%)	34%		25%		<p>Note: with planned junction improvement as shown in Figure 4.8</p>
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																													
Sum y	0.471		0.503																														
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1	2	3	4	5
AM G = I/G = 9	G = 21 I/G = 2	G = I/G = 7	G = I/G = 6	G = I/G =
PM G = I/G = 9	G = 21 I/G = 2	G = I/G = 7	G = I/G = 6	G = I/G =

Signal Junction Analysis

Junction: J3 - Wang Kwong Road / Lam Hing Street

Job Number: J7363

Scenario: with Proposed Redevelopment

R1 / P.3-4

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Kwong Road NB	LT+SA	A1	1	3.70	15.0		1	1983	215	0.108		1	1983	179	0.090	
	SA	A2	1	3.70				2125	231	0.109			2125	192	0.090	
Wang Kwong Road SB	LT	B1	1, 4	3.40	20.0		100	1819	599	0.329		100	1819	576	0.317	
	SA	B2	1	3.50				2105	343	0.163	0.163		2105	272	0.129	
	SA	B3	1	3.50				2105	342	0.162			2105	272	0.129	0.129
Lam Hing Street EB	LT+SA+RT	C1	3	5.10	15.0		57	2010	309	0.154	0.154	58	2008	357	0.178	0.178
Lam Hing Street WB	LT+SA	D1	4	3.10	10.0		83	1711	36	0.021		76	1728	46	0.027	
	RT	D2	4	3.20	20.0		100	1930	299	0.155	0.155	100	1930	382	0.198	0.198
pedestrian phase		5(p)	2			min crossing time =	14	sec GM +	6	sec FGM =	20	sec				
		6(p)	2			min crossing time =	7	sec GM +	6	sec FGM =	13	sec				
		7(p)	2			min crossing time =	9	sec GM +	8	sec FGM =	17	sec				
		8(p)	2			min crossing time =	11	sec GM +	10	sec FGM =	21	sec				

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M = S + (1 + 1.5f/r)$ $S_M = (S - 230) + (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td></td> <td>AM Peak</td> <td>Check Pedestrian Phase</td> <td>PM Peak</td> <td>Check Pedestrian Phase</td> </tr> <tr> <td>Sum y</td> <td>0.472</td> <td></td> <td>0.505</td> <td></td> </tr> <tr> <td>L (s)</td> <td>42</td> <td></td> <td>42</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.630</td> <td></td> <td>0.630</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>34%</td> <td></td> <td>25%</td> <td></td> </tr> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.472		0.505		L (s)	42		42		C (s)	140		140		practical y	0.630		0.630		R.C. (%)	34%		25%	
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
Sum y	0.472		0.505																													
L (s)	42		42																													
C (s)	140		140																													
practical y	0.630		0.630																													
R.C. (%)	34%		25%																													
<p>Note: with planned junction improvement as shown in Figure 4.8</p>																																

1	2	3	4	5
AM G = I/G = 9	G = 21 I/G = 2	G = I/G = 7	G = I/G = 6	G = I/G =
PM G = I/G = 9	G = 21 I/G = 2	G = I/G = 7	G = I/G = 6	G = I/G =

Signal Junction Analysis

Junction: J3 - Wang Kwong Road / Lam Hing Street

Job Number: J7363

Scenario: with KITEC

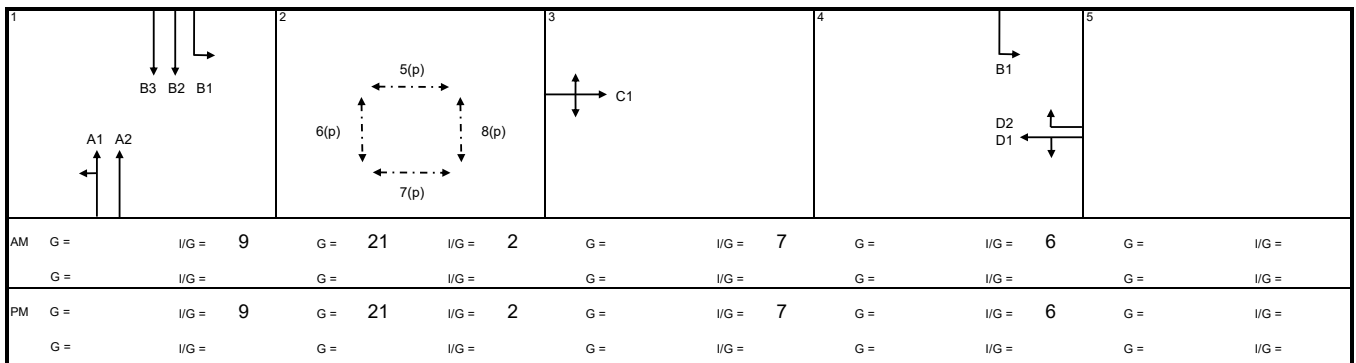
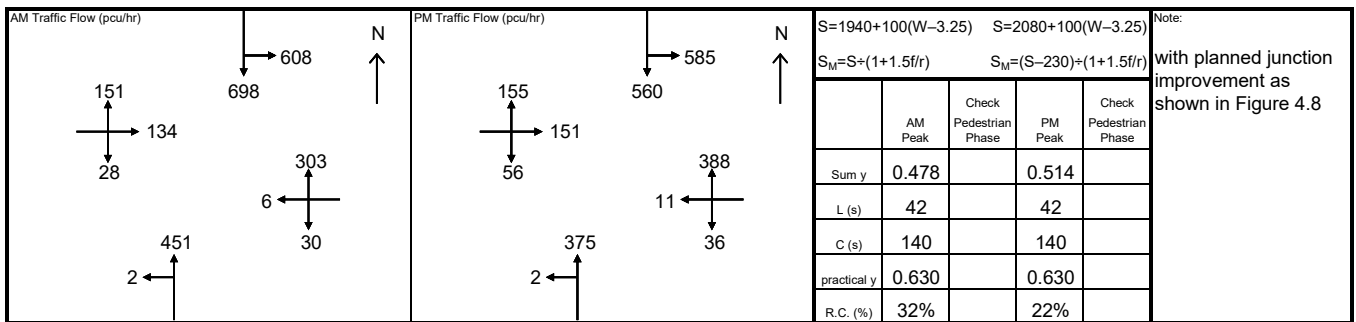
R1 / P.3-5

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Kwong Road NB	LT+SA	A1	1	3.70	15.0		1	1983	219	0.110		1	1983	182	0.092	
	SA	A2	1	3.70				2125	234	0.110			2125	195	0.092	
Wang Kwong Road SB	LT	B1	1, 4	3.40	20.0		100	1819	608	0.334		100	1819	585	0.322	
	SA	B2	1	3.50				2105	349	0.166			2105	280	0.133	
	SA	B3	1	3.50				2105	349	0.166	0.166		2105	280	0.133	0.133
Lam Hing Street EB	LT+SA+RT	C1	3	5.10	15.0		57	2010	313	0.156	0.156	58	2008	362	0.180	0.180
Lam Hing Street WB	LT+SA	D1	4	3.10	10.0		83	1711	36	0.021		77	1727	47	0.027	
	RT	D2	4	3.20	20.0		100	1930	303	0.157	0.157	100	1930	388	0.201	0.201
pedestrian phase		5(p)	2			min crossing time =	14	sec GM +	6	sec FGM =	20	sec				
		6(p)	2			min crossing time =	7	sec GM +	6	sec FGM =	13	sec				
		7(p)	2			min crossing time =	9	sec GM +	8	sec FGM =	17	sec				
		8(p)	2			min crossing time =	11	sec GM +	10	sec FGM =	21	sec				



Signal Junction Analysis

Junction: J3 - Wang Kwong Road / Lam Hing Street

Job Number: J7363

Scenario: with Approved Redevelopment

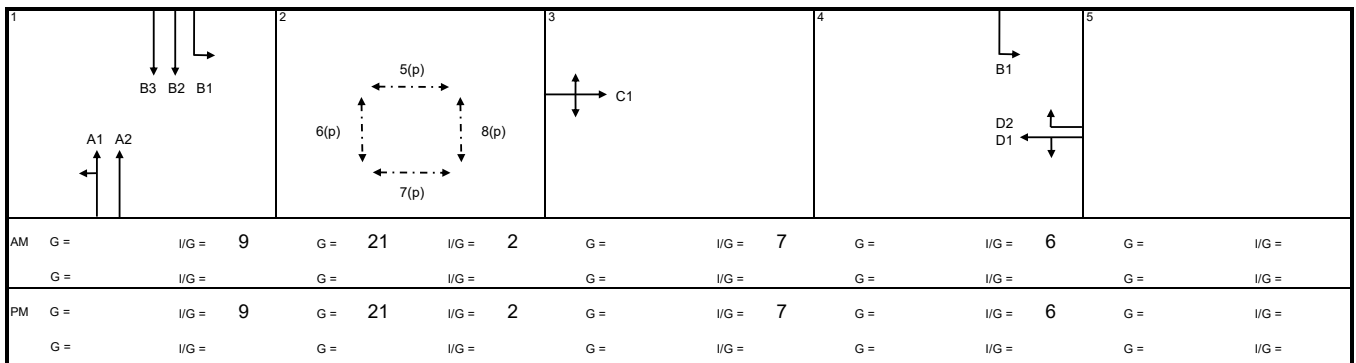
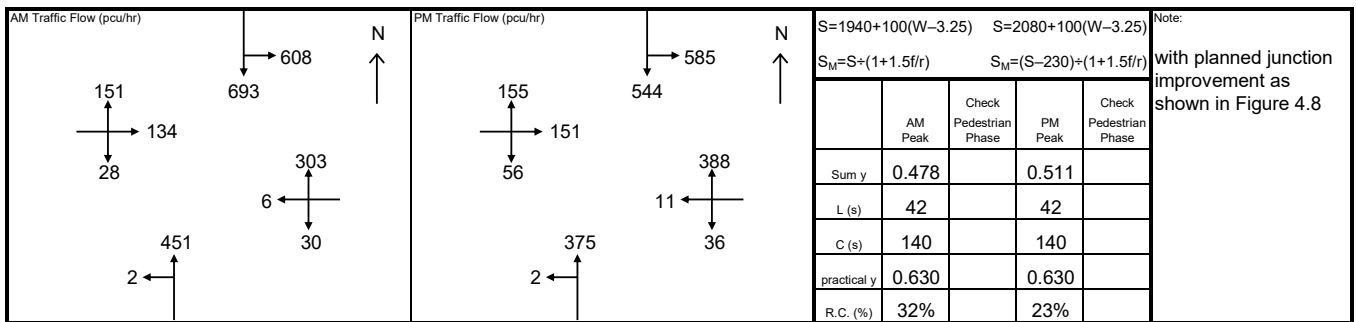
R1 / P.3-6

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Kwong Road NB	LT+SA	A1	1	3.70	15.0	1	1983	219	0.110		1	1983	182	0.092	
	SA	A2	1	3.70				2125	234	0.110			2125	195	0.092
Wang Kwong Road SB	LT	B1	1, 4	3.40	20.0	100	1819	608	0.334		100	1819	585	0.322	
	SA	B2	1	3.50				2105	347	0.165	0.165		2105	272	0.129
	SA	B3	1	3.50				2105	346	0.164			2105	272	0.129
Lam Hing Street EB	LT+SA+RT	C1	3	5.10	15.0	57	2010	313	0.156	0.156	58	2008	362	0.180	0.180
Lam Hing Street WB	LT+SA	D1	4	3.10	10.0	83	1711	36	0.021		77	1727	47	0.027	
	RT	D2	4	3.20	20.0	100	1930	303	0.157	0.157	100	1930	388	0.201	0.201
pedestrian phase	5(p)	2			min crossing time =	14	sec GM +	6	sec FGM =	20	sec				
	6(p)	2			min crossing time =	7	sec GM +	6	sec FGM =	13	sec				
	7(p)	2			min crossing time =	9	sec GM +	8	sec FGM =	17	sec				
	8(p)	2			min crossing time =	11	sec GM +	10	sec FGM =	21	sec				



Signal Junction Analysis

Junction: J3 - Wang Kwong Road / Lam Hing Street

Job Number: J7363

Scenario: with Proposed Redevelopment

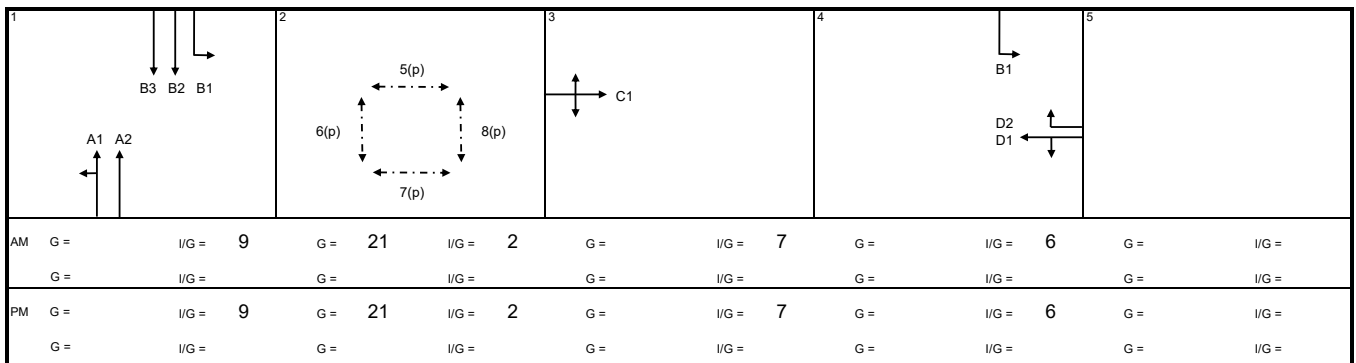
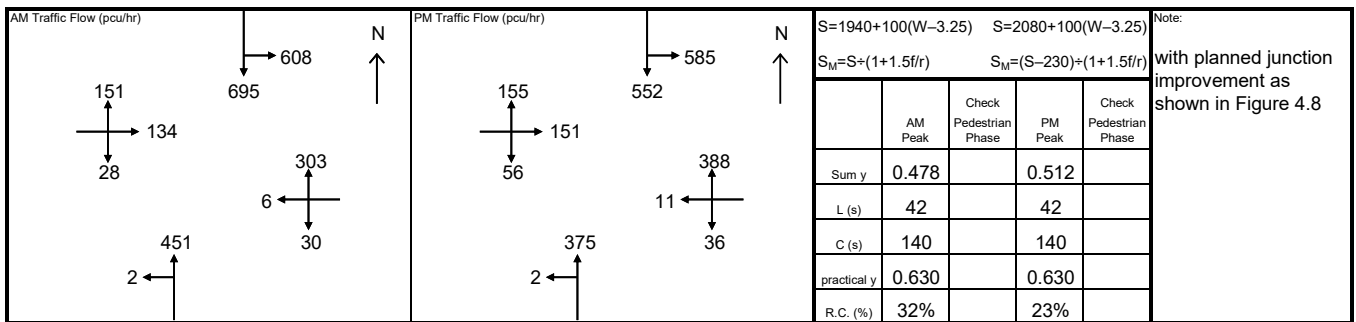
R1 / P.3-7

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Kwong Road NB	LT+SA	A1	1	3.70	15.0	1	1983	219	0.110		1	1983	182	0.092	
	SA	A2	1	3.70				2125	234	0.110			2125	195	0.092
Wang Kwong Road SB	LT	B1	1, 4	3.40	20.0	100	1819	608	0.334		100	1819	585	0.322	
	SA	B2	1	3.50				2105	348	0.165			2105	276	0.131
	SA	B3	1	3.50				2105	347	0.165	0.165		2105	276	0.131
Lam Hing Street EB	LT+SA+RT	C1	3	5.10	15.0	57	2010	313	0.156	0.156	58	2008	362	0.180	0.180
Lam Hing Street WB	LT+SA	D1	4	3.10	10.0	83	1711	36	0.021		77	1727	47	0.027	
	RT	D2	4	3.20	20.0	100	1930	303	0.157	0.157	100	1930	388	0.201	0.201
pedestrian phase	5(p)	2			min crossing time =	14	sec GM +	6	sec FGM =	20	sec				
	6(p)	2			min crossing time =	7	sec GM +	6	sec FGM =	13	sec				
	7(p)	2			min crossing time =	9	sec GM +	8	sec FGM =	17	sec				
	8(p)	2			min crossing time =	11	sec GM +	10	sec FGM =	21	sec				



Priority Junction Analysis

Junction: J4 - Wang Kwong Road / Wang Chin Street
 Design Year: 2024 Job Number: J7363 Date: 08 January 2025
 Scenario: existing condition R1 / P.4-1



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:

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

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

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

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

Geometry :	Input	Input	Input	Calculated				
	W	14.25	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-IBA	0	w-BC	0.00	E	0.5860
			V-rBC	0	w-CB	7.50	F	1.3374
			V-rCB	100			Y	0.5084

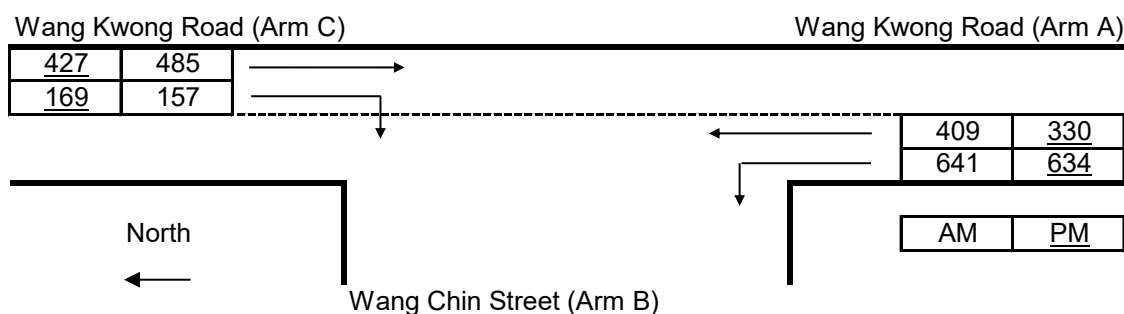
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	374	367	Q-BA	250	256
q-CB	127	118	Q-BC	389	393
q-AB	152	154	Q-CB	864	875
q-AC	381	336	Q-BAC	250	256
q-BA	0	0			
q-BC	0	0			
f	0.000	0.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.000	0.000
C-B	0.147	0.135
B-AC	0.000	0.000

Priority Junction Analysis

Junction: J4 - Wang Kwong Road / Wang Chin Street
 Design Year: 2029 Job Number: J7363 Date: 08 January 2025
 Scenario: with KITEC R1 / P.4-2



The predictive equations of capacity of movement are:

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

$$Q\text{-BC} = E[745 - Y(0.364q\text{-AC} + 0.144q\text{-AB})]$$

$$Q\text{-CB} = F[745 - 0.364Y(q\text{-AC} + q\text{-AB})]$$

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

$$D = [1 + 0.094(w\text{-BA} - 3.65)][1 + 0.0009(V\text{-rBA} - 120)][1 + 0.0006(V\text{-IBA} - 150)]$$

$$E = [1 + 0.094(w\text{-BC} - 3.65)][1 + 0.0009(V\text{-rBC} - 120)]$$

$$F = [1 + 0.094(w\text{-CB} - 3.65)][1 + 0.0009(V\text{-rCB} - 120)]$$

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

Geometry :	Input	Input	Input	Calculated
	W	14.25	V-rBA	0
	W-CR	0.00	V-IBA	0
			V-rBC	0
			V-rCB	100
			w-BA	0.00
			w-BC	0.00
			w-CB	7.50
			D	0.5332
			E	0.5860
			F	1.3374
			Y	0.5084

Analysis :	AM	PM	Capacity, pcu/hr	AM	PM
Traffic Flows, pcu/hr					
q-CA	485	427	Q-BA	217	227
q-CB	157	169	Q-BC	365	374
q-AB	641	634	Q-CB	736	758
q-AC	409	330	Q-BAC	217	227
q-BA	0	0			
q-BC	0	0			
f	0.000	0.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.000	0.000
C-B	0.213	0.223
B-AC	0.000	0.000

Priority Junction Analysis

Junction: J4 - Wang Kwong Road / Wang Chin Street
 Design Year: 2029 Job Number: J7363 Date: 08 January 2025
 Scenario: with Approved Redevelopment R1 / P.4-3



The predictive equations of capacity of movement are:

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

$$Q\text{-BC} = E[745 - Y(0.364q\text{-AC} + 0.144q\text{-AB})]$$

$$Q\text{-CB} = F[745 - 0.364Y(q\text{-AC} + q\text{-AB})]$$

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

$$D = [1 + 0.094(w\text{-BA} - 3.65)][1 + 0.0009(V\text{-rBA} - 120)][1 + 0.0006(V\text{-IBA} - 150)]$$

$$E = [1 + 0.094(w\text{-BC} - 3.65)][1 + 0.0009(V\text{-rBC} - 120)]$$

$$F = [1 + 0.094(w\text{-CB} - 3.65)][1 + 0.0009(V\text{-rCB} - 120)]$$

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

Geometry :	Input	Input	Input	Calculated				
	W	14.25	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-IBA	0	w-BC	0.00	E	0.5860
			V-rBC	0	w-CB	7.50	F	1.3374
			V-rCB	100			Y	0.5084

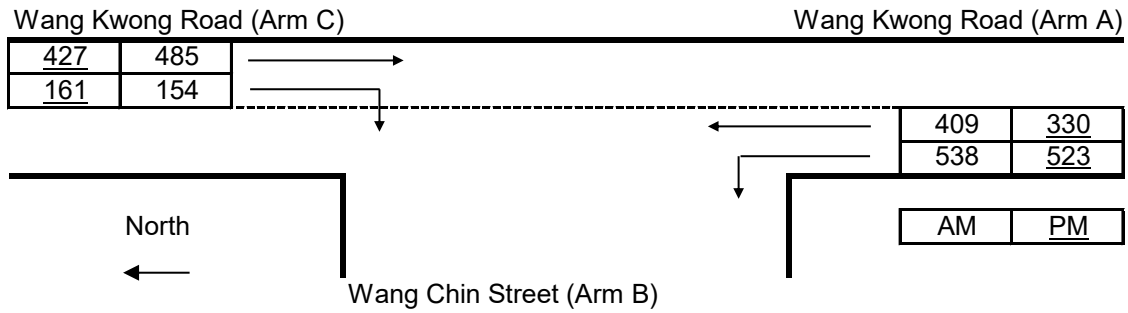
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	485	427	Q-BA	224	238
q-CB	152	153	Q-BC	371	384
q-AB	485	399	Q-CB	775	816
q-AC	409	330	Q-BAC	224	238
q-BA	0	0			
q-BC	0	0			
f	0.000	0.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.000	0.000
C-B	0.196	0.188
B-AC	0.000	0.000

Priority Junction Analysis

Junction: J4 - Wang Kwong Road / Wang Chin Street
 Design Year: 2029 Job Number: J7363 Date: 08 January 2025
 Scenario: with Proposed Redevelopment R1 / P.4-4



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:

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

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

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

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

Geometry :	Input	Input	Input	Input	Calculated	
	W	14.25	V-rBA	0	D	0.5332
	W-CR	0.00	V-IBA	0	E	0.5860
			V-rBC	0	F	1.3374
			V-rCB	100	Y	0.5084

Analysis :	Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
	q-CA	485	427	Q-BA	221	232
	q-CB	154	161	Q-BC	369	378
	q-AB	538	523	Q-CB	762	785
	q-AC	409	330	Q-BAC	221	232
	q-BA	0	0			
	q-BC	0	0			
	f	0.000	0.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.000	0.000
C-B	0.202	0.205
B-AC	0.000	0.000

Priority Junction Analysis

Junction: J4 - Wang Kwong Road / Wang Chin Street
 Design Year: 2032 Job Number: J7363 Date: 08 January 2025
 Scenario: with KITEC R1 / P.4-5



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:

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

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

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

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

Geometry :	Input	Input	Input	Calculated				
	W	14.25	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-IBA	0	w-BC	0.00	E	0.5860
			V-rBC	0	w-CB	7.50	F	1.3374
			V-rCB	100			Y	0.5084

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	492	433	Q-BA	215	225
q-CB	159	171	Q-BC	364	373
q-AB	644	637	Q-CB	734	756
q-AC	415	335	Q-BAC	215	225
q-BA	0	0			
q-BC	0	0			
f	0.000	0.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.000	0.000
C-B	0.217	0.226
B-AC	0.000	0.000

Priority Junction Analysis

Junction: J4 - Wang Kwong Road / Wang Chin Street
 Design Year: 2032 Job Number: J7363 Date: 08 January 2025
 Scenario: with Approved Redevelopment R1 / P.4-6



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:

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

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

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

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

Geometry :	Input	Input	Input	Calculated				
	W	14.25	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-IBA	0	w-BC	0.00	E	0.5860
			V-rBC	0	w-CB	7.50	F	1.3374
			V-rCB	100			Y	0.5084

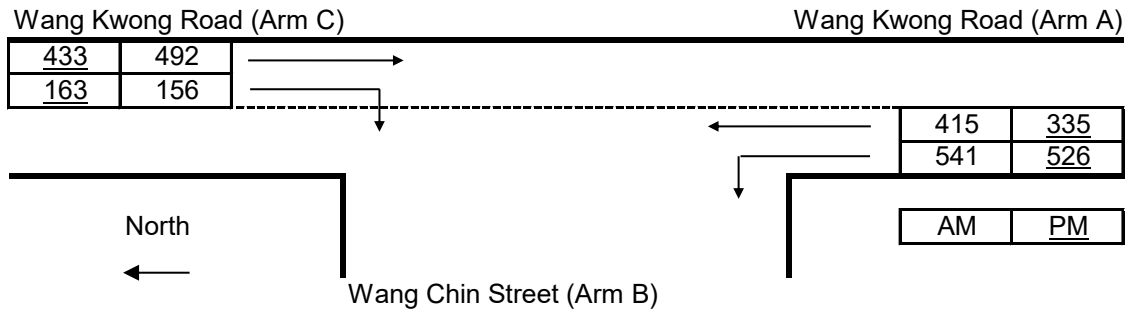
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	492	433	Q-BA	222	237
q-CB	154	155	Q-BC	371	383
q-AB	488	402	Q-CB	773	814
q-AC	415	335	Q-BAC	222	237
q-BA	0	0			
q-BC	0	0			
f	0.000	0.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.000	0.000
C-B	0.199	0.190
B-AC	0.000	0.000

Priority Junction Analysis

Junction: J4 - Wang Kwong Road / Wang Chin Street
 Design Year: 2032 Job Number: J7363 Date: 08 January 2025
 Scenario: with Proposed Redevelopment R1 / P.4-7



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:

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

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

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

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

Geometry :	Input	Input	Input	Calculated
	W	14.25	V-rBA	0
	W-CR	0.00	V-IBA	0
			V-rBC	0
			V-rCB	100
			w-BA	0.00
			w-BC	0.00
			w-CB	7.50
			D	0.5332
			E	0.5860
			F	1.3374
			Y	0.5084

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	492	433	Q-BA	220	231
q-CB	156	163	Q-BC	368	378
q-AB	541	526	Q-CB	760	783
q-AC	415	335	Q-BAC	220	231
q-BA	0	0			
q-BC	0	0			
f	0.000	0.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.000	0.000
C-B	0.205	0.208
B-AC	0.000	0.000

Signal Junction Analysis

Junction: J5 - Kai Cheung Road / Wang Chiu Road

Job Number: J7363

Scenario: existing condition

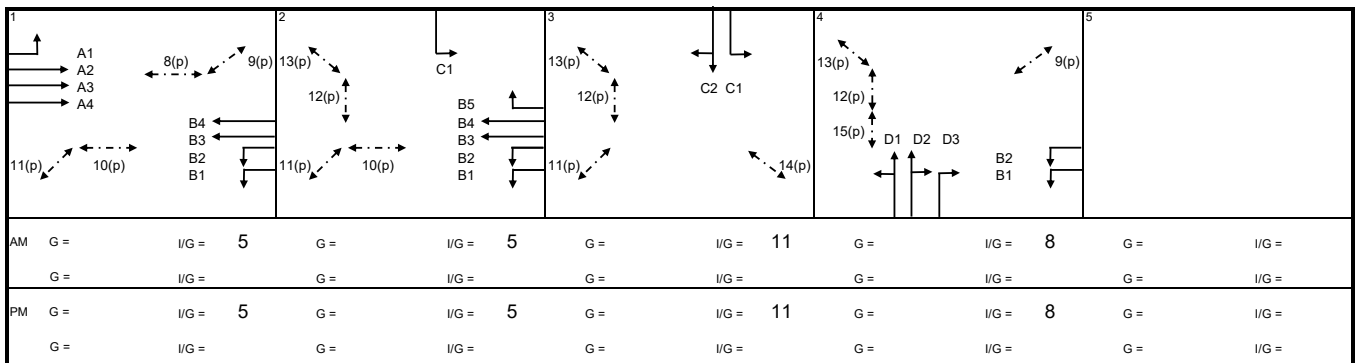
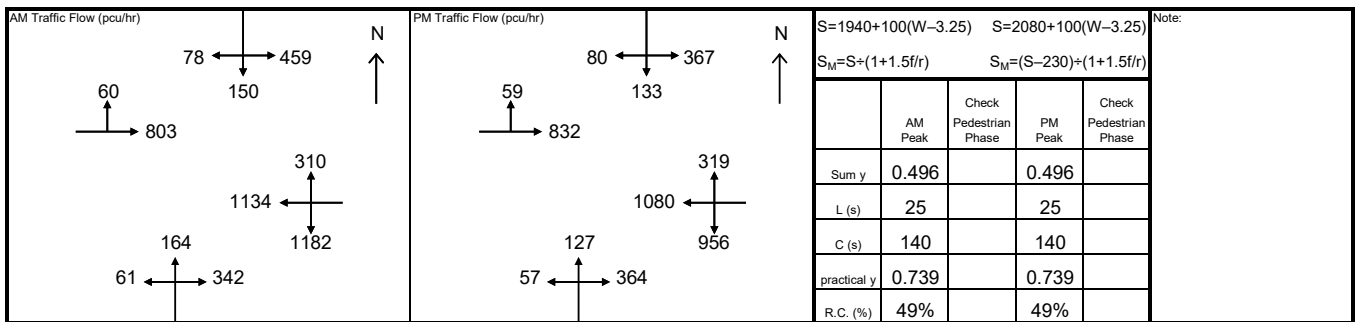
R1 / P.5-1

Design Year: 2024 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Kai Cheung Road EB	LT	A1	1	4.00	40.0	100	1942	60	0.031		100	1942	59	0.030	
	SA	A2	1	3.50			2105	270	0.128			2105	280	0.133	0.133
	SA	A3	1	3.50			2105	270	0.128			2105	280	0.133	
	SA	A4	1	3.00				2055	263	0.128	0.128		2055	272	0.132
Kai Cheung Road WB	LT	B1	1, 2, 4	4.00	35.0	100	1932	577	0.299		100	1932	466	0.241	
	LT	B2	1, 2, 4	3.50	40.0	100	2029	605	0.298		100	2029	490	0.242	
	SA	B3	1, 2	4.00			2155	550	0.255			2155	524	0.243	
	SA	B4	1, 2	3.50			2285	584	0.256			2285	556	0.243	
	RT	B5	2	2.70	15.0	100	1841	310	0.168	0.168	100	1841	319	0.173	0.173
Wang Chiu Road SB	LT	C1	2, 3	3.50	40.0	100	1920	459	0.239		100	1920	367	0.191	
	SA+RT	C2	3	3.50	30.0	34	2182	228	0.104	0.104	38	2182	213	0.098	0.098
Wang Chiu Road NB	LT+SA	D1	4	3.50	40.0	32	1993	190	0.095		31	1994	184	0.092	
	SA+RT	D2	4	3.50	25.0	82	2007	191	0.095		100	1986	183	0.092	
	RT	D3	4	3.50	20.0	100	1958	186	0.095	0.095	100	1958	181	0.092	0.092
pedestrian phase	8(p)	1			min crossing time =	9	sec GM +	7	sec FGM =	16	sec				
	9(p)	1			min crossing time =	5	sec GM +	8	sec FGM =	13	sec				
	10(p)	1, 2			min crossing time =	10	sec GM +	9	sec FGM =	19	sec				
	11(p)	1, 2, 3			min crossing time =	5	sec GM +	7	sec FGM =	12	sec				
	12(p)	2, 3, 4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				
	13(p)	2, 3, 4			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	14(p)	3			min crossing time =	5	sec GM +	7	sec FGM =	12	sec				
	15(p)	4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				



Signal Junction Analysis

Junction: J5 - Kai Cheung Road / Wang Chiu Road

Job Number: J7363

Scenario: with KITEC

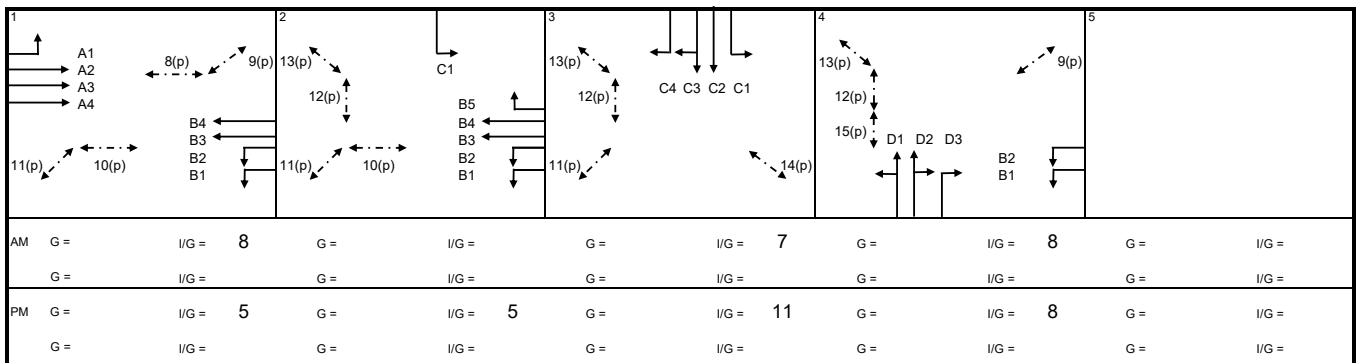
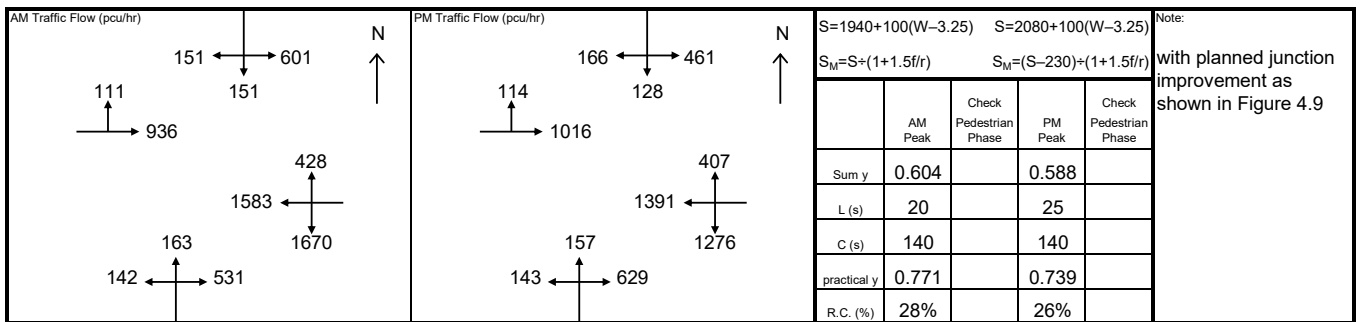
R1 / P.5-2

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Kai Cheung Road EB	LT	A1	1	4.00	40.0	100	1942	111	0.057		100	1942	114	0.059	
	SA	A2	1	3.50			2105	314	0.149			2105	341	0.162	
	SA	A3	1	3.50			2105	314	0.149			2105	341	0.162	
	SA	A4	1	3.00				2055	308	0.150	0.150		2055	334	0.163
Kai Cheung Road WB	LT	B1	1, 2, 4	4.00	35.0	100	1932	815	0.422		100	1932	622	0.322	
	LT	B2	1, 2, 4	3.50	40.0	100	2029	855	0.421		100	2029	654	0.322	
	SA	B3	1, 2	4.00			2155	768	0.356			2155	675	0.313	
	SA	B4	1, 2	3.50			2285	815	0.357			2285	716	0.313	
	RT	B5	2	2.70	15.0	100	1841	428	0.232		100	1841	407	0.221	0.221
Wang Chiu Road SB	LT	C1	2, 3	3.50	40.0	100	1920	601	0.313	0.313	100	1920	461	0.240	
	SA	C2	3	3.50			2105	104	0.049			2105	101	0.048	
	SA+RT	C3	3	3.50	30.0	53	2050	101	0.049		72	2031	98	0.048	
	RT	C4	3	3.50	25.0	100	1986	97	0.049		100	1986	95	0.048	0.048
Wang Chiu Road NB	LT+SA	D1	4	3.50	40.0	51	1980	279	0.141		46	1983	311	0.157	
	SA+RT	D2	4	3.50	25.0	91	1996	281	0.141		100	1986	311	0.157	
	RT	D3	4	3.50	20.0	100	1958	276	0.141	0.141	100	1958	307	0.157	0.157
pedestrian phase	8(p)	1			min crossing time =	9	sec GM +	7	sec FGM =	16	sec				
	9(p)	1			min crossing time =	5	sec GM +	8	sec FGM =	13	sec				
	10(p)	1, 2			min crossing time =	10	sec GM +	9	sec FGM =	19	sec				
	11(p)	1, 2, 3			min crossing time =	5	sec GM +	7	sec FGM =	12	sec				
	12(p)	2, 3, 4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				
	13(p)	2, 3, 4			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	14(p)	3			min crossing time =	5	sec GM +	7	sec FGM =	12	sec				
	15(p)	4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				



Signal Junction Analysis

Junction: J5 - Kai Cheung Road / Wang Chiu Road

Job Number: J7363

Scenario: with Approved Redevelopment

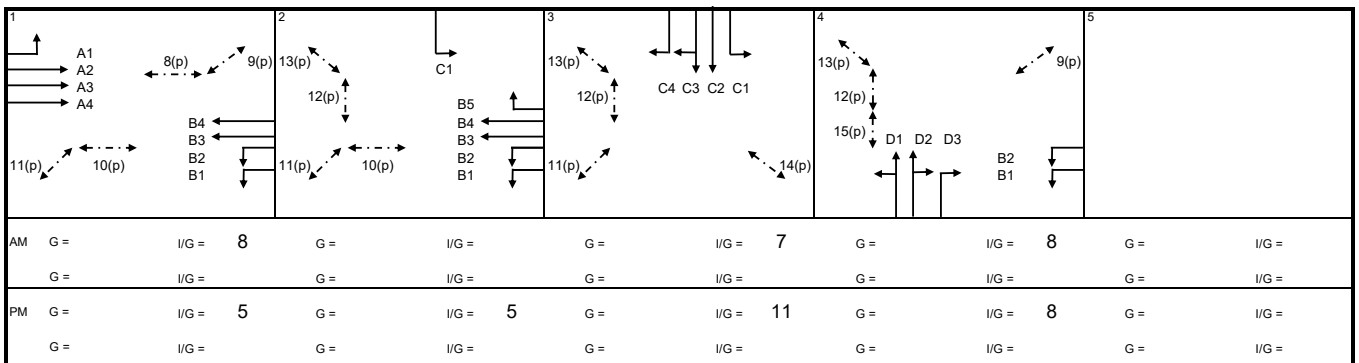
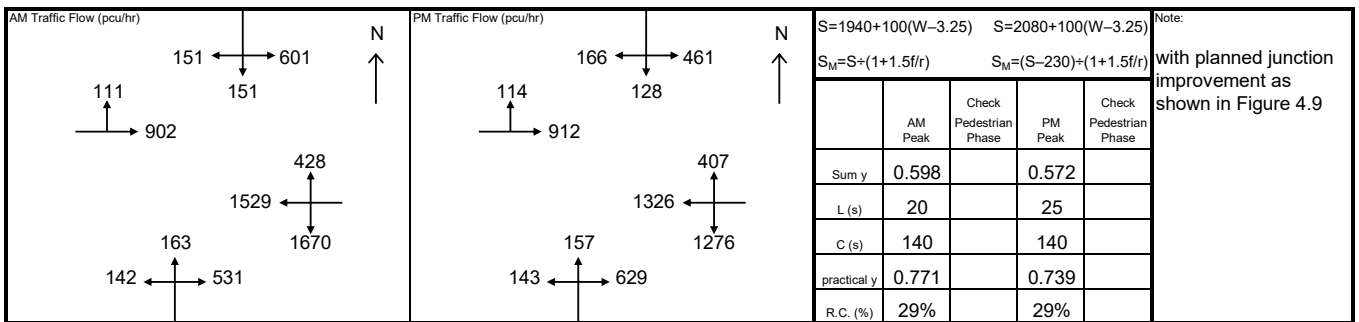
R1 / P.5-3

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Kai Cheung Road EB	LT	A1	1	4.00	40.0	100	1942	111	0.057		100	1942	114	0.059	
	SA	A2	1	3.50			2105	303	0.144			2105	306	0.145	
	SA	A3	1	3.50			2105	303	0.144			2105	306	0.145	
	SA	A4	1	3.00				2055	296	0.144	0.144		2055	300	0.146
Kai Cheung Road WB	LT	B1	1, 2, 4	4.00	35.0	100	1932	815	0.422		100	1932	622	0.322	
	LT	B2	1, 2, 4	3.50	40.0	100	2029	855	0.421		100	2029	654	0.322	
	SA	B3	1, 2	4.00			2155	742	0.344			2155	644	0.299	
	SA	B4	1, 2	3.50			2285	787	0.344			2285	682	0.298	
	RT	B5	2	2.70	15.0	100	1841	428	0.232		100	1841	407	0.221	0.221
Wang Chiu Road SB	LT	C1	2, 3	3.50	40.0	100	1920	601	0.313	0.313	100	1920	461	0.240	
	SA	C2	3	3.50			2105	104	0.049			2105	101	0.048	
	SA+RT	C3	3	3.50	30.0	53	2050	101	0.049		72	2031	98	0.048	
	RT	C4	3	3.50	25.0	100	1986	97	0.049		100	1986	95	0.048	0.048
Wang Chiu Road NB	LT+SA	D1	4	3.50	40.0	51	1980	279	0.141		46	1983	311	0.157	
	SA+RT	D2	4	3.50	25.0	91	1996	281	0.141		100	1986	311	0.157	
	RT	D3	4	3.50	20.0	100	1958	276	0.141	0.141	100	1958	307	0.157	0.157
pedestrian phase	8(p)	1			min crossing time =	9	sec GM +	7	sec FGM =	16	sec				
	9(p)	1			min crossing time =	5	sec GM +	8	sec FGM =	13	sec				
	10(p)	1, 2			min crossing time =	10	sec GM +	9	sec FGM =	19	sec				
	11(p)	1, 2, 3			min crossing time =	5	sec GM +	7	sec FGM =	12	sec				
	12(p)	2, 3, 4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				
	13(p)	2, 3, 4			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	14(p)	3			min crossing time =	5	sec GM +	7	sec FGM =	12	sec				
	15(p)	4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				



Signal Junction Analysis

Junction: J5 - Kai Cheung Road / Wang Chiu Road

Job Number: J7363

Scenario: with Proposed Redevelopment

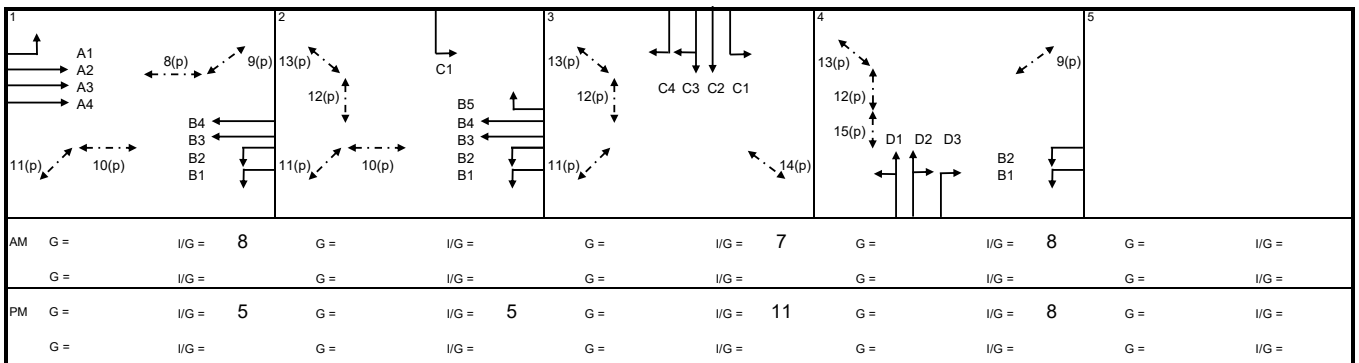
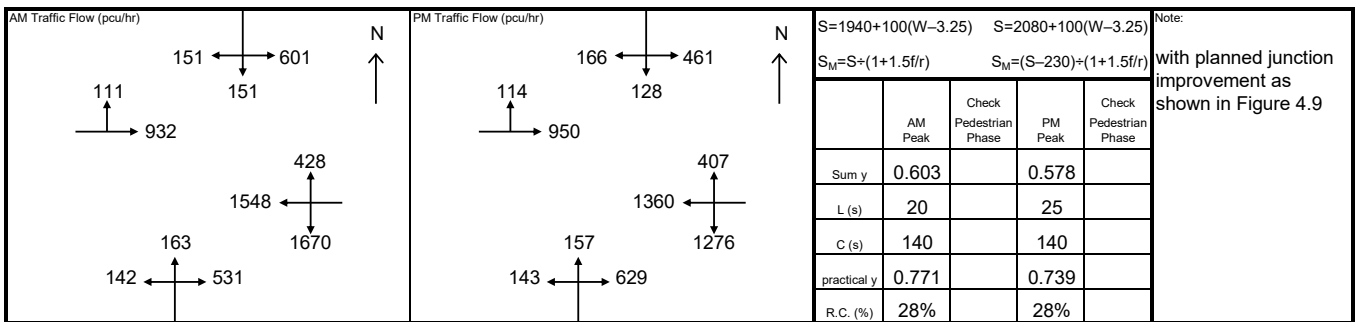
R1 / P.5-4

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Kai Cheung Road EB	LT	A1	1	4.00	40.0	100	1942	111	0.057		100	1942	114	0.059
	SA	A2	1	3.50			2105	313	0.149			2105	319	0.152
	SA	A3	1	3.50			2105	313	0.149			2105	319	0.152
	SA	A4	1	3.00			2055	306	0.149	0.149		2055	312	0.152
Kai Cheung Road WB	LT	B1	1, 2, 4	4.00	35.0	100	1932	815	0.422		100	1932	622	0.322
	LT	B2	1, 2, 4	3.50	40.0	100	2029	855	0.421		100	2029	654	0.322
	SA	B3	1, 2	4.00			2155	751	0.348			2155	660	0.306
	SA	B4	1, 2	3.50			2285	797	0.349			2285	700	0.306
	RT	B5	2	2.70	15.0	100	1841	428	0.232		100	1841	407	0.221
Wang Chiu Road SB	LT	C1	2, 3	3.50	40.0	100	1920	601	0.313	0.313	100	1920	461	0.240
	SA	C2	3	3.50			2105	104	0.049			2105	101	0.048
	SA+RT	C3	3	3.50	30.0	53	2050	101	0.049		72	2031	98	0.048
	RT	C4	3	3.50	25.0	100	1986	97	0.049		100	1986	95	0.048
Wang Chiu Road NB	LT+SA	D1	4	3.50	40.0	51	1980	279	0.141		46	1983	311	0.157
	SA+RT	D2	4	3.50	25.0	91	1996	281	0.141		100	1986	311	0.157
	RT	D3	4	3.50	20.0	100	1958	276	0.141	0.141	100	1958	307	0.157
pedestrian phase	8(p)	1			min crossing time =	9	sec GM +	7	sec FGM =	16	sec			
	9(p)	1			min crossing time =	5	sec GM +	8	sec FGM =	13	sec			
	10(p)	1, 2			min crossing time =	10	sec GM +	9	sec FGM =	19	sec			
	11(p)	1, 2, 3			min crossing time =	5	sec GM +	7	sec FGM =	12	sec			
	12(p)	2, 3, 4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec			
	13(p)	2, 3, 4			min crossing time =	5	sec GM +	6	sec FGM =	11	sec			
	14(p)	3			min crossing time =	5	sec GM +	7	sec FGM =	12	sec			
	15(p)	4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec			



Signal Junction Analysis

Junction: J5 - Kai Cheung Road / Wang Chiu Road

Job Number: J7363

Scenario: with KITEC

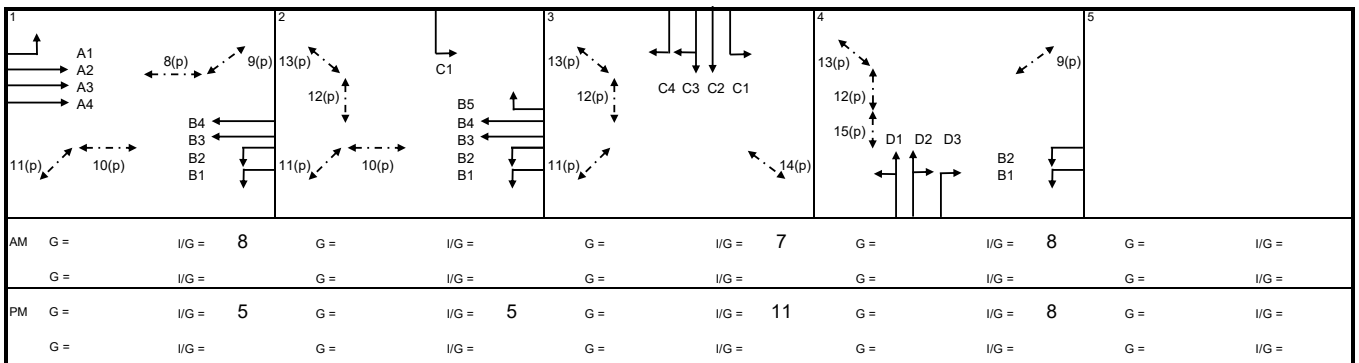
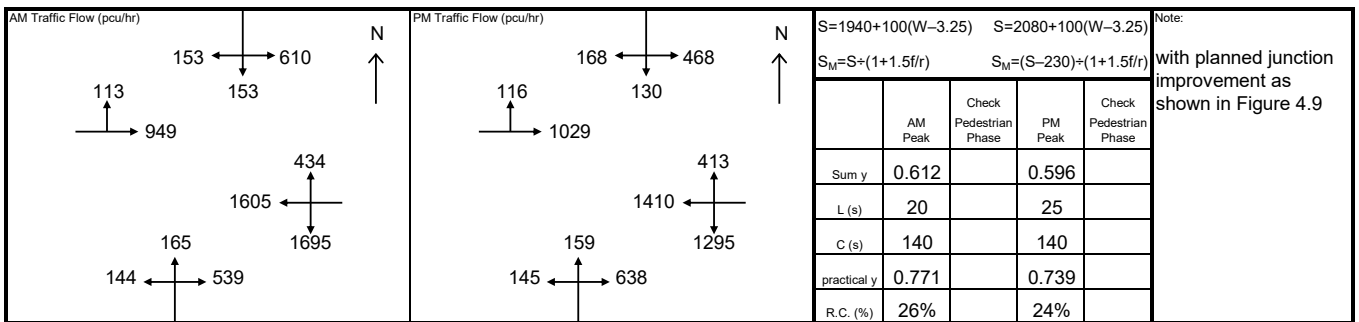
R1 / P.5-5

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Kai Cheung Road EB	LT	A1	1	4.00	40.0	100	1942	113	0.058		100	1942	116	0.060	
	SA	A2	1	3.50			2105	319	0.152			2105	346	0.164	
	SA	A3	1	3.50			2105	319	0.152	0.152		2105	346	0.164	
	SA	A4	1	3.00			2055	311	0.151			2055	337	0.164	0.164
Kai Cheung Road WB	LT	B1	1, 2, 4	4.00	35.0	100	1932	827	0.428		100	1932	632	0.327	
	LT	B2	1, 2, 4	3.50	40.0	100	2029	868	0.428		100	2029	663	0.327	
	SA	B3	1, 2	4.00			2155	779	0.361			2155	684	0.317	
	SA	B4	1, 2	3.50			2285	826	0.361			2285	726	0.318	
	RT	B5	2	2.70	15.0	100	1841	434	0.236		100	1841	413	0.224	0.224
Wang Chiu Road SB	LT	C1	2, 3	3.50	40.0	100	1920	610	0.318	0.318	100	1920	468	0.244	
	SA	C2	3	3.50			2105	105	0.050			2105	102	0.048	
	SA+RT	C3	3	3.50	30.0	53	2051	102	0.050		72	2032	99	0.049	
	RT	C4	3	3.50	25.0	100	1986	99	0.050		100	1986	97	0.049	0.049
Wang Chiu Road NB	LT+SA	D1	4	3.50	40.0	51	1980	283	0.143		46	1983	315	0.159	
	SA+RT	D2	4	3.50	25.0	91	1996	285	0.143		100	1986	316	0.159	
	RT	D3	4	3.50	20.0	100	1958	280	0.143	0.143	100	1958	311	0.159	0.159
pedestrian phase	8(p)	1			min crossing time =	9	sec GM +	7	sec FGM =	16	sec				
	9(p)	1			min crossing time =	5	sec GM +	8	sec FGM =	13	sec				
	10(p)	1, 2			min crossing time =	10	sec GM +	9	sec FGM =	19	sec				
	11(p)	1, 2, 3			min crossing time =	5	sec GM +	7	sec FGM =	12	sec				
	12(p)	2, 3, 4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				
	13(p)	2, 3, 4			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	14(p)	3			min crossing time =	5	sec GM +	7	sec FGM =	12	sec				
	15(p)	4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				



Signal Junction Analysis

Junction: J5 - Kai Cheung Road / Wang Chiu Road

Job Number: J7363

Scenario: with Approved Redevelopment

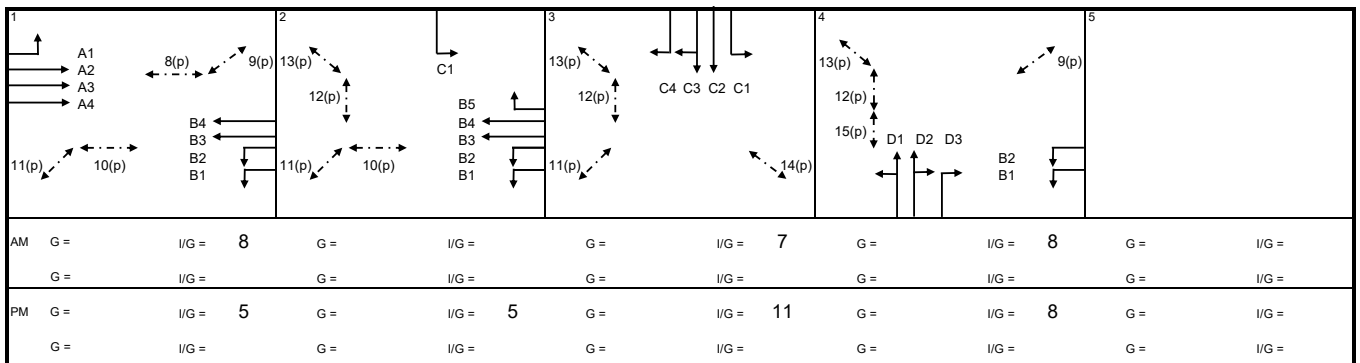
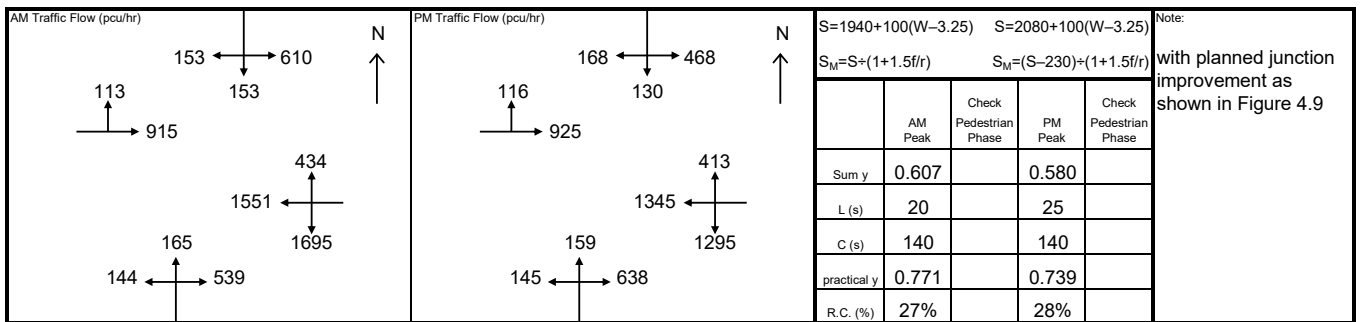
R1 / P.5-6

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Kai Cheung Road EB	LT	A1	1	4.00	40.0	100	1942	113	0.058		100	1942	116	0.060	
	SA	A2	1	3.50			2105	307	0.146			2105	311	0.148	
	SA	A3	1	3.50			2105	307	0.146			2105	311	0.148	0.148
	SA	A4	1	3.00				2055	301	0.146	0.146		2055	303	0.147
Kai Cheung Road WB	LT	B1	1, 2, 4	4.00	35.0	100	1932	827	0.428		100	1932	632	0.327	
	LT	B2	1, 2, 4	3.50	40.0	100	2029	868	0.428		100	2029	663	0.327	
	SA	B3	1, 2	4.00			2155	753	0.349			2155	653	0.303	
	SA	B4	1, 2	3.50			2285	798	0.349			2285	692	0.303	
	RT	B5	2	2.70	15.0	100	1841	434	0.236		100	1841	413	0.224	0.224
Wang Chiu Road SB	LT	C1	2, 3	3.50	40.0	100	1920	610	0.318	0.318	100	1920	468	0.244	
	SA	C2	3	3.50			2105	105	0.050			2105	102	0.048	
	SA+RT	C3	3	3.50	30.0	53	2051	102	0.050		72	2032	99	0.049	
	RT	C4	3	3.50	25.0	100	1986	99	0.050		100	1986	97	0.049	0.049
Wang Chiu Road NB	LT+SA	D1	4	3.50	40.0	51	1980	283	0.143		46	1983	315	0.159	
	SA+RT	D2	4	3.50	25.0	91	1996	285	0.143		100	1986	316	0.159	
	RT	D3	4	3.50	20.0	100	1958	280	0.143	0.143	100	1958	311	0.159	0.159
pedestrian phase	8(p)	1			min crossing time =	9	sec GM +	7	sec FGM =	16	sec				
	9(p)	1			min crossing time =	5	sec GM +	8	sec FGM =	13	sec				
	10(p)	1, 2			min crossing time =	10	sec GM +	9	sec FGM =	19	sec				
	11(p)	1, 2, 3			min crossing time =	5	sec GM +	7	sec FGM =	12	sec				
	12(p)	2, 3, 4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				
	13(p)	2, 3, 4			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	14(p)	3			min crossing time =	5	sec GM +	7	sec FGM =	12	sec				
	15(p)	4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				



Signal Junction Analysis

Junction: J5 - Kai Cheung Road / Wang Chiu Road

Job Number: J7363

Scenario: with Proposed Redevelopment

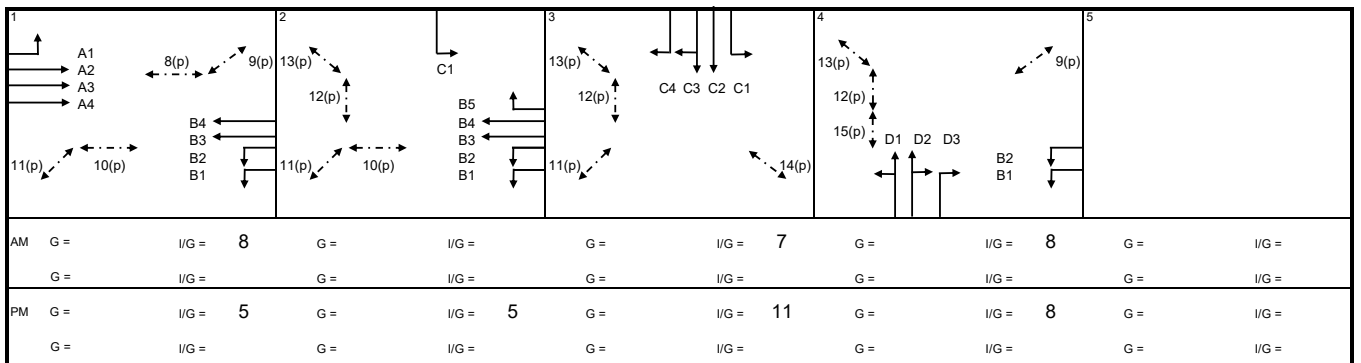
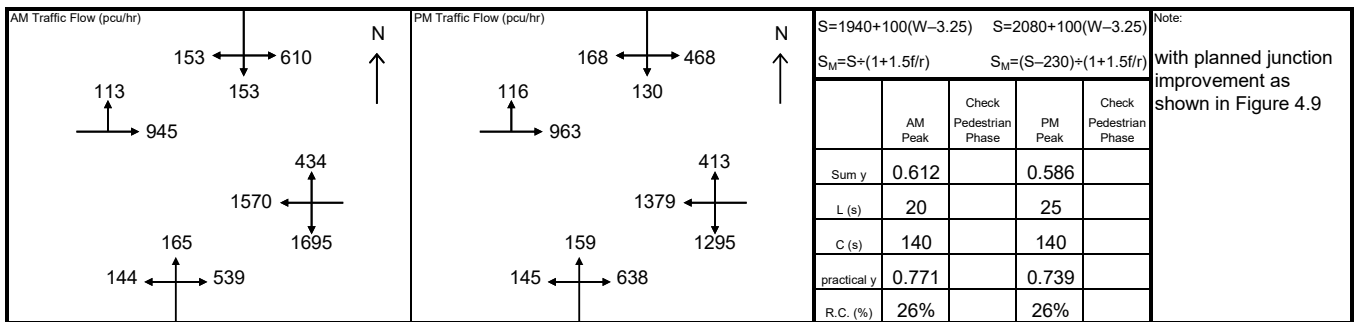
R1 / P.5-7

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Kai Cheung Road EB	LT	A1	1	4.00	40.0	100	1942	113	0.058		100	1942	116	0.060	
	SA	A2	1	3.50			2105	318	0.151			2105	324	0.154	
	SA	A3	1	3.50			2105	318	0.151	0.151		2105	324	0.154	0.154
	SA	A4	1	3.00			2055	309	0.150			2055	315	0.153	
Kai Cheung Road WB	LT	B1	1, 2, 4	4.00	35.0	100	1932	827	0.428		100	1932	632	0.327	
	LT	B2	1, 2, 4	3.50	40.0	100	2029	868	0.428		100	2029	663	0.327	
	SA	B3	1, 2	4.00			2155	762	0.354			2155	669	0.310	
	SA	B4	1, 2	3.50			2285	808	0.354			2285	710	0.311	
	RT	B5	2	2.70	15.0	100	1841	434	0.236		100	1841	413	0.224	0.224
Wang Chiu Road SB	LT	C1	2, 3	3.50	40.0	100	1920	610	0.318	0.318	100	1920	468	0.244	
	SA	C2	3	3.50			2105	105	0.050			2105	102	0.048	
	SA+RT	C3	3	3.50	30.0	53	2051	102	0.050		72	2032	99	0.049	
	RT	C4	3	3.50	25.0	100	1986	99	0.050		100	1986	97	0.049	0.049
Wang Chiu Road NB	LT+SA	D1	4	3.50	40.0	51	1980	283	0.143		46	1983	315	0.159	
	SA+RT	D2	4	3.50	25.0	91	1996	285	0.143		100	1986	316	0.159	
	RT	D3	4	3.50	20.0	100	1958	280	0.143	0.143	100	1958	311	0.159	0.159
pedestrian phase	8(p)	1			min crossing time =	9	sec GM +	7	sec FGM =	16	sec				
	9(p)	1			min crossing time =	5	sec GM +	8	sec FGM =	13	sec				
	10(p)	1, 2			min crossing time =	10	sec GM +	9	sec FGM =	19	sec				
	11(p)	1, 2, 3			min crossing time =	5	sec GM +	7	sec FGM =	12	sec				
	12(p)	2, 3, 4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				
	13(p)	2, 3, 4			min crossing time =	5	sec GM +	6	sec FGM =	11	sec				
	14(p)	3			min crossing time =	5	sec GM +	7	sec FGM =	12	sec				
	15(p)	4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				



Signal Junction Analysis

Junction: J6 - Wang Chiu Road / Lam Hing Street

Job Number: J7363

Scenario: existing condition

R1 / P.6-1

Design Year: 2024 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Chiu Road SB	LT	A1	1	3.50	15.0	100	1786	349	0.195		100	1786	306	0.171	
	SA	A2	1	3.50			2105	491	0.233			2105	391	0.186	0.186
	SA	A3	1	3.50				2105	490	0.233	0.233		2105	390	0.185
Wang Chiu Road NB	LT+SA	B1	1	3.50	15.0	24	1919	206	0.107		38	1892	206	0.109	
	SA	B2	1	3.50			2105	226	0.107			2105	229	0.109	
Lam Hing Street EB	LT+SA	C1	3	5.00	20.0	53	2034	343	0.169	0.169	72	2007	264	0.132	
Lam Hing Street WB	LT+SA	D1	3	5.00	20.0	37	2058	159	0.077		37	2058	304	0.148	0.148
pedestrian phase		3(p)	2	min crossing time =		9	sec GM +	7	sec FGM =	16	sec				
		4(p)	2	min crossing time =		9	sec GM +	8	sec FGM =	17	sec				
		5(p)	2	min crossing time =		12	sec GM +	11	sec FGM =	23	sec				

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.401</td> <td></td> <td>0.333</td> <td></td> </tr> <tr> <td>L (s)</td> <td>38</td> <td></td> <td>38</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.656</td> <td></td> <td>0.656</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>63%</td> <td></td> <td>97%</td> <td></td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.401		0.333		L (s)	38		38		C (s)	140		140		practical y	0.656		0.656		R.C. (%)	63%		97%	
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
Sum y	0.401		0.333																													
L (s)	38		38																													
C (s)	140		140																													
practical y	0.656		0.656																													
R.C. (%)	63%		97%																													

1	2	3	4	5
AM G = I/G = 9	G = 23 I/G = 2	G = I/G = 6	G = I/G =	G = I/G =
G = I/G =	G = I/G =	G = I/G =	G = I/G =	G = I/G =
PM G = I/G = 9	G = 23 I/G = 2	G = I/G = 6	G = I/G =	G = I/G =
G = I/G =	G = I/G =	G = I/G =	G = I/G =	G = I/G =

Signal Junction Analysis

Junction: J6 - Wang Chiu Road / Lam Hing Street

Job Number: J7363

Scenario: with KITEC

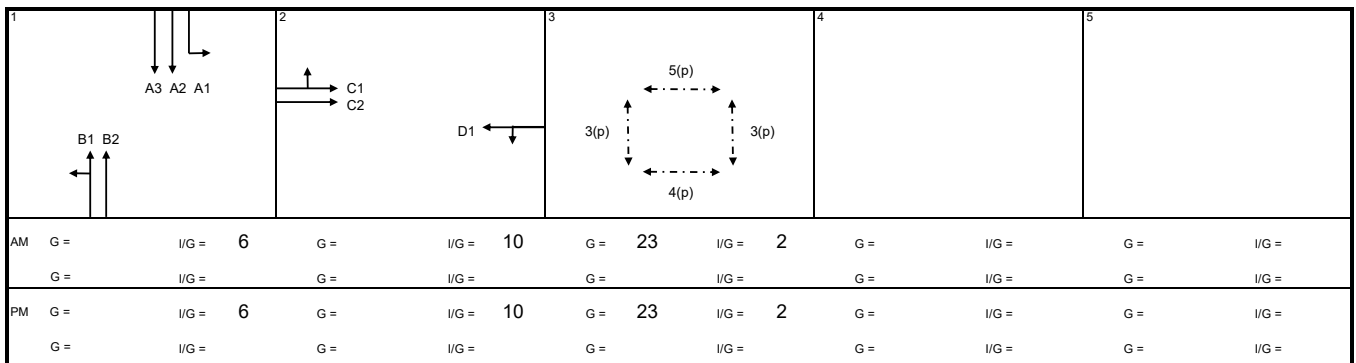
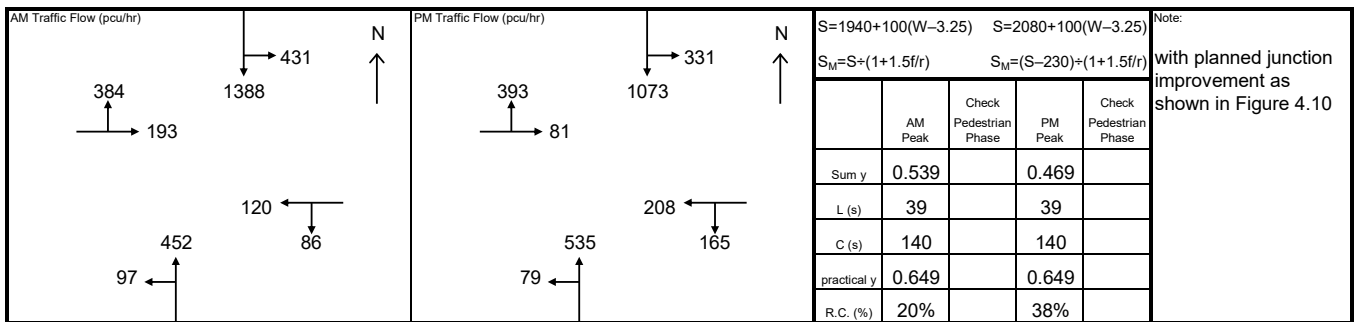
R1 / P.6-2

Design Year: 2029 Designed By:

Checked By:

Date: 08 January 2025

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
Wang Chiu Road SB	LT	A1	1	3.50	15.0	100	1786	431	0.241		100	1786	331	0.185	
	SA	A2	1	3.50			2105	694	0.330			2105	537	0.255	
	SA	A3	1	3.50				2105	694	0.330	0.330		2105	536	0.255
Wang Chiu Road NB	LT+SA	B1	1	3.50	15.0	37	1894	260	0.137		27	1913	292	0.153	
	SA	B2	1	3.50			2105	289	0.137			2105	322	0.153	
Lam Hing Street EB	LT+SA	C1	2	4.00	15.0	100	1832	384	0.210	0.210	100	1832	393	0.215	0.215
	SA	C2	2	4.00			2155	193	0.090			2155	81	0.038	
Lam Hing Street WB	LT+SA	D1	2	5.00	15.0	42	2030	206	0.101		44	2025	373	0.184	
pedestrian phase		3(p)	3			min crossing time =	10	sec GM +	8		sec FGM =	18	sec		
		4(p)	3			min crossing time =	9	sec GM +	8		sec FGM =	17	sec		
		5(p)	3			min crossing time =	12	sec GM +	11		sec FGM =	23	sec		



Signal Junction Analysis

Junction: J6 - Wang Chiu Road / Lam Hing Street

Job Number: J7363

Scenario: with Approved Redevelopment

R1 / P.6-3

Design Year: 2029 Designed By:

Checked By:

Date: 08 January 2025

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
Wang Chiu Road SB	LT	A1	1	3.50	15.0	100	1786	431	0.241		100	1786	331	0.185	
	SA	A2	1	3.50			2105	694	0.330			2105	537	0.255	
	SA	A3	1	3.50				2105	694	0.330	0.330		2105	536	0.255
Wang Chiu Road NB	LT+SA	B1	1	3.50	15.0	37	1894	260	0.137		27	1913	292	0.153	
	SA	B2	1	3.50			2105	289	0.137			2105	322	0.153	
Lam Hing Street EB	LT+SA	C1	2	4.00	15.0	100	1832	384	0.210	0.210	100	1832	393	0.215	0.215
	SA	C2	2	4.00			2155	193	0.090			2155	81	0.038	
Lam Hing Street WB	LT+SA	D1	2	5.00	15.0	42	2030	206	0.101		44	2025	373	0.184	

pedestrian phase	3(p)	3		min crossing time =	10	sec GM +	8	sec FGM =	18	sec
	4(p)	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	5(p)	3		min crossing time =	12	sec GM +	11	sec FGM =	23	sec

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M = S + (1 + 1.5f/r)$ $S_M = (S - 230) + (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td></td> <td>AM Peak</td> <td>Check Pedestrian Phase</td> <td>PM Peak</td> <td>Check Pedestrian Phase</td> </tr> <tr> <td>Sum y</td> <td>0.539</td> <td></td> <td>0.469</td> <td></td> </tr> <tr> <td>L (s)</td> <td>39</td> <td></td> <td>39</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.649</td> <td></td> <td>0.649</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>20%</td> <td></td> <td>38%</td> <td></td> </tr> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.539		0.469		L (s)	39		39		C (s)	140		140		practical y	0.649		0.649		R.C. (%)	20%		38%	
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
Sum y	0.539		0.469																													
L (s)	39		39																													
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practical y	0.649		0.649																													
R.C. (%)	20%		38%																													
<p>Note: with planned junction improvement as shown in Figure 4.10</p>																																

1	2	3	4	5
AM	G = I/G = 6	G = I/G = 10	G = 23 I/G = 2	G = I/G =
PM	G = I/G = 6	G = I/G = 10	G = 23 I/G = 2	G = I/G =

Signal Junction Analysis

Junction: J6 - Wang Chiu Road / Lam Hing Street

Job Number: J7363

Scenario: with Proposed Redevelopment

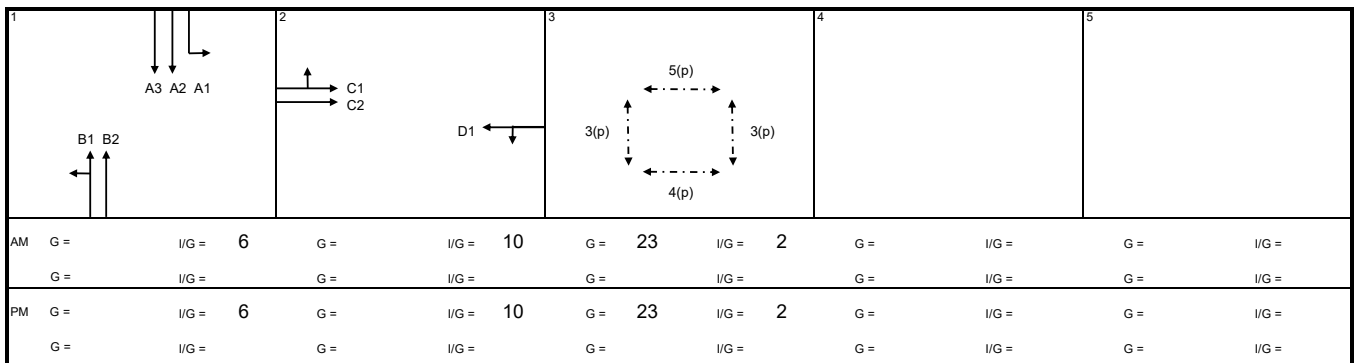
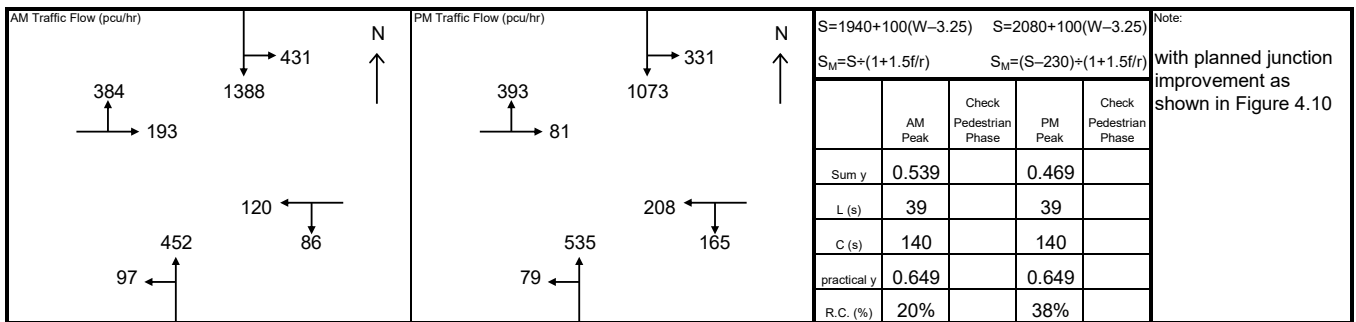
 R1 / P.6-4

Design Year: 2029 Designed By:

Checked By:

Date: 08 January 2025

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
Wang Chiu Road SB	LT	A1	1	3.50	15.0	100	1786	431	0.241		100	1786	331	0.185	
	SA	A2	1	3.50			2105	694	0.330			2105	537	0.255	
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Wang Chiu Road NB	LT+SA	B1	1	3.50	15.0	37	1894	260	0.137		27	1913	292	0.153	
	SA	B2	1	3.50			2105	289	0.137			2105	322	0.153	
Lam Hing Street EB	LT+SA	C1	2	4.00	15.0	100	1832	384	0.210	0.210	100	1832	393	0.215	0.215
	SA	C2	2	4.00			2155	193	0.090			2155	81	0.038	
Lam Hing Street WB	LT+SA	D1	2	5.00	15.0	42	2030	206	0.101		44	2025	373	0.184	
pedestrian phase		3(p)	3				min crossing time = 10	sec GM + 8			sec FGM = 18	sec			
		4(p)	3				min crossing time = 9	sec GM + 8			sec FGM = 17	sec			
		5(p)	3				min crossing time = 12	sec GM + 11			sec FGM = 23	sec			



Signal Junction Analysis

Junction: J6 - Wang Chiu Road / Lam Hing Street

Job Number: J7363

Scenario: with KITEC

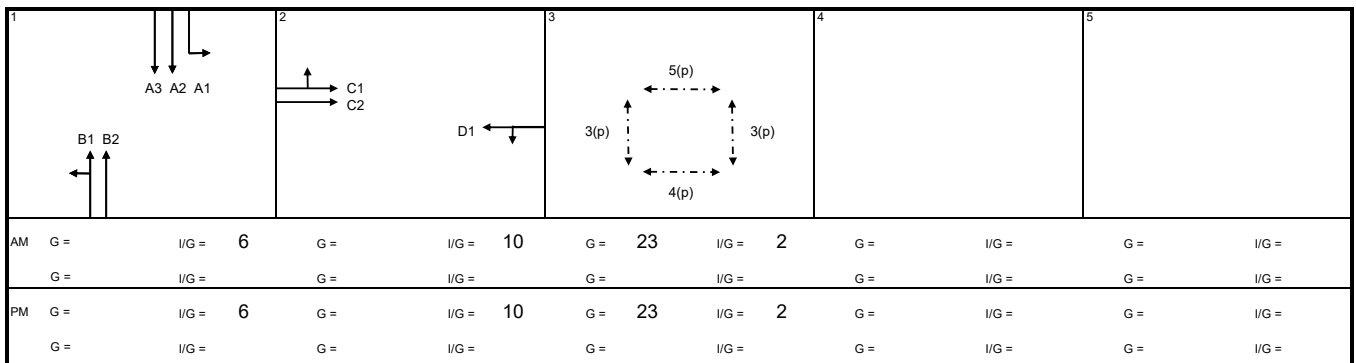
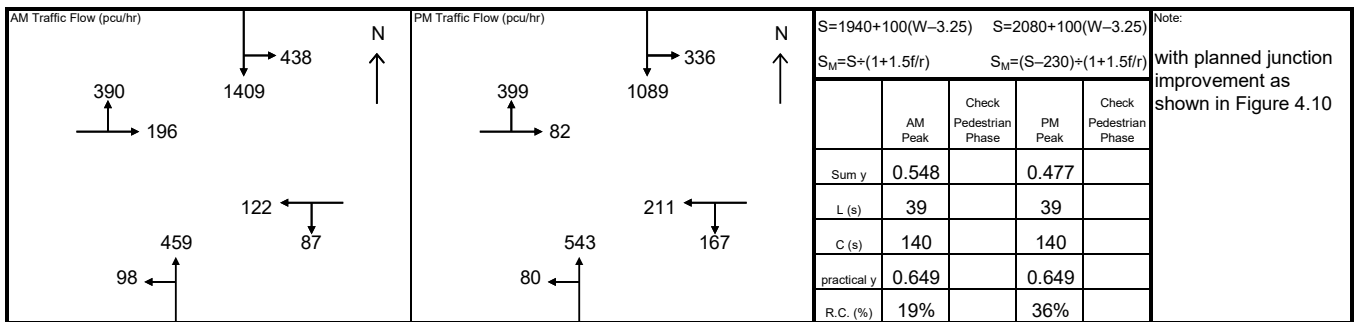
 R1 / P.6-5

Design Year: 2032 Designed By:

Checked By:

Date: 08 January 2025

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
Wang Chiu Road SB	LT	A1	1	3.50	15.0	100	1786	438	0.245		100	1786	336	0.188	
	SA	A2	1	3.50			2105	705	0.335	0.335		2105	545	0.259	0.259
	SA	A3	1	3.50				2105	704	0.334			2105	544	0.258
Wang Chiu Road NB	LT+SA	B1	1	3.50	15.0	37	1895	264	0.139		27	1913	297	0.155	
	SA	B2	1	3.50			2105	293	0.139			2105	326	0.155	
Lam Hing Street EB	LT+SA	C1	2	4.00	15.0	100	1832	390	0.213	0.213	100	1832	399	0.218	0.218
	SA	C2	2	4.00				2155	196	0.091			2155	82	0.038
Lam Hing Street WB	LT+SA	D1	2	5.00	15.0	42	2030	209	0.103		44	2026	378	0.187	
pedestrian phase		3(p)	3			min crossing time =	10	sec GM +	8		sec FGM =	18	sec		
		4(p)	3			min crossing time =	9	sec GM +	8		sec FGM =	17	sec		
		5(p)	3			min crossing time =	12	sec GM +	11		sec FGM =	23	sec		



Signal Junction Analysis

Junction: J6 - Wang Chiu Road / Lam Hing Street

Job Number: J7363

Scenario: with Approved Redevelopment

R1 / P.6-6

Design Year: 2032 Designed By:

Checked By:

Date: 08 January 2025

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
Wang Chiu Road SB	LT	A1	1	3.50	15.0	100	1786	438	0.245		100	1786	336	0.188	
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	SA	A3	1	3.50			2105	704	0.334			2105	544	0.258	
Wang Chiu Road NB	LT+SA	B1	1	3.50	15.0	37	1895	264	0.139		27	1913	297	0.155	
	SA	B2	1	3.50			2105	293	0.139			2105	326	0.155	
Lam Hing Street EB	LT+SA	C1	2	4.00	15.0	100	1832	390	0.213	0.213	100	1832	399	0.218	0.218
	SA	C2	2	4.00			2155	196	0.091			2155	82	0.038	
Lam Hing Street WB	LT+SA	D1	2	5.00	15.0	42	2030	209	0.103		44	2026	378	0.187	

pedestrian phase	3(p)	3		min crossing time =	10	sec GM +	8	sec FGM =	18	sec
	4(p)	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	5(p)	3		min crossing time =	12	sec GM +	11	sec FGM =	23	sec

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td></td> <td>AM Peak</td> <td>Check Pedestrian Phase</td> <td>PM Peak</td> <td>Check Pedestrian Phase</td> </tr> <tr> <td>Sum y</td> <td>0.548</td> <td></td> <td>0.477</td> <td></td> </tr> <tr> <td>L (s)</td> <td>39</td> <td></td> <td>39</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.649</td> <td></td> <td>0.649</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>19%</td> <td></td> <td>36%</td> <td></td> </tr> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.548		0.477		L (s)	39		39		C (s)	140		140		practical y	0.649		0.649		R.C. (%)	19%		36%		<p>Note: with planned junction improvement as shown in Figure 4.10</p>
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																													
Sum y	0.548		0.477																														
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R.C. (%)	19%		36%																														

1	2	3	4	5
AM	G = I/G = 6	G = I/G = 10	G = 23 I/G = 2	G = I/G =
PM	G = I/G = 6	G = I/G = 10	G = 23 I/G = 2	G = I/G =

Signal Junction Analysis

Junction: J6 - Wang Chiu Road / Lam Hing Street

Job Number: J7363

Scenario: with Proposed Redevelopment

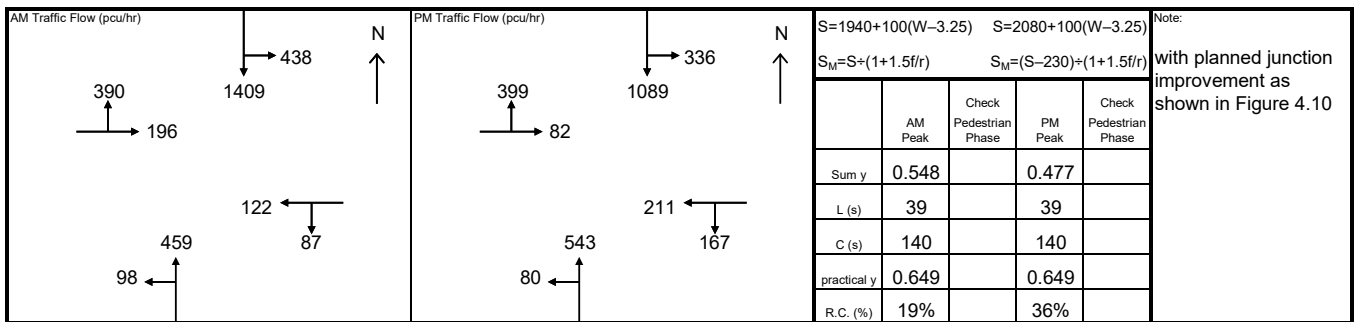
 R1 / P.6-7

Design Year: 2032 Designed By:

Checked By:

Date: 08 January 2025

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
Wang Chiu Road SB	LT	A1	1	3.50	15.0	100	1786	438	0.245		100	1786	336	0.188	
	SA	A2	1	3.50			2105	705	0.335	0.335		2105	545	0.259	0.259
	SA	A3	1	3.50				2105	704	0.334			2105	544	0.258
Wang Chiu Road NB	LT+SA	B1	1	3.50	15.0	37	1895	264	0.139		27	1913	297	0.155	
	SA	B2	1	3.50			2105	293	0.139			2105	326	0.155	
Lam Hing Street EB	LT+SA	C1	2	4.00	15.0	100	1832	390	0.213	0.213	100	1832	399	0.218	0.218
	SA	C2	2	4.00				2155	196	0.091			2155	82	0.038
Lam Hing Street WB	LT+SA	D1	2	5.00	15.0	42	2030	209	0.103		44	2026	378	0.187	
pedestrian phase		3(p)	3	min crossing time =		10	sec GM +	8	sec FGM =	18	sec				
		4(p)	3	min crossing time =		9	sec GM +	8	sec FGM =	17	sec				
		5(p)	3	min crossing time =		12	sec GM +	11	sec FGM =	23	sec				



1	2	3	4	5			
AM	G = I/G = 6	G = I/G = 10	G = 23 I/G = 2	G = I/G =	G = I/G =	G = I/G =	G = I/G =
PM	G = I/G = 6	G = I/G = 10	G = 23 I/G = 2	G = I/G =	G = I/G =	G = I/G =	G = I/G =

Signal Junction Analysis

Junction: J7 - Wang Chiu Road / Sheung Yuet Road

Job Number: J7363

Scenario: existing condition

R1 / P.7-1

Design Year: 2024 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Chiu Road NB	LT+SA	A1	1	3.50	15.0	74	1829	175	0.096	0.096	52	1868	158	0.085	
	SA	A2	1	3.50			2105	201	0.095			2105	179	0.085	0.085
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0	14	1939	516	0.266		19	1928	442	0.229	
	SA+RT	B2	2	3.50	20.0	81	1985	529	0.267	0.267	85	1979	454	0.229	0.229
Sheung Yuet Road EB	LT+SA	C1	3	4.00	15.0	100	1832	188	0.103	0.103	100	1832	178	0.097	0.097
	SA	C2	3	4.00			2155	133	0.062			2155	106	0.049	
Sheung Yuet Road WB	LT+SA	D1	3	3.50	15.0	113	1766	116	0.066		105	1778	140	0.079	
	SA	D2	3	3.50			2105	138	0.066			2105	166	0.079	

pedestrian phase	5(p)	4	min crossing time =	9	sec GM +	9	sec FGM =	18	sec
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<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M=S+(1+1.5f/r)$ $S_M=(S-230)+(1+1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.465</td> <td></td> <td>0.412</td> <td></td> </tr> <tr> <td>L (s)</td> <td>39</td> <td></td> <td>39</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.649</td> <td></td> <td>0.649</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>40%</td> <td></td> <td>58%</td> <td></td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.465		0.412		L (s)	39		39		C (s)	140		140		practical y	0.649		0.649		R.C. (%)	40%		58%	
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
Sum y	0.465		0.412																													
L (s)	39		39																													
C (s)	140		140																													
practical y	0.649		0.649																													
R.C. (%)	40%		58%																													

AM G = I/G = 6 G = I/G = 7 G = I/G = 8 G = 18 I/G = 3 G = I/G =	G = I/G = G = I/G = G = I/G = G = I/G = G = I/G =			
PM G = I/G = 6 G = I/G = 7 G = I/G = 8 G = 18 I/G = 3 G = I/G =	G = I/G = G = I/G = G = I/G = G = I/G = G = I/G =			

Signal Junction Analysis

Junction: J7 - Wang Chiu Road / Sheung Yuet Road

Job Number: J7363

Scenario: with KITEC

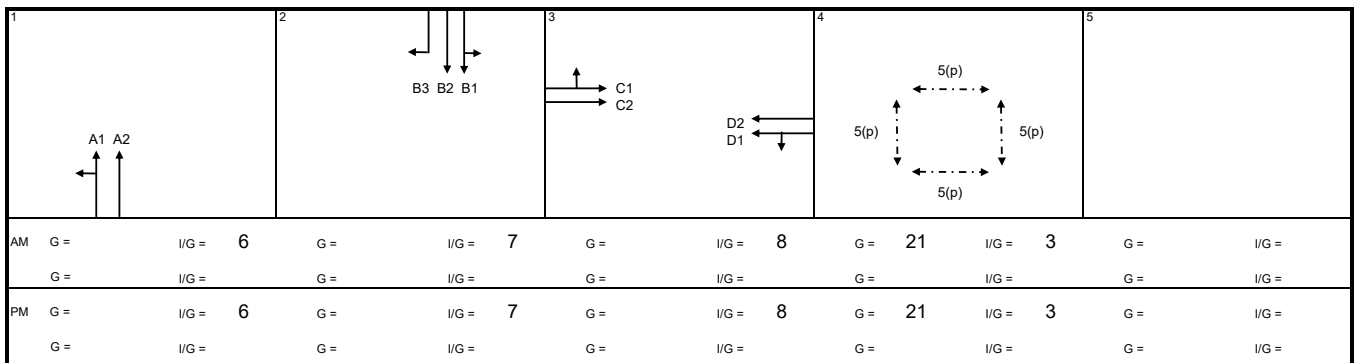
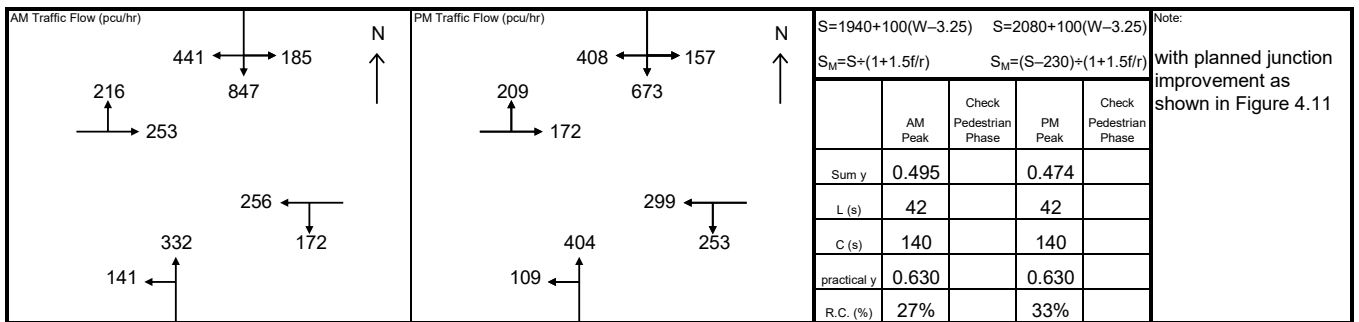
R1 / P.7-2

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Chiu Road NB	LT+SA	A1	1	3.30	15.0	61	2014	233	0.116		43	2045	255	0.125	0.125	
	SA	A2	1	3.20				2075	240	0.116	0.116		2075	258	0.124	
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0	38	1893	489	0.258		40	1890	393	0.208	0.208	
	SA	B2	2	3.50				2105	543	0.258	0.258		2105	437	0.208	
	RT	B3	2	3.50	20.0	100	1958	441	0.225		100	1958	408	0.208		
Sheung Yuet Road EB	LT+SA	C1	3	3.50	15.0	100	1786	216	0.121	0.121	100	1786	209	0.117		
	SA	C2	3	3.50				2105	253	0.120			2105	172	0.082	
Sheung Yuet Road WB	LT+SA	D1	3	3.50	15.0	87	1808	198	0.110		100	1786	253	0.142	0.142	
	SA	D2	3	3.50				2105	230	0.109			2105	299	0.142	
pedestrian phase		5(p)	4	min crossing time =		11	sec GM +		10	sec FGM =		21	sec			



Signal Junction Analysis

Junction: J7 - Wang Chiu Road / Sheung Yuet Road

Job Number: J7363

Scenario: with Approved Redevelopment

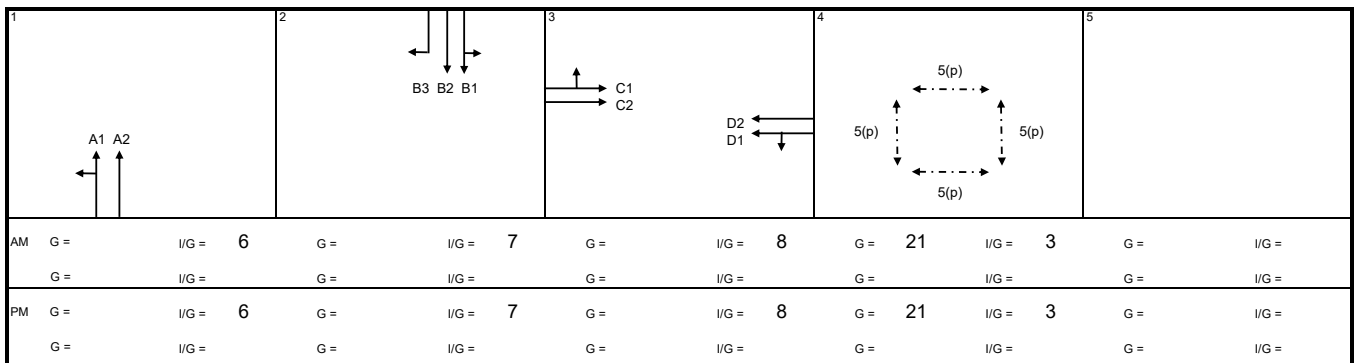
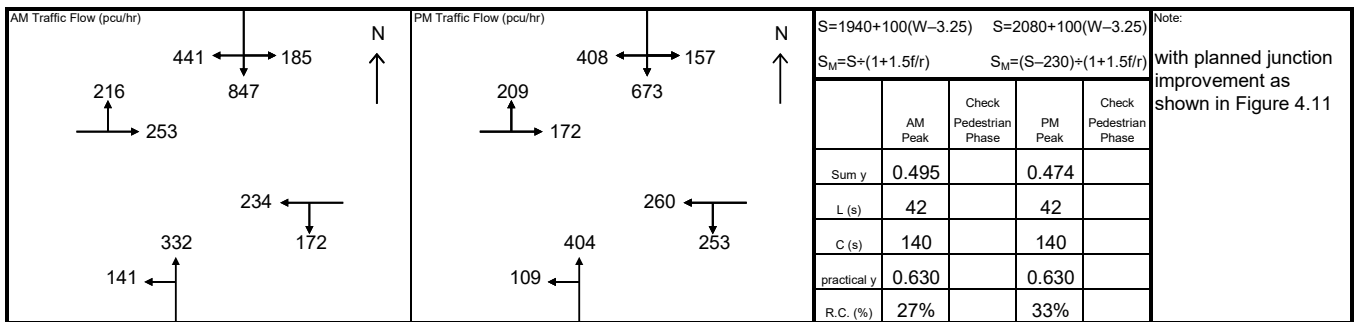
R1 / P.7-3

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Chiu Road NB	LT+SA	A1	1	3.30	15.0		61	2014	233	0.116		43	2045	255	0.125	0.125
	SA	A2	1	3.20				2075	240	0.116	0.116		2075	258	0.124	
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0		38	1893	489	0.258		40	1890	393	0.208	0.208
	SA	B2	2	3.50				2105	543	0.258	0.258		2105	437	0.208	
	RT	B3	2	3.50	20.0		100	1958	441	0.225		100	1958	408	0.208	
Sheung Yuet Road EB	LT+SA	C1	3	3.50	15.0		100	1786	216	0.121	0.121	100	1786	209	0.117	
	SA	C2	3	3.50				2105	253	0.120			2105	172	0.082	
Sheung Yuet Road WB	LT+SA	D1	3	3.50	15.0		92	1799	187	0.104		100	1786	253	0.142	0.142
	SA	D2	3	3.50				2105	219	0.104			2105	260	0.124	
pedestrian phase		5(p)	4	min crossing time =		11	sec GM +		10	sec FGM =		21	sec			



Signal Junction Analysis

Junction: J7 - Wang Chiu Road / Sheung Yuet Road

Job Number: J7363

Scenario: with Proposed Redevelopment

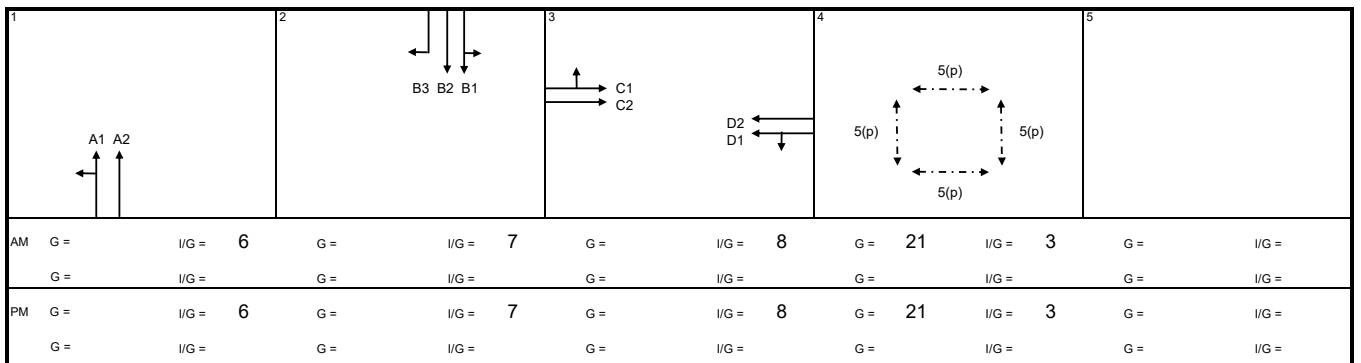
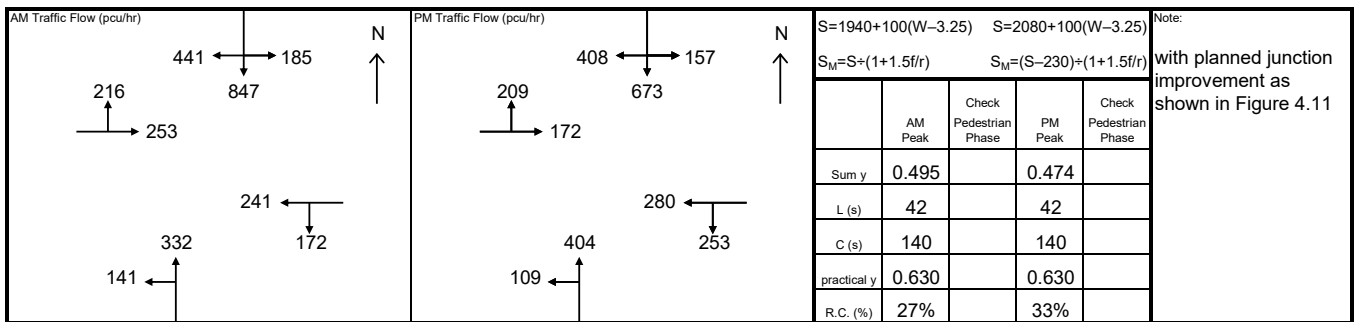
R1 / P.7-4

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Chiu Road NB	LT+SA	A1	1	3.30	15.0		61	2014	233	0.116		43	2045	255	0.125	0.125
	SA	A2	1	3.20				2075	240	0.116	0.116		2075	258	0.124	
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0		38	1893	489	0.258		40	1890	393	0.208	0.208
	SA	B2	2	3.50				2105	543	0.258	0.258		2105	437	0.208	
	RT	B3	2	3.50	20.0		100	1958	441	0.225		100	1958	408	0.208	
Sheung Yuet Road EB	LT+SA	C1	3	3.50	15.0		100	1786	216	0.121	0.121	100	1786	209	0.117	
	SA	C2	3	3.50				2105	253	0.120			2105	172	0.082	
Sheung Yuet Road WB	LT+SA	D1	3	3.50	15.0		90	1803	191	0.106		100	1786	253	0.142	0.142
	SA	D2	3	3.50				2105	222	0.105			2105	280	0.133	
pedestrian phase		5(p)	4	min crossing time =		11	sec GM +		10	sec FGM =		21	sec			



Signal Junction Analysis

Junction: J7 - Wang Chiu Road / Sheung Yuet Road

Job Number: J7363

Scenario: with Approved Redevelopment

R1 / P.7-6

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Chiu Road NB	LT+SA	A1	1	3.30	15.0	61	2014	236	0.117		43	2045	259	0.127	0.127	
	SA	A2	1	3.20				2075	244	0.118	0.118		2075	262	0.126	
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0	38	1893	496	0.262		40	1890	398	0.211	0.211	
	SA	B2	2	3.50				2105	552	0.262	0.262		2105	444	0.211	
	RT	B3	2	3.50	20.0	100	1958	448	0.229		100	1958	414	0.211		
Sheung Yuet Road EB	LT+SA	C1	3	3.50	15.0	100	1786	219	0.123	0.123	100	1786	212	0.119		
	SA	C2	3	3.50				2105	257	0.122		2105	175	0.083		
Sheung Yuet Road WB	LT+SA	D1	3	3.50	15.0	92	1799	190	0.106		100	1786	257	0.144	0.144	
	SA	D2	3	3.50				2105	222	0.105		2105	263	0.125		
pedestrian phase		5(p)	4	min crossing time =		11	sec GM +		10	sec FGM =		21	sec			

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M=S+(1+1.5f/r)$ $S_M=(S-230)+(1+1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td></td> <td>AM Peak</td> <td>Check Pedestrian Phase</td> <td>PM Peak</td> <td>Check Pedestrian Phase</td> </tr> <tr> <td>Sum y</td> <td>0.502</td> <td></td> <td>0.481</td> <td></td> </tr> <tr> <td>L (s)</td> <td>42</td> <td></td> <td>42</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.630</td> <td></td> <td>0.630</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>25%</td> <td></td> <td>31%</td> <td></td> </tr> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.502		0.481		L (s)	42		42		C (s)	140		140		practical y	0.630		0.630		R.C. (%)	25%		31%		<p>Note: with planned junction improvement as shown in Figure 4.11</p>
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																													
Sum y	0.502		0.481																														
L (s)	42		42																														
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practical y	0.630		0.630																														
R.C. (%)	25%		31%																														

1	2	3	4	5
AM G = I/G = 6	G = I/G = 7	G = I/G = 8	G = 21 I/G = 3	G = I/G =
PM G = I/G = 6	G = I/G = 7	G = I/G = 8	G = 21 I/G = 3	G = I/G =

Signal Junction Analysis

Junction: J7 - Wang Chiu Road / Sheung Yuet Road

Job Number: J7363

Scenario: with Proposed Redevelopment

R1 / P.7-7

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Chiu Road NB	LT+SA	A1	1	3.30	15.0		61	2014	236	0.117		43	2045	259	0.127	0.127
	SA	A2	1	3.20				2075	244	0.118	0.118		2075	262	0.126	
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	SA	D2	3	3.50				2105	226	0.107			2105	283	0.134	
pedestrian phase		5(p)	4	min crossing time =		11	sec GM +		10	sec FGM =		21	sec			

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M = S + (1 + 1.5f/r)$ $S_M = (S - 230) + (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td>AM Peak</td> <td>Check Pedestrian Phase</td> <td>PM Peak</td> <td>Check Pedestrian Phase</td> </tr> <tr> <td>Sum y</td> <td>0.502</td> <td></td> <td>0.481</td> <td></td> </tr> <tr> <td>L (s)</td> <td>42</td> <td></td> <td>42</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.630</td> <td></td> <td>0.630</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>25%</td> <td></td> <td>31%</td> <td></td> </tr> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.502		0.481		L (s)	42		42		C (s)	140		140		practical y	0.630		0.630		R.C. (%)	25%		31%		<p>Note: with planned junction improvement as shown in Figure 4.11</p>
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																													
Sum y	0.502		0.481																														
L (s)	42		42																														
C (s)	140		140																														
practical y	0.630		0.630																														
R.C. (%)	25%		31%																														

1	2	3	4	5
AM G = I/G = 6 G = I/G = 7 G = I/G = 8 G = 21 I/G = 3 G = I/G =				
PM G = I/G = 6 G = I/G = 7 G = I/G = 8 G = 21 I/G = 3 G = I/G =				

Signal Junction Analysis

Junction: J8 - Wang Chiu Road / Lam Fung Street

Job Number: J7363

Scenario: existing condition

R1 / P.8-1

Design Year: 2024 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Chiu Road NB	LT	A1	1	3.50	20.0	100	1828	240	0.131		100	1828	276	0.151	
	LT+SA	A2	1	3.50	25.0	37	2059	271	0.132		65	2026	306	0.151	
	SA+RT	A3	1	3.50	20.0	25	2067	272	0.132	0.132	25	2066	311	0.151	0.151
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0	51	1870	320	0.171	0.171	41	1888	271	0.144	0.144
	SA	B2	2	3.50			2105	360	0.171			2105	302	0.143	

pedestrian phase	3(p)	3		min crossing time =	11	sec GM +	10	sec FGM =	21	sec
	4(p)	3		min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	5(p)	2, 3		min crossing time =	5	sec GM +	14	sec FGM =	19	sec
	6(p)	3		min crossing time =	5	sec GM +	11	sec FGM =	16	sec

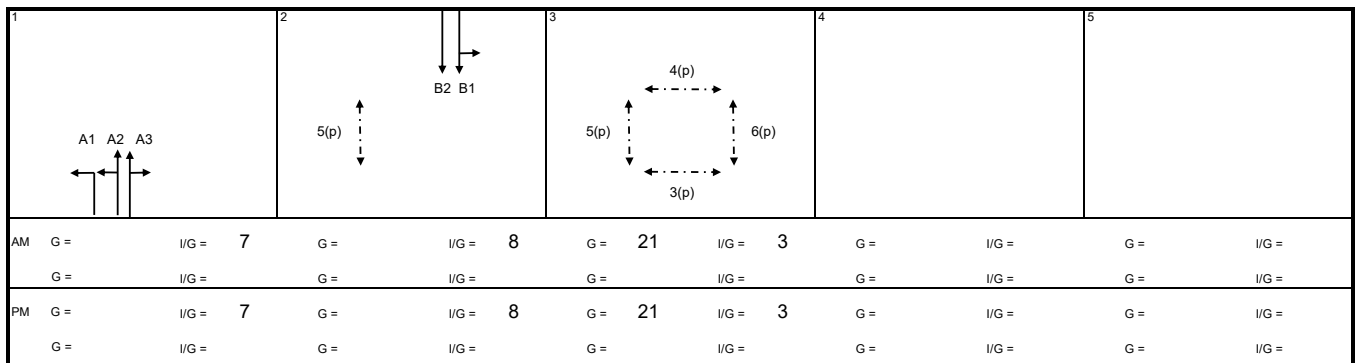
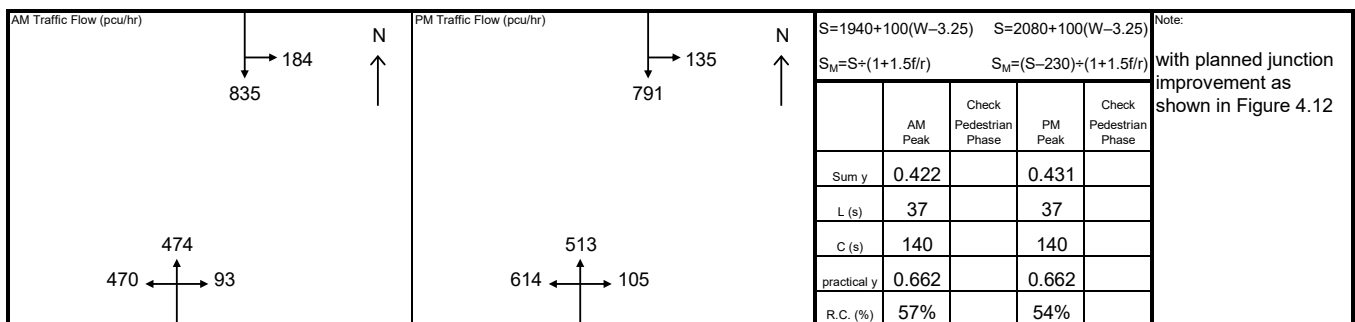
<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p> $S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$ $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$ </p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.303</td> <td></td> <td>0.294</td> <td></td> </tr> <tr> <td>L (s)</td> <td>37</td> <td></td> <td>37</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.662</td> <td></td> <td>0.662</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>119%</td> <td></td> <td>125%</td> <td></td> </tr> </tbody> </table> <p>Note:</p>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.303		0.294		L (s)	37		37		C (s)	140		140		practical y	0.662		0.662		R.C. (%)	119%		125%	
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
Sum y	0.303		0.294																													
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1	2	3	4	5
AM G = I/G = 7 G = I/G = 8 G = 21 I/G = 3 G = I/G = G = I/G =				
PM G = I/G = 7 G = I/G = 8 G = 21 I/G = 3 G = I/G = G = I/G =				

Signal Junction Analysis

Junction: J8 - Wang Chiu Road / Lam Fung Street Job Number: J7363
 Scenario: with KITEC R1 / P.8-2
 Design Year: 2029 Designed By: _____ Checked By: _____ Date: 08 January 2025

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
Wang Chiu Road NB	LT	A1	1	3.50	20.0	100	1828	319	0.175	0.175	100	1828	380	0.208	
	LT+SA	A2	1	3.50	25.0	42	2053	358	0.174		55	2037	423	0.208	
	SA+RT	A3	1	3.50	20.0	26	2065	360	0.174		24	2067	429	0.208	
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0	37	2024	499	0.247		30	2037	455	0.223	
	SA	B2	2	3.50			2105	520	0.247	0.247		2105	471	0.224	
pedestrian phase	3(p)	3			min crossing time =	11	sec GM +	10	sec FGM =	21	sec				
	4(p)	3			min crossing time =	10	sec GM +	9	sec FGM =	19	sec				
	5(p)	2, 3			min crossing time =	5	sec GM +	14	sec FGM =	19	sec				
	6(p)	3			min crossing time =	5	sec GM +	11	sec FGM =	16	sec				



Signal Junction Analysis

Junction: J8 - Wang Chiu Road / Lam Fung Street

Job Number: J7363

Scenario: with Approved Redevelopment

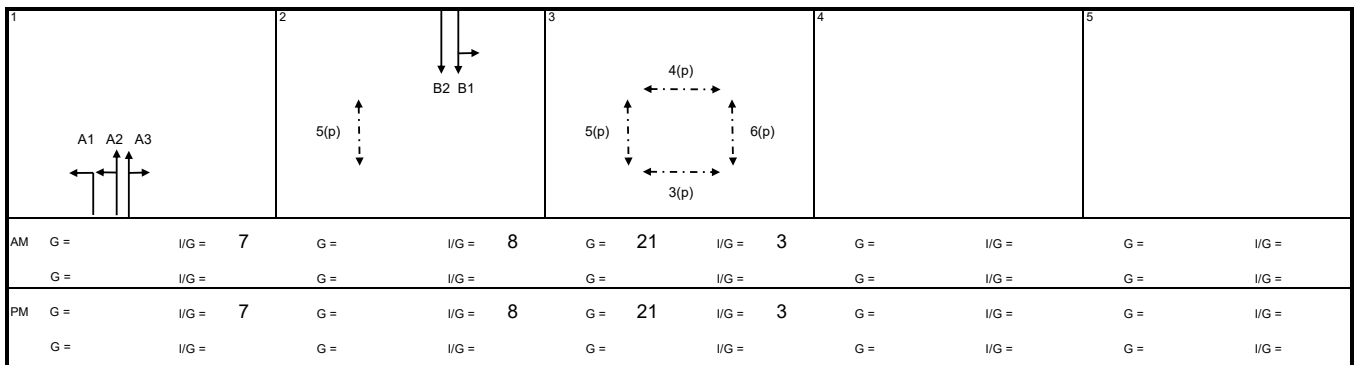
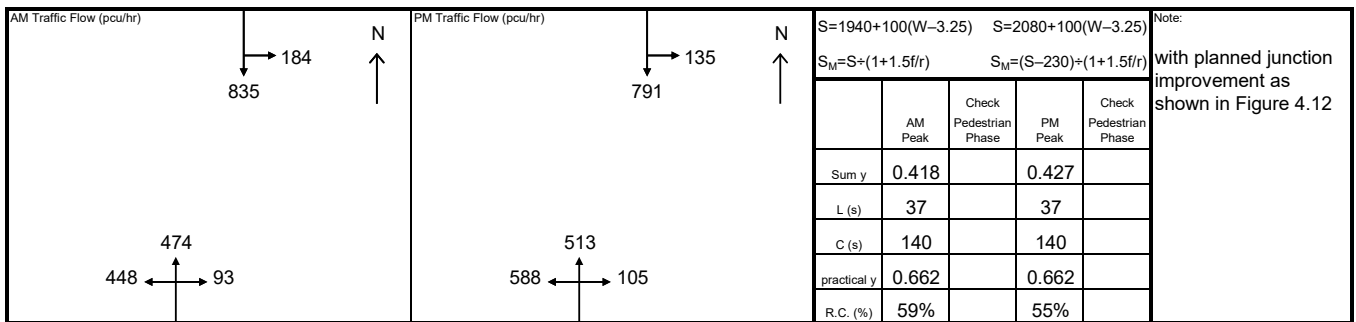
R1 / P.8-3

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Chiu Road NB	LT	A1	1	3.50	20.0	100	1828	312	0.171		100	1828	371	0.203	
	LT+SA	A2	1	3.50	25.0	39	2057	351	0.171		52	2041	415	0.203	
	SA+RT	A3	1	3.50	20.0	26	2064	352	0.171	0.171	25	2066	420	0.203	0.203
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0	37	2024	499	0.247		30	2037	455	0.223	
	SA	B2	2	3.50			2105	520	0.247	0.247		2105	471	0.224	0.224
pedestrian phase		3(p)	3			min crossing time =	11	sec GM +	10		sec FGM =	21	sec		
		4(p)	3			min crossing time =	10	sec GM +	9		sec FGM =	19	sec		
		5(p)	2, 3			min crossing time =	5	sec GM +	14		sec FGM =	19	sec		
		6(p)	3			min crossing time =	5	sec GM +	11		sec FGM =	16	sec		



Signal Junction Analysis

Junction: J8 - Wang Chiu Road / Lam Fung Street

Job Number: J7363

Scenario: with Proposed Redevelopment

R1 / P.8-4

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Chiu Road NB	LT	A1	1	3.50	20.0	100	1828	314	0.172		100	1828	376	0.206
	LT+SA	A2	1	3.50	25.0	40	2056	353	0.172		54	2039	419	0.205
	SA+RT	A3	1	3.50	20.0	26	2064	355	0.172	0.172	25	2067	425	0.206
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0	37	2024	499	0.247		30	2037	455	0.223
	SA	B2	2	3.50			2105	520	0.247	0.247		2105	471	0.224

pedestrian phase	3(p)	3		min crossing time =	11	sec GM +	10	sec FGM =	21	sec
	4(p)	3		min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	5(p)	2, 3		min crossing time =	5	sec GM +	14	sec FGM =	19	sec
	6(p)	3		min crossing time =	5	sec GM +	11	sec FGM =	16	sec

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p> $S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$ $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$ </p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td>AM Peak</td> <td>Check Pedestrian Phase</td> <td>PM Peak</td> <td>Check Pedestrian Phase</td> </tr> <tr> <td>Sum y</td> <td>0.419</td> <td></td> <td>0.429</td> <td></td> </tr> <tr> <td>L (s)</td> <td>37</td> <td></td> <td>37</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.662</td> <td></td> <td>0.662</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>58%</td> <td></td> <td>54%</td> <td></td> </tr> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.419		0.429		L (s)	37		37		C (s)	140		140		practical y	0.662		0.662		R.C. (%)	58%		54%		<p>Note: with planned junction improvement as shown in Figure 4.12</p>
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																													
Sum y	0.419		0.429																														
L (s)	37		37																														
C (s)	140		140																														
practical y	0.662		0.662																														
R.C. (%)	58%		54%																														

1	2	3	4	5
AM G = I/G = 7	G = I/G = 8	G = 21 I/G = 3	G = I/G =	G = I/G =
PM G = I/G = 7	G = I/G = 8	G = 21 I/G = 3	G = I/G =	G = I/G =

Signal Junction Analysis

Junction: J8 - Wang Chiu Road / Lam Fung Street

Job Number: J7363

Scenario: with KITEC

R1 / P.8-5

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Chiu Road NB	LT	A1	1	3.50	20.0	100	1828	323	0.177		100	1828	385	0.211	
	LT+SA	A2	1	3.50	25.0	42	2053	363	0.177		55	2037	430	0.211	
	SA+RT	A3	1	3.50	20.0	26	2065	365	0.177	0.177	25	2067	436	0.211	0.211
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0	37	2024	507	0.251		30	2037	462	0.227	
	SA	B2	2	3.50			2105	528	0.251	0.251		2105	478	0.227	0.227

pedestrian phase	3(p)	3		min crossing time =	11	sec GM +	10	sec FGM =	21	sec
	4(p)	3		min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	5(p)	2, 3		min crossing time =	5	sec GM +	14	sec FGM =	19	sec
	6(p)	3		min crossing time =	5	sec GM +	11	sec FGM =	16	sec

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p> $S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$ $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$ </p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td></td> <td>AM Peak</td> <td>Check Pedestrian Phase</td> <td>PM Peak</td> <td>Check Pedestrian Phase</td> </tr> <tr> <td>Sum y</td> <td>0.428</td> <td></td> <td>0.438</td> <td></td> </tr> <tr> <td>L (s)</td> <td>37</td> <td></td> <td>37</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.662</td> <td></td> <td>0.662</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>55%</td> <td></td> <td>51%</td> <td></td> </tr> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.428		0.438		L (s)	37		37		C (s)	140		140		practical y	0.662		0.662		R.C. (%)	55%		51%		<p>Note: with planned junction improvement as shown in Figure 4.12</p>
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																													
Sum y	0.428		0.438																														
L (s)	37		37																														
C (s)	140		140																														
practical y	0.662		0.662																														
R.C. (%)	55%		51%																														

1	2	3	4	5
AM G = I/G = 7	G = I/G = 8	G = 21 I/G = 3	G = I/G =	G = I/G =
G = I/G =	G = I/G =	G = I/G =	G = I/G =	G = I/G =
PM G = I/G = 7	G = I/G = 8	G = 21 I/G = 3	G = I/G =	G = I/G =
G = I/G =	G = I/G =	G = I/G =	G = I/G =	G = I/G =

Signal Junction Analysis

Junction: J8 - Wang Chiu Road / Lam Fung Street

Job Number: J7363

Scenario: with Approved Redevelopment

R1 / P.8-6

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Chiu Road NB	LT	A1	1	3.50	20.0	100	1828	316	0.173		100	1828	377	0.206
	LT+SA	A2	1	3.50	25.0	39	2057	356	0.173		52	2041	421	0.206
	SA+RT	A3	1	3.50	20.0	26	2064	357	0.173	0.173	25	2066	427	0.207
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0	37	2024	507	0.251		30	2037	462	0.227
	SA	B2	2	3.50			2105	528	0.251	0.251		2105	478	0.227

pedestrian phase	3(p)	3		min crossing time =	11	sec GM +	10	sec FGM =	21	sec
	4(p)	3		min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	5(p)	2, 3		min crossing time =	5	sec GM +	14	sec FGM =	19	sec
	6(p)	3		min crossing time =	5	sec GM +	11	sec FGM =	16	sec

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p> $S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$ $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$ </p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td></td> <td>AM Peak</td> <td>Check Pedestrian Phase</td> <td>PM Peak</td> <td>Check Pedestrian Phase</td> </tr> <tr> <td>Sum y</td> <td>0.424</td> <td></td> <td>0.434</td> <td></td> </tr> <tr> <td>L (s)</td> <td>37</td> <td></td> <td>37</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.662</td> <td></td> <td>0.662</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>56%</td> <td></td> <td>53%</td> <td></td> </tr> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.424		0.434		L (s)	37		37		C (s)	140		140		practical y	0.662		0.662		R.C. (%)	56%		53%		<p>Note: with planned junction improvement as shown in Figure 4.12</p>
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																													
Sum y	0.424		0.434																														
L (s)	37		37																														
C (s)	140		140																														
practical y	0.662		0.662																														
R.C. (%)	56%		53%																														

1	2	3	4	5
AM G = I/G = 7	G = I/G = 8	G = 21 I/G = 3	G = I/G =	G = I/G =
G = I/G =	G = I/G =	G = I/G =	G = I/G =	G = I/G =
PM G = I/G = 7	G = I/G = 8	G = 21 I/G = 3	G = I/G =	G = I/G =
G = I/G =	G = I/G =	G = I/G =	G = I/G =	G = I/G =

Signal Junction Analysis

Junction: J8 - Wang Chiu Road / Lam Fung Street Job Number: J7363
 Scenario: with Proposed Redevelopment R1 / P.8-7
 Design Year: 2032 Designed By: _____ Checked By: _____ Date: 08 January 2025

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
Wang Chiu Road NB	LT	A1	1	3.50	20.0	100	1828	318	0.174		100	1828	382	0.209	
	LT+SA	A2	1	3.50	25.0	40	2056	358	0.174		54	2039	426	0.209	
	SA+RT	A3	1	3.50	20.0	26	2065	360	0.174	0.174	25	2067	431	0.209	0.209
Wang Chiu Road SB	LT+SA	B1	2	3.50	15.0	37	2024	507	0.251		30	2037	462	0.227	
	SA	B2	2	3.50			2105	528	0.251	0.251		2105	478	0.227	0.227

pedestrian phase	3(p)	3		min crossing time =	11	sec GM +	10	sec FGM =	21	sec
	4(p)	3		min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	5(p)	2, 3		min crossing time =	5	sec GM +	14	sec FGM =	19	sec
	6(p)	3		min crossing time =	5	sec GM +	11	sec FGM =	16	sec

AM Traffic Flow (pcu/hr)	PM Traffic Flow (pcu/hr)	$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$ $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$ Note: with planned junction improvement as shown in Figure 4.12				
			Sum y	0.425		0.436
			L (s)	37		37
			C (s)	140		140
		practical y	0.662		0.662	
		R.C. (%)	56%		52%	

1	2	3	4	5
AM G = I/G = 7	G = I/G = 8	G = 21 I/G = 3	G = I/G =	G = I/G =
PM G = I/G = 7	G = I/G = 8	G = 21 I/G = 3	G = I/G =	G = I/G =

Signal Junction Analysis

Junction: J9 - Sheung Yee Road / Wang Chiu Road

Job Number: J7363

Scenario: existing condition

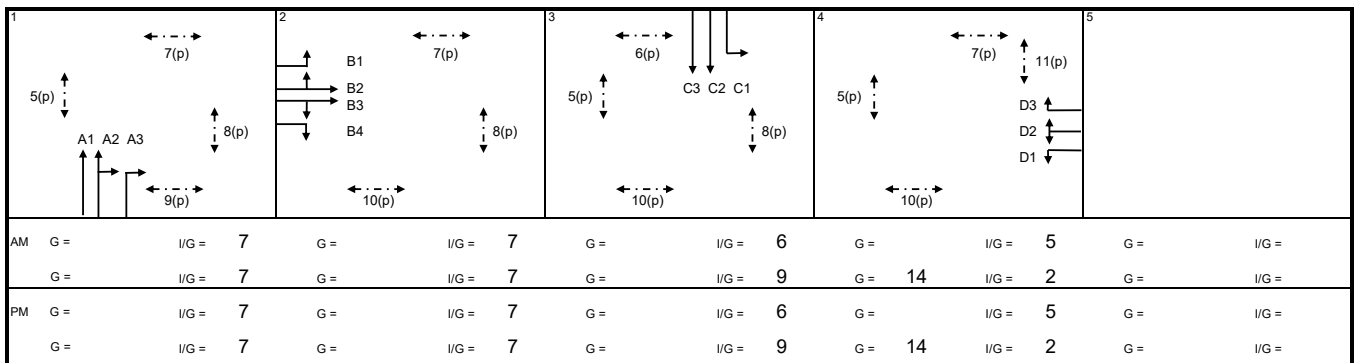
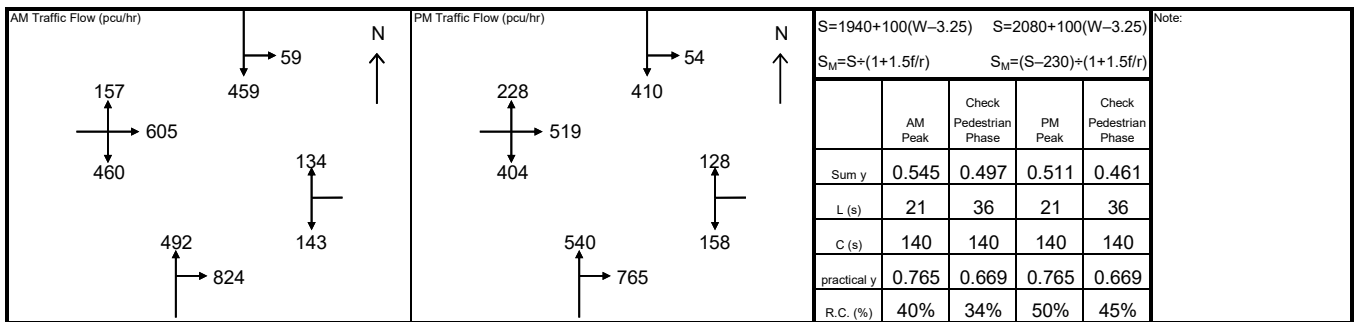
R1 / P.9-1

Design Year: 2024 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Chiu Road NB	SA	A1	1	4.00			2015	434	0.215			2015	429	0.213	
	SA+RT	A2	1	4.00	30.0		87	2065	445	0.215		75	2077	443	0.213
	RT	A3	1	4.00	25.0		100	2033	437	0.215	0.215	100	2033	433	0.213
Sheung Yee Road EB	LT	B1	2	3.50	10.0		100	1709	157	0.092		100	1709	228	0.133
	LT+SA	B2	2	3.50	15.0		0	2105	366	0.174		0	2105	317	0.151
	SA+RT	B3	2	3.50	25.0		33	2064	359	0.174		35	2062	311	0.151
	RT	B4	2	3.50	20.0		100	1958	340	0.174	0.174	100	1958	295	0.151
Wang Chiu Road SB	LT	C1	3	3.50	15.0		100	1786	59	0.033		100	1786	54	0.030
	SA	C2	3	3.50				2105	230	0.109			2105	205	0.097
	SA	C3	3	3.50				2105	229	0.109	0.109		2105	205	0.097
Sheung Yee Road WB	LT	D1	4	3.50	20.0		100	1828	88	0.048		100	1828	91	0.050
	LT+RT	D2	4	3.50	25.0		100	1986	95	0.048		100	1986	98	0.049
	RT	D3	4	3.50	20.0		100	1958	94	0.048	0.048	100	1958	97	0.050
pedestrian phase	5(p)	1, 3, 4			min crossing time =	9	sec GM +	22	sec FGM =	31	sec				
	6(p)	3			min crossing time =	5	sec GM +	10	sec FGM =	15	sec				
	7(p)	1, 2, 4			min crossing time =	5	sec GM +	11	sec FGM =	16	sec				
	8(p)	1, 2, 3			min crossing time =	5	sec GM +	12	sec FGM =	17	sec				
	9(p)	1			min crossing time =	5	sec GM +	10	sec FGM =	15	sec				
	10(p)	2, 3, 4			min crossing time =	5	sec GM +	13	sec FGM =	18	sec				
	11(p)	4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				



Signal Junction Analysis

Junction: J9 - Sheung Yee Road / Wang Chiu Road

Job Number: J7363

Scenario: with KITEC

R1 / P.9-2

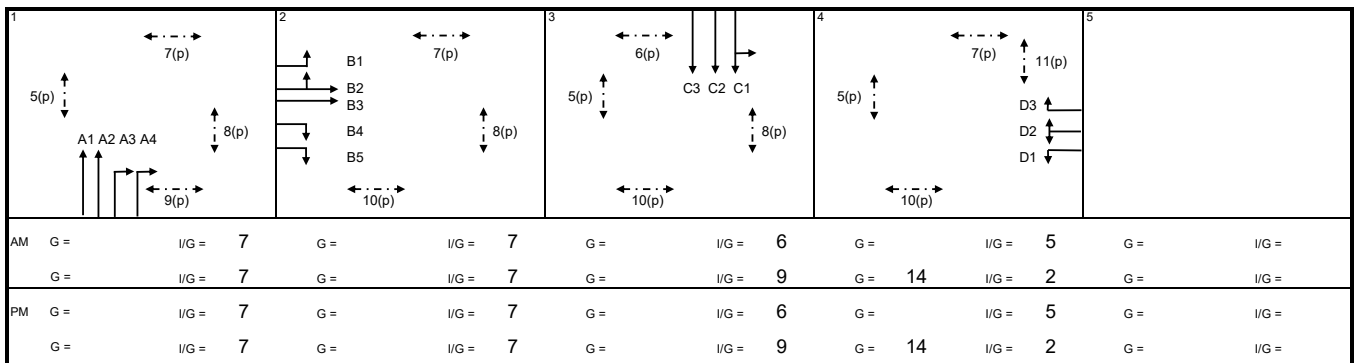
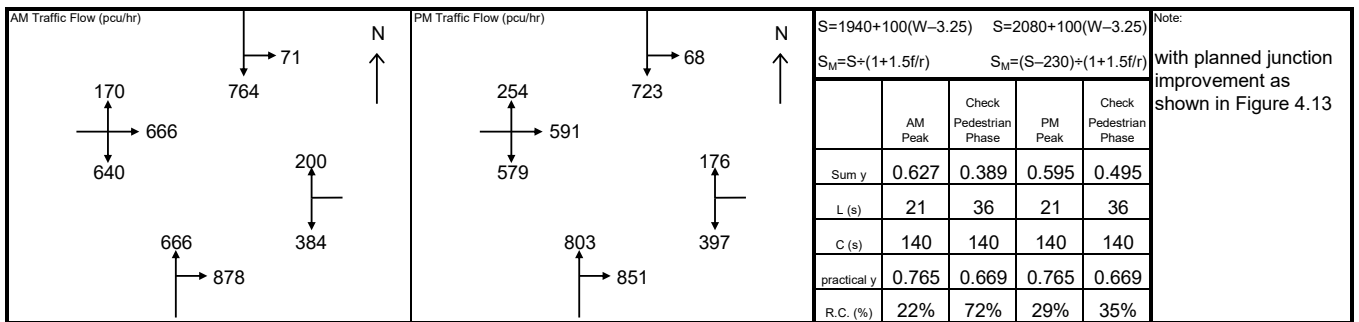
Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Chiu Road NB	SA	A1	1	3.50			1965	322	0.164			1965	388	0.197		
	SA	A2	1	3.50			2105	344	0.163			2105	415	0.197		
	RT	A3	1	3.50	30.0		100	2005	441	0.220		100	2005	428	0.213	
	RT	A4	1	3.50	25.0		100	1986	437	0.220	0.220	100	1986	423	0.213	0.213
Sheung Yee Road EB	LT	B1	2	3.50	10.0		100	1709	170	0.099		100	1709	244	0.143	
	LT+SA	B2	2	3.50	15.0		0	2105	333	0.158		3	2098	300	0.143	
	SA	B3	2	3.50				2105	333	0.158			2105	301	0.143	
	RT	B4	2	3.50	20.0		100	1958	332	0.169		100	1958	300	0.153	
	RT	B5	2	3.40	10.0		100	1822	308	0.169	0.169	100	1822	279	0.153	0.153
Wang Chiu Road SB	LT+SA	C1	3	3.50	15.0		27	1913	261	0.136		28	1912	247	0.129	
	SA	C2	3	3.50				2105	287	0.136			2105	272	0.129	
	SA	C3	3	3.50				2105	287	0.136	0.136		2105	272	0.129	0.129
Sheung Yee Road WB	LT	D1	4	3.50	20.0		100	1828	185	0.101		100	1828	181	0.099	
	LT+RT	D2	4	3.50	25.0		100	1986	201	0.101		100	1986	197	0.099	
	RT	D3	4	3.50	20.0		100	1958	198	0.101	0.101	100	1958	195	0.100	0.100

pedestrian phase	5(p)	1, 3, 4	min crossing time =	10	sec GM +	22	sec FGM =	32	sec
	6(p)	3	min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	7(p)	1, 2, 4	min crossing time =	5	sec GM +	11	sec FGM =	16	sec
	8(p)	1, 2, 3	min crossing time =	5	sec GM +	12	sec FGM =	17	sec
	9(p)	1	min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	10(p)	2, 3, 4	min crossing time =	6	sec GM +	13	sec FGM =	19	sec
	11(p)	4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec



Signal Junction Analysis

Junction: J9 - Sheung Yee Road / Wang Chiu Road

Job Number: J7363

Scenario: with Approved Redevelopment

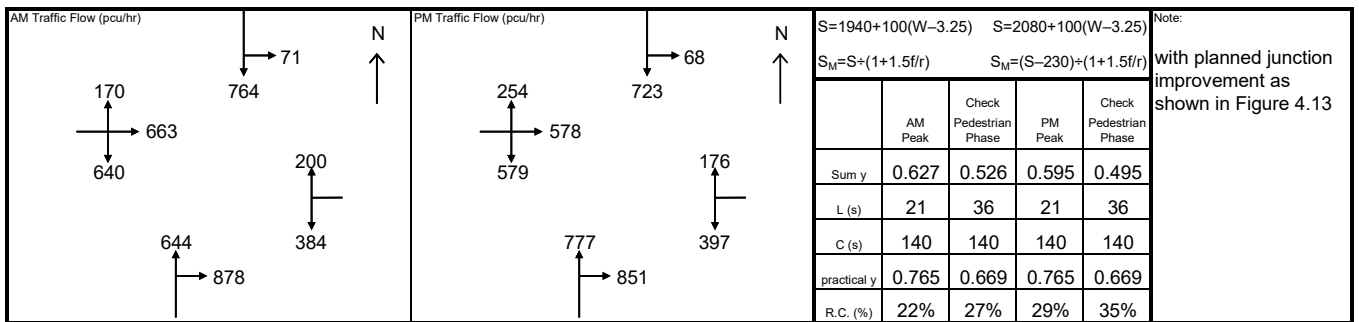
R1 / P.9-3

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Chiu Road NB	SA	A1	1	3.50			1965	311	0.158			1965	375	0.191		
	SA	A2	1	3.50			2105	333	0.158			2105	402	0.191		
	RT	A3	1	3.50	30.0		100	2005	441	0.220		100	2005	428	0.213	
	RT	A4	1	3.50	25.0		100	1986	437	0.220	0.220	100	1986	423	0.213	0.213
Sheung Yee Road EB	LT	B1	2	3.50	10.0		100	1709	170	0.099		100	1709	241	0.141	
	LT+SA	B2	2	3.50	15.0		0	2105	332	0.158		4	2096	295	0.141	
	SA	B3	2	3.50				2105	331	0.157			2105	296	0.141	
	RT	B4	2	3.50	20.0		100	1958	332	0.169		100	1958	300	0.153	
	RT	B5	2	3.40	10.0		100	1822	308	0.169	0.169	100	1822	279	0.153	0.153
Wang Chiu Road SB	LT+SA	C1	3	3.50	15.0		27	1913	261	0.136		28	1912	247	0.129	
	SA	C2	3	3.50				2105	287	0.136			2105	272	0.129	
	SA	C3	3	3.50				2105	287	0.136	0.136		2105	272	0.129	0.129
Sheung Yee Road WB	LT	D1	4	3.50	20.0		100	1828	185	0.101		100	1828	181	0.099	
	LT+RT	D2	4	3.50	25.0		100	1986	201	0.101		100	1986	197	0.099	
	RT	D3	4	3.50	20.0		100	1958	198	0.101	0.101	100	1958	195	0.100	0.100
pedestrian phase	5(p)	1, 3, 4			min crossing time =	10	sec GM +	22	sec FGM =	32	sec					
	6(p)	3			min crossing time =	5	sec GM +	10	sec FGM =	15	sec					
	7(p)	1, 2, 4			min crossing time =	5	sec GM +	11	sec FGM =	16	sec					
	8(p)	1, 2, 3			min crossing time =	5	sec GM +	12	sec FGM =	17	sec					
	9(p)	1			min crossing time =	5	sec GM +	10	sec FGM =	15	sec					
	10(p)	2, 3, 4			min crossing time =	6	sec GM +	13	sec FGM =	19	sec					
	11(p)	4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec					



1	2	3	4	5
AM G = I/G = 7 G = I/G = 7 G = I/G = 6 G = I/G = 5 G = I/G =				
PM G = I/G = 7 G = I/G = 7 G = I/G = 6 G = I/G = 5 G = I/G =				

Signal Junction Analysis

Junction: J9 - Sheung Yee Road / Wang Chiu Road

Job Number: J7363

Scenario: with Proposed Redevelopment

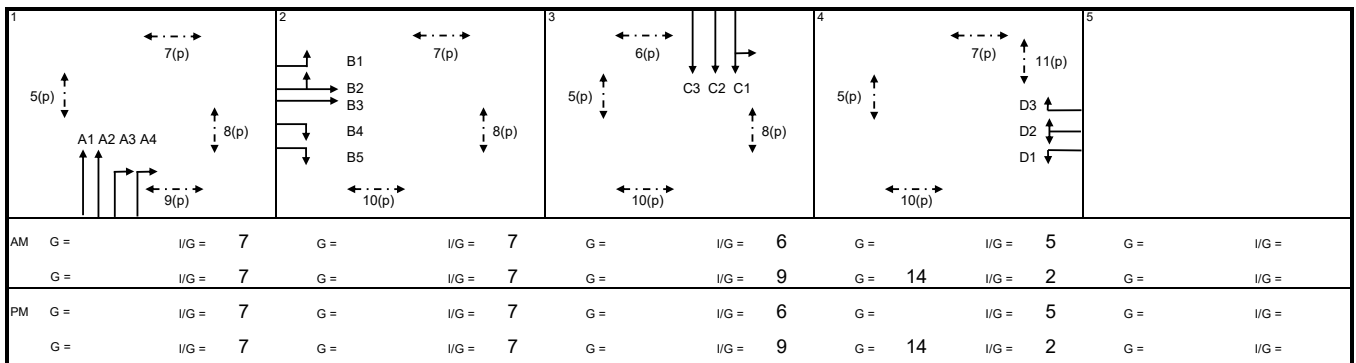
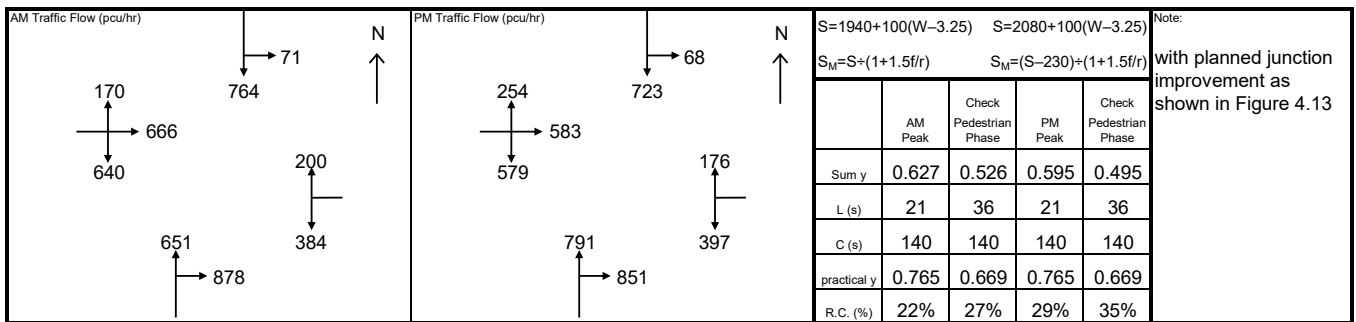
R1 / P.9-4

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Chiu Road NB	SA	A1	1	3.50			1965	314	0.160			1965	382	0.194		
	SA	A2	1	3.50			2105	337	0.160			2105	409	0.194		
	RT	A3	1	3.50	30.0		100	2005	441	0.220		100	2005	428	0.213	
	RT	A4	1	3.50	25.0		100	1986	437	0.220	0.220	100	1986	423	0.213	0.213
Sheung Yee Road EB	LT	B1	2	3.50	10.0		100	1709	170	0.099		100	1709	242	0.142	
	LT+SA	B2	2	3.50	15.0		0	2105	333	0.158		4	2097	297	0.142	
	SA	B3	2	3.50				2105	333	0.158			2105	298	0.142	
	RT	B4	2	3.50	20.0		100	1958	332	0.169		100	1958	300	0.153	
	RT	B5	2	3.40	10.0		100	1822	308	0.169	0.169	100	1822	279	0.153	0.153
Wang Chiu Road SB	LT+SA	C1	3	3.50	15.0		27	1913	261	0.136		28	1912	247	0.129	
	SA	C2	3	3.50				2105	287	0.136			2105	272	0.129	
	SA	C3	3	3.50				2105	287	0.136	0.136		2105	272	0.129	0.129
Sheung Yee Road WB	LT	D1	4	3.50	20.0		100	1828	185	0.101		100	1828	181	0.099	
	LT+RT	D2	4	3.50	25.0		100	1986	201	0.101		100	1986	197	0.099	
	RT	D3	4	3.50	20.0		100	1958	198	0.101	0.101	100	1958	195	0.100	0.100
pedestrian phase	5(p)	1, 3, 4			min crossing time =	10	sec GM +	22	sec FGM =	32	sec					
	6(p)	3			min crossing time =	5	sec GM +	10	sec FGM =	15	sec					
	7(p)	1, 2, 4			min crossing time =	5	sec GM +	11	sec FGM =	16	sec					
	8(p)	1, 2, 3			min crossing time =	5	sec GM +	12	sec FGM =	17	sec					
	9(p)	1			min crossing time =	5	sec GM +	10	sec FGM =	15	sec					
	10(p)	2, 3, 4			min crossing time =	6	sec GM +	13	sec FGM =	19	sec					
	11(p)	4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec					



Signal Junction Analysis

Junction: J9 - Sheung Yee Road / Wang Chiu Road

Job Number: J7363

Scenario: with KITEC

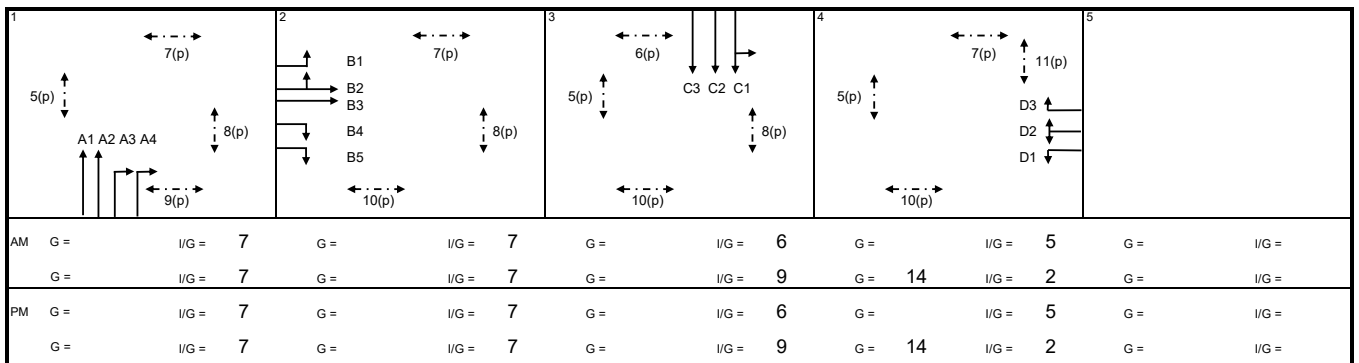
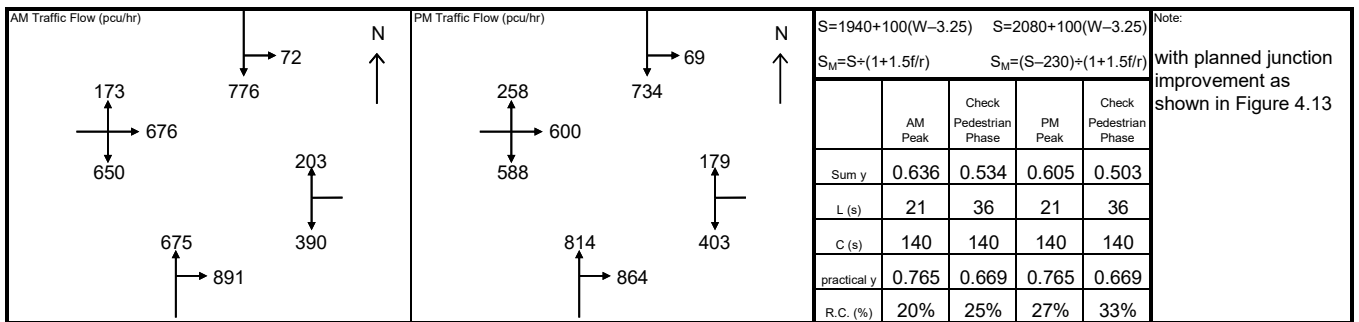
R1 / P.9-5

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Chiu Road NB	SA	A1	1	3.50			1965	326	0.166			1965	393	0.200		
	SA	A2	1	3.50			2105	349	0.166			2105	421	0.200		
	RT	A3	1	3.50	30.0		100	2005	448	0.223		100	2005	434	0.216	
	RT	A4	1	3.50	25.0		100	1986	443	0.223	0.223	100	1986	430	0.217	0.217
Sheung Yee Road EB	LT	B1	2	3.50	10.0		100	1709	173	0.101		100	1709	248	0.145	
	LT+SA	B2	2	3.50	15.0		0	2105	338	0.161		3	2098	305	0.145	
	SA	B3	2	3.50				2105	338	0.161			2105	305	0.145	
	RT	B4	2	3.50	20.0		100	1958	337	0.172		100	1958	305	0.156	0.156
	RT	B5	2	3.40	10.0		100	1822	313	0.172	0.172	100	1822	283	0.155	
Wang Chiu Road SB	LT+SA	C1	3	3.50	15.0		27	1913	265	0.139	0.139	27	1912	251	0.131	
	SA	C2	3	3.50				2105	292	0.139			2105	276	0.131	
	SA	C3	3	3.50				2105	291	0.138			2105	276	0.131	0.131
Sheung Yee Road WB	LT	D1	4	3.50	20.0		100	1828	188	0.103		100	1828	184	0.101	
	LT+RT	D2	4	3.50	25.0		100	1986	204	0.103		100	1986	200	0.101	
	RT	D3	4	3.50	20.0		100	1958	201	0.103	0.103	100	1958	198	0.101	0.101
pedestrian phase	5(p)	1, 3, 4			min crossing time =	10	sec GM +	22	sec FGM =	32	sec					
	6(p)	3			min crossing time =	5	sec GM +	10	sec FGM =	15	sec					
	7(p)	1, 2, 4			min crossing time =	5	sec GM +	11	sec FGM =	16	sec					
	8(p)	1, 2, 3			min crossing time =	5	sec GM +	12	sec FGM =	17	sec					
	9(p)	1			min crossing time =	5	sec GM +	10	sec FGM =	15	sec					
	10(p)	2, 3, 4			min crossing time =	6	sec GM +	13	sec FGM =	19	sec					
	11(p)	4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec					



Signal Junction Analysis

Junction: J9 - Sheung Yee Road / Wang Chiu Road

Job Number: J7363

Scenario: with Approved Redevelopment

R1 / P.9-6

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Chiu Road NB	SA	A1	1	3.50			1965	315	0.160			1965	380	0.193		
	SA	A2	1	3.50			2105	338	0.161			2105	408	0.194		
	RT	A3	1	3.50	30.0		100	2005	448	0.223		100	2005	434	0.216	
	RT	A4	1	3.50	25.0		100	1986	443	0.223	0.223	100	1986	430	0.217	0.217
Sheung Yee Road EB	LT	B1	2	3.50	10.0		100	1709	173	0.101		100	1709	244	0.143	
	LT+SA	B2	2	3.50	15.0		0	2105	337	0.160		5	2095	300	0.143	
	SA	B3	2	3.50				2105	336	0.160			2105	301	0.143	
	RT	B4	2	3.50	20.0		100	1958	337	0.172		100	1958	305	0.156	0.156
	RT	B5	2	3.40	10.0		100	1822	313	0.172	0.172	100	1822	283	0.155	
Wang Chiu Road SB	LT+SA	C1	3	3.50	15.0		27	1913	265	0.139	0.139	27	1912	251	0.131	
	SA	C2	3	3.50				2105	292	0.139			2105	276	0.131	
	SA	C3	3	3.50				2105	291	0.138			2105	276	0.131	0.131
Sheung Yee Road WB	LT	D1	4	3.50	20.0		100	1828	188	0.103		100	1828	184	0.101	
	LT+RT	D2	4	3.50	25.0		100	1986	204	0.103		100	1986	200	0.101	
	RT	D3	4	3.50	20.0		100	1958	201	0.103	0.103	100	1958	198	0.101	0.101

pedestrian phase	5(p)	1, 3, 4	min crossing time =	10	sec GM +	22	sec FGM =	32	sec
	6(p)	3	min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	7(p)	1, 2, 4	min crossing time =	5	sec GM +	11	sec FGM =	16	sec
	8(p)	1, 2, 3	min crossing time =	5	sec GM +	12	sec FGM =	17	sec
	9(p)	1	min crossing time =	5	sec GM +	10	sec FGM =	15	sec
	10(p)	2, 3, 4	min crossing time =	6	sec GM +	13	sec FGM =	19	sec
	11(p)	4	min crossing time =	5	sec GM +	9	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	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase
Sum y	0.636	0.534	0.605	0.503
L (s)	21	36	21	36
C (s)	140	140	140	140
practical y	0.765	0.669	0.765	0.669
R.C. (%)	20%	25%	27%	33%

Note: with planned junction improvement as shown in Figure 4.13

1	2	3	4	5
AM	G = I/G = 7	G = I/G = 7	G = I/G = 6	G = I/G = 5
PM	G = I/G = 7	G = I/G = 7	G = I/G = 9	G = I/G = 2
AM	G = I/G = 7	G = I/G = 7	G = I/G = 6	G = I/G = 5
PM	G = I/G = 7	G = I/G = 7	G = I/G = 9	G = I/G = 2

Signal Junction Analysis

Junction: J9 - Sheung Yee Road / Wang Chiu Road

Job Number: J7363

Scenario: with Proposed Redevelopment

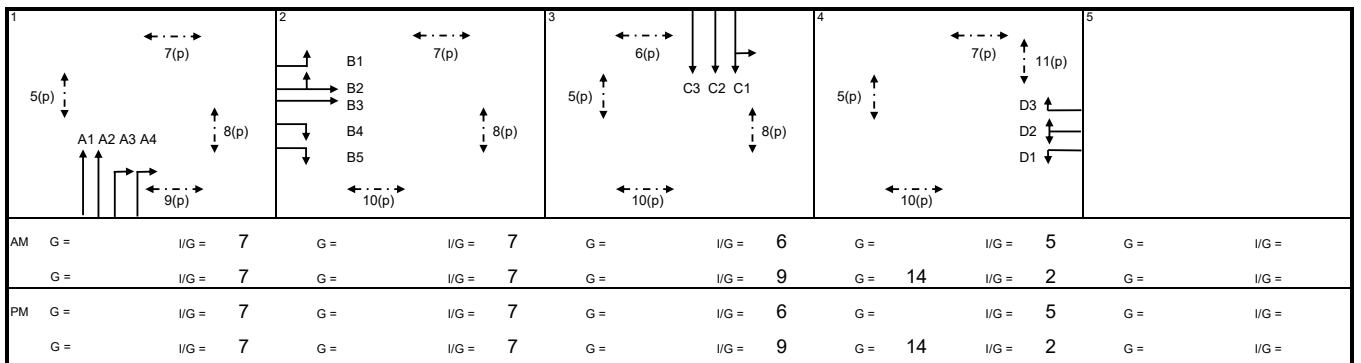
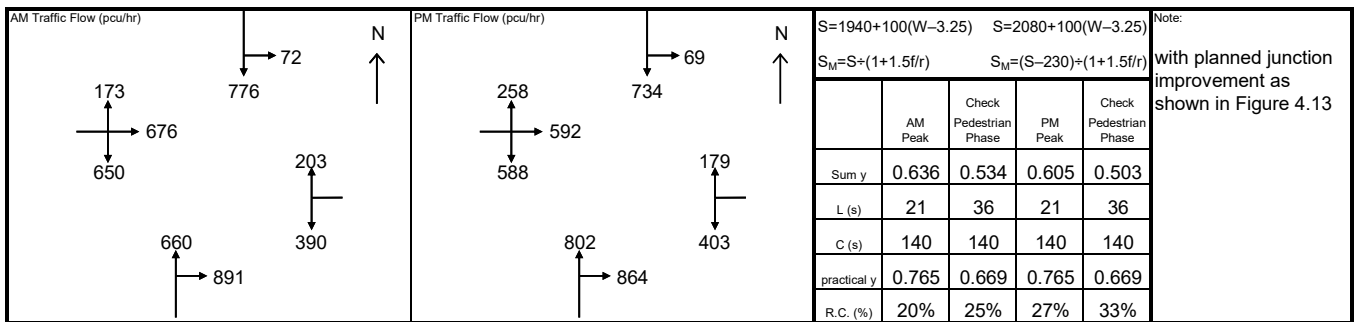
R1 / P.9-7

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Chiu Road NB	SA	A1	1	3.50			1965	319	0.162			1965	387	0.197		
	SA	A2	1	3.50			2105	341	0.162			2105	415	0.197		
	RT	A3	1	3.50	30.0		100	2005	448	0.223		100	2005	434	0.216	
	RT	A4	1	3.50	25.0		100	1986	443	0.223	0.223	100	1986	430	0.217	0.217
Sheung Yee Road EB	LT	B1	2	3.50	10.0		100	1709	173	0.101		100	1709	246	0.144	
	LT+SA	B2	2	3.50	15.0		0	2105	338	0.161		4	2097	302	0.144	
	SA	B3	2	3.50				2105	338	0.161			2105	302	0.143	
	RT	B4	2	3.50	20.0		100	1958	337	0.172		100	1958	305	0.156	0.156
	RT	B5	2	3.40	10.0		100	1822	313	0.172	0.172	100	1822	283	0.155	
Wang Chiu Road SB	LT+SA	C1	3	3.50	15.0		27	1913	265	0.139	0.139	27	1912	251	0.131	
	SA	C2	3	3.50				2105	292	0.139			2105	276	0.131	
	SA	C3	3	3.50				2105	291	0.138			2105	276	0.131	0.131
Sheung Yee Road WB	LT	D1	4	3.50	20.0		100	1828	188	0.103		100	1828	184	0.101	
	LT+RT	D2	4	3.50	25.0		100	1986	204	0.103		100	1986	200	0.101	
	RT	D3	4	3.50	20.0		100	1958	201	0.103	0.103	100	1958	198	0.101	0.101
pedestrian phase	5(p)	1, 3, 4			min crossing time =	10	sec GM +	22	sec FGM =	32	sec					
	6(p)	3			min crossing time =	5	sec GM +	10	sec FGM =	15	sec					
	7(p)	1, 2, 4			min crossing time =	5	sec GM +	11	sec FGM =	16	sec					
	8(p)	1, 2, 3			min crossing time =	5	sec GM +	12	sec FGM =	17	sec					
	9(p)	1			min crossing time =	5	sec GM +	10	sec FGM =	15	sec					
	10(p)	2, 3, 4			min crossing time =	6	sec GM +	13	sec FGM =	19	sec					
	11(p)	4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec					



Signal Junction Analysis

Junction: J10 - Shing Kai Road / Kai Shing Street / Muk On Street

Job Number: J7363

Scenario: existing condition

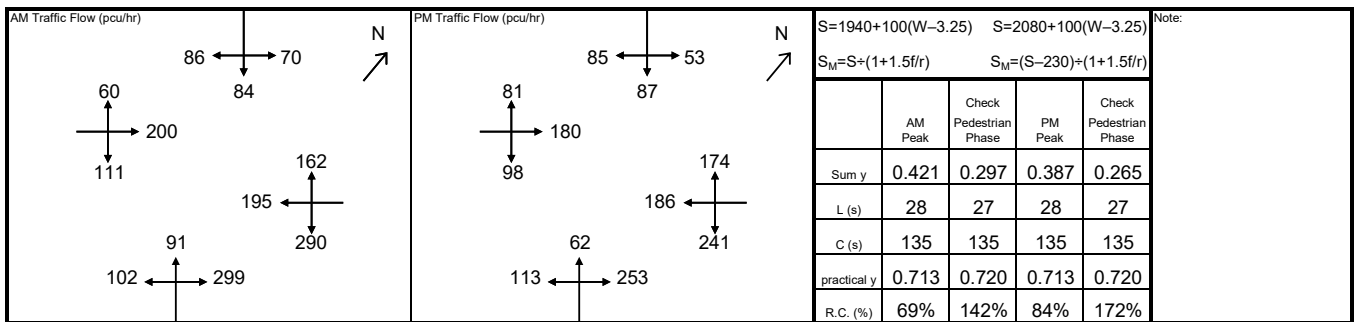
R1 / P.10-1

Design Year: 2024 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Muk On Street SB	LT+SA	A1	1	3.60	15.0	61	1862	115	0.062		49	1883	109	0.058	
	SA+RT	A2	1	3.60	20.0	69	2011	125	0.062	0.062	73	2005	116	0.058	0.058
Shing Kai Road EB	LT+SA	B1	2	3.70	30.0	50	1937	120	0.062		65	1922	124	0.065	0.065
	SA+RT	B2	2	3.70	20.0	-6	2135	132	0.062		0	2125	137	0.064	
	RT	B3	2	3.70	15.0	100	1932	119	0.062	0.062	100	1932	98	0.051	
Shing Kai Road WB	LT+SA	C1	3	3.70	40.0	89	2081	326	0.157		79	2088	304	0.146	
	SA+RT	C3	3	3.70	20.0	50	2048	321	0.157	0.157	59	2036	297	0.146	0.146
Kai Shing Street NB	LT+SA	D1	4	3.70	40.0	53	2461	193	0.078		65	2452	175	0.071	
	RT	D2	4	3.70	20.0	100	2125	299	0.141	0.141	100	2125	253	0.119	0.119
pedestrian phase	6(p)	2, 3, 4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				
	7(p)	1			min crossing time =	8	sec GM +	20	sec FGM =	28	sec				
	8(p)	1, 3, 4			min crossing time =	8	sec GM +	21	sec FGM =	29	sec				
	9(p)	4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				
	10(p)	3			min crossing time =	7	sec GM +	17	sec FGM =	24	sec				
	11(p)	3, 4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				
	12(p)	1, 2			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				
	13(p)	1, 2, 3			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				



	<p>1</p>	<p>2</p>	<p>3</p>	<p>4</p>	
AM	G = I/G = 6	G = I/G = 12	G = I/G = 6	G = I/G = 8	G = I/G =
	G = 14 I/G =	G = I/G = 3	G = I/G = 6	G = I/G = 6	G = I/G =
PM	G = I/G = 6	G = I/G = 12	G = I/G = 6	G = I/G = 8	G = I/G =
	G = 14 I/G =	G = I/G = 3	G = I/G = 6	G = I/G = 6	G = I/G =

Signal Junction Analysis

Junction: J10 - Shing Kai Road / Kai Shing Street / Muk On Street

Job Number: J7363

Scenario: with KITEC

R1 / P.10-2

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Muk On Street SB	LT+SA	A1	1	3.60	15.0	58	1868	146	0.078	0.078	44	1892	112	0.059	0.059
	SA+RT	A2	1	3.60	20.0	72	2007	156	0.078		74	2004	119	0.059	
Shing Kai Road EB	LT+SA	B1	2	3.70	30.0	66	1922	161	0.084		86	1903	145	0.076	0.076
	SA+RT	B2	2	3.70	20.0	0	2125	179	0.084	0.084	0	2125	162	0.076	
	RT	B3	2	3.70	15.0	100	1932	103	0.053		100	1932	91	0.047	
Shing Kai Road WB	LT+SA	C1	3	3.70	40.0	95	2077	376	0.181		96	2076	336	0.162	
	SA+RT	C3	3	3.70	20.0	46	2054	371	0.181	0.181	42	2060	334	0.162	0.162
Kai Shing Street NB	LT+SA	D1	4	3.70	40.0	45	2466	288	0.117		50	2463	245	0.099	
	RT	D2	4	3.70	20.0	100	2125	401	0.189	0.189	100	2125	344	0.162	0.162

pedestrian phase	6(p)	2, 3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	7(p)	1	min crossing time =	8	sec GM +	20	sec FGM =	28	sec
	8(p)	1, 3, 4	min crossing time =	8	sec GM +	21	sec FGM =	29	sec
	9(p)	4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	10(p)	3	min crossing time =	7	sec GM +	17	sec FGM =	24	sec
	11(p)	3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	12(p)	1, 2	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	13(p)	1, 2, 3	min crossing time =	5	sec GM +	9	sec FGM =	14	sec

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M = S / (1 + 1.5f/r)$ $S_M = (S - 230) / (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.532</td> <td>0.369</td> <td>0.459</td> <td>0.324</td> </tr> <tr> <td>L (s)</td> <td>28</td> <td>27</td> <td>28</td> <td>27</td> </tr> <tr> <td>C (s)</td> <td>135</td> <td>135</td> <td>135</td> <td>135</td> </tr> <tr> <td>practical y</td> <td>0.713</td> <td>0.720</td> <td>0.713</td> <td>0.720</td> </tr> <tr> <td>R.C. (%)</td> <td>34%</td> <td>95%</td> <td>55%</td> <td>122%</td> </tr> </tbody> </table> <p>Note:</p>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.532	0.369	0.459	0.324	L (s)	28	27	28	27	C (s)	135	135	135	135	practical y	0.713	0.720	0.713	0.720	R.C. (%)	34%	95%	55%	122%
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AM G = I/G = 6 G = 14 I/G =	G = I/G = 12 G = I/G = 3	G = I/G = 6 G = I/G = 6	G = I/G = 8 G = I/G = 6	G = I/G =
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Signal Junction Analysis

Junction: J10 - Shing Kai Road / Kai Shing Street / Muk On Street

Job Number: J7363

Scenario: with Approved Redevelopment

R1 / P.10-3

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Muk On Street SB	LT+SA	A1	1	3.60	15.0	58	1868	146	0.078	0.078	44	1892	112	0.059	0.059
	SA+RT	A2	1	3.60	20.0	72	2007	156	0.078		74	2004	119	0.059	
Shing Kai Road EB	LT+SA	B1	2	3.70	30.0	66	1922	161	0.084		86	1903	145	0.076	0.076
	SA+RT	B2	2	3.70	20.0	0	2125	179	0.084	0.084	0	2125	162	0.076	
	RT	B3	2	3.70	15.0	100	1932	103	0.053		100	1932	91	0.047	
Shing Kai Road WB	LT+SA	C1	3	3.70	40.0	95	2077	373	0.180		94	2078	330	0.159	0.159
	SA+RT	C3	3	3.70	20.0	46	2054	369	0.180	0.180	43	2059	327	0.159	
Kai Shing Street NB	LT+SA	D1	4	3.70	40.0	45	2466	288	0.117		50	2463	245	0.099	
	RT	D2	4	3.70	20.0	100	2125	396	0.186	0.186	100	2125	334	0.157	0.157
pedestrian phase	6(p)	2, 3, 4			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				
	7(p)	1			min crossing time =	8	sec GM +	20	sec FGM =	28	sec				
	8(p)	1, 3, 4			min crossing time =	8	sec GM +	21	sec FGM =	29	sec				
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	10(p)	3			min crossing time =	7	sec GM +	17	sec FGM =	24	sec				
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	12(p)	1, 2			min crossing time =	5	sec GM +	9	sec FGM =	14	sec				
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<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M = S + (1 + 1.5f/r)$ $S_M = (S - 230) + (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.528</td> <td>0.366</td> <td>0.451</td> <td>0.316</td> </tr> <tr> <td>L (s)</td> <td>28</td> <td>27</td> <td>28</td> <td>27</td> </tr> <tr> <td>C (s)</td> <td>135</td> <td>135</td> <td>135</td> <td>135</td> </tr> <tr> <td>practical y</td> <td>0.713</td> <td>0.720</td> <td>0.713</td> <td>0.720</td> </tr> <tr> <td>R.C. (%)</td> <td>35%</td> <td>97%</td> <td>58%</td> <td>128%</td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.528	0.366	0.451	0.316	L (s)	28	27	28	27	C (s)	135	135	135	135	practical y	0.713	0.720	0.713	0.720	R.C. (%)	35%	97%	58%	128%
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Signal Junction Analysis

Junction: J10 - Shing Kai Road / Kai Shing Street / Muk On Street

Job Number: J7363

Scenario: with Proposed Redevelopment

R1 / P.10-4

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Muk On Street SB	LT+SA	A1	1	3.60	15.0	58	1868	146	0.078	0.078	44	1892	112	0.059	0.059
	SA+RT	A2	1	3.60	20.0	72	2007	156	0.078		74	2004	119	0.059	
Shing Kai Road EB	LT+SA	B1	2	3.70	30.0	66	1922	161	0.084		86	1903	145	0.076	0.076
	SA+RT	B2	2	3.70	20.0	0	2125	179	0.084	0.084	0	2125	162	0.076	
	RT	B3	2	3.70	15.0	100	1932	103	0.053		100	1932	91	0.047	
Shing Kai Road WB	LT+SA	C1	3	3.70	40.0	95	2077	375	0.181		95	2077	332	0.160	
	SA+RT	C3	3	3.70	20.0	46	2054	371	0.181	0.181	42	2059	330	0.160	0.160
Kai Shing Street NB	LT+SA	D1	4	3.70	40.0	45	2466	288	0.117		50	2463	245	0.099	
	RT	D2	4	3.70	20.0	100	2125	398	0.187	0.187	100	2125	339	0.160	0.160

pedestrian phase	6(p)	2, 3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	7(p)	1	min crossing time =	8	sec GM +	20	sec FGM =	28	sec
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<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25)</p> <p>$S_M = S \div (1 + 1.5f/r)$ $S_M = (S - 230) \div (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.530</td> <td>0.368</td> <td>0.455</td> <td>0.320</td> </tr> <tr> <td>L (s)</td> <td>28</td> <td>27</td> <td>28</td> <td>27</td> </tr> <tr> <td>C (s)</td> <td>135</td> <td>135</td> <td>135</td> <td>135</td> </tr> <tr> <td>practical y</td> <td>0.713</td> <td>0.720</td> <td>0.713</td> <td>0.720</td> </tr> <tr> <td>R.C. (%)</td> <td>35%</td> <td>96%</td> <td>57%</td> <td>125%</td> </tr> </tbody> </table> <p>Note:</p>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.530	0.368	0.455	0.320	L (s)	28	27	28	27	C (s)	135	135	135	135	practical y	0.713	0.720	0.713	0.720	R.C. (%)	35%	96%	57%	125%
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AM G = I/G = 6 G = 14 I/G =	G = I/G = 12 G = I/G = 3	G = I/G = 6 G = I/G = 6	G = I/G = 8 G = I/G = 6	G = I/G =
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Signal Junction Analysis

Junction: J10 - Shing Kai Road / Kai Shing Street / Muk On Street

Job Number: J7363

Scenario: with KITEC

R1 / P.10-5

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Muk On Street SB	LT+SA	A1	1	3.60	15.0	57	1868	148	0.079	0.079	44	1892	114	0.060	0.060
	SA+RT	A2	1	3.60	20.0	72	2007	159	0.079		74	2004	120	0.060	
Shing Kai Road EB	LT+SA	B1	2	3.70	30.0	66	1922	164	0.085		86	1903	147	0.077	
	SA+RT	B2	2	3.70	20.0	0	2125	182	0.086	0.086	0	2125	165	0.078	0.078
	RT	B3	2	3.70	15.0	100	1932	105	0.054		100	1932	92	0.048	
Shing Kai Road WB	LT+SA	C1	3	3.70	40.0	95	2077	381	0.183		96	2076	341	0.164	
	SA+RT	C3	3	3.70	20.0	46	2054	377	0.184	0.184	42	2060	339	0.165	0.165
Kai Shing Street NB	LT+SA	D1	4	3.70	40.0	45	2466	292	0.118		50	2463	249	0.101	
	RT	D2	4	3.70	20.0	100	2125	407	0.192	0.192	100	2125	349	0.164	0.164

pedestrian phase	6(p)	2, 3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	7(p)	1	min crossing time =	8	sec GM +	20	sec FGM =	28	sec
	8(p)	1, 3, 4	min crossing time =	8	sec GM +	21	sec FGM =	29	sec
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<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M = S + (1 + 1.5f/r)$ $S_M = (S - 230) + (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.540</td> <td>0.375</td> <td>0.467</td> <td>0.329</td> </tr> <tr> <td>L (s)</td> <td>28</td> <td>27</td> <td>28</td> <td>27</td> </tr> <tr> <td>C (s)</td> <td>135</td> <td>135</td> <td>135</td> <td>135</td> </tr> <tr> <td>practical y</td> <td>0.713</td> <td>0.720</td> <td>0.713</td> <td>0.720</td> </tr> <tr> <td>R.C. (%)</td> <td>32%</td> <td>92%</td> <td>53%</td> <td>119%</td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.540	0.375	0.467	0.329	L (s)	28	27	28	27	C (s)	135	135	135	135	practical y	0.713	0.720	0.713	0.720	R.C. (%)	32%	92%	53%	119%
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Signal Junction Analysis

Junction: J10 - Shing Kai Road / Kai Shing Street / Muk On Street

Job Number: J7363

Scenario: with Approved Redevelopment

R1 / P.10-6

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Muk On Street SB	LT+SA	A1	1	3.60	15.0		57	1868	148	0.079	0.079	44	1892	114	0.060	0.060
	SA+RT	A2	1	3.60	20.0		72	2007	159	0.079		74	2004	120	0.060	
Shing Kai Road EB	LT+SA	B1	2	3.70	30.0		66	1922	164	0.085		86	1903	147	0.077	
	SA+RT	B2	2	3.70	20.0		0	2125	182	0.086	0.086	0	2125	165	0.078	0.078
	RT	B3	2	3.70	15.0		100	1932	105	0.054		100	1932	92	0.048	
Shing Kai Road WB	LT+SA	C1	3	3.70	40.0		94	2077	379	0.182		94	2078	335	0.161	
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	G = 14 I/G =	G = I/G = 3	G = I/G = 6	G = I/G = 6	G = I/G =
PM	G = I/G = 6	G = I/G = 12	G = I/G = 6	G = I/G = 8	G = I/G =
	G = 14 I/G =	G = I/G = 3	G = I/G = 6	G = I/G = 6	G = I/G =

Signal Junction Analysis

Junction: J10 - Shing Kai Road / Kai Shing Street / Muk On Street

Job Number: J7363

Scenario: with Proposed Redevelopment

R1 / P.10-7

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
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	SA+RT	A2	1	3.60	20.0	72	2007	159	0.079		74	2004	120	0.060	
Shing Kai Road EB	LT+SA	B1	2	3.70	30.0	66	1922	164	0.085		86	1903	147	0.077	
	SA+RT	B2	2	3.70	20.0	0	2125	182	0.086	0.086	0	2125	165	0.078	0.078
	RT	B3	2	3.70	15.0	100	1932	105	0.054		100	1932	92	0.048	
Shing Kai Road WB	LT+SA	C1	3	3.70	40.0	95	2077	381	0.183		95	2077	337	0.162	
	SA+RT	C3	3	3.70	20.0	46	2054	376	0.183	0.183	42	2060	335	0.163	0.163
Kai Shing Street NB	LT+SA	D1	4	3.70	40.0	45	2466	292	0.118		50	2463	249	0.101	
	RT	D2	4	3.70	20.0	100	2125	404	0.190	0.190	100	2125	344	0.162	0.162

pedestrian phase	6(p)	2, 3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	7(p)	1	min crossing time =	8	sec GM +	20	sec FGM =	28	sec
	8(p)	1, 3, 4	min crossing time =	8	sec GM +	21	sec FGM =	29	sec
	9(p)	4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	10(p)	3	min crossing time =	7	sec GM +	17	sec FGM =	24	sec
	11(p)	3, 4	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	12(p)	1, 2	min crossing time =	5	sec GM +	9	sec FGM =	14	sec
	13(p)	1, 2, 3	min crossing time =	5	sec GM +	9	sec FGM =	14	sec

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M = S + (1 + 1.5f/r)$ $S_M = (S - 230) + (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.538</td> <td>0.373</td> <td>0.462</td> <td>0.325</td> </tr> <tr> <td>L (s)</td> <td>28</td> <td>27</td> <td>28</td> <td>27</td> </tr> <tr> <td>C (s)</td> <td>135</td> <td>135</td> <td>135</td> <td>135</td> </tr> <tr> <td>practical y</td> <td>0.713</td> <td>0.720</td> <td>0.713</td> <td>0.720</td> </tr> <tr> <td>R.C. (%)</td> <td>33%</td> <td>93%</td> <td>54%</td> <td>122%</td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.538	0.373	0.462	0.325	L (s)	28	27	28	27	C (s)	135	135	135	135	practical y	0.713	0.720	0.713	0.720	R.C. (%)	33%	93%	54%	122%
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
Sum y	0.538	0.373	0.462	0.325																												
L (s)	28	27	28	27																												
C (s)	135	135	135	135																												
practical y	0.713	0.720	0.713	0.720																												
R.C. (%)	33%	93%	54%	122%																												

1	2	3	4	5
AM G = I/G = 6 G = 14 I/G =	G = I/G = 12 G = I/G = 3	G = I/G = 6 G = I/G = 6	G = I/G = 8 G = I/G = 6	G = I/G =
PM G = I/G = 6 G = 14 I/G =	G = I/G = 12 G = I/G = 3	G = I/G = 6 G = I/G = 6	G = I/G = 8 G = I/G = 6	G = I/G =

Signal Junction Analysis

Junction: J11 - Wang Chiu Road / Kai Lai Road / Kai Lok Street

Job Number: J7363

Scenario: existing condition

R1 / P.11-1

Design Year: 2024 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Chiu Road NB	LT+SA	A1	1	3.10	15.0		100	1750	205	0.117	0.117	89	1767	197	0.111	
	SA+RT	A2	1	3.20	15.0		19	2036	225	0.111		12	2050	229	0.112	0.112
Wang Chiu Road SB	LT+SA	B1	1	3.40	15.0		3	1949	177	0.091		3	1949	135	0.069	
	SA	B2	1	3.40				2095	190	0.091			2095	145	0.069	
Kai Lai Road EB	LT+SA+RT	C1	2	4.40	10.0		65	1874	265	0.141	0.141	60	1884	235	0.125	0.125
Kai Lok Road WB	LT+SA+RT	D1	3	4.00	10.0		33	1919	147	0.077	0.077	38	1907	114	0.060	0.060
pedestrian phase		5(p)	4	min crossing time =		16	sec GM +		8	sec FGM =		24	sec			

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M = S + (1 + 1.5f/r)$ $S_M = (S - 230) + (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.335</td> <td></td> <td>0.296</td> <td></td> </tr> <tr> <td>L (s)</td> <td>47</td> <td></td> <td>47</td> <td></td> </tr> <tr> <td>C (s)</td> <td>110</td> <td></td> <td>110</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.515</td> <td></td> <td>0.515</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>54%</td> <td></td> <td>74%</td> <td></td> </tr> </tbody> </table> <p>Note:</p>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.335		0.296		L (s)	47		47		C (s)	110		110		practical y	0.515		0.515		R.C. (%)	54%		74%	
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
Sum y	0.335		0.296																													
L (s)	47		47																													
C (s)	110		110																													
practical y	0.515		0.515																													
R.C. (%)	54%		74%																													

1	2	3	4	5
AM G = I/G = 6 G = I/G = 7 G = I/G = 10 G = 24 I/G = 3 G = I/G =				
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Signal Junction Analysis

Junction: J11 - Wang Chiu Road / Kai Lai Road / Kai Lok Street

Job Number: J7363

Scenario: with KITEC

R1 / P.11-2

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Chiu Road NB	LT+SA	A1	1	3.10	15.0	88	1769	269	0.152		81	1780	267	0.150	
	SA+RT	A2	1	3.20	15.0	21	2032	309	0.152	0.152	11	2053	307	0.150	0.150
Wang Chiu Road SB	LT+SA	B1	1	3.40	15.0	3	1950	267	0.137		3	1949	204	0.105	
	SA	B2	1	3.40			2095	286	0.137			2095	219	0.105	
Kai Lai Road EB	LT+SA+RT	C1	2	4.40	10.0	68	1865	313	0.168	0.168	59	1888	276	0.146	0.146
Kai Lok Road WB	LT+SA+RT	D1	3	4.00	10.0	39	1904	136	0.071	0.071	50	1874	116	0.062	0.062
pedestrian phase		5(p)	4	min crossing time =		16	sec GM +		8	sec FGM =		24	sec		

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.391</td> <td></td> <td>0.358</td> <td></td> </tr> <tr> <td>L (s)</td> <td>47</td> <td></td> <td>47</td> <td></td> </tr> <tr> <td>C (s)</td> <td>110</td> <td></td> <td>110</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.515</td> <td></td> <td>0.515</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>32%</td> <td></td> <td>44%</td> <td></td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.391		0.358		L (s)	47		47		C (s)	110		110		practical y	0.515		0.515		R.C. (%)	32%		44%		<p>Note:</p>
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																													
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Signal Junction Analysis

Junction: J11 - Wang Chiu Road / Kai Lai Road / Kai Lok Street

Job Number: J7363

Scenario: with Approved Redevelopment

R1 / P.11-3

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Chiu Road NB	LT+SA	A1	1	3.10	15.0	88	1769	269	0.152		81	1780	267	0.150	
	SA+RT	A2	1	3.20	15.0	21	2032	309	0.152	0.152	11	2053	307	0.150	0.150
Wang Chiu Road SB	LT+SA	B1	1	3.40	15.0	3	1950	267	0.137		3	1949	204	0.105	
	SA	B2	1	3.40			2095	286	0.137			2095	219	0.105	
Kai Lai Road EB	LT+SA+RT	C1	2	4.40	10.0	68	1865	313	0.168	0.168	59	1888	276	0.146	0.146
Kai Lok Road WB	LT+SA+RT	D1	3	4.00	10.0	39	1904	136	0.071	0.071	50	1874	116	0.062	0.062
pedestrian phase		5(p)	4	min crossing time =		16	sec GM +		8	sec FGM =		24	sec		

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M = S + (1 + 1.5f/r)$ $S_M = (S - 230) + (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.391</td> <td></td> <td>0.358</td> <td></td> </tr> <tr> <td>L (s)</td> <td>47</td> <td></td> <td>47</td> <td></td> </tr> <tr> <td>C (s)</td> <td>110</td> <td></td> <td>110</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.515</td> <td></td> <td>0.515</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>32%</td> <td></td> <td>44%</td> <td></td> </tr> </tbody> </table> <p>Note:</p>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.391		0.358		L (s)	47		47		C (s)	110		110		practical y	0.515		0.515		R.C. (%)	32%		44%	
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1	2	3	4	5
AM G = I/G = 6	G = I/G = 7	G = I/G = 10	G = 24 I/G = 3	G = I/G =
G = I/G =	G = I/G =	G = I/G =	G = I/G =	G = I/G =
PM G = I/G = 6	G = I/G = 7	G = I/G = 10	G = 24 I/G = 3	G = I/G =
G = I/G =	G = I/G =	G = I/G =	G = I/G =	G = I/G =

Signal Junction Analysis

Junction: J11 - Wang Chiu Road / Kai Lai Road / Kai Lok Street

Job Number: J7363

Scenario: with Proposed Redevelopment

R1 / P.11-4

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Chiu Road NB	LT+SA	A1	1	3.10	15.0	88	1769	269	0.152		81	1780	267	0.150	
	SA+RT	A2	1	3.20	15.0	21	2032	309	0.152	0.152	11	2053	307	0.150	0.150
Wang Chiu Road SB	LT+SA	B1	1	3.40	15.0	3	1950	267	0.137		3	1949	204	0.105	
	SA	B2	1	3.40			2095	286	0.137			2095	219	0.105	
Kai Lai Road EB	LT+SA+RT	C1	2	4.40	10.0	68	1865	313	0.168	0.168	59	1888	276	0.146	0.146
Kai Lok Road WB	LT+SA+RT	D1	3	4.00	10.0	39	1904	136	0.071	0.071	50	1874	116	0.062	0.062
pedestrian phase		5(p)	4	min crossing time =		16	sec GM +		8	sec FGM =		24	sec		

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.391</td> <td></td> <td>0.358</td> <td></td> </tr> <tr> <td>L (s)</td> <td>47</td> <td></td> <td>47</td> <td></td> </tr> <tr> <td>C (s)</td> <td>110</td> <td></td> <td>110</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.515</td> <td></td> <td>0.515</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>32%</td> <td></td> <td>44%</td> <td></td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.391		0.358		L (s)	47		47		C (s)	110		110		practical y	0.515		0.515		R.C. (%)	32%		44%	
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
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L (s)	47		47																													
C (s)	110		110																													
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R.C. (%)	32%		44%																													

1	2	3	4	5
AM G = I/G = 6 G = I/G = 7 G = I/G = 10 G = 24 I/G = 3 G = I/G =				
PM G = I/G = 6 G = I/G = 7 G = I/G = 10 G = 24 I/G = 3 G = I/G =				

Signal Junction Analysis

Junction: J11 - Wang Chiu Road / Kai Lai Road / Kai Lok Street

Job Number: J7363

Scenario: with KITEC

R1 / P.11-5

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Chiu Road NB	LT+SA	A1	1	3.10	15.0	89	1768	273	0.154		81	1780	271	0.152	
	SA+RT	A2	1	3.20	15.0	21	2032	314	0.155	0.155	11	2053	312	0.152	0.152
Wang Chiu Road SB	LT+SA	B1	1	3.40	15.0	3	1950	270	0.138		3	1949	207	0.106	
	SA	B2	1	3.40			2095	291	0.139			2095	222	0.106	
Kai Lai Road EB	LT+SA+RT	C1	2	4.40	10.0	68	1866	319	0.171	0.171	59	1888	280	0.148	0.148
Kai Lok Road WB	LT+SA+RT	D1	3	4.00	10.0	39	1903	138	0.073	0.073	50	1874	118	0.063	0.063
pedestrian phase		5(p)	4	min crossing time =		16	sec GM +		8	sec FGM =		24	sec		

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M = S + (1 + 1.5f/r)$ $S_M = (S - 230) + (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.398</td> <td></td> <td>0.363</td> <td></td> </tr> <tr> <td>L (s)</td> <td>47</td> <td></td> <td>47</td> <td></td> </tr> <tr> <td>C (s)</td> <td>110</td> <td></td> <td>110</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.515</td> <td></td> <td>0.515</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>29%</td> <td></td> <td>42%</td> <td></td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.398		0.363		L (s)	47		47		C (s)	110		110		practical y	0.515		0.515		R.C. (%)	29%		42%	
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
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practical y	0.515		0.515																													
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1	2	3	4	5
AM G = I/G = 6 G = I/G = 7 G = I/G = 10 G = 24 I/G = 3 G = I/G =				
PM G = I/G = 6 G = I/G = 7 G = I/G = 10 G = 24 I/G = 3 G = I/G =				

Signal Junction Analysis

Junction: J11 - Wang Chiu Road / Kai Lai Road / Kai Lok Street

Job Number: J7363

Scenario: with Approved Redevelopment

R1 / P.11-6

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Chiu Road NB	LT+SA	A1	1	3.10	15.0		89	1768	273	0.154		81	1780	271	0.152	
	SA+RT	A2	1	3.20	15.0		21	2032	314	0.155	0.155	11	2053	312	0.152	0.152
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	SA	B2	1	3.40				2095	291	0.139			2095	222	0.106	
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Kai Lok Road WB	LT+SA+RT	D1	3	4.00	10.0		39	1903	138	0.073	0.073	50	1874	118	0.063	0.063
pedestrian phase		5(p)	4	min crossing time =		16	sec GM +		8	sec FGM =		24	sec			

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p> $S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$ $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$ </p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.398</td> <td></td> <td>0.363</td> <td></td> </tr> <tr> <td>L (s)</td> <td>47</td> <td></td> <td>47</td> <td></td> </tr> <tr> <td>C (s)</td> <td>110</td> <td></td> <td>110</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.515</td> <td></td> <td>0.515</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>29%</td> <td></td> <td>42%</td> <td></td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.398		0.363		L (s)	47		47		C (s)	110		110		practical y	0.515		0.515		R.C. (%)	29%		42%	
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
Sum y	0.398		0.363																													
L (s)	47		47																													
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R.C. (%)	29%		42%																													

1	2	3	4	5
AM G = I/G = 6 G = I/G = 7 G = I/G = 10 G = 24 I/G = 3 G = I/G =				
PM G = I/G = 6 G = I/G = 7 G = I/G = 10 G = 24 I/G = 3 G = I/G =				

Signal Junction Analysis

Junction: J11 - Wang Chiu Road / Kai Lai Road / Kai Lok Street

Job Number: J7363

Scenario: with Proposed Redevelopment

R1 / P.11-7

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Chiu Road NB	LT+SA	A1	1	3.10	15.0	89	1768	273	0.154		81	1780	271	0.152	
	SA+RT	A2	1	3.20	15.0	21	2032	314	0.155	0.155	11	2053	312	0.152	0.152
Wang Chiu Road SB	LT+SA	B1	1	3.40	15.0	3	1950	270	0.138		3	1949	207	0.106	
	SA	B2	1	3.40			2095	291	0.139			2095	222	0.106	
Kai Lai Road EB	LT+SA+RT	C1	2	4.40	10.0	68	1866	319	0.171	0.171	59	1888	280	0.148	0.148
Kai Lok Road WB	LT+SA+RT	D1	3	4.00	10.0	39	1903	138	0.073	0.073	50	1874	118	0.063	0.063
pedestrian phase		5(p)	4	min crossing time =		16	sec GM +		8	sec FGM =		24	sec		

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p> $S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$ $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$ </p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.398</td> <td></td> <td>0.363</td> <td></td> </tr> <tr> <td>L (s)</td> <td>47</td> <td></td> <td>47</td> <td></td> </tr> <tr> <td>C (s)</td> <td>110</td> <td></td> <td>110</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.515</td> <td></td> <td>0.515</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>29%</td> <td></td> <td>42%</td> <td></td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.398		0.363		L (s)	47		47		C (s)	110		110		practical y	0.515		0.515		R.C. (%)	29%		42%	
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
Sum y	0.398		0.363																													
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PM G = I/G = 6 G = I/G = 7 G = I/G = 10 G = 24 I/G = 3 G = I/G =				

Signal Junction Analysis

Junction: J12 - Wang Kwong Road / Kai Wah Street

Job Number: J7363

Scenario: existing condition

R1 / P.12-1

Design Year: 2024 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Kwong Road SB	SA	A1	1	3.40			1955	223	0.114			1955	196	0.100		
	SA+RT	A2	1	3.30	15.0		39	2007	229	0.114	0.114	34	2016	202	0.100	0.100
Wang Kwong Road NB	LT+SA	B1	2	3.50	10.0		61	1801	194	0.108		54	1819	162	0.089	
	SA	B2	2	3.80				2135	231	0.108	0.108		2135	190	0.089	0.089
Kai Wah Street EB	LT+RT	C1	3	3.10	15.0		100	1877	382	0.203		100	1750	369	0.211	0.211
	RT	C2	3	3.40	20.0		100	1949	396	0.203	0.203	100	1949	410	0.210	
pedestrian phase		4(p)	4			min crossing time =	8	sec GM +	7	sec FGM =	15	sec				
		5(p)	4			min crossing time =	12	sec GM +	10	sec FGM =	22	sec				
		6(p)	4			min crossing time =	8	sec GM +	6	sec FGM =	14	sec				

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p> $S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$ $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$ </p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.425</td> <td></td> <td>0.400</td> <td></td> </tr> <tr> <td>L (s)</td> <td>40</td> <td></td> <td>40</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.643</td> <td></td> <td>0.643</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>51%</td> <td></td> <td>61%</td> <td></td> </tr> </tbody> </table> <p>Note:</p>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.425		0.400		L (s)	40		40		C (s)	140		140		practical y	0.643		0.643		R.C. (%)	51%		61%	
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
Sum y	0.425		0.400																													
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Signal Junction Analysis

Junction: J12 - Wang Kwong Road / Kai Wah Street

Job Number: J7363

Scenario: with KITEC

R1 / P.12-2

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Kwong Road SB	SA	A1	1	3.40			1955	247	0.126			1955	217	0.111		
	SA+RT	A2	1	3.30	15.0		35	2015	254	0.126	0.126	35	2015	223	0.111	0.111
Wang Kwong Road NB	LT+SA	B1	2	3.50	10.0		78	1760	230	0.131		43	1846	186	0.101	
	SA	B2	2	3.80				2135	280	0.131	0.131		2135	215	0.101	0.101
Kai Wah Street EB	LT+RT	C1	3	3.10	15.0		100	1877	459	0.245	0.245	100	1750	414	0.237	
	RT	C2	3	3.40	20.0		100	1949	476	0.244		100	1949	461	0.237	0.237
pedestrian phase		4(p)	4			min crossing time =	8	sec GM +	7	sec FGM =	15	sec				
		5(p)	4			min crossing time =	12	sec GM +	10	sec FGM =	22	sec				
		6(p)	4			min crossing time =	8	sec GM +	6	sec FGM =	14	sec				

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M = S + (1 + 1.5f/r)$ $S_M = (S - 230) + (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.502</td> <td></td> <td>0.448</td> <td></td> </tr> <tr> <td>L (s)</td> <td>40</td> <td></td> <td>40</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.643</td> <td></td> <td>0.643</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>28%</td> <td></td> <td>44%</td> <td></td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.502		0.448		L (s)	40		40		C (s)	140		140		practical y	0.643		0.643		R.C. (%)	28%		44%	
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
Sum y	0.502		0.448																													
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Signal Junction Analysis

Junction: J12 - Wang Kwong Road / Kai Wah Street

Job Number: J7363

Scenario: with Approved Redevelopment

R1 / P.12-3

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Kwong Road SB	SA	A1	1	3.40			1955	247	0.126			1955	217	0.111	
	SA+RT	A2	1	3.30	15.0		35	2015	254	0.126	0.126	35	2015	223	0.111
Wang Kwong Road NB	LT+SA	B1	2	3.50	10.0		78	1760	230	0.131		43	1846	186	0.101
	SA	B2	2	3.80				2135	280	0.131	0.131		2135	215	0.101
Kai Wah Street EB	LT+RT	C1	3	3.10	15.0		100	1877	456	0.243		100	1750	409	0.234
	RT	C2	3	3.40	20.0		100	1949	474	0.243	0.243	100	1949	456	0.234
pedestrian phase		4(p)	4		min crossing time =	8	sec GM +	7	sec FGM =	15	sec				
		5(p)	4		min crossing time =	12	sec GM +	10	sec FGM =	22	sec				
		6(p)	4		min crossing time =	8	sec GM +	6	sec FGM =	14	sec				

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M = S + (1 + 1.5f/r)$ $S_M = (S - 230) + (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.500</td> <td></td> <td>0.445</td> <td></td> </tr> <tr> <td>L (s)</td> <td>40</td> <td></td> <td>40</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.643</td> <td></td> <td>0.643</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>28%</td> <td></td> <td>44%</td> <td></td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.500		0.445		L (s)	40		40		C (s)	140		140		practical y	0.643		0.643		R.C. (%)	28%		44%	
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Signal Junction Analysis

Junction: J12 - Wang Kwong Road / Kai Wah Street

Job Number: J7363

Scenario: with Proposed Redevelopment

R1 / P.12-4

Design Year: 2029 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Kwong Road SB	SA	A1	1	3.40			1955	247	0.126			1955	217	0.111		
	SA+RT	A2	1	3.30	15.0		35	2015	254	0.126	0.126	35	2015	223	0.111	0.111
Wang Kwong Road NB	LT+SA	B1	2	3.50	10.0		78	1760	230	0.131		43	1846	186	0.101	
	SA	B2	2	3.80				2135	280	0.131	0.131		2135	215	0.101	0.101
Kai Wah Street EB	LT+RT	C1	3	3.10	15.0		100	1877	457	0.243		100	1750	412	0.235	
	RT	C2	3	3.40	20.0		100	1949	475	0.244	0.244	100	1949	458	0.235	0.235
pedestrian phase		4(p)	4			min crossing time =	8	sec GM +	7	sec FGM =	15	sec				
		5(p)	4			min crossing time =	12	sec GM +	10	sec FGM =	22	sec				
		6(p)	4			min crossing time =	8	sec GM +	6	sec FGM =	14	sec				

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M = S + (1 + 1.5f/r)$ $S_M = (S - 230) + (1 + 1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.501</td> <td></td> <td>0.446</td> <td></td> </tr> <tr> <td>L (s)</td> <td>40</td> <td></td> <td>40</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.643</td> <td></td> <td>0.643</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>28%</td> <td></td> <td>44%</td> <td></td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.501		0.446		L (s)	40		40		C (s)	140		140		practical y	0.643		0.643		R.C. (%)	28%		44%	
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Signal Junction Analysis

Junction: J12 - Wang Kwong Road / Kai Wah Street

Job Number: J7363

Scenario: with KITEC

R1 / P.12-5

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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	
Wang Kwong Road SB	SA	A1	1	3.40			1955	250	0.128			1955	220	0.113		
	SA+RT	A2	1	3.30	15.0		34	2015	258	0.128	0.128	35	2015	226	0.112	0.112
Wang Kwong Road NB	LT+SA	B1	2	3.50	10.0		78	1760	234	0.133		43	1846	189	0.102	
	SA	B2	2	3.80				2135	284	0.133	0.133		2135	218	0.102	0.102
Kai Wah Street EB	LT+RT	C1	3	3.10	15.0		100	1877	466	0.248	0.248	100	1750	420	0.240	
	RT	C2	3	3.40	20.0		100	1949	483	0.248		100	1949	467	0.240	0.240
pedestrian phase		4(p)	4		min crossing time =	8	sec GM +	7	sec FGM =	15	sec					
		5(p)	4		min crossing time =	12	sec GM +	10	sec FGM =	22	sec					
		6(p)	4		min crossing time =	8	sec GM +	6	sec FGM =	14	sec					

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.509</td> <td></td> <td>0.454</td> <td></td> </tr> <tr> <td>L (s)</td> <td>40</td> <td></td> <td>40</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.643</td> <td></td> <td>0.643</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>26%</td> <td></td> <td>42%</td> <td></td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.509		0.454		L (s)	40		40		C (s)	140		140		practical y	0.643		0.643		R.C. (%)	26%		42%	
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AM G = I/G = 7	G = I/G = 7	G = I/G = 5	G = 22 I/G = 2	G = I/G =
G = I/G =	G = I/G =	G = I/G =	G = I/G =	G = I/G =
PM G = I/G = 7	G = I/G = 7	G = I/G = 5	G = 22 I/G = 2	G = I/G =
G = I/G =	G = I/G =	G = I/G =	G = I/G =	G = I/G =

Signal Junction Analysis

Junction: J12 - Wang Kwong Road / Kai Wah Street

Job Number: J7363

Scenario: with Approved Redevelopment

R1 / P.12-6

Design Year: 2032 Designed By: _____

Checked By: _____

Date: 08 January 2025

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
Wang Kwong Road SB	SA	A1	1	3.40			1955	250	0.128			1955	220	0.113	0.113
	SA+RT	A2	1	3.30	15.0		34	2015	258	0.128	0.128	35	2015	226	0.112
Wang Kwong Road NB	LT+SA	B1	2	3.50	10.0		78	1760	234	0.133		43	1846	189	0.102
	SA	B2	2	3.80				2135	284	0.133	0.133		2135	218	0.102
Kai Wah Street EB	LT+RT	C1	3	3.10	15.0		100	1877	463	0.247		100	1750	415	0.237
	RT	C2	3	3.40	20.0		100	1949	481	0.247	0.247	100	1949	462	0.237
pedestrian phase		4(p)	4			min crossing time =	8	sec GM +	7	sec FGM =	15	sec			
		5(p)	4			min crossing time =	12	sec GM +	10	sec FGM =	22	sec			
		6(p)	4			min crossing time =	8	sec GM +	6	sec FGM =	14	sec			

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>Check Pedestrian Phase</th> <th>PM Peak</th> <th>Check Pedestrian Phase</th> </tr> </thead> <tbody> <tr> <td>Sum y</td> <td>0.508</td> <td></td> <td>0.452</td> <td></td> </tr> <tr> <td>L (s)</td> <td>40</td> <td></td> <td>40</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.643</td> <td></td> <td>0.643</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>27%</td> <td></td> <td>42%</td> <td></td> </tr> </tbody> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.508		0.452		L (s)	40		40		C (s)	140		140		practical y	0.643		0.643		R.C. (%)	27%		42%	
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
Sum y	0.508		0.452																													
L (s)	40		40																													
C (s)	140		140																													
practical y	0.643		0.643																													
R.C. (%)	27%		42%																													

1	2	3	4	5
AM G = I/G = 7 G = I/G = 7 G = I/G = 5 G = 22 I/G = 2 G = I/G =				
PM G = I/G = 7 G = I/G = 7 G = I/G = 5 G = 22 I/G = 2 G = I/G =				

Signal Junction Analysis

Junction: J12 - Wang Kwong Road / Kai Wah Street Job Number: J7363
 Scenario: with Proposed Redevelopment R1 / P.12-7
 Design Year: 2032 Designed By: _____ Checked By: _____ Date: 08 January 2025

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
Wang Kwong Road SB	SA	A1	1	3.40			1955	250	0.128			1955	220	0.113	0.113
	SA+RT	A2	1	3.30	15.0		34	2015	258	0.128	0.128	35	2015	226	0.112
Wang Kwong Road NB	LT+SA	B1	2	3.50	10.0		78	1760	234	0.133		43	1846	189	0.102
	SA	B2	2	3.80				2135	284	0.133	0.133		2135	218	0.102
Kai Wah Street EB	LT+RT	C1	3	3.10	15.0		100	1877	464	0.247	0.247	100	1750	417	0.238
	RT	C2	3	3.40	20.0		100	1949	482	0.247		100	1949	465	0.239
pedestrian phase		4(p)	4			min crossing time =	8	sec GM +	7	sec FGM =	15	sec			
		5(p)	4			min crossing time =	12	sec GM +	10	sec FGM =	22	sec			
		6(p)	4			min crossing time =	8	sec GM +	6	sec FGM =	14	sec			

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25) S=2080+100(W-3.25) $S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td>AM Peak</td> <td>Check Pedestrian Phase</td> <td>PM Peak</td> <td>Check Pedestrian Phase</td> </tr> <tr> <td>Sum y</td> <td>0.508</td> <td></td> <td>0.453</td> <td></td> </tr> <tr> <td>L (s)</td> <td>40</td> <td></td> <td>40</td> <td></td> </tr> <tr> <td>C (s)</td> <td>140</td> <td></td> <td>140</td> <td></td> </tr> <tr> <td>practical y</td> <td>0.643</td> <td></td> <td>0.643</td> <td></td> </tr> <tr> <td>R.C. (%)</td> <td>26%</td> <td></td> <td>42%</td> <td></td> </tr> </table>		AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase	Sum y	0.508		0.453		L (s)	40		40		C (s)	140		140		practical y	0.643		0.643		R.C. (%)	26%		42%	
	AM Peak	Check Pedestrian Phase	PM Peak	Check Pedestrian Phase																												
Sum y	0.508		0.453																													
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practical y	0.643		0.643																													
R.C. (%)	26%		42%																													

1 	2 	3 	4 	5
AM G = I/G = 7 G = I/G = 7 G = I/G = 5 G = 22 I/G = 2 G = I/G =				
PM G = I/G = 7 G = I/G = 7 G = I/G = 5 G = 22 I/G = 2 G = I/G =				

**Appendix B – Comment from
SWD on Social Welfare Facilities
(extract from TPB No. A/K22/37)**

I refer to your preceding email and memo seeking our comments on the proposed social welfare facilities involved in the captioned planning application for the redevelopment of Kowloon Bay International Trade and Exhibition Centre at 1 Trademart Drive, Kowloon Bay. Comments from the Social Welfare Department (SWD) are appended in the ensuing paragraphs.

Our comments on the applicant's pre-submission were given to the applicant vide email of 27.2.2024. That is, SWD does not support the applicant's proposal of providing 30-place Residential Care Home for the Elderly (RCHE) and 20-place Day Care Centre for the Elderly (DE) which were proposed to be handed over to the Government as Government Accommodation upon completion of construction. The applicant has subsequently provided response-to-comment (R-to-C) in April 2024 advising that the capacity of the RCHE and DE, which would be privately operated by the applicant, would be expanded to 60 places and 30 places respectively. The applicant has also confirmed in the R-to-C that Office Base of Social Work Service for Pre-primary Institutions (SWSPPI) would be incorporated into the development for handing over to SWD, but 30-place Supported Hostel for Mentally Handicapped Persons would not be considered.

We note that the aforesaid R-to-C has been reflected in the applicant's formal submission of the captioned planning application. Our comments on the applicant's pre-submission

are also valid for the formal submission. If the applicant proposes to hand over the 60-place RCHE and 30-place DE to SWD upon completion of construction, the proposal is not agreeable from service point of view. Nevertheless, to enable market diversity in the provision of residential / day care services for addressing the demand for quality service, we have no objection in principle from service perspective for the applicant's proposed development of 60-place RCHE and 30-place DE on conditions that -

- (i) the RCHE and DE including the associated parking spaces and loading and unloading bay are running on privately-financing mode with no financial implication, both capital and recurrent, on the Government; and
- (ii) the design and construction of the RCHE and DE shall comply with the height restriction, all relevant ordinances, regulations, licensing and statutory requirements. Specifically, the RCHE shall comply with the (i) Residential Care Homes (Elderly Persons) Ordinance (Cap. 459) and its subsidiary legislation; and (ii) the latest version of the Code of Practice for Residential Care Homes (Elderly Persons), etc. No part of an RCHE shall be situated at a height more than 24m above the ground floor, measuring vertically from the ground of the building to the floor of the premises at which the RCHE is to be situated.

As regards the provision of bare-shell premises for the SWSPPI which will be designed and constructed by the applicant and handed over to the Government upon completion, the applicant should confirm that -

- (i) the proposed GFA of 165 square metres is able to meet the design and construction of SWSPPI in accordance with the approved Schedule of Accommodation and other requirements as requested by SWD. According to the approved Schedule of Accommodation, the net operational floor area of SWSPPI is 95 square metres while the internal floor area is about 124 square metres;
- (ii) the SWSPPI does not have any parking space and loading and unloading bay; and
- (iii) no part of the welfare premises of SWSPPI is situated at a height more than 24 metres above the ground level, measuring vertically from the ground of the building to the highest floor level of the premises at which the welfare premises is to be situated.

**Appendix C –
Planned Cautionary Crossing
at Trademart Drive
(Extract of Email from EKEO)**

From: chriswong@devb.gov.hk
Sent: Wednesday, 13 April, 2022 17:47
To: CKM Asia
Cc: Ada KY YAU; whcheng@devb.gov.hk; kelvinchan@devb.gov.hk
Subject: Re: Fw: TMD1: Redevelopment of KITEC at 1 Trademart Drive, Kowloon Bay - s16 planning application (TPB No. S/K22/34)

Dear Mr. TANG,

I refer to your email on 13 April 2022.

Regarding the proposed cautionary crossing at Wang Chin Street, please refer to Item 8 (page 10 of the pdf file) at the following link:
https://www.districtcouncils.gov.hk/kt/doc/2020_2023/tc/committee_meetings_doc/TDTC/21292/TDTC_12_2021_R.pdf

We understand that TD has requested the applicant to supplement with a TIA report. Please liaise with TD in this regard.

 Regards,
Chris WONG
Works Consolidation Manager (1)
T: 3422 3529
F: 3904 1161
www.ekeo.gov.hk



----- Forwarded by EKEO Enquiry/DEVB/HKSARG on 13/04/2022 15:15 -----

From: "CKM Asia" <mail@ckmasia.com.hk>
To: <ekeo@devb.gov.hk>
Date: 13/04/2022 15:09
Subject: TMD1: Redevelopment of KITEC at 1 Trademart Drive, Kowloon Bay - s16 planning application (TPB No. S/K22/34)

Attn: DevB (EKEO) – Mr Kelvin Chan [Place Making Mgr (Planning) 1]

Dear Mr Chan,

We refer to the s16 planning application (TPB No. S/K22/34) for the captioned site.

CKM Asia Limited

According to the attached comment from Transport Department (TD), *“(5) It is noted that EKEO has proposed to add a cautionary crossing at Trademart Drive. Please ask the applicant to seek EKEO’s views and consider their request”*.

As discussed yesterday, we would appreciate if you could provide more technical details (such as location, dimensions, etc) of the proposed cautionary crossing for information and to facilitate our response to TD comment.

Thank you for your attention.

Regards,

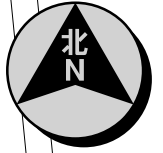
H.C. Tang

CKM Asia Limited
Traffic and Transportation Planning Consultants
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Website: www.ckmasia.com.hk
Address: 21/F, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong

[attachment "TD comment.pdf" deleted by Matthew MT YUI/DEVB/HKSARG]

滙豐金庫

HSBC Main Treasury



展覽徑 Trademart Drive

臨興街

LAM HING STREET

香港郵政—中央郵件中心

Hong Kong Post - Central Mail Centre

宏展街
WANG CHIN STREET

Elevated Road

高架橋

橋面

橋底

橋身

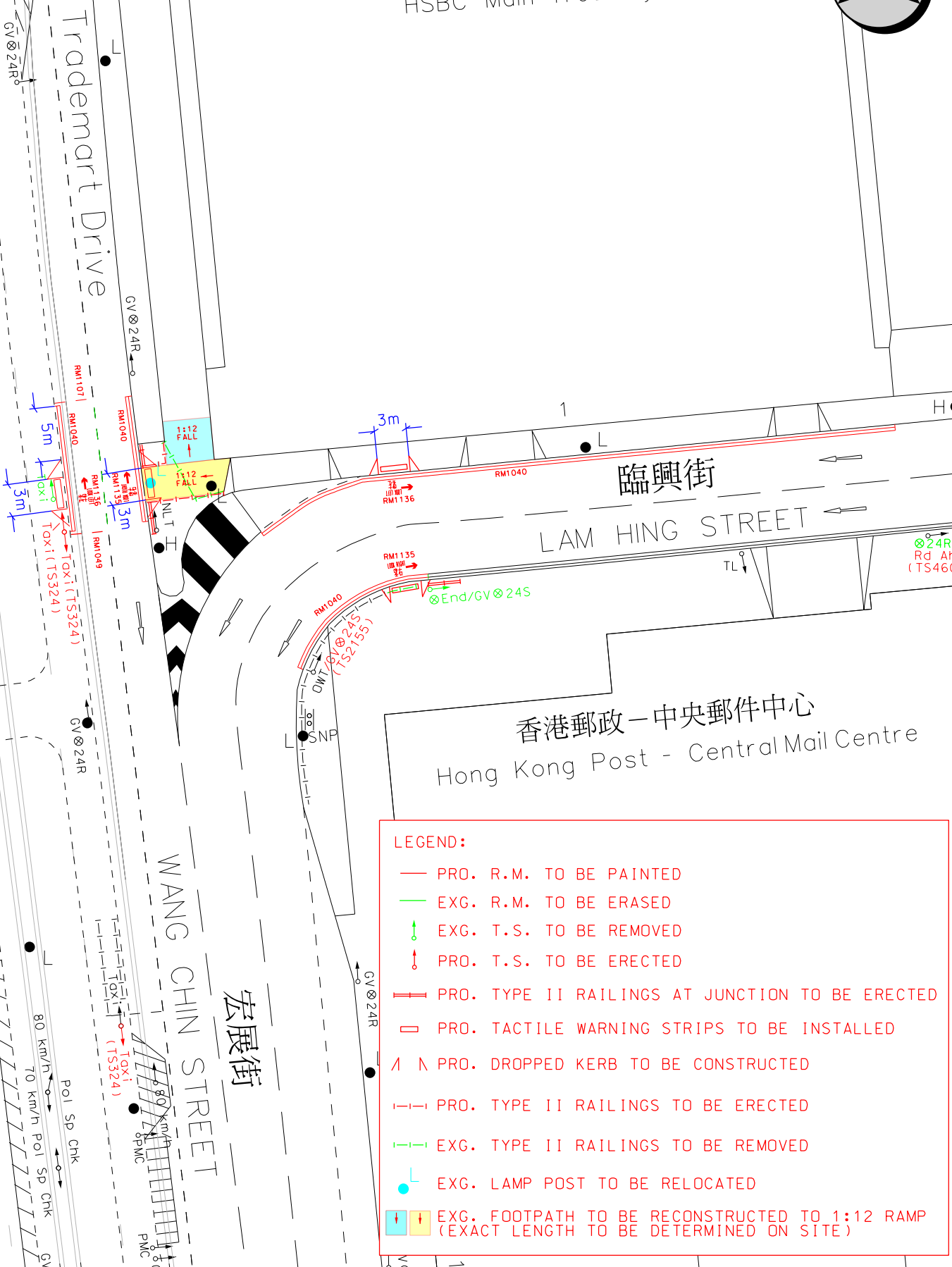
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LEGEND:

- PRO. R.M. TO BE PAINTED
- EXG. R.M. TO BE ERASED
- ↑ EXG. T.S. TO BE REMOVED
- ↑ PRO. T.S. TO BE ERECTED
- PRO. TYPE II RAILINGS AT JUNCTION TO BE ERECTED
- PRO. TACTILE WARNING STRIPS TO BE INSTALLED
- ∧ ∨ PRO. DROPPED KERB TO BE CONSTRUCTED
- PRO. TYPE II RAILINGS TO BE ERECTED
- EXG. TYPE II RAILINGS TO BE REMOVED
- EXG. LAMP POST TO BE RELOCATED
- ↑ ↓ EXG. FOOTPATH TO BE RECONSTRUCTED TO 1:12 RAMP (EXACT LENGTH TO BE DETERMINED ON SITE)

Location	LAM HING STREET NEAR WANG CHIN STREET	Survey Sheet No.	K11Q12C	Scale:	1 : 500 (A4)
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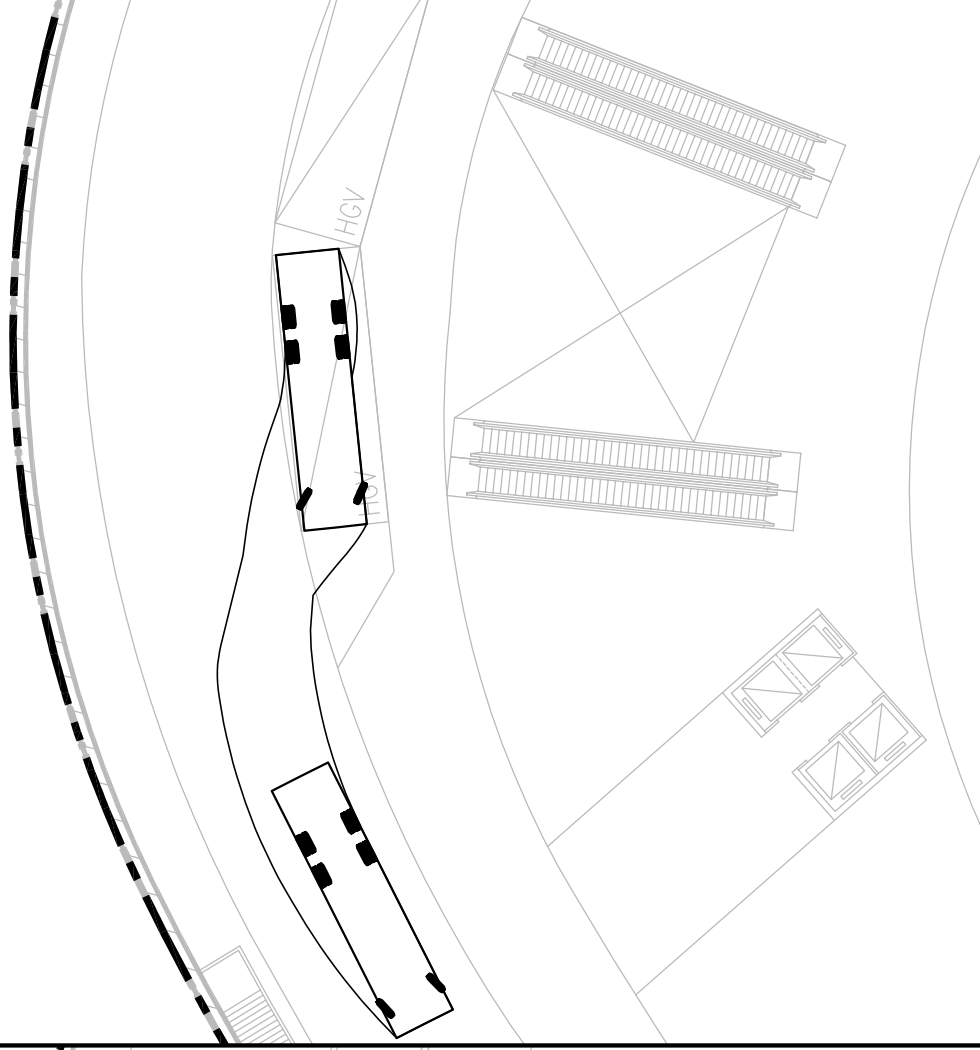
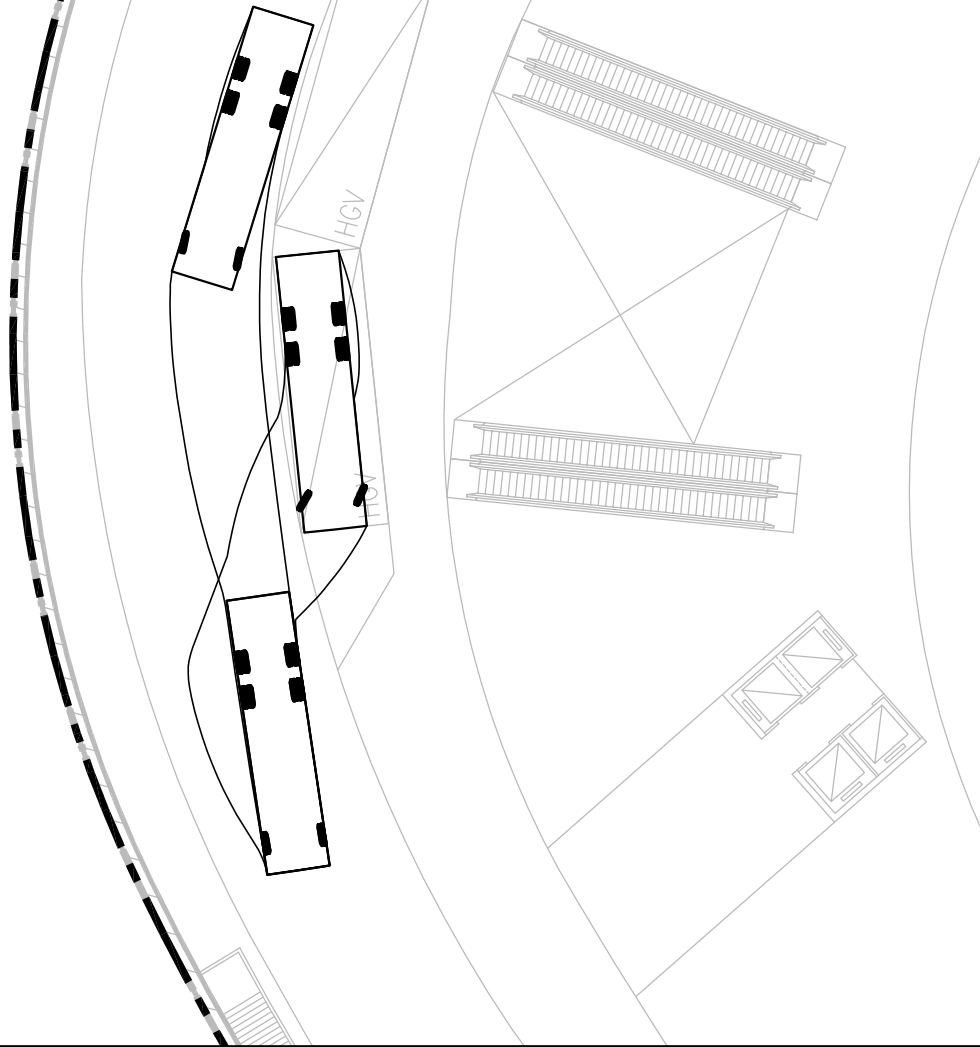
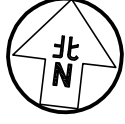
運輸署 Transport Department	TRAFFIC ENGINEERING (KLN.) DIV.	WRF NO. WR/HY/TE/KL/21/01131	Drawing No. K160620.01B	Date 22-06-2021
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The drawing shows the approximate locations of traffic aids for indication purpose only. The information shown on this drawing should be interpreted by professional engineers. Reproduction by permission only.

**Appendix D –
Swept Path Analysis**

ENTERING

LEAVING



Project Title

PROPOSED COMPOSITE REDEVELOPMENT AT
NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY

J7363

Figure No. **SP/1F/101 R1A**

Revision

Figure Title

**SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING
AND LEAVING THE HGV LOADING / UNLOADING BAY**

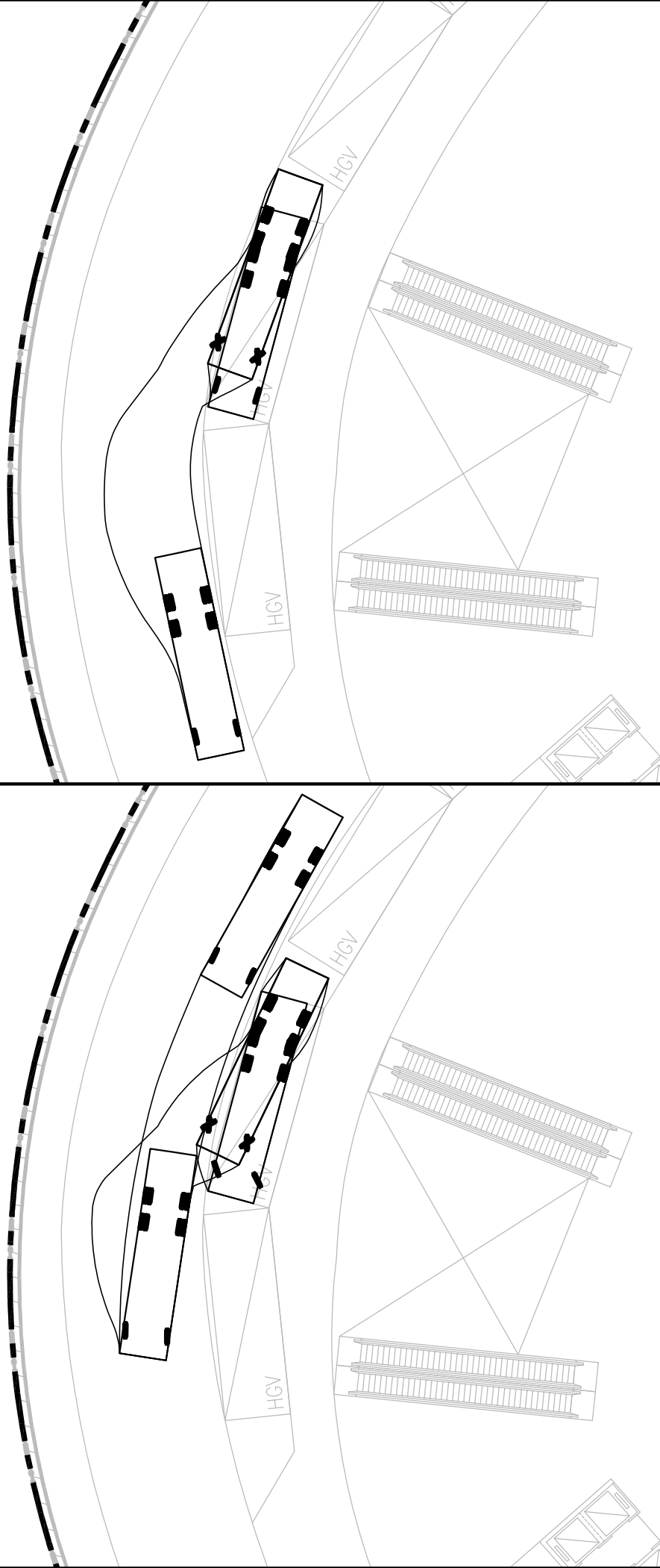
CKM Asia Limited
Traffic and Transportation Planning Consultants

21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

Designed by T H C	Drawn by C C L	Checked by K C
Scale in A4 1 : 300	Date 08 JAN 2025	

ENTERING

LEAVING



Project Title

PROPOSED COMPOSITE REDEVELOPMENT AT
NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY

J7363

Figure No.
SP/1F/102 R1A

Revision

Figure Title

SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING
AND LEAVING THE HGV LOADING / UNLOADING BAY

Designed by
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Drawn by
C C L

Checked by
K C

Scale in A4

1 : 300

Date

08 JAN 2025

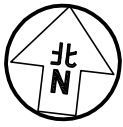
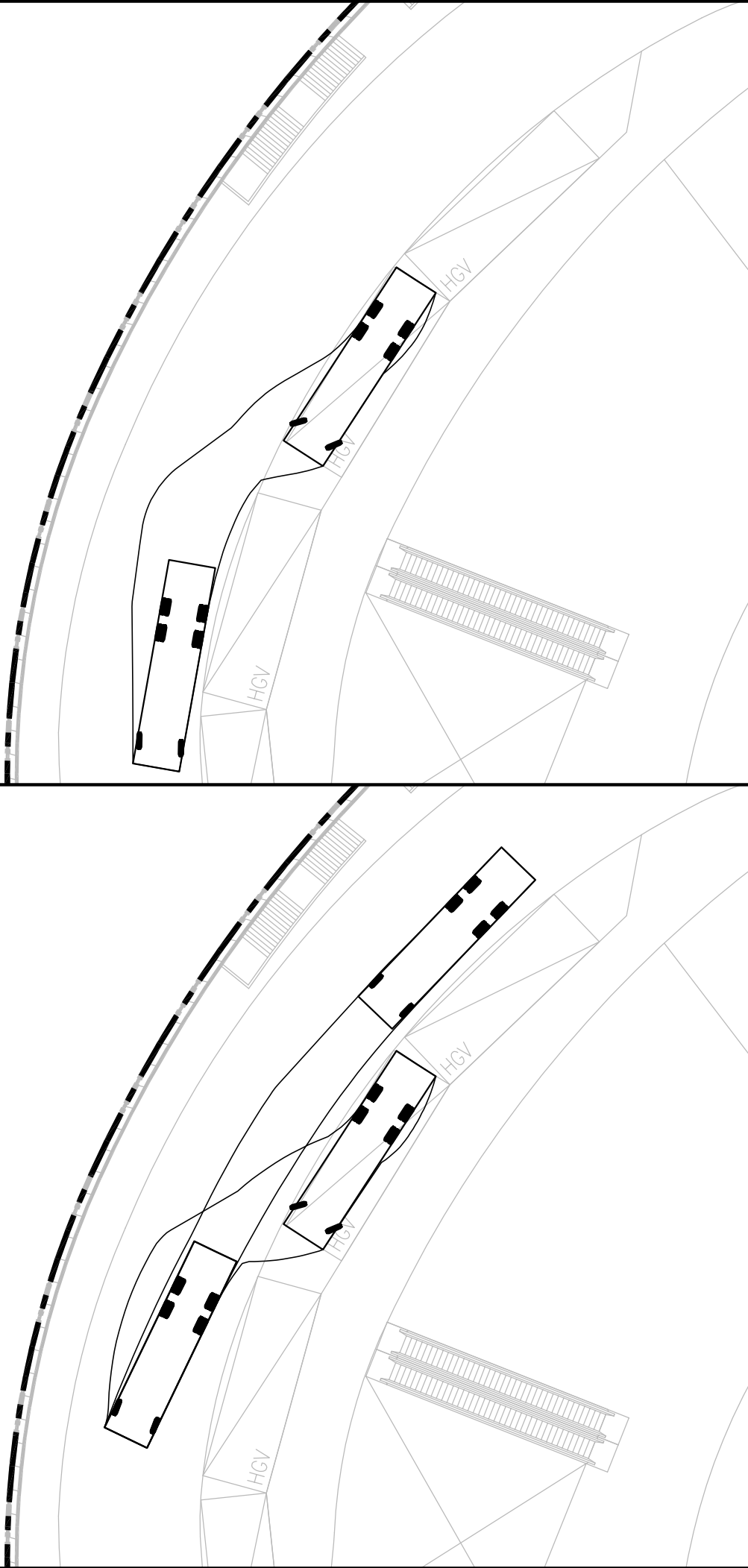
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ENTERING

LEAVING



Project Title

PROPOSED COMPOSITE REDEVELOPMENT AT
NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY

J7363

Figure No.
SP/1F/103 R1A

Revision

Figure Title

**SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING
AND LEAVING THE HGV LOADING / UNLOADING BAY**

Designed by

T H C

Drawn by

C C L

Checked by

K C

Date

08 JAN 2025

Scale in A4

1 : 300

CKM Asia Limited

Traffic and Transportation Planning Consultants

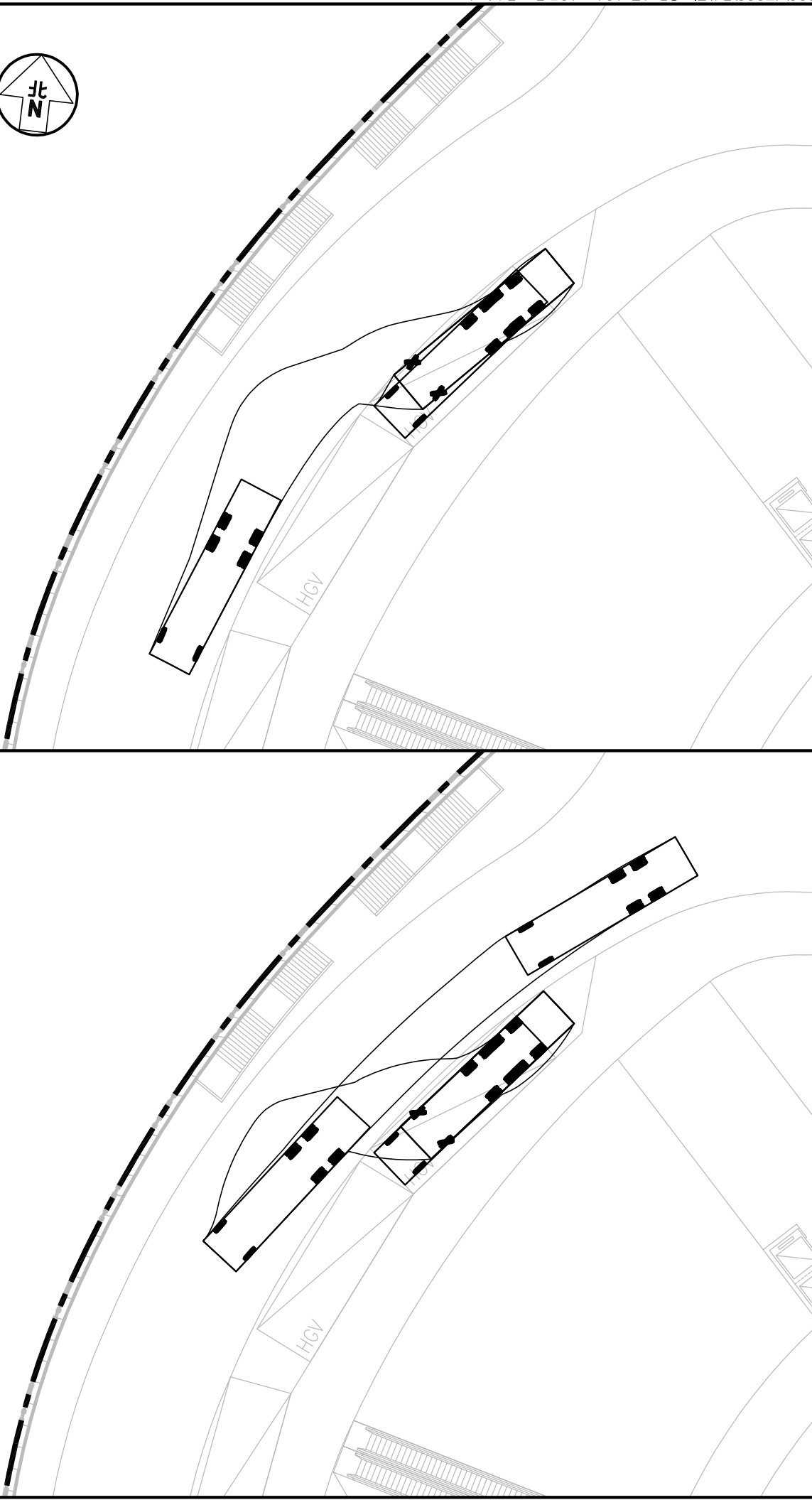
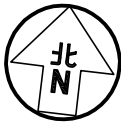
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong

Tel : (852) 2520 5990 Fax : (852) 2528 6343

Email : mail@ckmasia.com.hk

ENTERING

LEAVING



Project Title

PROPOSED COMPOSITE REDEVELOPMENT AT
NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY

J7363

Figure No.
SP/1F/104 R1A

Revision

Figure Title

SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING
AND LEAVING THE HGV LOADING / UNLOADING BAY

Designed by
T H C

Drawn by
C C L

Checked by
K C

Scale in A4

1 : 300

Date

08 JAN 2025

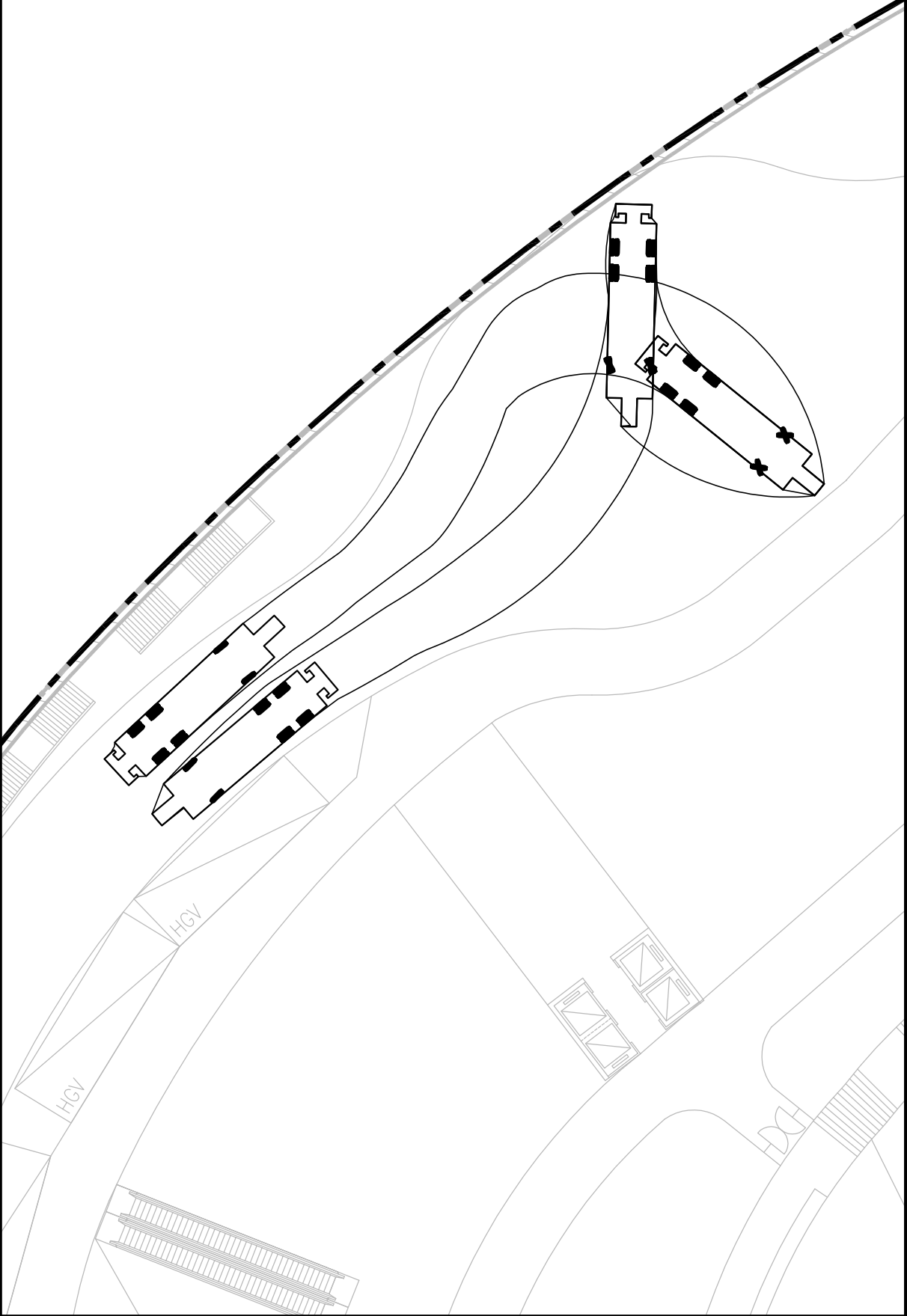
CKM Asia Limited

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PROPOSED COMPOSITE REDEVELOPMENT AT
NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY

J7363

Figure No. SP/1F/105 R1A

Revision

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Traffic and Transportation Planning Consultants

Figure Title

SWEPT PATH OF 12m FIRE APPLIANCE TURNING AROUND AT THE EVA

Designed by
T H C

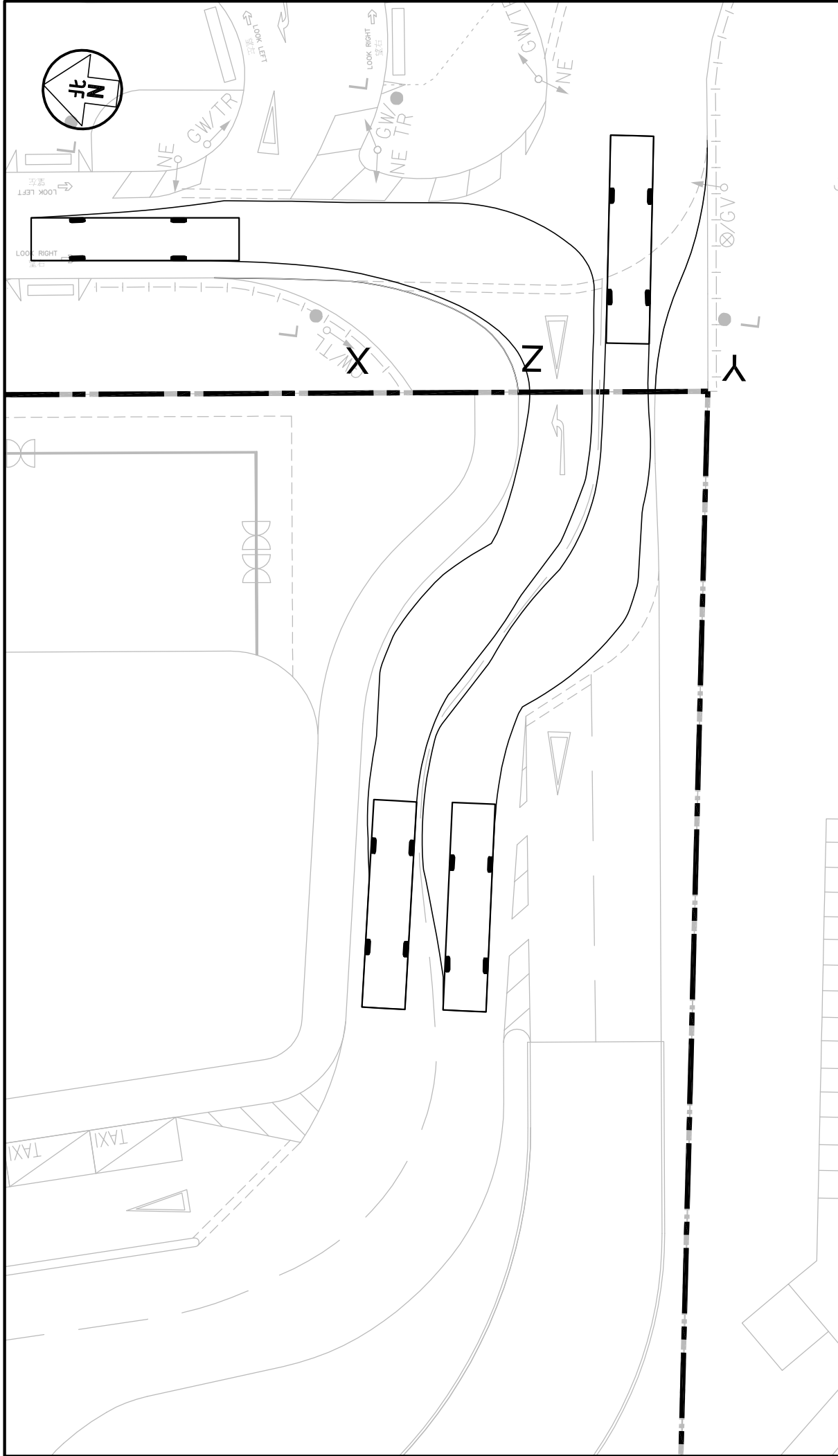
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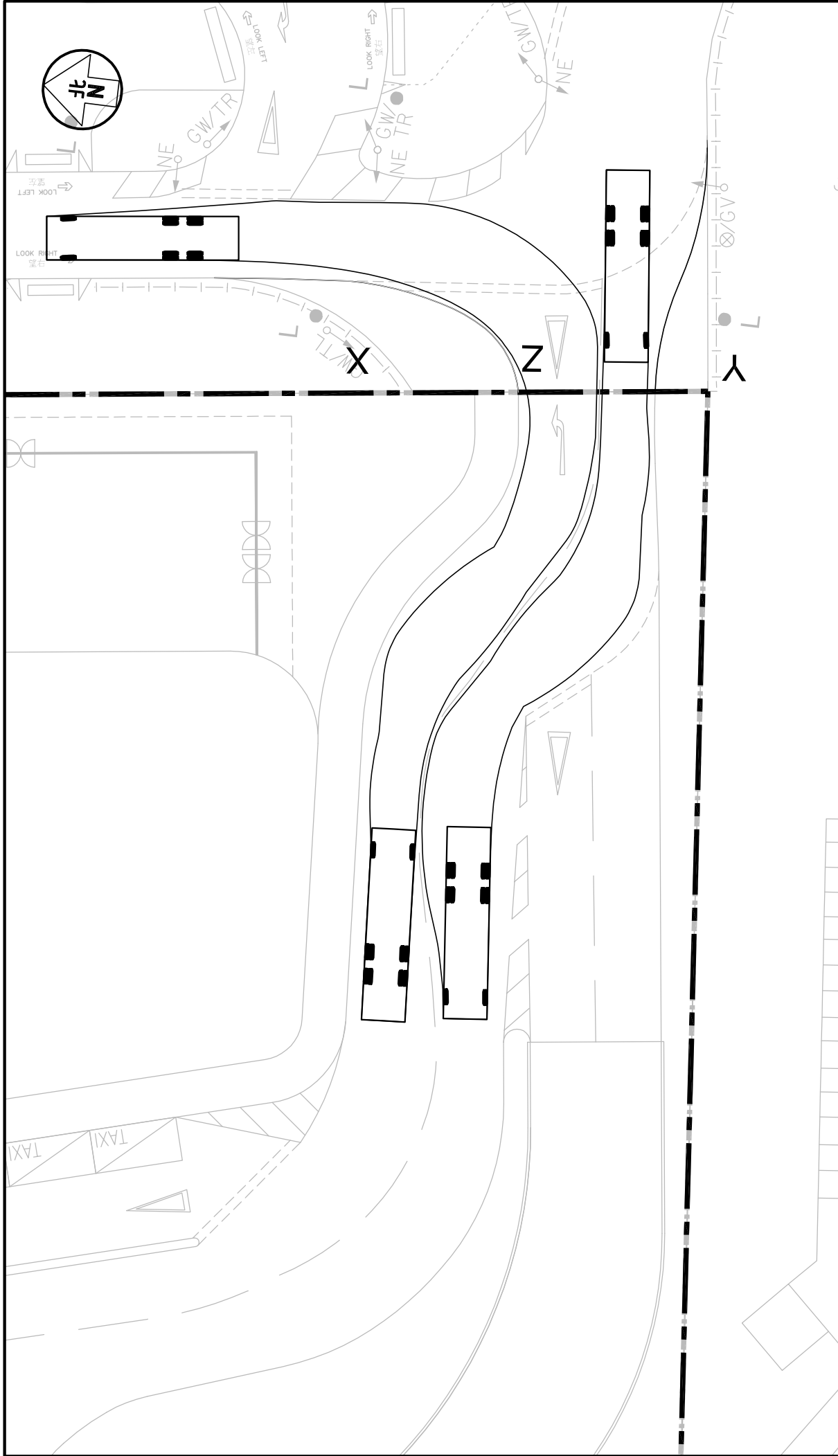
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08 JAN 2025

Scale in A4
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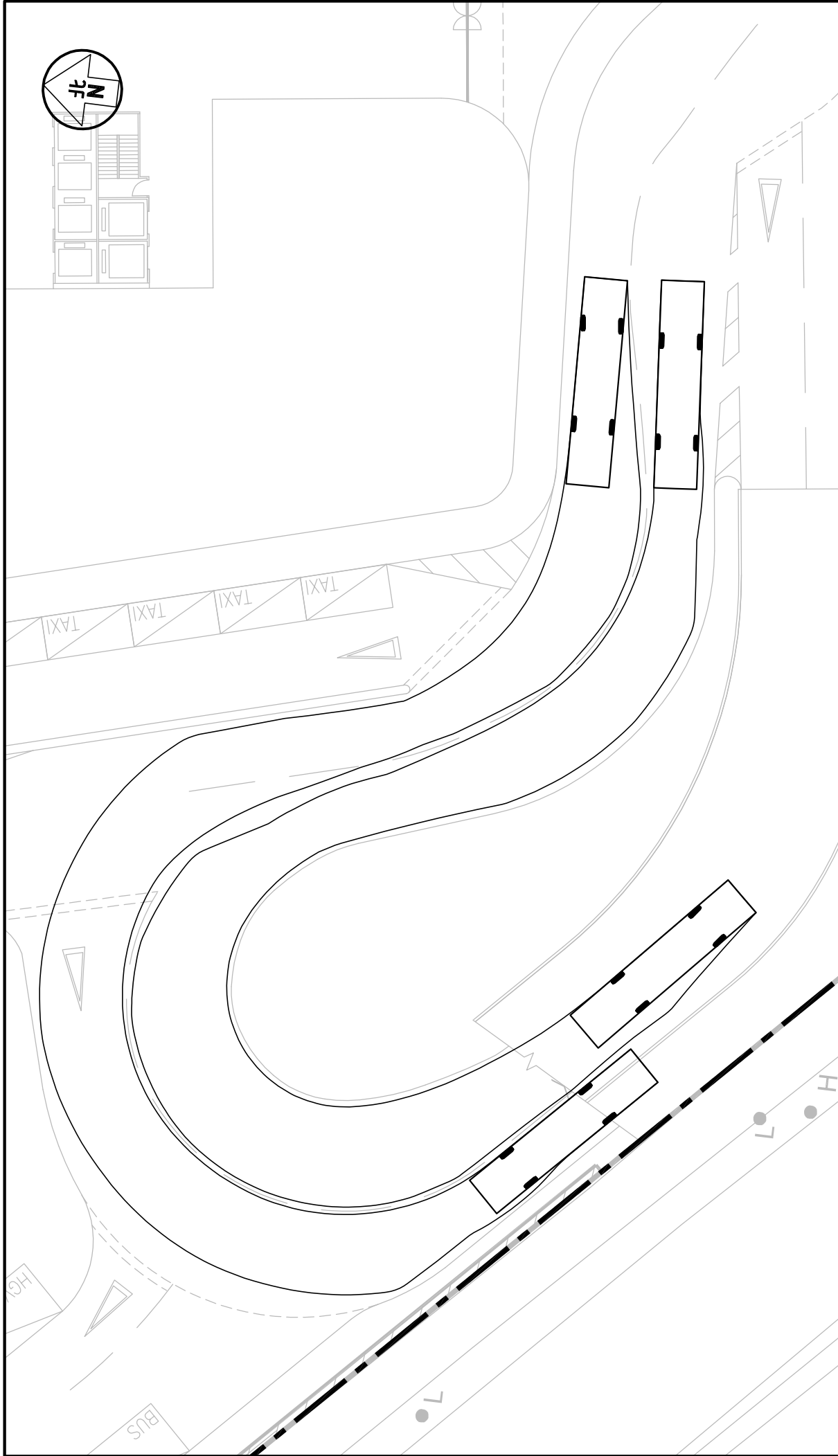
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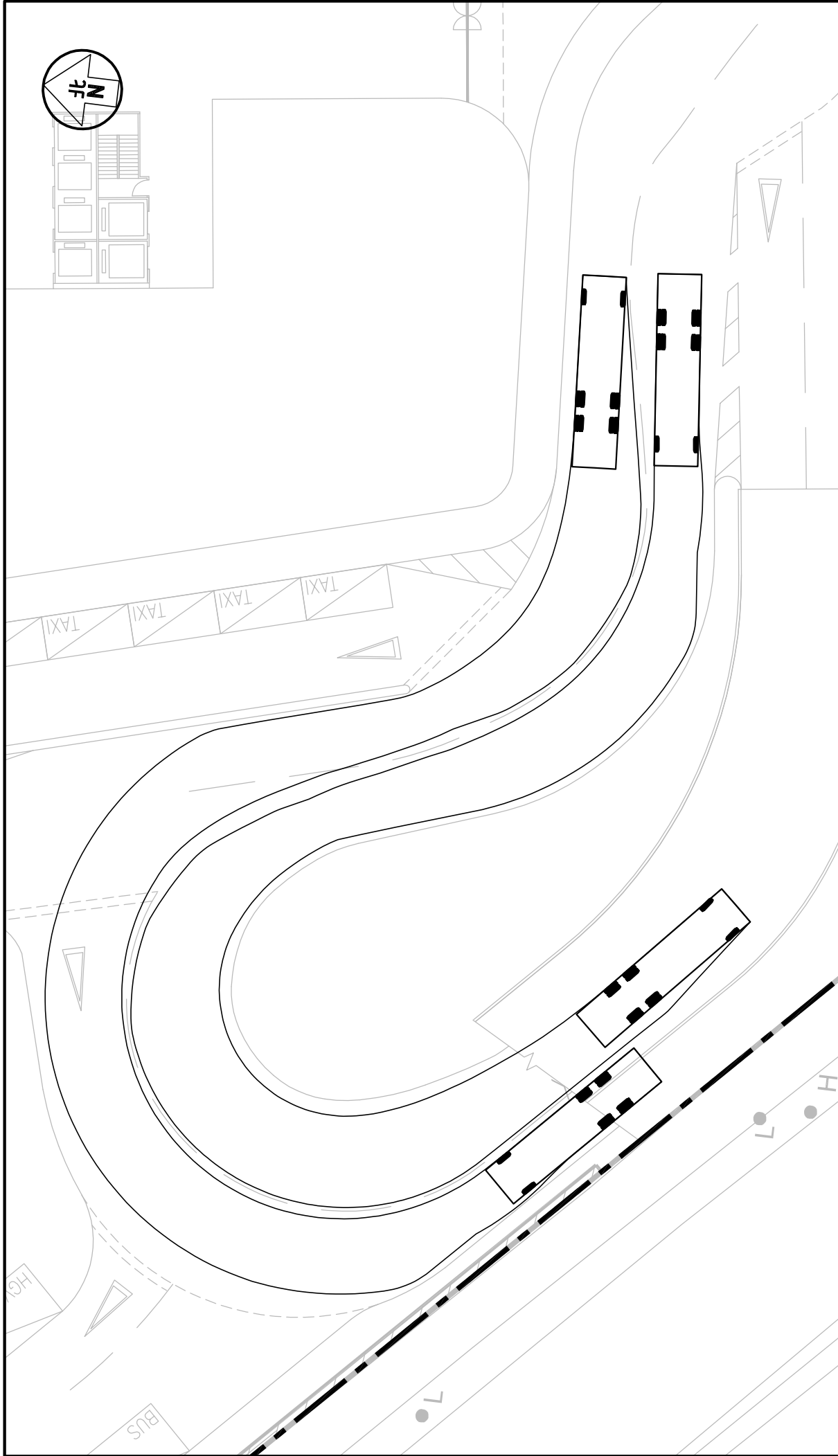
Project Title PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	Figure No. J7363	Revision SP/GF/101 R1A	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
Designed by T H C	Drawn by C C L	Checked by K C	Date 08 JAN 2025
Scale in A4 1 : 500			SWEPT PATHS OF 12m COACH ENTERING AND LEAVING THE SUBJECT SITE



Project Title PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	Figure No. J7363	Revision SP/GF/102 R1A	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
Designed by T H C	Drawn by C C L	Checked by K C	Scale in A4 1 : 300 Date 08 JAN 2025
Figure Title SWEPT PATHS OF 11m HEAVY GOODS VEHICLE ENTERING AND LEAVING THE SUBJECT SITE			

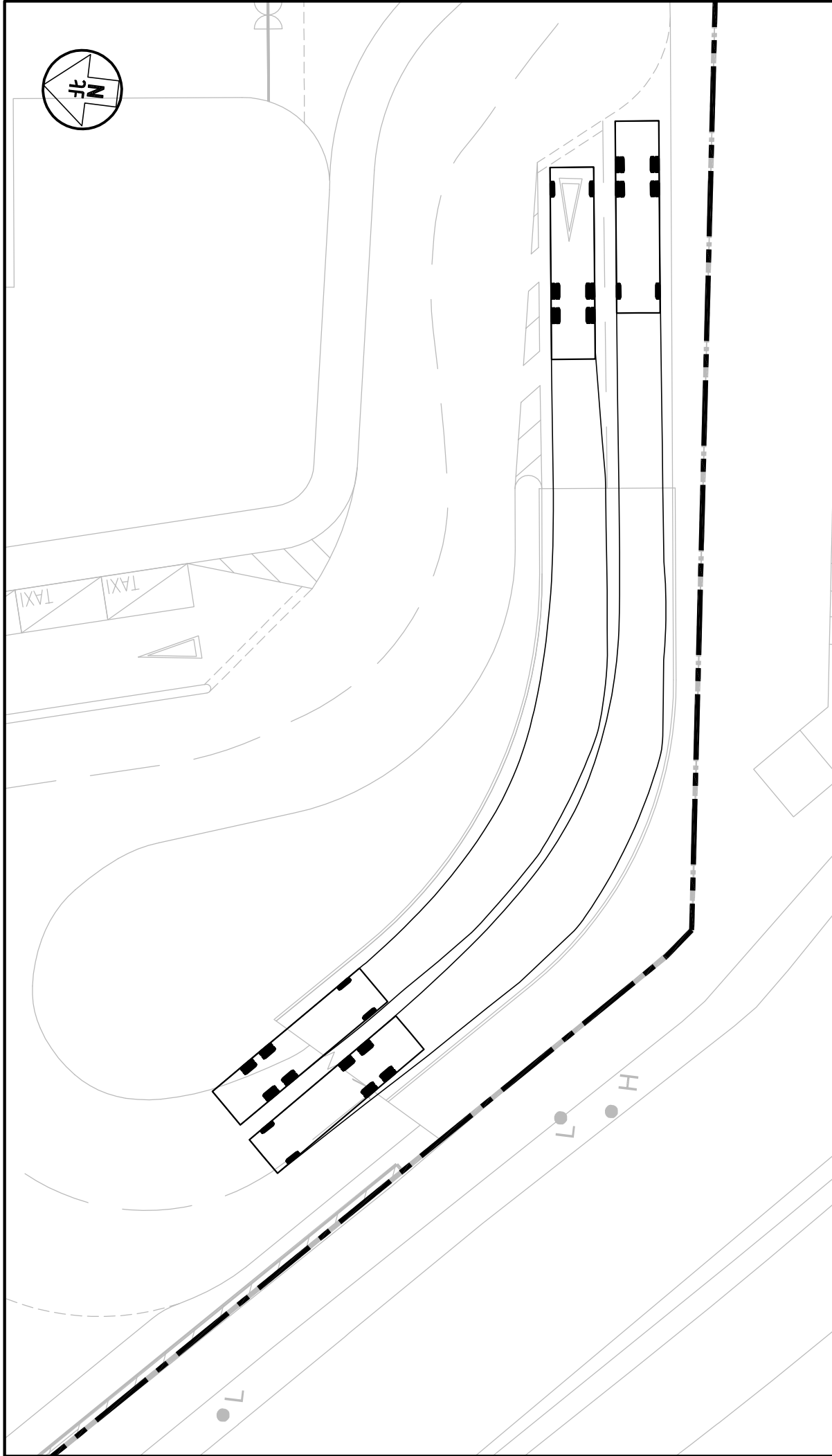


Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY		Revision SP/GF/103 R1A	CKM Asia Limited Traffic and Transportation Planning Consultants	
	J7363			21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk	
Figure Title	SWEPT PATHS OF 12m COACH ENTERING AND LEAVING G/F		Designed by T H C	Drawn by C C L	Checked by K C
			Scale in A4 1 : 300	Date 08 JAN 2025	

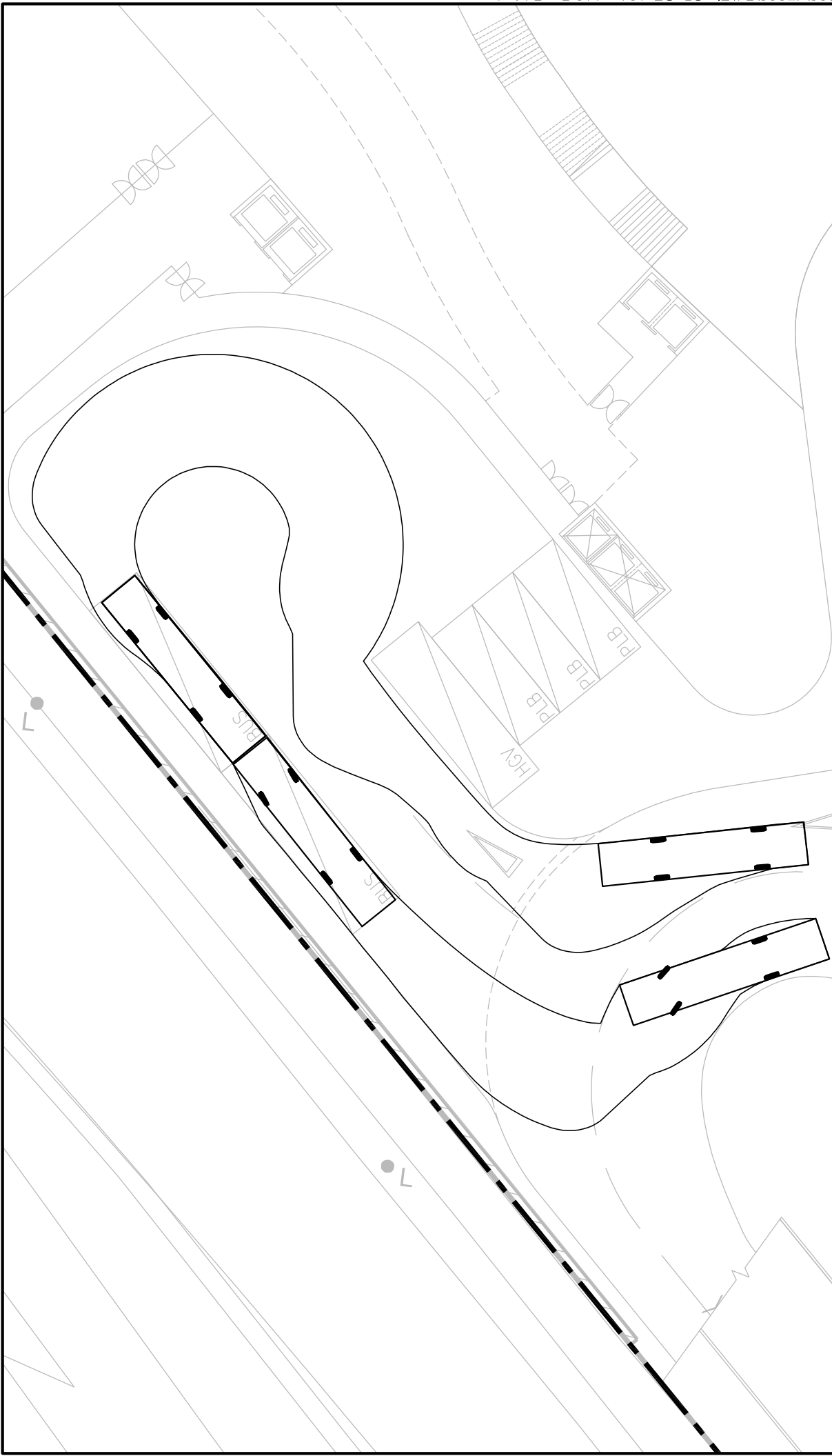


Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY		Figure No.	Revision	
	J7363		SP/GF/104 R1A	R1A	
Figure Title	SWEPT PATHS OF 11m HEAVY GOODS VEHICLE ENTERING AND LEAVING G/F		Designed by	Drawn by	Checked by
			T H C	C C L	K C
			Scale in A4	Date	
			1 : 300	08 JAN 2025	

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Email : mail@ckmasia.com.hk

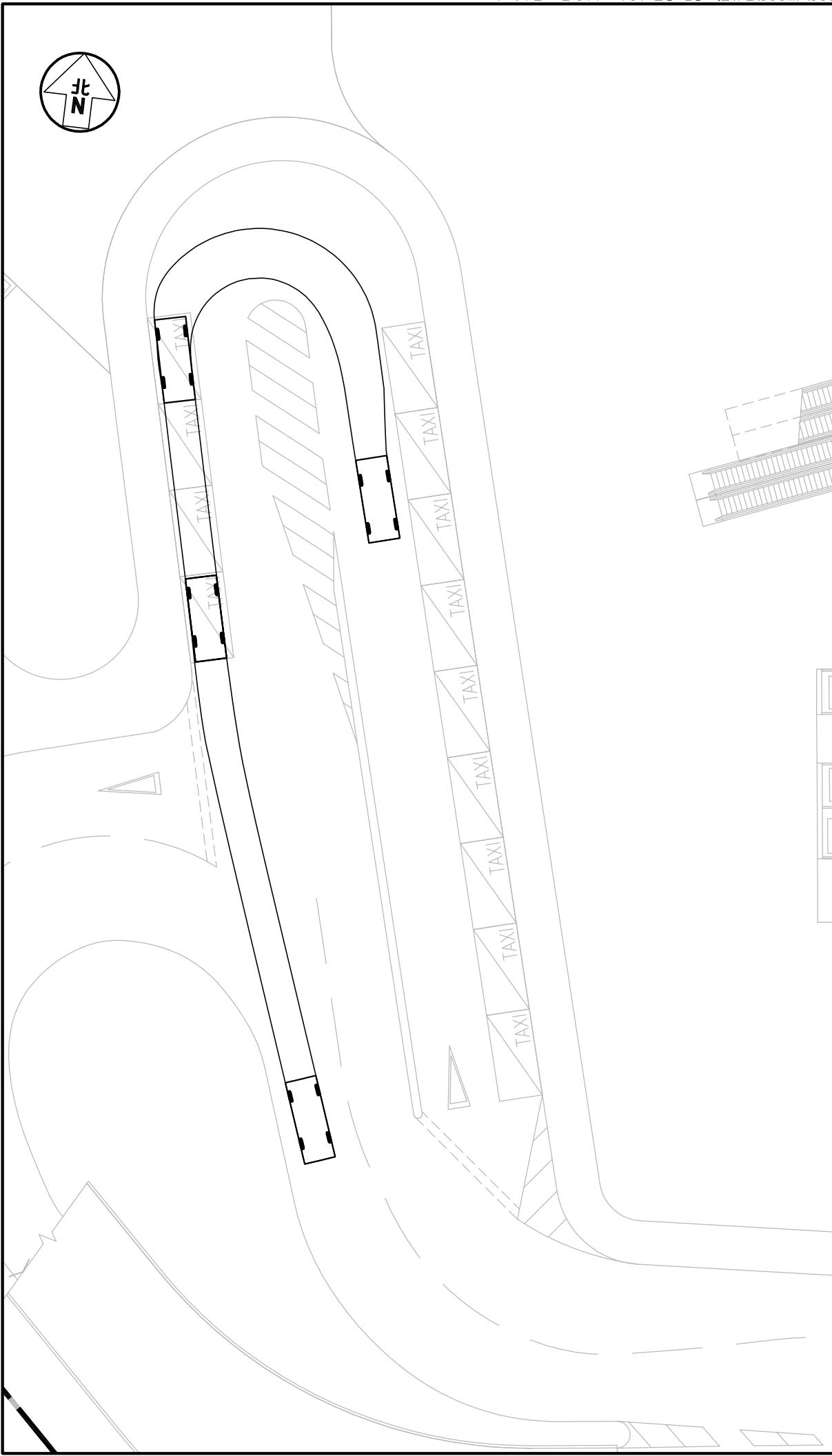
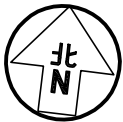


Project Title NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	Figure No. SP/GF/105 R1A		Revision R1A	
	Designed by T H C	Drawn by C C L	Checked by K C	K C
Figure Title SWEPT PATHS OF 11m HEAVY GOODS VEHICLE ENTERING AND LEAVING G/F	Scale in A4 1 : 300		Date 08 JAN 2025	
	<p>CKM Asia Limited 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</p>			

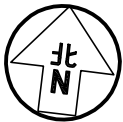


Project Title	PROPOSED COMPOSITE REDEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY		Figure No.	SP/GF/106	Revision	R1A
	SWEPT PATHS OF 12m COACH ENTERING AND LEAVING THE COACH LAY-BY		J7363	Designed by	T H C	Checked by
Figure Title			Scale in A4	1 : 300	Date	08 JAN 2025

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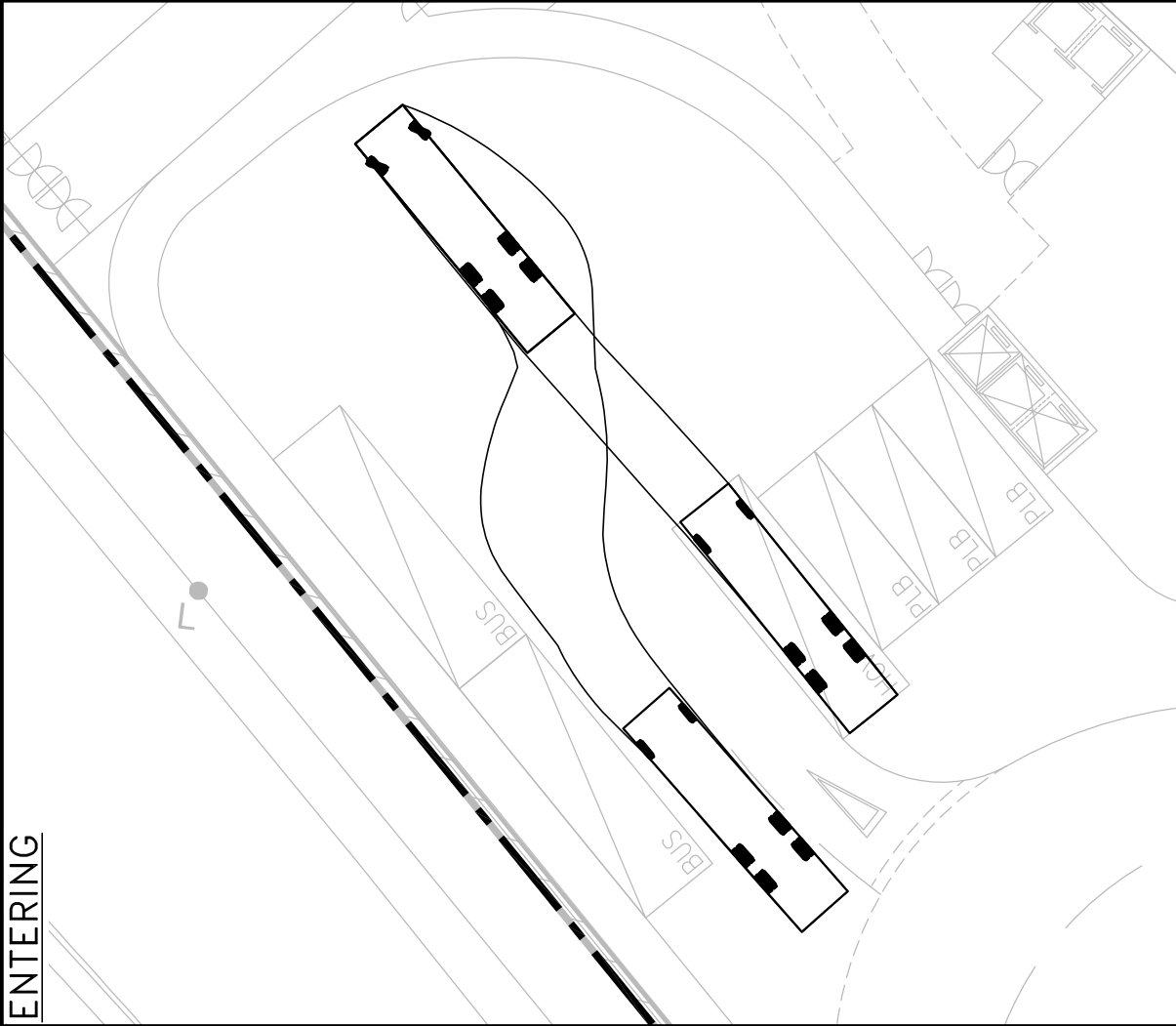


Project Title NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	Figure No. J7363	Revision SP/GF/107 R1A	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk	
	Designed by T H C		Drawn by C C L	Checked by K C
Figure Title SWEPT PATHS OF 5m TAXI / PRIVATE CAR ENTERING AND LEAVING THE TAXI / PRIVATE CAR LAY-BY	Scale in A4 1 : 300		Date 08 JAN 2025	

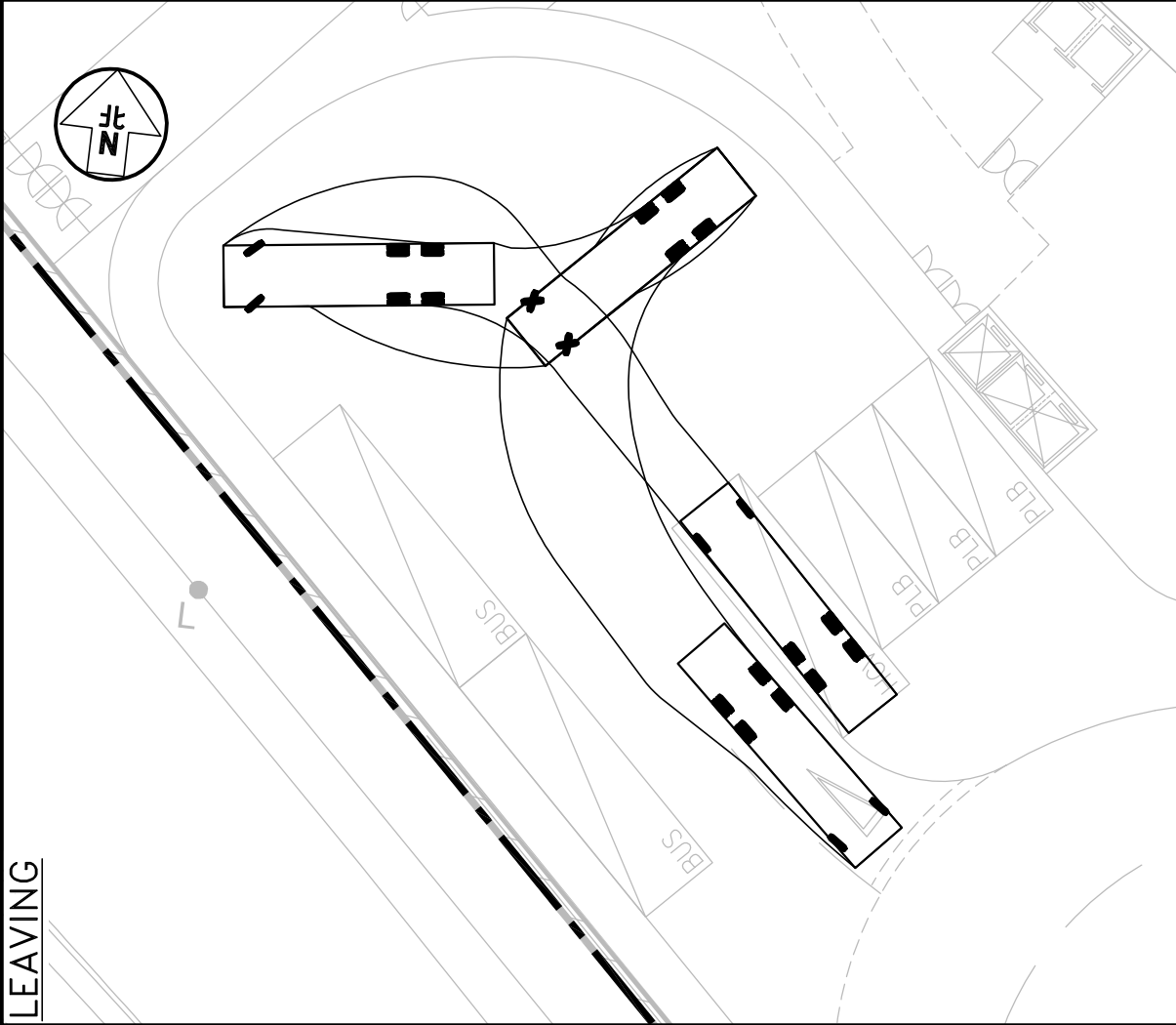


Project Title NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY	Figure No. J7363	Revision R1A	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk	
	Swept Paths of 5m Taxi / Private Car Entering and Leaving the Taxi / Private Car Lay-by		Designed by T H C	Drawn by C C L
Figure Title	Scale in A4 1 : 300		Date 08 JAN 2025	

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Project Title

PROPOSED COMPOSITE REDEVELOPMENT AT
NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY

J7363

Figure No. **SP/GF/109 R1A**

Revision

Figure Title

**SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING
AND LEAVING THE HGV LOADING / UNLOADING BAY**

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Date

08 JAN 2025

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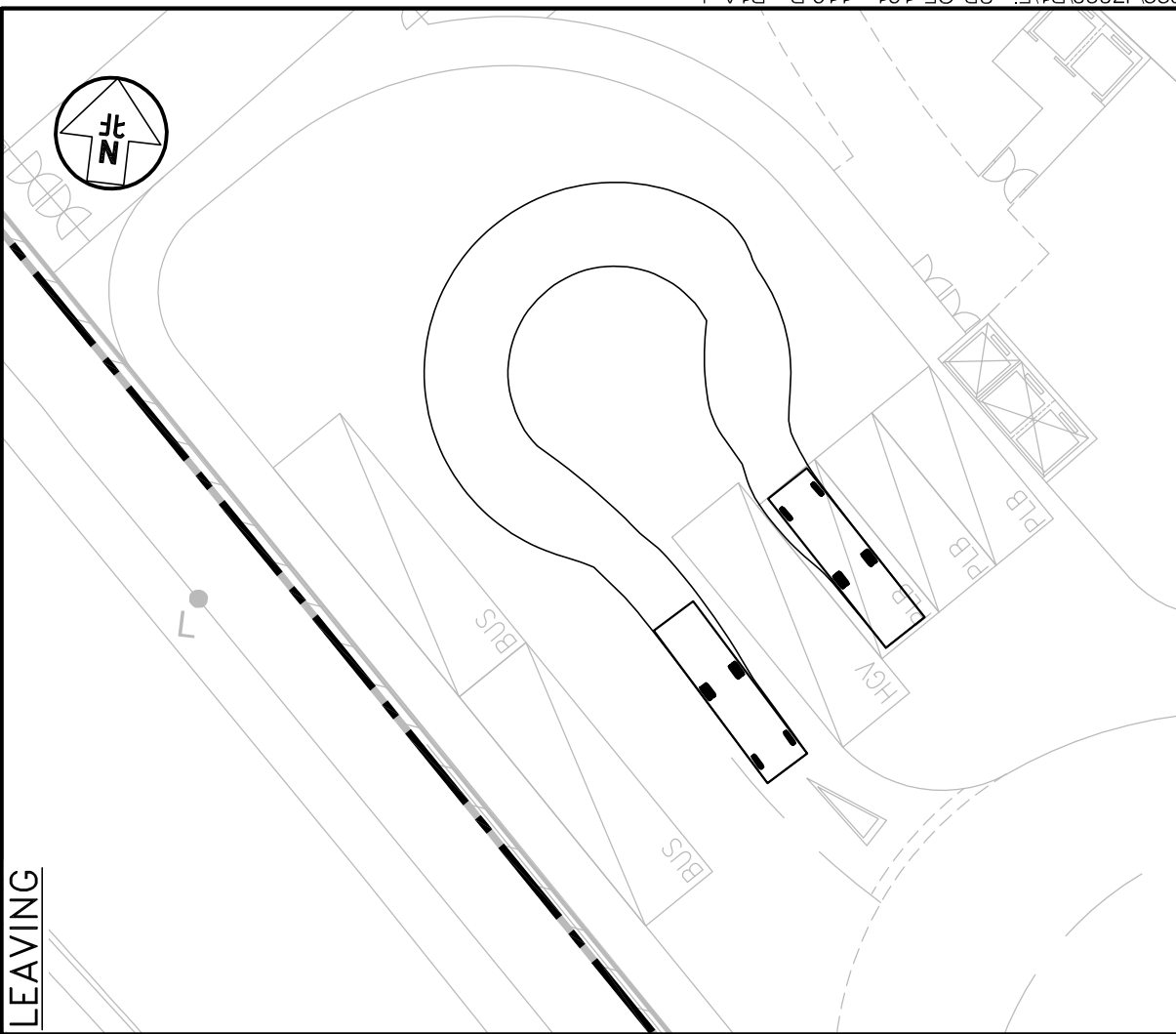
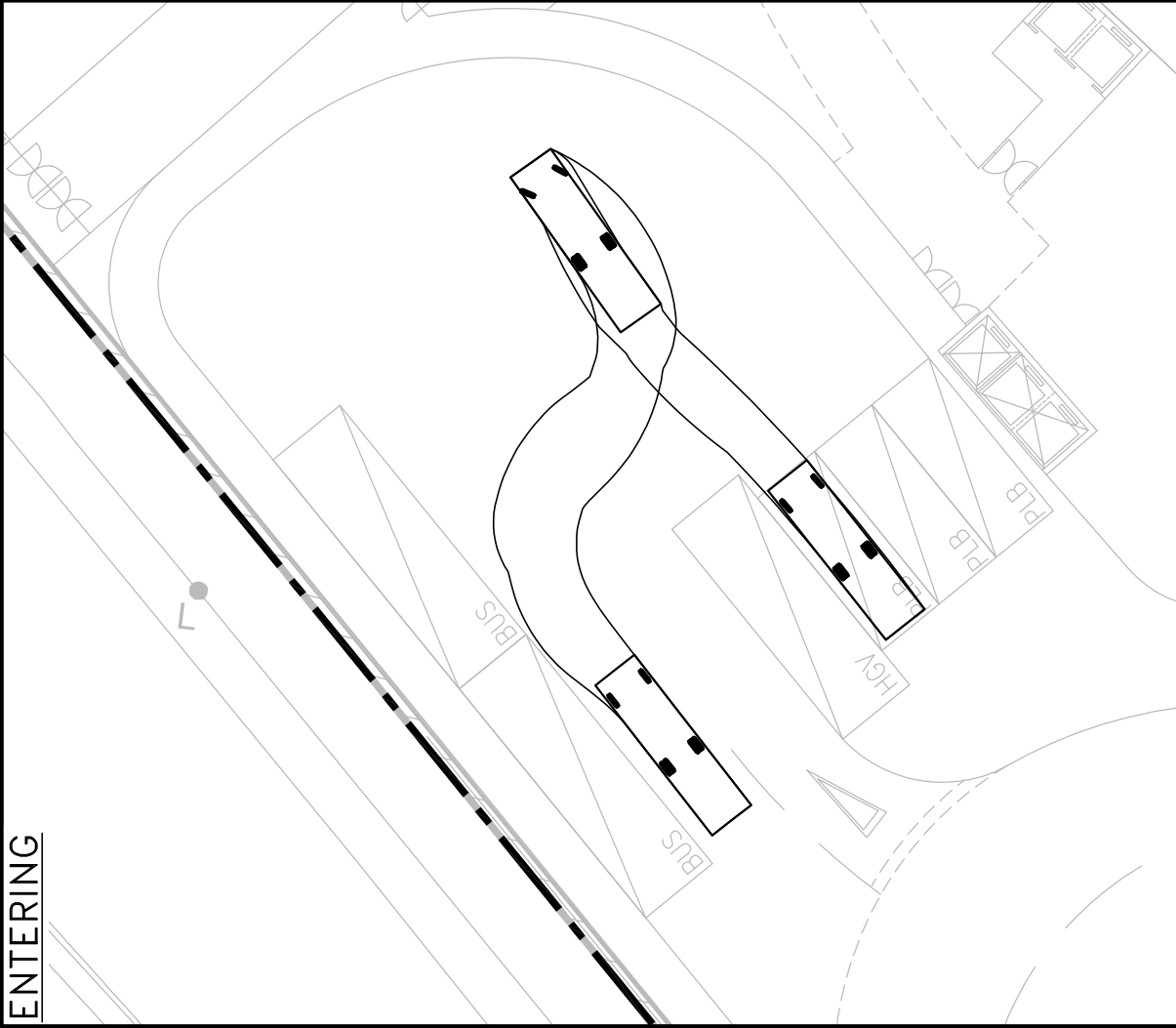
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PROPOSED COMPOSITE REDEVELOPMENT AT
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J7363

Figure No.
SP/GF/110 R1A

Revision

Figure Title

SWEPT PATH OF LIGHT BUS ENTERING
AND LEAVING THE PRIVATE LIGHT BUS PARKING SPACE

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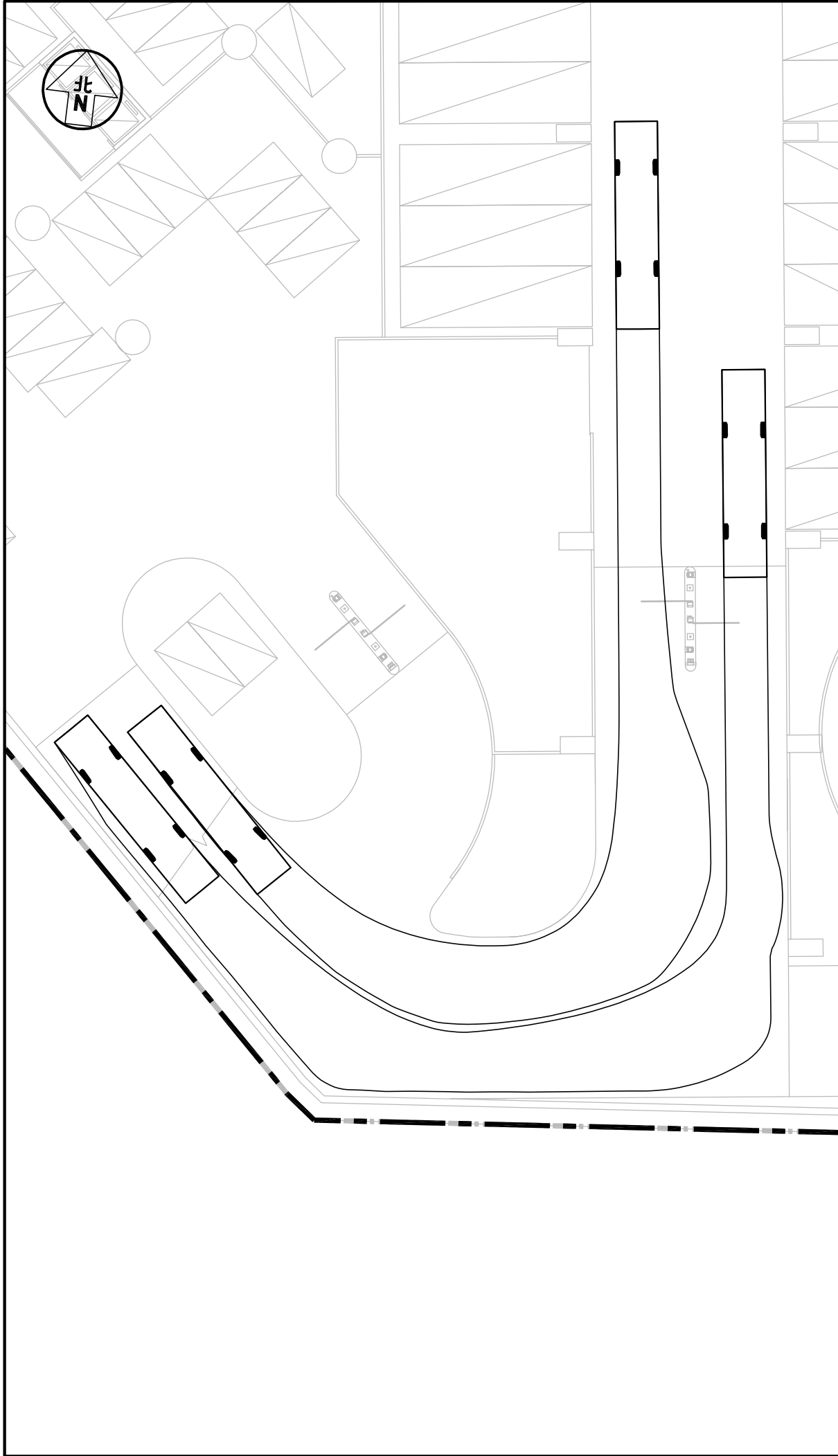
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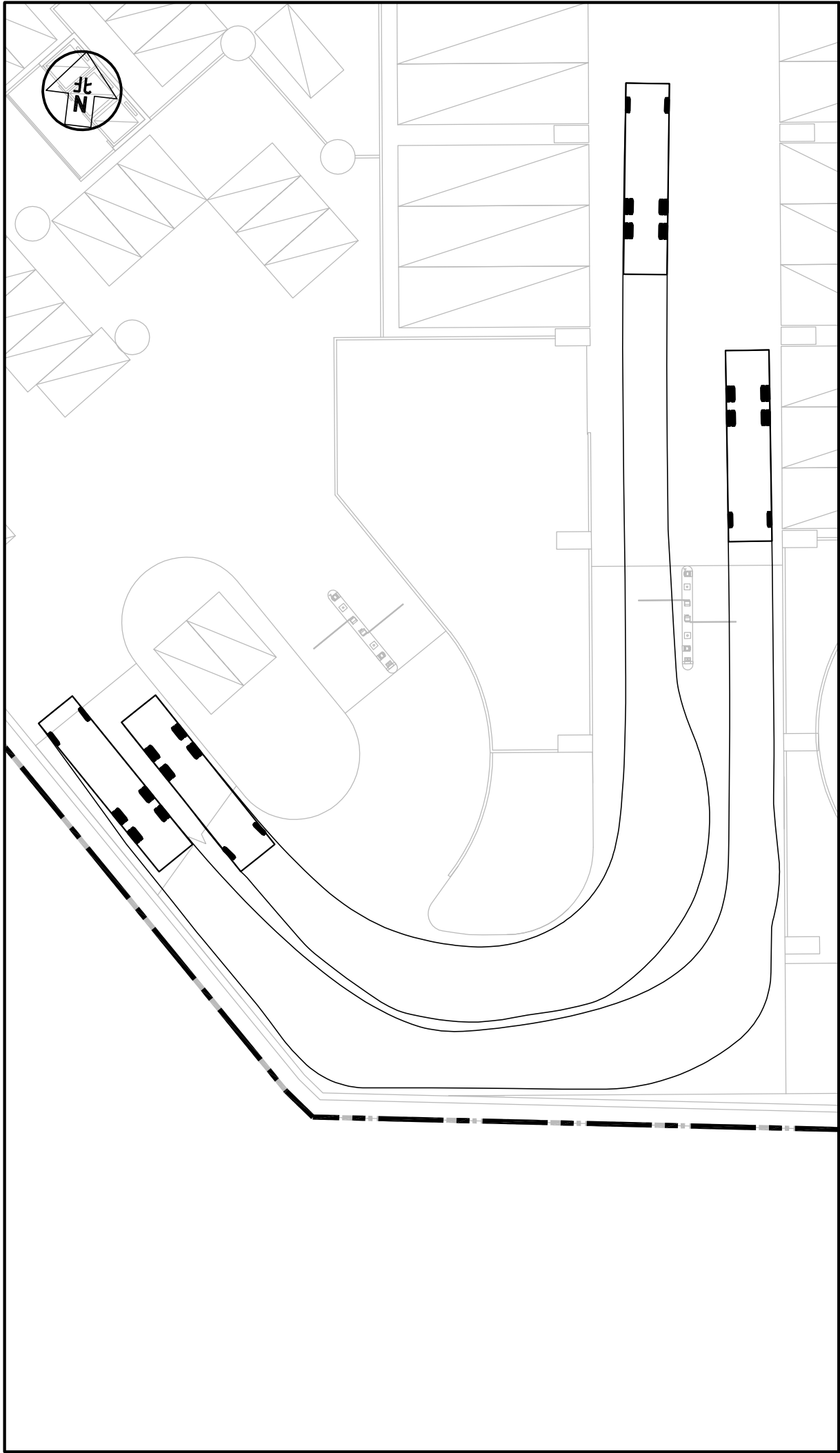
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	J7363		Designed by	T H C		Drawn by	C C L	
Figure Title	SWEPT PATHS OF 12m COACH ENTERING AND LEAVING B1/F		Checked by	K C		Date	08 JAN 2025	
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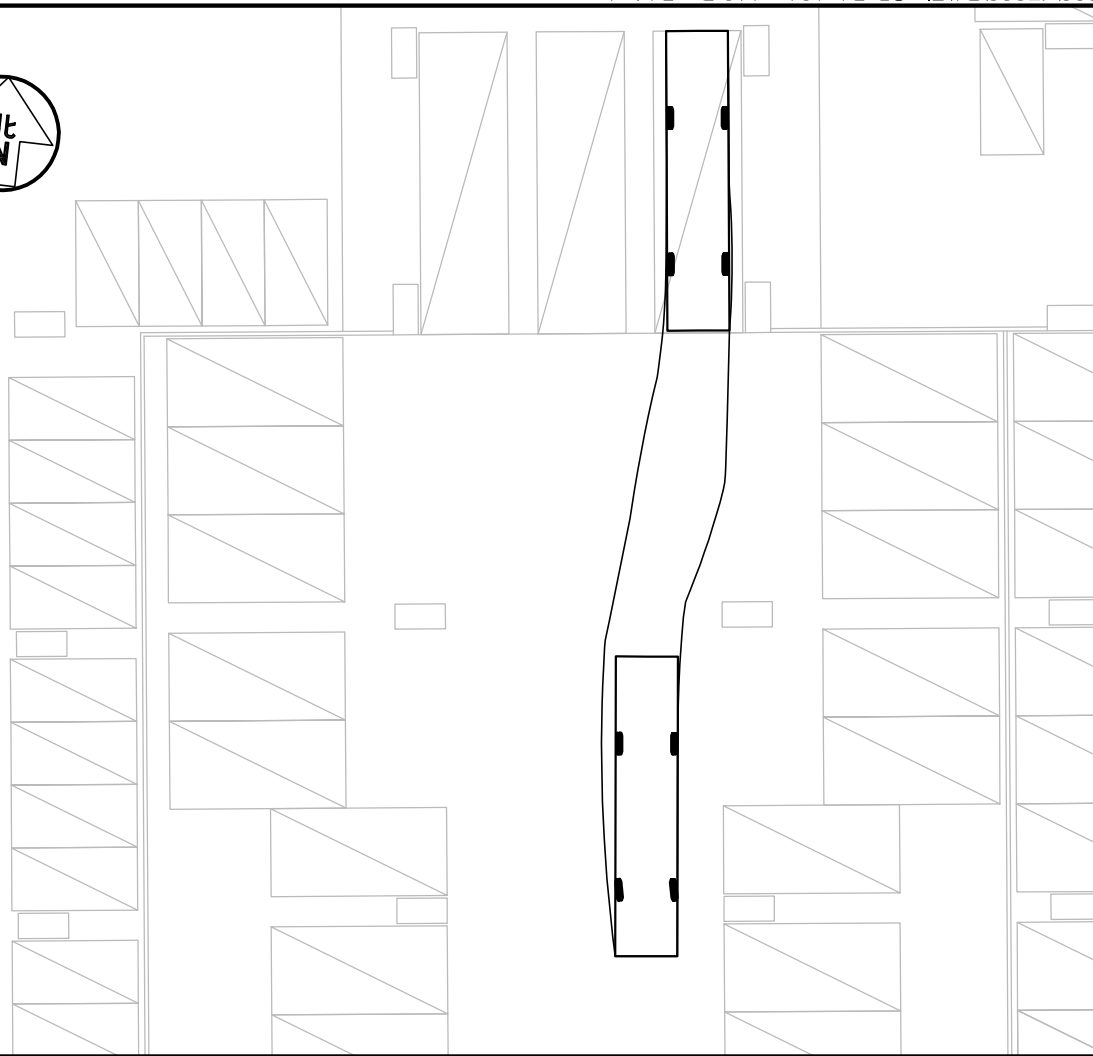
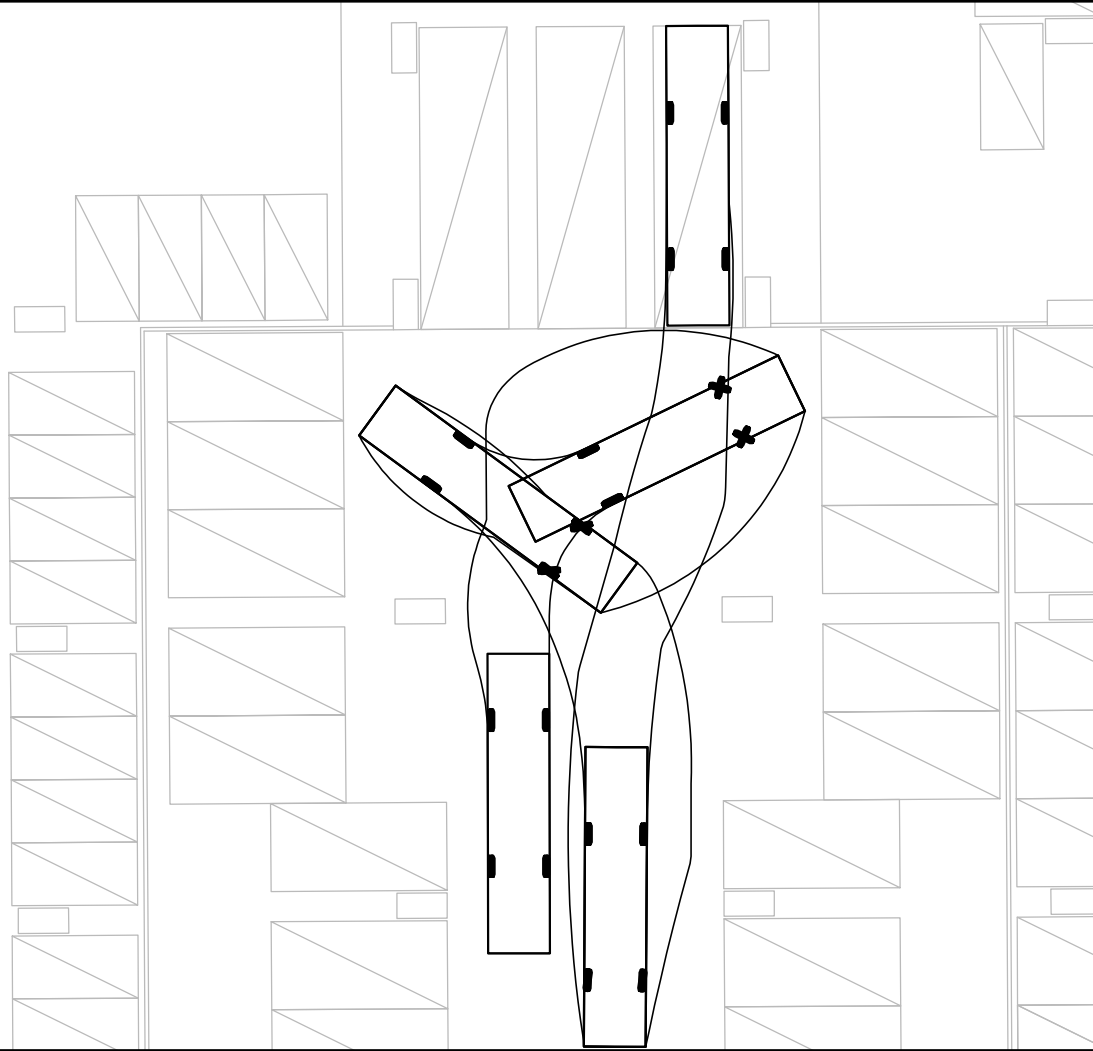


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	Figure Title		Designed by	T H C		Drawn by	C C L	
SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING AND LEAVING B1/F		Scale in A4		1 : 400		Checked by	K C	
						Date	08 JAN 2025	
						CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk		

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PROPOSED COMPOSITE REDEVELOPMENT AT
NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY

J7363

Figure No.
SP/B1/103 R1A

Revision

Figure Title

SWEPT PATHS OF 12m COACH ENTERING
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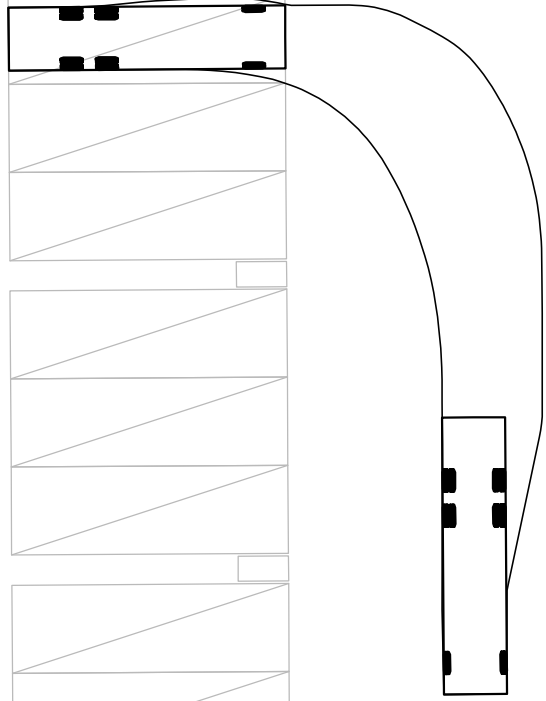
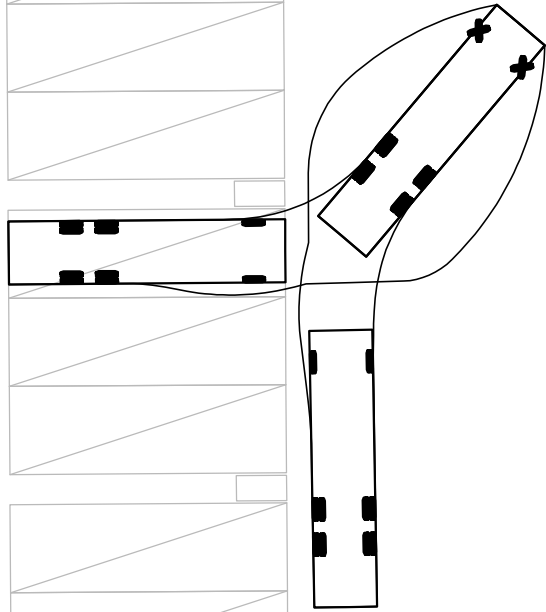
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Project Title

PROPOSED COMPOSITE REDEVELOPMENT AT
NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY

J7363

Figure No.
SP/B1/104 R1A

Revision

Figure Title

SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING
AND LEAVING THE HGV LOADING / UNLOADING BAY

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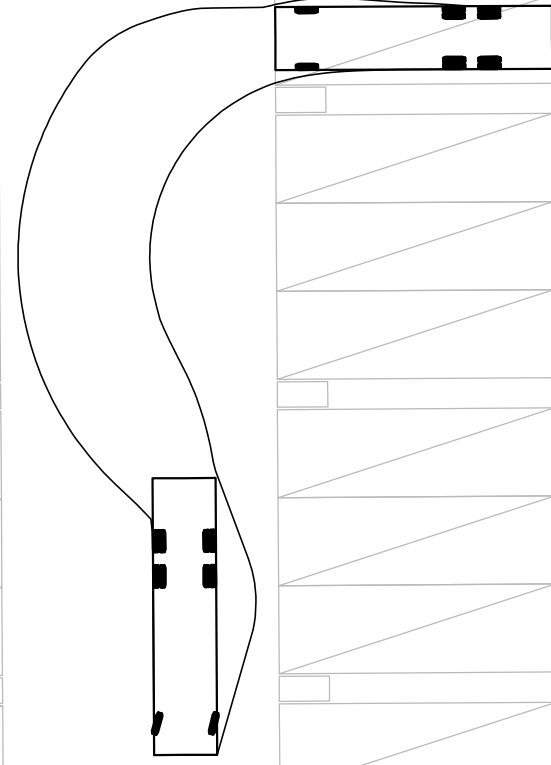
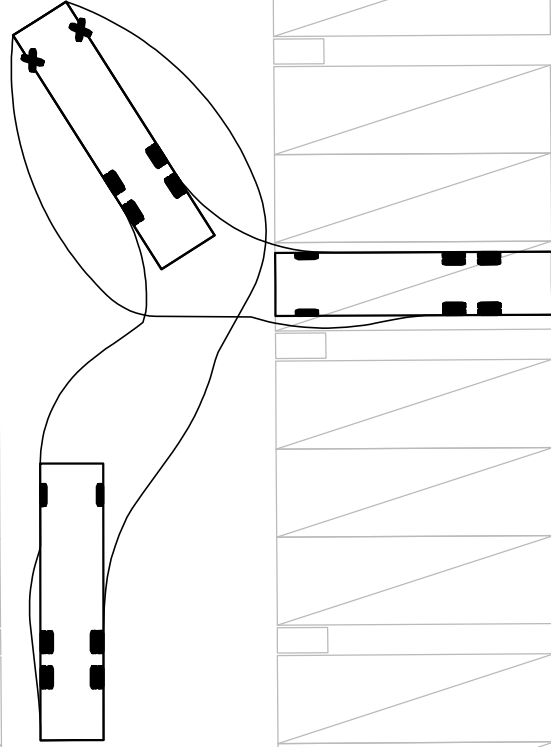
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J7363

Figure No.
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Revision

Figure Title

SWEPT PATH OF 11m HEAVY GOODS VEHICLE ENTERING
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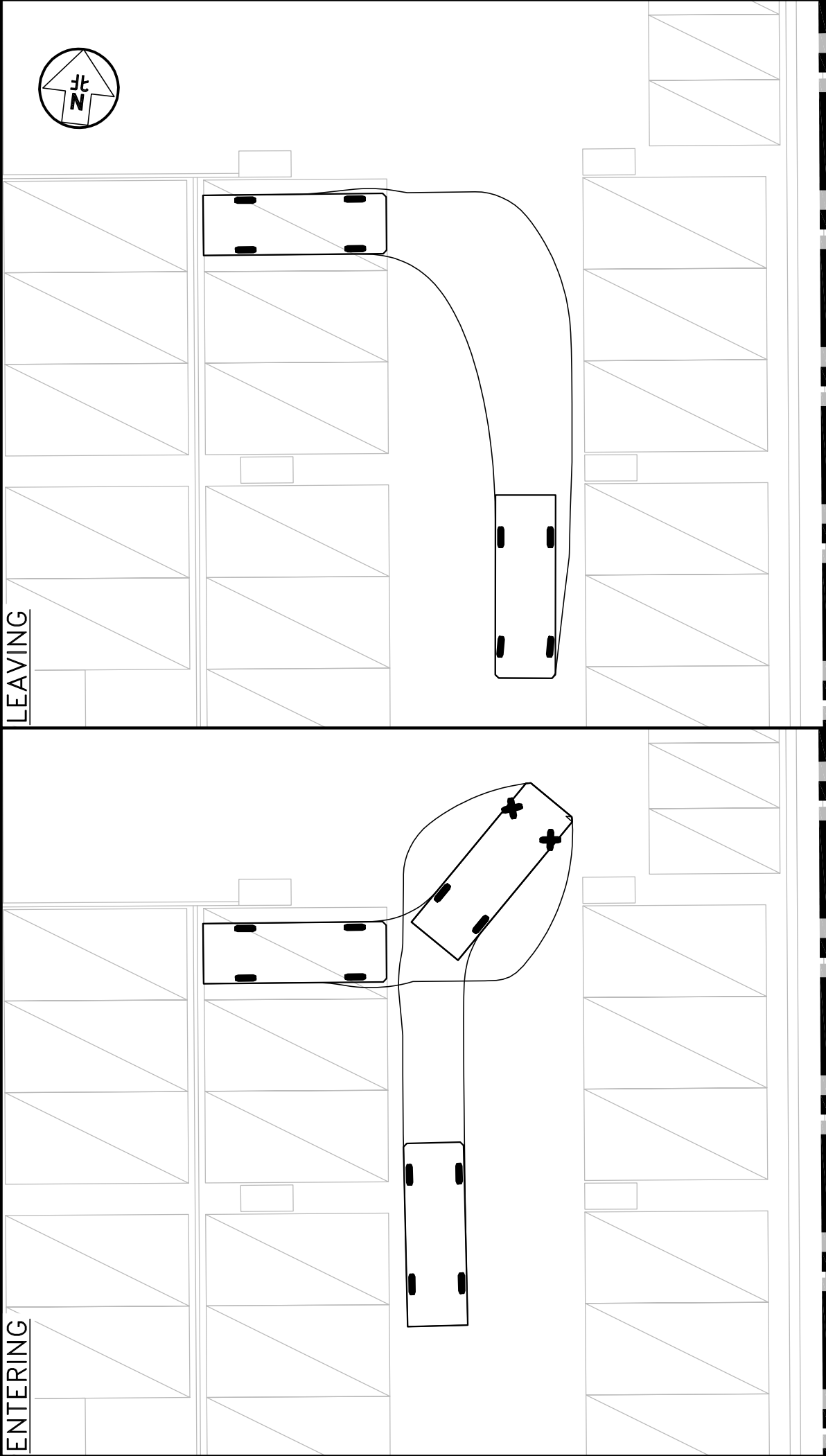
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Figure No. SP/B1/106 R1A

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Figure Title

SWEPT PATH OF 7m LIGHT GOODS VEHICLE ENTERING
AND LEAVING THE LGV LOADING / UNLOADING BAY

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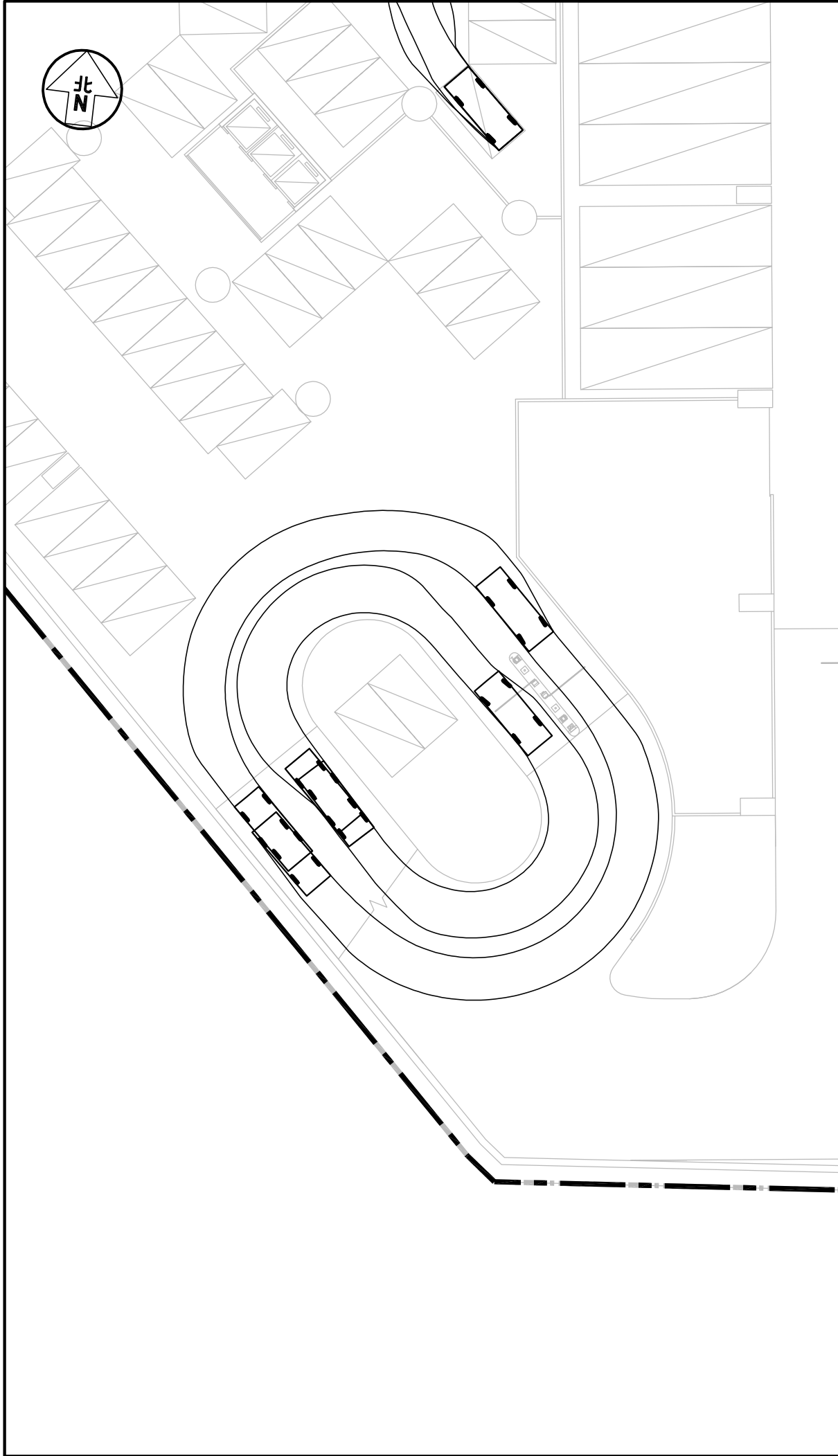
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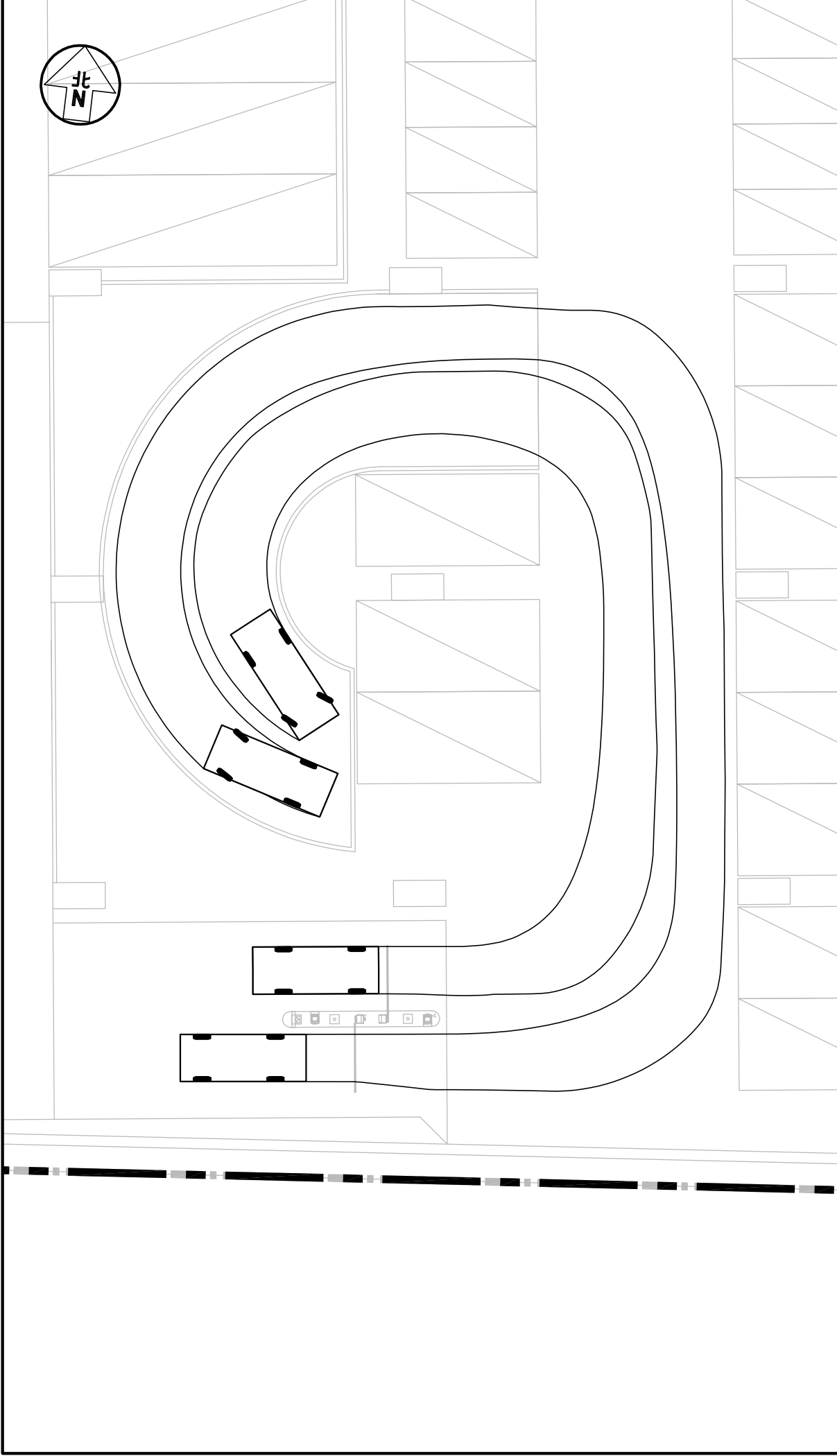
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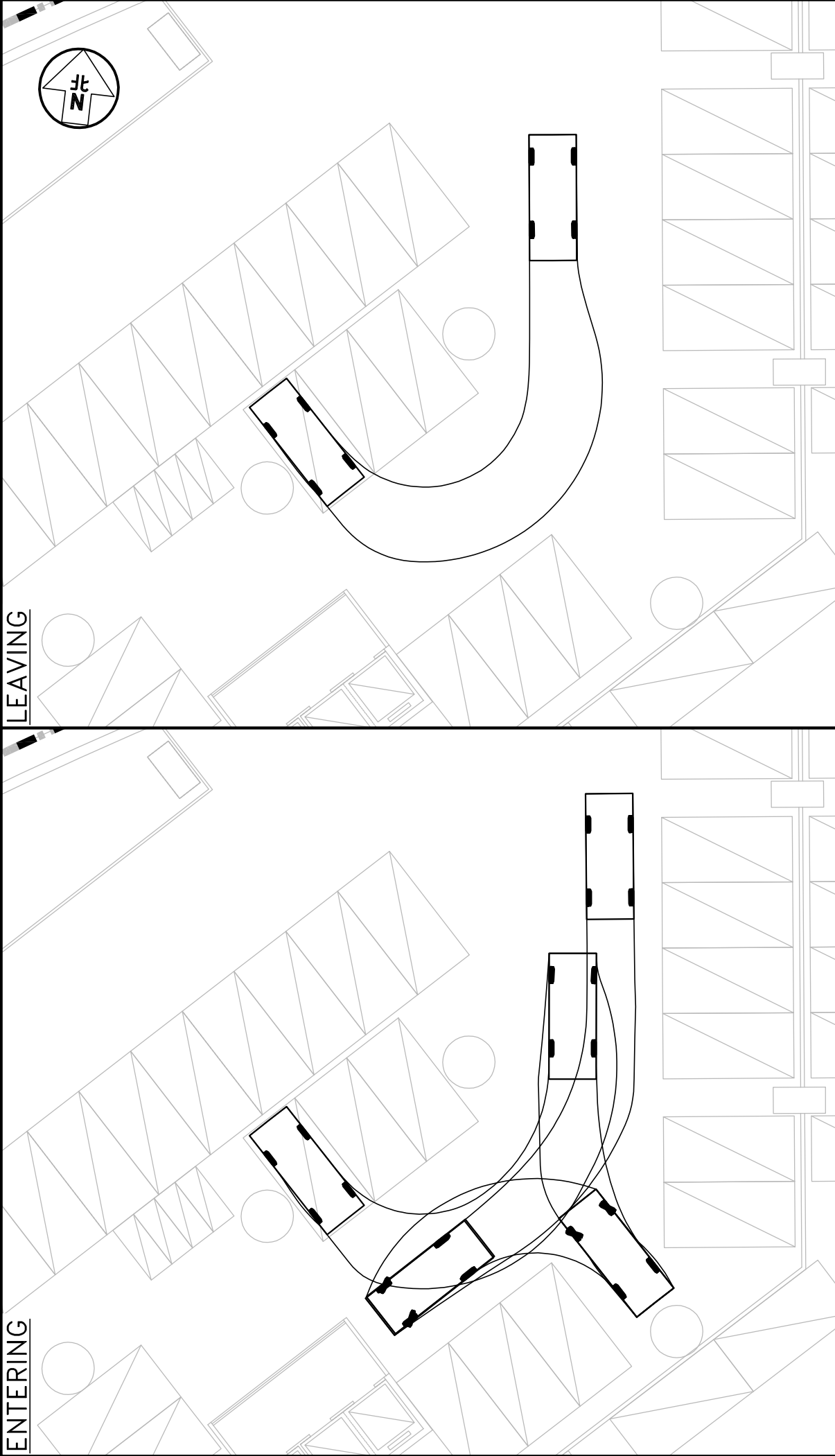
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	Designed by T H C	Drawn by C C L
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Figure No.
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Figure Title

SWEPT PATH OF 5m PRIVATE CAR ENTERING
AND LEAVING THE CAR PARKING SPACE

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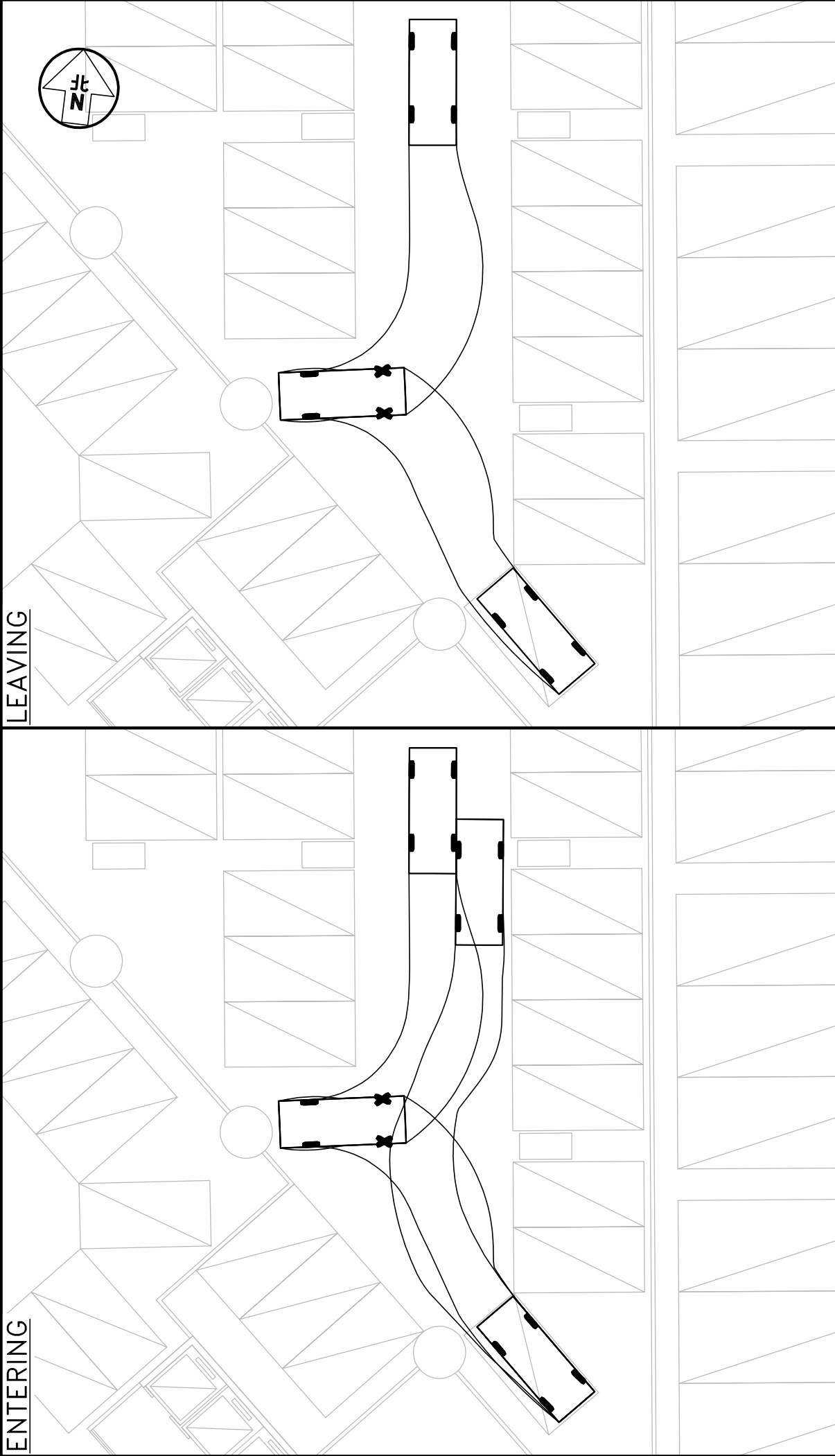
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Figure Title

SWEPT PATH OF 5m PRIVATE CAR ENTERING
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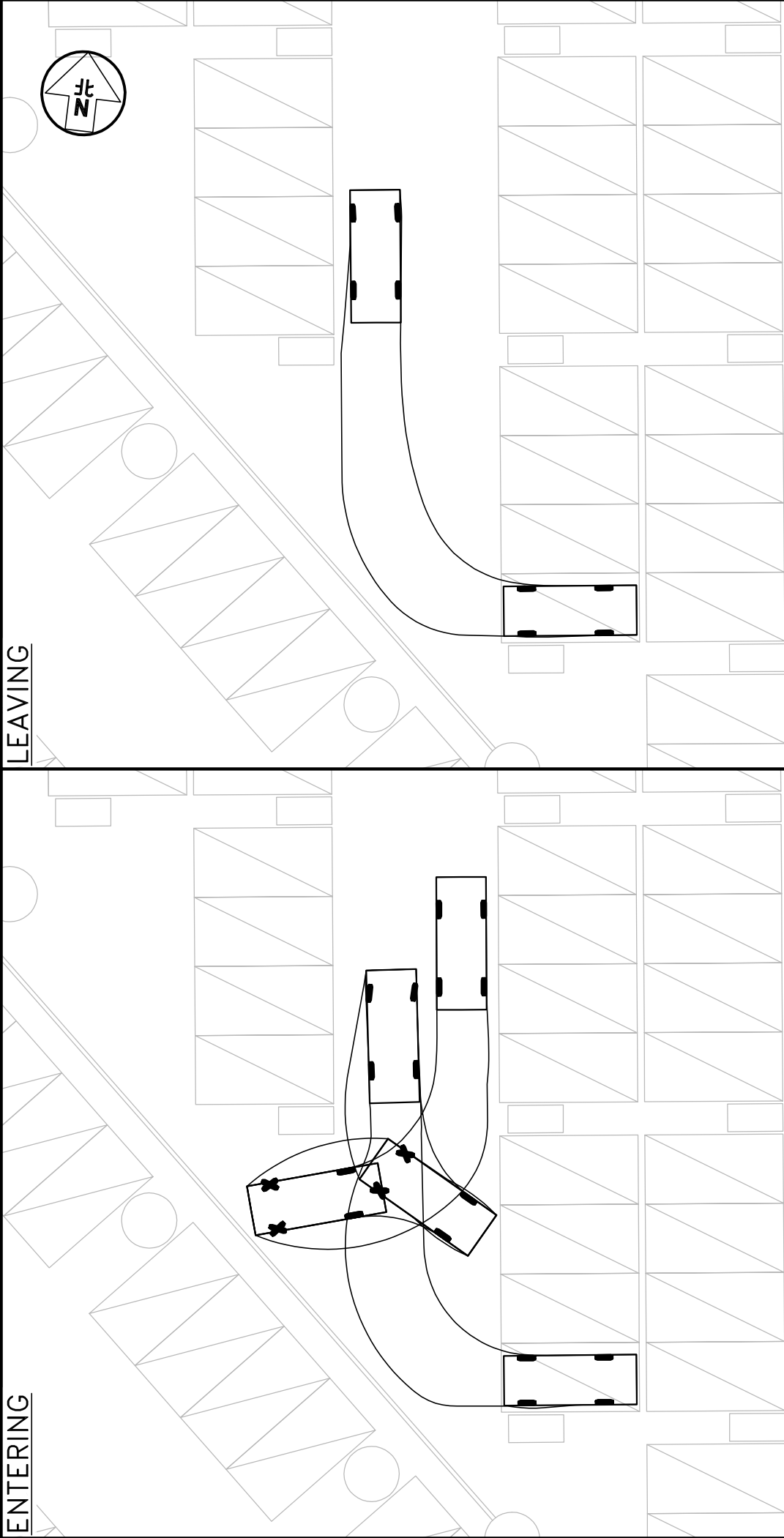
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Figure Title

**SWEPT PATH OF 5m PRIVATE CAR ENTERING
AND LEAVING THE CAR PARKING SPACE**

Figure No.
J7363

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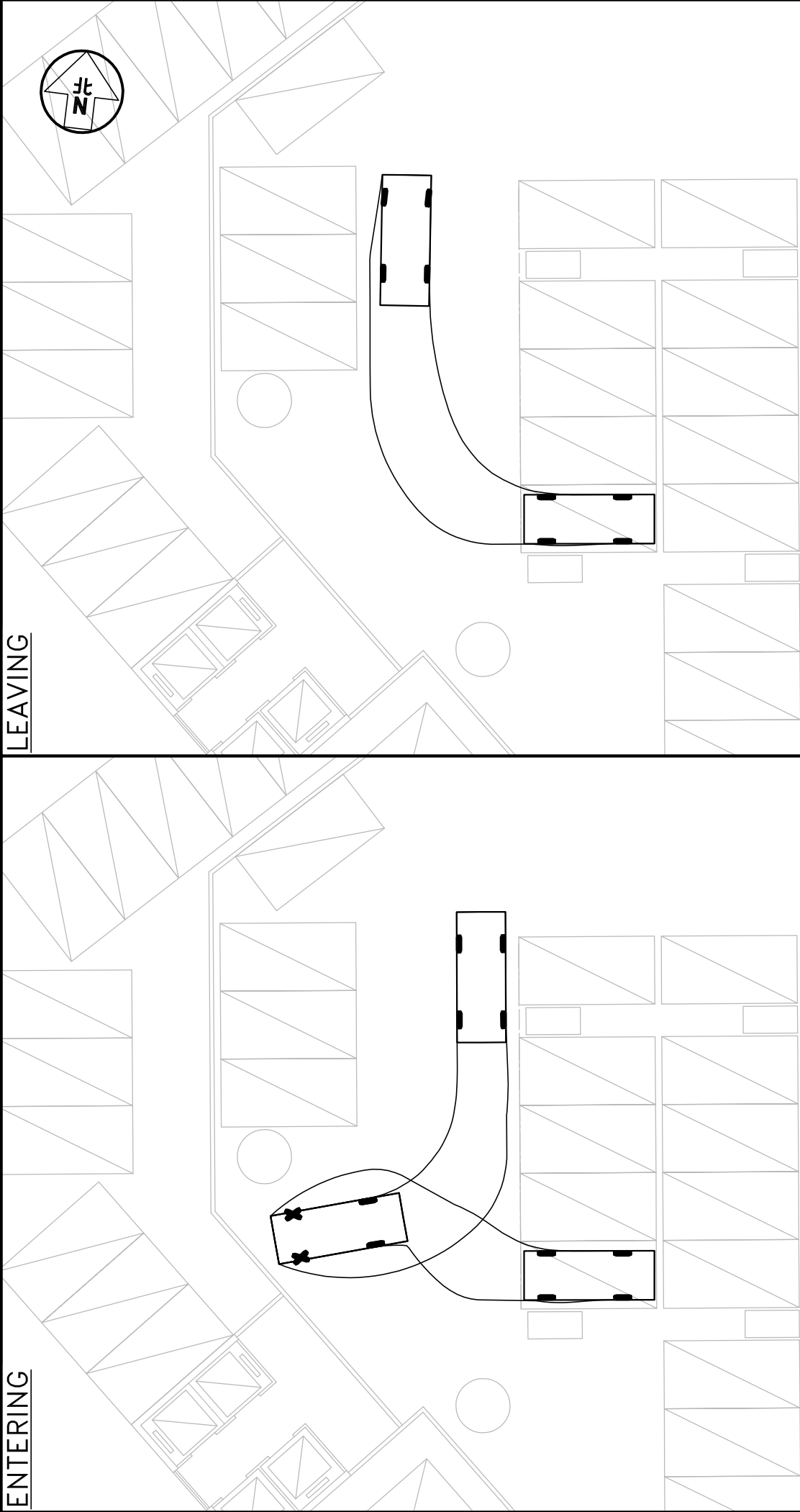
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Figure No.
SP/B1/112 R1A

Revision

Figure Title

**SWEPT PATH OF 5m PRIVATE CAR ENTERING
AND LEAVING THE CAR PARKING SPACE**

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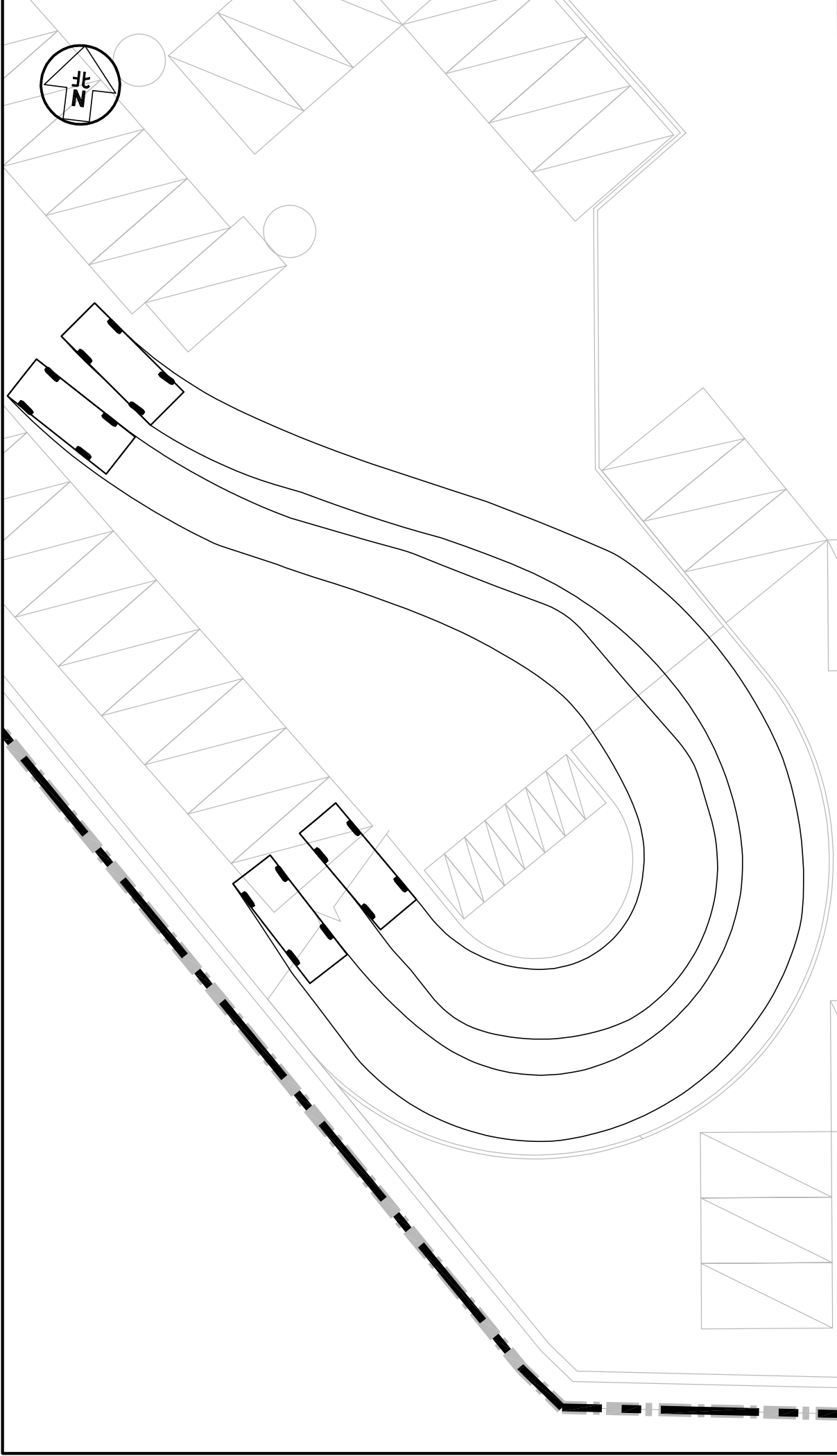
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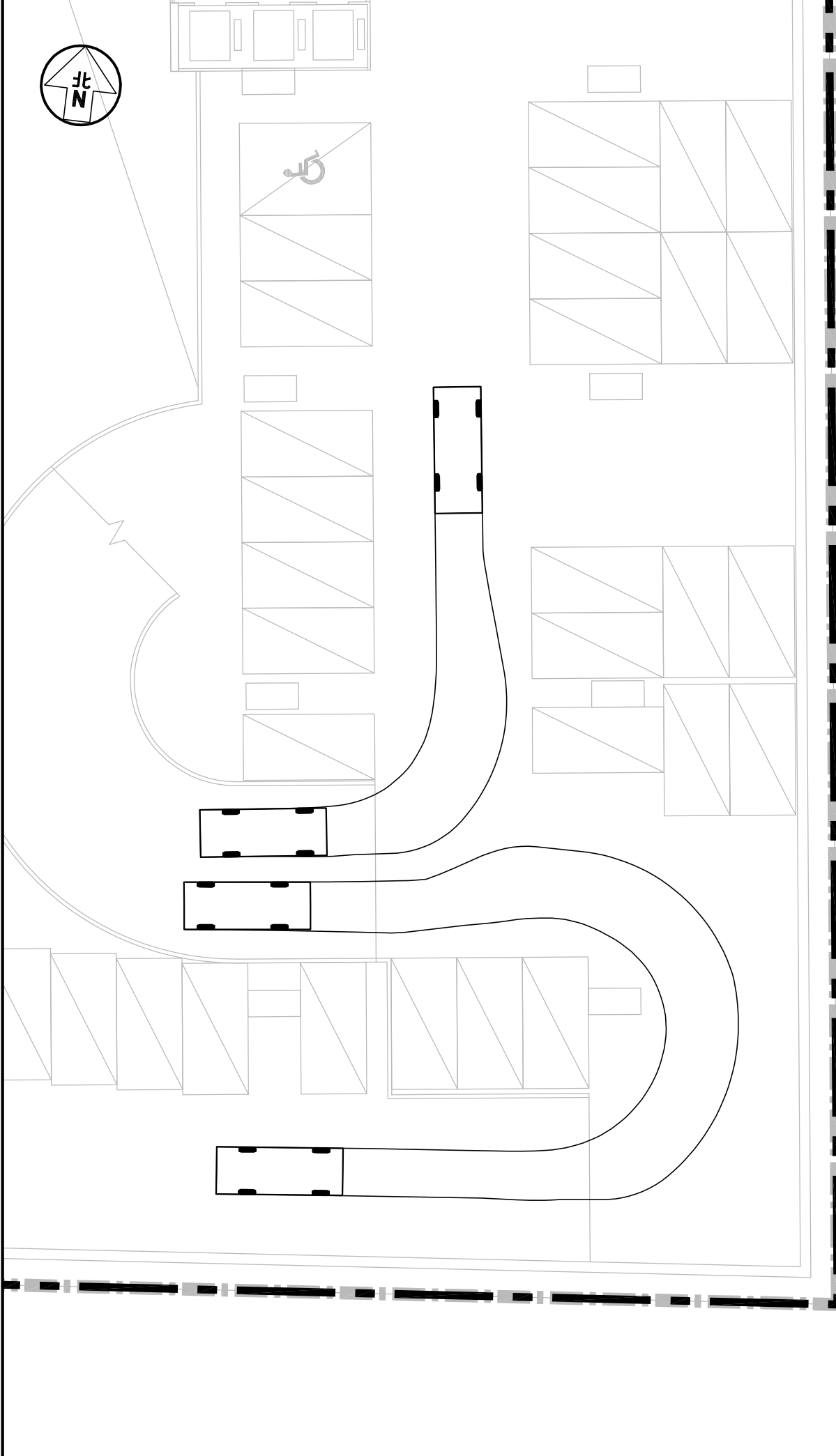
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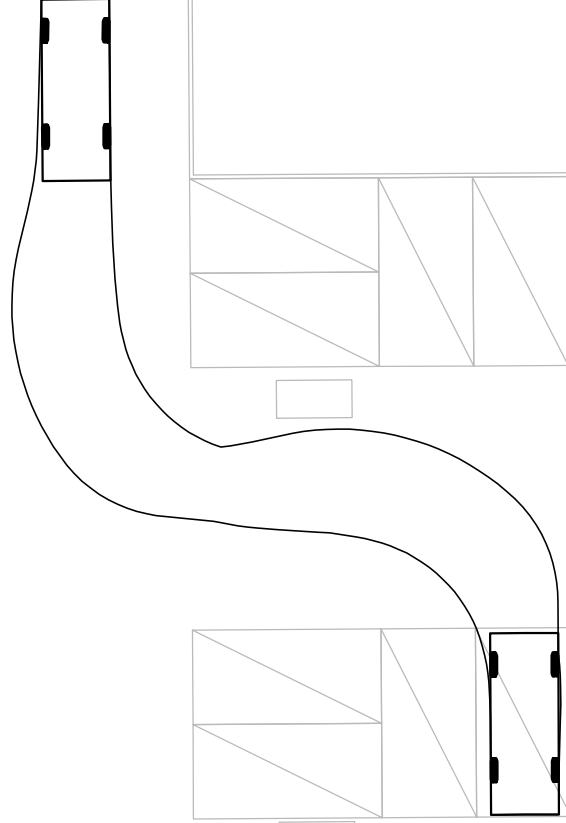
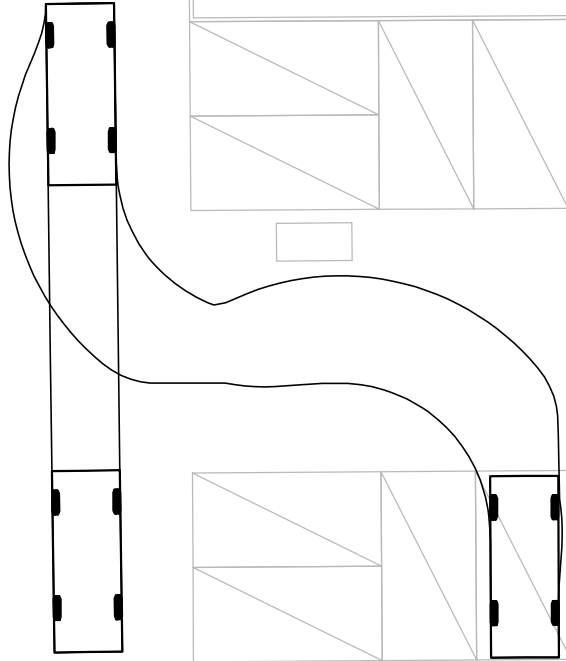
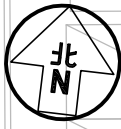
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Figure Title SWEPT PATHS OF 5m PRIVATE CAR ENTERING AND LEAVING B2/F	Scale in A4 1 : 200			



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PROPOSED COMPOSITE REDEVELOPMENT AT
NEW KOWLOON INLAND LOT NO. 6032, 1 TRADEMART DRIVE, KOWLOON BAY

Figure Title

SWEPT PATH OF 5m PRIVATE CAR ENTERING
AND LEAVING THE CAR PARKING SPACE

J7363

Figure No.
SP/B2/103 R1A

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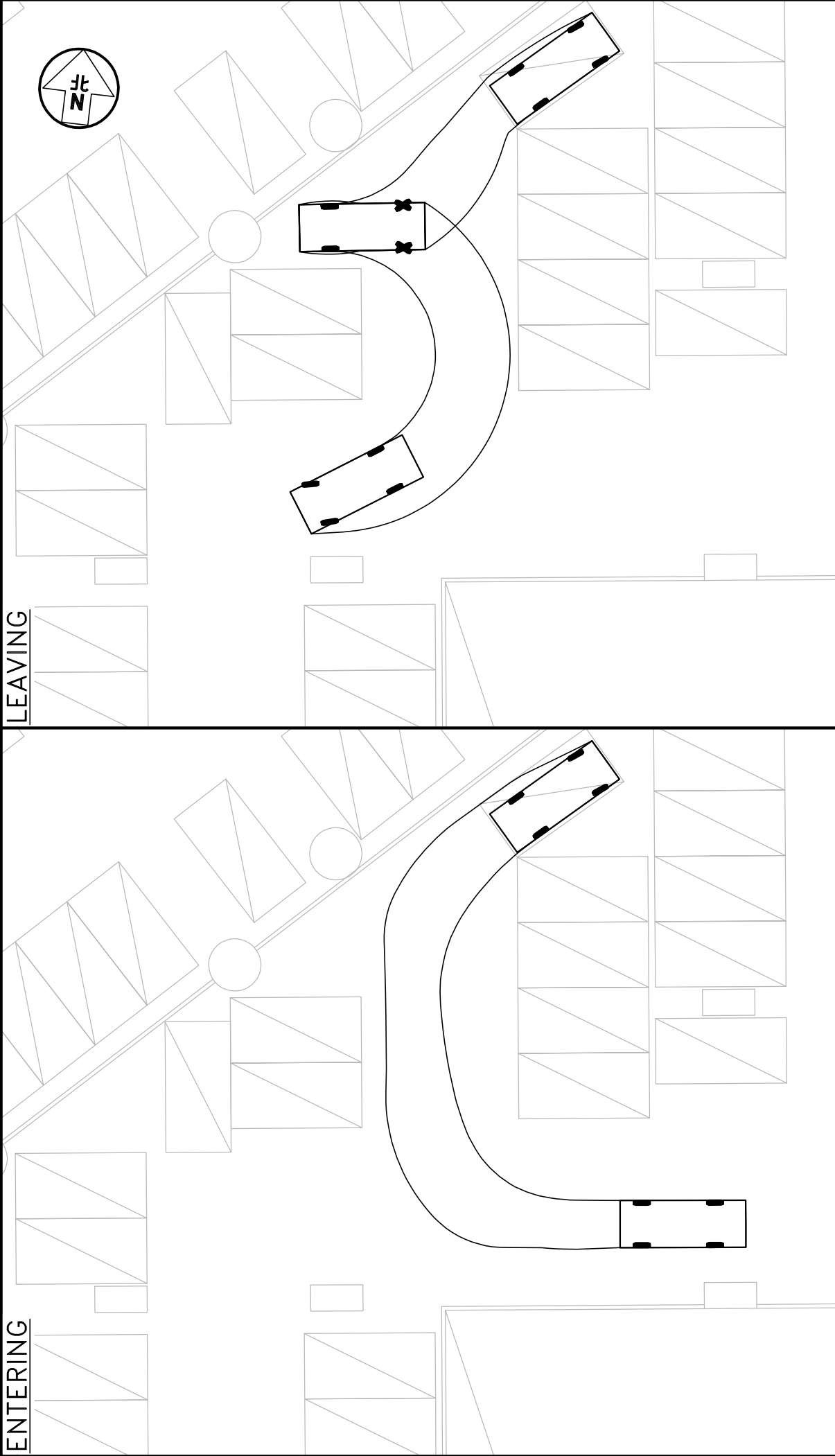
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J7363

Figure No.
SP/B2/104 R1A

Revision

Figure Title

SWEPT PATH OF 5m PRIVATE CAR ENTERING
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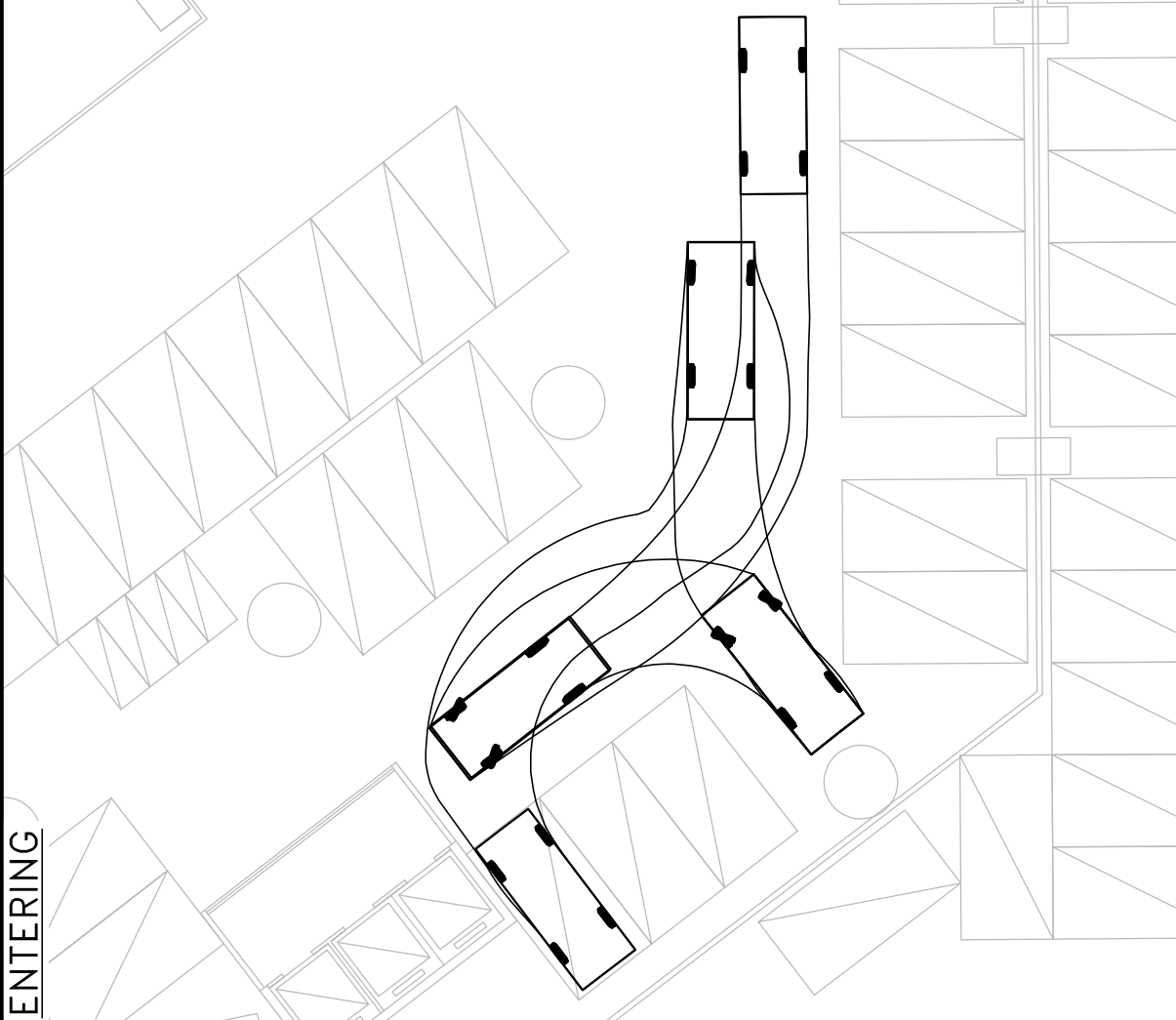
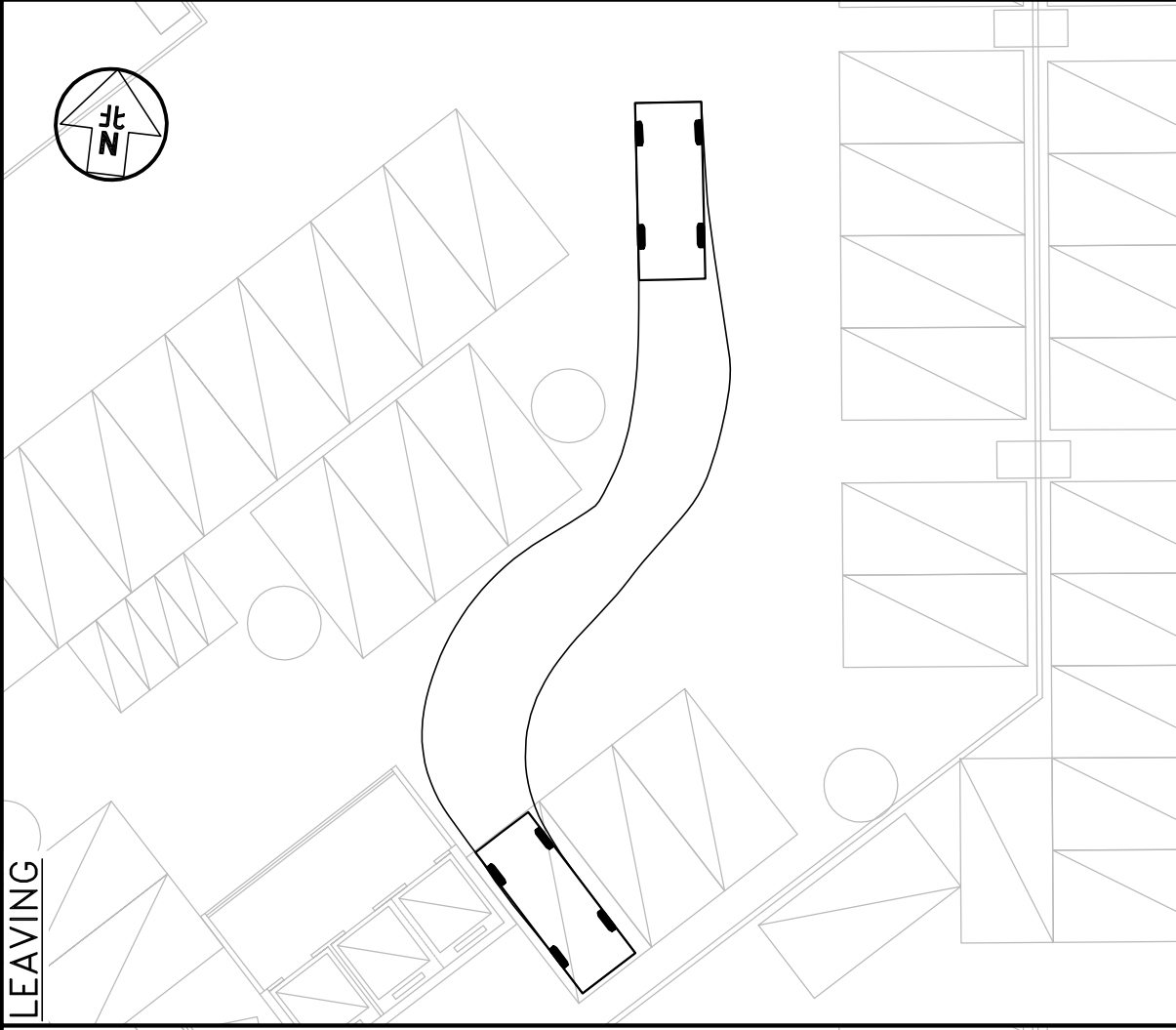
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PROPOSED COMPOSITE REDEVELOPMENT AT
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J7363

Figure No.
SP/B2/105 R1A

Revision

Figure Title

SWEPT PATH OF 5m PRIVATE CAR ENTERING
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**Appendix E –
Extracts of DR 439 and
BDTM Study Final Report**

Table 1 Summary of Trip Rates used by Government/Consultants in studies between 1990 and 1995
(continued)

Serviced Apartment (pcu/hr/unit)	0.2000	0.2200	0.2200	0.2300	WKR	95
Education Primary Sch (pcu/30 class room sch)	7	30	1	1	MOS	95
Education Secondary Sch (pcu/30 class room sch)	7	24	1	1	MOS	95
Community Facilities (pcu/hr/100sq.mGFA)	0.2350	0.2350	0.1150	0.1150	QRC	95
	0.0300	0.0070	0.0410	0.0510	MOS	95

- APPENDIX A CR - Central Reclamation Phase III - LTIA (1995 by AH)
 B CSW - Cheung Sha Wan Shipyard Redevelopment (1994 by DEL)
 C CWE - Choi Wan Estate TINAS (1994 by MVA)
 D FT - Residential Development at Fu Tei, Tuen Mun (1994 by WSA)
 E HMT - Homantin Comprehensive Development TI & EAS (1994 by MVA)
 F HWE - Hing Wah Estate Redevelopment (1993 by WSA)
 G KTS - King Tung Street Task Force Site TIA (1995 by OVA)
 H LTE - Lam Tin Estate Development (1992 by WSA)
 I MOS - Ma On Shan Potential Development TIA (1995 by MVA)
 J MS - Study of Military Sites in the NT for RD (1995 by Urbis)
 K PS - Ping Shan Development - Stage II TIS (1994 by MVA)
 L QRC - Queen's Road Central/Garden Road Redevelopment (1995 by MVA)
 M SLD - Siu Lam Development TIS (1993 by MVA)
 N SYE - Shek Yam Estate Redevelopment TI & EAS (1994 by WSA)
 P UCS - Un Chau Street Redevelopment TEIS (1994 by MVA)
 Q WKR - West Kowloon Reclamation CTAR & EIA (1995 by Acer)
 R WTS - Upper Wong Tai Sin Estate Redevelopment (1994 by WSA)

Appendix O Proposed Trip Rates

Use	Unit	Average Flat Size	AM Peak		PM Peak		Source
			Generation	Attraction	Generation	Attraction	
Residential Development							
Public Rental Housing	pcu/hr/flat	30	0.0242	0.0226	0.0177	0.0201	TPDM
		40	0.0432	0.0326	0.0237	0.0301	
HOS/PSPS		50	0.0622	0.0426	0.0297	0.0401	
High-Density / R(A)		60	0.0718	0.0425	0.0286	0.0370	
		70	0.0888	0.0515	0.0356	0.0480	
		80	0.1058	0.0605	0.0426	0.0590	
Medium-Density / R(B)		100	0.1887	0.0942	0.0862	0.1214	
		120	0.2246	0.1157	0.1068	0.1468	
		140	0.2604	0.1372	0.1275	0.1722	
Medium-Density / R(B)		100	0.1961	0.1116	0.0955	0.1321	
		120	0.2325	0.1461	0.1340	0.1662	
		140	0.2689	0.1805	0.1725	0.2004	
Low-Density / R(C)		180	0.2772	0.1769	0.1635	0.2394	
		240	0.3012	0.2189	0.2235	0.3234	
		300	0.3252	0.2609	0.2835	0.4074	
School							
Kindergarten	pcu/hr/class operating		2.3056	2.3056	0.0286	0.0286	TGS
Primary School			0.5000	0.4667	0.6000	0.5000	
Secondary School			0.6364	0.8788	0.2727	0.0909	
Training Centre & Tutorial School			1.1754	2.5789	3.0370	3.5185	
University		pcu/hr/staff		0.0191	0.0280	0.0559	
Kindergarten (Private)	pcu/hr/class operating		6.9375	6.9375	5.4375	5.4375	In-house *
Primary School (Private)			9.7600	9.7600	5.8273	5.8273	
Secondary School (Private)			7.7667	8.7667	3.9667	3.8000	
Non-Residential Developments							
Industrial	pcu/hr/100 sqm GFA		0.0926	0.1386	0.1350	0.1049	TPDM
Office			0.1703	0.2452	0.1573	0.1175	
Retail / Shopping Complex (Office + Retail)			0.2296	0.2434	0.3100	0.3563	
Hospital	pcu/hr/bed		0.1849	0.2737	0.2591	0.2048	TGS
Hotel	pcu/hr/guest room		0.1329	0.1457	0.1290	0.1546	TPDM

Source:

TPDM - Transport Planning and Design Manual Volume 1 Chapter 3 Annex D

TGS - TD 05/2006 Traffic Generation Survey 2006

In-house - Trip Generation of Island School, Yew Chung International Primary School and Hong Kong (Ascot) Preschool are adopted.

**Appendix F –
Development Parameters of KTD
(Extract from TPB Paper No. 10236
& 10860 and MPC Paper No. 9/21)**

Comparisons of Development Parameters for Sites under Review Study and Final Refined Scheme

Sites	Zoning			Maximum PR				BHR (mPD)			
	OZP	Proposed Under Review Study	Final Refined Scheme for Area 4	OZP	Approved s.16	Proposed Under Review Study	Final Refined Scheme for Area 4	OZP	Approved s.16	Proposed Under Review Study	Final Refined Scheme for Area 4
2A1	CDA		-	5	-	6.5	-	80	-	100	-
2A2	CDA		-	4.5	-	6.5	-	70	-	90	-
2A3	C		-	4.5	-	6.5	-	70	-	90	-
2A4	C		-	4.5	-	6.5	-	60	-	80	-
2A5	C	2A5(A): G/IC	-	4.5	-	-	-	60	-	45	-
		2A5(B): C	-			6.5				-	
2A6	C	2A10: C	-	4.5	-	6.5	-	60	-	80	-
2A7	G/IC		-	-			-	30			-
2B1	CDA		-	5	-	6.5 + 0.3*	-	110	-	135	-
2B2	R		-	5	-	6.5 + 0.1*	-	100	-	125	-
2B3	R		-	5	-	6.5 + 0.1*	-	85	-	115	-
2B4	R		-	5	-	6.5 + 0.1*	-	85	-	115	-
2B5	R		-	5	-	6.5 + 0.1*	-	85	-	100	-
2B6	R		-	5	-	6.5 + 0.1*	-	85	-	100	-
3A6	G/IC	C	-	-	-	8	-	45	-	100	-
3B1			-	-	-	5.8	-	45	-	80	-
3B2			-	-	-	5.8	-	45	-	80	-
3B3			-	-	-	5.8	-	45	-	80	-
3B4			-	-	-	5.8	-	45	-	80	-
3E1	C	R	-	9.5	-	4.5	-	100	-	100	-
3E2	OU/O		-	-	-		-	15	-	80	-
4A1	R			3	3.4	6.5	6.1	65/80	80	90	110
4B1	R			3	3.8	6.5	7	55	65	75	120
4B2	R			3	4.4	6.5	6.1	55	75	85	110
4B3	R			3	3.9	6.5	5.5	65	75	80	95
4B4	R			3	3.7	6.5	5.5	55	65	75	95
4B5	R	C		3	-	6.3	6.5	45	-	65	108
4A2	C	R		4	5	6.5 + 0.15*	5.9 + 0.2*	45	55	80	110
4C1	C	R		4	5	6.5 + 0.15*	6.8 + 0.2*	45	55	75	120
4C2	C	R		4	5.9	6.5 + 0.15*	5.9 + 0.2*	55	65	75	110
4C3	C	C	R	4	5	5	5.3 + 0.2*	45	55	55	95
4C4	C			4	5	5	7.5	45	55	55	95
4C5	C			4	-	4	6	45	-	45	95
4E1	O	R		-	-	6.5	5.3 + 0.2*	-	-	80	95
4E2	O	R		-	-	6.5 + 0.15*	5.3 + 0.2*	-	-	80	95

*non-domestic PR for proposed residential sites

Bundle	Site	Site Area ^[b]	Current				Proposed				
			Zoning	Max. PR	Max. SC	Max. BH	Zoning	Max. Dom. PR ^[c]	Max. Non-dom. PR ^[c]	Max. SC	Max. BH
1	2A2	6,270m ²	“CDA(4)” [commercial]	6.6	65%	90mPD	“CDA(4)” [residential]	6.5 ^[d]	1.0 ^[d]	65%	125mPD ^[e]
	2A3	5,968m ²	“C(3)”	6.5	65%	90mPD	“R(A)6”	6.5	1.0	65%	125mPD
2	2A4 ^[a]	6,555m ²	“C(3)”	6.5	65%	80mPD	“R(A)5”	6.5	1.5	65%	125mPD
	2A5(B) ^[a]	3,374m ²	“C(3)”	6.5	65%	80mPD					115mPD
	2A10 ^[a]	6,100m ²	“C(3)”	6.5	65%	80mPD					100mPD

Notes:

^[a] Sites 2A4, 2A5(B) and 2A10 to be under the same “R(A)5” zoning are proposed to be indicated as a linked single site on the OZP for the purpose of determination of the maximum PR. Individual sites should each be subject to the proposed maximum SC of 65%.

^[b] Site areas are subject to detailed survey.

^[c] Floor spaces for (i) railway facilities in the “R(A)5” zone (which is to cater for the existing railway facilities in Site 2A10); and (ii) government, institutional or community (GIC) facilities in the “CDA(4)”, “R(A)5” and “R(A)6” zones, as required by the Government, are proposed to be disregarded from PR calculation.

^[d] A maximum PR of 7.5 is proposed to be stipulated in the Notes of the OZP for the “CDA(4)” zone. The recommended maximum domestic PR of 6.5 and maximum non-domestic PR of 1.0 are to be stipulated under planning brief and land sale conditions.

^[e] The retail belt area of the “CDA(4)” zone abutting the LTSBPC (**Plan 9a**) is subject to a maximum BH of 2 storeys in accordance with the Notes of the OZP.

4.3 The proposed increase in the maximum BHs for the five individual sites from 80 to 90mPD to 100 to 125mPD is for ensuring that the residential use at the sites, which is subject to a lower permissible SC under the Building (Planning) Regulations than non-domestic use, could achieve the proposed maximum domestic PR of 6.5. Such an increase in BHs is still in keeping with the general stepped BH profile of the locality which is descending progressively from the northeast to the southwest^[8] (**Plan 9a**), and is in line with the broad urban design framework of KTD on creating a dynamic skyline.

4.4 To accord with the policy initiative of providing more welfare facilities in private development sites, a certain amount of gross floor area (GFA) (equivalent to not less than 5% of the proposed domestic GFA of the site in general) for provision of government/social welfare facilities mainly based on the wish-list of the Social Welfare Department (SWD) has been incorporated in the notional schemes of the reviewed sites and assumed to be disregarded from PR/GFA calculation for testing in the Review Study, such that the maximum permissible PR for the sites would not be compromised. For the two bundled sites, upon consulting SWD, the following welfare facilities have been reserved at the sites for addressing the needs of the local and the community on the services:

⁸ The highest BH of 135mPD in the locality of Area 2 relates to the proposed public housing development at Site 2B1, with the BHs of the adjacent residential sites descending progressively from the northeast to the southwest to the levels of 125mPD, 115mPD and 100mPD.

“R(B)7” with maximum PRs of 5.5/6.1/7.0, and have all been sold for private residential developments. To the south and further southeast of the three reviewed sites are the existing Kai Tak Cruise Terminal (KTCT) and a site zoned “OU” annotated “Tourism Related Uses to include Commercial, Hotel and Entertainment” (“OU(TRU)”) intended for the development of the proposed Tourism Node (TN). While Sites 4B5 and 4C4 are currently vacant, Site 4C5 is occupied as a temporary depot for franchised buses.

Rezoning Proposals

4.8 The Review Study recommended the three reviewed sites to be rezoned from commercial to residential use subject to maximum domestic PRs of 5.7/6.6/7.0 (average domestic PR of 6.5), maximum non-domestic PRs of 0.3/0.5, maximum SC of 40% and maximum BH of 95/108mPD (same as now) for production of about 3,000 private housing units. Similar to the two bundled sites at the former north apron area, GFAs for GIC/social welfare facilities (equivalent to not less than 5% of the proposed domestic GFA of the site in general) have also been reserved at these sites and are proposed to be disregarded from PR calculation. Site 4B5 is proposed to be rezoned from “C(4)” to “R(B)8” (**Item F on Plan 6**), Site 4C4 from “C(7)” to “R(B)9” (**Item G on Plan 6**) and Site 4C5 from “C(5)” to “R(B)10” (**Item H on Plan 6**). The proposed zonings and development restrictions for the sites are summarised as follows:

Site	Site Area ^[a]	Current				Proposed			
		Zoning	Max. PR	Max. SC	Max. BH	Zoning	Max. PR ^[b]	Max. SC	Max. BH
4B5	13,953m ²	“C(4)”	6.5	80%	108mPD	“R(B)8”	7.5 ^[c]	40%	108mPD
4C4	10,692m ²	“C(7)”	7.5	80%	95mPD	“R(B)9”	6.9 ^[d]	40%	95mPD
4C5	9,480m ²	“C(5)”	6.0	80%	95mPD	“R(B)10”	5.7 ^[e]	40%	95mPD

Notes:

- ^[a] Site areas are subject to detailed survey.
- ^[b] Floor spaces for GIC facilities in the “R(B)8”, “R(B)9” and “R(B)10” zones, as required by the Government, are proposed to be disregarded from PR calculation.
- ^[c] The proposed maximum PR of 7.5 comprises a maximum domestic PR of 7.0 and a maximum non-domestic PR of 0.5 which are to be stipulated under land sale conditions.
- ^[d] The proposed maximum PR of 6.9 comprises a maximum domestic PR of 6.6 and a maximum non-domestic PR of 0.3 which are to be stipulated under land sale conditions.
- ^[e] The proposed maximum PR of 5.7 is for residential use only.

4.9 To maintain the feature of an undulating and varied BH profile in the former runway area, with the tallest band of developments in the middle portion and BHs of the developments stepping down on the two sides towards the Metro Park and the runway tip (**Plan 12d**), the BHs of Sites 4B5, 4C4 and 4C5 are proposed to remain unchanged. In proportion to the BH and in consideration of specific site constraints (including the proximity of Site 4C5 to KTCT), the PRs for the three sites have been carefully designed^[10] to achieve an average maximum domestic PR of 6.5.

¹⁰ Site 4C5 is proposed with a smaller maximum domestic PR of 5.7 as half of its south-western site boundary is abutting the existing structure of KTCT and its site configuration is relatively elongated. Site 4B5, which has a more regular site configuration and is subject to a higher maximum BH among the three reviewed sites, is proposed with a larger maximum domestic PR of 7.0.

**SCHEDULE OF PROPOSED AMENDMENTS TO
THE DRAFT KAI TAK OUTLINE ZONING PLAN NO. S/K22/7
MADE BY THE TOWN PLANNING BOARD
UNDER THE TOWN PLANNING ORDINANCE (Chapter 131)**

I. Amendments to Matters shown on the Plan

- Item A – Rezoning of a site on the south-western side of Shing Fung Road and the north-western side of Shing King Street from “Residential (Group B)9” (“R(B)9”) to “Commercial (7)” (“C(7)”).
- Item B – Rezoning of a site on the south-western side of Shing Fung Road and the south-eastern side of Shing King Street from “R(B)10” to “C(5)”.

II. Amendments to the Notes of the Plan

- (a) Revision to the Remarks for the “C” zone to incorporate development restrictions for the “C(5)” and “C(7)” sub-areas.
- (b) Revisions to the Schedule of Uses and the Remarks for the “R(B)” zone to delete all the provisions related to the “R(B)9” and “R(B)10” sub-areas.

Town Planning Board

8 July 2022