

Reference number CHK50800610

**TO AMEND THE NOTES OF THE “COMPREHENSIVE
DEVELOPMENT TO INCLUDE WETLAND RESTORATION
AREA” ZONE FOR A PROPOSED COMPREHENSIVE
DEVELOPMENT AT WO SHANG WAI, YUEN LONG,
LOTS 77 AND 50 S.A IN DD101
TRAFFIC IMPACT ASSESSMENT**



IDENTIFICATION TABLE	
Client/Project owner	Profit Point Enterprises Limited
Project	To Amend the Notes of the “Comprehensive Development to include Wetland Restoration Area” Zone for a Proposed Comprehensive Development at Wo Shang Wai, Yuen Long, Lots 77 and 50 S.A in DD101
Study	Traffic Impact Assessment
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1. INTRODUCTION

1.1 Background

- 1.1.1 The subject site is located in Lots 77 and 50 S.A in D.D.101, Wo Shang Wai, Mai Po, Yuen Long. It is sited on the north of Royal Palms and Palm Springs residential developments. **Drawing 2.1** shows the location of the subject site.
- 1.1.2 The site falls within an area zoned as Other Specified Uses (Comprehensive Development to include wetland restoration area) on the Approved Mai Po and Fairview Park OZP (OZP No. S/YL-MP/8). The previous Section 16 Planning Application (Application no. A/YL-MP/344) was approved with conditions with domestic plot ratio of 0.4 on 1 March 2024 for a proposed house development with 789 houses.
- 1.1.3 According to the latest development schedule of San Tin Technopole (STT), the first population intake will start from Year 2031, while the bulk population intake of the Main Phase will start from Year 2034, around the same planned completion year of the Mass Transit Railway (MTR) Northern Link (NOL). The relevant site formation and engineering infrastructure (road works) for STT Development Phase 1 (under PWP Item Nos. 7899CL and 7852CL-2 (Part)) was gazetted on 1 March 2024 and these road works are planned for completion by Year 2031 and the proposed development traffic is expected to be served by the new STT Phase 1 road network (the gazetted new roads) with full road network completion by design year 2034.
- 1.1.4 A planning application is made under section 12A of the Town Planning Ordinance, to rezone the Application Site on the Approved Mai Po and Fairview Park OZP No. S/YL-MP/8. The rezoning application aims to increase the plot ratio ("PR") from 0.4 (i.e. maximum permissible PR on the OZP) to 1.30 (with 1.28 domestic plot ratio), with a maximum building height ("BH") adjusted to not more than 10-storeys and not exceeding +42mPD by amending the Notes of the current "Other Specified Uses (Comprehensive Development to include Wetland Restoration Area)" ("OU(CDWRA)") zone. It is the Applicant's intention to increase the development intensity and revise the layout and form of the housing developments in the Application Site. This traffic impact assessment is to investigate the potential traffic impact on the adjacent local road network and transport facilities by this upzoning proposal. Upon previous submission of the TIA report, comments were received from Transport Department (TD) and this revised TIA report was prepared to reflect the latest development programme and to address TD's comments.

1.2 Study Objectives

- 1.2.1 The objectives of this TIA study are summarised as follows:
- Present the proposed development schedule and its internal transport provisions;
 - Review the current traffic conditions in the vicinity;
 - Estimate the traffic generation/attraction of the proposed development;
 - Produce traffic forecasts for the local road network at the adopted design year;
 - Investigate the traffic impact on the local road network upon operation of the proposed development; and,
 - Suggest any traffic improvement measures, if considered necessary, to alleviate the potential traffic problem.

1.3 Report Structure

1.3.1 Following this introductory chapter, there are five further chapters;

- Chapter 2 – Proposed Development, introduces the proposed development scheme;
- Chapter 3 – Existing Traffic Context, reviews the current traffic condition in the vicinity;
- Chapter 4 – Traffic Forecasting, describes the traffic forecasting methodology;
- Chapter 5 – Traffic Impact Assessment, describes the assessments conducted;
- Chapter 6 – Conclusions, summarises and concludes the study findings.

2. PROPOSED DEVELOPMENT

2.1 Proposed Development Schedule

- 2.1.1 Under the current proposed MLP, the number of residential units will be increased from 789 in the approved scheme in Section 16 application to 3,562, with provision of a 3,800 m² 100-bed Residential Care Homes for the Elderly (RCHE). The current scheme will provide 3,562 units with average house size of 74.7 m².
- 2.1.2 The domestic GFA, flat mix, plot ratio will be changed, compared with those in the previous approved S16 application. **Table 2.1** summarises the changes in flat mix of the previous approved and current proposed scheme.

Table 2.1 Comparison of Flat Mix in Previous Approved Scheme and Current Proposed Scheme

	Previous Approved MLP (Application no. A/YL-MP/344)	Current Proposed MLP	Difference
Domestic GFA	82,963 m ²	266,079 m ²	+183,116 m ²
Domestic Plot Ratio	0.4	1.28	+0.88
No. of Units	789 Units	3,562 Units	+2,773 Units
Average House Size	105.1 m ²	74.7 m ²	-30.4 m ²
Non-domestic Plot Ratio	-	0.02	+0.02
Non-domestic GFA	-	3,800 m ²	+3,800 m ²

- 2.1.3 As indicated in **Table 2.1**, the current proposed MLP has an increase of 2,773 units with the change of both domestic and plot ratio, and leading to a decrease of average house size, with the provision of a RCHE.
- 2.1.4 It is anticipated that the proposed development will be completed by year 2031.

2.2 Vehicular Access

- 2.2.1 Same as the previous approved scheme, the development vehicular access is off the local access road, Mai Po South Road connecting to Castle Peak Road - Mai Po, which is abutting the site. The location of the vehicular access is illustrated in **Drawing 2.1**. With the gazetted new roads for STT to be completed on or before Year 2031, it is anticipated that the development traffic will mainly access via Fairview Park Boulevard Interchange and the new Shek Wu Wai Interchange, Road L11 onto Castle Peak Road – San Tin and Castle Peak Road - Mai Po, with minority of traffic heading to/from Sheung Shui, as indicated in **Drawing 3.1**.

2.3 Internal Transport Facility

- 2.3.1 The provision of the internal transport facilities in the current proposed MLP is determined based on the latest Hong Kong Planning Standards and Guidelines (HKPSG). **Table 2.2** summarises the proposed provision of the internal transport facilities for the current proposed MLP, as shown in **Drawing 2.2**. Since there is no specific requirement stipulated in Hong Kong Planning Standards & Guidelines (HKPSG) for the RCHE, the provision of car parking spaces and

the loading/unloading facilities are proposed with reference to the adjacent RCHEs in operation by survey conducted in mid-July 2025 and parking ratios of the applications of similar social welfare developments as listed in **Table 2.3**, as well as the operation need for the loading/unloading facilities.

Table 2.2 Proposed Provision of the Internal Transport Facilities

Internal Transport Facilities	Previous Approved MLP (Application no. A/YL-MP/344) – 789 Units		Current Proposed MLP – 3,562 Units (128 houses included) with RCHE														
	Proposed Requirement	Proposed Provision	Parameters	Proposed Requirement under HKPSG	Proposed Provision												
Residential Parking Provision																	
Residential Carparking Space	2 spaces per house ⁽¹⁾	1,578	128 Houses	2 spaces per house ⁽²⁾	256												
	-		3,056 units	1 space per 3.03 units for 40<FS≤70 ⁽⁷⁾	1,009												
			378 units	1 space per 1.52 units for 70<FS≤100 ⁽⁷⁾	249												
	Sub -total	1,578		Sub-total	1,514												
Visitor Parking Space	5 spaces ⁽¹⁾	5	47 blocks (1 block for 31-45 units; 6 blocks for 46-60 units; 20 blocks for 61 – 75 units; 20 blocks for 75 units above)	<table><tr><td>Residential units per block</td><td>Visitor Parking per block</td></tr><tr><td>30 or below</td><td>1</td></tr><tr><td>31 – 45</td><td>2</td></tr><tr><td>46 – 60</td><td>3</td></tr><tr><td>61 – 75</td><td>4</td></tr><tr><td>above 75</td><td>5</td></tr></table>	Residential units per block	Visitor Parking per block	30 or below	1	31 – 45	2	46 – 60	3	61 – 75	4	above 75	5	1*2+6*3 +20*4+20*5 =200 ⁽⁴⁾
Residential units per block	Visitor Parking per block																
30 or below	1																
31 – 45	2																
46 – 60	3																
61 – 75	4																
above 75	5																
Accessible Parking Space	6 accessible car parking space for car parking space in lot above 450 by Building Authority	6	1,714 private car parking spaces	6 accessible car parking space for car parking space in lot above 450 by Building Authority	6												
Motorcycle Parking Space	37 spaces ⁽¹⁾	37	3,434 units	1 per 83 units ⁽⁵⁾	42												
Loading/unloading Bay	1 bay per 800 units ⁽³⁾	1	47 blocks	1 bay per each housing block ⁽⁵⁾	47												
Bicycle Parking Spaces	-	-	3,434 units	1 space per 5 flats for residents; 1 space per 45 flats for visitors ⁽⁸⁾	764												
RCHE Parking Provision ⁽⁶⁾																	
Ancillary Private Car Parking Space	-	-	100-bed	1 space per 34 beds	3												
Loading/Unloading Bay for HGV	-	-	100-bed	1 space per 150 beds	1												
Ambulance Lay-by			100-bed	1 space per 150 beds	1												
Light-bus Lay-by	-	-	100-bed	1 space per 150 beds	1												

Remarks: (1) Requirement included in the approved land exchange application.
 (2) Assume 2 parking spaces per house.
 (3) Requirement adopted in previous approved S.16 application.
 (4) According to the flatmix of latest MLP.
 (5) According to the latest comments from Transport Department.
 (6) For RCHE parking provision referring to **Table 2.3**.
 (7) R3 of 1.10 adopted for residential car parking spaces.
 (8) According to Annex B of TIA Checklist for Development Project.

2.3.2 The proposed provision of car parking provision for RCHE has been reviewed with reference to the survey conducted in mid-July 2025 at adjacent RCHEs and various approved planning application of the similar social welfare development, as listed in **Table 2.3**.

Table 2.3 Car Parking and Loading/unloading Facilities Provision in Other RCHE Developments

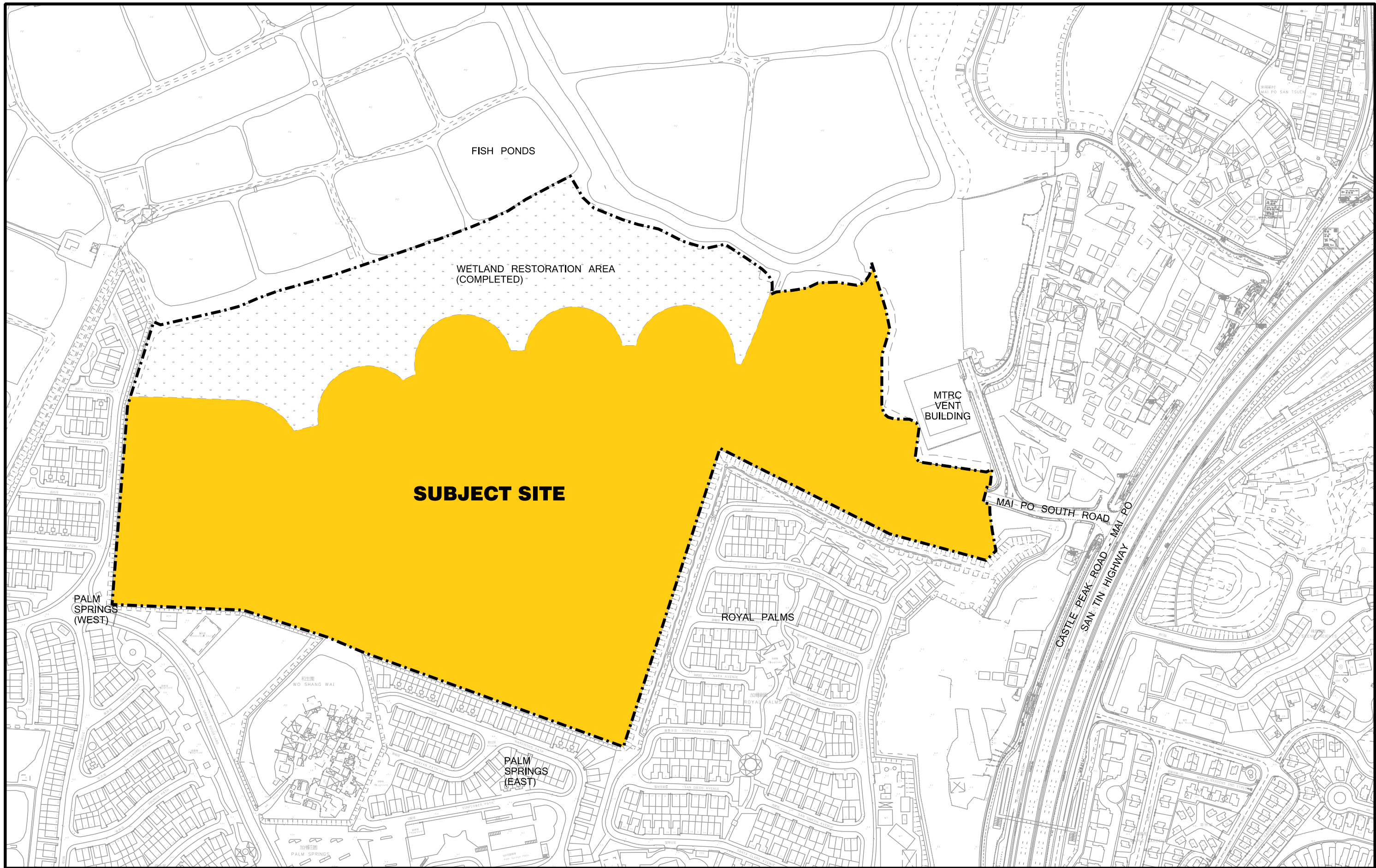
Name/ Application No.	Site Location	No. of Bed	No. of Car Parking Spaces	Derived Parking Ratio	No. of HGV Loading/ Unloading Bay	Derived HGV Loading/ Unloading Bay Ratio	No. of Ambulance Lay-by	Derived Ambulance Lay-by Ratio	No. of Light-bus Lay-by	Derived Light-bus Lay-by Ratio
The Christian God's Love Care Home	Tai Yuen House, Chuk Yuen Tsuen, Tam Mei Sect., Castle Peak Road, Yuen Long, New Territories	196	4 ⁽¹⁾	1 per 49 beds	/	/	/	/	/	/
Hongtai Home For The Aged Limited	101-104 Sheung Chuk Yuen), Yuen Long, New Territories	102	3 ⁽²⁾	1 per 34 beds	/	/	/	/	/	/
A/YL/256	Lots 1695 S.E ss.1 RP, 1695 S.F ss.1 and 1695 S.H RP (Part) in D.D. 120, Tai Kei Leng, Yuen Long	170	3	1 per 57 beds	1	1 per 170 beds	1	1 per 170 beds	1	1 per 170 beds
Y/NE-KTS/16	Lot No. 953 RP (Part) in D.D. 92 and adjoining Government Land, Kam Hang Road, Kwu Tung South	150	4	1 per 38 beds	1	1 per 150 beds	1	1 per 150 beds	1	1 per 150 beds

Remarks: (1) There is no floor marking for the parking spaces, 4 parking spaces are based on site observation.
 (2) There is only floor marking for 1 parking space, another 2 parking spaces are based on site observation.

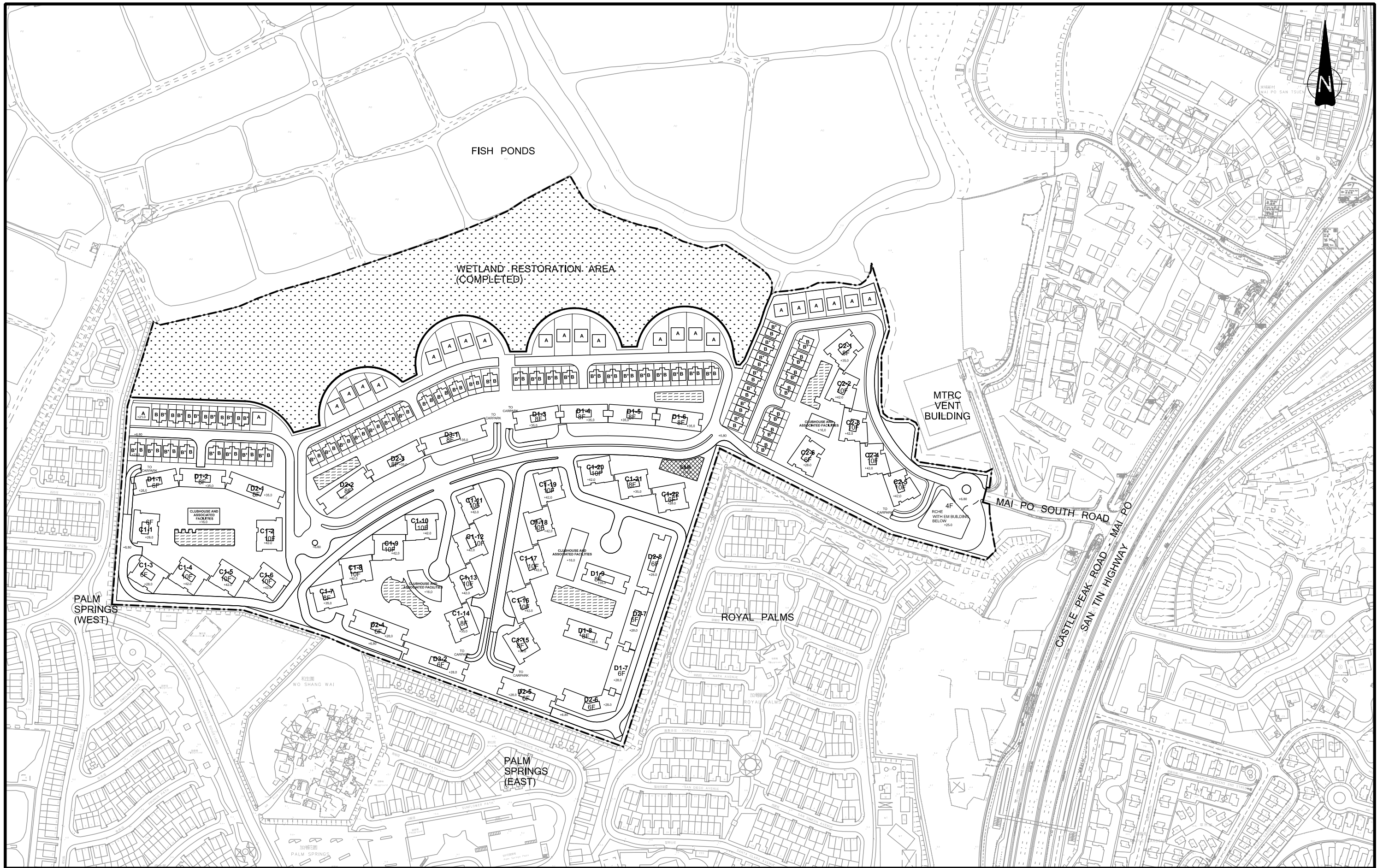
2.3.3 **Table 2.3** shows that the ratios of car parking provision in the RCHE in operation and similar applications are ranged from 1 space per 34 places to 1 space per 57 places, and therefore the proposed 3 nos. of car parking spaces for the Proposed Development are considered reasonable.

2.3.4 Apart from the car parking spaces, spaces for loading/unloading of goods vehicles and ambulance are also proposed to serve the necessary operation need. To allow flexibility for future operation, it is proposed that the loading/unloading spaces would be shared used with the loading/unloading or parking of private light bus.

- 2.3.5 Since some of the units of the proposed development is smaller than 70m² in flat size, there will be provision of the bicycle parking spaces.
- 2.3.6 The loading/unloading activities for houses would be conducted in internal roads near houses, with assistance by management staff.
- 2.3.7 The actual carparking provisions may be subject to agreement by the authority.
- 2.3.8 The allocation of related parking provision will be studied and reviewed in later detailed design stage. Drop-bar gate will be provided within the site for access control. Sufficient waiting spaces between the drop-bar gate and public road will be provided for vehicle queueing within the development. The location of the drop-bar gate will be provided at later detailed design stage.



-	-	-	-	Project Title PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101	Drawing Title SITE LOCATION						
-	-	-	-								
-	-	-	-								
A	MINOR AMENDMENT	CFC	21JAN25								
Rev.	Description	Checked	Date		Designed MYC	Checked CFC	Scale N.T.S.	Date JUN 2024	Drawing No. 2.1	Rev. A	



-	-	-	-	Project Title	Drawing Title			
-	-	-	-		PROPOSED MASTER LAYOUT PLAN			
B	MLP UPDATED	CFC	15AUG25	PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101				
A	MLP UPDATED	CFC	21JAN25		Designed	MYC	Checked	CFC
Rev.	Description	Checked	Date		Scale	1:3000(A3)	Date	JUL 2024
					Drawing No.	2.2	Rev.	B

3. EXISTING TRAFFIC CONTEXT

3.1 Surrounding Road Network

- 3.1.1 As indicated in **Drawing 2.1**, the site is bounded by Mai Po South Road to the east, fishponds to the north and Royal Palms & Palm Springs residential development to the south. The development traffic from San Tin Highway to Mai Po South Road connecting the site are either via Castle Peak Road – Mai Po Section from the south or Castle Peak Road – San Tin Section from the north.
- 3.1.2 Subject to the project of San Tin Technopole, the proposed road network will be upgraded to provide better linkage and strengthen future connectivity for developments located at the North and South of the San Tin Highway. At the existing Shek Wu Wai Interchange (SWWI), apart from improvement of existing slip roads at its western side connecting to San Tin Highway, a pair of new slip roads is proposed at the eastern side of SWWI to facilitate traffic movement. Also, the existing junction of Castle Peak Road – San Tin / Shek Wu Wai Road would be upgraded from priority junction to 4-arm signalized junction. With the above consideration of enhanced road network, the future ingress and egress routes of the subject site are illustrated in **Drawing 3.1**.
- 3.1.3 San Tin Highway is a dual 3-lane expressway. It forms a section of Route 9 of the strategic highway network connecting Fanling Highway in the north and Yuen Long Highway/Tai Lam Tunnel in the south.
- 3.1.4 San Tam Road and Castle Peak Road - Mai Po are both single 2-lane carriageways running parallel to San Tin Highway serving the adjacent local developments.
- 3.1.5 Mai Po South Road is about 7.3m wide with 2m footpaths on both sides. It mainly serves as an access to MTRC ventilation building.
- 3.1.6 The existing nearby road network is subject to major changes upon completion of the new roads planned under STT project, with new roads connecting to the future upgraded Shek Wu Wai Interchange.

3.2 Current Junction Operational Performance

- 3.2.1 With the consideration of the road network upgrade due to San Tin Technopole project, a total of 11 local junctions and 6 screenlines, as indicated in **Drawing 3.2**, have been identified for assessment purpose in this study. For the strategic road San Tin Highway, as there will be upcoming planned transport infrastructures and enhanced railway network, including the Northern Metropolis Highway and the Northern Link, the traffic condition and efficiency would be significantly improved in the strategic level. The identified junctions are listed in **Table 3.1**, and their existing layouts are shown in **Drawings 3.3 to Drawings 3.14**.

Table 3.1 Identified Local Key Junctions and Road Links

Ref. ⁽¹⁾	Junction/Road Links	Type	Drawing No.
A1	Shek Wu Wai Road / San Tin Highway Slip Road ⁽²⁾	Priority	3.3
A2	Shek Wu Wai Road / Mai Po Lung Road ⁽²⁾	Priority	3.4
B	Castle Peak Road – San Tin / Shek Wu Wai Road ⁽²⁾	Priority	3.5
C	Castle Peak Road – Mai Po/San Tam Road	Priority	3.6
D	Castle Peak Road – Mai Po/ Royal Palms Boulevard	Priority	3.7
E	Castle Peak Road – Mai Po/Geranium Path	Priority	3.8
F	Castle Peak Road – Tam Mi/Yau Pok Road	Priority	3.9
G	Castle Peak Road – Tam Mi/Kam Pok Road	Priority	3.10
H	Fairview Park Interchange	Roundabout	3.11
I	Castle Peak Road – Mai Po/Mai Po South Road	Priority	3.12
J	Castle Peak Road – San Tin/Kwun Tung Road ⁽³⁾	Priority	3.13
K	San Tin Interchange ⁽³⁾	Roundabout	3.14
Screenline L1	Mai Po South Road	Single 2-lane carriageway	3.2
Screenline L2	Castle Peak Road – Mai Po (South to Mai Po South Road)	Single 2-lane carriageway	3.2
Screenline L3	Castle Peak Road – Mai Po (North to Mai Po South Road)	Single 2-lane carriageway	3.2
Screenline L4	Castle Peak Road – Tam Mi	Single 2-lane carriageway	3.2
Screenline L5	San Tin Highway	Dual 3-lane expressway	3.2
Screenline L6	San Tin Highway	Dual 3-lane expressway	3.2

Remark: (1) Refer to **Drawing 3.2** for junction reference.

(2) Junctions will be upgraded by San Tin Technopole project.

(3) Subject to the planned road network, the traffic flow induced by subject site would not pass through the concerned junctions in the Design Year of 2034.

Traffic Surveys

- 3.2.2 A series of manual classified traffic surveys have been conducted at the identified junctions to establish the current traffic condition in the vicinity. The surveys were carried out during the morning and evening peak hour periods on a typical weekday in April 2024. The observed traffic data indicates that the morning peak hour and evening peak hour occurred from 8:00am to 9:00am and 5:00pm to 6:00pm. The observed peak periods are adopted for forecasting and assessment purposes in this study.
- 3.2.3 Subject to previous TD comment, since the observed traffic flow in traffic survey in a typical weekday in April 2024 was considered under normal traffic condition, the traffic flow in arm G in Fairview Park Interchange under previous approved Planning Application A/YL-MP/344 was adopted in the assessment in conservative approach. The observed peak hour traffic flows are shown in **Drawing 3.15**.
- 3.2.4 Junction capacity and Volume/Capacity Ratio (V/C Ratio) assessments have been conducted for the identified junctions and road links with respect to the observed traffic flows to evaluate their current operational performance during the weekday peak hours and the results are as shown in **Table 3.2** and **Table 3.3**. The junction calculation sheets are attached in **Annex A**.

Table 3.2 Current Junction Operational Performance

Ref. ⁽¹⁾	Junction	RC/RFC ⁽²⁾	
		AM Peak	PM Peak
A1	Shek Wu Wai Road/ San Tin Highway Slip Road	0.38	0.38
A2	Shek Wu Wai Road/ Mai Po Lung Road	0.48	0.29
B	Castle Peak Road – San Tin/ Shek Wu Wai Road	0.75	0.63
C	Castle Peak Road – Mai Po/ San Tam Road	0.19	0.12
D	Castle Peak Road – Mai Po/ Royal Palms Boulevard	0.56	0.31
E	Castle Peak Road – Mai Po/ Geranium Path	0.02	0.02
F	Castle Peak Road – Tam Mi/ Yau Pok Road	0.03	0.03
G	Castle Peak Road – Tam Mi/ Kam Pok Road	0.12	0.10
H	Fairview Park Interchange	0.56	0.64
I	Castle Peak Road – Mai Po/ Mai Po South Road	0.01	0.02
J	Castle Peak Road – San Tin/Kwun Tung Road	0.54	0.72
K	San Tin Interchange	0.49	0.41

Remarks: (1) Refer to **Drawing 3.2** for junction reference.

(2) RC = reserve capacity, RFC = ratio of flow to capacity.

Table 3.3 Current Road Links Performance

Ref. ⁽¹⁾	Road Link	Directions	Design Capacity, (veh/hr)	Design Capacity, (pcu/hr) ⁽⁴⁾	2024 Traffic Flow			
					Traffic Flow (pcu/hr)		V/C ⁽⁵⁾	
					AM	PM	AM	PM
L1	Mai Po South Road	EB	700 ⁽²⁾	910	0	10	0.00	0.01
		WB	700 ⁽²⁾	910	15	10	0.02	0.01
L2	Castle Peak Road – Mai Po	NB	700 ⁽²⁾	910	185	210	0.20	0.23
		SB	700 ⁽²⁾	910	185	155	0.20	0.17
L3	Castle Peak Road – Mai Po	NB	700 ⁽²⁾	910	240	240	0.26	0.26
		SB	700 ⁽²⁾	910	220	185	0.24	0.20
L4	Castle Peak Road – Tam Mi	NB	700 ⁽²⁾	910	420	390	0.46	0.43
		SB	700 ⁽²⁾	910	475	350	0.52	0.38
L5	San Tin Highway	NB	4,700 ⁽³⁾	6,100	4,720	4,280	0.77	0.70
		SB	4,700 ⁽³⁾	6,100	4,630	4,635	0.76	0.76
L6	San Tin Highway	NB	4,700 ⁽³⁾	6,100	4,400	3,955	0.72	0.65
		SB	4,700 ⁽³⁾	6,100	4,225	4,360	0.69	0.71

Remarks: (1) Refer to **Drawing 3.2** for key road links.

(2) By TPDM Volume 2 Chapter 2 Table 2.4.1.1, design flow of a 2-lane single carriageway will be taken as 1400 veh/hr for two-way traffic, which implies 700 veh/hr for one-way direction.

(3) By TPDM Volume 2 Chapter 2 Table 2.4.1.1, design flow of a 3-lane dual expressway will be taken as 4700 veh/hr for one-way direction.

(4) PCU factor of 1.3 adopted.

(5) V/C = volume to capacity ratio.

3.2.5 The results in **Table 3.2** and **Table 3.3** have indicated that all identified junctions and road links are currently operating with ample capacity during the typical weekday morning and evening peak hours.

3.3 Nearby Public Transport

- 3.3.1 The current road-based public transport services are available at Castle Peak Road and San Tam Road, with service stops located within 500-metre walking distance from the subject site, as shown in **Drawing 3.16** and as summarized in **Table 3.4** below.

Table 3.4 Existing Nearby Public Transport Services

Route No.	Destination	Frequency (min)
Franchised Bus		
76K	Sheung Shui (Ching Ho) – Long Ping Estate	20 - 30
Green Minibus (GMB)		
75	Yuen Long (Fook Hong Street) – Lok Ma Chau Spur Line PTI	10 - 20
76	Yuen Long (Fook Hong Street) – Siu Hom Tsuen	15 - 20
78	Lok Ma Chau (San Tin) PTI – Pat Heung Road (near Tai Lam Bus-Bus Interchange)	20 - 25
Public Light Bus (PLB)		
17	Sheung Shui – Yuen Long	Flexible ⁽¹⁾

Remarks: (1) Peak hour frequency is observed to be 3-5 minutes.

Public Transport Utilization

- 3.3.2 A traffic survey was also conducted on a typical weekday in April 2024 to identify the peak hour public transport utilization at the existing nearest bus stops near Royal Palms at Castle Peak Road and Maple Garden at San Tam Road. The survey results are summarized in **Table 3.5**.

Table 3.5 Observed Peak Hour Public Transport Utilization

Bound	Mode	Route No.	Observed No. of Vehicles	Total Service Capacity (pax) ⁽¹⁾	Observed Occupancy (pax)	Occupancy Rate (%)
AM Peak (07:00 – 09:00)						
Yuen Long	Bus	76K	5	450	119	26%
	GMB	75	12	198	166	84%
		76	5	83	68	82%
		78	4	76	30	39%
	PLB	17	49	817	579	71%
			Total	1,624	962	59%
Sheung Shui / San Tin	Bus	76K	4	360	47	13%
	GMB	75	14	233	157	67%
		76	4	67	45	67%
		78	5	92	42	46%
	PLB	17	41	674	449	67%
			Total	1,426	740	52%
PM Peak (17:30 – 19:30)						
Yuen Long	Bus	76K	4	360	135	38%
	GMB	75	18	309	297	96%

		76	6	96	70	73%
		78	4	76	32	42%
	PLB	17	43	718	653	91%
			Total	1,559	1,187	76%
Sheung Shui / San Tin	Bus	76K	6	540	47	9%
	GMB	75	10	172	139	81%
		76	6	96	92	96%
		78	4	76	33	43%
	PLB	17	40	667	535	80%
			Total	1,551	846	55%

Remarks: (1) The bus carrying capacity is assumed to be taken at 75% of 120, which equals to 90.

3.3.3 From **Table 3.5**, it can be noted that the passenger demands are mostly served by KMB 76K, GMB 75 and PLB 17. The bus service has an extensive service coverage running between Yuen Long and Sheung Shui, however its service level is still relatively low at a peak hour frequency of 20-30 minutes. For the PLB 17, it is a public light bus service with no designated routing, headway and fares.

3.3.4 Based on the number of boarding and alighting passengers from the survey, it is noted that the directional split of local residents in the vicinity is about 65% towards Yuen Long and 35% towards Sheung Shui in AM peak periods, while 68% towards Yuen Long and 32% towards Sheung Shui in PM peak periods.

3.4 Pedestrian Flow and Queuing Space Assessment

3.4.1 A pedestrian flows survey was also conducted on a typical weekday in October 2024, the operational performance of identified footpaths and concerned queuing area of bus stops at Castle Peak Road – Mai Po and San Tam Road in term of average flow of Level of Services (LOS), as stipulated in Highway Capacity Manual 2000 and Transport Planning & Design Manual (TPDM), has been assessed. The peak hour pedestrian flows in 2024 are shown in **Drawing 3.17**, and the results are summarized in below **Table 3.6** and **Table 3.7**.

Table 3.6 2024 Observed Level-Of-Service Assessment

Ref. ⁽¹⁾	Actual Width (m)	Effective Width (m) ⁽²⁾	2024 Observed Peak Hourly Flow (ped/hr)		2024 Observed Peak Flow Rate (ped/min/m) ⁽³⁾		LOS ⁽⁴⁾	
			AM	PM	AM	PM	AM	PM
Fp1	2.1	1.1	11	9	0.17	0.14	A	A
Fp2	2.3	1.3	20	41	0.26	0.53	A	A
Fp3	1.5	0.5	22	37	0.73	1.23	A	A
Fp4	1.7	0.7	5	6	0.12	0.14	A	A
Fp5	1.5	0.5	4	4	0.13	0.13	A	A

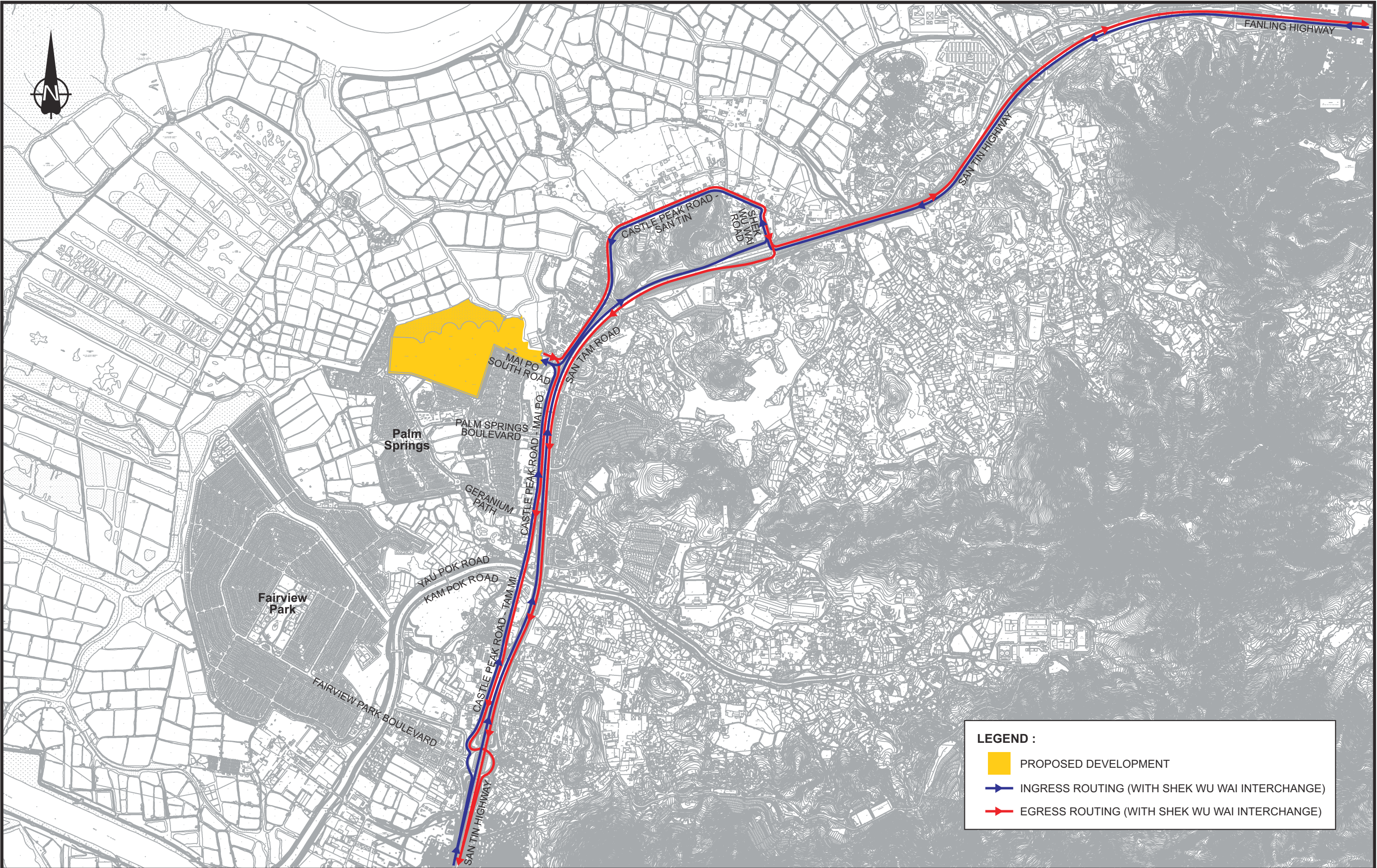
Remarks: (1) Refer to **Drawing 3.17** for locations and operational performance of identified footpaths.
(2) Effective width for footpath = Actual width – 1.0m dead width (0.5m dead width on one side of footpath).
(3) Peak flow rate = Peak hourly flow ÷ 60 ÷ effective width.
(4) Refer to TPDM Vol.6 Chapter 10 Chapter 10.5.2.

Table 3.7 2024 Observed Queuing Area Level-Of-Service Assessment at Bus Stops

Ref. ⁽¹⁾	2024 Observed Peak Hourly Passenger Flow at Bus Stop (pax/hr)	2024 Observed Maximum Queue at Queuing Area (pax)	Queuing Area (m ²)	Avg. Queuing Space (m ² /p)	LOS ⁽³⁾
Maple Garden Bus Stop – Yuen Long Bound (SB)	2	1 (i.e. 2/60x25)	5.8	5.8	A
Palm Springs Bus Stop – Sheung Shui Bound (NB)	2	1 (i.e. 2/60x25)	20.3	20.3	A

Remarks: (1) Refer to **Drawing 3.17** for locations of identified queuing area.
(2) Average Queuing Space = Queuing Area ÷ (Maximum Queue).
(3) Refer to HCM2000, EXHIBIT 11-9.

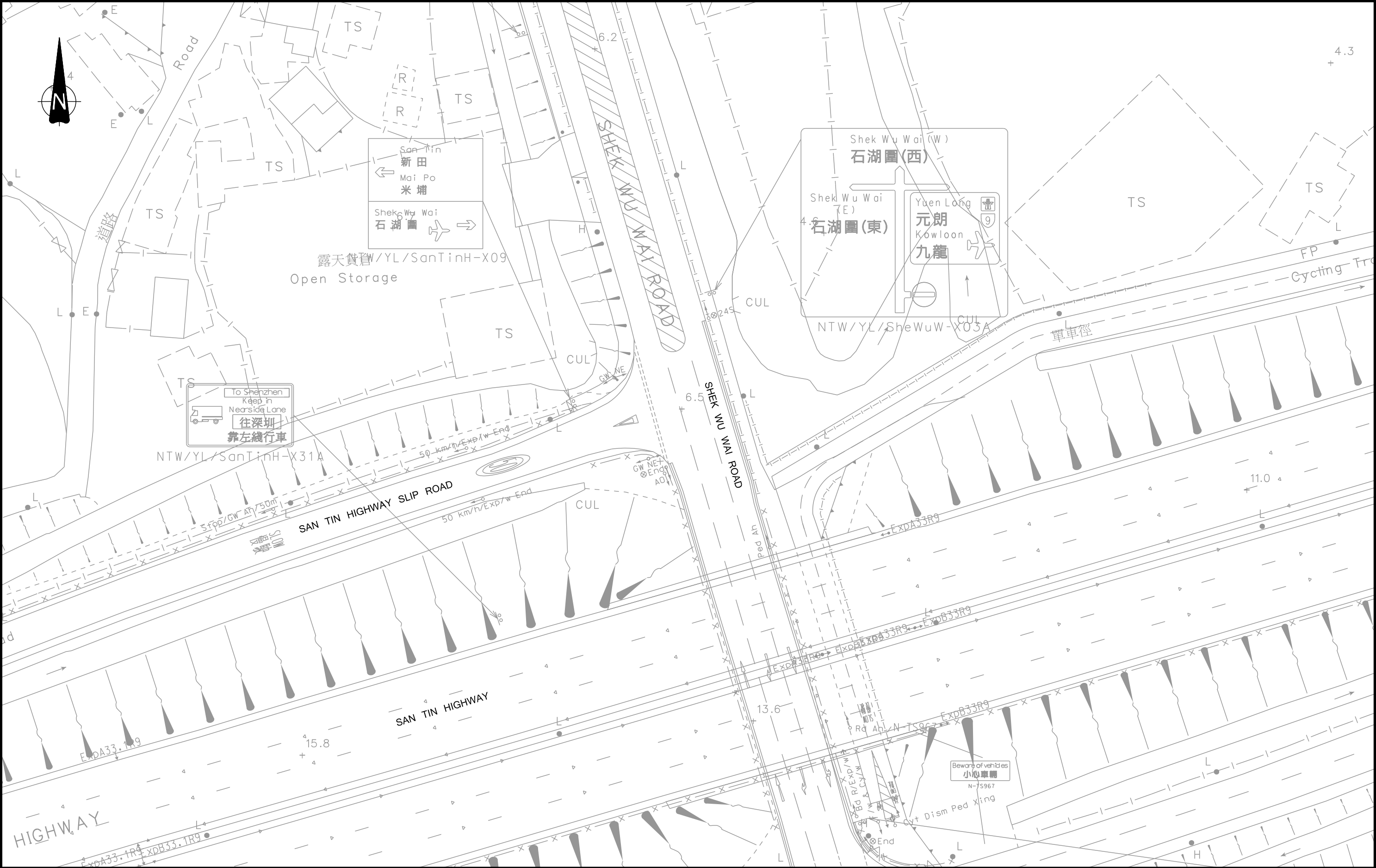
3.4.2 As shown in **Table 3.6** and **3.7**, the identified footpaths and queuing area at concerned bus stops are currently operating with adequate spare capacities during the typical weekday morning and evening peak hours.



LEGEND :

- PROPOSED DEVELOPMENT
- INGRESS ROUTING (WITH SHEK WU WAI INTERCHANGE)
- EGRESS ROUTING (WITH SHEK WU WAI INTERCHANGE)

-	-	-	-	Project Title	Drawing Title													
-	-	-	-															
-	-	-	-															
A	MINOR AMENDMENT	CFC	24DEC24															
Rev.	Description	Checked	Date	PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A. IN DD101			MAJOR INGRESS AND EGRESS ROUTE											
							Designed	MYC	Checked	CFC	Scale	NTS	Date	JUN 2024	Drawing No.	3.1	Rev.	A

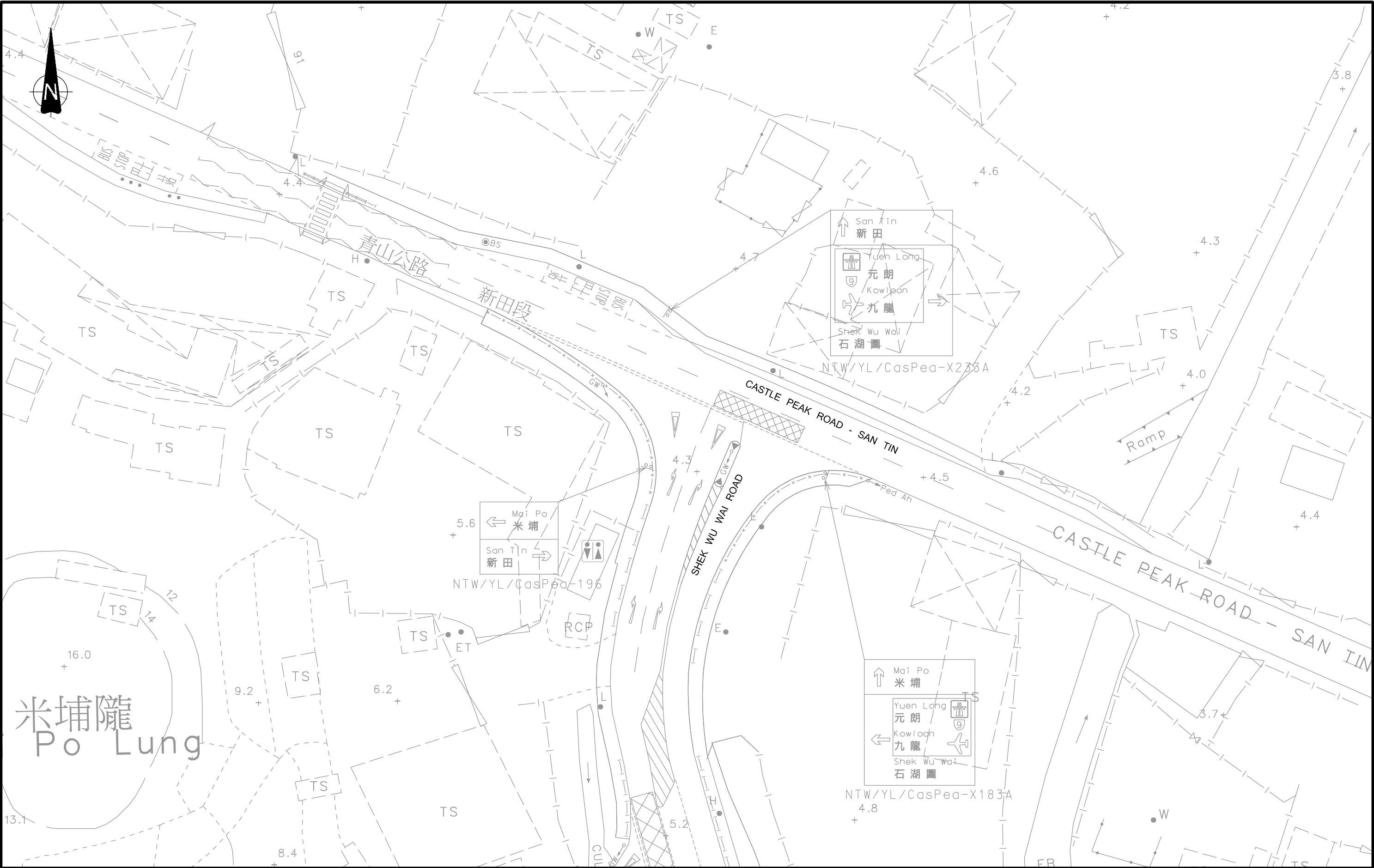


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Rev.	Description	Checked	Date

Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101

Drawing Title											
EXISTING JUNCTION LAYOUT OF SHEK WU WAI ROAD / SAN TIN HIGHWAY SLIP ROAD (A1)											
Designed	MYC	Checked	CFC	Scale	1:500(A3)	Date	DED 2024	Drawing No.	3.3	Rev.	-



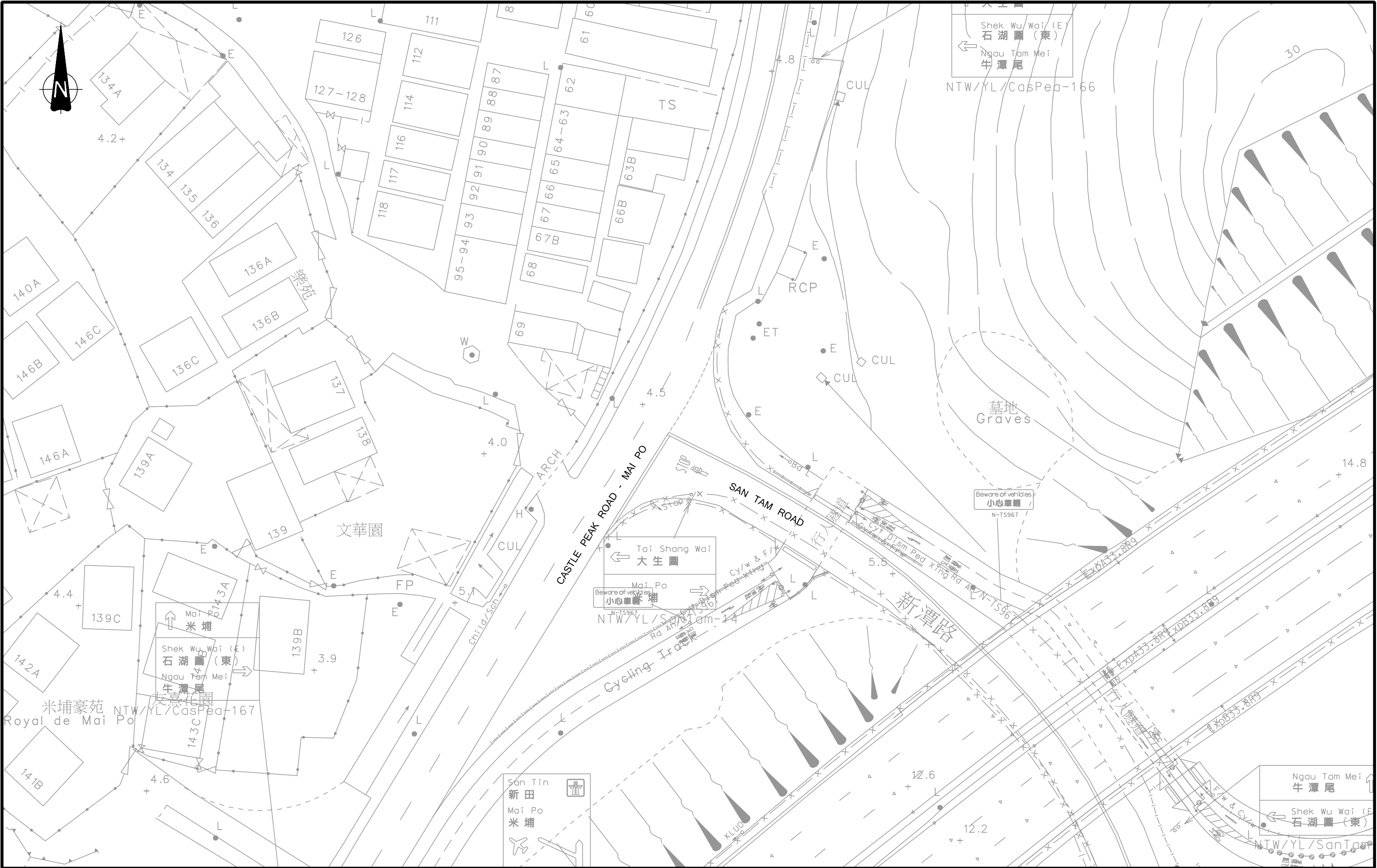


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Rev.	Description	Checked	Date

Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101

Drawing Title											
EXISTING JUNCTION LAYOUT OF CASTLE PEAK ROAD- SAN TIN / SHEK WU WAI ROAD (B)											
Designed	MYC	Checked	CFC	Scale	1:500(A3)	Date	DEC 2024	Drawing No.	3.5	Rev.	-





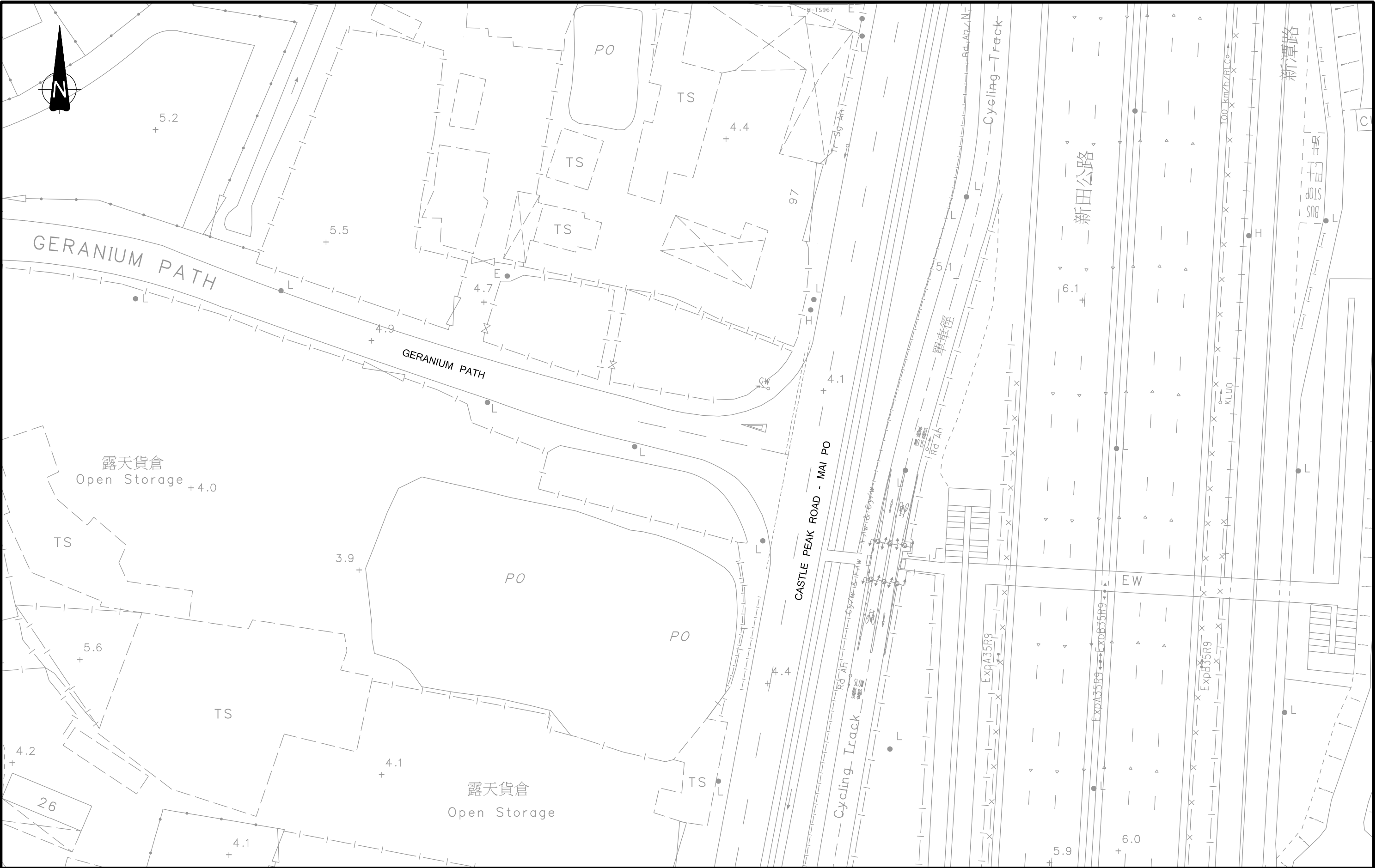
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Rev.	Description	Checked	Date

Project Title

PROPOSED COMPREHENSIVE DEVELOPMENT AT
WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101

Drawing Title			
EXISTING JUNCTION LAYOUT OF CASTLE PEAK ROAD - MAI PO / SAN TAM ROAD (C)			
Designed	MYC	Checked	CFC
Scale	1:500(A3)	Date	JUN 2024
Drawing No.	3.6	Rev.	-



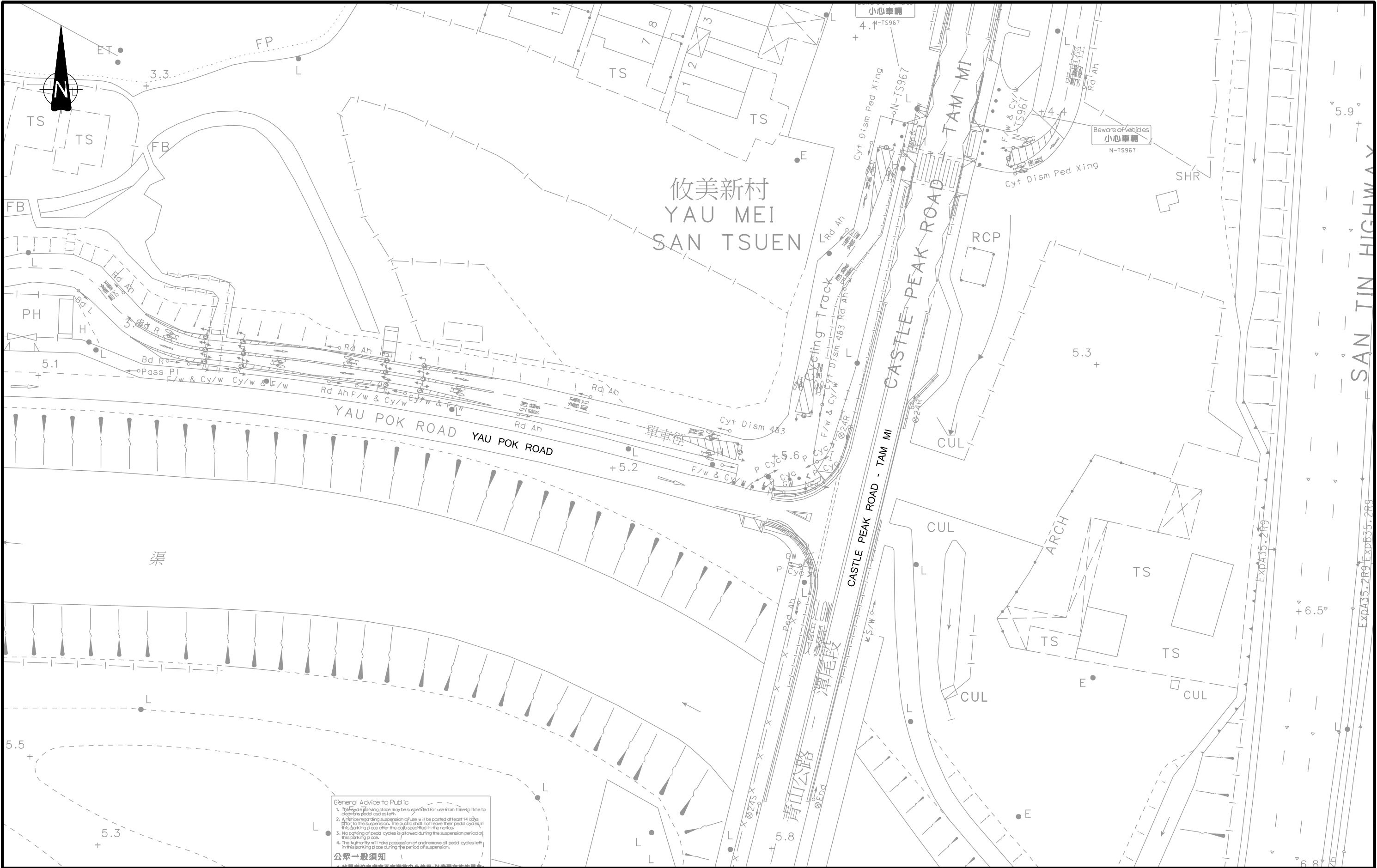


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Rev.	Description	Checked	Date

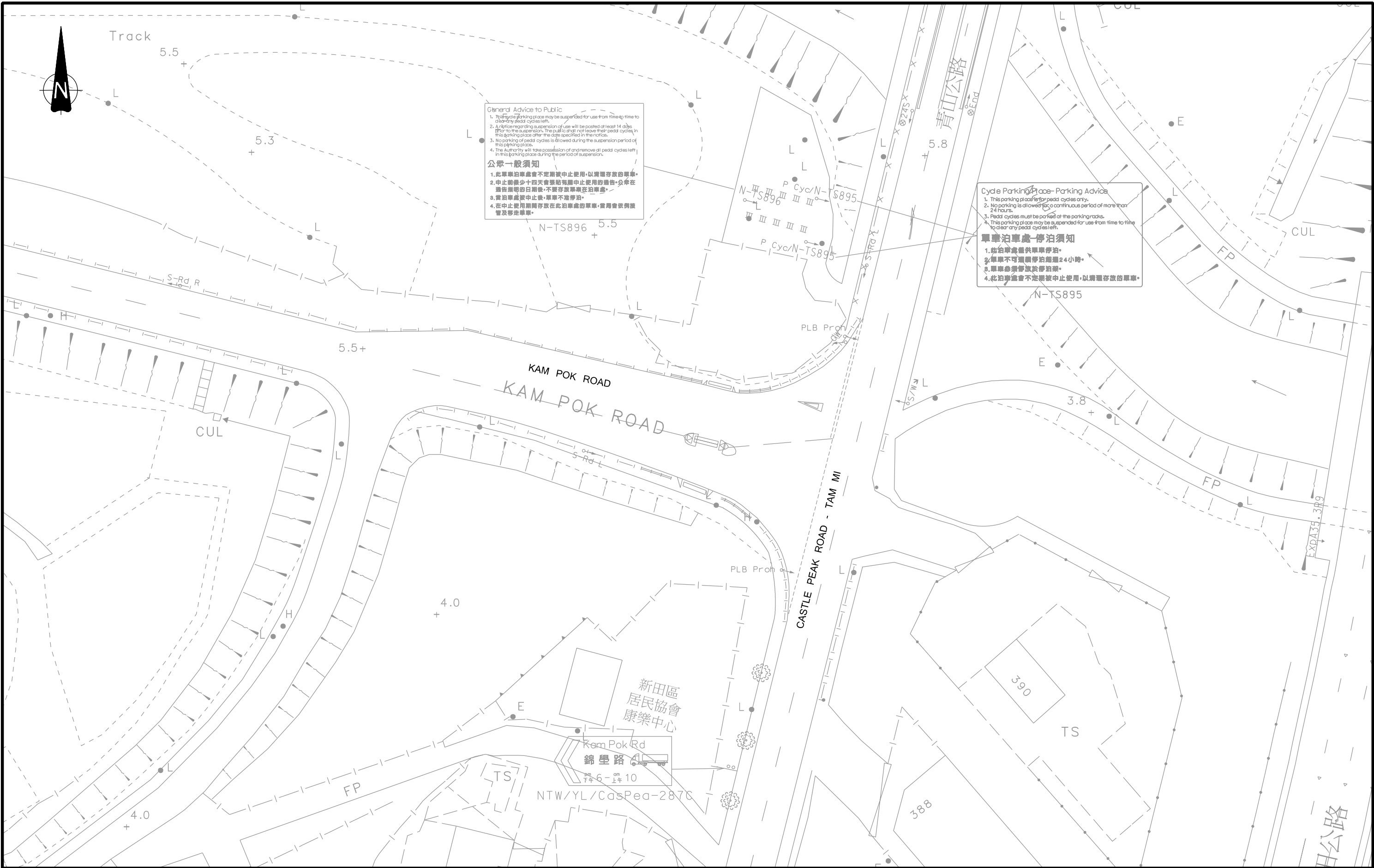
Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101

Drawing Title											
EXISTING JUNCTION LAYOUT OF CASTLE PEAK ROAD - MAI PO / GERANIUM PATH (E)											
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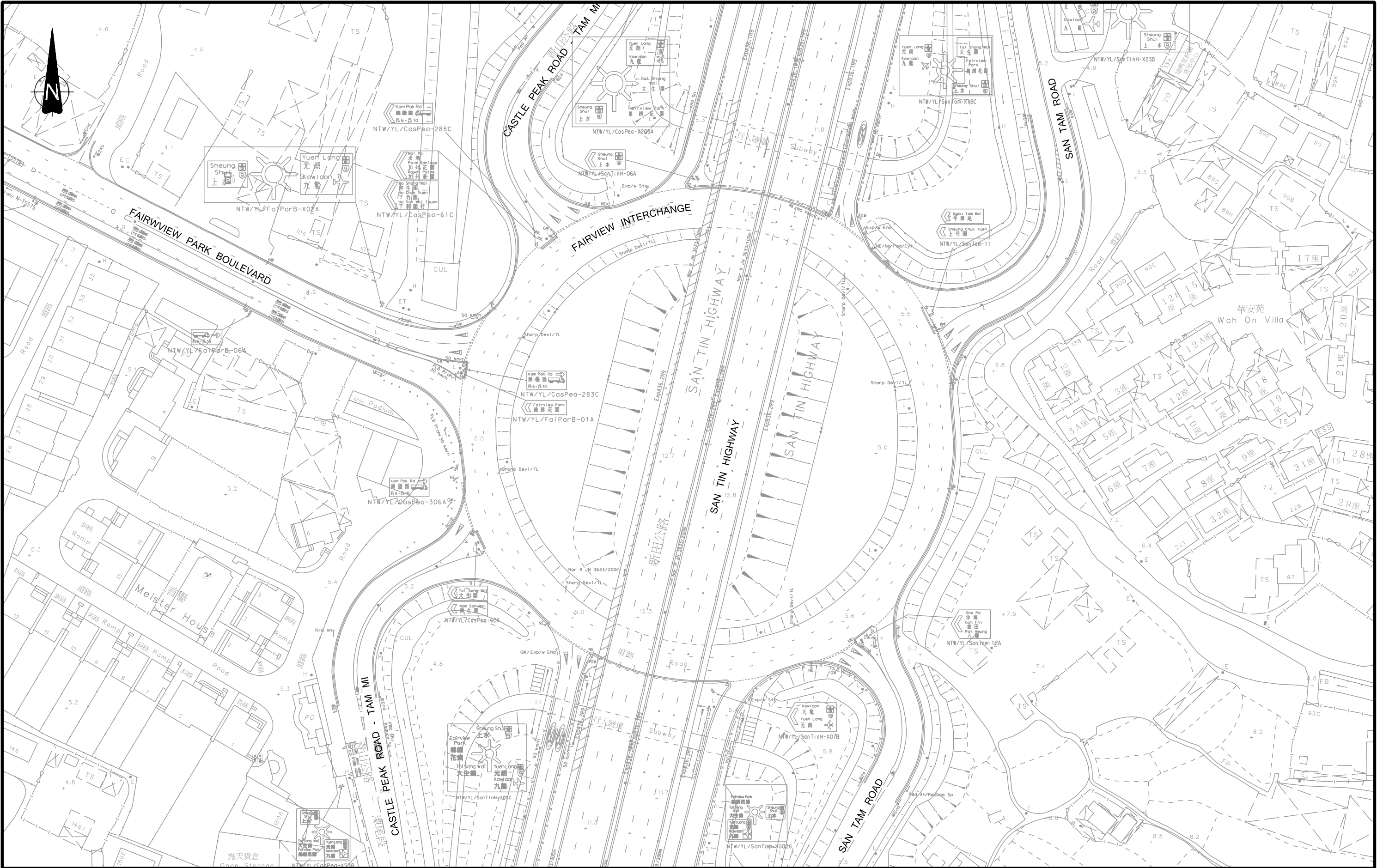




-	-	-	-	Project Title PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101	Drawing Title EXISTING JUNCTION LAYOUT OF CASTLE PEAK ROAD - TAM MI / YAU POK ROAD (F)											
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Rev.	Description	Checked	Date		Designed	MYC	Checked	CFC	Scale	1:500(A3)	Date	JUN 2024	Drawing No.	3.9	Rev.	-



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Rev.	Description	Checked	Date		Designed MYC	Checked CFC	Scale 1:500(A3)	Date JUN 2024	Drawing No. 3.10	Rev. -



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Rev.	Description	Checked	Date

Project Title

PROPOSED COMPREHENSIVE DEVELOPMENT AT
WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101

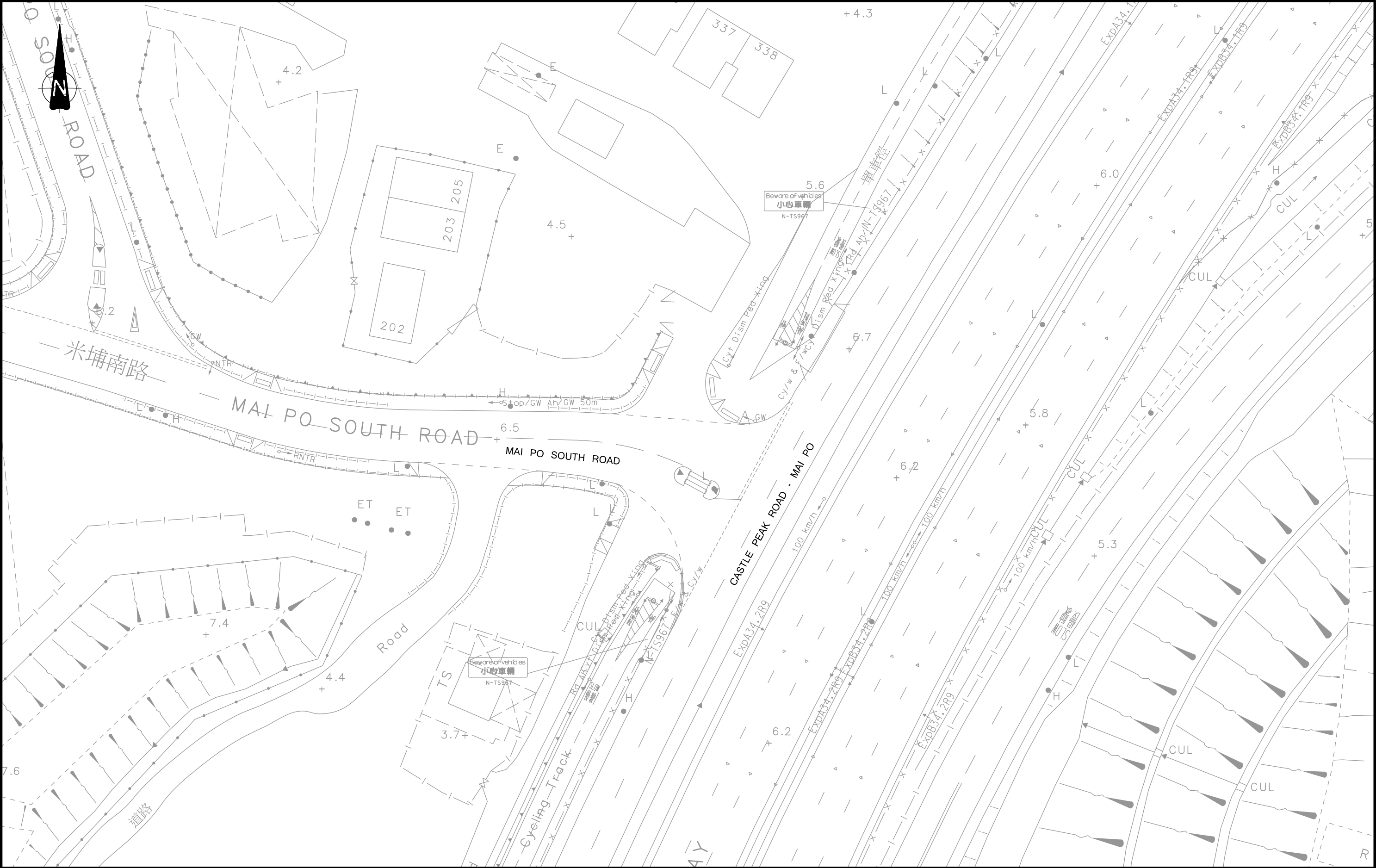
Drawing Title

EXISTING JUNCTION LAYOUT OF FAIRVIEW
PARK INTERCHANGE (H)

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SYSTRA

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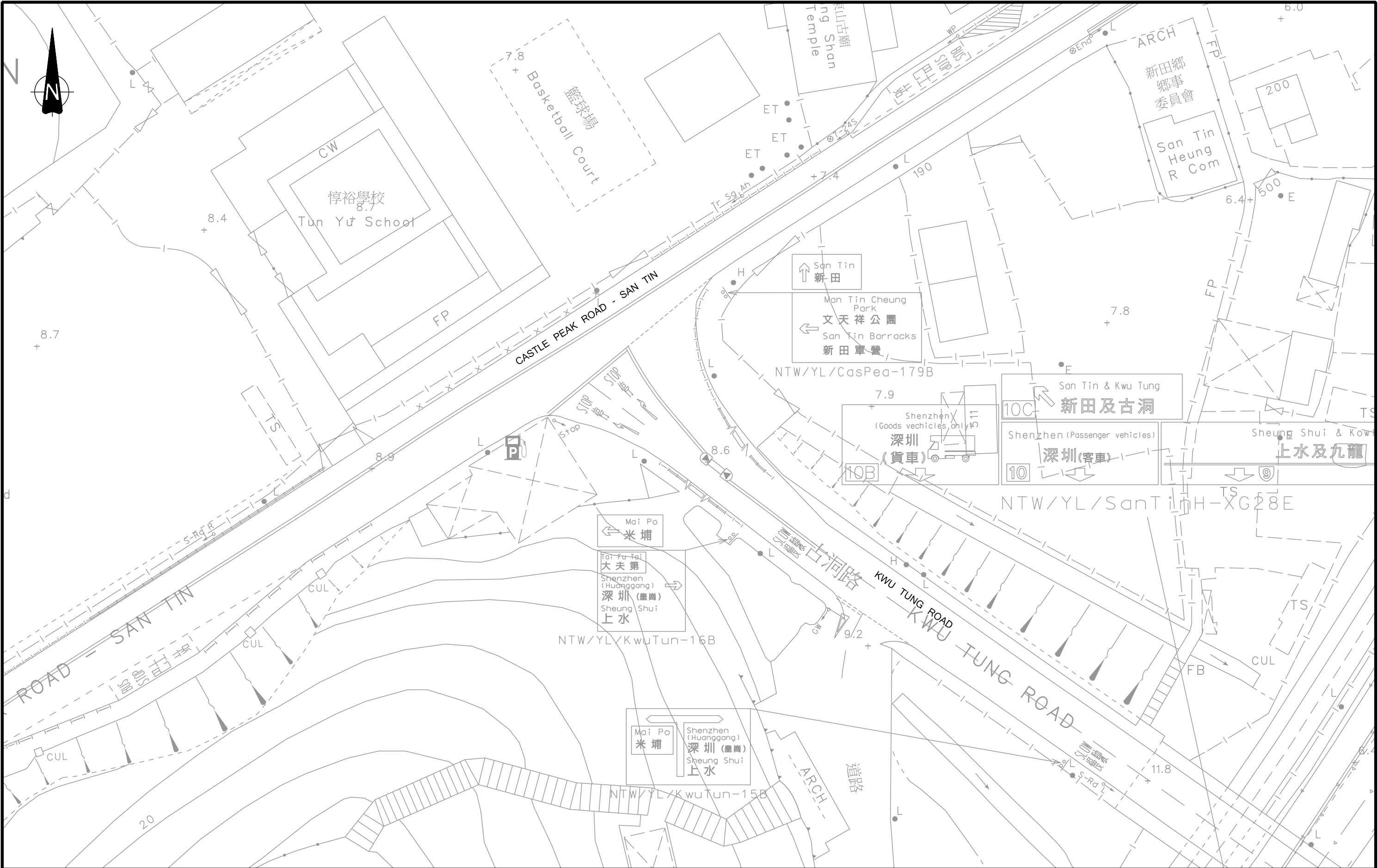


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Rev.	Description	Checked	Date

Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101

Drawing Title			
EXISTING JUNCTION LAYOUT OF CASTLE PEAK ROAD - MAI PO / MAI PO SOUTH ROAD (I)			
Designed MYC	Checked CFC	Scale 1:500(A3)	Date JUN 2024
Drawing No. 3.12		Rev. -	



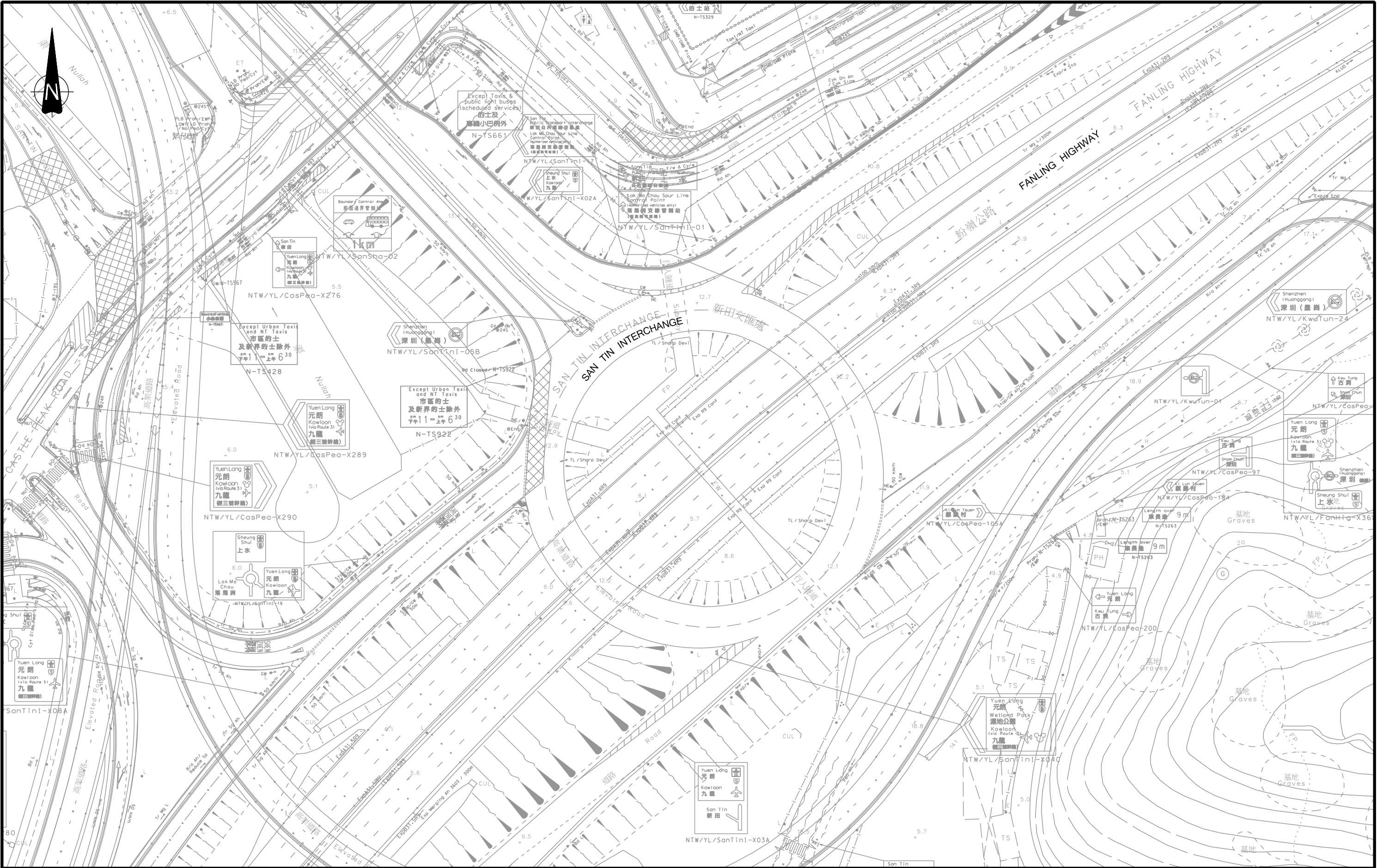


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Rev.	Description	Checked	Date

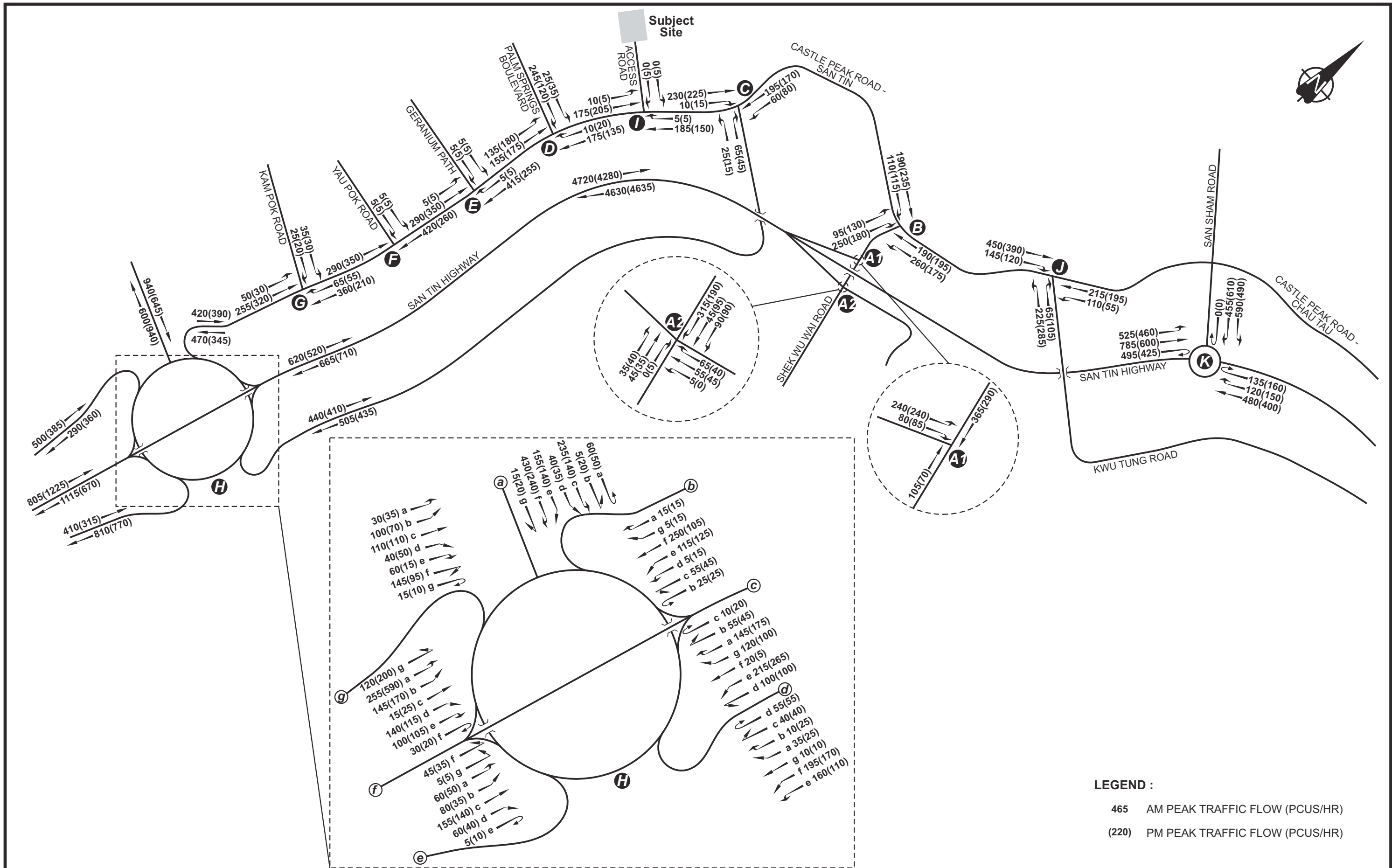
Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101

Drawing Title											
EXISTING JUNCTION LAYOUT OF CASTLE PEAK ROAD- SAN TIN / KWU TUNG ROAD (J)											
Designed	MYC	Checked	CFC	Scale	1:500(A3)	Date	MAY 2025	Drawing No.	3.13	Rev.	-





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Rev.	Description	Checked	Date		Designed MYC Checked CFC Scale 1:1000(A3) Date MAY 2025 Drawing No. 3.14 Rev. -							



LEGEND :

465 AM PEAK TRAFFIC FLOW (PCUS/HR)

(220) PM PEAK TRAFFIC FLOW (PCUS/HR)

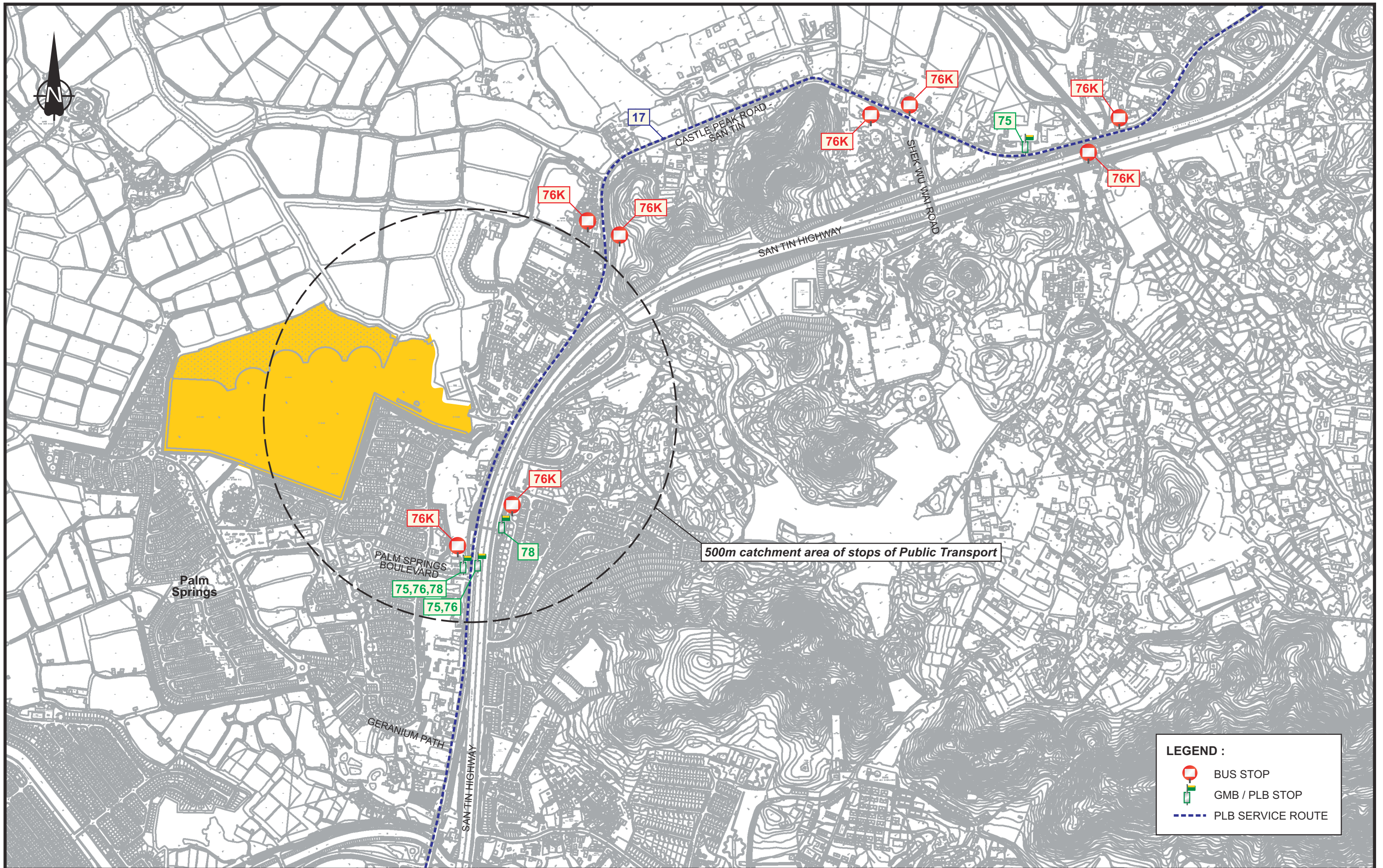
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A	REVISE FIGURE NO.	CFC	23MAY25
Rev.	Description	Checked	Date

CHK50800610/TIA/F315-A.CDR/LLH/23MAY25

Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A. IN DD101

Drawing Title											
2024 OBSERVED TRAFFIC FLOWS											
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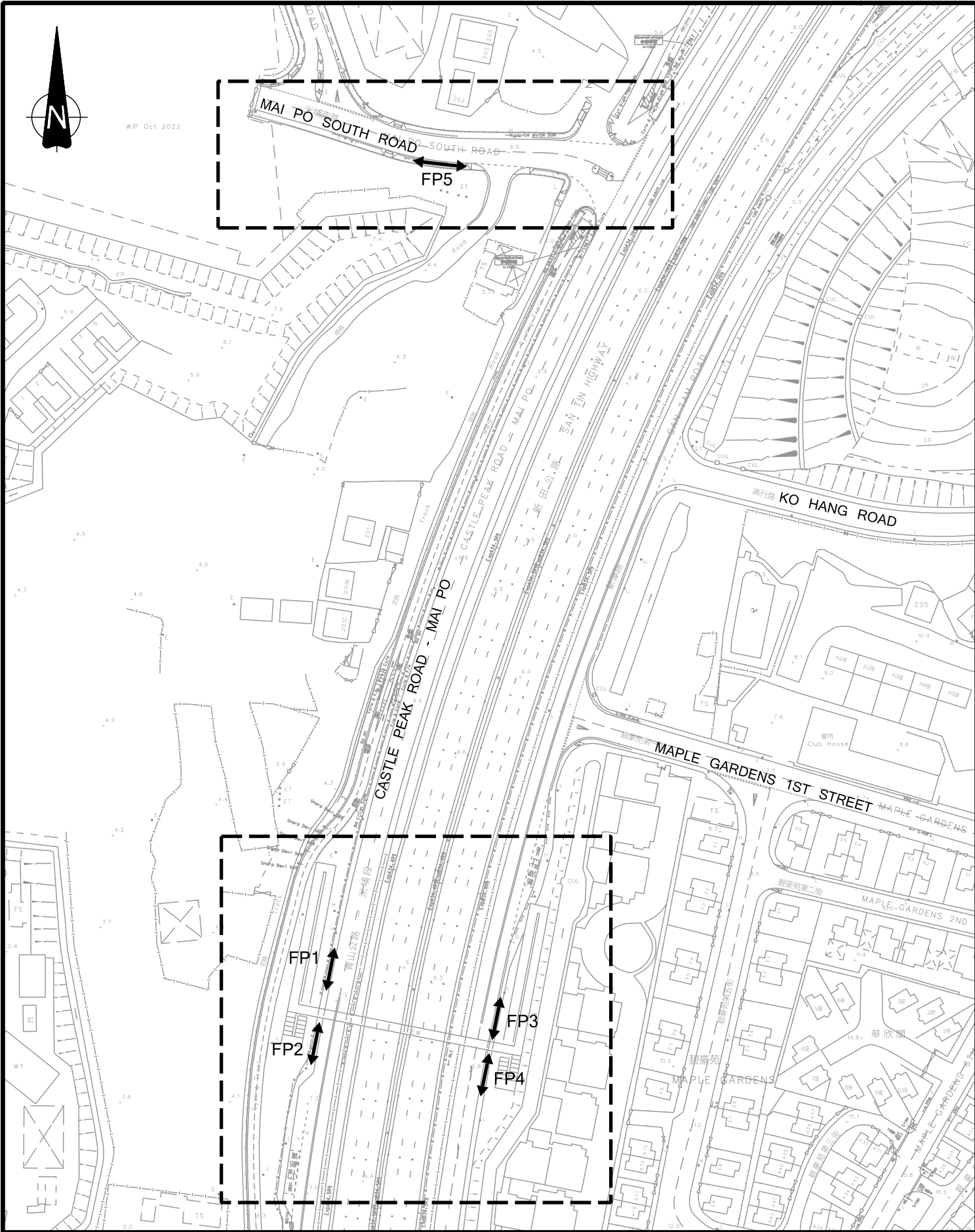


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Rev.	Description	Checked	Date

Project Title
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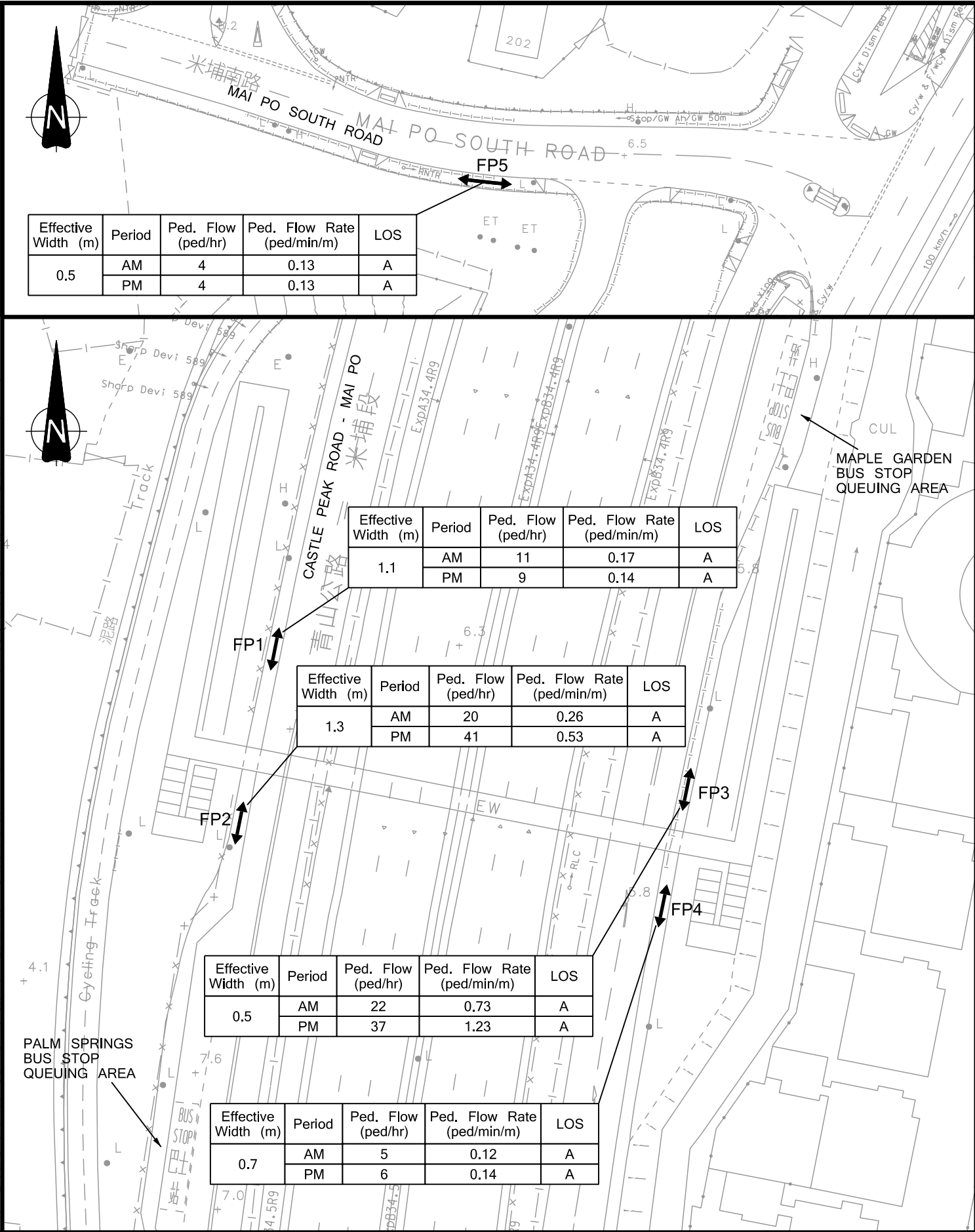
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CURRENT PROVISION OF PUBLIC TRANSPORT SERVICES											
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A	TD COMMENT INCORPORATED	CFC	15AUG25
Rev.	Description	Checked	Date

Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101



Effective Width (m)	Period	Ped. Flow (ped/hr)	Ped. Flow Rate (ped/min/m)	LOS
0.5	AM	4	0.13	A
	PM	4	0.13	A

Effective Width (m)	Period	Ped. Flow (ped/hr)	Ped. Flow Rate (ped/min/m)	LOS
1.1	AM	11	0.17	A
	PM	9	0.14	A

Effective Width (m)	Period	Ped. Flow (ped/hr)	Ped. Flow Rate (ped/min/m)	LOS
1.3	AM	20	0.26	A
	PM	41	0.53	A

Effective Width (m)	Period	Ped. Flow (ped/hr)	Ped. Flow Rate (ped/min/m)	LOS
0.5	AM	22	0.73	A
	PM	37	1.23	A

Effective Width (m)	Period	Ped. Flow (ped/hr)	Ped. Flow Rate (ped/min/m)	LOS
0.7	AM	5	0.12	A
	PM	6	0.14	A

Drawing Title											
YEAR 2024 OBSERVED PEAK HOUR PEDESTRIAN FLOWS											
Designed	MYC	Checked	CFC	Scale	N.T.S. (A3)	Date	DEC 2024	Drawing No.	3.17	Rev.	A



4. TRAFFIC FORECAST

4.1 Design Year

- 4.1.1 The tentative operation year of the proposed development is by 2031. Hence, the design year of 2034, three years upon operation, has been adopted for traffic forecast and assessment purposes.

4.2 Reference Traffic Forecast

Planning Application of Y/YL-MP/10

- 4.2.1 In order to produce the traffic forecast for the strategic highway and other local road links at the design year of 2034, reference has been made to the 2-tier model from nearby approved planning application, Y/YL-MP/10 for proposed development in various lots and adjacent Government Land in DD 104, Yuen Long, N.T.. Subject to review of the traffic flow in Year 2034 and the accounted planned development in the TIA report of Y/YL-MP/10, further adjustment has been made to produce the 2034 Reference traffic flow for study purpose.

Toll Plans Changes for Tai Lam Tunnel

- 4.2.2 The Government has taken over the Tai Lam Tunnel and implement new tolls on 31 May 2025. Based on the Legislative Council paper regarding the tolling scenarios for Tai Lam Tunnel upon Government's Takeover, the V/C ratio of Tai Lam Tunnel would be changed. With the review of BDTM flow of Tolo Highway and the major junctions along, adjustment on traffic flow is also included into the traffic forecast to reflect the situation accordingly.

Effect of Northern Link (NOL) and Northern Metropolis (NM) Highway

- 4.2.3 The proposed NOL Main Line would be a railway of about 10.7 kilometres connecting the Kam Sheung Road Station and the planned Kwu Tung Station, with three intermediate stations at San Tin, Ngau Tam Mei and Au Tau. Construction of the NOL Main Line is expected to commence in 2025 for completion in 2034.
- 4.2.4 The proposed NM Highway is a major east-west corridor linking the development nodes (including Ngau Tam Mei, San Tin Technopole, Kwu Tung North/Fanling North and New Territories North (NTN) New Town) in the Northern Metropolis with a total length of approximately 23 kilometers. The NM Highway will enhance accessibility to the new development areas and further enhance cross-boundary road connections. Upon commissioning of the NM Highway, it can alleviate traffic pressure on existing roads. The commissioning of San Tin section is targeted in or before Year 2036.
- 4.2.5 The impact of NOL has been considered in the 2-tier model from nearby approved planning application, Y/YL-MP/10. Although the impact of NM Highway has not been reflected in the traffic forecast, the commissioning of both NM Highway would be expected to share the burden of road traffic and help to improve the road junction and road link performance. The population intake programme of the proposed development will take into account the commissioning programme of NOL and the capacity of road network to ensure that the proposed development would not cause any significant traffic impact to the road network.

San Tin Technopole

- 4.2.6 The large-scale development of San Tin Technopole (STT) will be constructed and intake by different phases, as illustrated in **Annex B** and **Annex C**. The summary will be as shown in **Table 4.1**.

Table 4.1 Phasing of San Tin Technopole

Phases ⁽¹⁾	Proposed Commencement of Works	Proposed Intake Year
Initial Phase	Year 2024	Year 2031
Main Phase	Year 2026	Year 2034
Remaining Phase	Year 2032	Year 2039

Remark: (1) Source from EIA study of First Phase Development of the New Territories North – San Tin / Lok Ma Chau Development Node - Investigation.

- 4.2.7 The development trips in “Initial Phase” and “Main Phase” would be considered in the assessment of Year 2034. The related development schedules and estimated traffic generations are summarized in below **Table 4.2**. The estimated traffic flows of STT under Year 2034 are shown in **Drawing 4.1**.

Table 4.2 Development Trips of San Tin Technopole Adopted in Assessment

Ref. ⁽¹⁾	Development Schedule	Parameters	Trip Generations (pcu/hr)			
			AM Peak		PM Peak	
			Gen	Att	Gen	Att
San Tin Technopole (Initial Phase and Main Phase)	Information and Technology (I&T) Section	(120,000 Employment)	2,139 ⁽²⁾	3,080 ⁽²⁾	1,976 ⁽²⁾	1,477 ⁽²⁾
	Logistics & Storage and Workshop	(Approximate 758,000 m ²)	702 ⁽³⁾	1,051 ⁽³⁾	1,023 ⁽³⁾	795 ⁽³⁾
	Public Housing	Approximate 25,805 units (Average house/flat size of about 50 m ²)	1,418 ⁽⁴⁾	901 ⁽⁴⁾	695 ⁽⁴⁾	967 ⁽⁴⁾
	Private Housing	Approximate 12,200 units (Average house/flat size of about 60 m ²)	612 ⁽⁵⁾	271 ⁽⁵⁾	237 ⁽⁵⁾	370 ⁽⁵⁾

Remark:

- (1) Source from EIA study of First Phase Development of the New Territories North – San Tin / Lok Ma Chau Development Node - Investigation.
 (2) Based on 120,000 I&T employment in TPB Land Use Proposal; average daily mechanised home-based work trips per employed person of 1.41 trips, peak hour percentage to daily total trips of 12%, distribution of boardings by transport mode (LRT, tram and ferry excluded) in TCS 2011 (87.4% of PT trips and 12.6% of PC/Taxi trips); and assumed capacity of franchised bus, PLB, shuttle bus and PC.
 (3) Based on site area measurement, plot ratio of 2/ 5 in RODP, and traffic generation and attraction rates for industrial building in TPDM.
 (4) Based on site area measurement, plot ratio of 6.5 in RODP, assumed average flat size of 50 m², consideration of new flat units about 50,000-54,000 in TPB land use proposal, and traffic generation and attraction rates for subsidised housing: HOS/PSPS in TPDM.
 (5) Based on site area measurement, plot ratio of 6 in RODP, assumed average flat size of 60 m², consideration of new flat units about 50,000 - 54,000 in TPB land use proposal, and traffic generation and attraction rates for private housing: high-density/R(A) in TPDM.

Development Proposal of Ngau Tam Mei

- 4.2.8 The Government has recently disclosed the broad development proposal of Ngau Tam Mei (NTM) under Legislative Council Paper (No. CB(1)1487/2024(04). It is proposed to reserve land in NTM for use of post-secondary education institutions (self-sustained UniTown) with integrated residential neighbourhood. The first population intake is expected to take place gradually from Year 2034 onwards to tally with the commissioning of NOL Main Line.
- 4.2.9 According to the broad land use concept plan, NTM is expected to be served by the new Northern Metropolis (NM) Highway, while direct road connections/interchange are proposed to San Tin Highway and STT. Besides, upon NOL opening by Year 2034, MTR Ngau Tam Mei

Station is expected to attract and shift some of the existing road traffic into railway, it is anticipated that the traffic conditions along San Tam Road and the existing Fairview Park Boulevard Interchange will be largely improved. With reviewed of the traffic flow of 2-tier model of Y/YL-MP/10, it has already been considered in the traffic forecast.

Other Planned/Committed Developments

4.2.10 Apart from San Tin Technopole, there are also a number of other planned/committed developments located in the vicinity that are expected to be completed by year 2034. The Proposed temporary light public housing development (in various lots in D.D. 104 and adjoining government land, Yau Pok Road, Yuen Long) is excluded in the assessment due to its anticipated completion year (2024/2025), and the proposed 5-year operation period. Upon the comment received from PlanD, the development schedules of these developments and estimated traffic generations are summarized in **Table 4.3** and the locations of these developments are indicated in **Drawing 4.2**.

Table 4.3 Other Planned/Committed Developments

Ref. ⁽¹⁾	Developments Location; Application No.	Parameters	Trip Generations (pcu/hr)			
			AM Peak		PM Peak	
			Gen	Att	Gen	Att
1	Lots 3152, 3153 RP, 3156 S.B and 4805 in D.D. 104 and Adjoining Government Land (GL), Kam Pok Road, Mai Po, Yuen Long, Y/YL-MP/10	2,322 units (average flat size of about 42.4 m ²)	167 ⁽³⁾	99 ⁽³⁾	67 ⁽³⁾	86 ⁽³⁾
		Public Transport	28 ⁽³⁾	28 ⁽³⁾	28 ⁽³⁾	28 ⁽³⁾
		Retail (2,363 m ²)	6 ⁽³⁾	6 ⁽³⁾	8 ⁽³⁾	9 ⁽³⁾
		Kindergarten (6 Classrooms)	47 ⁽³⁾	47 ⁽³⁾	2 ⁽³⁾	2 ⁽³⁾
		Neighbourhood Elderly Centre (NEC)	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾
2	Proposed House development in various lots in D.D. 104 and adjoining government land, Mai Po, Yuen Long, A/YL-MP/287	65 units (average flat size of about 116 m ²)	15	8	7	10
3	Various Lots in D.D. 104 and adjoining Government Land, Wing Kei Tsuen, Nam Sang Wai, Yuen Long, Y/YL-NSW/7	1,997 units (average flat size of about 49 m ²)	143	85	57	74
		Retail (900 m ²)	2	2	3	3
		Kindergarten / Child Care Centre (2,200 m ²)	10 ⁽²⁾	10 ⁽²⁾	10 ⁽²⁾	10 ⁽²⁾
4	Sha Po Public Housing Development, N/A	16,300 units	1,385	1,155	850	1,020
5	Lots 8 RP (Part), 8 S.A RP, 12, 13, 14 S.B ss.2, 14 S.B RP, 14 S.C RP, 16, 17, 31 S.B RP, 33 RP, 36 RP, 45, 55 S.A and 1740 S.A RP in D.D.107 and Adjoining Government Land, West of Castle Peak Road – Tam Mi, Yuen Long, Y/YL-NSW/8	6,825 units (Average Flat Size 37.5 m ²)	491 ⁽³⁾	291 ⁽³⁾	196 ⁽³⁾	253 ⁽³⁾
		Retail (3,950m ²)	10 ⁽³⁾	10 ⁽³⁾	13 ⁽³⁾	15 ⁽³⁾
		GIC Facilities (2 nos.)	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾
		Kindergarten (8 Classrooms)	25 ⁽³⁾	25 ⁽³⁾	1 ⁽³⁾	1 ⁽³⁾
6	Lots 1910 RP (Part) and 1743 S.C RP (Part) in D.D. 107 and Adjoining Government Land, West of Castle Peak Road – Tam Mi, Yuen Long, Y/YL-NSW/9	3,115 units (Average Flat Size 37.2 m ²)	224 ⁽³⁾	133 ⁽³⁾	90 ⁽³⁾	116 ⁽³⁾
		Retail (3,900 m ²)	9 ⁽³⁾	10 ⁽³⁾	13 ⁽³⁾	14 ⁽³⁾
		1 School	7 ⁽³⁾	30 ⁽³⁾	1 ⁽³⁾	1 ⁽³⁾
		Kindergarten (8 Classrooms)	25 ⁽³⁾	25 ⁽³⁾	1 ⁽³⁾	1 ⁽³⁾

Ref. ⁽¹⁾	Developments Location; Application No.	Parameters	Trip Generations (pcu/hr)			
			AM Peak		PM Peak	
			Gen	Att	Gen	Att
		Relocated Soy Sauce Factory (13,700 m ²)	0 ⁽³⁾	4 ⁽³⁾	10 ⁽³⁾	2 ⁽³⁾
7	Various Lots in D.D. 103 and D.D. 115, Tung Shing Lei, Nam Sang Wai, Yuen Long, YL-NSW/293	3,556 units (average flat size of about 44 m ²)	255	151	102	132
		9 Houses (assumed average house size of 120 m ²)	2	1	1	1
		Retail (5,358 m ²)	12	13	17	19
8	Ho Chau Road, Yuen Long, New Territories (near Tung Shing Lei) (Various lots in D.D. 115 and adjoining Government land), LSPS/002	Private Housing 1,261 units (average flat size of about 40 m ²)	91	54	37	47
		Public Housing 1,868 units (average flat size of about 50 m ²)	117	80	56	75
		Retail 3,045 m ²	7	8	10	11
9	Lots 592 S.C ss.1 S.A, 592 S.C ss.4 and 1252 S.C in D.D. 115, Nam Sang Wai, Yuen Long, A/YL-NSW/274	1,518 units (average flat size of About 46 m ²)	109	65	43	56
		Retail / Commercial (1,800 m ²)	4	4	6	6
		Wellness Centre	10 ⁽²⁾	10 ⁽²⁾	10 ⁽²⁾	10 ⁽²⁾
		Special Child Care Centre	10 ⁽²⁾	10 ⁽²⁾	10 ⁽²⁾	10 ⁽²⁾
10	Lot 4823 in D.D. 104, Ngau Tam Mei, Yuen Long, Y/YL-NTM/9	5,400 m ² GFA Elderly Care Home 142 Beds	10 ⁽²⁾	10 ⁽²⁾	10 ⁽²⁾	10 ⁽²⁾
11	Various Lots in D.D. 107 and Adjoining Government Land, Cheung Chun San Tsuen, Kam Tin, Yuen Long, A/YL-KTN/604	3,891 units (average flat size of about 46 m ²)	279	165	111	144
		Eating Place/Shop and Services (5,500 m ²)	13	13	17	20
		Social Welfare Facility (788 m ²)	10 ⁽²⁾	10 ⁽²⁾	10 ⁽²⁾	10 ⁽²⁾
12	Phase 2 Development of Lots 1783 (Part), 1784 RP, 1788 RP, 1789 RP, 1790 RP (Part), 1791 RP, 1795 (Part), 1796 (Part), 1797 (Part), 1836 (Part), 1927 S.A and 1927 RP (Part) in D.D. 107 and Adjoining Government Land, Kam Tin, Yuen Long, A/YL-KTN/663	1,154 units (average flat size of about 43 m ²)	83	49	33	43
13	Lot 2206 in D.D. 109, Kam Tai Road, Kam Tin, Yuen Long, A/YL-KTN/791	330 units (average house/flat size of about 39 m ²)	24	14	9	12
14	Lots 3054 S.A RP (Part), 3200 RP (Part), 3200 S.A RP, 3201 RP (Part), 3202 (Part), 3203 RP, 3204 RP, 3205 RP, 3156 RP, 3211 RP, 3212 RP, 3213 RP, 3214 S.A, 3 214 S.B, 3215, 3216, 3217, 3218 RP (Part), 3250 S.B ss.23 RP (Part), 3250 S.B ss.33 RP (Part) in D.D. 104, and Adjoining Government Land, Yuen Long, Y/YL-MP/3	106 Houses (average house size of about 163 m ²)	30	19	18	26
		Retail 607 m ²	2	2	2	3
15	Lot 1071 in D.D. 103, Ha Ko Po Tsuen, Kam Tin, Yuen Long, A/YL-KTN/964	615 units (average flat size	45	27	18	23

Ref. ⁽¹⁾	Developments Location; Application No.	Parameters	Trip Generations (pcu/hr)			
			AM Peak		PM Peak	
			Gen	Att	Gen	Att
		of about 38 m ²)				
		Retail 1,165 m ²	3	3	4	5
16	Lots 870 S.A, 870 RP, 877 RP, 878 S.A, 878 S.B, 878 S.C, 878 S.D, 878 S.E, 878 S.F, 878 RP and 892 in D.D. 115 and Adjoining Government Land, Tung Shing Lei, Nam Sang Wai, Yuen Long, A/YL-NSW/303	90 units (senior hostel, average flat size of about 66 m ²)	7	4	3	4
		5,400 m ² residential care home for the elderly 127 Beds	10 ⁽²⁾	10 ⁽²⁾	10 ⁽²⁾	10 ⁽²⁾
17	Lots 879, 880 S.A ss.1, 880 S.B ss.1, 881 to 885, 889 RP (Part), 891 (Part), 1318, 1326 and 1344 in D.D. 115 and Adjoining Government Land, Au Tau, Nam Sang Wai, Yuen Long, A/YL-NSW/292	9,178.9 m ² residential care home for the elderly 530 Beds	23 ⁽³⁾	27 ⁽³⁾	21 ⁽³⁾	27 ⁽³⁾
18	Proposed Comprehensive Development Scheme to include Wetland Restoration Proposal and Proposed Filling of Ponds/Land and Excavation of Land in "OU(CDWRA)" Zone at Various Lots in D.D. 104, North of Kam Pok Road East, Pok Wai, Yuen Long, New Territories, A/YL-NSW/314	90 units (average flat size of about 227 m ²)	28 ⁽³⁾	21 ⁽³⁾	21 ⁽³⁾	31 ⁽³⁾

Remark: (1) Refer to **Drawing 4.2** for development locations.

(2) Assume Nominal Trips of 10 pcu/hr.

(3) Trips generation from project's TIA report.

4.2.11 Based on the above, the year 2034 reference traffic flows, as shown in **Drawing 4.3** are produced according to the following:

Local Road Links: = Review Year 2034 Reference Traffic Flows + Adjustment of other Planned/Committed Development Trip Generation

4.3 Development Traffic Generations

Trip Generation of Proposed Scheme

4.3.1 The proposed development will provide 3,562 units and the related trip generations of the residential units are estimated in accordance with the relevant trip rates as tabulated in the Transport Planning Design Manual (TPDM). With the provision of 100-bed RCHE, reference is made to the traffic trip rates as surveyed from the existing similar social welfare development. **Table 4.4** summarises the trip rates of the proposed development.

Table 4.4 Estimated Trip Rates of Proposed Development

	Trip Generations			
	AM Peak		PM Peak	
	Gen	Att	Gen	Att
Residential Trip Rate (pcu/hr/flat)				
R(A), Average flat size = 70m ² per unit, Mean rate, for 3,056 units	0.0888	0.0515	0.0356	0.0480
R(A), Average flat size = 80m ² per unit, Mean rate, for 378 units	0.1058	0.0605	0.0426	0.0590

R(C), Average flat size = 180m ² per unit, Mean rate, for 104 units	0.2772	0.1769	0.1635	0.2394
R(C), Average flat size = 300m ² per unit, Mean rate, for 24 units	0.3252	0.2609	0.2835	0.4074
Surveyed RCHE Trip Rate (pcu/hr/bed)				
Fung Kai Care and Attention Home for the Elderly, Sheung Shui ⁽¹⁾	0.0297	0.0372	0.0069	0.0069
Hong Kong Sheng Kung Hui John Yuen Home for the Elderly, Tseung Kwan O ⁽¹⁾	0.0286	0.0380	0.0357	0.0207
The Christian God's Love Care Home ⁽²⁾	0.0051	0	0	0
Hongtai Home For The Aged Limited ⁽²⁾	0	0	0	0
Adopted RCHE Trip Rate (pcu/hr/bed)⁽³⁾	0.0297	0.0380	0.0357	0.0207

Remark: (1) Trip rates as derived from the consultant's surveys in mid-Sep 2024.

(2) Trip rates as derived from the consultant's surveys in mid-Jul 2025.

(3) The surveyed highest trip rates to be adopted for conservative assessments.

4.3.2 The resulting trip generations of the proposed development are summarized in **Table 4.5**.

Table 4.5 Estimated Trip Generation of Proposed Development

	Trip Generations			
	AM Peak		PM Peak	
	Gen	Att	Gen	Att
Residential Trips⁽¹⁾				
3,056 units with an average flat size of 70m ²	271	157	109	147
378 units with an average flat size of 80m ²	40	23	16	22
104 units with an average flat size of 180m ²	29	18	17	25
24 units with an average flat size of 300m ²	8	6	7	10
Total Residential Trips (3,562 units) (pcu/hr)	348	204	149	204
RCHE Trips⁽¹⁾				
RCHE Trips (100-bed) (pcu/hr)	3	4	4	2
Induced Proposed Bus Service⁽²⁾				
Induced Proposed Bus Trips (pcu/hr)	40	40	40	40
Enhancement of Public Transport⁽³⁾				
Enhancement of Public Transport (pcu/hr) ⁽⁴⁾	5	0	3	5
Total (pcu/hr):	396	248	196	251

Remark: (1) By referring to **Table 4.4**.

(2) By referring to **Para 4.3.7**.

(3) By referring to **Table 4.8** and **Para 4.3.11**.

(4) Pcu factor 2.5 pcu/veh is adopted for buses.

4.3.3 As indicated in **Table 4.5**, the proposed development would generate a two-way total of 644 pcu/hr and 447 pcu/hr (including proposed bus trips and enhanced public transport trips) during the weekday morning and evening peak hour periods respectively. The development trip distributions are shown in **Drawing 4.4**.

Public Transport Trips

4.3.4 The public transport demands for the Rezoning Site was estimated with reference to the average daily mechanised trips, the peak hour factor of mechanised trips with reference to TD's Travel Characteristics Survey (TCS) 2011. The public transport modal share from the modal split assumption from 2021 Population Census of Yuen Long District is also shown in **Table 4.6**. Based on the above assumptions, the public transport demands for the proposed development are estimated in **Table 4.7**.

Table 4.6 Modal Split Assumption based on 2021 Population Census of Yuen Long District

Transport Mode ⁽¹⁾	Modal Split	
Rail/LRT	48.3%	Public Transport mode = 81.7%
Shuttle Bus	4.1%	
Bus	25.8%	
PLB	3.5%	
PV/Taxi	11%	
Walk	7.3%	
Total	100%	

Remarks: (1) For Transport Mode, "Ferry" and "Others" are excluded.

Table 4.7 Estimated Trip Generation of Approved Development

Index	Parameter	Formula	Result
(a)	Proposed No. of Units	-	3,562
(b)	Average Domestic Household Size ⁽¹⁾	-	2.8
(c)	Estimated Total Population	(a)*(b)	9,974
(d)	Average Daily Mechanised Trips per Person ⁽²⁾	-	1.83
(e)	Peak Hour Percentage of Daily Total ⁽³⁾	-	12%
(f)	Assumed Percentage of Major Outbound Trips in Peak Hour	-	100%
(g)	Estimated Peak Hour Trips by Proposed Development	(c)*(d)*(e)*(f)	2,191
(h)	Major Public Transport Modal Share ⁽⁴⁾	-	81.7%
(i)	Estimated Peak Hour Public Transport Demand	(g)*(h)	1,790
(j)	Estimated Passenger using Proposed Bus Service	(i)*64.2% ⁽⁵⁾	1,149
(k)	No. of induced trips for Proposed Bus Service (veh/hr)	(j)/60 ⁽⁶⁾	20
(l)	Estimated Passenger using Franchised Bus	(i)*35.8% ⁽⁷⁾	641
(m)	- Yuen Long Bound Demand [AM Peak (PM peak)]	65% (68%)	417 (436)
(n)	- San Tin/Sheung Shui Bound Demand [AM Peak (PM peak)]	35% (32%)	224 (205)
(o)	No. of Additional Bus Required during Peak Hour ⁽⁸⁾		
	- Yuen Long Bound Demand [AM Peak (PM peak)]		2 (1)
	- San Tin/Sheung Shui Bound Demand [AM Peak (PM peak)]		0 (2)

Remarks: (1) Agreed by Planning Department.

(2) With reference to Table E.2 in TCS 2011.

(3) Peak hour percentage to daily total, with reference to Para. 3.3.7 in TCS 2011.

(4) Refer to Table 4.6.

(5) Based on 81.7% of PT modal split, consider Rail/LRT trips and Shuttle Bus trips using potential bus route, which implies the proportion of passengers of potential bus route $(48.3\%+4.3\%)/81.7\%$ = approximate 64.2% of PT modal split. The modal split of Rail/LRT would be considered as "short-haul" service, while the modal split of Shuttle Bus trips would be considered as "long-haul" services.

(6) Assumed passenger using Railway would be served by proposed bus service between the subject site and future San Tin Station of Northern Link, while the modal split of Shuttle Bus trips would be heading to San Tin Highway SB to Kowloon/Hong Kong Island. 60 pax/veh adopted as proposed bus service capacity in conservative approach.

(7) Based on 81.7% of PT modal split, the remaining 35.8% of PT modal split for Bus trips and PLB trips would be considered as using franchised bus.

(8) Referring to Table 4.9.

4.3.5 From **Table 4.7**, it is estimated that there will be one-way of approx. 1,790 pax/hr of public transport demand generated from the proposed residential development during the peak hour.

4.3.6 With reference to **Table 4.6**, the transport mode of PT passengers of Railway and Shuttle Bus is 64.2%, and the passengers of Bus and GMB is 35.8%, respectively. Therefore, the induced PT demand will be distributed accordingly, i.e. 1,149 pax are assumed using short-haul and long-haul potential bus routes (i.e. 92.1% to the nearest railway station (future San Tin Station of Northern Link) as short-haul, or 7.9% to Kowloon/Hong Kong Island as long-haul). The remaining 641 pax are assumed using Franchised Bus, which being adopted in the assessment.

4.3.7 The Railway and Shuttle Bus demand are proposed to be served by coach (i.e. 60 pax/veh), which is equivalent to 20 veh/hr (40 pcu/hr), running between the subject development and

the nearest railway station (future San Tin Station of Northern Link) and to Kowloon/Hong Kong Island direction.

4.3.8 The estimated overall public transport demands at Year 2034 are summarized in **Table 4.8**.

Table 4.8 Estimated Year 2034 Public Transport Demands

Peak Hour	Bound	Average Peak Hour Service Capacity (pax)	Estimated Year 2034 Occupancy (pax) ⁽¹⁾	Additional Passenger Demands (pax) ⁽²⁾	Overall Passenger Demands (pax)	Occupancy Rate (%)
AM Peak	Yuen Long	812	532	417	949	117%
	San Tin/Sheung Shui	713	409	224	633	89%
PM Peak	Yuen Long	780	656	205	861	110%
	San Tin/Sheung Shui	776	468	436	904	116%

Remarks: (1) +1.0% annual growth rate is applied to the average observed peak hour PT trips to estimate Year 2034 demand.

(2) Refer to **Table 4.6** and **Para 4.3.6**.

4.3.9 From **Table 4.7**, it can be shown that the demand for public transport service would be over capacity in Year 2034 upon occupation of the proposed residential development.

4.3.10 It is proposed to enhance the nearby public transport service by increasing the frequency of KMB 76K during PM peak. The estimated overall public transport demands at Year 2034 with proposed PT service enhancement are summarized in **Table 4.9**.

Table 4.9 Estimated Year 2034 Public Transport Demands – With Service Enhancement

Peak Hour	Bound	Average Peak Hour Service Capacity (pax)	Enhanced Peak Hour Service Capacity (pax) ⁽¹⁾	Estimated Year 2034 Occupancy (pax) ⁽²⁾	Additional Passenger Demands (pax) ⁽³⁾	Overall Passenger Demands (pax)	Occupancy Rate (%)
AM Peak	Yuen Long	812	992 (812+90*2)	532	417	949	96%
	San Tin/Sheung Shui	713	713	409	224	633	89%
PM Peak	Yuen Long	780	870 (780+90*1)	656	205	861	99%
	San Tin/Sheung Shui	776	956 (776+90*2)	468	436	904	95%

Remarks: (1) The bus capacity is assumed to be 90 passengers.

(2) +1.0% annual growth rate is applied to the average observed peak hour PT trips to estimate Year 2034 demand.

(3) Refer to **Table 4.6** and **Para 4.3.6**.

4.3.11 From **Table 4.9**, it is demonstrated that with the service enhancement (with 2 additional buses and 1 additional bus for Yuen Long bound at both AM and PM peak periods respectively, and 2 additional buses for Sheung Shui bound in PM peak periods), the public transport would operate within capacity in Year 2034.

4.3.12 Potential bus stops and other public transport with related facilities would be provided within the subject development to allow bus route and public transport services. The detailed arrangement of public transport service enhancement such as frequency improvement of the existing services and potential bus and other public transport service would be subject to actual passenger demand and further review and agreement with the corresponding public transport operators and government departments, if necessary.

Trip Generation of Approved Scheme

- 4.3.13 In the approved scheme, the development will provide 789 houses with an average flat size of approximately 105.1 m². The trip generations of the approved development are summarised in **Table 4.10**.

Table 4.10 Estimated Trip Generation of Approved Development

	Trip Generations			
	AM Peak		PM Peak	
	Gen	Att	Gen	Att
Trip Rates (pcu/units/hr) ⁽¹⁾	0.1961	0.1116	0.0955	0.1321
No. of House Unit	789			
Trips (pcu/hr)	155	88	75	104

Remark: (1) Trip Rates extracted from TPDM for private housing: low-density R(B) with average flat sizes of 100m².

- 4.3.14 The net difference of the trip generation between the approved and proposed schemes is summarised in **Table 4.11**. As shown in **Table 4.11**, the trip generation of the current proposed scheme would be larger in both AM and PM peak periods, compared with the previous approved scheme.

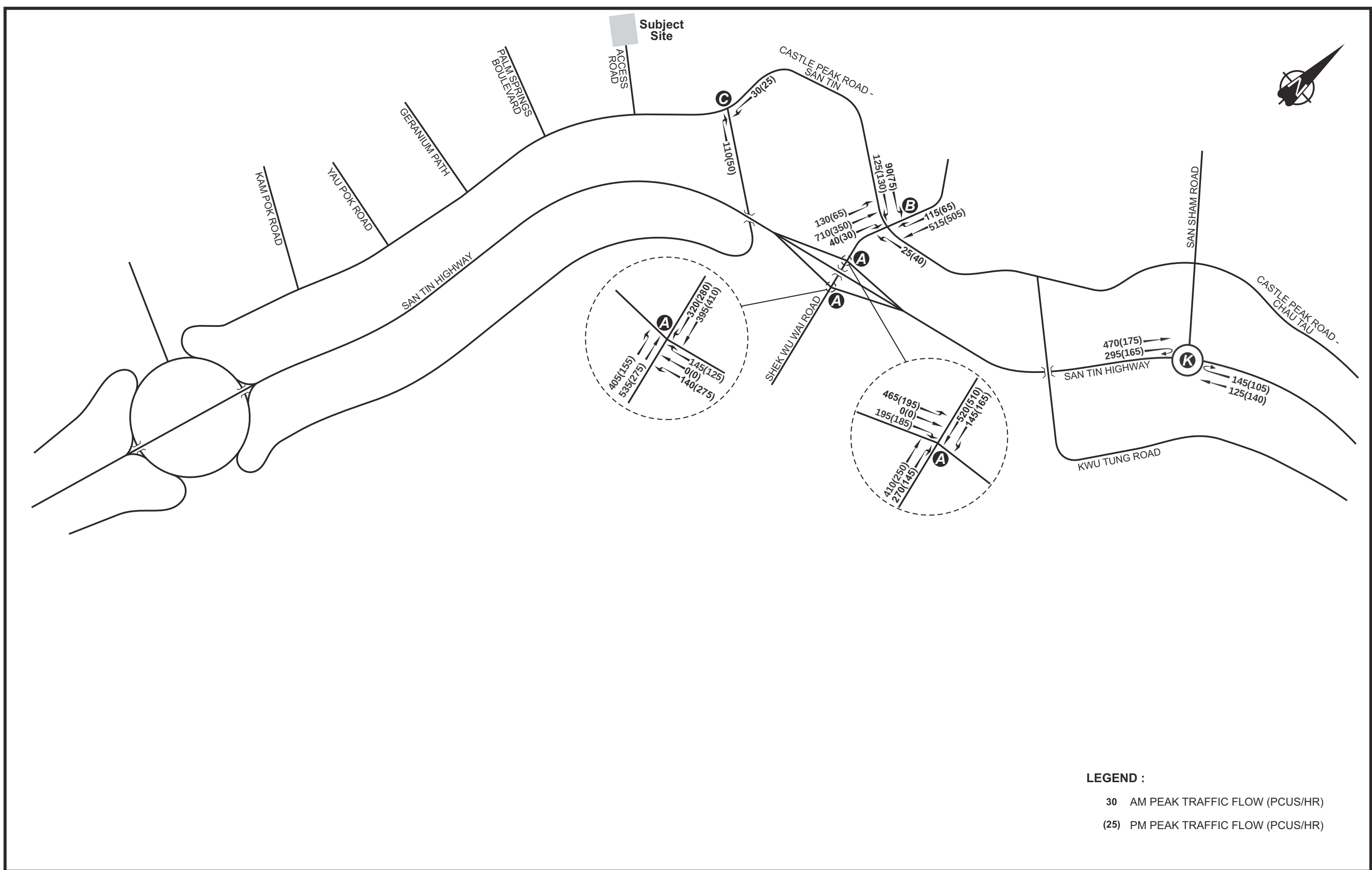
Table 4.11 Net Difference of Trip Generations between the Approved and Proposed Schemes

	Trip Generations (pcu/hr)			
	AM Peak		PM Peak	
	Gen	Att	Gen	Att
Approved Scheme [A]	155	88	75	104
Proposed Scheme [B]	396	248	196	251
Trip Difference [B] – [A]	+241	+160	+121	+147

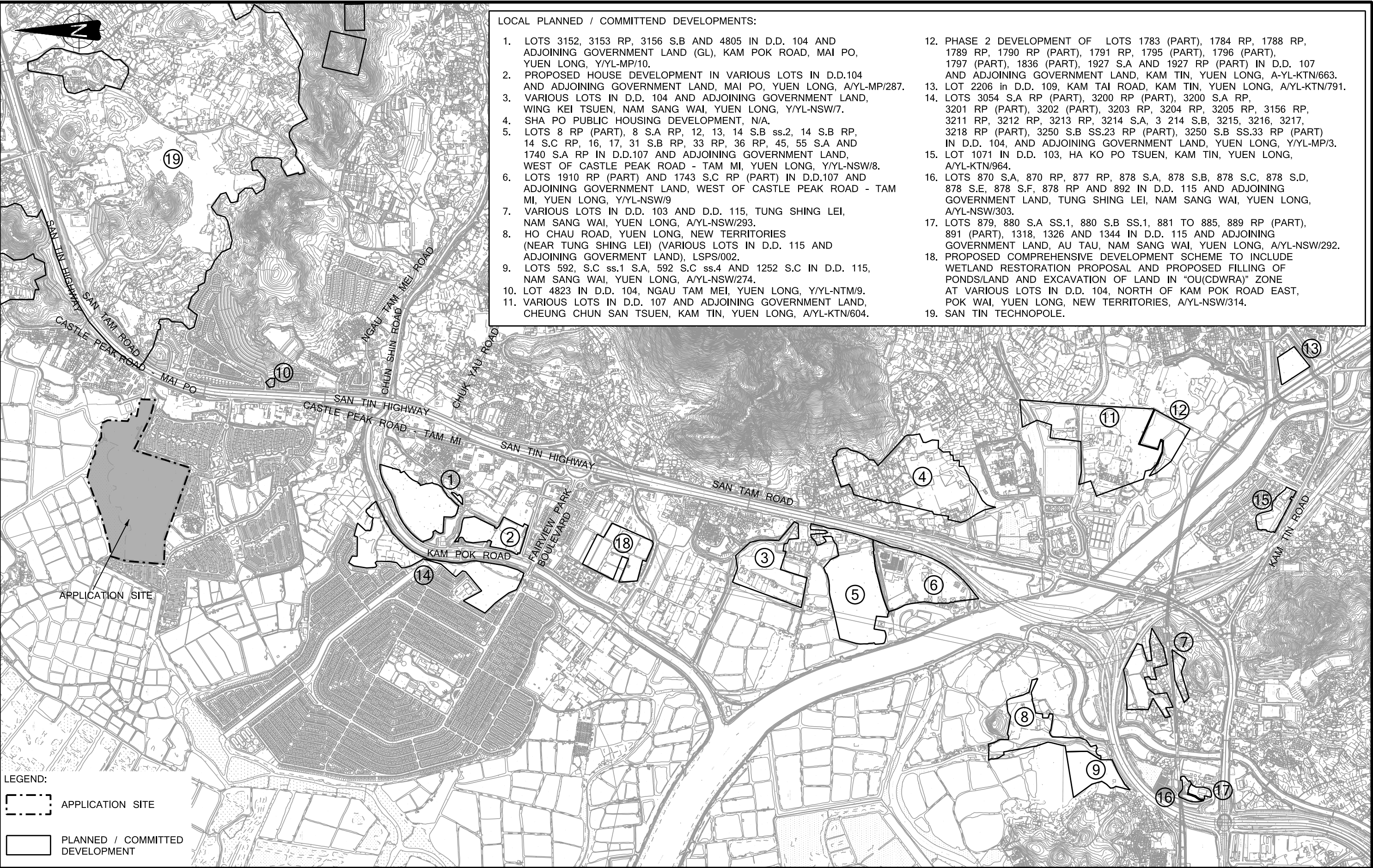
4.4 Traffic Forecast Data

- 4.4.1 Based on the above, the year 2034 design flows, as shown in **Drawing 4.5** are produced according to the following.

Year 2034 Design Case = Year 2034 Reference Case + Proposed Development Trip Generation, induced bus trips and the additional public transport trips



-	-	-	Project Title	Drawing Title	SYSTRAMVA										
-	-	-													
B	MINOR UPDATE	CFC				9SEP25									
A	MINOR AMENDMENT	CFC	21MAY25	PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A. IN DD101	ESTIMATED TRAFFIC FLOWS OF SAN TIN TECHNOPOLE (STT)										
Rev.	Description	Checked	Date												
				Designed	MYC	Checked	CFC	Scale	NTS	Date	DEC 2024	Drawing No.	4.1	Rev.	B
CHK50800610/TIA/F41-A.CDR/LLH/21MAY25															
Original Size : A3															



LOCAL PLANNED / COMMITTEND DEVELOPMENTS:

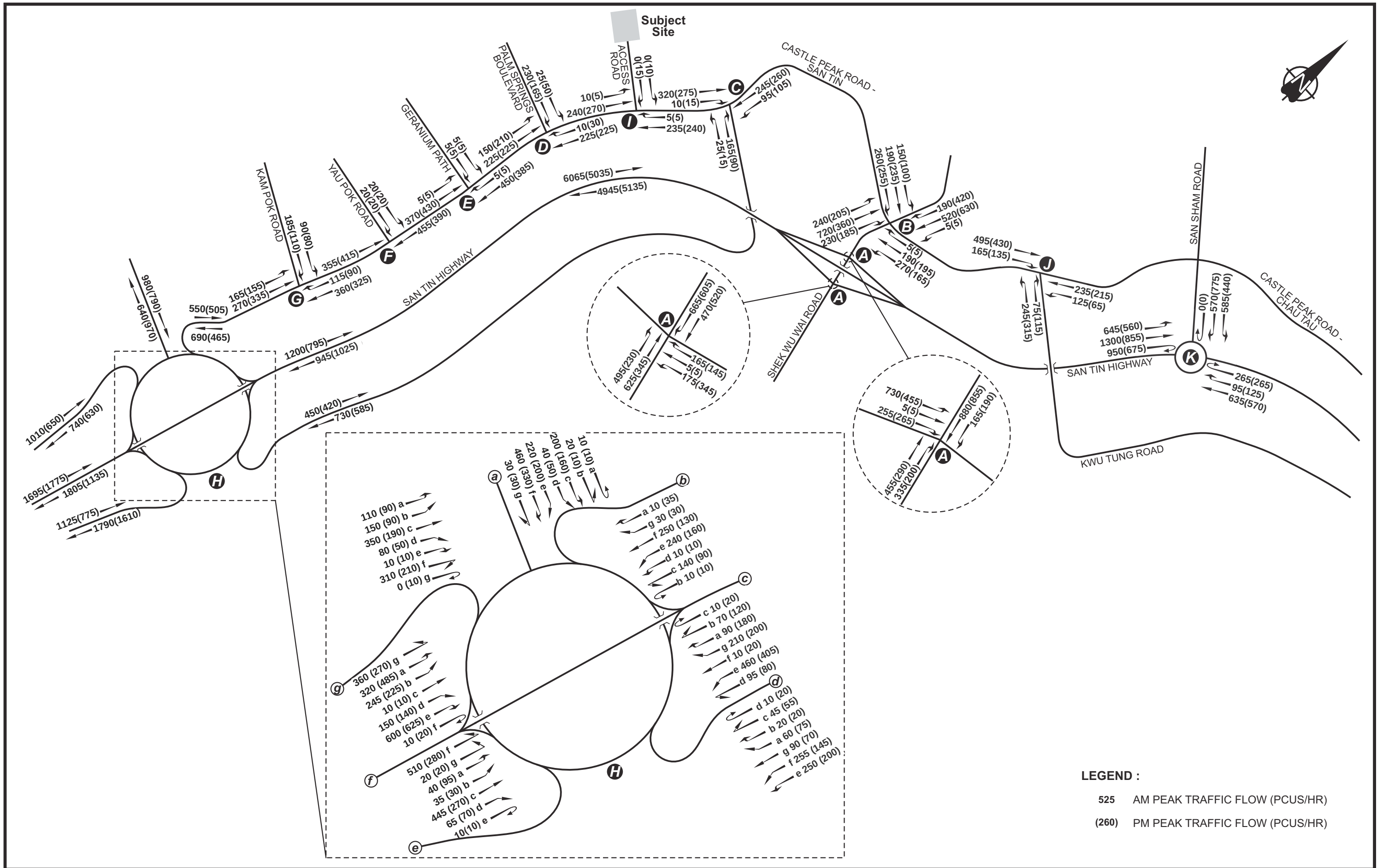
1. LOTS 3152, 3153 RP, 3156 S.B AND 4805 IN D.D. 104 AND ADJOINING GOVERNMENT LAND (GL), KAM POK ROAD, MAI PO, YUEN LONG, Y/YL-MP/10.
2. PROPOSED HOUSE DEVELOPMENT IN VARIOUS LOTS IN D.D.104 AND ADJOINING GOVERNMENT LAND, MAI PO, YUEN LONG, A/YL-MP/287.
3. VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, WING KEI TSUEN, NAM SANG WAI, YUEN LONG, Y/YL-NSW/7.
4. SHA PO PUBLIC HOUSING DEVELOPMENT, N/A.
5. LOTS 8 RP (PART), 8 S.A RP, 12, 13, 14 S.B ss.2, 14 S.B RP, 14 S.C RP, 16, 17, 31 S.B RP, 33 RP, 36 RP, 45, 55 S.A AND 1740 S.A RP IN D.D.107 AND ADJOINING GOVERNMENT LAND, WEST OF CASTLE PEAK ROAD - TAM MI, YUEN LONG, Y/YL-NSW/8.
6. LOTS 1910 RP (PART) AND 1743 S.C RP (PART) IN D.D.107 AND ADJOINING GOVERNMENT LAND, WEST OF CASTLE PEAK ROAD - TAM MI, YUEN LONG, Y/YL-NSW/9
7. VARIOUS LOTS IN D.D. 103 AND D.D. 115, TUNG SHING LEI, NAM SANG WAI, YUEN LONG, A/YL-NSW/293.
8. HO CHAU ROAD, YUEN LONG, NEW TERRITORIES (NEAR TUNG SHING LEI) (VARIOUS LOTS IN D.D. 115 AND ADJOINING GOVERNMENT LAND), LSPS/002.
9. LOTS 592, S.C ss.1 S.A, 592 S.C ss.4 AND 1252 S.C IN D.D. 115, NAM SANG WAI, YUEN LONG, A/YL-NSW/274.
10. LOT 4823 IN D.D. 104, NGAU TAM MEI, YUEN LONG, Y/YL-NTM/9.
11. VARIOUS LOTS IN D.D. 107 AND ADJOINING GOVERNMENT LAND, CHEUNG CHUN SAN TSUEN, KAM TIN, YUEN LONG, A/YL-KTN/604.
12. PHASE 2 DEVELOPMENT OF LOTS 1783 (PART), 1784 RP, 1788 RP, 1789 RP, 1790 RP (PART), 1791 RP, 1795 (PART), 1796 (PART), 1797 (PART), 1836 (PART), 1927 S.A AND 1927 RP (PART) IN D.D. 107 AND ADJOINING GOVERNMENT LAND, KAM TIN, YUEN LONG, A-YL-KTN/663.
13. LOT 2206 in D.D. 109, KAM TAI ROAD, KAM TIN, YUEN LONG, A/YL-KTN/791.
14. LOTS 3054 S.A RP (PART), 3200 RP (PART), 3200 S.A RP, 3201 RP (PART), 3202 (PART), 3203 RP, 3204 RP, 3205 RP, 3156 RP, 3211 RP, 3212 RP, 3213 RP, 3214 S.A, 3 214 S.B, 3215, 3216, 3217, 3218 RP (PART), 3250 S.B SS.23 RP (PART), 3250 S.B SS.33 RP (PART) IN D.D. 104, AND ADJOINING GOVERNMENT LAND, YUEN LONG, Y/YL-MP/3.
15. LOT 1071 IN D.D. 103, HA KO PO TSUEN, KAM TIN, YUEN LONG, A/YL-KTN/964.
16. LOTS 870 S.A, 870 RP, 877 RP, 878 S.A, 878 S.B, 878 S.C, 878 S.D, 878 S.E, 878 S.F, 878 RP AND 892 IN D.D. 115 AND ADJOINING GOVERNMENT LAND, TUNG SHING LEI, NAM SANG WAI, YUEN LONG, A/YL-NSW/303.
17. LOTS 879, 880 S.A SS.1, 880 S.B SS.1, 881 TO 885, 889 RP (PART), 891 (PART), 1318, 1326 AND 1344 IN D.D. 115 AND ADJOINING GOVERNMENT LAND, AU TAU, NAM SANG WAI, YUEN LONG, A/YL-NSW/292.
18. PROPOSED COMPREHENSIVE DEVELOPMENT SCHEME TO INCLUDE WETLAND RESTORATION PROPOSAL AND PROPOSED FILLING OF PONDS/LAND AND EXCAVATION OF LAND IN "OU(CDWRA)" ZONE AT VARIOUS LOTS IN D.D. 104, NORTH OF KAM POK ROAD EAST, POK WAI, YUEN LONG, NEW TERRITORIES, A/YL-NSW/314.
19. SAN TIN TECHNOPOLE.

LEGEND:

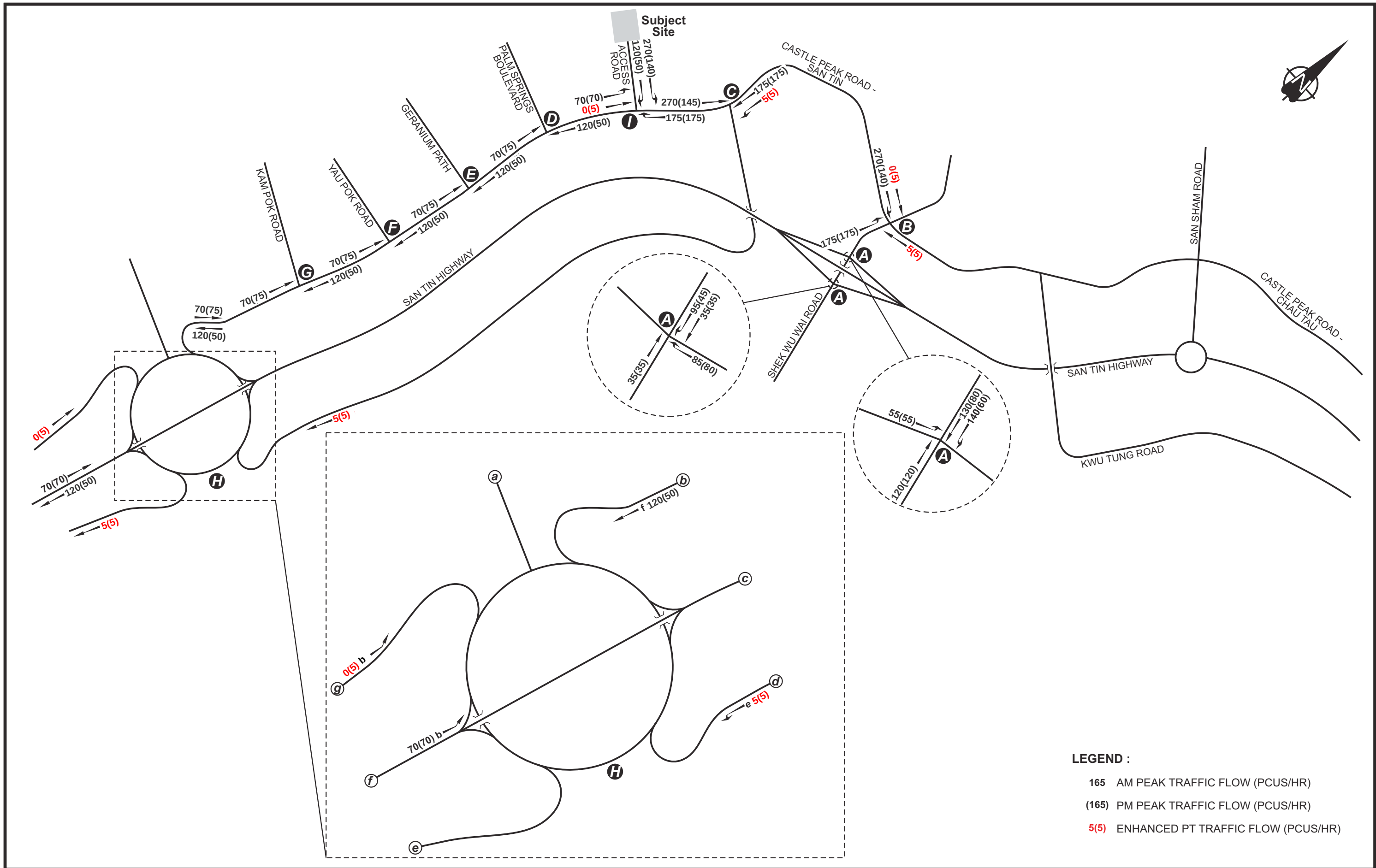
APPLICATION SITE

PLANNED / COMMITTED DEVELOPMENT

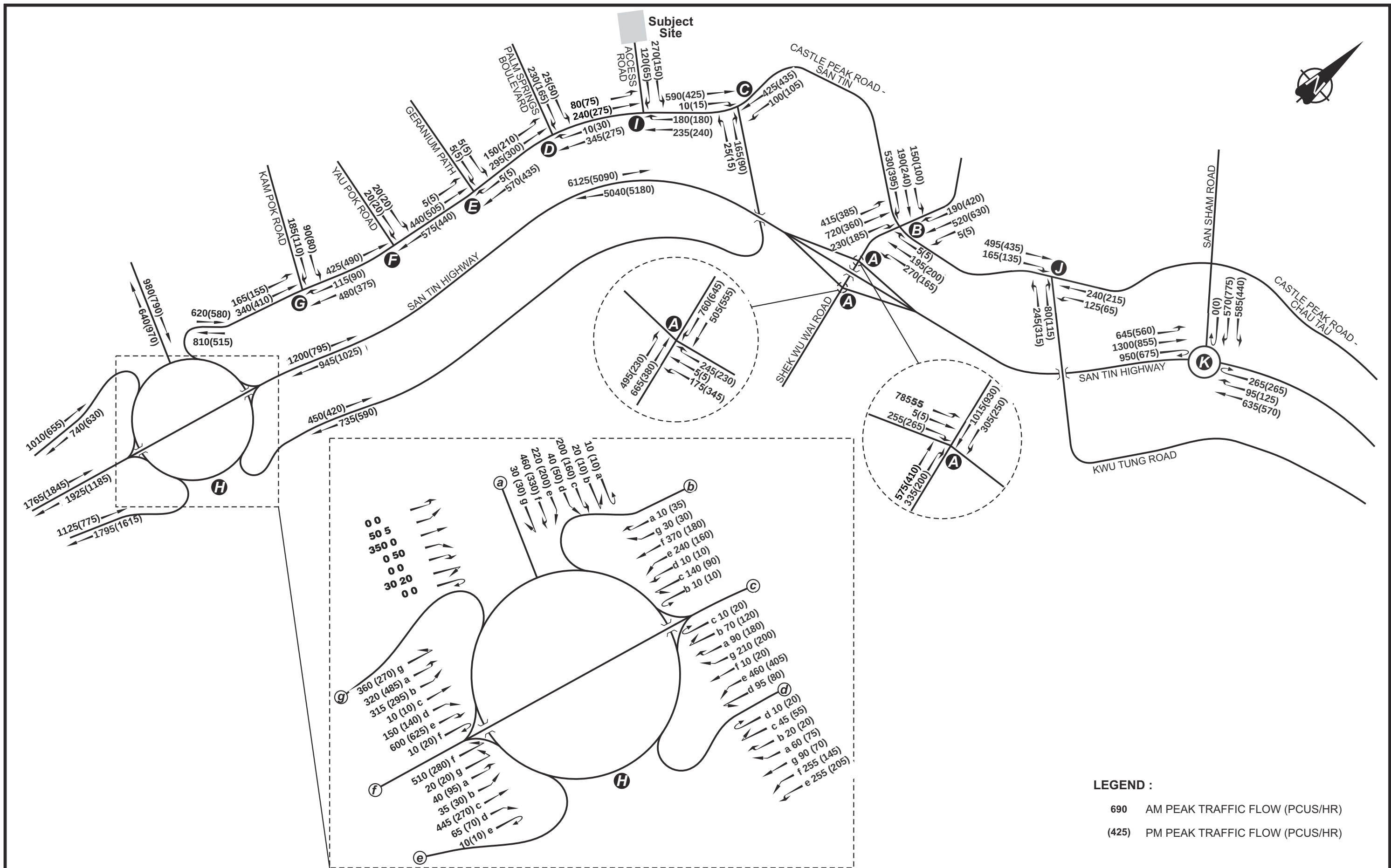
-	-	-	-	Project Title	Drawing Title					SYSTRA MVA							
-	-	-	-														
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A	TD COMMENT INCORPORATED	CFC	15AUG25														
Rev.	Description	Checked	Date	Project Title		Drawing Title											
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101																	
						Designed	MYC	Checked	CFC	Scale	N.T.S.(A3)	Date	JUN 2024	Drawing No.	4.2	Rev.	A



-	-	-	-	Project Title PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A. IN DD101	Drawing Title 2034 REFERENCE TRAFFIC FLOWS							SYSTRAMVA 				
C	MINOR UPDATE	CFC	16SEP25													
B	MINOR UPDATE	CFC	9SEP25													
A	TD COMMENT INCORPORATED	CFC	23MAY25													
Rev.	Description	Checked	Date													
					Designed	MYC	Checked	CFC	Scale	NTS	Date	DEC 2024	Drawing No.	4.3	Rev.	C



-	-	-	Project Title PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A. IN DD101	Drawing Title DEVELOPMENT TRAFFIC FLOWS						
-	-	-		-						
-	-	-		-						
A	TD COMMENT INCORPORATED	CFC		21MAY25						
Rev.	Description	Checked	Date	Designed MYC Checked CFC Scale NTS Date JAN 2025 Drawing No. 4.4 Rev. A						



-	-	-	-
C	MINOR UPDATE	CFC	16SEP25
B	MINOR UPDATE	CFC	9SEP25
A	TD COMMENT INCORPORATED	CFC	23MAY25
Rev.	Description	Checked	Date

Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A. IN DD101

Drawing Title				
2034 DESIGN TRAFFIC FLOWS				
Designed	MYC	Checked	CFC	Scale
				NTS
Date	JAN 2025	Drawing No.	4.5	Rev.
				C



5. TRAFFIC IMPACT ASSESSMENT

5.1 Year 2034 Junction Operational Performance

5.1.1 To investigate the traffic impact of the proposed development on the surrounding road network at the design year 2034, operational performance of the identified key local junctions has been assessed based on the planned junction layouts (for junction A and B) and existing layout for both 2034 reference and design cases. The assessment results for the year 2034 reference and design cases are summarised in **Table 5.1**. The junction calculation sheets are attached in **Annex A**.

Table 5.1 Year 2034 Junction Operational Performance

Ref. ⁽¹⁾	Junction	RC/RFC ⁽²⁾			
		2034 Reference Case		2034 Design Case	
		AM Peak	PM Peak	AM Peak	PM Peak
A	Shek Wu Wai Road / San Tin Highway Slip Road ⁽³⁾	96%	>100%	68%	98%
B	Shek Wu Wai Road / Road D3 / Road L11 / Road L12 ⁽⁴⁾	53%	45%	29%	29%
C	Castle Peak Road – Mai Po/San Tam Road	0.43	0.24	0.53	0.28
D	Castle Peak Road – Mai Po/ Royal Palms Boulevard	0.56	0.46	0.60	0.49
E	Castle Peak Road – Mai Po/Geranium Path	0.02	0.02	0.02	0.02
F	Castle Peak Road – Tam Mi/Yau Pok Road	0.10	0.11	0.11	0.11
G	Castle Peak Road – Tam Mi/Kam Pok Road	0.65	0.44	0.71	0.46
H	Fairview Park Interchange	1.34	1.07	1.40	1.11
I	Castle Peak Road – Mai Po/Mai Po South Road	0.01	0.05	0.75	0.42
J	Castle Peak Road – San Tin/Kwun Tung Road	0.61	0.80	0.63	0.81
K	San Tin Interchange	0.81	0.59	0.81	0.59

Remarks: (1) Refer to **Drawing 3.2** for junction reference.
(2) RC = reserve capacity, RFC = ratio of flow to capacity.
(3) Refer to **Drawing 5.1** for junction reference.
(4) Refer to **Drawing 5.2** for junction reference.

5.1.2 The anticipated trip generations of the current proposed scheme would be larger in both AM peak and PM peak periods, compared with the previous approved scheme. The assessment results in **Table 5.1** indicated that the majority of identified key junctions would operate with ample capacity in year 2034, except for Junction H, which will be operated over capacity.

5.1.3 For Junction H, with reference to the Preliminary Technical Review on Site Formation and Infrastructure Works for Proposed Public Housing Developments at Sha Po, Shap Pat Heung and Tai Kei Leng, Yuen Long – Feasibility Study under Agreement No. CE 10/2020 (CE) and the planning application Y/YL-MP/10, there will be a planned junction improvement scheme for Fairview Park Interchange, as illustrated in **Drawing 5.3**. It is proposed to widen the entry lanes at Fairview Park Boulevard, Castle-Peak Road – Tam Mi, San Tam Road and the slip road from San Tin Highway northbound and southbound. In addition, an additional exclusive left-turn lane is proposed at San Tin Highway northbound for the traffic to Castle Peak Road – Tam Mi southbound. Nonetheless, should there be any delay whatsoever such that the abovementioned junction improvement works at Junction H are not in place, the applicant would take up the responsibility to carry out the related junction improvement works instead.

Table 5.2 Year 2034 Junction Operational Performance (With Improvement)

Ref.	Junction	RC/RFC ⁽²⁾			
		2034 Reference Case		2034 Design Case	
		AM Peak	PM Peak	AM Peak	PM Peak
H	Fairview Park Interchange ⁽¹⁾	0.75	0.79	0.78	0.82

Remarks: (1) Refer to **Drawing 5.3** for junction reference.

(2) RC = reserve capacity, RFC = ratio of flow to capacity.

5.1.4 **Table 5.2** indicates that with the junction improvement schemes, Junction H will be operating within capacity in Year 2034.

5.1.5 The road link performance for identified road links was conducted as summarised in **Table 5.3**.

Table 5.3 Year 2034 Road Links Performance

Ref. ⁽¹⁾	Road Link	Directions	Design Capacity (veh/hr)	Design Capacity (pcu/hr) ⁽⁴⁾	2034 Reference Case				2034 Design Case			
					Traffic Flow (pcu/hr)		V/C ⁽⁵⁾		Traffic Flow (pcu/hr)		V/C ⁽⁵⁾	
					AM	PM	AM	PM	AM	PM	AM	PM
L1	Mai Po South Road	EB	700 ⁽²⁾	910	0	25	0.00	0.03	390	215	0.43	0.24
		WB	700 ⁽²⁾	910	15	10	0.02	0.01	260	255	0.29	0.28
L2	Castle Peak Road – Mai Po	NB	700 ⁽²⁾	910	250	275	0.27	0.30	320	350	0.35	0.38
		SB	700 ⁽²⁾	910	235	255	0.26	0.28	355	305	0.39	0.34
L3	Castle Peak Road – Mai Po	NB	700 ⁽²⁾	910	330	290	0.36	0.32	600	440	0.66	0.48
		SB	700 ⁽²⁾	910	270	275	0.30	0.30	450	450	0.49	0.49
L4	Castle Peak Road – Tam Mi	NB	700 ⁽²⁾	910	550	505	0.60	0.55	620	580	0.68	0.64
		SB	700 ⁽²⁾	910	690	465	0.76	0.51	810	515	0.89	0.57
L5	San Tin Highway	NB	4,700 ⁽³⁾	6,100	6,065	5,035	0.99	0.82	6,125	5,090	1.00	0.83
		SB	4,700 ⁽³⁾	6,100	4,945	5,135	0.81	0.84	5,040	5,180	0.82	0.85
L6	San Tin Highway	NB	4700 ⁽³⁾	6,100	5,580	4,705	0.91	0.77	5,725	4,760	0.94	0.78
		SB	4700 ⁽³⁾	6,100	4,125	4,790	0.68	0.78	4,205	4,880	0.69	0.80

Remarks: (1) Refer to **Drawing 3.2** for key road links.

(2) By TPDM Volume 2 Chapter 2 Table 2.4.1.1, design flow of a 2-lane single carriageway will be taken as 1400 veh/hr for two-way traffic, which implies 700 veh/hr for one-way direction.

(3) By TPDM Volume 2 Chapter 2 Table 2.4.1.1, design flow of a 3-lane dual expressway will be taken as 4700 veh/hr for one-way direction.

(4) PCU factor of 1.3 adopted.

(5) V/C = volume to capacity ratio.

5.1.6 The assessment results in **Table 5.3** indicate that L1 to L3 would operate with ample capacity in year 2034 upon completion of the proposed development. For L4, L6, V/C ratio <1.0 implies the road has sufficient capacity to cope with the anticipated traffic volume under consideration and the resultant traffic will flow smoothly. For L5 (San Tin Highway), it would result in a V/C at 1.0. Since the contribution of additional traffic flow of the subject site to the performance of road links is minimal, and the traffic burden would be shared by the future road infrastructure of NM Highway, the link flow of the concerned road sections should be lowered, and the link flow performance would be improved.

5.1.7 Therefore, it is anticipated that the proposed development would not cause any significant traffic impact to the road network.

5.2 Year 2034 Pedestrian Flow and Queuing Space Assessment

5.2.1 For the growth rate of pedestrian flow, references have been made to the latest “Projections of Population Distribution 2023-2031” as published by PlanD’s Working Group on Population Distribution Projections in March 2024. The available projected population for the local Tertiary Planning Unit (TPU) in the vicinity, as shown in **Drawing 5.4**, are referenced to derive the annual growth rates as summarised in **Table 5.4**.

Table 5.4 Projected Populations of Selected Tertiary Planning Units

Tertiary Planning Unit (TPU)	Projected Population		Growth Rate (p.a.)
	2021	2027	21/27
541	19,100	19,900	+0.7%
542	12,500	11,700	-1.1%
543 & 546	3,300	5,000	+7.2%
544	3,500	3,200	-1.5%
Total	38,400	39,800	+0.6%

5.2.2 As shown in **Table 5.4**, the projected population planning data suggest that the annual growth rate between Year 2021 and Year 2027 is +0.6% when considering the local TPUs. In conservative approach, +1.0% per annum is adopted for the background pedestrian growth of the local pedestrian flow from Year 2024 to Year 2034, and the consideration of the induced pedestrian trips for franchised bus demand of **Table 4.7**.

5.2.3 The peak hour pedestrian flows in Year 2034 under both reference and design scenarios are shown in **Drawing 5.5** and **5.6**, and the results of the operational performance of identified footpaths and concerned queuing area of bus stops are summarized in **Table 5.5** and **5.6**.

Table 5.5 2034 Level-Of-Service Assessment

Ref. (1)	Actual Width (m)	Effective Width (m) (2)	2034 Reference Peak Hourly Flow (ped/hr) (3)		2034 Reference Peak Flow Rate (ped/min/m) (4)		LOS (5)		2034 Design Peak Hourly Flow (ped/hr) (6)		2034 Design Peak Flow Rate (ped/min/m) (4)		LOS (5)	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Fp1	2.1	1.1	12	10	0.18	0.15	A	A	653	651	9.89	9.86	A	A
Fp2	2.3	1.3	22	45	0.28	0.58	A	A	246	481	3.15	6.17	A	A
Fp3	1.5	0.5	24	41	0.80	1.37	A	A	441	246	14.70	8.20	A	A
Fp4	1.7	0.7	6	7	0.14	0.17	A	A	6	7	0.14	0.17	A	A
FP5	1.5	0.5	5	5	0.17	0.17	A	A	646	646	21.53	21.53	B	B

- Note: (1) Refer to **Drawing 5.5** and **Drawing 5.6** for locations and operational performance of identified footpaths.
(2) Effective width for footpath = Actual width – 1.0m dead width (0.5m dead width on one side of footpath).
(3) Reference pedestrian flow = Year 2024 peak hour pedestrian flows*(1+adopted growth rate of 1.0%)^10.
(4) Peak flow rate = Peak hourly flow ÷ 60 ÷ effective width.
(5) Refer to TPDM Vol.6 Chapter 10 Chapter 10.5.2.
(6) Design pedestrian flow = Reference pedestrian flow + induced pedestrian trips for franchised bus demand

Table 5.6 2034 Queuing Area Level-Of-Service Assessment for Bus Stops

Ref.	Queuing Area (m ²)	2034 Reference				2034 Design			
		Passenger Flow at Bus Stop (pax/hr) ⁽¹⁾	Maximum Queue at Queuing Area (pax)	Avg. Queuing Space (m ² /p) ⁽²⁾	LOS ⁽³⁾	Passenger Flow at Bus Stop (pax/hr) ⁽⁴⁾	Maximum Queue at Queuing Area (pax)	Avg. Queuing Space (m ² /p)	LOS ⁽³⁾
Maple Garden Bus Stop – Yuen Long Bound (SB)	5.8	3	2 (i.e. 3/60x25)	2.9	A	420	96 (i.e. 420/60x13.6)	0.06	F
Palm Springs Bus Stop – Sheung Shui Bound (NB)	20.3	3	2 (i.e. 3/60x25)	10.2	A	227	95 (i.e. 227/60x25)	0.21	E

Note: (1) Reference pedestrian flow = Year 2024 peak hour passenger flows*(1+adopted growth rate of 1.0%)¹⁰
(2) Average Queuing Space = Queuing Area ÷ (Maximum Queue)
(3) Refer to HCM2000, EXHIBIT 11-9.
(4) Design pedestrian flow = Reference pedestrian flow + induced passenger demand for franchised bus

5.2.4 As shown in **Table 5.5** and **5.6**, the results indicate that the identified footpaths are operating with adequate spare capacities to cater for the future demand during the peak hours under reference and design scenarios. However, the LOS of queuing area at bus stop would be operated with LOS F and E under the Year 2034 design scenario.

5.2.5 Therefore, it is proposed to widen the queuing area at both concerned bus stops to allow the LOS queuing area to reach LOS C, (i.e. the average pedestrian space = 0.6 m²/p). The queuing area assessment under both 2034 reference and design scenarios are shown in **Table 5.7**, and the propose widening scheme is illustrated in **Drawing 5.7**. The proposed widening works would be undertaken by the applicant.

Table 5.7 2034 Queuing Area Level-Of-Service Assessment for Bus Stops (With Widening)

Ref.	Queuing Area (m ²)	2034 Reference				2034 Design			
		Passenger Flow at Bus Stop (pax/hr) ⁽¹⁾	Maximum Queue at Queuing Area (pax)	Avg. Queuing Space (m ² /p) ⁽²⁾	LOS ⁽³⁾	Passenger Flow at Bus Stop (pax/hr) ⁽⁴⁾	Maximum Queue at Queuing Area (pax)	Avg. Queuing Space (m ² /p)	LOS ⁽³⁾
Maple Garden Bus Stop – Yuen Long Bound (SB)	57.6 (5.8+51.8)	3	2 (i.e. 3/60x25)	28.8	A	420	96 (i.e. 420/60x13.6)	0.6	C
Palm Springs Bus Stop – Sheung Shui Bound (NB)	57 (20.3+36.7)	3	2 (i.e. 3/60x25)	28.5	A	227	95 (i.e. 227/60x25)	0.6	C

- Note: (1) Reference pedestrian flow = Year 2024 peak hour passenger flows*(1+adopted growth rate of 1.0%)¹⁰
(2) Average Queuing Space = Queuing Area ÷ (Maximum Queue)
(3) Refer to HCM2000, EXHIBIT 11-9
(4) Design pedestrian flow = Reference pedestrian flow + induced passenger demand for franchised bus

5.2.6 **Table 5.7** indicates that with the widening scheme, the LOS of the identified queuing area at bus stops would be operating within capacity in Year 2034.

5.3 Sensitivity Assessment

Assessment 1: Existing Junction Layout for Junction A and Junction B in Design Year 2034

5.3.1 Upon TD's comments on pre-submission of the TIA report, the layout of Junction A (Shek Wu Wai Road / San Tin Highway Slip Road) and Junction B (Shek Wu Wai Road / Road D3 / Road L11 / Road L12) has assumed to be modified as per the proposed road network under San Tin Technopole. In case there is delay on the proposed road work under San Tin Technopole, the junction operational performance for Junction A and Junction B based on the existing junction layout under Design scenario is required to be assessed. However, as the junction improvement works are mostly to accommodate the development of STT, therefore the STT related traffic trips would also be excluded in the sensitivity assessment. The assessment results for the year 2034 reference and design cases based on existing junction layouts of Junctions A and B are summarised in **Table 5.8**. The junction calculation sheets are attached in **Annex D**.

Table 5.8 Year 2034 Junction Operational Performance for Junction A and B in Sensitivity Test 1

Ref. ⁽¹⁾	Junction	RC/RFC ⁽²⁾ in Sensitivity Test			
		2034 Reference Case		2034 Design Case	
		AM Peak	PM Peak	AM Peak	PM Peak
A1	Shek Wu Wai Road/ San Tin Highway Slip Road	0.43	0.42	0.48	0.48
A2	Shek Wu Wai Road/ Mai Po Lung Road	0.53	0.32	0.67	0.38
B	Castle Peak Road – San Tin/ Shek Wu Wai Road	0.91	0.75	1.23	0.93

Remarks: (1) Refer to **Drawing 3.2** for junction reference.

(2) RC = reserve capacity, RFC = ratio of flow to capacity.

5.3.2 The assessment results in **Table 5.8** indicated that the Junction A1 and A2 would operate with ample capacity in year 2034, based on the existing junction layout, except for Junction B, which would be operated over capacity.

5.3.3 For Junction B, the existing priority junction is proposed to be upgraded into a roundabout junction with cautionary crossings proposed to the east of the junction. The proposed improved layout of Junction B, which will be constructed subject to further review of San Tin Technopole's project, is illustrated in **Drawing 5.8**. Nonetheless, should there be any delay on the proposed road works under San Tin Technopole, the applicant would take up the responsibility to carry out the related junction improvement works at Junction B.

Table 5.9 Year 2034 Junction Operational Performance for Junction B (With Improvement) in Sensitivity Test 1

Ref. ⁽¹⁾	Junction	RC/RFC ⁽²⁾ in Sensitivity Test			
		2034 Reference Case		2034 Design Case	
		AM Peak	PM Peak	AM Peak	PM Peak
B	Castle Peak Road – San Tin/ Shek Wu Wai Road	0.46	0.38	0.61	0.50

Remarks: (1) Refer to **Drawing 5.8** for junction reference.

(2) RC = reserve capacity, RFC = ratio of flow to capacity.

5.3.4 **Table 5.9** indicates that with the junction improvement schemes, Junction B would be operating within capacity in Year 2034. Nevertheless, the junction improvement scheme for Junction B would be assessed based on a hypothetical approach in the sensitivity test, as the proposed road works related to STT should be in place.

Assessment 2: Adjacent Potential Planning Applications

5.3.5 Upon TD's comments on pre-submission of the TIA report, due to the similar population intake year of the residential developments, apart from STT, traffic generations of a number of potential planning applications (Y/YL-MP/7 and Y/YL-MP/8) would also be included in the assessment as a sensitivity test in Year 2034. The development schedules of these potential developments and estimated traffic generations are summarized in **Table 5.10** and the locations of these developments are indicated in **Drawing 5.9**.

Table 5.10 Planned/Committed Developments in Sensitivity Test 2

Ref. ⁽¹⁾	Developments Location; Application No.	Parameters	Trip Generations (pcu/hr)			
			AM Peak		PM Peak	
			Gen	Att	Gen	Att
1	Lots 3152, 3153 RP, 3156 S.B and 4805 in D.D. 104 and Adjoining Government Land (GL), Kam Pok Road, Mai Po, Yuen Long, Y/YL-MP/10	2,322 units (average flat size of about 42.4 m ²)	167 ⁽⁴⁾	99 ⁽⁴⁾	67 ⁽⁴⁾	86 ⁽⁴⁾
		Public Transport	28 ⁽⁴⁾	28 ⁽⁴⁾	28 ⁽⁴⁾	28 ⁽⁴⁾
		Retail (2,363 m ²)	6 ⁽⁴⁾	6 ⁽⁴⁾	8 ⁽⁴⁾	9 ⁽⁴⁾
		Kindergarten (6 Classrooms)	47 ⁽⁴⁾	47 ⁽⁴⁾	2 ⁽⁴⁾	2 ⁽⁴⁾
		Neighbourhood Elderly Centre (NEC)	10 ⁽⁴⁾	10 ⁽⁴⁾	10 ⁽⁴⁾	10 ⁽⁴⁾
2	Proposed House development in various lots in D.D. 104 and adjoining government land, Mai Po, Yuen Long, A/YL-MP/287	65 units (average flat size of about 116 m ²)	15	8	7	10
3	Various Lots in D.D. 104 and adjoining Government Land, Wing Kei Tsuen, Nam Sang Wai, Yuen Long, Y/YL-NSW/7	1,997 units (average flat size of about 49 m ²)	143	85	57	74
		Retail (900 m ²)	2	2	3	3
		Kindergarten / Child Care Centre (2,200 m ²)	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾
4	Sha Po Public Housing Development, N/A	16,300 units	1,385	1,155	850	1,020
5	Lots 8 RP (Part), 8 S.A RP, 12, 13, 14 S.B ss.2, 14 S.B RP, 14 S.C RP, 16, 17, 31 S.B RP, 33 RP, 36 RP, 45, 55 S.A and 1740 S.A RP in D.D.107 and Adjoining Government Land, West of Castle Peak Road – Tam Mi, Yuen Long, Y/YL-NSW/8	6,825 units (Average Flat Size 37.5 m ²)	491 ⁽⁴⁾	291 ⁽⁴⁾	196 ⁽⁴⁾	253 ⁽⁴⁾
		Retail (3,950m ²)	10 ⁽⁴⁾	10 ⁽⁴⁾	13 ⁽⁴⁾	15 ⁽⁴⁾
		GIC Facilities (2 nos.)	10 ⁽⁴⁾	10 ⁽⁴⁾	10 ⁽⁴⁾	10 ⁽⁴⁾
		Kindergarten (8 Classrooms)	25 ⁽⁴⁾	25 ⁽⁴⁾	1 ⁽⁴⁾	1 ⁽⁴⁾
6	Lots 1910 RP (Part) and 1743 S.C RP (Part) in D.D. 107 and Adjoining Government Land, West of Castle Peak Road – Tam Mi, Yuen Long, Y/YL-NSW/9	3,115 units (Average Flat Size 37.2 m ²)	224 ⁽⁴⁾	133 ⁽⁴⁾	90 ⁽⁴⁾	116 ⁽⁴⁾
		Retail (3,900 m ²)	9 ⁽⁴⁾	10 ⁽⁴⁾	13 ⁽⁴⁾	14 ⁽⁴⁾
		1 School	7 ⁽⁴⁾	30 ⁽⁴⁾	1 ⁽⁴⁾	1 ⁽⁴⁾
		Kindergarten (8 Classrooms)	25 ⁽⁴⁾	25 ⁽⁴⁾	1 ⁽⁴⁾	1 ⁽⁴⁾
		Relocated Soy Sauce Factory (13,700 m ²)	0 ⁽⁴⁾	4 ⁽⁴⁾	10 ⁽⁴⁾	2 ⁽⁴⁾
7	Various Lots in D.D. 103 and D.D. 115, Tung Shing Lei, Nam Sang Wai, Yuen Long, YL-NSW/293	3,556 units (average flat size of about 44 m ²)	255	151	102	132

Ref. ⁽¹⁾	Developments Location; Application No.	Parameters	Trip Generations (pcu/hr)			
			AM Peak		PM Peak	
			Gen	Att	Gen	Att
		9 Houses (assumed average house size of 120 m ²)	2	1	1	1
		Retail (5,358 m ²)	12	13	17	19
		Private Housing 1,261 units (average flat size of about 40 m ²)	91	54	37	47
8	Ho Chau Road, Yuen Long, New Territories (near Tung Shing Lei) (Various lots in D.D. 115 and adjoining Government land), LSPS/002	Public Housing 1,868 units (average flat size of about 50 m ²)	117	80	56	75
		Retail 3,045 m ²	7	8	10	11
		1,518 units (average flat size of About 46 m ²)	109	65	43	56
9	Lots 592 S.C ss.1 S.A, 592 S.C ss.4 and 1252 S.C in D.D. 115, Nam Sang Wai, Yuen Long, A/YL-NSW/274	Retail / Commercial (1,800 m ²)	4	4	6	6
		Wellness Centre	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾
		Special Child Care Centre	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾
10	Lot 4823 in D.D. 104, Ngau Tam Mei, Yuen Long, Y/YL-NTM/9	5,400 m ² GFA Elderly Care Home 142 Beds	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾
11	Various Lots in D.D. 107 and Adjoining Government Land, Cheung Chun San Tsuen, Kam Tin, Yuen Long, A/YL-KTN/604	3,891 units (average flat size of about 46 m ²)	279	165	111	144
		Eating Place/Shop and Services (5,500 m ²)	13	13	17	20
		Social Welfare Facility (788 m ²)	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾
12	Phase 2 Development of Lots 1783 (Part), 1784 RP, 1788 RP, 1789 RP, 1790 RP (Part), 1791 RP, 1795 (Part), 1796 (Part), 1797 (Part), 1836 (Part), 1927 S.A and 1927 RP (Part) in D.D. 107 and Adjoining Government Land, Kam Tin, Yuen Long, A/YL-KTN/663	1,154 units (average flat size of about 43 m ²)	83	49	33	43
13	Lot 2206 in D.D. 109, Kam Tai Road, Kam Tin, Yuen Long, A/YL-KTN/791	330 units (average house/flat size of about 39 m ²)	24	14	9	12
14 ⁽²⁾	Lots 3211 RP, 3212 RP, 3213 RP, 3214 S.A, 3214 S.B, 3215, 3216, 3217, 3218 RP, 3250 S.B ss.23 RP and 3250 S.B ss.33 RP in D.D. 104 and Adjoining Government Land, Yau Pok Road, Mai Po, Yuen Long, Y/YL-MP/7	1,228 units (Average Flat Size 43 m ²)	89 ⁽⁴⁾	53 ⁽⁴⁾	36 ⁽⁴⁾	46 ⁽⁴⁾
		Retail (831m ²)	2 ⁽⁴⁾	2 ⁽⁴⁾	3 ⁽⁴⁾	3 ⁽⁴⁾
		Kindergarten (6 Classrooms)	32 ⁽⁴⁾	32 ⁽⁴⁾	1 ⁽⁴⁾	1 ⁽⁴⁾
		Public Transport	15 ⁽⁴⁾	15 ⁽⁴⁾	15 ⁽⁴⁾	15 ⁽⁴⁾

Ref. ⁽¹⁾	Developments Location; Application No.	Parameters	Trip Generations (pcu/hr)			
			AM Peak		PM Peak	
			Gen	Att	Gen	Att
15 ⁽²⁾	Lots 3054 S.A ss.1, 3156 S.A, 3200 RP (Part), 3200 S.A RP, 3201 RP (Part), 3202 (Part), 3203 RP, 3204 RP and 3205 RP in D.D. 104 and Adjoining Government Land, Yau Pok Road, Mai Po, Yuen Long, Y/YL-MP/8	1,249 units (Average Flat Size 44 m ²)	90 ⁽⁴⁾	54 ⁽⁴⁾	36 ⁽⁴⁾	47 ⁽⁴⁾
		Public Transport	15 ⁽⁴⁾	15 ⁽⁴⁾	15 ⁽⁴⁾	15 ⁽⁴⁾
16	Lot 1071 in D.D. 103, Ha Ko Po Tsuen, Kam Tin, Yuen Long, A/YL-KTN/964	615 units (average flat size of about 38 m ²)	45	27	18	23
		Retail 1,165 m ²	3	3	4	5
17	Lots 870 S.A, 870 RP, 877 RP, 878 S.A, 878 S.B, 878 S.C, 878 S.D, 878 S.E, 878 S.F, 878 RP and 892 in D.D. 115 and Adjoining Government Land, Tung Shing Lei, Nam Sang Wai, Yuen Long, A/YL-NSW/303	90 units (senior hostel, average flat size of about 66 m ²)	7	4	3	4
		5,400 m ² residential care home for the elderly 127 Beds	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾	10 ⁽³⁾
18	Lots 879, 880 S.A ss.1, 880 S.B ss.1, 881 to 885, 889 RP (Part), 891 (Part), 1318, 1326 and 1344 in D.D. 115 and Adjoining Government Land, Au Tau, Nam Sang Wai, Yuen Long, A/YL-NSW/292	9,178.9 m ² residential care home for the elderly 530 Beds	23 ⁽⁴⁾	27 ⁽⁴⁾	21 ⁽⁴⁾	27 ⁽⁴⁾
19	Proposed Comprehensive Development Scheme to include Wetland Restoration Proposal and Proposed Filling of Ponds/Land and Excavation of Land in "OU(CDWRA)" Zone at Various Lots in D.D. 104, North of Kam Pok Road East, Pok Wai, Yuen Long, New Territories, A/YL-NSW/314	90 units (average flat size of about 227 m ²)	28 ⁽⁴⁾	21 ⁽⁴⁾	21 ⁽⁴⁾	31 ⁽⁴⁾

Remark: (1) Refer to **Drawing 5.9** for development locations.

(2) Planning Application subject to TD's comment.

(3) Assume Nominal Trips of 10 pcu/hr.

(4) Trips generation from project's TIA report.

5.3.6 The traffic flows of the above potential development are further included into the Year 2034 Design Case and the traffic flows for reference and design cases under Year 2034 Sensitivity Test are shown in **Drawing 5.10** and **5.11**.

Year 2034 Junction Operational Performance under Sensitivity Test (with Potential Planning Applications)

- 5.3.7 Similarly, to investigate the traffic impact of the proposed development on the surrounding road network at the design year 2034, operational performance of the identified key local junctions has been assessed based on the planned junction layouts (for junction A and B) and existing layout for both 2034 reference and design cases in Sensitivity Test. The assessment results for the year 2034 sensitivity test are summarised in **Table 5.11**. The junction calculation sheets are attached in **Annex D**.

Table 5.11 Year 2034 Junction Operational Performance in Sensitivity Test 2

Ref. ⁽¹⁾	Junction	RC/RFC ⁽²⁾ in Sensitivity Test			
		2034 Reference Case		2034 Design Case	
		AM Peak	PM Peak	AM Peak	PM Peak
A	Shek Wu Wai Road / San Tin Highway Slip Road ⁽³⁾	96%	>100%	68%	98%
B	Shek Wu Wai Road / Road D3 / Road L11 / Road L12 ⁽⁴⁾	50%	42%	27%	27%
C	Castle Peak Road – Mai Po/San Tam Road	0.45	0.24	0.56	0.28
D	Castle Peak Road – Mai Po/ Royal Palms Boulevard	0.58	0.47	0.63	0.50
E	Castle Peak Road – Mai Po/Geranium Path	0.02	0.02	0.03	0.02
F	Castle Peak Road – Tam Mi/Yau Pok Road	0.11	0.11	0.12	0.11
G	Castle Peak Road – Tam Mi/Kam Pok Road	0.97	0.62	1.06	0.66
H	Fairview Park Interchange (with improvement) ⁽⁵⁾	0.86	0.81	0.89	0.85
I	Castle Peak Road – Mai Po/Mai Po South Road	0.01	0.05	0.78	0.42
J	Castle Peak Road – San Tin/Kwun Tung Road	0.61	0.80	0.63	0.81
K	San Tin Interchange	0.81	0.59	0.81	0.59

Remarks: (1) Refer to **Drawing 3.2** for junction reference.
(2) RC = reserve capacity, RFC = ratio of flow to capacity.
(3) Refer to **Drawing 5.1** for junction reference.
(4) Refer to **Drawing 5.2** for junction reference.
(5) Refer to **Drawing 5.3** for junction reference.

- 5.3.8 The assessment results in **Table 5.11** indicated that the majority of identified key junctions would operate with ample capacity in year 2034 under sensitivity test, except for Junction G, which will be operated over capacity.
- 5.3.9 For Junction G, with reference to the application of Y/YL-MP/10, there will be a planned junction improvement scheme for the junction in Kam Pok Road to cater the associated traffic with the subject application of Y/YL-MP/10, as illustrated in **Annex E**. It is proposed to allow separate turning lanes for at the minor road of Kam Pok Road. Nonetheless, should there be any delay whatsoever such that the abovementioned junction improvement works at Junction G are not in place, the applicant would take up the responsibility to carry out the related junction improvement works.

Table 5.12 Year 2034 Junction Operational Performance for Junction G (With Improvement) in Sensitivity Test 2

Ref. ⁽¹⁾	Junction	RC/RFC ⁽²⁾ in Sensitivity Test			
		2034 Reference Case		2034 Design Case	
		AM Peak	PM Peak	AM Peak	PM Peak
G	Castle Peak Road – Tam Mi/Kam Pok Road	0.68	0.42	0.76	0.45

Remarks: (1) Refer to **Annex E** for junction reference.

(2) RC = reserve capacity, RFC = ratio of flow to capacity.

5.3.10 **Table 5.12** indicates that with the junction improvement schemes, Junction G would be operating within capacity in Year 2034 in sensitivity test.

5.3.11 The road link performance for identified road links was conducted as summarised in **Table 5.12**.

Table 5.13 Year 2034 Road Links Performance in Sensitivity Test 2

Ref. ⁽¹⁾	Road Link	Directions	Design Capacity (veh/hr)	Design Capacity (pcu/hr) ⁽⁵⁾	2034 Reference Case				2034 Design Case			
					Traffic Flow (pcu/hr)		V/C ⁽⁶⁾		Traffic Flow (pcu/hr)		V/C ⁽⁶⁾	
					AM	PM	AM	PM	AM	PM	AM	PM
L1	Mai Po South Road	EB	700 ⁽²⁾	910	0	25	0.00	0.03	390	215	0.43	0.24
		WB	700 ⁽²⁾	910	15	10	0.02	0.01	260	255	0.29	0.28
L2	Castle Peak Road – Mai Po	NB	700 ⁽²⁾	910	300	295	0.33	0.32	370	370	0.41	0.41
		SB	700 ⁽²⁾	910	290	270	0.32	0.30	410	320	0.45	0.35
L3	Castle Peak Road – Mai Po	NB	700 ⁽²⁾	910	375	315	0.41	0.35	645	460	0.71	0.51
		SB	700 ⁽²⁾	910	325	290	0.36	0.32	505	470	0.55	0.52
L4	Castle Peak Road – Tam Mi	NB	700 ⁽²⁾	910	625	565	0.69	0.62	695	640	0.76	0.70
		SB	700 ⁽²⁾	910	755	520	0.83	0.57	875	570	0.96	0.63
L5	San Tin Highway	NB	4,700 ⁽³⁾	6,100	6,100	5,055	1.00	0.83	6,160	5,110	1.01	0.84
		SB	4,700 ⁽³⁾	6,100	4,950	5,150	0.81	0.84	5,045	5,195	0.83	0.85
L6	San Tin Highway	NB	4,700 ⁽³⁾	6,100	5,615	4,725	0.92	0.77	5,760	4,780	0.94	0.78
		SB	4,700 ⁽³⁾	6,100	4,130	4,805	0.68	0.79	4,210	4,895	0.69	0.80

Remarks: (1) Refer to **Drawing 3.2** for key road links.

(2) By TPDM Volume 2 Chapter 2 Table 2.4.1.1, design flow of a 2-lane single carriageway will be taken as 1400 veh/hr for two-way traffic, which implies 700 veh/hr for one-way direction

(3) By TPDM Volume 2 Chapter 2 Table 2.4.1.1, design flow of a 3-lane dual expressway will be taken as 4700 veh/hr for one-way direction

(4) PCU factor of 1.3 adopted

(5) V/C = volume to capacity ratio

5.3.12 The assessment results in **Table 5.13** indicate that L1 to L3 would operate with ample capacity in year 2034 sensitivity test 2. For L4 and L6, V/C ratio <1.0 implies the road has sufficient capacity to cope with the anticipated traffic volume under consideration and the resultant traffic will flow smoothly. For L5 (San Tin Highway), it would result in a V/C ratio slightly above 1.0. Since the contribution of additional traffic flow of the subject site to the performance of road links is minimal, and the traffic burden would be shared by the future road infrastructure of NM Highway, the link flow of the concerned road sections should be lowered and the link flow performance would be improved.

5.3.13 Therefore, it is anticipated that all the identified junctions would be operated within capacity and road links would operate with ample capacity with expected future road infrastructure in year 2034 sensitivity test 2.

Assessment 3: Full intake of San Tin Technopole (STT) in Design Year 2039

5.3.14 Upon TD's comments on previous submission of the TIA report, the scenario for full population intake of San Tin Technopole is considered and included in the assessment as a sensitivity test in Year 2039, according to the anticipated programme of STT. For the traffic growth rate between 2034 and 2039, the Hong Kong Population Projections 2022 – 2046, published by Census and Statistics Department, has been referenced and the figures are shown in **Table 5.14**.

Table 5.14 Hong Kong Population Projections between 2034 and 2039

	2034	2039	Annual Growth Rate (2034 - 2039)
Hong Kong Population (in thousands)	7,945.1	8,115.3	+0.43%

5.3.15 As shown in **Table 5.14**, Hong Kong population shows a positive growth trend with rate of +0.43% per annum from 2034 to 2039, which is adopted as the traffic growth rate of all road sections from Year 2034 to Year 2039.

5.3.16 The related development schedules and estimated traffic generations for the full intake of STT are summarized in below **Table 5.15**.

Table 5.15 Estimated Development Trips of San Tin Technopole in Year 2039

Remark:

Ref. ⁽¹⁾	Development Schedule	Parameters	Trip Generations (pcu/hr)			
			AM Peak		PM Peak	
			Gen	Att	Gen	Att
San Tin Technopole	Information and Technology (I&T) Section	(120,000 Employment)	2,139 ⁽²⁾	3,080 ⁽²⁾	1,976 ⁽²⁾	1,477 ⁽²⁾
	Logistics & Storage and Workshop	(Approximate 758,000 m ²)	702 ⁽³⁾	1,051 ⁽³⁾	1,023 ⁽³⁾	795 ⁽³⁾
	Public Housing	Approximate 37,800 units (Average house/flat size of about 50 m ²)	1,997 ⁽⁴⁾	1,236 ⁽⁴⁾	988 ⁽⁴⁾	1,389 ⁽⁴⁾
	Private Housing	Approximate 16,200 units (Average house/flat size of about 60 m ²)	1,551 ⁽⁵⁾	730 ⁽⁵⁾	664 ⁽⁵⁾	944 ⁽⁵⁾
	Mixed Use	(Approximate 482,500 m ²)	1,108 ⁽⁶⁾	1,175 ⁽⁶⁾	1,496 ⁽⁶⁾	1,719 ⁽⁶⁾

(1) Source from EIA study of First Phase Development of the New Territories North – San Tin / Lok Ma Chau Development Node - Investigation.

(2) Based on 120,000 I&T employment in TPB Land Use Proposal; average daily mechanised home-based work trips per employed person of 1.41 trips, peak hour percentage to daily total trips of 12%, distribution of boardings by transport mode (LRT, tram and ferry excluded) in TCS 2011 (87.4% of PT trips and 12.6% of PC/Taxi trips); and assumed capacity of franchised bus, PLB, shuttle bus and PC.

(3) Based on site area measurement, plot ratio of 2/ 5 in RODP, and traffic generation and attraction rates for industrial building in TPDM.

(4) Based on site area measurement, plot ratio of 6.5 in RODP, assumed average flat size of 50 m², consideration of new flat units about 50,000-54,000 in TPB land use proposal, and traffic generation and attraction rates for subsidised housing: HOS/PSPS in TPDM.

(5) Based on site area measurement, plot ratio of 6 in RODP, assumed average flat size of 60 m², consideration of new flat units about 50,000 - 54,000 in TPB land use proposal, and traffic generation and attraction rates for private housing: high-density/R(A) in TPDM.

(6) Based on site area and non-domestic plot ratio of 2.5/4 from OZP, and traffic generation and attraction rates for retail in TPDM.

5.3.17 With the consideration of traffic growth, traffic generation of the STT and the planned development in **Table 4.3**, the year 2039 reference traffic flow, as shown in **Drawing 5.12** are produced according to the following:

Year 2039 Reference Flow: = Year 2034 Reference Traffic Flows*(1+0.43%)^5 + STT traffic + other Planned/Committed Development Trip Generation

5.3.18 Similarly, the year 2039 design traffic flow, as shown in **Drawing 5.13** are produced according to the following:

Year 2039 Design Flow: = Year 2039 Reference Traffic Flows+ STT traffic + Proposed Development Trip Generation, potential bus trips and the additional public transport trips

5.3.19 To investigate the traffic impact of the proposed development on the surrounding road network at the design year 2039, operational performance of the identified key local junctions has been assessed based on the planned junction layouts (for junction A and B) and existing layout for both 2039 reference and design cases in Sensitivity Test. The assessment results for the year 2039 sensitivity test are summarised in **Table 5.16**. The junction calculation sheets are attached in **Annex D**.

Table 5.16 Year 2039 Junction Operational Performance in Sensitivity Test 3

Ref. ⁽¹⁾	Junction	RC/RFC ⁽²⁾ in Sensitivity Test			
		2039 Reference Case		2039 Design Case	
		AM Peak	PM Peak	AM Peak	PM Peak
A	Shek Wu Wai Road / San Tin Highway Slip Road ⁽³⁾	43%	60%	27%	46%
B	Shek Wu Wai Road / Road D3 / Road L11 / Road L12 ⁽⁴⁾	45%	39%	22%	25%
C	Castle Peak Road – Mai Po/San Tam Road	0.58	0.31	0.72	0.37
D	Castle Peak Road – Mai Po/ Royal Palms Boulevard	0.57	0.48	0.62	0.50
E	Castle Peak Road – Mai Po/Geranium Path	0.02	0.02	0.02	0.02
F	Castle Peak Road – Tam Mi/Yau Pok Road	0.11	0.11	0.11	0.11
G	Castle Peak Road – Tam Mi/Kam Pok Road	0.67	0.44	0.73	0.47
H	Fairview Park Interchange (with improvement) ⁽⁵⁾	0.78	0.81	0.81	0.84
I	Castle Peak Road – Mai Po/Mai Po South Road	0.01	0.05	0.75	0.42
J	Castle Peak Road – San Tin/Kwun Tung Road	0.62	0.82	0.64	0.84
K	San Tin Interchange	0.85	0.62	0.85	0.62

Remarks: (1) Refer to **Drawing 3.2** for junction reference.
(2) RC = reserve capacity, RFC = ratio of flow to capacity.
(3) Refer to **Drawing 5.1** for junction reference.
(4) Refer to **Drawing 5.2** for junction reference.
(5) Refer to **Drawing 5.3** for junction reference.

5.3.20 The assessment results in **Table 5.16** indicated that all identified key junctions would operate with ample capacity in year 2039 under sensitivity test.

5.3.21 The road link performance for identified road links was conducted as summarised in **Table 5.17**.

Table 5.17 Year 2039 Road Links Performance in Sensitivity Test 3

Ref. ⁽¹⁾	Road Link	Directions	Design Capacity (veh/hr)	Design Capacity (pcu/hr) ⁽⁵⁾	2039 Reference Case				2039 Design Case			
					Traffic Flow (pcu/hr)		V/C ⁽⁶⁾		Traffic Flow (pcu/hr)		V/C ⁽⁶⁾	
					AM	PM	AM	PM	AM	PM	AM	PM
L1	Mai Po South Road	EB	700 ⁽²⁾	910	0	25	0.00	0.03	390	215	0.43	0.24
		WB	700 ⁽²⁾	910	15	10	0.02	0.01	260	255	0.29	0.28
L2	Castle Peak Road – Mai Po	NB	700 ⁽²⁾	910	255	280	0.28	0.31	325	355	0.36	0.39
		SB	700 ⁽²⁾	910	240	260	0.26	0.29	360	310	0.40	0.34
L3	Castle Peak Road – Mai Po	NB	700 ⁽²⁾	910	335	295	0.37	0.32	605	445	0.66	0.49
		SB	700 ⁽²⁾	910	275	280	0.30	0.31	455	455	0.50	0.50
L4	Castle Peak Road – Tam Mi	NB	700 ⁽²⁾	910	560	515	0.62	0.57	630	590	0.69	0.65
		SB	700 ⁽²⁾	910	705	475	0.77	0.52	825	525	0.91	0.58
L5	San Tin Highway	NB	4,700 ⁽³⁾	6,100	6,990	5,940	1.14	0.97	7,045	5,995	1.15	0.98
		SB	4,700 ⁽³⁾	6,100	5,955	5,950	0.97	0.97	6,050	5,990	0.99	0.98
L6	San Tin Highway	NB	4,700 ⁽³⁾	6,100	6,415	5,470	1.05	0.90	6,550	5,525	1.07	0.90
		SB	4,700 ⁽³⁾	6,100	4,825	5,695	0.79	0.93	4,910	5,775	0.80	0.95

Remarks: (1) Refer to **Drawing 3.2** for key road links.

(2) By TPDM Volume 2 Chapter 2 Table 2.4.1.1, design flow of a 2-lane single carriageway will be taken as 1400 veh/hr for two-way traffic, which implies 700 veh/hr for one-way direction

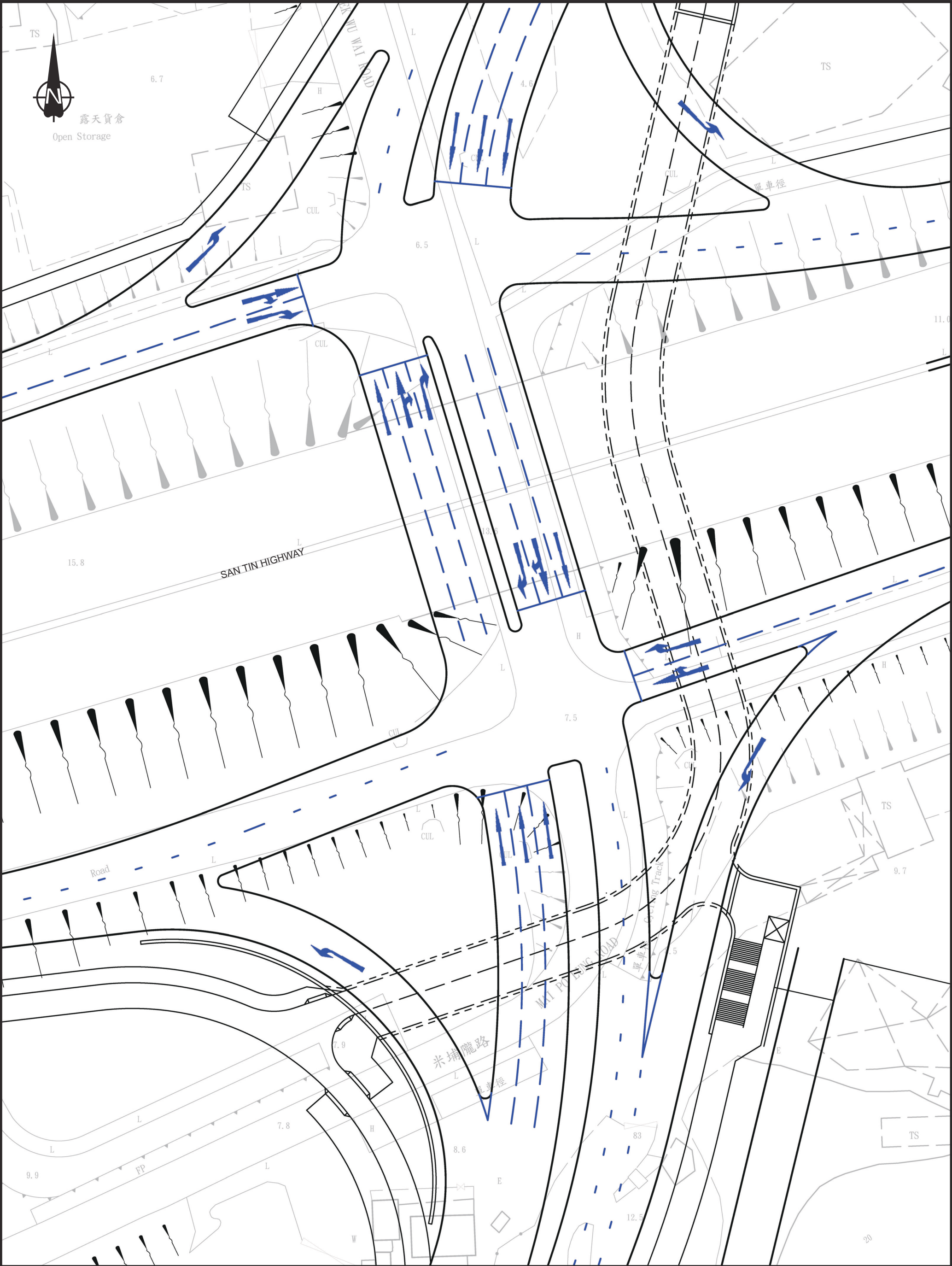
(3) By TPDM Volume 2 Chapter 2 Table 2.4.1.1, design flow of a 3-lane dual expressway will be taken as 4700 veh/hr for one-way direction

(4) PCU factor of 1.3 adopted

(5) V/C = volume to capacity ratio

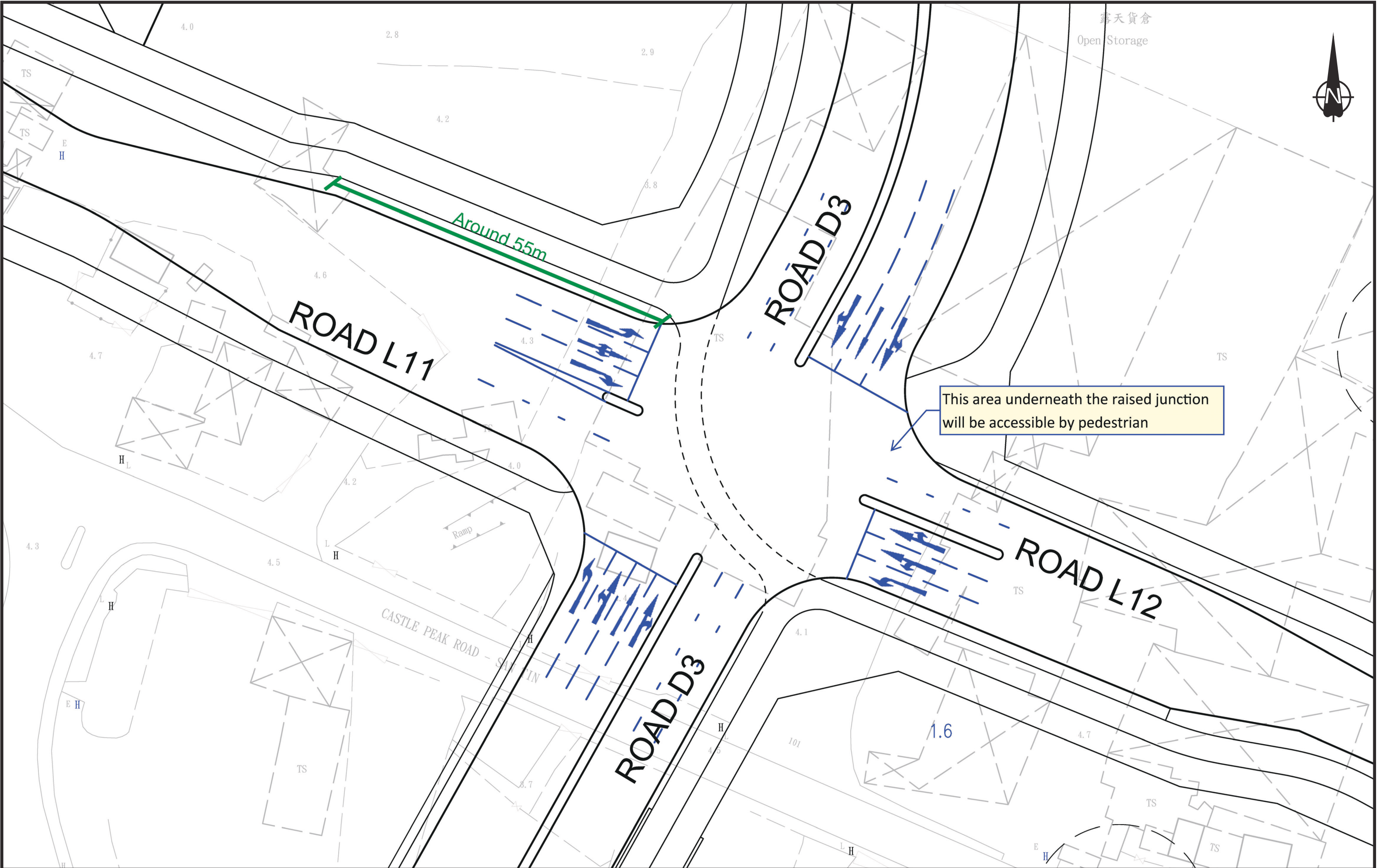
5.3.22 The assessment results in **Table 5.17** indicate that L1 to L3 would operate with ample capacity in year 2039 sensitivity test 3. For L4, V/C ratio <1.0 implies the road has sufficient capacity to cope with the anticipated traffic volume under consideration and the resultant traffic will flow smoothly. For L5 and L6 (San Tin Highway), it would result in a V/C ratio between 1.0 and 1.2. Since the contribution of additional traffic flow of the subject site to the performance of road links is minimal, and the traffic burden would be shared by the future road infrastructure of NM Highway, the link flow of the concerned road sections should be lowered and the link flow performance would be improved.

5.3.23 Therefore, it is anticipated that all the identified junctions would be operated within capacity and road links would operate with ample capacity with expected future road infrastructure in year 2039 sensitivity test 3.



A	SUBJECT TO CEDD'S LAYOUT			CFC	26MAY25	-	-	-	-	-	-	-
Rev.	Description			Checked	Date	Rev.	Description			Checked	Date	
Project Title						Drawing Title						
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A. IN DD101						PLANNED JUNCTION IMPROVEMENT LAYOUT OF SHEK WU WAI ROAD / SAN TIN HIGHWAY SLIP ROAD (A)						
Designed		MYC	Checked	CFC	Scale	NTS	Date	DEC 2024	Drawing No.	5.1	Rev.	





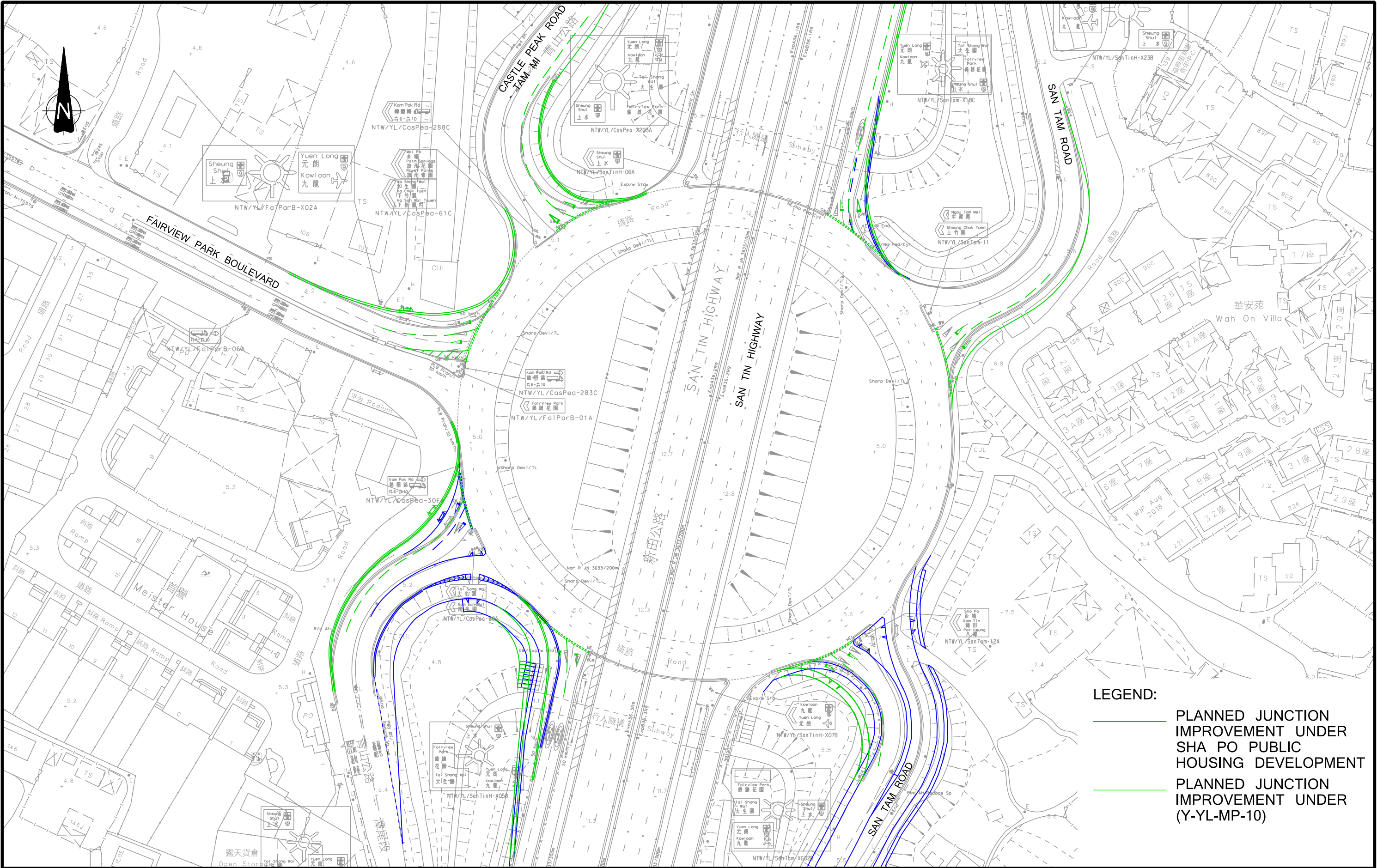
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A	SUBJECT TO CEDD'S LAYOUT	CFC	26MAY25
Rev.	Description	Checked	Date

Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A. IN DD101

Drawing Title											
PLANNED JUNCTION IMPROVEMENT LAYOUT OF SHEK WU WAI ROAD / ROAD D3 / ROAD L11 / ROAD L12 (B)											
Designed	MYC	Checked	CFC	Scale	NTS	Date	DEC 2024	Drawing No.	5.2	Rev.	A

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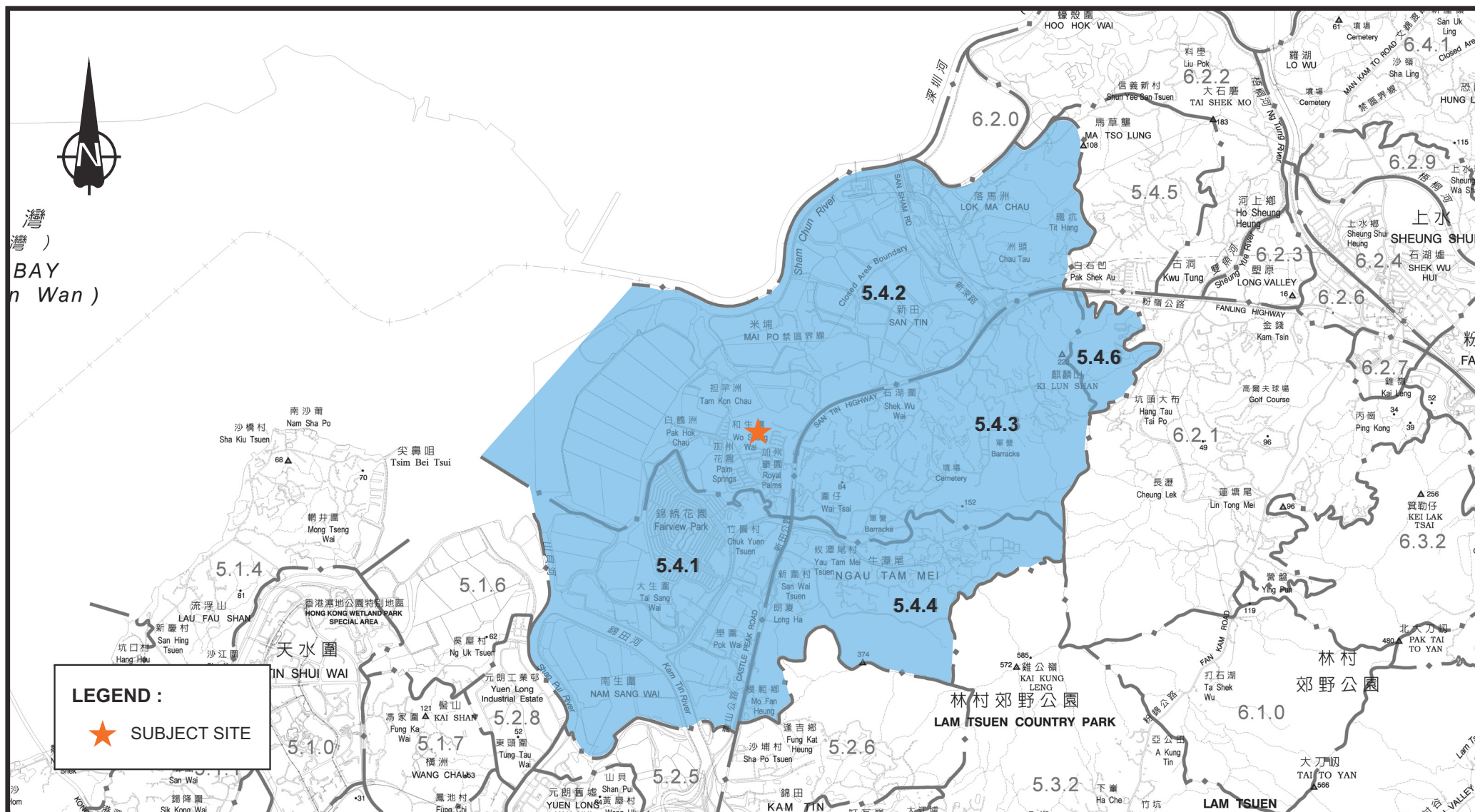
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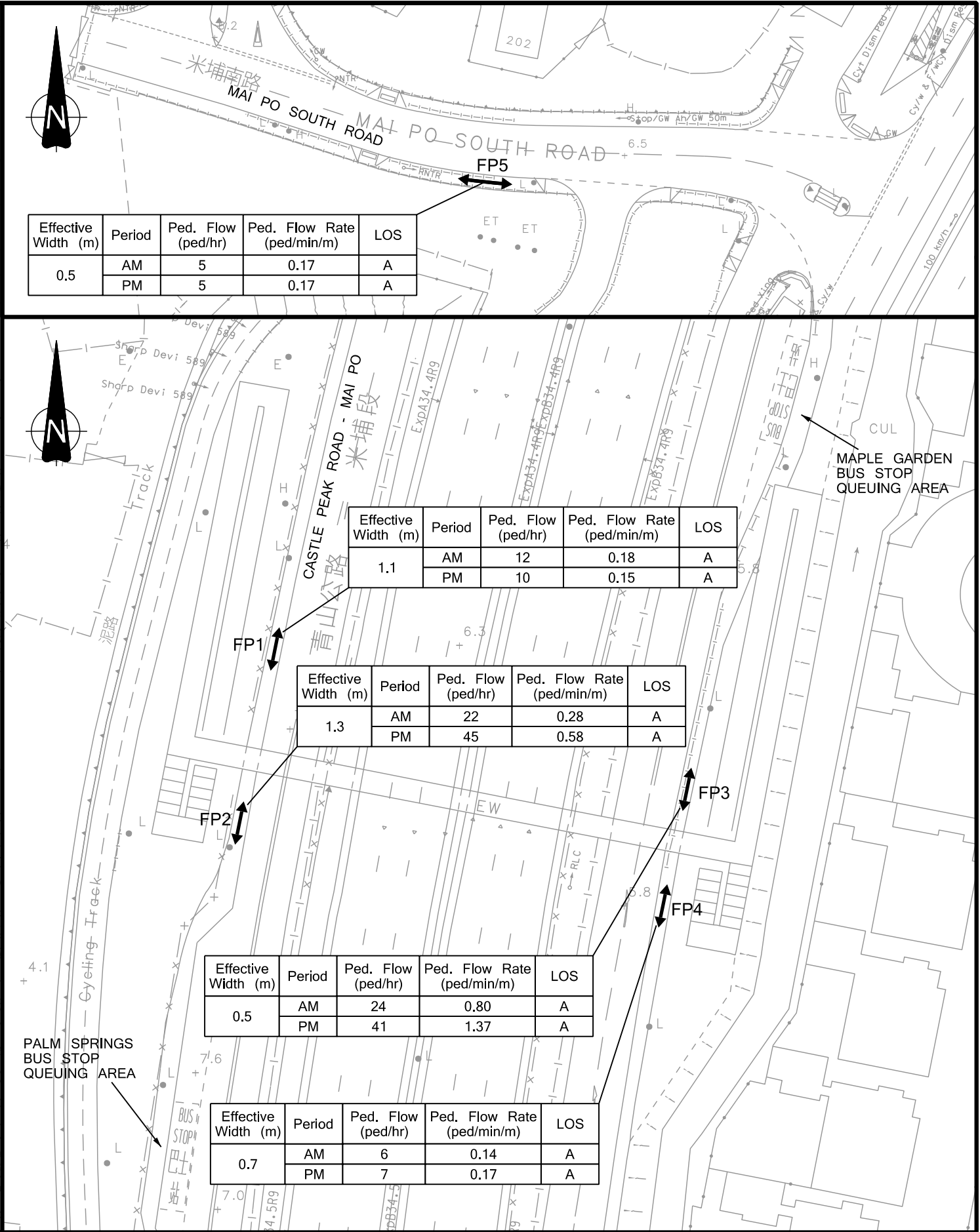
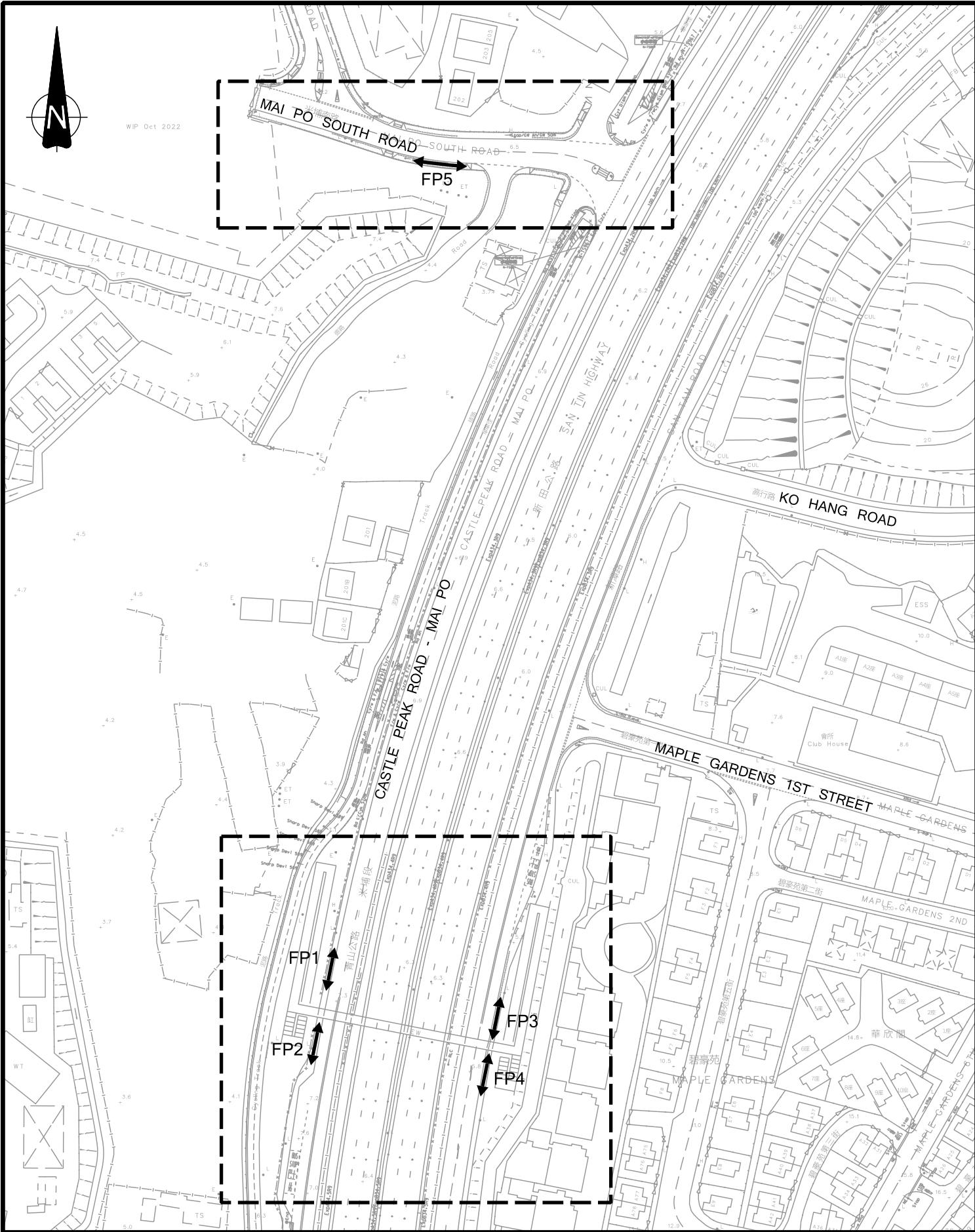
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PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101

Drawing Title											
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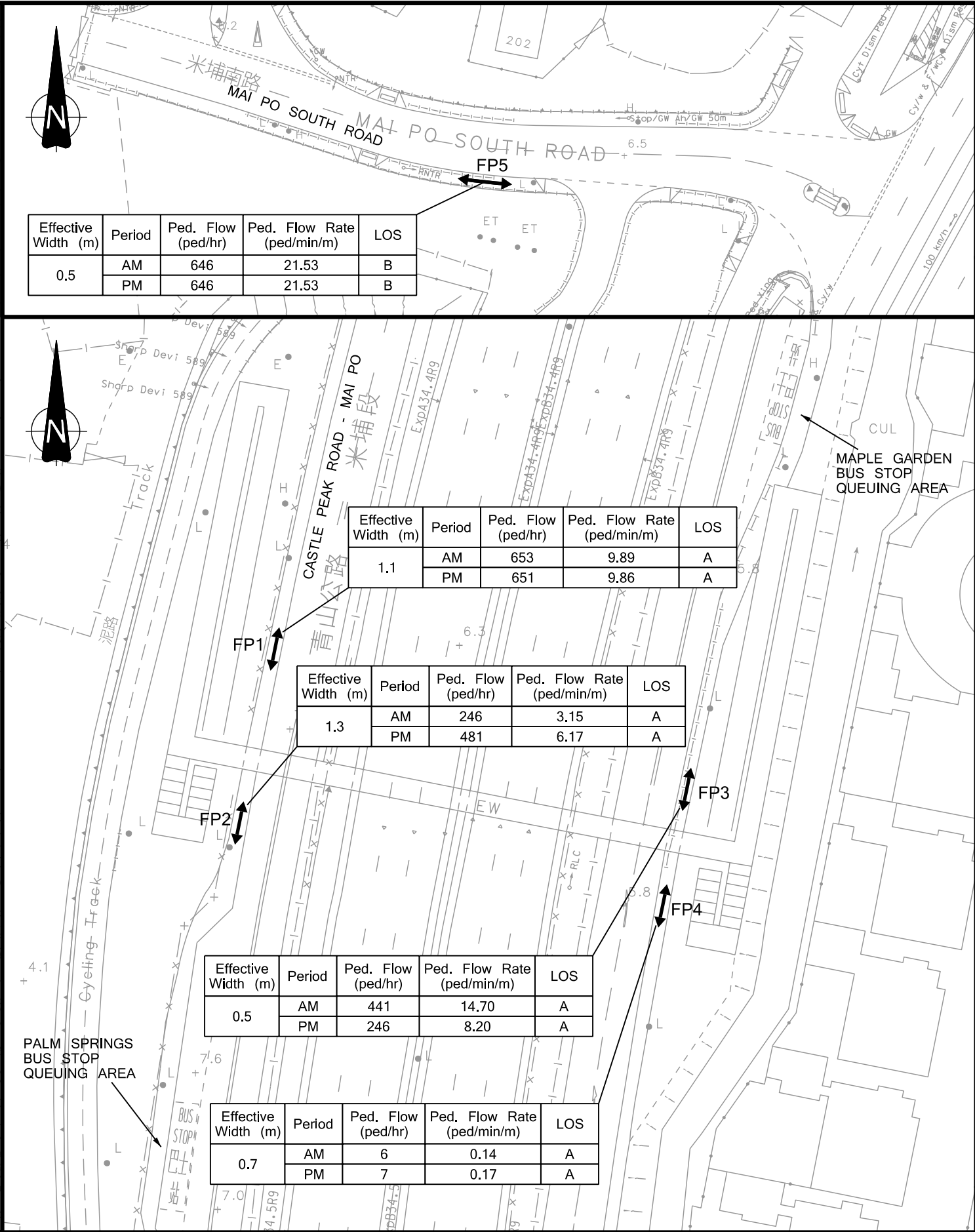
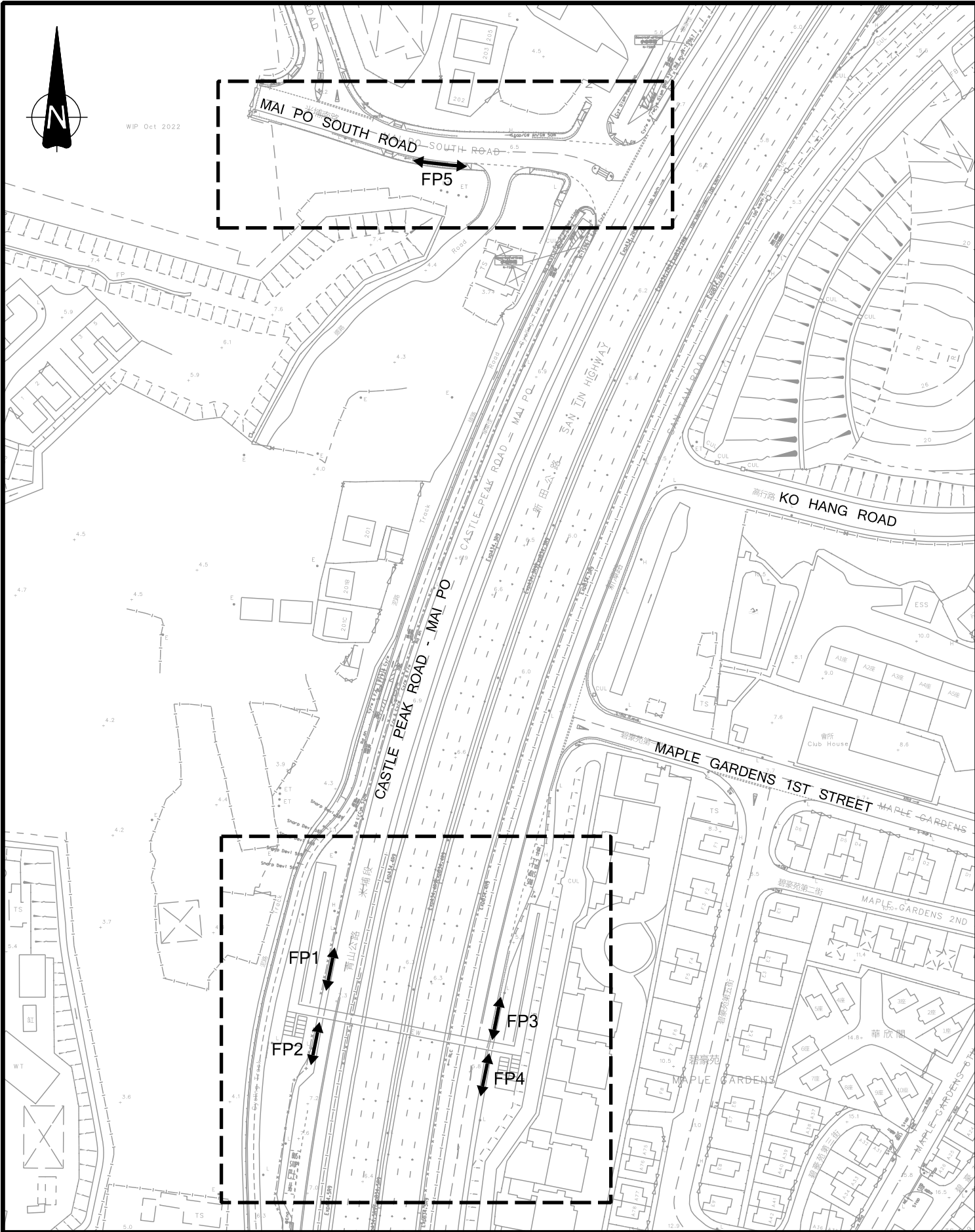


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Rev.	Description	Checked	Date	Rev.	Description	Checked	Date	Rev.	Description	Checked	Date
Project Title				Drawing Title							
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A. IN DD101				TERTIARY PLANNING UNIT (TPU) BOUNDARIES							
Designed MYC		Checked CFC		Scale NTS		Date JUN 2024		Drawing No. 5.4		Rev. A	





-	-	-	-	Project Title PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101	Drawing Title YEAR 2034 REFERENCE PEAK HOUR PEDESTRIAN FLOWS						
-	-	-	-								
-	-	-	-								
A	TD COMMENT INCORPORATED		CFC		15AUG25						
Rev.	Description		Checked	Date	Designed MYC Checked CFC Scale N.T.S. (A3) Date DEC 2024 Drawing No. 5.5 Rev. A						

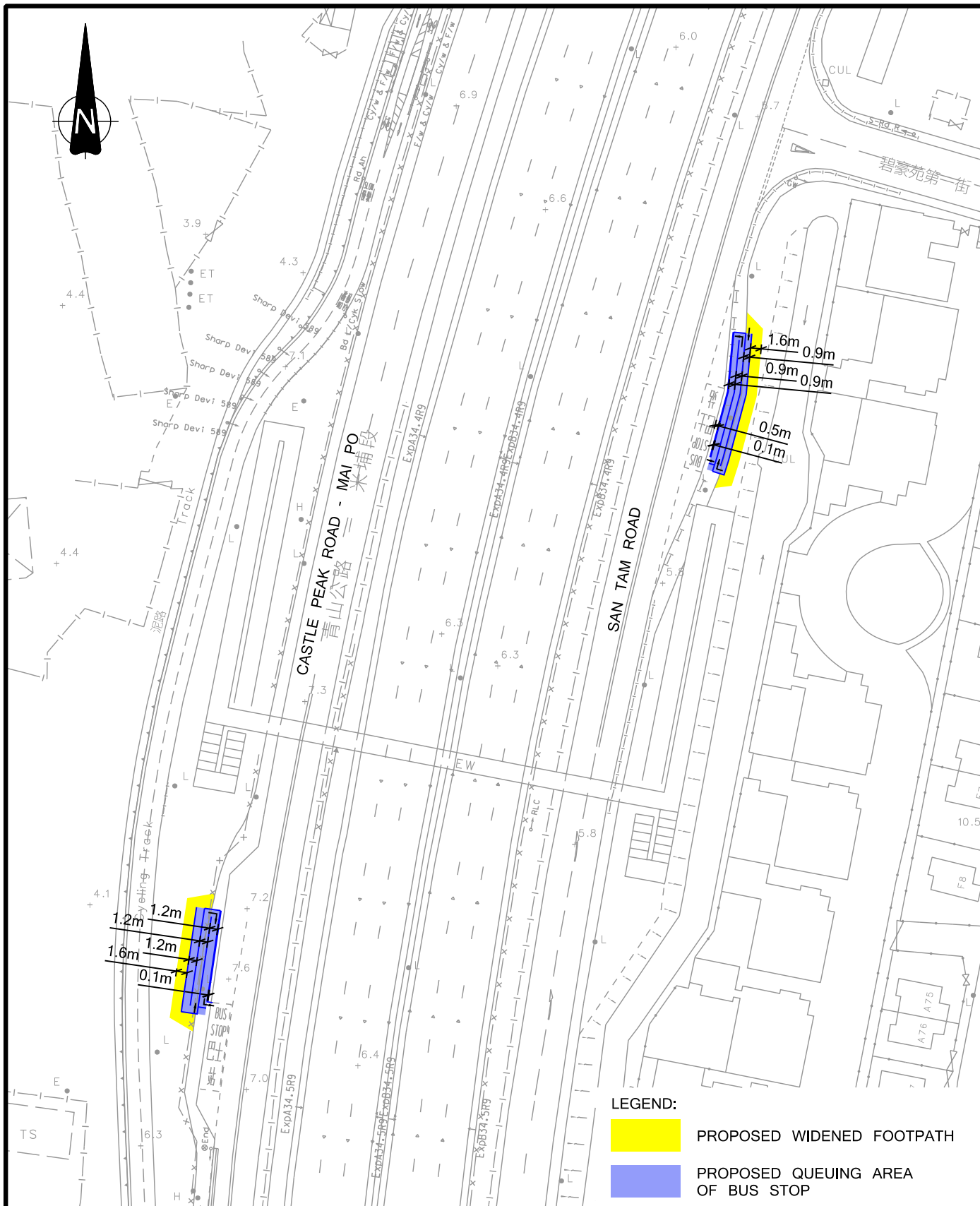


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A	TD COMMENT INCORPORATED	CFC	15AUG25
Rev.	Description	Checked	Date

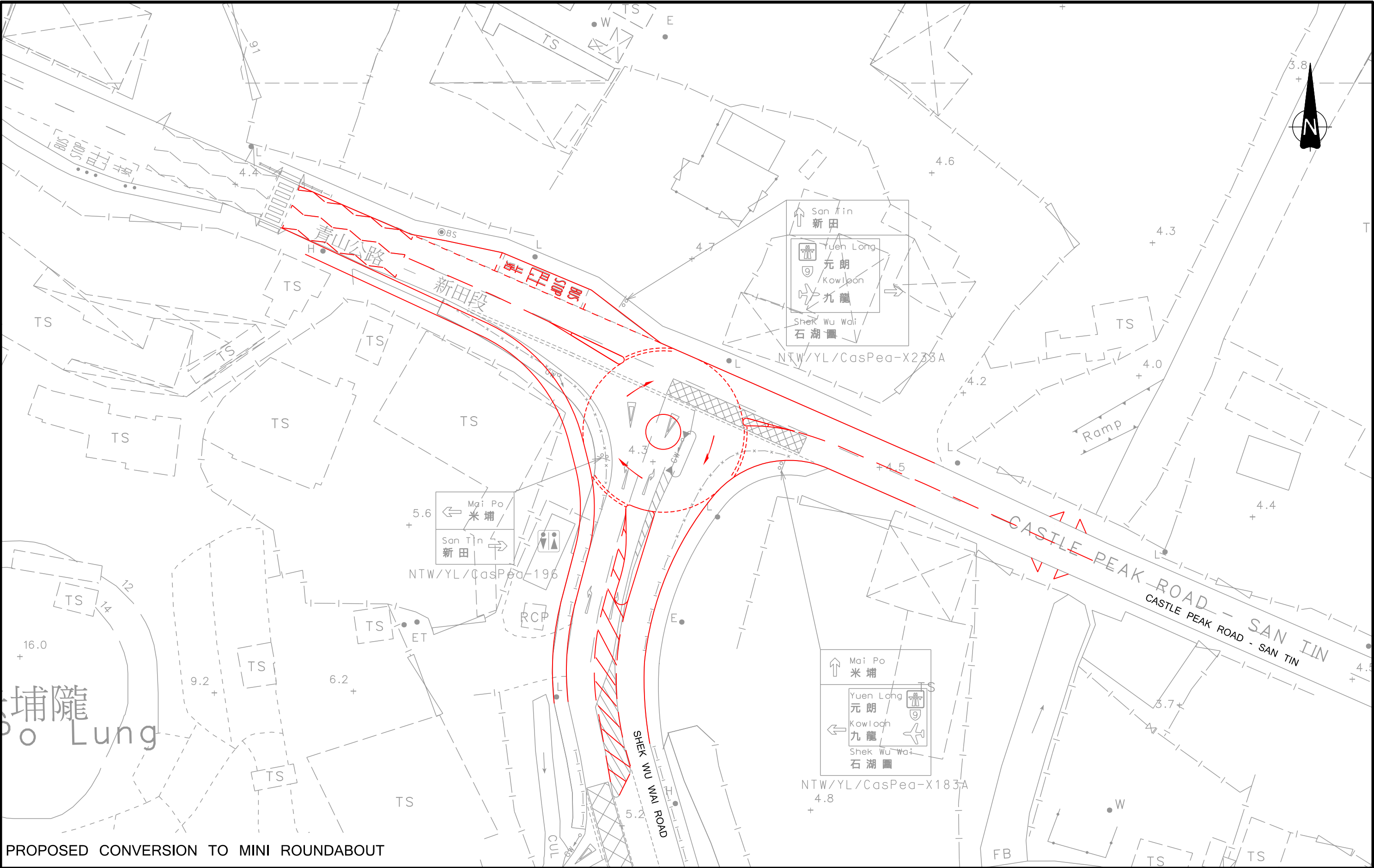
Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101

Drawing Title											
YEAR 2034 DESIGN PEAK HOUR PEDESTRIAN FLOWS											
Designed	MYC	Checked	CFC	Scale	N.T.S. (A3)	Date	DEC 2024	Drawing No.	5.6	Rev.	A





-	-	-	-	-	-	-	-
A	MINOR AMENDMENT	CFC	15AUG25	-	-	-	-
Rev.	Description	Checked	Date	Rev.	Description	Checked	Date
Project Title				Project Title			
Drawing Title				Drawing Title			
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101				PROPOSED WIDENING OF BUS STOPS			
Designed	MYC	Checked	CFC	Scale	1:800(A4)	Date	JAN 2025
Drawing No.		5.7		Rev.		A	



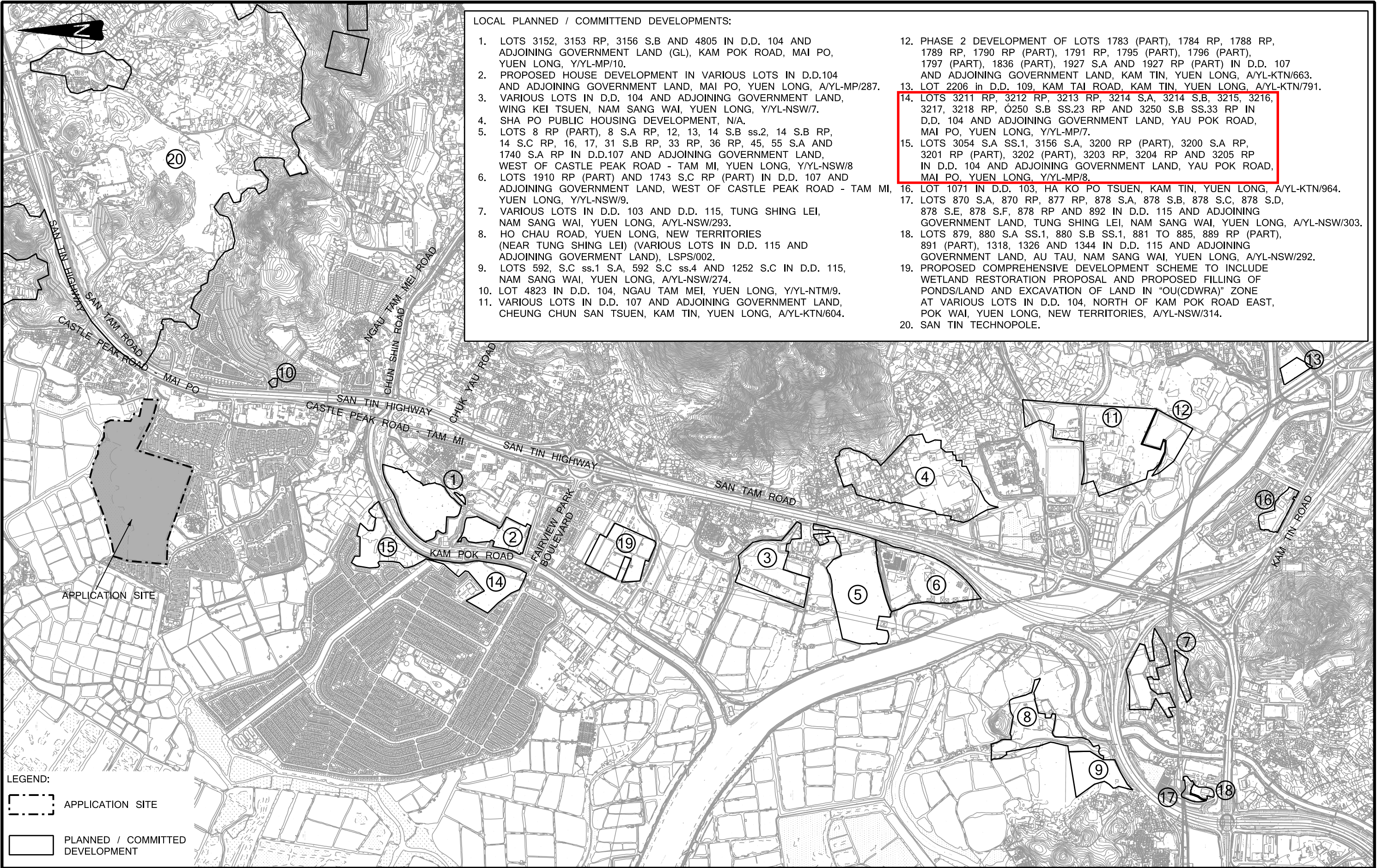
PROPOSED CONVERSION TO MINI ROUNDABOUT

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-	-	-	-
-	-	-	-
-	-	-	-
Rev.	Description	Checked	Date

Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101

Drawing Title					
INDICATIVE JUNCTION IMPROVEMENT LAYOUT OF CASTLE PEAK ROAD - SAN TIN / SHEK WU WAI ROAD					
Designed	LTY	Checked	CFC	Scale	1:500(A3)
Date	DEC 2024	Drawing No.	5.8	Rev.	-





LEGEND:

APPLICATION SITE

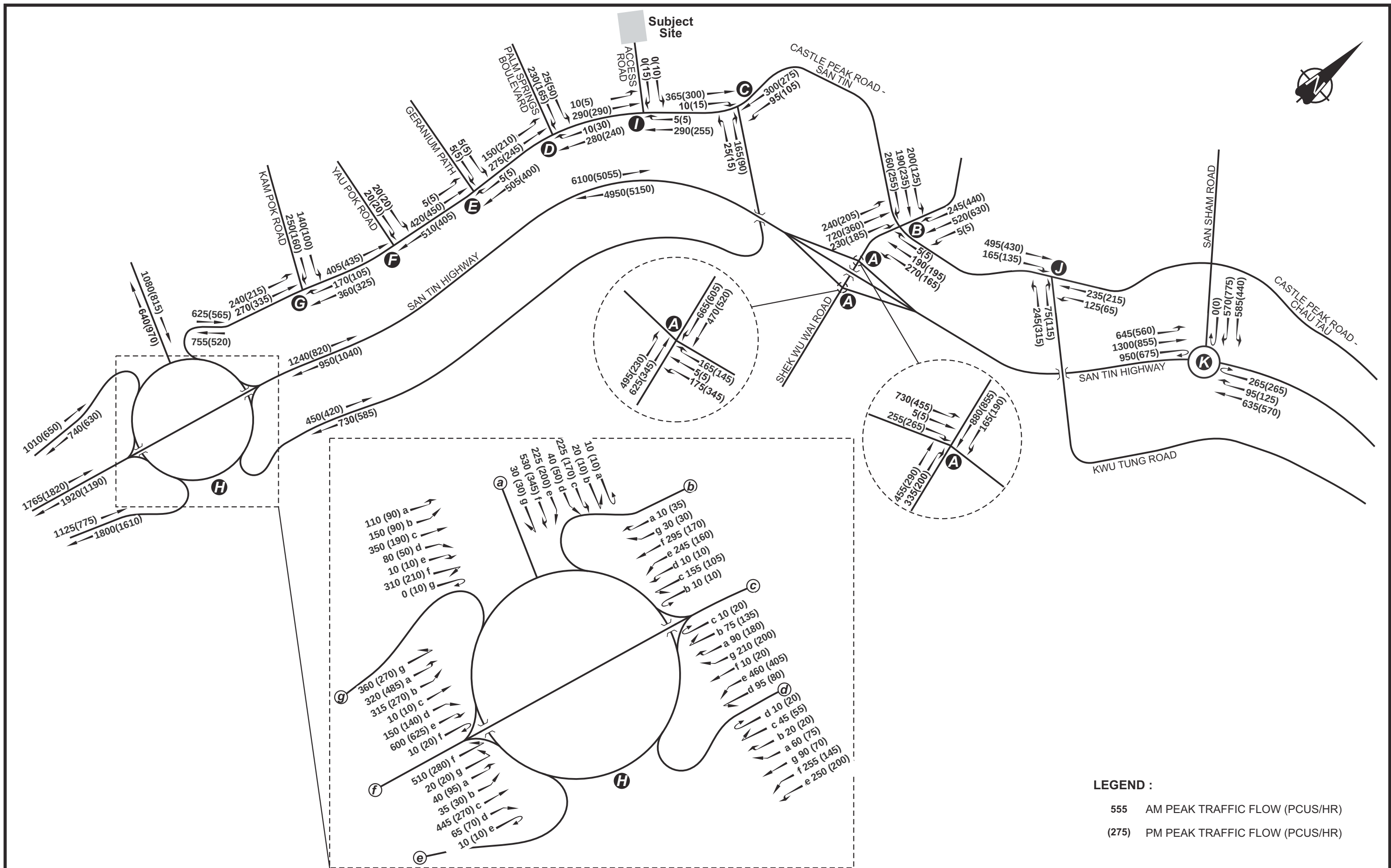
PLANNED / COMMITTED DEVELOPMENT

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-	-	-	-
-	-	-	-
A	TD COMMENT INCORPORATED	CFC	15AUG25
Rev.	Description	Checked	Date

Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101

Drawing Title			
LOCAL PLANNED AND COMMITTED DEVELOPMENTS (SENSITIVITY TEST)			
Designed	MYC	Checked	CFC
Scale	N.T.S.	Date	JUN 2024
Drawing No.	5.9	Rev.	A

SYSTRA
MVA

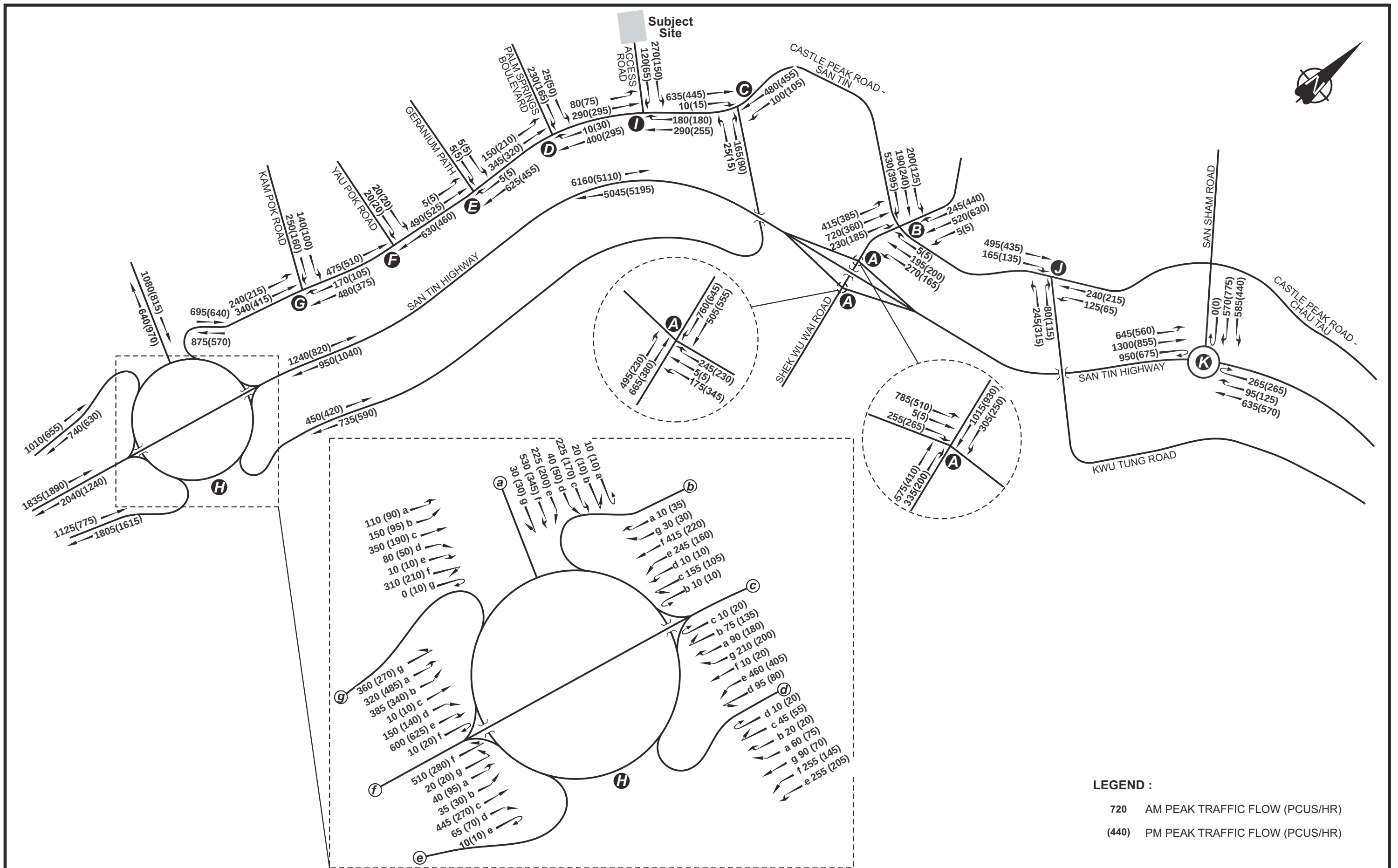


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B	MINOR UPDATE	CFC	9SEP25
A	TD COMMENT INCORPORATED	CFC	23MAY25
Rev.	Description	Checked	Date

Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A. IN DD101

Drawing Title											
2034 REFERENCE TRAFFIC FLOWS IN SENSITIVITY TEST											
Designed	MYC	Checked	CFC	Scale	NTS	Date	DEC 2024	Drawing No.	5.10	Rev.	B



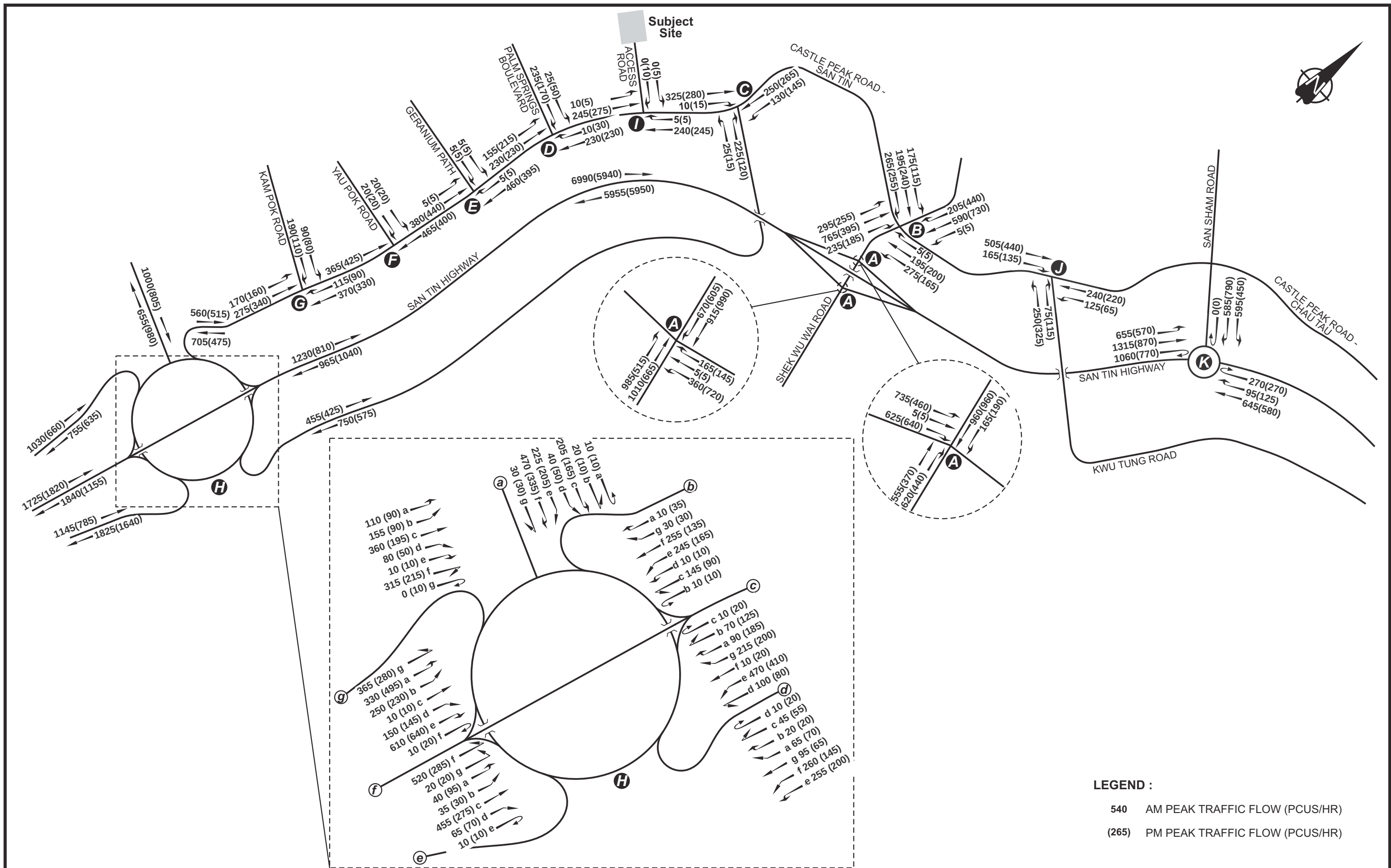


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B	MINOR UPDATE	CFC	9SEP25
A	TD COMMENT INCORPORATED	CFC	23MAY25
Rev.	Description	Checked	Date

Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A. IN DD101

Drawing Title											
2034 DESIGN TRAFFIC FLOWS IN SENSITIVITY TEST											
Designed	MYC	Checked	CFC	Scale	NTS	Date	JAN 2025	Drawing No.	5.11	Rev.	B



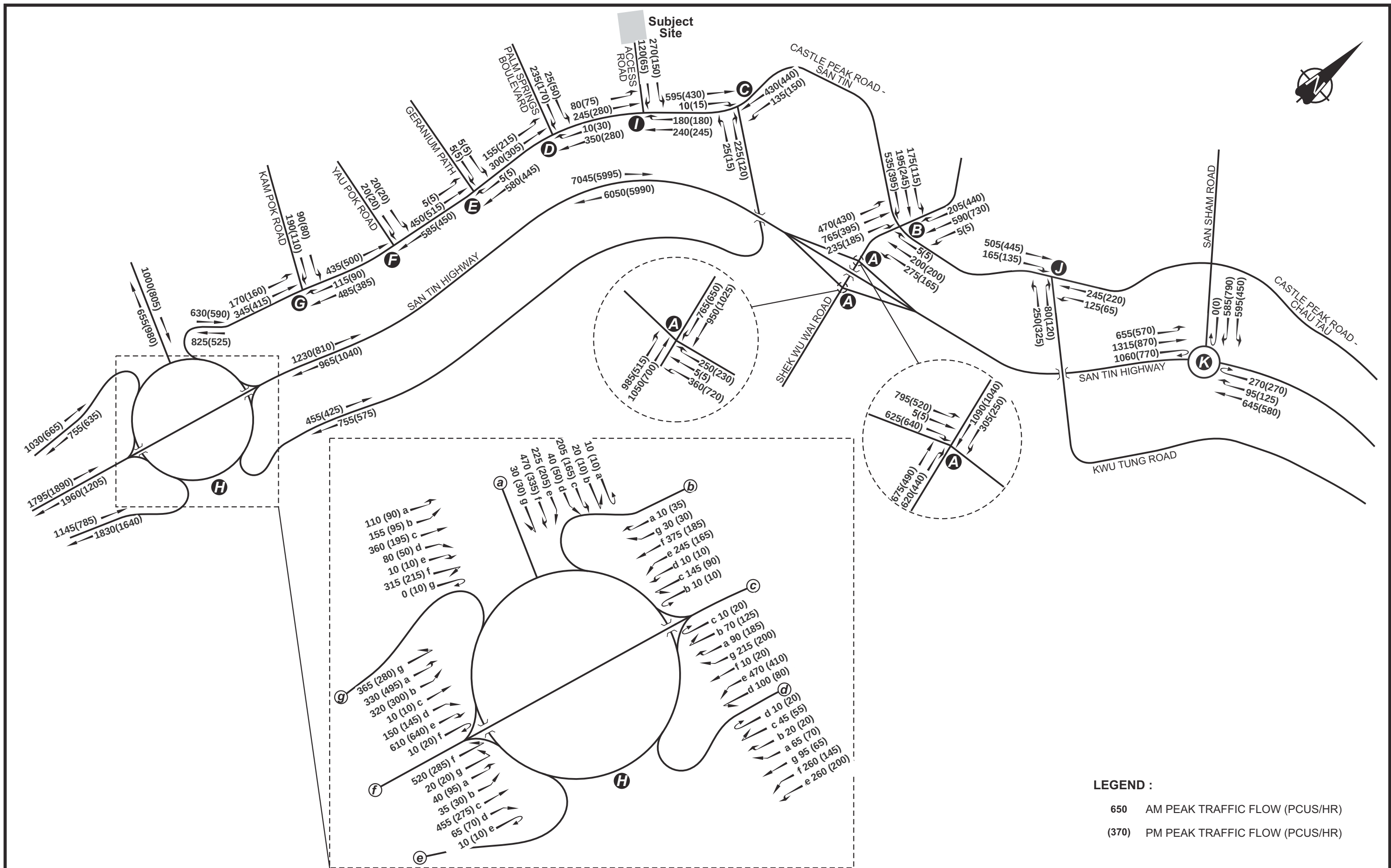


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A	MINOR UPDATE	CFC	9SEP25
Rev.	Description	Checked	Date

Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A. IN DD101

Drawing Title											
2039 REFERENCE TRAFFIC FLOWS IN SENSITIVITY TEST											
Designed	MYC	Checked	CFC	Scale	NTS	Date	DEC 2024	Drawing No.	5.12	Rev.	A





-	-	-	-
-	-	-	-
-	-	-	-
A	MINOR UPDATE	CFC	9SEP25
Rev.	Description	Checked	Date

Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A. IN DD101

Drawing Title											
2039 DESIGN TRAFFIC FLOWS IN SENSITIVITY TEST											
Designed	MYC	Checked	CFC	Scale	NTS	Date	DEC 2024	Drawing No.	5.13	Rev.	A



6. CONCLUSION

6.1 Summary

- 6.1.1 The previous Section 16 Planning Application (Application no. A/YL-MP/344) was approved with conditions with domestic plot ratio of 0.4 on 1 March 2024 for a proposed house development with 789 houses. A planning application is made under section 12A of the Town Planning Ordinance, to rezone the Application Site on the Approved Mai Po and Fairview Park Outline Zoning Plan ("OZP") No. S/YL-MP/8. The rezoning application aims to increase the plot ratio ("PR") from 0.4 (i.e. maximum permissible PR on the OZP) to 1.30 (with 1.28 domestic plot ratio), with a maximum building height ("BH") adjusted to not more than 10-storeys and not exceeding +42mPD by amending the Notes of the current "Other Specified Uses (Comprehensive Development to include Wetland Restoration Area)" ("OU(CDWRA)") zone. It is the Applicant's intention to increase the development intensity and revise the layout and form of the housing developments in the Application Site.
- 6.1.2 Same to the previous approved scheme, the development vehicular access is off the local access road, Mai Po South Road connecting to Castle Peak Road - Mai Po.
- 6.1.3 The provision of the internal transport facilities in the current proposed MLP is determined in accordance with the latest updated HKPSG requirements and TD's further comment.
- 6.1.4 Traffic surveys have been conducted to establish the current traffic condition, the public transport utilization and footpath condition in the vicinity of the subject site.
- 6.1.5 The tentative operation year of proposed development is 2031. Thus, the design year of 2034 is adopted for traffic forecast and assessment purposes.
- 6.1.6 Subject to the project of San Tin Technopole, the proposed road network will be upgraded to provide better linkage and strengthen future connectivity for developments located at the North and South of the San Tin Highway.
- 6.1.7 Public transport service capacity has also been assessed upon the completion of the proposed development. The assessment results suggest that with appropriate bus service enhancements, the public transport service capacity in the vicinity could serve the additional passenger demands. Potential bus stops and other public transport with related facilities would be provided within the subject development for the potential bus route and public transport services. The public transport service enhancement and potential bus and public transport service provision will be subject to further review in later stage, if necessary.
- 6.1.8 Operational performance of the identified local junctions and road link capacity have been assessed based on the anticipated year 2034 traffic flows and the upgrade road junctions of San Tin Technopole project. The anticipated trip generation of the current proposed scheme would be larger in both AM and PM peak periods, compared with the previous approved scheme. The assessment results as shown in **Table 5.1** revealed that the majority of key junctions will operate with ample capacity upon completion of the proposed development. With the planned junction improvement at Fairview Park Interchange (Junction H), the results indicate that all the identified junctions would be operated within capacity and road links would operate with ample capacity with expected future road infrastructure in Year 2034.

- 6.1.9 Operational performance of pedestrian flows and queuing space assessment have been assessed based on the anticipated year 2034 pedestrian flows, subject to the induced pedestrian trips for additional franchised bus demand. With the proposed widening of existing queuing area at concerned bus stops, the LOS of the identified road link and queuing area at bus stops would be operating within capacity in Year 2034.
- 6.1.10 Therefore, it is anticipated that the proposed development would not cause any significant traffic impact to the road network.
- 6.1.11 Subject to TD comment, three sensitivity tests are also included in the assessment. In conservative hypothetical approach, with certain proposed junction improvements, all the identified junctions would be operated within capacity and road links would operate with ample capacity with expected future road infrastructure in Year 2034 and Year 2039.

6.2 Conclusion

- 6.2.1 In conclusion, the traffic impact assessment has demonstrated that the traffic generated by the proposed development can be absorbed by the nearby road network. Hence, it can be concluded that the proposed development is considered acceptable in traffic terms.

ANNEX A – DETAIL OF JUNCTION CALCULATION SHEETS

Calculation Spreadsheets
for
2024 Observed Scenario

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Shek Wu Wai Road / San Tin Highway Slip Road (A1)		Ref. No.:	2024O
Scheme: Observe		Ref. No.:	
Year: 2024	Job No.: CHK50800610	Rev.:	-
ARM A: Shek Wu Wai Road			
ARM B: San Tin Highway Slip Road			
ARM C: Shek Wu Wai Road			

ARM C

AM	(PM)
365	(290)
0	(0)

ARM A

AM	(PM)
105	(70)
0	(0)

Minor ARM B

AM	(PM)
240	80
(240)	(85)

GEOMETRY					
Major road width	W	7.20	Lane widths	w(b-a)	8.30
Central Reserve width	Wcr	0.00		w(b-c)	8.30
2 Lane Minor Arm (Y/N)		N		w(c-b)	0.00
Visibilities	Vr(b-a)	20	Calculated	D	1.21
	VI(b-a)	20		E	1.31
	Vr(b-c)	20		F	0.59
	Vr(c-b)			Y	0.75

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	365	290
	q(c-b)	0	0
	q(a-b)	0	0
	q(a-c)	105	70
	q(b-a)	80	85
	q(b-c)	240	240
	f	0.75	0.74
CAPACITIES	Q(b-a)	646	673
	Q(b-c)	937	949
	Q(c-b)	420	425
	Q(b-ac)	842	857
RFC's	b-a	0.124	0.126
	b-c	0.256	0.253
	c-b	0.000	0.000
	b-ac	0.380	0.379
Worst RFC		0.380	0.379

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$

$E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$

$F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$

$Y = 1 - 0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c) * Q(b-a) / ((1-f) * Q(b-c) + f * Q(b-a))$

T.P.D.M.V.2.4

Appendix 1

Calculated by: MYC

Date: Jan-25

Checked by: CFC

Capacity of combined streams
- in accordance with TPDM V2.4

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101																																	
Junction: Shek Wu Wai Road / Mai Po Lung Road (A2)								Ref. No.: 2024O																									
Scheme: Observe								Ref. No.:																									
Year: 2024				Job No.: CHK50800610				Rev.: -																									
ARM A: Mai Po Lung Road																																	
ARM B: San Tin Highway Slip Road																																	
ARM C: Shek Wu Wai Road																																	
ARM D: Shek Wu Wai Road																																	
Shek Wu Wai Road Minor Arm D <table><tr><td>65</td><td>55</td><td>5</td></tr><tr><td>40</td><td>45</td><td>0</td></tr></table> AM (PM) AM (PM) <table><tr><td>90</td><td>90</td></tr><tr><td>45</td><td>95</td></tr><tr><td>315</td><td>190</td></tr></table> ARM C Shek Wu Wai Road Minor ARM B <table><tr><td>0</td><td>0</td><td>0</td></tr><tr><td>0</td><td>0</td><td>0</td></tr></table> AM (PM) Mai Po Lung Road ARM A <table><tr><td>0</td><td>5</td></tr><tr><td>40</td><td>30</td></tr><tr><td>35</td><td>40</td></tr></table> AM (PM)										65	55	5	40	45	0	90	90	45	95	315	190	0	0	0	0	0	0	0	5	40	30	35	40
65	55	5																															
40	45	0																															
90	90																																
45	95																																
315	190																																
0	0	0																															
0	0	0																															
0	5																																
40	30																																
35	40																																
GEOMETRY																																	
				ARM B			ARM D																										
Major road width	W	10.30	Lane widths		w(b-a)	0.00	w(b-a)	5.40																									
Central Reserve width	Wcr	0.00			w(b-c)	0.00	w(b-c)	5.40																									
					w(c-b)	3.50	w(c-b)	3.30																									
Visibilities	Vr(b-a)	0	Vr(d-c)	30	D	0.53	D	0.99																									
	VI(b-a)	0	VI(d-c)	30	E	0.59	E	1.06																									
	Vr(b-c)	0	Vr(d-a)	25	F	0.91	F	0.89																									
	Vr(c-b)	40	Vr(a-d)	30	Y	0.64	Y	0.64																									
Arm B				Arm D																													
ANALYSIS																																	
		AM PEAK		(PM) PEAK		AM PEAK		(PM) PEAK																									
TRAFFIC FLOWS	q(c-a)	50		95	q(a-c)	40	30																										
	q(c-b)	315		190	q(a-d)	0	5																										
	q(a-b)	35		40	q(c-d)	90	90																										
	q(a-c)	105		70	q(c-a)	45	95																										
	q(b-a)	0		0	q(d-c)	120	85																										
	q(b-c)	0		0	q(d-a)	5	0																										
	f	0.00		0.00	f	0.04	0.00																										
	CAPACITIES	Q(b-a)	259		282	Q(d-c)	598	586																									
Q(b-c)		420		425	Q(d-a)	773	761																										
Q(c-b)		652		658	Q(a-d)	634	624																										
Q(b-ac)		259		282	Q(d-ca)	604	586																										
Q(c-a)		930		1280	Q(a-c)	1800	1786																										
RFC's		b-a	0.000		0.000	d-c	0.201	0.145																									
	b-c	0.000		0.000	d-a	0.006	0.000																										
	c-b	0.483		0.289	a-d	0.000	0.008																										
	b-ac	0.000		0.000	d-ca	0.207	0.145																										
	c-a	0.054		0.074	a-c	0.022	0.017																										
	Worst RFC				AM	(PM)																											
				0.483	0.289																												
Where VI and Vr are visibility distances to the left or right of the respective streams																																	
D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))																																	
E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))																																	
F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))																																	
Y = 1-0.0345W																																	
f = proportion of minor traffic turning left																																	
Q (b-ac) = Q(b-c)*Q(b-a)/((1-f)*Q(b-c)+f*Q(b-a)																																	
Capacity of combined streams																																	
- in accordance with TPDM V2.4																																	
Calculated by:		MYC		Date:		Jan-25		Checked by: CFC																									

T.P.D.M.V.2.4

Appendix 1

Priority Junction Capacity Calculation

\\20250526 WSW 12A Calculation Main Case\Junction Calculation\J02 P-Castle Peak Road San Tin-Shek Wu Wai Road coordinated w NTM.xlsm\2024

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / San Tam Road (C)		Ref. No.:	20240
Scheme: Observe		Ref. No.:	
Year: 2024	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: San Tam Road			
ARM C: Castle Peak Road - Mai Po			

GEOMETRY

Major road width	W	7.40	Lane widths	w(b-a)	3.20
Central Reserve width	Wcr	0.00		w(b-c)	3.20
2 Lane Minor Arm (Y/N)		N		w(c-b)	4.10
Visibilities	Vr(b-a)	50	Calculated	D	0.85
	VI(b-a)	70		E	0.90
	Vr(b-c)	50		F	0.98
	Vr(c-b)	50		Y	0.74

ANALYSIS

			AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	Factor	230	225
	q(c-b)		10	15
	q(a-b)		60	80
	q(a-c)		195	170
	q(b-a)		65	45
	q(b-c)		25	15
	f		0.28	0.25
CAPACITIES	Q(b-a)	Factor	448	451
	Q(b-c)		615	619
	Q(c-b)		660	661
	Q(b-ac)		485	484
RFC's	b-a		0.145	0.100
	b-c		0.041	0.024
	c-b		0.015	0.023
	b-ac		0.186	0.124
Worst RFC			0.186	0.124

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = \frac{(1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))}{E + (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))}$$

$$F = \frac{(1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))}{Y + 1-0.0345W}$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c)*Q(b-a)/((1-f)*Q(b-c)+f*Q(b-a))$$

Capacity of combined streams
- in accordance with TPDM V2.4

Calculated by: MYC	Date: Sept-25	Checked by: CFC
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Job Title:	Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101					
Junction:	Castle Peak Road Mai Po / Palm Springs Boulevard (D)			Ref. No.:	2024O	
Scheme:	Observe			Ref. No.:		
Year:	2024	Job No.:	CHK50800610		Rev.:	-
ARM A: Castle Peak Road - Mai Po						
ARM B: Palm Springs Boulevard						
ARM C: Castle Peak Road - Mai Po						
ARM C AM (PM) 175 (135) 10 (20) 25 (35) 245 (120) Minor ARM B AM (PM) 155 (175) 135 (180) ARM A						
GEOMETRY						
Major road width	W	7.00	Lane widths	w(b-a)	4.00	
Central Reserve width	Wcr	0.00		w(b-c)	4.00	
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.00	
Visibilities	Vr(b-a)	30	Calculated	D	0.88	
	VI(b-a)	30		E	0.95	
	Vr(b-c)	30		F	0.86	
	Vr(c-b)	30		Y	0.76	
ANALYSIS						
			AM PEAK (PM) PEAK			
TRAFFIC FLOWS	q(c-a)		175	135		
	q(c-b)		10	20		
	q(a-b)		135	180		
	q(a-c)		155	175		
	q(b-a)		245	120		
	q(b-c)		25	35		
	f		0.09	0.23		
CAPACITIES	Q(b-a)	Factor	471	465		
	Q(b-c)	1	653	643		
	Q(c-b)	1	574	558		
	Q(b-ac)	1	483	496		
RFC's	b-a		0.520	0.258		
	b-c		0.038	0.054		
	c-b		0.017	0.036		
	b-ac		0.559	0.313		
Worst RFC			0.559	0.313		
Where VI and Vr are visibility distances to the left or right of the respective streams D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150)) E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120)) F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120)) Y = 1-0.0345W f = proportion of minor traffic turning left Q (b-ac) = Q(b-c)*Q(b-a)/((1-f)*Q(b-c)+f*Q(b-a) Capacity of combined streams - in accordance with TPDM V2.4 T.P.D.M.V.2.4 Appendix 1						
Calculated by:	MYC	Date:	Jan-25	Checked by:	CFC	

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101					
Junction: Castle Peak Road Mai Po / Geranium Path (E)		Ref. No.: 2024O			
Scheme: Observe		Ref. No.:			
Year: 2024	Job No.: CHK50800610	Rev.: -			
ARM A: Castle Peak Road - Mai Po					
ARM B: Geranium Path					
ARM C: Castle Peak Road - Mai Po					
ARM C AM (PM) 415 (255) 5 (5) Minor ARM B AM (PM) 5 (5) 5 (5) ARM A AM (PM) 290 (350) 5 (5)					
GEOMETRY					
Major road width	W	7.00	Lane widths	w(b-a)	3.00
Central Reserve width	Wcr	0.00		w(b-c)	3.00
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.60
Visibilities	Vr(b-a)	50	Calculated	D	0.82
	VI(b-a)	30		E	0.88
	Vr(b-c)	50		F	0.93
	Vr(c-b)	50		Y	0.76
ANALYSIS					
			AM PEAK		(PM) PEAK
TRAFFIC FLOWS	q(c-a)		415	255	
	q(c-b)		5	5	
	q(a-b)		5	5	
	q(a-c)		290	350	
	q(b-a)		5	5	
	q(b-c)		5	5	
	f		0.50	0.50	
CAPACITIES	Q(b-a)	Factor 1	386	395	
	Q(b-c)	1	584	570	
	Q(c-b)	1	619	603	
	Q(b-ac)	1	465	467	
RFC's	b-a		0.013	0.013	
	b-c		0.009	0.009	
	c-b		0.008	0.008	
	b-ac		0.022	0.021	
Worst RFC			0.022	0.021	
Where VI and Vr are visibility distances to the left or right of the respective streams D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150)) E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120)) F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120)) Y = 1-0.0345W f = proportion of minor traffic turning left Q (b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a) Capacity of combined streams - in accordance with TPDM V2.4					
Calculated by: MYC		Date: Jan-25	Checked by: CFC		

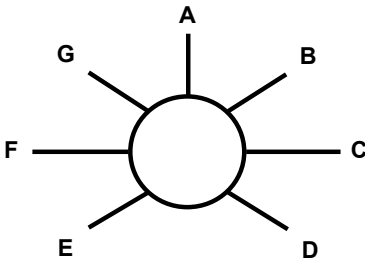
Priority Junction Capacity Calculation

\\myc\000 - Project\000 - WSW 12A\20241224 WSW 12A Calculation\Junction Calculation\J06 P-Castle Peak Road Tam Mi-Yau Pok Road.xlsm\20240

Priority Junction Capacity Calculation

\\myc\000 - Project\000 - WSW 12A\20241224 WSW 12A Calculation\Junction Calculation\J07 P-Castle Peak Road Tam Mi-Kam Pok Road.xlsm]2024

Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101											
Junction: Fairview Park Interchange (H)								Ref. No.: 2024O			
Scheme: Observe								Ref. No.:			
Year: 2024				Job No.: CHK50800610				Rev.: -			
AM		PM									
ARM A:		Fairview Park Boulevard									
ARM B:		Castle Peak Rd E									
ARM C:		NTCR E									
ARM D:		San Tam Rd E									
ARM E:		San Tam Rd W									
ARM F:		NTCR W									
ARM G:		Castle Peak Rd W									
											
GEOMETRY											
ARM	v	e	L	r	D	Phi	S				
A	7.00	11.00	14	22	142	35	0.46				
B	5.50	10.50	15	20	142	35	0.53				
C	5.50	8.50	7.5	23	142	30	0.64				
D	6.75	8.50	10	20	142	25	0.28				
E	6.00	8.00	9.5	20	142	35	0.34				
F	6.50	9.00	15	25	142	40	0.27				
G	5.50	6.00	7	22	142	30	0.11				
AM FLOWS											
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit	
A	60	5	235	40	155	430	15	1395	940	600	
B	15	25	55	5	115	250	5	1915	470	420	
C	145	55	10	100	215	20	120	1765	665	620	
D	35	10	40	55	160	195	10	1990	505	440	
E	60	80	155	60	5	45	5	1685	410	810	
F	255	145	15	140	100	30	120	980	805	1115	
G	30	100	110	40	60	145	15	1495	500	290	
PM FLOWS											
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit	
A	50	20	140	35	140	240	20	1220	645	940	
B	15	25	45	15	125	105	15	1475	345	390	
C	175	45	20	100	265	5	100	1300	710	520	
D	25	25	40	55	110	170	10	1600	435	410	
E	50	35	140	40	10	35	5	1265	315	770	
F	590	170	25	115	105	20	200	910	1225	670	
G	35	70	110	50	15	95	10	1775	385	360	
CALCULATIONS											
ARM	K	X ₂	M	F	t _D	f _c	Q _E		RFC		
							AM	PM	AM	PM	
A	0.99	9.09	3640.95	2754	1.00	0.59	1904	2006	0.49	0.32	
B	0.98	7.92	3640.95	2400	1.00	0.54	1337	1571	0.35	0.22	
C	1.01	6.82	3640.95	2065	1.00	0.50	1197	1429	0.56	0.50	
D	1.02	7.87	3640.95	2385	1.00	0.54	1332	1546	0.38	0.28	
E	0.98	7.19	3640.95	2180	1.00	0.51	1294	1505	0.32	0.21	
F	0.98	8.13	3640.95	2464	1.00	0.55	1875	1913	0.43	0.64	
G	1.00	5.91	3640.95	1790	1.00	0.46	1110	981	0.45	0.39	
									Critical Arm:	C	F
									RFC:	0.56	0.64
										AM	PM
- In accordance with TPDM V2.4											
Calculated by: MYC				Date: Jan-25			Checked by: CFC				

PRIORITY JUNCTION CAPACITY CALCULATION

Job Title:Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101

Junction:Castle Peak Road Mai Po / Mai Po South Road (I)

Scheme:Observe

Year:2024

Job No.:CHK50800610

Ref. No.:2024O

Ref. No.:

Rev.: -

ARM A:Castle Peak Road - Mai Po

ARM B:Mai Po South Road

ARM C:Castle Peak Road - Mai Po

AM(PM)

185(150)

5(5)

ARM C

AM(PM)

175(205)

10(5)

ARM A

AM(PM)

0(5)

0(5)

Minor ARM B

GEOMETRY

Major road widthW8.40

Central Reserve widthWcr0.00

2 Lane Minor Arm (Y/N)N

VisibilitiesVr(b-a)50

VI(b-a)30

Vr(b-c)50

Vr(c-b)50

Lane widths

w(b-a)4.20

w(b-c)4.20

w(c-b)4.20

Calculated

D0.91

E0.99

F0.99

Y0.71

ANALYSIS

TRAFFIC FLOWS

q(c-a)

q(c-b)

q(a-b)

q(a-c)

q(b-a)

q(b-c)

f

Factor

1

1

1

1

CAPACITIES

Q(b-a)

Q(b-c)

Q(c-b)

Q(b-ac)

502

689

687

502

RFC's

b-a

b-c

c-b

b-ac

0.000

0.000

0.007

0.000

Worst RFC

0.007

0.017

AM PEAK(PM) PEAK

185150

55

105

175205

05

05

0.000.50

502500

689681

687681

502577

0.0000.010

0.0000.007

0.0070.007

0.0000.017

0.0070.017

Where VI and Vr are visibility distances to the left or right of the respective streams

D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))

E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))

F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))

Y = 1-0.0345W

f = proportion of minor traffic turning left

Q (b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)

Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4

Appendix 1

Calculated by:MYC

Date:Jan-25

Checked by:CFC

:_\000 - Project\000 - WSW 12A\20241224 WSW_12A_Calculation\Junction Calculation\J09_P-Castle_Peak_Road_Mai_Po-Mai_Po_South_Road.xlsm\2024O

Priority Junction Capacity Calculation

Project\000 - WSW 12A\20250526 WSW 12A Calculation Main Case\Junction Calculation\J10 P-Castle Peak Road San Tin-Kwu Tung Road.xlsm\20240

Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101										
Junction: San Tin Interchange (K)							Ref. No.: 2024O			
Scheme: Observe							Ref. No.:			
Year: 2024				Job No.: CHK50800610			Rev.: -			
AM		PM								
ARM A:		San Tin Highway Slip Road								
ARM B:		San Sham Road								
ARM C:		Fanling Highway Slip Road								
GEOMETRY										
ARM	v	e	L	r	D	Phi	S			
A	7.70	14.40	75	30	103	40	0.14			
B	8.80	11.70	75	30	103	40	0.06			
C	8.80	12.00	40	100	103	30	0.13			
AM FLOWS										
from \ to	A	B	C					Circ	Entry	
A	495	525	785					255	1805	
B	455	0	0					1415	455	
C	480	120	135					950	735	
PM FLOWS										
from \ to	A	B	C					Circ	Entry	
A	425	460	600					310	1485	
B	610	0	0					1185	610	
C	400	150	160					1035	710	
CALCULATIONS										
ARM	K	X ₂	M	F	t _D	f _c	Q _E		RFC	
							AM	PM	AM	PM
A	0.98	12.91	73.70	3912	1.01	0.76	3650	3609	0.49	0.41
B	0.98	11.38	73.70	3448	1.01	0.69	2423	2579	0.19	0.24
C	1.04	11.35	73.70	3438	1.01	0.69	2891	2830	0.25	0.25
							Critical Arm:		A	A
							RFC:		0.49	0.41
									AM	PM
- In accordance with TPDM V2.4										
Calculated by: LTY				Date: May-25			Checked by: CFC			

**Calculation Spreadsheets
for
2034 Reference Scenario**

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50800610**

MVA HONG KONG LIMITED

Junction: Shek Wu Wai Road / San Tin Highway Slip Road (A)

Design Year: 2034

Description: Reference

Designed By: MYC

Checked By: CFC

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
San Tin highway Slip Road (EB)	→	A	1,2	3.650		12.5		96%	96%	1775	1775	127	0.072		132	0.074	
	↘	A	1,2	3.650		10				1845	1845	133	0.072		138	0.075	
San Tin highway Slip Road (WB)	←	B	1	3.900		10		94%	93%	1865	1865	86	0.046		76	0.041	
	↙	B	1	3.900		12.5				1800	1805	84	0.047	0.047	74	0.041	0.041
Shek Wu Wai Road (SB)	↓	C	2,3	3.500						1965	1965	385	0.196		380	0.193	
	↔	C	2,3	3.500		15		78%	63%	1955	1980	382	0.195		382	0.193	
	↘	C	2,3	3.500		12.5				1880	1880	368	0.196		363	0.193	
Shek Wu Wai Road (NB)	↑	D	4	3.500				30%	26%	1965	1965	264	0.134		163	0.083	
	↔	D	4	3.500		15				2045	2050	274	0.134	0.134	171	0.083	0.083
	↙	D	4	3.500		12.5				1880	1880	252	0.134		156	0.083	
Shek Wu Wai Road (SB)	↓	E	3	3.500						2105	2105	300	0.143		291	0.138	
	↔	E	3	3.500						2105	2105	300	0.143		292	0.139	
	↘	E	3	3.500						1965	1965	280	0.142		272	0.138	
Shek Wu Wai Road (NB)	↑	F	4	3.500						1965	1965	199	0.101		110	0.056	
	↔	F	4	3.500						2105	2105	213	0.101		117	0.056	
	↙	F	4	3.500						2105	2105	213	0.101		118	0.056	

- In accordance with TPDM V4 - Road Traffic Signals

Formual of Total lost time per cycle

$$L = \sum (I - 1)$$

AM peak

Group: B,C,D

L

$$= (6-1)+(8-1)+(5-1) = 16$$

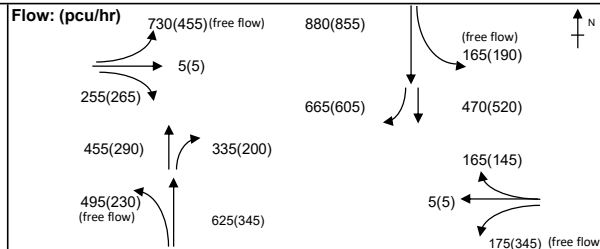
PM peak

Group: B,C,D

L

$$= (7-1)+(5-1)+(5-1) = 16$$

Notes:



Group	B,C,F	B,C,D	Group	B,C,F	B,C,D
y	0.344	0.377	y	0.290	0.318
L (sec)	16	16	L (sec)	16	16
C (sec)	90	90	C (sec)	90	90
y pract.	0.740	0.740	y pract.	0.740	0.740
R.C. (%)	115%	96%	R.C. (%)	155%	133%

Stage / Phase Diagrams

1.	2.	3.	4.	5.
I/G= 5	I/G= 6	I/G=	I/G= 8	I/G=
I/G= 5	I/G= 6	I/G=	I/G= 8	I/G=

Date: AUG, 2025

Junction: Shek Wu Wai Road / San Tin Highway Slip Road (A)

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50800610**

MVA HONG KONG LIMITED

Junction: Shek Wu Wai Road / Road D3 / Road L11 / Road L12 (B)

Design Year: 2034

Description: Reference

Designed By: MYC

Checked By: CFC

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Road L11 EB	→	A	1	4.000	15					1830	1830	150	0.082		100	0.055	
	↔	A	1	4.000	17.5	20		0% / 18%	0% / 7%	2125	2145	233	0.110	0.110	254	0.118	
	←	A	1	4.000		17.5				1985	1985	217	0.109		236	0.119	0.119
Road D2 NB	↑	B	2	3.200	15					1760	1760	240	0.136		169	0.096	
	↕	B	2	3.200	17.5			0%	18%	2075	2045	326	0.157	0.157	196	0.096	
	↓	B	2	3.200						2075	2075	326	0.157		200	0.096	
	↔	B	2	3.200		12.5		77%	100%	1900	1855	298	0.157		185	0.100	0.100
Road L11 WB	←	C	3	3.300	12.5					1735	1735	141	0.081	0.081	109	0.063	
	↔	C	3	3.300	15			83%	45%	1925	1995	155	0.081		125	0.063	
	→	C	3	3.300		20		3%	4%	2080	2080	169	0.081		131	0.063	0.063
Road D3 SB	↓	D	4	4.000	12.5			2%	2%	2010	2010	232	0.115		307	0.153	
	↕	D	4	4.000						2155	2155	249	0.116	0.116	328	0.152	
	↑	D	4	4.000		20		81%	100%	2030	2005	234	0.115		420	0.209	0.209
- In accordance with TPDM V4 - Road Traffic Signals Formual of Total lost time per cycle $L = \sum (I - 1)$ AM peak Group: A,B,C,D $L = (6-1)+(6-1)+(7-1)+(7-1) = 22$ PM peak Group: A,B,C,D $L = (6-1)+(6-1)+(7-1)+(7-1) = 22$																	

Notes:	Flow: (pcu/hr)	Group	A,B,C,D	Group	A,B,C,D
		y L (sec) C (sec) y pract. R.C. (%)	0.464 22 105 0.711 53%	y L (sec) C (sec) y pract. R.C. (%)	0.491 22 105 0.711 45%

Stage / Phase Diagrams																			
1. 				2. 				3. 				4. 				5.			
I/G= 6				I/G= 6				I/G= 7				I/G= 7				I/G=			
I/G= 6				I/G= 6				I/G= 7				I/G= 7				I/G=			

Date: AUG, 2025 Junction: Shek Wu Wai Road / Road D3 / Road L11 / Road L12 (B) **(B)**

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / San Tam Road (C)		Ref. No.:	2034R
Scheme: Reference		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: San Tam Road			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
320	(275)
10	(15)

ARM A

AM	(PM)
245	(260)
95	(105)

Minor ARM B

AM	(PM)
25	165
(15)	(90)

GEOMETRY					
Major road width	W	7.40	Lane widths	w(b-a)	3.20
Central Reserve width	Wcr	0.00		w(b-c)	3.20
2 Lane Minor Arm (Y/N)		N		w(c-b)	4.10
Visibilities	Vr(b-a)	50	Calculated	D	0.85
	VI(b-a)	70		E	0.90
	Vr(b-c)	50		F	0.98
	Vr(c-b)	50		Y	0.74

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	320	275
	q(c-b)	10	15
	q(a-b)	95	105
	q(a-c)	245	260
	q(b-a)	165	90
	q(b-c)	25	15
	f	0.13	0.14
	CAPACITIES	Q(b-a)	420
Q(b-c)		600	595
Q(c-b)		638	631
Q(b-ac)		437	439
RFC's		b-a	0.393
	b-c	0.042	0.025
	c-b	0.016	0.024
	b-ac	0.435	0.239
	Worst RFC	0.435	0.239

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Calculated by: MYC

Date: Sept-25

Checked by: CFC

Capacity of combined streams
- in accordance with TPDM V2.4

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Palm Springs Boulevard (D)		Ref. No.:	2034R
Scheme: Reference		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: Palm Springs Boulevard			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
225	(225)
10	(30)

ARM A

AM	(PM)
225	(225)
150	(210)

Minor ARM B

AM	(PM)
25	230
(50)	(165)

GEOMETRY					
Major road width	W	7.00	Lane widths	w(b-a)	4.00
Central Reserve width	Wcr	0.00		w(b-c)	4.00
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.00
Visibilities	Vr(b-a)	30	Calculated	D	0.88
	VI(b-a)	30		E	0.95
	Vr(b-c)	30		F	0.86
	Vr(c-b)	30		Y	0.76

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	225	225
	q(c-b)	10	30
	q(a-b)	150	210
	q(a-c)	225	225
	q(b-a)	230	165
	q(b-c)	25	50
	f	0.10	0.23
	CAPACITIES	Q(b-a)	445
Q(b-c)		633	626
Q(c-b)		553	539
Q(b-ac)		458	467
RFC's		b-a	0.517
	b-c	0.039	0.080
	c-b	0.018	0.056
	b-ac	0.557	0.460
	Worst RFC	0.557	0.460

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Geranium Path (E)		Ref. No.:	2034R
Scheme: Reference		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: Geranium Path			
ARM C: Castle Peak Road - Mai Po			

GEOMETRY					
Major road width	W	7.00	Lane widths	w(b-a)	3.00
Central Reserve width	Wcr	0.00		w(b-c)	3.00
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.60
Visibilities	Vr(b-a)	50	Calculated	D	0.82
	VI(b-a)	30		E	0.88
	Vr(b-c)	50		F	0.93
	Vr(c-b)	50		Y	0.76

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	450	385
	q(c-b)	5	5
	q(a-b)	5	5
	q(a-c)	370	430
	q(b-a)	5	5
	q(b-c)	5	5
	f	0.50	0.50
CAPACITIES	Q(b-a)	363	358
	Q(b-c)	565	550
	Q(c-b)	598	583
	Q(b-ac)	442	434
RFC's	b-a	0.014	0.014
	b-c	0.009	0.009
	c-b	0.008	0.009
	b-ac	0.023	0.023
Worst RFC		0.023	0.023

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Tam Mi / Yau Pok Road (F)		Ref. No.:	2034R
Scheme: Reference		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Tam Mi			
ARM B: Yau Pok Road			
ARM C: Castle Peak Road - Tam Mi			

ARM C

AM	(PM)
455	(390)
0	(0)

ARM A

AM	(PM)
355	(415)
0	(0)

Minor ARM B

AM	(PM)
20	(20)
(20)	(20)

GEOMETRY					
Major road width	W	6.50	Lane widths	w(b-a)	1.88
Central Reserve width	Wcr	0.00		w(b-c)	1.88
2 Lane Minor Arm (Y/N)		N		w(c-b)	0.00
Visibilities	Vr(b-a)	16	Calculated	D	0.70
	VI(b-a)	31		E	0.76
	Vr(b-c)	16		F	0.59
	Vr(c-b)	0		Y	0.78

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	455	390
	q(c-b)	0	0
	q(a-b)	0	0
	q(a-c)	355	415
	q(b-a)	20	20
	q(b-c)	20	20
	f	0.50	0.50
	CAPACITIES	Q(b-a)	313
Q(b-c)		487	474
Q(c-b)		378	368
Q(b-ac)		381	374
RFC's		b-a	0.064
	b-c	0.041	0.042
	c-b	0.000	0.000
	b-ac	0.105	0.107
	Worst RFC	0.105	0.107

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$

$E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$

$F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$

$Y = 1 - 0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c) * Q(b-a) / ((1-f) * Q(b-c) + f * Q(b-a))$

T.P.D.M.V.2.4
Appendix 1

Capacity of combined streams
- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Tam Mi / Kam Pok Road (G)		Ref. No.:	2034R
Scheme: Reference		Ref. No.:	
Year: 2034	Job No.:	CHK50800610	Rev.: -
ARM A: Castle Peak Road - Tam Mi			
ARM B: Kam Pok Road			
ARM C: Castle Peak Road - Tam Mi			

ARM C

AM	(PM)
360	(325)
115	(90)

ARM A

AM	(PM)
270	(335)
165	(155)

Minor ARM B

AM	(PM)
90	(80)
185	(110)

GEOMETRY			
Major road width	W	7.00	Lane widths
Central Reserve width	Wcr	0.00	w(b-a)
2 Lane Minor Arm (Y/N)		N	w(b-c)
Visibilities	Vr(b-a)	50	w(c-b)
	VI(b-a)	35	Calculated
	Vr(b-c)	50	D
	Vr(c-b)	50	E
			F
			Y

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	360	325
	q(c-b)	115	90
	q(a-b)	165	155
	q(a-c)	270	335
	q(b-a)	185	110
	q(b-c)	90	80
	f	0.33	0.42
	CAPACITIES	Q(b-a)	367
Q(b-c)		603	587
Q(c-b)		577	563
Q(b-ac)		421	435
RFC's		b-a	0.504
	b-c	0.149	0.136
	c-b	0.199	0.160
	b-ac	0.653	0.437
	Worst RFC	0.653	0.437

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Calculated by: MYC

Date: Aug-25

Checked by: CFC

Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101										
Junction: Fairview Park Interchange (H)								Ref. No.: 2034R		
Scheme: Reference								Ref. No.:		
Year: 2034				Job No.: CHK50800610				Rev.: -		
AM		PM								
ARM A:		Fairview Park Boulevard								
ARM B:		Castle Peak Rd E								
ARM C:		NTCR E								
ARM D:		San Tam Rd E								
ARM E:		San Tam Rd W								
ARM F:		NTCR W								
ARM G:		Castle Peak Rd W								
GEOMETRY										
ARM	v	e	L	r	D	Phi	S			
A	7.00	11.00	14	22	142	35	0.46			
B	5.50	10.50	15	20	142	35	0.53			
C	5.50	8.50	7.5	23	142	30	0.64			
D	6.75	8.50	10	20	142	25	0.28			
E	6.00	8.00	9.5	20	142	35	0.34			
F	6.50	9.00	15	25	142	40	0.27			
G	5.50	6.00	7	22	142	30	0.11			
AM FLOWS										
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit
A	10	20	200	40	220	460	30	2635	980	640
B	10	10	140	10	240	250	30	3065	690	550
C	90	70	10	95	460	10	210	2555	945	1200
D	60	20	45	10	250	255	90	3050	730	450
E	40	35	445	65	10	510	20	1990	1125	1790
F	320	245	10	150	600	10	360	1310	1695	1805
G	110	150	350	80	10	310	0	2265	1010	740
PM FLOWS										
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit
A	10	10	160	50	200	330	30	2205	790	970
B	35	10	90	10	160	130	30	2490	465	505
C	180	120	20	80	405	20	200	2160	1025	795
D	75	20	55	20	200	145	70	2765	585	420
E	95	30	270	70	10	280	20	1740	775	1610
F	485	225	10	140	625	20	270	1380	1775	1135
G	90	90	190	50	10	210	10	2525	650	630
CALCULATIONS							Q _E	RFC		
ARM	K	X ₂	M	F	t _D	f _c	AM	PM	AM	PM
A	0.99	9.09	3640.95	2754	1.00	0.59	1179	1430	0.83	0.55
B	0.98	7.92	3640.95	2400	1.00	0.54	723	1030	0.95	0.45
C	1.01	6.82	3640.95	2065	1.00	0.50	802	999	1.18	1.03
D	1.02	7.87	3640.95	2385	1.00	0.54	749	906	0.97	0.65
E	0.98	7.19	3640.95	2180	1.00	0.51	1141	1266	0.99	0.61
F	0.98	8.13	3640.95	2464	1.00	0.55	1698	1660	1.00	1.07
G	1.00	5.91	3640.95	1790	1.00	0.46	755	636	1.34	1.02
								Critical Arm:	G	F
								RFC:	1.34	1.07
									AM	PM
- In accordance with TPDM V2.4										
Calculated by: MYC				Date: Aug-25			Checked by: CFC			

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Mai Po South Road (I)		Ref. No.:	2034R
Scheme: Reference		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: Mai Po South Road			
ARM C: Castle Peak Road - Mai Po			

GEOMETRY					
Major road width	W	6.90	Lane widths	w(b-a)	3.60
Central Reserve width	Wcr	0.00		w(b-c)	3.60
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.30
Visibilities	Vr(b-a)	50	Calculated	D	0.87
	VI(b-a)	30		E	0.93
	Vr(b-c)	50		F	0.91
	Vr(c-b)	50		Y	0.76

ANALYSIS			AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)		235	240
	q(c-b)		5	5
	q(a-b)		10	5
	q(a-c)		240	270
	q(b-a)		0	15
	q(b-c)		0	10
	f		0.00	0.40
	CAPACITIES	Q(b-a)	Factor 1	447
Q(b-c)		1	632	624
Q(c-b)		1	612	606
Q(b-ac)		1	447	498
RFC's		b-a		0.000
	b-c		0.000	0.016
	c-b		0.008	0.008
	b-ac		0.000	0.050
	Worst RFC		0.008	0.050

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD102			
Junction: Castle Peak Road San Tin / Kwu Tung Road (J)		Ref. No.:	2034R
Scheme: Reference		Ref. No.:	
Year: 2034	Job No.:	CHK50800610	Rev.: -
ARM A: Castle Peak Road - San Tin			
ARM B: Kwu Tung Road			
ARM C: Castle Peak Road - San Tin			

ARM C

AM	(PM)
495	(430)
165	(135)

ARM A

AM	(PM)
235	(215)
125	(65)

Minor ARM B

AM	(PM)
245	75
(315)	(115)

GEOMETRY					
Major road width	W	8.00	Lane widths	w(b-a)	3.60
Central Reserve width	Wcr	0.00		w(b-c)	3.60
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.30
Visibilities	Vr(b-a)	40	Calculated	D	0.86
	VI(b-a)	40		E	0.92
	Vr(b-c)	35		F	0.89
	Vr(c-b)	35		Y	0.72

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	495	430
	q(c-b)	165	135
	q(a-b)	125	65
	q(a-c)	235	215
	q(b-a)	75	115
	q(b-c)	245	315
	f	0.77	0.73
CAPACITIES	Q(b-a)	352	381
	Q(b-c)	616	626
	Q(c-b)	581	599
	Q(b-ac)	524	535
RFC's	b-a	0.213	0.302
	b-c	0.398	0.503
	c-b	0.284	0.225
	b-ac	0.611	0.804
Worst RFC		0.611	0.804

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

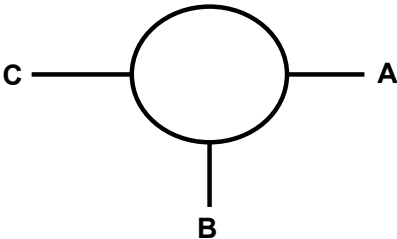
Appendix 1

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by: LTY	Date: Sept-25	Checked by: CFC
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Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD102										
Junction: San Tin Interchange (K)							Ref. No.: 2034R			
Scheme: Reference							Ref. No.:			
Year: 2034			Job No.: CHK50800610				Rev.: -			
AM		PM								
ARM A:		San Tin Highway Slip Road								
ARM B:		San Sham Road								
ARM C:		Fanling Highway Slip Road								
GEOMETRY										
ARM	v	e	L	r	D	Phi	S			
A	7.70	14.40	75	30	103	40	0.14			
B	8.80	11.70	75	30	103	40	0.06			
C	8.80	12.00	40	100	103	30	0.13			
AM FLOWS										
from \ to	A	B	C					Circ	Entry	
A	950	645	1300					360	2895	
B	570	0	0					2515	570	
C	635	95	265					1520	995	
PM FLOWS										
from \ to	A	B	C					Circ	Entry	
A	675	560	855					390	2090	
B	775	0	0					1795	775	
C	570	125	265					1450	960	
CALCULATIONS										
ARM	K	X ₂	M	F	t _D	f _c	Q _E		RFC	
							AM	PM	AM	PM
A	0.98	12.91	73.70	3912	1.01	0.76	3572	3550	0.81	0.59
B	0.98	11.38	73.70	3448	1.01	0.69	1675	2165	0.34	0.36
C	1.04	11.35	73.70	3438	1.01	0.69	2481	2531	0.40	0.38
							Critical Arm:		A	A
							RFC:		0.81	0.59
									AM	PM
- In accordance with TPDM V2.4										
Calculated by: MYC			Date: Sept-25			Checked by: CFC				

**Calculation Spreadsheets
for
2034 Design Scenario**

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50800610**

MVA HONG KONG LIMITED

Junction: Shek Wu Wai Road / San Tin Highway Slip Road (A)

Design Year: 2034

Description: Design

Designed By: MYC

Checked By: CFC

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
San Tin highway Slip Road (EB)	→	A	1,2	3.650		12.5		96%	96%	1775	1775	127	0.072		132	0.074	
	↘	A	1,2	3.650		10				1845	1845	133	0.072		138	0.075	
San Tin highway Slip Road (WB)	←	B	1	3.900		10		96%	96%	1865	1865	127	0.068		120	0.064	0.064
	↙	B	1	3.900		12.5				1800	1800	123	0.068	0.068	115	0.064	
Shek Wu Wai Road (SB)	↓	C	2,3	3.500						1965	1965	429	0.218		405	0.206	0.206
	↕	C	2,3	3.500		15	82%	63%		1945	1980	425	0.219		408	0.206	
	↘	C	2,3	3.500		12.5				1880	1880	411	0.219	0.219	387	0.206	
Shek Wu Wai Road (NB)	↑	D	4	3.500				14%	3%	1965	1965	302	0.154		202	0.103	0.103
	↕	D	4	3.500		15				2075	2100	319	0.154	0.154	215	0.102	
	↙	D	4	3.500		12.5				1880	1880	289	0.154		193	0.103	
Shek Wu Wai Road (SB)	↓	E	3	3.500						2105	2105	346	0.164		317	0.151	
	↕	E	3	3.500						2105	2105	346	0.164		317	0.151	
	↘	E	3	3.500						1965	1965	323	0.164		296	0.151	
Shek Wu Wai Road (NB)	↑	F	4	3.500						1965	1965	212	0.108		121	0.062	
	↕	F	4	3.500						2105	2105	226	0.107		129	0.061	
	↙	F	4	3.500						2105	2105	227	0.108		130	0.062	
- In accordance with TPDM V4 - Road Traffic Signals Formual of Total lost time per cycle $L = \sum (I - 1)$ AM peak Group: B,C,D $L = (6-1)+(8-1)+(5-1) = 16$ PM peak Group: B,C,D $L = (7-1)+(5-1)+(5-1) = 16$																	

Notes:	Flow: (pcu/hr)												
						Group		B,C,F	B,C,D	Group		B,C,F	B,C,D
						y	0.395	0.441	y	0.332	0.373		
						L (sec)	16	16	L (sec)	16	16		
						C (sec)	90	90	C (sec)	90	90		
						y pract.	0.740	0.740	y pract.	0.740	0.740		
					R.C. (%)	87%	68%	R.C. (%)	123%	98%			

Stage / Phase Diagrams																	
1.			2.			3.			4.			5.					
I/G= 5			I/G= 6			I/G=			I/G= 8			I/G=					
I/G= 5			I/G= 6			I/G=			I/G= 8			I/G=					

Date: **AUG, 2025** Junction: **Shek Wu Wai Road / San Tin Highway Slip Road (A)** (A)

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50800610**

MVA HONG KONG LIMITED

Junction: Shek Wu Wai Road / Road D3 / Road L11 / Road L12 (B)

Design Year: 2034

Description: Design

Designed By: MYC

Checked By: CFC

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Road L11 EB	→	A	1	4.000	15					1830	1830	150	0.082		100	0.055	
	↔	A	1	4.000	17.5	20		0% / 48%	0% / 27%	2080	2115	368	0.177		327	0.155	
	←	A	1	4.000		17.5				1985	1985	352	0.177	0.177	308	0.155	0.155
Road D2 NB	↑	B	2	3.200	15					1760	1760	309	0.176	0.176	213	0.121	
	↑	B	2	3.200	17.5			30%	73%	2025	1955	355	0.175		237	0.121	0.121
	↑	B	2	3.200						2075	2075	364	0.175		251	0.121	
	↑	B	2	3.200		12.5		68%	81%	1920	1890	337	0.176		229	0.121	
Road L11 WB	←	C	3	3.300	12.5					1735	1735	142	0.082		110	0.063	
	↔	C	3	3.300	15			81%	43%	1930	2000	158	0.082	0.082	128	0.064	0.064
	→	C	3	3.300		20		3%	4%	2080	2080	170	0.082		132	0.063	
Road D3 SB	↓	D	4	4.000	12.5			2%	2%	2010	2010	232	0.115		307	0.153	
	↓	D	4	4.000						2155	2155	249	0.116	0.116	328	0.152	
	↓	D	4	4.000		20		81%	100%	2030	2005	234	0.115		420	0.209	0.209
- In accordance with TPDM V4 - Road Traffic Signals Formual of Total lost time per cycle $L = \sum (I - 1)$ AM peak Group: A,B,C,D $L = (6-1)+(6-1)+(7-1)+(7-1)$ = 22 PM peak Group: A,B,C,D $L = (6-1)+(6-1)+(7-1)+(7-1)$ = 22																	

Notes:	Flow: (pcu/hr)		Group		A,B,C,D	Group		A,B,C,D
			y		0.550	y		0.550
			L (sec)		22	L (sec)		22
			C (sec)		105	C (sec)		105
			y pract.		0.711	y pract.		0.711
			R.C. (%)		29%	R.C. (%)		29%

Stage / Phase Diagrams											
1.			2.			3.		4.		5.	
											
I/G= 6			I/G= 6			I/G= 7			I/G= 7		
I/G= 6			I/G= 6			I/G= 7			I/G=		

Date: **SEPT, 2025** Junction: **Shek Wu Wai Road / Road D3 / Road L11 / Road L12 (B)** (B)

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101																					
Junction: Castle Peak Road Mai Po / San Tam Road (C)		Ref. No.: 2034D																			
Scheme: Design		Ref. No.:																			
Year: 2034	Job No.: CHK50800610	Rev.: -																			
ARM A: Castle Peak Road - Mai Po																					
ARM B: San Tam Road																					
ARM C: Castle Peak Road - Mai Po																					
ARM C <table><tr><td>AM</td><td>(PM)</td></tr><tr><td>590</td><td>(425)</td></tr><tr><td>10</td><td>(15)</td></tr></table> <table><tr><td>AM</td><td>(PM)</td></tr><tr><td>425</td><td>(435)</td></tr><tr><td>100</td><td>(105)</td></tr></table> ARM A <table><tr><td>AM</td><td>(PM)</td></tr><tr><td>25</td><td>165</td></tr><tr><td>(15)</td><td>(90)</td></tr></table> Minor ARM B				AM	(PM)	590	(425)	10	(15)	AM	(PM)	425	(435)	100	(105)	AM	(PM)	25	165	(15)	(90)
AM	(PM)																				
590	(425)																				
10	(15)																				
AM	(PM)																				
425	(435)																				
100	(105)																				
AM	(PM)																				
25	165																				
(15)	(90)																				
GEOMETRY																					
Major road width	W	7.40	Lane widths	w(b-a)	3.20																
Central Reserve width	Wcr	0.00		w(b-c)	3.20																
2 Lane Minor Arm (Y/N)		N		w(c-b)	4.10																
Visibilities	Vr(b-a)	50	Calculated	D	0.85																
	VI(b-a)	70		E	0.90																
	Vr(b-c)	50		F	0.98																
	Vr(c-b)	50		Y	0.74																
ANALYSIS																					
		AM PEAK		(PM) PEAK																	
TRAFFIC FLOWS	q(c-a)	590		425																	
	q(c-b)	10		15																	
	q(a-b)	100		105																	
	q(a-c)	425		435																	
	q(b-a)	165		90																	
	q(b-c)	25		15																	
	f	0.13		0.14																	
CAPACITIES	Q(b-a)	339		358																	
	Q(b-c)	556		553																	
	Q(c-b)	589		585																	
	Q(b-ac)	357		377																	
RFC's	b-a	0.487		0.251																	
	b-c	0.045		0.027																	
	c-b	0.017		0.026																	
	b-ac	0.532		0.279																	
Worst RFC		0.532		0.279																	
Where VI and Vr are visibility distances to the left or right of the respective streams D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150)) E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120)) F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120)) Y = 1-0.0345W f = proportion of minor traffic turning left Q (b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a) Capacity of combined streams - in accordance with TPDM V2.4 T.P.D.M.V.2.4 Appendix 1																					
Calculated by:	MYC	Date:	Sept-25	Checked by:	CFC																

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Palm Springs Boulevard (D)		Ref. No.:	2034D
Scheme: Design		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: Palm Springs Boulevard			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
345	(275)
10	(30)

Minor ARM B

AM	(PM)
25	(50)
230	(165)

ARM A

AM	(PM)
295	(300)
150	(210)

GEOMETRY					
Major road width	W	7.00	Lane widths	w(b-a)	4.00
Central Reserve width	Wcr	0.00		w(b-c)	4.00
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.00
Visibilities	Vr(b-a)	30	Calculated	D	0.88
	VI(b-a)	30		E	0.95
	Vr(b-c)	30		F	0.86
	Vr(c-b)	30		Y	0.76

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	345	275
	q(c-b)	10	30
	q(a-b)	150	210
	q(a-c)	295	300
	q(b-a)	230	165
	q(b-c)	25	50
	f	0.10	0.23
	CAPACITIES	Q(b-a)	410
Q(b-c)		614	607
Q(c-b)		537	521
Q(b-ac)		424	441
RFC's		b-a	0.561
	b-c	0.041	0.082
	c-b	0.019	0.058
	b-ac	0.601	0.488
	Worst RFC	0.601	0.488

Where VI and Vr are visibility distances to the left or right of the respective streams
 $D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$
 $E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$
 $F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$
 $Y = 1-0.0345W$
f = proportion of minor traffic turning left
 $Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4
Appendix 1

Capacity of combined streams
- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Geranium Path (E)		Ref. No.:	2034D
Scheme: Design		Ref. No.:	
Year: 2034	Job No.:	CHK50800610	Rev.: -
ARM A: Castle Peak Road - Mai Po			
ARM B: Geranium Path			
ARM C: Castle Peak Road - Mai Po			

GEOMETRY					
Major road width	W	7.00	Lane widths	w(b-a)	3.00
Central Reserve width	Wcr	0.00		w(b-c)	3.00
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.60
Visibilities	Vr(b-a)	50	Calculated	D	0.82
	VI(b-a)	30		E	0.88
	Vr(b-c)	50		F	0.93
	Vr(c-b)	50		Y	0.76

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	570	435
	q(c-b)	5	5
	q(a-b)	5	5
	q(a-c)	440	505
	q(b-a)	5	5
	q(b-c)	5	5
	f	0.50	0.50
CAPACITIES	Q(b-a)	330	334
	Q(b-c)	548	532
	Q(c-b)	580	563
	Q(b-ac)	412	411
RFC's	b-a	0.015	0.015
	b-c	0.009	0.009
	c-b	0.009	0.009
	b-ac	0.024	0.024
Worst RFC		0.024	0.024

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Tam Mi / Yau Pok Road (F)		Ref. No.:	2034D
Scheme: Design		Ref. No.:	
Year: 2034	Job No.:	CHK50800610	Rev.: -
ARM A: Castle Peak Road - Tam Mi			
ARM B: Yau Pok Road			
ARM C: Castle Peak Road - Tam Mi			

GEOMETRY			
Major road width	W	6.50	Lane widths
Central Reserve width	Wcr	0.00	w(b-a)
2 Lane Minor Arm (Y/N)		N	w(b-c)
Visibilities	Vr(b-a)	16	w(c-b)
	VI(b-a)	31	Calculated
	Vr(b-c)	16	D
	Vr(c-b)	0	E
			F
			Y

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	575	440
	q(c-b)	0	0
	q(a-b)	0	0
	q(a-c)	425	490
	q(b-a)	20	20
	q(b-c)	20	20
	f	0.50	0.50
	CAPACITIES	Q(b-a)	284
Q(b-c)		472	458
Q(c-b)		366	355
Q(b-ac)		355	354
RFC's		b-a	0.070
	b-c	0.042	0.044
	c-b	0.000	0.000
	b-ac	0.113	0.113
	Worst RFC	0.113	0.113

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$

$E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$

$F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$

Y = 1 - 0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c) * Q(b-a) / ((1-f) * Q(b-c) + f * Q(b-a))$

T.P.D.M.V.2.4
Appendix 1

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Tam Mi / Kam Pok Road (G)		Ref. No.: 2034D	
Scheme: Design		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.: -	
ARM A: Castle Peak Road - Tam Mi			
ARM B: Kam Pok Road			
ARM C: Castle Peak Road - Tam Mi			

ARM C

AM	(PM)
480	(375)
115	(90)

ARM A

AM	(PM)
340	(410)
165	(155)

Minor ARM B

AM	(PM)
90	(80)
185	(110)

GEOMETRY					
Major road width	W	7.00	Lane widths	w(b-a)	3.50
Central Reserve width	Wcr	0.00		w(b-c)	3.50
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.50
Visibilities	Vr(b-a)	50	Calculated	D	0.86
	VI(b-a)	35		E	0.92
	Vr(b-c)	50		F	0.92
	Vr(c-b)	50		Y	0.76

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	480	375
	q(c-b)	115	90
	q(a-b)	165	155
	q(a-c)	340	410
	q(b-a)	185	110
	q(b-c)	90	80
	f	0.33	0.42
	CAPACITIES	Q(b-a)	332
Q(b-c)		585	568
Q(c-b)		559	544
Q(b-ac)		387	410
RFC's		b-a	0.557
	b-c	0.154	0.141
	c-b	0.206	0.165
	b-ac	0.711	0.463
	Worst RFC	0.711	0.463

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

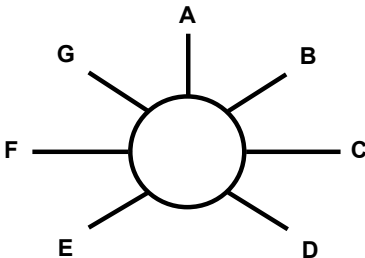
Calculated by: MYC

Date: Aug-25

Checked by: CFC

Capacity of combined streams
- in accordance with TPDM V2.4

Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101											
Junction: Fairview Park Interchange (H)								Ref. No.: 2034D			
Scheme: Design								Ref. No.:			
Year: 2034				Job No.: CHK50800610				Rev.: -			
AM		PM									
ARM A:		Fairview Park Boulevard									
ARM B:		Castle Peak Rd E									
ARM C:		NTCR E									
ARM D:		San Tam Rd E									
ARM E:		San Tam Rd W									
ARM F:		NTCR W									
ARM G:		Castle Peak Rd W									
											
GEOMETRY											
ARM	v	e	L	r	D	Phi	S				
A	7.00	11.00	14	22	142	35	0.46				
B	5.50	10.50	15	20	142	35	0.53				
C	5.50	8.50	7.5	23	142	30	0.64				
D	6.75	8.50	10	20	142	25	0.28				
E	6.00	8.00	9.5	20	142	35	0.34				
F	6.50	9.00	15	25	142	40	0.27				
G	5.50	6.00	7	22	142	30	0.11				
AM FLOWS											
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit	
A	10	20	200	40	220	460	30	2705	980	640	
B	10	10	140	10	240	370	30	3065	810	620	
C	90	70	10	95	460	10	210	2675	945	1200	
D	60	20	45	10	255	255	90	3170	735	450	
E	40	35	445	65	10	510	20	2110	1125	1795	
F	320	315	10	150	600	10	360	1310	1765	1925	
G	110	150	350	80	10	310	0	2335	1010	740	
PM FLOWS											
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit	
A	10	10	160	50	200	330	30	2280	790	970	
B	35	10	90	10	160	180	30	2490	515	580	
C	180	120	20	80	405	20	200	2210	1025	795	
D	75	20	55	20	205	145	70	2815	590	420	
E	95	30	270	70	10	280	20	1790	775	1615	
F	485	295	10	140	625	20	270	1380	1845	1185	
G	90	95	190	50	10	210	10	2595	655	630	
CALCULATIONS											
ARM	K	X ₂	M	F	t _D	f _c	Q _E		RFC		
							AM	PM	AM	PM	
A	0.99	9.09	3640.95	2754	1.00	0.59	1138	1387	0.86	0.57	
B	0.98	7.92	3640.95	2400	1.00	0.54	723	1030	1.12	0.50	
C	1.01	6.82	3640.95	2065	1.00	0.50	742	974	1.27	1.05	
D	1.02	7.87	3640.95	2385	1.00	0.54	683	878	1.08	0.67	
E	0.98	7.19	3640.95	2180	1.00	0.51	1080	1241	1.04	0.62	
F	0.98	8.13	3640.95	2464	1.00	0.55	1698	1660	1.04	1.11	
G	1.00	5.91	3640.95	1790	1.00	0.46	723	604	1.40	1.09	
									Critical Arm:	G	F
									RFC:	1.40	1.11
									AM	AM	PM
- In accordance with TPDM V2.4											
Calculated by: MYC				Date: Aug-25			Checked by: CFC				

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Mai Po South Road (I)			Ref. No.: 2034D
Scheme: Design			Ref. No.:
Year: 2034	Job No.: CHK50800610		Rev.: -
ARM A: Castle Peak Road - Mai Po			
ARM B: Mai Po South Road			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
235	(240)
180	(180)

ARM A

AM	(PM)
240	(275)
80	(75)

Minor ARM B

AM	(PM)
270	120
(150)	(65)

GEOMETRY			
Major road width	W	6.90	Lane widths
Central Reserve width	Wcr	0.00	w(b-a)
2 Lane Minor Arm (Y/N)		N	w(b-c)
			w(c-b)
Visibilities	Vr(b-a)	50	Calculated
	VI(b-a)	30	D
	Vr(b-c)	50	E
	Vr(c-b)	50	F
			Y

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	235	240
	q(c-b)	180	180
	q(a-b)	80	75
	q(a-c)	240	275
	q(b-a)	120	65
	q(b-c)	270	150
	f	0.69	0.70
	CAPACITIES	Q(b-a)	380
Q(b-c)		625	616
Q(c-b)		595	587
Q(b-ac)		521	514
RFC's		b-a	0.316
	b-c	0.432	0.244
	c-b	0.303	0.307
	b-ac	0.749	0.418
	Worst RFC	0.749	0.418

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Calculated by: MYC

Date: Aug-25

Checked by: CFC

Capacity of combined streams
- in accordance with TPDM V2.4

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD103			
Junction: Castle Peak Road San Tin / Kwu Tung Road (J)			Ref. No.: 2034D
Scheme: Design			Ref. No.:
Year: 2034	Job No.: CHK50800610		Rev.: -
ARM A: Castle Peak Road - San Tin			
ARM B: Kwu Tung Road			
ARM C: Castle Peak Road - San Tin			

ARM C

AM	(PM)
495	(435)
165	(135)

ARM A

AM	(PM)
240	(215)
125	(65)

Minor ARM B

AM	(PM)
245	80
(315)	(115)

GEOMETRY					
Major road width	W	8.00	Lane widths	w(b-a)	3.60
Central Reserve width	Wcr	0.00		w(b-c)	3.60
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.30
Visibilities	Vr(b-a)	40	Calculated	D	0.86
	VI(b-a)	40		E	0.92
	Vr(b-c)	35		F	0.89
	Vr(c-b)	35		Y	0.72

ANALYSIS			AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)		495	435
	q(c-b)		165	135
	q(a-b)		125	65
	q(a-c)		240	215
	q(b-a)		80	115
	q(b-c)		245	315
	f		0.75	0.73
CAPACITIES	Q(b-a)	Factor 1	351	380
	Q(b-c)	1	615	626
	Q(c-b)	1	579	599
	Q(b-ac)	1	519	534
RFC's	b-a		0.228	0.303
	b-c		0.398	0.503
	c-b		0.285	0.225
	b-ac		0.626	0.805
Worst RFC			0.626	0.805

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

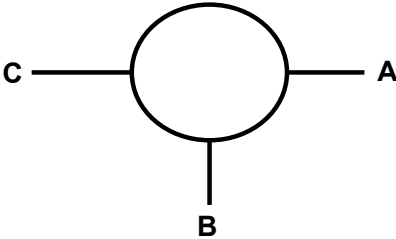
Calculated by: LTY

Date: Sept-25

Checked by: CFC

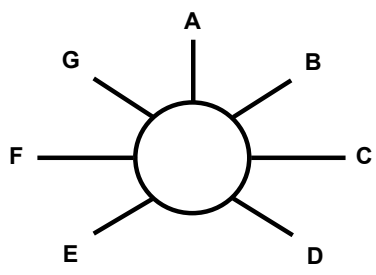
Capacity of combined streams
- in accordance with TPDM V2.4

Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD103											
Junction: San Tin Interchange (K)						Ref. No.: 2034D					
Scheme: Design						Ref. No.:					
Year: 2034			Job No.: CHK50800610			Rev.: -					
AM PM ARM A: San Tin Highway Slip Road ARM B: San Sham Road ARM C: Fanling Highway Slip Road											
GEOMETRY											
ARM	v	e	L	r	D	Phi	S				
A	7.70	14.40	75	30	103	40	0.14				
B	8.80	11.70	75	30	103	40	0.06				
C	8.80	12.00	40	100	103	30	0.13				
AM FLOWS											
from \ to	A	B	C				Circ	Entry			
A	950	645	1300				360	2895			
B	570	0	0				2515	570			
C	635	95	265				1520	995			
PM FLOWS											
from \ to	A	B	C				Circ	Entry			
A	675	560	855				390	2090			
B	775	0	0				1795	775			
C	570	125	265				1450	960			
CALCULATIONS											
ARM	K	X ₂	M	F	t _D	f _c	Q _E	RFC			
							AM	PM	AM	PM	
A	0.98	12.91	73.70	3912	1.01	0.76	3572	3550	0.81	0.59	
B	0.98	11.38	73.70	3448	1.01	0.69	1675	2165	0.34	0.36	
C	1.04	11.35	73.70	3438	1.01	0.69	2481	2531	0.40	0.38	
									Critical Arm:	A	A
									RFC:	0.81	0.59
										AM	PM
- In accordance with TPDM V2.4											
Calculated by: MYC			Date: Sept-25			Checked by: CFC					

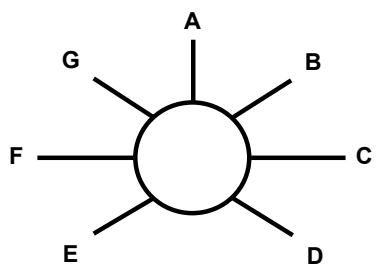
**Calculation Spreadsheets
for
2034 Reference Scenario
(With Improvement)**

Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101										
Junction: Fairview Park Interchange (H)								Ref. No.: 2034R		
Scheme: Reference (Under Improvement 2)								Ref. No.:		
Year: 2034				Job No.: CHK50800610				Rev.: -		
AM		PM								
ARM A:		Fairview Park Boulevard								
ARM B:		Castle Peak Rd E								
ARM C:		NTCR E								
ARM D:		San Tam Rd E								
ARM E:		San Tam Rd W								
ARM F:		NTCR W								
ARM G:		Castle Peak Rd W								
										
GEOMETRY										
ARM	v	e	L	r	D	Phi	S			
A	7.00	11.80	20	25	140	35	0.38			
B	7.30	12.00	36	30	140	25	0.21			
C	7.30	13.00	13	45	140	30	0.70			
D	7.30	11.00	23	25	140	35	0.26			
E	7.30	12.00	27	25	140	45	0.28			
F	6.00	12.50	20	25	140	40	0.52			
G	6.50	11.20	22	25	140	35	0.34			
AM FLOWS										
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit
A	10	20	200	40	220	460	30	2635	980	640
B	10	10	140	10	240	250	30	3065	690	550
C	90	70	10	95	460	10	210	2555	945	1200
D	60	20	45	10	250	255	90	3050	730	450
E	40	35	445	65	10	510	20	1990	1125	1790
F	320	245	10	150	600	10	0	1310	1335	1805
G	110	150	350	80	10	310	0	2265	1010	380
PM FLOWS										
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit
A	10	10	160	50	200	330	30	2205	790	970
B	35	10	90	10	160	130	30	2490	465	505
C	180	120	20	80	405	20	200	2160	1025	795
D	75	20	55	20	200	145	70	2765	585	420
E	95	30	270	70	10	280	20	1740	775	1610
F	485	225	10	140	625	20	0	1380	1505	1135
G	90	90	190	50	10	210	10	2525	650	360
CALCULATIONS								Q _E	RFC	
ARM	K	X ₂	M	F	t _D	f _c	AM	PM	AM	PM
A	0.99	9.71	2980.96	2944	1.00	0.62	1305	1569	0.75	0.50
B	1.03	10.62	2980.96	3216	1.00	0.66	1246	1636	0.55	0.28
C	1.03	9.67	2980.96	2931	1.00	0.62	1393	1643	0.68	0.62
D	0.99	9.74	2980.96	2952	1.00	0.62	1055	1230	0.69	0.48
E	0.96	10.32	2980.96	3127	1.00	0.64	1768	1922	0.64	0.40
F	0.98	9.19	2980.96	2783	1.00	0.60	1953	1912	0.68	0.79
G	0.99	9.29	2980.96	2815	1.00	0.60	1445	1290	0.70	0.50
								Critical Arm:	A	F
								RFC:	0.75	0.79
									AM	PM
- In accordance with TPDM V2.4										
Calculated by: MYC				Date: Aug-25			Checked by: CFC			

**Calculation Spreadsheets
for
2034 Design Scenario
(With Improvement)**

Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101										
Junction: Fairview Park Interchange (H)								Ref. No.: 2034D		
Scheme: Design (Under Improvement 2)								Ref. No.:		
Year: 2034				Job No.: CHK50800610				Rev.: -		
AM		PM								
ARM A:		Fairview Park Boulevard								
ARM B:		Castle Peak Rd E								
ARM C:		NTCR E								
ARM D:		San Tam Rd E								
ARM E:		San Tam Rd W								
ARM F:		NTCR W								
ARM G:		Castle Peak Rd W								
										
GEOMETRY										
ARM	v	e	L	r	D	Phi	S			
A	7.00	11.80	20	25	140	35	0.38			
B	7.30	12.00	36	30	140	25	0.21			
C	7.30	13.00	13	45	140	30	0.70			
D	7.30	11.00	23	25	140	35	0.26			
E	7.30	12.00	27	25	140	45	0.28			
F	6.00	12.50	20	25	140	40	0.52			
G	6.50	11.20	22	25	140	35	0.34			
AM FLOWS										
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit
A	10	20	200	40	220	460	30	2705	980	640
B	10	10	140	10	240	370	30	3065	810	620
C	90	70	10	95	460	10	210	2675	945	1200
D	60	20	45	10	255	255	90	3170	735	450
E	40	35	445	65	10	510	20	2110	1125	1795
F	320	315	10	150	600	10	0	1310	1405	1925
G	110	150	350	80	10	310	0	2335	1010	380
PM FLOWS										
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit
A	10	10	160	50	200	330	30	2280	790	970
B	35	10	90	10	160	180	30	2490	515	580
C	180	120	20	80	405	20	200	2210	1025	795
D	75	20	55	20	205	145	70	2815	590	420
E	95	30	270	70	10	280	20	1790	775	1615
F	485	295	10	140	625	20	0	1380	1575	1185
G	90	95	190	50	10	210	10	2595	655	360
CALCULATIONS								Q _E	RFC	
ARM	K	X ₂	M	F	t _D	f _c	AM	PM	AM	PM
A	0.99	9.71	2980.96	2944	1.00	0.62	1262	1523	0.78	0.52
B	1.03	10.62	2980.96	3216	1.00	0.66	1246	1636	0.65	0.31
C	1.03	9.67	2980.96	2931	1.00	0.62	1317	1611	0.72	0.64
D	0.99	9.74	2980.96	2952	1.00	0.62	981	1200	0.75	0.49
E	0.96	10.32	2980.96	3127	1.00	0.64	1694	1891	0.66	0.41
F	0.98	9.19	2980.96	2783	1.00	0.60	1953	1912	0.72	0.82
G	0.99	9.29	2980.96	2815	1.00	0.60	1403	1248	0.72	0.52
								Critical Arm:	A	F
								RFC:	0.78	0.82
									AM	PM
- In accordance with TPDM V2.4										
Calculated by: MYC				Date: Aug-25			Checked by: CFC			

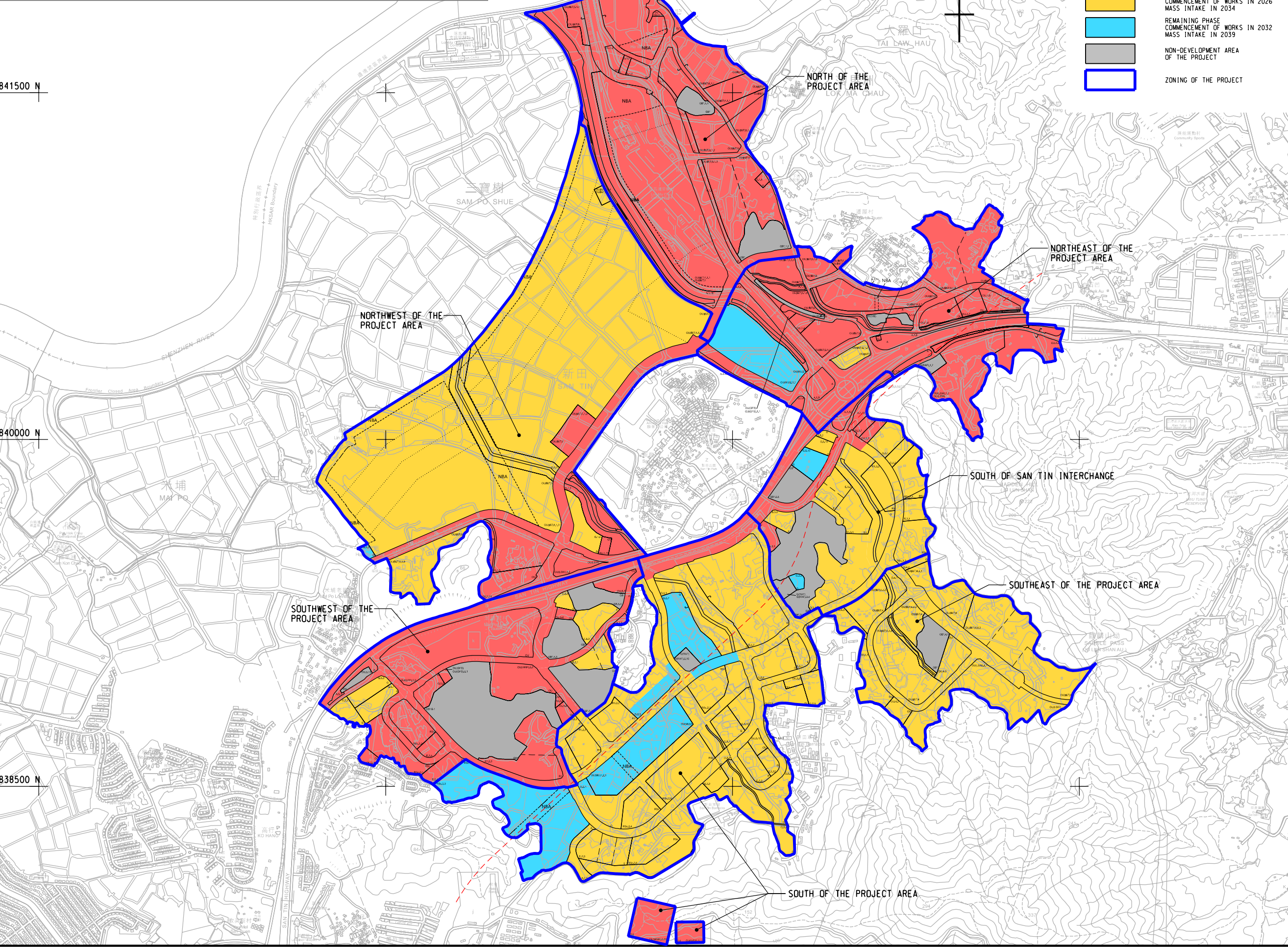
- In accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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ANNEX B – PRELIMINARY PHASING ON SAN TIN TECHNOPOLE

ISO A1 594mm x 841mm
Approved:
Checked:
Designer:
Project Management Initials:
Plot File by: RenS
2023/11/14
PATH P:\PROJECTS\60670882\DRAWING\REPORT\A34\A34_371.dgn

Annex B - Preliminary Phasing on San Tin Technopole



LEGEND:

- NOL2 ALIGNMENT
- INITIAL PHASE COMMENCEMENT OF WORKS IN END 2024 FIRST INTAKE IN 2031
- MAIN PHASE COMMENCEMENT OF WORKS IN 2026 MASS INTAKE IN 2034
- REMAINING PHASE COMMENCEMENT OF WORKS IN 2032 MASS INTAKE IN 2039
- NON-DEVELOPMENT AREA OF THE PROJECT
- ZONING OF THE PROJECT

AECOM

PROJECT
項目
FIRST PHASE DEVELOPMENT OF THE NEW TERRITORIES NORTH – SAN TIN / LOK MA CHAU DEVELOPMENT NODE – INVESTIGATION

CLIENT
業主
CEDD 土木工程拓展署
Civil Engineering and Development Department
規劃署
Planning Department

CONSULTANT
土庫顧問公司
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
分判工程師有限公司

ISSUE/REVISION			
修訂			
I/R	DATE	DESCRIPTION	CHK.
修訂	日期	內容簡要	校核
STATUS			
階段			
SCALE		DIMENSION UNIT	
比例		尺寸單位	
A3 1 : 16000		METRES	
KEY PLAN			
索引圖			

PROJECT NO.
項目編號
60670882

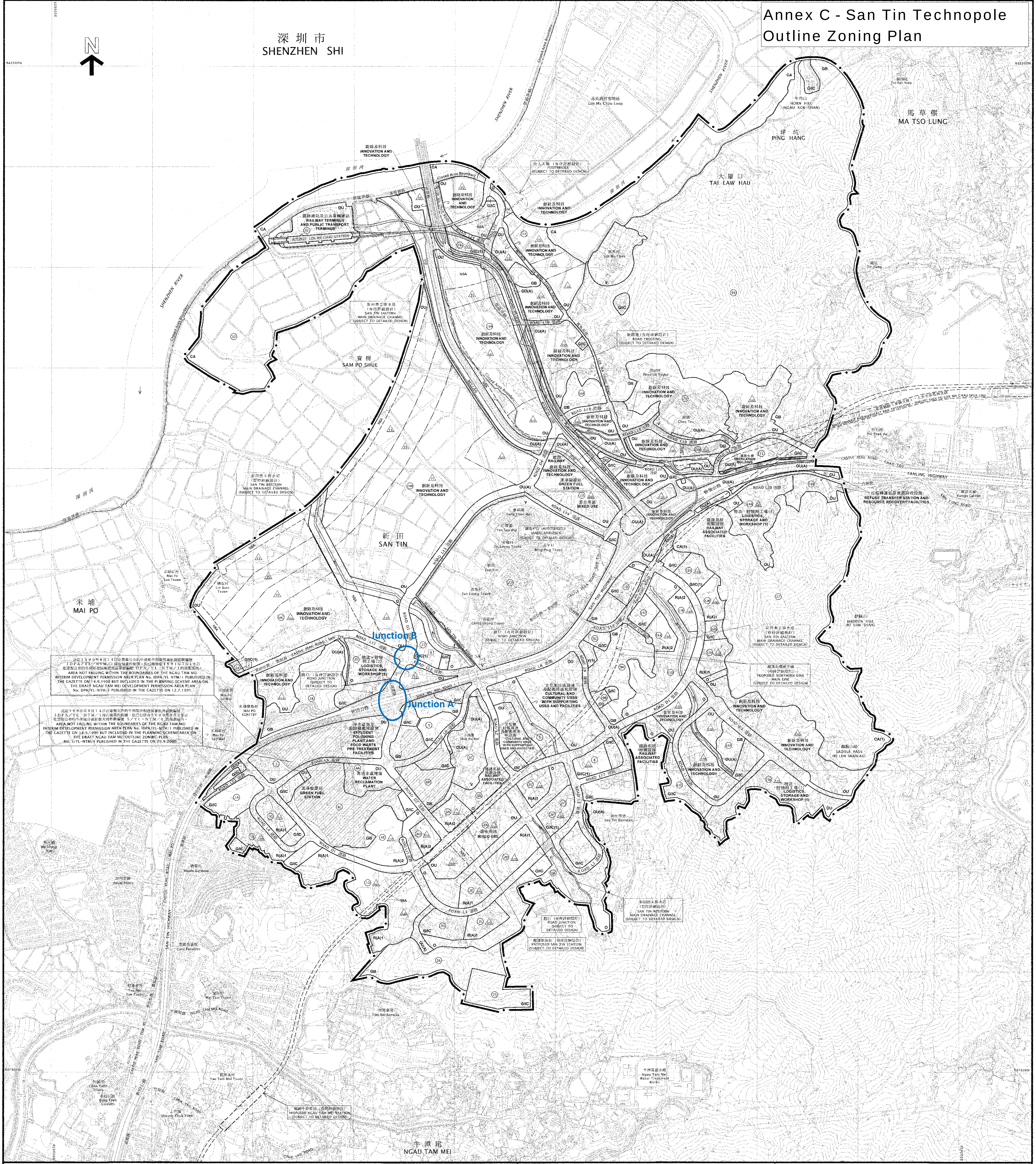
AGREEMENT NO.
協議編號
CE 20/2021

SHEET TITLE
圖紙名稱
PRELIMINARY CONSTRUCTION AND POPULATION INTAKE SCHEDULE

SHEET NUMBER
圖紙編號
60670882/A34/APPENDIX 2.1

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ANNEX C – SAN TIN TECHNOPOLE – OUTLINE ZONING PLAN



Annex C - San Tin Technopole
Outline Zoning Plan

圖例
NOTATION

ZONES

RESIDENTIAL (GROUP A) R(A)

VILLAGE TYPE DEVELOPMENT V

GOVERNMENT, INSTITUTION OR COMMUNITY GIC

OPEN SPACE O

OTHER SPECIFIED USES OU

OTHER SPECIFIED USES (AMENITY AREA) OU(A)

GREEN BELT GB

CONSERVATION AREA CA

地帶

住宅 (甲類)

鄉村式發展

政府、機構或社區

休憩用地

其他指定用途 (美化市容地帶)

綠化地帶

自然保育區

COMMUNICATIONS

RAILWAY AND STATION

RAILWAY AND STATION (UNDERGROUND)

RAILWAY AND STATION (ELEVATED)

MAJOR ROAD AND JUNCTION

ELEVATED ROAD

MISCELLANEOUS

BOUNDARY OF PLANNING SCHEME

PLANNING AREA NUMBER

BUILDING HEIGHT CONTROL ZONE BOUNDARY

MAXIMUM BUILDING HEIGHT (IN METRES ABOVE PRINCIPAL DATUM)

MAXIMUM BUILDING HEIGHT (IN NUMBER OF STOREYS)

NON-BUILDING AREA

交通

鐵路及車站

鐵路及車站 (地下)

鐵路及車站 (高架)

主要道路及路口

高架道路

其他

規劃範圍界線

規劃區編號

建築物高度管制區界線

最高建築高度 (在主水平基準上若干米)

最高建築物高度 (樓層數目)

非建築用地

USES	土地用途及面積 APPROXIMATE AREA & %		用途
	公頃 HECTARES	百分比 %	
RESIDENTIAL (GROUP A)	44.78	4.46	住宅 (甲類)
VILLAGE TYPE DEVELOPMENT	76.48	7.82	鄉村式發展
GOVERNMENT, INSTITUTION OR COMMUNITY	56.52	5.63	政府、機構或社區
OPEN SPACE	56.58	5.57	休憩用地
OTHER SPECIFIED USES	284.63	28.35	其他指定用途
OTHER SPECIFIED USES (AMENITY AREA)	26.61	2.85	其他指定用途 (美化市容地帶)
GREEN BELT	207.28	20.65	綠化地帶
CONSERVATION AREA	139.35	13.88	自然保育區
MAJOR ROAD ETC.	108.45	10.79	主要道路等
TOTAL PLANNING SCHEME AREA	1004.00	100.00	規劃範圍總面積

附屬的《註釋》屬這份圖則的一部分，
THE ATTACHED NOTES ALSO FORM PART OF THIS PLAN

2024年3月8日 按照城市規劃條例第5條展示的
草案
DRAFT PLAN EXHIBITED UNDER SECTION 5 OF THE TOWN
PLANNING ORDINANCE ON 8 MARCH 2024

C. K. Yip
C. K. YIP
SECRETARY
TOWN PLANNING BOARD

戴子寧
戴子寧
秘書
城市規劃委員會秘書

香港城市規劃委員會依據城市規劃條例擬備的新田科技城分區計劃大綱圖
TOWN PLANNING ORDINANCE, HONG KONG TOWN PLANNING BOARD
SAN TIN TECHNOPOLE - OUTLINE ZONING PLAN

SCALE 1:7500 比例尺

30 METRES 200 0 200 400 600 800 1000 METRES

規劃署遵照城市規劃委員會指示擬備
PREPARED BY THE PLANNING DEPARTMENT UNDER
THE DIRECTION OF THE TOWN PLANNING BOARD

圖則編號
PLAN No. S/STT/1

ANNEX D – DETAIL OF JUNCTION CALCULATION SHEETS (SENSITIVITY TEST)

Calculation Spreadsheets
for 2034
Reference & Design Scenario
(Sensitivity Test 1)

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: k Wu Wai Road / San Tin Highway Slip Road (A1)			Ref. No.: 2034R
Scheme: Reference (Sensitivity Test 1)			Ref. No.:
Year: 2034	Job No.: CHK50800610		Rev.: -
ARM A: Shek Wu Wai Road			
ARM B: San Tin Highway Slip Road			
ARM C: Shek Wu Wai Road			

ARM C

AM	(PM)
405	(320)
0	(0)

ARM A

AM	(PM)
115	(80)
0	(0)

Minor ARM B

AM	(PM)
265	90
(265)	(95)

GEOMETRY			
Major road width	W	7.20	Lane widths
Central Reserve width	Wcr	0.00	w(b-a)
2 Lane Minor Arm (Y/N)		N	w(b-c)
Visibilities	Vr(b-a)	20	w(c-b)
	VI(b-a)	20	Calculated
	Vr(b-c)	20	D
	Vr(c-b)		E
			F
			Y

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	405	320
	q(c-b)	0	0
	q(a-b)	0	0
	q(a-c)	115	80
	q(b-a)	90	95
	q(b-c)	265	265
	f	0.75	0.74
	CAPACITIES	Q(b-a)	634
Q(b-c)		933	946
Q(c-b)		418	424
Q(b-ac)		833	850
RFC's		b-a	0.142
	b-c	0.284	0.280
	c-b	0.000	0.000
	b-ac	0.426	0.424
	Worst RFC	0.426	0.424

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101																																					
Junction: Shek Wu Wai Road / Mai Po Lung Road (A2)								Ref. No.: 2034R																													
Scheme: Reference (Sensitivity Test 1)								Ref. No.:																													
Year: 2034				Job No.: CHK50800610				Rev.: -																													
ARM A: Mai Po Lung Road																																					
ARM B: San Tin Highway Slip Road																																					
ARM C: Shek Wu Wai Road																																					
ARM D: Shek Wu Wai Road																																					
Shek Wu Wai Road Minor Arm D <table><tr><td>70</td><td>60</td><td>5</td></tr><tr><td>40</td><td>45</td><td>5</td></tr></table> AM (PM) ARM C <table><tr><td>AM</td><td>(PM)</td></tr><tr><td>100</td><td>100</td></tr><tr><td>45</td><td>105</td></tr><tr><td>345</td><td>210</td></tr></table> Shek Wu Wai Road Minor ARM B <table><tr><td>0</td><td>0</td><td>0</td></tr><tr><td>0</td><td>0</td><td>0</td></tr></table> AM (PM) ARM A <table><tr><td>AM</td><td>(PM)</td></tr><tr><td>0</td><td>5</td></tr><tr><td>50</td><td>40</td></tr><tr><td>40</td><td>45</td></tr></table> AM (PM) Mai Po Lung Road										70	60	5	40	45	5	AM	(PM)	100	100	45	105	345	210	0	0	0	0	0	0	AM	(PM)	0	5	50	40	40	45
70	60	5																																			
40	45	5																																			
AM	(PM)																																				
100	100																																				
45	105																																				
345	210																																				
0	0	0																																			
0	0	0																																			
AM	(PM)																																				
0	5																																				
50	40																																				
40	45																																				
GEOMETRY																																					
Major road width		W	10.30	Lane widths		ARM B		ARM D																													
Central Reserve width		Wcr	0.00			w(b-a)	0.00	w(b-a)	5.40																												
						w(b-c)	0.00	w(b-c)	5.40																												
						w(c-b)	3.50	w(c-b)	3.30																												
Visibilities		Vr(b-a)	0	Vr(d-c)	30	D	0.53	D	0.99																												
		VI(b-a)	0	VI(d-c)	30	E	0.59	E	1.06																												
		Vr(b-c)	0	Vr(d-a)	25	F	0.91	F	0.89																												
		Vr(c-b)	40	Vr(a-d)	30	Y	0.64	Y	0.64																												

T.P.D.M.V.2.4
Appendix 1

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road San Tin / Shek Wu Wai Road (B)		Ref. No.:	2034R
Scheme: Reference (Sensitivity Test 1)		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - San Tin			
ARM B: Shek Wu Wai Road			
ARM C: Castle Peak Road - San Tin			

ARM C

AM	(PM)
275	(290)
125	(130)

ARM A

AM	(PM)
285	(255)
285	(195)

Minor ARM B

AM	(PM)
105	275
(145)	(200)

GEOMETRY					
Major road width	W	6.50	Lane widths	w(b-a)	4.20
Central Reserve width	Wcr	0.00		w(b-c)	4.20
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.60
Visibilities	Vr(b-a)	30	Calculated	D	0.90
	VI(b-a)	30		E	0.98
	Vr(b-c)	40		F	0.91
	Vr(c-b)	30		Y	0.78

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	275	290
	q(c-b)	125	130
	q(a-b)	285	195
	q(a-c)	285	255
	q(b-a)	275	200
	q(b-c)	105	145
	f	0.28	0.42
	CAPACITIES	Q(b-a)	373
Q(b-c)		617	636
Q(c-b)		534	565
Q(b-ac)		419	461
RFC's		b-a	0.737
	b-c	0.170	0.228
	c-b	0.234	0.230
	b-ac	0.907	0.748
	Worst RFC	0.907	0.748

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

Calculated by: MYC	Date: Sept-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: k Wu Wai Road / San Tin Highway Slip Road (A1)			Ref. No.: 2034D
Scheme: Design (Sensitivity Test 1)			Ref. No.:
Year: 2034	Job No.: CHK50800610	Rev.: -	
ARM A: Shek Wu Wai Road			
ARM B: San Tin Highway Slip Road			
ARM C: Shek Wu Wai Road			

ARM C	
AM	(PM)
495	(360)
0	(0)

ARM A	
AM	(PM)
115	(80)
0	(0)

Minor ARM B	
AM	(PM)
315	90
(315)	(95)

GEOMETRY					
Major road width	W	7.20	Lane widths	w(b-a)	8.30
Central Reserve width	Wcr	0.00		w(b-c)	8.30
2 Lane Minor Arm (Y/N)		N		w(c-b)	0.00
Visibilities	Vr(b-a)	20	Calculated	D	1.21
	VI(b-a)	20		E	1.31
	Vr(b-c)	20		F	0.59
	Vr(c-b)			Y	0.75

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	495	360
	q(c-b)	0	0
	q(a-b)	0	0
	q(a-c)	115	80
	q(b-a)	90	95
	q(b-c)	315	315
	f	0.78	0.77
	CAPACITIES	Q(b-a)	615
Q(b-c)		933	946
Q(c-b)		418	424
Q(b-ac)		837	857
RFC's		b-a	0.146
	b-c	0.338	0.333
	c-b	0.000	0.000
	b-ac	0.484	0.478
	Worst RFC	0.484	0.478

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$

$E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$

$F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$

Y = 1 - 0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c) * Q(b-a) / ((1-f) * Q(b-c) + f * Q(b-a))$

T.P.D.M.V.2.4
Appendix 1

Capacity of combined streams
- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101																																																																																																																																																																																																																							
Junction: Shek Wu Wai Road / Mai Po Lung Road (A2)			Ref. No.: 2034D																																																																																																																																																																																																																				
Scheme: Design (Sensitivity Test 1)			Ref. No.:																																																																																																																																																																																																																				
Year: 2034		Job No.: CHK50800610	Rev.: -																																																																																																																																																																																																																				
ARM A: Mai Po Lung Road																																																																																																																																																																																																																							
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ARM D: Shek Wu Wai Road																																																																																																																																																																																																																							
70 60 5 40 45 5 AM (PM) 100 100 45 105 435 250 ARM C 0 0 0 0 0 0 AM (PM) Minor ARM B 0 5 50 40 40 45 AM (PM) ARM A Shek Wu Wai Road Mai Po Lung Road																																																																																																																																																																																																																							
<table><tr><td colspan="4">GEOMETRY</td><td colspan="2">ARM B</td><td colspan="2">ARM D</td></tr><tr><td>Major road width</td><td>W</td><td>10.30</td><td>Lane widths</td><td>w(b-a)</td><td>0.00</td><td>w(b-a)</td><td>5.40</td></tr><tr><td>Central Reserve width</td><td>Wcr</td><td>0.00</td><td></td><td>w(b-c)</td><td>0.00</td><td>w(b-c)</td><td>5.40</td></tr><tr><td></td><td></td><td></td><td></td><td>w(c-b)</td><td>3.50</td><td>w(c-b)</td><td>3.30</td></tr><tr><td rowspan="4">Visibilities</td><td>Vr(b-a)</td><td>0</td><td>Vr(d-c)</td><td>30</td><td>D</td><td>0.53</td><td>D</td><td>0.99</td></tr><tr><td>VI(b-a)</td><td>0</td><td>VI(d-c)</td><td>30</td><td>E</td><td>0.59</td><td>E</td><td>1.06</td></tr><tr><td>Vr(b-c)</td><td>0</td><td>Vr(d-a)</td><td>25</td><td>F</td><td>0.91</td><td>F</td><td>0.89</td></tr><tr><td>Vr(c-b)</td><td>40</td><td>Vr(a-d)</td><td>30</td><td>Y</td><td>0.64</td><td>Y</td><td>0.64</td></tr><tr><td colspan="4"></td><td colspan="2">Arm B</td><td colspan="2">Arm D</td></tr><tr><td colspan="4">ANALYSIS</td><td colspan="2">AM PEAK</td><td colspan="2">(PM) PEAK</td></tr><tr><td rowspan="7">TRAFFIC FLOWS</td><td>q(c-a)</td><td>50</td><td>110</td><td>q(a-c)</td><td>50</td><td>40</td></tr><tr><td>q(c-b)</td><td>435</td><td>250</td><td>q(a-d)</td><td>0</td><td>5</td></tr><tr><td>q(a-b)</td><td>40</td><td>45</td><td>q(c-d)</td><td>100</td><td>100</td></tr><tr><td>q(a-c)</td><td>120</td><td>80</td><td>q(c-a)</td><td>45</td><td>105</td></tr><tr><td>q(b-a)</td><td>0</td><td>0</td><td>q(d-c)</td><td>130</td><td>85</td></tr><tr><td>q(b-c)</td><td>0</td><td>0</td><td>q(d-a)</td><td>5</td><td>5</td></tr><tr><td>f</td><td>0.00</td><td>0.00</td><td>f</td><td>0.04</td><td>0.06</td></tr><tr><td rowspan="6">CAPACITIES</td><td>Q(b-a)</td><td>236</td><td>269</td><td>Q(d-c)</td><td>596</td><td>581</td></tr><tr><td>Q(b-c)</td><td>418</td><td>423</td><td>Q(d-a)</td><td>772</td><td>757</td></tr><tr><td>Q(c-b)</td><td>647</td><td>655</td><td>Q(a-d)</td><td>632</td><td>619</td></tr><tr><td>Q(b-ac)</td><td>236</td><td>269</td><td>Q(d-ca)</td><td>601</td><td>589</td></tr><tr><td>Q(c-a)</td><td>590</td><td>1113</td><td>Q(a-c)</td><td>1800</td><td>1785</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td rowspan="6">RFC's</td><td>b-a</td><td>0.000</td><td>0.000</td><td>d-c</td><td>0.218</td><td>0.146</td></tr><tr><td>b-c</td><td>0.000</td><td>0.000</td><td>d-a</td><td>0.006</td><td>0.007</td></tr><tr><td>c-b</td><td>0.672</td><td>0.382</td><td>a-d</td><td>0.000</td><td>0.008</td></tr><tr><td>b-ac</td><td>0.000</td><td>0.000</td><td>d-ca</td><td>0.225</td><td>0.153</td></tr><tr><td>c-a</td><td>0.085</td><td>0.099</td><td>a-c</td><td>0.028</td><td>0.022</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="3"></td><td>AM</td><td>(PM)</td><td colspan="2"></td></tr><tr><td colspan="3">Worst RFC</td><td>0.672</td><td>0.382</td><td colspan="2"></td></tr></table>				GEOMETRY				ARM B		ARM D		Major road width	W	10.30	Lane widths	w(b-a)	0.00	w(b-a)	5.40	Central Reserve width	Wcr	0.00		w(b-c)	0.00	w(b-c)	5.40					w(c-b)	3.50	w(c-b)	3.30	Visibilities	Vr(b-a)	0	Vr(d-c)	30	D	0.53	D	0.99	VI(b-a)	0	VI(d-c)	30	E	0.59	E	1.06	Vr(b-c)	0	Vr(d-a)	25	F	0.91	F	0.89	Vr(c-b)	40	Vr(a-d)	30	Y	0.64	Y	0.64					Arm B		Arm D		ANALYSIS				AM PEAK		(PM) PEAK		TRAFFIC FLOWS	q(c-a)	50	110	q(a-c)	50	40	q(c-b)	435	250	q(a-d)	0	5	q(a-b)	40	45	q(c-d)	100	100	q(a-c)	120	80	q(c-a)	45	105	q(b-a)	0	0	q(d-c)	130	85	q(b-c)	0	0	q(d-a)	5	5	f	0.00	0.00	f	0.04	0.06	CAPACITIES	Q(b-a)	236	269	Q(d-c)	596	581	Q(b-c)	418	423	Q(d-a)	772	757	Q(c-b)	647	655	Q(a-d)	632	619	Q(b-ac)	236	269	Q(d-ca)	601	589	Q(c-a)	590	1113	Q(a-c)	1800	1785							RFC's	b-a	0.000	0.000	d-c	0.218	0.146	b-c	0.000	0.000	d-a	0.006	0.007	c-b	0.672	0.382	a-d	0.000	0.008	b-ac	0.000	0.000	d-ca	0.225	0.153	c-a	0.085	0.099	a-c	0.028	0.022										AM	(PM)			Worst RFC			0.672	0.382		
GEOMETRY				ARM B		ARM D																																																																																																																																																																																																																	
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	Vr(c-b)	40	Vr(a-d)	30	Y	0.64	Y	0.64																																																																																																																																																																																																															
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Worst RFC			0.672	0.382																																																																																																																																																																																																																			
Where VI and Vr are visibility distances to the left or right of the respective streams D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150)) E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120)) F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120)) Y = 1-0.0345W f = proportion of minor traffic turning left Q (b-ac) = Q(b-c)*Q(b-a)/((1-f)*Q(b-c)+f*Q(b-a)) Capacity of combined streams - in accordance with TPDM V2.4																																																																																																																																																																																																																							
Calculated by: MYC		Date: Aug-25	Checked by: CFC																																																																																																																																																																																																																				

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road San Tin / Shek Wu Wai Road (B)		Ref. No.:	2034D
Scheme: Design (Sensitivity Test 1)		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - San Tin			
ARM B: Shek Wu Wai Road			
ARM C: Castle Peak Road - San Tin			

ARM C

AM	(PM)
425	(375)
215	(170)

ARM A

AM	(PM)
395	(350)
285	(195)

Minor ARM B

AM	(PM)
160	275
(200)	(200)

GEOMETRY					
Major road width	W	6.50	Lane widths	w(b-a)	4.20
Central Reserve width	Wcr	0.00		w(b-c)	4.20
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.60
Visibilities	Vr(b-a)	30	Calculated	D	0.90
	VI(b-a)	30		E	0.98
	Vr(b-c)	40		F	0.91
	Vr(c-b)	30		Y	0.78

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	425	375
	q(c-b)	215	170
	q(a-b)	285	195
	q(a-c)	395	350
	q(b-a)	275	200
	q(b-c)	160	200
	f	0.37	0.50
	CAPACITIES	Q(b-a)	288
Q(b-c)		587	609
Q(c-b)		506	541
Q(b-ac)		355	431
RFC's		b-a	0.955
	b-c	0.273	0.328
	c-b	0.425	0.314
	b-ac	1.225	0.928
	Worst RFC	1.225	0.928

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

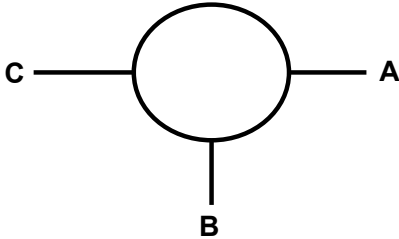
Calculated by: MYC	Date: Sept-25	Checked by: CFC
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**Calculation Spreadsheets
for 2034
Reference & Design Scenario
(Sensitivity Test 1)
(With Improvement)**

Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101												
Junction: Castle Peak Road San Tin / Shek Wu Wai Road (B)								Ref. No.: 2034R				
Scheme: Reference (Under Improvement in Sensitivity Test 1)								Ref. No.:				
Year: 2034				Job No.: CHK50800610				Rev.: -				
AM				PM								
ARM A: Castle Peak Road-San Tin												
ARM B: Shek Wu Wai Road												
ARM C: Castle Peak Road-San Tin												
GEOMETRY												
ARM	v	e	L	r	D	Phi	S					
A	3.50	5.90	5	14	23	34	0.77					
B	4.00	4.50	7	25	23	3	0.11					
C	3.50	4.00	12	10	23	13	0.07					
AM FLOWS												
from \ to	A	B	C					Circ	Entry			
A	0	285	285					125	570			
B	275	0	105					285	380			
C	275	125	0					275	400			
PM FLOWS												
from \ to	A	B	C					Circ	Entry			
A	0	195	255					130	450			
B	200	0	145					255	345			
C	290	130	0					200	420			
CALCULATIONS												
ARM	K	X ₂	M	F	t _D	f _c	Q _E	AM	PM	RFC	AM	PM
A	0.97	4.45	0.02	1347	1.49	0.59		1229	1226	0.46	0.37	
B	1.10	4.41	0.02	1335	1.49	0.59		1289	1308	0.29	0.26	
C	1.01	3.94	0.02	1194	1.49	0.56		1051	1093	0.38	0.38	
										Critical Arm:	A	C
										RFC:	0.46	0.38
											AM	PM
- In accordance with TPDM V2.4												
Calculated by: MYC				Date: Sept-25				Checked by: CFC				

Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101											
Junction: Castle Peak Road San Tin / Shek Wu Wai Road (B)								Ref. No.: 2034D			
Scheme: Design (Under Improvement Sensitivity in Test 1)								Ref. No.:			
Year: 2034				Job No.: CHK50800610				Rev.: -			
AM				PM							
ARM A: Castle Peak Road-San Tin											
ARM B: Shek Wu Wai Road											
ARM C: Castle Peak Road-San Tin											
GEOMETRY											
ARM	v	e	L	r	D	Phi	S				
A	3.50	5.90	5	14	23	34	0.77				
B	4.00	4.50	7	25	23	3	0.11				
C	3.50	4.00	12	10	23	13	0.07				
AM FLOWS											
from \ to	A	B	C					Circ	Entry		
A	0	285	395					215	680		
B	275	0	160					395	435		
C	425	215	0					275	640		
PM FLOWS											
from \ to	A	B	C					Circ	Entry		
A	0	195	350					170	545		
B	200	0	200					350	400		
C	375	170	0					200	545		
CALCULATIONS											
ARM	K	X ₂	M	F	t _D	f _c	AM	PM	RFC	AM	PM
A	0.97	4.45	0.02	1347	1.49	0.59	1178	1203	0.58	0.45	
B	1.10	4.41	0.02	1335	1.49	0.59	1217	1246	0.36	0.32	
C	1.01	3.94	0.02	1194	1.49	0.56	1051	1093	0.61	0.50	
								Q _E			
								Critical Arm:	C	C	
								RFC:	0.61	0.50	
									AM	PM	
- In accordance with TPDM V2.4											
Calculated by: MYC				Date: Sept-25				Checked by: CFC			

Calculation Spreadsheets
for 2034
Reference & Design Scenario
(Sensitivity Test 2)

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50800610**

MVA HONG KONG LIMITED

Junction: Shek Wu Wai Road / San Tin Highway Slip Road (A)

Design Year: 2034

Description: Reference

Designed By: MYC

Checked By: CFC

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
San Tin highway Slip Road (EB)	→	A	1,2	3.650		12.5		96%	96%	1775	1775	127	0.072		132	0.074	
	↘	A	1,2	3.650		10				1845	1845	133	0.072		138	0.075	
San Tin highway Slip Road (WB)	←	B	1	3.900		10		94%	93%	1865	1865	86	0.046		76	0.041	
	↙	B	1	3.900		12.5				1800	1805	84	0.047	0.047	74	0.041	0.041
Shek Wu Wai Road (SB)	↓	C	2,3	3.500						1965	1965	385	0.196		380	0.193	
	↕	C	2,3	3.500		15		78%	63%	1955	1980	382	0.195		382	0.193	
	↘	C	2,3	3.500		12.5				1880	1880	368	0.196		363	0.193	
Shek Wu Wai Road (NB)	↑	D	4	3.500				30%	26%	1965	1965	264	0.134		163	0.083	
	↕	D	4	3.500		15				2045	2050	274	0.134	0.134	171	0.083	0.083
	↙	D	4	3.500		12.5				1880	1880	252	0.134		156	0.083	
Shek Wu Wai Road (SB)	↓	E	3	3.500						2105	2105	300	0.143		291	0.138	
	↕	E	3	3.500						2105	2105	300	0.143		292	0.139	
	↘	E	3	3.500						1965	1965	280	0.142		272	0.138	
Shek Wu Wai Road (NB)	↑	F	4	3.500						1965	1965	199	0.101		110	0.056	
	↕	F	4	3.500						2105	2105	213	0.101		117	0.056	
	↙	F	4	3.500						2105	2105	213	0.101		118	0.056	

- In accordance with TPDM V4 - Road Traffic Signals

Formual of Total lost time per cycle

$$L = \sum (I - 1)$$

AM peak

Group: B,C,D

L

$$= (6-1)+(8-1)+(5-1) = 16$$

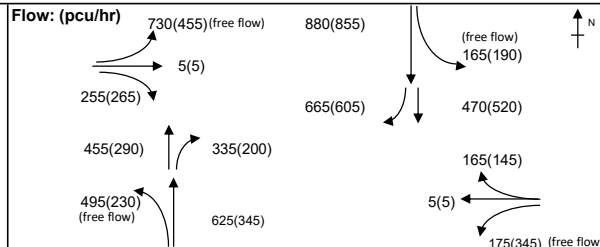
PM peak

Group: B,C,D

L

$$= (7-1)+(5-1)+(5-1) = 16$$

Notes:



Group	B,C,F	B,C,D	Group	B,C,F	B,C,D
y	0.344	0.377	y	0.290	0.318
L (sec)	16	16	L (sec)	16	16
C (sec)	90	90	C (sec)	90	90
y pract.	0.740	0.740	y pract.	0.740	0.740
R.C. (%)	115%	96%	R.C. (%)	155%	133%

Stage / Phase Diagrams

1.	2.	3.	4.	5.
I/G= 5	I/G= 6	I/G=	I/G= 8	I/G=
I/G= 5	I/G= 6	I/G=	I/G= 8	I/G=

Date: AUG, 2025

Junction: Shek Wu Wai Road / San Tin Highway Slip Road (A) **(A)**

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50800610**

MVA HONG KONG LIMITED

Junction: Shek Wu Wai Road / Road D3 / Road L11 / Road L12 (B)

Design Year: 2034

Description: Reference

Designed By: MYC

Checked By: CFC

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Road L11 EB	↔	A	1	4.000	15					1830	1830	200	0.109		125	0.068	
	↕	A	1	4.000	17.5	20		0% / 18%	0% / 7%	2125	2145	233	0.110	0.110	254	0.118	
	↔	A	1	4.000		17.5				1985	1985	217	0.109		236	0.119	0.119
Road D2 NB	↕	B	2	3.200	15					1760	1760	240	0.136		169	0.096	
	↕	B	2	3.200	17.5			0%	18%	2075	2045	326	0.157	0.157	196	0.096	
	↕	B	2	3.200						2075	2075	326	0.157		200	0.096	
	↕	B	2	3.200		12.5		77%	100%	1900	1855	298	0.157		185	0.100	0.100
Road L11 WB	↔	C	3	3.300	12.5					1735	1735	141	0.081	0.081	109	0.063	
	↕	C	3	3.300	15			83%	45%	1925	1995	155	0.081		125	0.063	
	↔	C	3	3.300		20		3%	4%	2080	2080	169	0.081		131	0.063	0.063
Road D3 SB	↕	D	4	4.000	12.5			2%	2%	2010	2010	251	0.125	0.125	307	0.153	
	↕	D	4	4.000						2155	2155	269	0.125		328	0.152	
	↕	D	4	4.000		20		98%	100%	2005	2005	250	0.125		440	0.219	0.219
- In accordance with TPDM V4 - Road Traffic Signals Formual of Total lost time per cycle $L = \sum (I - 1)$ AM peak Group: A,B,C,D $L = (6-1)+(6-1)+(7-1)+(7-1) = 22$ PM peak Group: A,B,C,D $L = (6-1)+(6-1)+(7-1)+(7-1) = 22$																	

Notes:	Flow: (pcu/hr)	Group	A,B,C,D	Group	A,B,C,D
		y	0.473	y	0.501
		L (sec)	22	L (sec)	22
		C (sec)	105	C (sec)	105
		y pract.	0.711	y pract.	0.711
		R.C. (%)	50%	R.C. (%)	42%

Stage / Phase Diagrams																			
1. 				2. 				3. 				4. 				5.			
I/G= 6				I/G= 6				I/G= 7				I/G= 7				I/G=			
I/G= 6				I/G= 6				I/G= 7				I/G= 7				I/G=			

Date: AUG, 2025 Junction: Shek Wu Wai Road / Road D3 / Road L11 / Road L12 (B) (B)

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / San Tam Road (C)		Ref. No.:	2034R
Scheme: Reference		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: San Tam Road			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
365	(300)
10	(15)

ARM A

AM	(PM)
300	(275)
95	(105)

Minor ARM B

AM	(PM)
25	165
(15)	(90)

GEOMETRY					
Major road width	W	7.40	Lane widths	w(b-a)	3.20
Central Reserve width	Wcr	0.00		w(b-c)	3.20
2 Lane Minor Arm (Y/N)		N		w(c-b)	4.10
Visibilities	Vr(b-a)	50	Calculated	D	0.85
	VI(b-a)	70		E	0.90
	Vr(b-c)	50		F	0.98
	Vr(c-b)	50		Y	0.74

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	365	300
	q(c-b)	10	15
	q(a-b)	95	105
	q(a-c)	300	275
	q(b-a)	165	90
	q(b-c)	25	15
	f	0.13	0.14
	CAPACITIES	Q(b-a)	401
Q(b-c)		586	592
Q(c-b)		623	627
Q(b-ac)		419	432
RFC's		b-a	0.411
	b-c	0.043	0.025
	c-b	0.016	0.024
	b-ac	0.453	0.243
	Worst RFC	0.453	0.243

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Calculated by: MYC

Date: Sept-25

Checked by: CFC

Capacity of combined streams
- in accordance with TPDM V2.4

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Palm Springs Boulevard (D)		Ref. No.:	2034R
Scheme: Reference		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: Palm Springs Boulevard			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
280	(240)
10	(30)

ARM A

AM	(PM)
275	(245)
150	(210)

Minor ARM B

AM	(PM)
25	230
(50)	(165)

GEOMETRY					
Major road width	W	7.00	Lane widths	w(b-a)	4.00
Central Reserve width	Wcr	0.00		w(b-c)	4.00
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.00
Visibilities	Vr(b-a)	30	Calculated	D	0.88
	VI(b-a)	30		E	0.95
	Vr(b-c)	30		F	0.86
	Vr(c-b)	30		Y	0.76

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	280	240
	q(c-b)	10	30
	q(a-b)	150	210
	q(a-c)	275	245
	q(b-a)	230	165
	q(b-c)	25	50
	f	0.10	0.23
	CAPACITIES	Q(b-a)	425
Q(b-c)		620	621
Q(c-b)		542	534
Q(b-ac)		438	459
RFC's		b-a	0.541
	b-c	0.040	0.081
	c-b	0.018	0.056
	b-ac	0.582	0.468
	Worst RFC	0.582	0.468

Where VI and Vr are visibility distances to the left or right of the respective streams
 $D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$
 $E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$
 $F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$
 $Y = 1-0.0345W$
f = proportion of minor traffic turning left
 $Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4
Appendix 1

Capacity of combined streams
- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Geranium Path (E)		Ref. No.:	2034R
Scheme: Reference		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: Geranium Path			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
505	(400)
5	(5)

ARM A

AM	(PM)
420	(450)
5	(5)

Minor ARM B

AM	(PM)
5	5
(5)	(5)

GEOMETRY					
Major road width	W	7.00	Lane widths	w(b-a)	3.00
Central Reserve width	Wcr	0.00		w(b-c)	3.00
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.60
Visibilities	Vr(b-a)	50	Calculated	D	0.82
	VI(b-a)	30		E	0.88
	Vr(b-c)	50		F	0.93
	Vr(c-b)	50		Y	0.76

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	505	400
	q(c-b)	5	5
	q(a-b)	5	5
	q(a-c)	420	450
	q(b-a)	5	5
	q(b-c)	5	5
	f	0.50	0.50
CAPACITIES	Q(b-a)	344	352
	Q(b-c)	553	546
	Q(c-b)	585	578
	Q(b-ac)	424	428
RFC's	b-a	0.015	0.014
	b-c	0.009	0.009
	c-b	0.009	0.009
	b-ac	0.024	0.023
Worst RFC		0.024	0.023

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Tam Mi / Yau Pok Road (F)		Ref. No.:	2034R
Scheme: Reference		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Tam Mi			
ARM B: Yau Pok Road			
ARM C: Castle Peak Road - Tam Mi			

ARM C

AM	(PM)
510	(405)
0	(0)

ARM A

AM	(PM)
405	(435)
0	(0)

Minor ARM B

AM	(PM)
20	(20)
(20)	(20)

GEOMETRY			
Major road width	W	6.50	Lane widths
Central Reserve width	Wcr	0.00	w(b-a)
2 Lane Minor Arm (Y/N)		N	w(b-c)
Visibilities	Vr(b-a)	16	w(c-b)
	VI(b-a)	31	Calculated
	Vr(b-c)	16	D
	Vr(c-b)	0	E
			F
			Y

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	510	405
	q(c-b)	0	0
	q(a-b)	0	0
	q(a-c)	405	435
	q(b-a)	20	20
	q(b-c)	20	20
	f	0.50	0.50
CAPACITIES	Q(b-a)	296	303
	Q(b-c)	477	470
	Q(c-b)	370	365
	Q(b-ac)	365	369
RFC's	b-a	0.068	0.066
	b-c	0.042	0.043
	c-b	0.000	0.000
	b-ac	0.110	0.108
Worst RFC		0.110	0.108

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Calculated by: MYC

Date: Aug-25

Checked by: CFC

- in accordance with TPDM V2.4

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Tam Mi / Kam Pok Road (G)		Ref. No.:	2034R
Scheme: Reference		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Tam Mi			
ARM B: Kam Pok Road			
ARM C: Castle Peak Road - Tam Mi			

ARM C

AM	(PM)
360	(325)
170	(105)

ARM A

AM	(PM)
270	(335)
240	(215)

Minor ARM B

AM	(PM)
140	250
(100)	(160)

GEOMETRY			
Major road width	W	7.00	Lane widths
Central Reserve width	Wcr	0.00	w(b-a)
2 Lane Minor Arm (Y/N)		N	w(b-c)
			w(c-b)
Visibilities	Vr(b-a)	50	Calculated
	VI(b-a)	35	D
	Vr(b-c)	50	E
	Vr(c-b)	50	F
			Y

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	360	325
	q(c-b)	170	105
	q(a-b)	240	215
	q(a-c)	270	335
	q(b-a)	250	160
	q(b-c)	140	100
	f	0.36	0.38
	CAPACITIES	Q(b-a)	341
Q(b-c)		595	581
Q(c-b)		558	548
Q(b-ac)		403	418
RFC's	b-a	0.733	0.451
	b-c	0.235	0.172
	c-b	0.305	0.192
	b-ac	0.968	0.622
Worst RFC		0.968	0.622

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

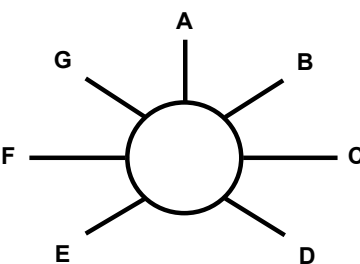
Appendix 1

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101										
Junction: Fairview Park Interchange (H)								Ref. No.: 2034R		
Scheme: Reference (Under Improvement 2)								Ref. No.:		
Year: 2034				Job No.: CHK50800610				Rev.: -		
AM		PM								
ARM A:		Fairview Park Boulevard								
ARM B:		Castle Peak Rd E								
ARM C:		NTCR E								
ARM D:		San Tam Rd E								
ARM E:		San Tam Rd W								
ARM F:		NTCR W								
ARM G:		Castle Peak Rd W								
										
GEOMETRY										
ARM	v	e	L	r	D	Phi	S			
A	7.00	11.80	20	25	140	35	0.38			
B	7.30	12.00	36	30	140	25	0.21			
C	7.30	13.00	13	45	140	30	0.70			
D	7.30	11.00	23	25	140	35	0.26			
E	7.30	12.00	27	25	140	45	0.28			
F	6.00	12.50	20	25	140	40	0.52			
G	6.50	11.20	22	25	140	35	0.34			
AM FLOWS										
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit
A	10	20	225	40	225	530	30	2710	1080	640
B	10	10	155	10	245	295	30	3165	755	625
C	90	75	10	95	460	10	210	2680	950	1240
D	60	20	45	10	250	255	90	3180	730	450
E	40	35	445	65	10	510	20	2110	1125	1800
F	320	315	10	150	600	10	0	1315	1405	1920
G	110	150	350	80	10	310	0	2340	1010	380
PM FLOWS										
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit
A	10	10	170	50	200	345	30	2265	815	970
B	35	10	105	10	160	170	30	2515	520	565
C	180	135	20	80	405	20	200	2215	1040	820
D	75	20	55	20	200	145	70	2835	585	420
E	95	30	270	70	10	280	20	1810	775	1610
F	485	270	10	140	625	20	0	1395	1550	1190
G	90	90	190	50	10	210	10	2585	650	360
CALCULATIONS							Q _E	RFC		
ARM	K	X ₂	M	F	t _D	f _c	AM	PM	AM	PM
A	0.99	9.71	2980.96	2944	1.00	0.62	1259	1532	0.86	0.53
B	1.03	10.62	2980.96	3216	1.00	0.66	1179	1619	0.64	0.32
C	1.03	9.67	2980.96	2931	1.00	0.62	1314	1608	0.72	0.65
D	0.99	9.74	2980.96	2952	1.00	0.62	975	1187	0.75	0.49
E	0.96	10.32	2980.96	3127	1.00	0.64	1694	1879	0.66	0.41
F	0.98	9.19	2980.96	2783	1.00	0.60	1950	1903	0.72	0.81
G	0.99	9.29	2980.96	2815	1.00	0.60	1400	1254	0.72	0.52
								Critical Arm:	A	F
								RFC:	0.86	0.81
									AM	PM
- In accordance with TPDM V2.4										
Calculated by: MYC				Date: Aug-25			Checked by: CFC			

- In accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Mai Po South Road (I)		Ref. No.:	2034R
Scheme: Reference		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: Mai Po South Road			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
290	(255)
5	(5)

ARM A

AM	(PM)
290	(290)
10	(5)

Minor ARM B

AM	(PM)
0	0
(10)	(15)

GEOMETRY					
Major road width	W	6.90	Lane widths	w(b-a)	3.60
Central Reserve width	Wcr	0.00		w(b-c)	3.60
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.30
Visibilities	Vr(b-a)	50	Calculated	D	0.87
	VI(b-a)	30		E	0.93
	Vr(b-c)	50		F	0.91
	Vr(c-b)	50		Y	0.76

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	290	255
	q(c-b)	5	5
	q(a-b)	10	5
	q(a-c)	290	290
	q(b-a)	0	15
	q(b-c)	0	10
	f	0.00	0.40
CAPACITIES	Q(b-a)	427	432
	Q(b-c)	619	619
	Q(c-b)	600	601
	Q(b-ac)	427	492
RFC's	b-a	0.000	0.035
	b-c	0.000	0.016
	c-b	0.008	0.008
	b-ac	0.000	0.051
Worst RFC		0.008	0.051

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD102			
Junction: Castle Peak Road San Tin / Kwu Tung Road (J)		Ref. No.:	2034R
Scheme: Reference		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - San Tin			
ARM B: Kwu Tung Road			
ARM C: Castle Peak Road - San Tin			

ARM C

AM	(PM)
495	(430)
165	(135)

ARM A

AM	(PM)
235	(215)
125	(65)

Minor ARM B

AM	(PM)
245	75
(315)	(115)

GEOMETRY					
Major road width	W	8.00	Lane widths	w(b-a)	3.60
Central Reserve width	Wcr	0.00		w(b-c)	3.60
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.30
Visibilities	Vr(b-a)	40	Calculated	D	0.86
	VI(b-a)	40		E	0.92
	Vr(b-c)	35		F	0.89
	Vr(c-b)	35		Y	0.72

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	495	430
	q(c-b)	165	135
	q(a-b)	125	65
	q(a-c)	235	215
	q(b-a)	75	115
	q(b-c)	245	315
	f	0.77	0.73
	CAPACITIES	Q(b-a)	352
Q(b-c)		616	626
Q(c-b)		581	599
Q(b-ac)		524	535
RFC's		b-a	0.213
	b-c	0.398	0.503
	c-b	0.284	0.225
	b-ac	0.611	0.804
	Worst RFC	0.611	0.804

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

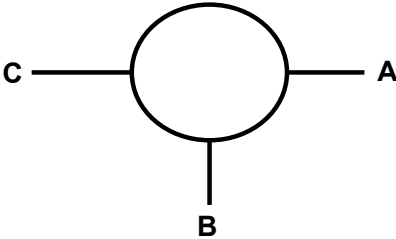
Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

Calculated by: MYC	Date: Sept-25	Checked by: CFC
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Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD102											
Junction: San Tin Interchange (K)						Ref. No.: 2034R					
Scheme: Reference						Ref. No.:					
Year: 2034			Job No.: CHK50800610			Rev.: -					
AM PM ARM A: San Tin Highway Slip Road ARM B: San Sham Road ARM C: Fanling Highway Slip Road											
GEOMETRY											
ARM	v	e	L	r	D	Phi	S				
A	7.70	14.40	75	30	103	40	0.14				
B	8.80	11.70	75	30	103	40	0.06				
C	8.80	12.00	40	100	103	30	0.13				
AM FLOWS											
from \ to	A	B	C				Circ	Entry			
A	950	645	1300				360	2895			
B	570	0	0				2515	570			
C	635	95	265				1520	995			
PM FLOWS											
from \ to	A	B	C				Circ	Entry			
A	675	560	855				390	2090			
B	775	0	0				1795	775			
C	570	125	265				1450	960			
CALCULATIONS											
ARM	K	X ₂	M	F	t _D	f _c	Q _E AM	PM	RFC AM	PM	
A	0.98	12.91	73.70	3912	1.01	0.76	3572	3550	0.81	0.59	
B	0.98	11.38	73.70	3448	1.01	0.69	1675	2165	0.34	0.36	
C	1.04	11.35	73.70	3438	1.01	0.69	2481	2531	0.40	0.38	
									Critical Arm:	A	A
									RFC:	0.81	0.59
										AM	PM
- In accordance with TPDM V2.4											
Calculated by: MYC			Date: Sept-25			Checked by: CFC					

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50800610**

MVA HONG KONG LIMITED

Junction: Shek Wu Wai Road / San Tin Highway Slip Road (A)

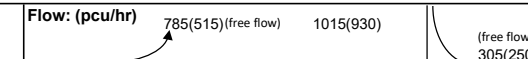
Design Year: 2034

Description: Design

Designed By: MYC

Checked By: CFC

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
San Tin highway Slip Road (EB)	→	A	1,2	3.650		12.5		96%	96%	1775	1775	127	0.072		132	0.074	
	↘	A	1,2	3.650		10				1845	1845	133	0.072		138	0.075	
San Tin highway Slip Road (WB)	←	B	1	3.900		10		96%	96%	1865	1865	127	0.068		120	0.064	0.064
	↙	B	1	3.900		12.5				1800	1800	123	0.068	0.068	115	0.064	
Shek Wu Wai Road (SB)	↓	C	2,3	3.500						1965	1965	429	0.218		405	0.206	0.206
	↕	C	2,3	3.500		15	82%	63%		1945	1980	425	0.219		408	0.206	
	↘	C	2,3	3.500		12.5				1880	1880	411	0.219	0.219	387	0.206	
Shek Wu Wai Road (NB)	↑	D	4	3.500				14%	3%	1965	1965	302	0.154		202	0.103	0.103
	↕	D	4	3.500		15				2075	2100	319	0.154	0.154	215	0.102	
	↙	D	4	3.500		12.5				1880	1880	289	0.154		193	0.103	
Shek Wu Wai Road (SB)	↓	E	3	3.500						2105	2105	346	0.164		317	0.151	
	↕	E	3	3.500						2105	2105	346	0.164		317	0.151	
	↘	E	3	3.500						1965	1965	323	0.164		296	0.151	
Shek Wu Wai Road (NB)	↑	F	4	3.500						1965	1965	212	0.108		121	0.062	
	↕	F	4	3.500						2105	2105	226	0.107		129	0.061	
	↙	F	4	3.500						2105	2105	227	0.108		130	0.062	
- In accordance with TPDM V4 - Road Traffic Signals Formual of Total lost time per cycle $L = \sum (I - 1)$ AM peak Group: B,C,D $L = (6-1)+(8-1)+(5-1) = 16$ PM peak Group: B,C,D $L = (7-1)+(5-1)+(5-1) = 16$																	

Notes:	Flow: (pcu/hr)												
						Group		B,C,F	B,C,D	Group		B,C,F	B,C,D
						y	0.395	0.441	y	0.332	0.373		
						L (sec)	16	16	L (sec)	16	16		
						C (sec)	90	90	C (sec)	90	90		
						y pract.	0.740	0.740	y pract.	0.740	0.740		
					R.C. (%)	87%	68%	R.C. (%)	123%	98%			

Stage / Phase Diagrams											
1.			2.			3.			4.		
I/G= 5			I/G= 6			I/G=			I/G= 8		
I/G= 5			I/G= 6			I/G=			I/G= 8		

Date: AUG, 2025 Junction: Shek Wu Wai Road / San Tin Highway Slip Road (A) (A)

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50800610**

MVA HONG KONG LIMITED

Junction: Shek Wu Wai Road / Road D3 / Road L11 / Road L12 (B)

Design Year: 2034

Description: Design

Designed By: MYC

Checked By: CFC

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Road L11 EB	↔	A	1	4.000	15					1830	1830	200	0.109		125	0.068	
	↕	A	1	4.000	17.5	20		0% / 48%	0% / 27%	2080	2115	368	0.177		327	0.155	
	↔	A	1	4.000		17.5				1985	1985	352	0.177	0.177	308	0.155	0.155
Road D2 NB	↕	B	2	3.200	15					1760	1760	309	0.176	0.176	213	0.121	
	↕	B	2	3.200	17.5			30%	73%	2025	1955	355	0.175		237	0.121	0.121
	↕	B	2	3.200						2075	2075	364	0.175		251	0.121	
	↕	B	2	3.200		12.5		68%	81%	1920	1890	337	0.176		229	0.121	
Road L11 WB	↔	C	3	3.300	12.5					1735	1735	142	0.082		110	0.063	
	↕	C	3	3.300	15			81%	43%	1930	2000	158	0.082	0.082	128	0.064	0.064
	↔	C	3	3.300		20		3%	4%	2080	2080	170	0.082		132	0.063	
Road D3 SB	↕	D	4	4.000	12.5			2%	2%	2010	2010	251	0.125	0.125	307	0.153	
	↕	D	4	4.000						2155	2155	269	0.125		328	0.152	
	↕	D	4	4.000		20		98%	100%	2005	2005	250	0.125		440	0.219	0.219
- In accordance with TPDM V4 - Road Traffic Signals Formual of Total lost time per cycle $L = \sum (I - 1)$ AM peak Group: A,B,C,D $L = (6-1)+(6-1)+(7-1)+(7-1) = 22$ PM peak Group: A,B,C,D $L = (6-1)+(6-1)+(7-1)+(7-1) = 22$																	

Notes:	Flow: (pcu/hr)	Group	A,B,C,D	Group	A,B,C,D
		y	0.560	y	0.560
		L (sec)	22	L (sec)	22
		C (sec)	105	C (sec)	105
		y pract.	0.711	y pract.	0.711
		R.C. (%)	27%	R.C. (%)	27%

Stage / Phase Diagrams									
1.		2.		3.		4.		5.	
									
I/G= 6		I/G= 6		I/G= 7		I/G= 7		I/G=	
I/G= 6		I/G= 6		I/G= 7		I/G= 7		I/G=	
Date: SEPT, 2025						Junction: B Shek Wu Wai Road / Road D3 / Road L11 / Road L12 (B)			

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / San Tam Road (C)		Ref. No.:	2034D
Scheme: Design		Ref. No.:	
Year: 2034	Job No.:	CHK50800610	Rev.: -
ARM A: Castle Peak Road - Mai Po			
ARM B: San Tam Road			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
635	(445)
10	(15)

ARM A

AM	(PM)
480	(455)
100	(105)

Minor ARM B

AM	(PM)
25	165
(15)	(90)

GEOMETRY					
Major road width	W	7.40	Lane widths	w(b-a)	3.20
Central Reserve width	Wcr	0.00		w(b-c)	3.20
2 Lane Minor Arm (Y/N)		N		w(c-b)	4.10
Visibilities	Vr(b-a)	50	Calculated	D	0.85
	VI(b-a)	70		E	0.90
	Vr(b-c)	50		F	0.98
	Vr(c-b)	50		Y	0.74

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	635	445
	q(c-b)	10	15
	q(a-b)	100	105
	q(a-c)	480	455
	q(b-a)	165	90
	q(b-c)	25	15
	f	0.13	0.14
	CAPACITIES	Q(b-a)	320
Q(b-c)		542	548
Q(c-b)		574	579
Q(b-ac)		338	370
RFC's		b-a	0.516
	b-c	0.046	0.027
	c-b	0.017	0.026
	b-ac	0.562	0.284
	Worst RFC	0.562	0.284

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Calculated by: MYC

Date: Sept-25

Checked by: CFC

Capacity of combined streams
- in accordance with TPDM V2.4

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Palm Springs Boulevard (D)		Ref. No.:	2034D
Scheme: Design		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: Palm Springs Boulevard			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
400	(295)
10	(30)

ARM A

AM	(PM)
345	(320)
150	(210)

Minor ARM B

AM	(PM)
25	(50)
230	(165)

GEOMETRY					
Major road width	W	7.00	Lane widths	w(b-a)	4.00
Central Reserve width	Wcr	0.00		w(b-c)	4.00
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.00
Visibilities	Vr(b-a)	30	Calculated	D	0.88
	VI(b-a)	30		E	0.95
	Vr(b-c)	30		F	0.86
	Vr(c-b)	30		Y	0.76

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	400	295
	q(c-b)	10	30
	q(a-b)	150	210
	q(a-c)	345	320
	q(b-a)	230	165
	q(b-c)	25	50
	f	0.10	0.23
	CAPACITIES	Q(b-a)	389
Q(b-c)		601	602
Q(c-b)		525	517
Q(b-ac)		403	433
RFC's		b-a	0.591
	b-c	0.042	0.083
	c-b	0.019	0.058
	b-ac	0.633	0.497
	Worst RFC	0.633	0.497

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Calculated by: MYC

Date: Aug-25

Checked by: CFC

Capacity of combined streams
- in accordance with TPDM V2.4

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Geranium Path (E)		Ref. No.:	2034D
Scheme: Design		Ref. No.:	
Year: 2034	Job No.:	CHK50800610	Rev.: -
ARM A: Castle Peak Road - Mai Po			
ARM B: Geranium Path			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
625	(455)
5	(5)

ARM A

AM	(PM)
490	(525)
5	(5)

Minor ARM B

AM	(PM)
5	5
(5)	(5)

GEOMETRY			
Major road width	W	7.00	Lane widths
Central Reserve width	Wcr	0.00	w(b-a)
2 Lane Minor Arm (Y/N)		N	w(b-c)
			w(c-b)
Visibilities	Vr(b-a)	50	Calculated
	VI(b-a)	30	D
	Vr(b-c)	50	E
	Vr(c-b)	50	F
			Y

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	625	455
	q(c-b)	5	5
	q(a-b)	5	5
	q(a-c)	490	525
	q(b-a)	5	5
	q(b-c)	5	5
	f	0.50	0.50
	CAPACITIES	Q(b-a)	311
Q(b-c)		536	527
Q(c-b)		567	558
Q(b-ac)		394	404
RFC's		b-a	0.016
	b-c	0.009	0.009
	c-b	0.009	0.009
	b-ac	0.025	0.025
	Worst RFC	0.025	0.025

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Calculated by: MYC

Date: Aug-25

Checked by: CFC

Capacity of combined streams
- in accordance with TPDM V2.4

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Tam Mi / Yau Pok Road (F)		Ref. No.: 2034D	
Scheme: Design		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.: -	
ARM A: Castle Peak Road - Tam Mi			
ARM B: Yau Pok Road			
ARM C: Castle Peak Road - Tam Mi			

ARM C

AM	(PM)
630	(460)
0	(0)

ARM A

AM	(PM)
475	(510)
0	(0)

Minor ARM B

AM	(PM)
20	(20)
(20)	(20)

GEOMETRY					
Major road width	W	6.50	Lane widths	w(b-a)	1.88
Central Reserve width	Wcr	0.00		w(b-c)	1.88
2 Lane Minor Arm (Y/N)		N		w(c-b)	0.00
Visibilities	Vr(b-a)	16	Calculated	D	0.70
	VI(b-a)	31		E	0.76
	Vr(b-c)	16		F	0.59
	Vr(c-b)	0		Y	0.78

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	630	460
	q(c-b)	0	0
	q(a-b)	0	0
	q(a-c)	475	510
	q(b-a)	20	20
	q(b-c)	20	20
	f	0.50	0.50
	CAPACITIES	Q(b-a)	267
Q(b-c)		462	454
Q(c-b)		358	352
Q(b-ac)		338	348
RFC's		b-a	0.075
	b-c	0.043	0.044
	c-b	0.000	0.000
	b-ac	0.118	0.115
	Worst RFC	0.118	0.115

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Tam Mi / Kam Pok Road (G)		Ref. No.: 2034D	
Scheme: Design		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.: -	
ARM A: Castle Peak Road - Tam Mi			
ARM B: Kam Pok Road			
ARM C: Castle Peak Road - Tam Mi			

ARM C

AM	(PM)
480	(375)
170	(105)

ARM A

AM	(PM)
340	(410)
240	(215)

Minor ARM B

AM	(PM)
140	250
(100)	(160)

GEOMETRY					
Major road width	W	7.00	Lane widths	w(b-a)	3.50
Central Reserve width	Wcr	0.00		w(b-c)	3.50
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.50
Visibilities	Vr(b-a)	50	Calculated	D	0.86
	VI(b-a)	35		E	0.92
	Vr(b-c)	50		F	0.92
	Vr(c-b)	50		Y	0.76

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	480	375
	q(c-b)	170	105
	q(a-b)	240	215
	q(a-c)	340	410
	q(b-a)	250	160
	q(b-c)	140	100
	f	0.36	0.38
	CAPACITIES	Q(b-a)	307
Q(b-c)		577	562
Q(c-b)		540	529
Q(b-ac)		369	392
RFC's		b-a	0.814
	b-c	0.243	0.178
	c-b	0.315	0.198
	b-ac	1.057	0.663
	Worst RFC	1.057	0.663

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

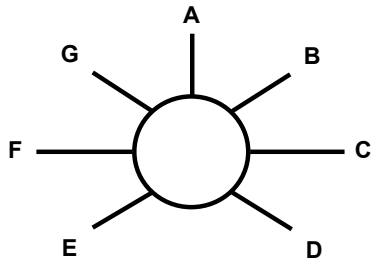
Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101										
Junction: Fairview Park Interchange (H)								Ref. No.: 2034D		
Scheme: Design (Under Improvement 2)								Ref. No.:		
Year: 2034				Job No.: CHK50800610				Rev.: -		
AM PM ARM A: Fairview Park Boulevard ARM B: Castle Peak Rd E ARM C: NTCR E ARM D: San Tam Rd E ARM E: San Tam Rd W ARM F: NTCR W ARM G: Castle Peak Rd W										
GEOMETRY										
ARM	v	e	L	r	D	Phi	S			
A	7.00	11.80	20	25	140	35	0.38			
B	7.30	12.00	36	30	140	25	0.21			
C	7.30	13.00	13	45	140	30	0.70			
D	7.30	11.00	23	25	140	35	0.26			
E	7.30	12.00	27	25	140	45	0.28			
F	6.00	12.50	20	25	140	40	0.52			
G	6.50	11.20	22	25	140	35	0.34			
AM FLOWS										
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit
A	10	20	225	40	225	530	30	2780	1080	640
B	10	10	155	10	245	415	30	3165	875	695
C	90	75	10	95	460	10	210	2800	950	1240
D	60	20	45	10	255	255	90	3300	735	450
E	40	35	445	65	10	510	20	2230	1125	1805
F	320	385	10	150	600	10	0	1315	1475	2040
G	110	150	350	80	10	310	0	2410	1010	380
PM FLOWS										
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit
A	10	10	170	50	200	345	30	2340	815	970
B	35	10	105	10	160	220	30	2515	570	640
C	180	135	20	80	405	20	200	2265	1040	820
D	75	20	55	20	205	145	70	2885	590	420
E	95	30	270	70	10	280	20	1860	775	1615
F	485	340	10	140	625	20	0	1395	1620	1240
G	90	95	190	50	10	210	10	2655	655	360
CALCULATIONS										
ARM	K	X ₂	M	F	t _D	f _c	AM	PM	AM	PM
A	0.99	9.71	2980.96	2944	1.00	0.62	1216	1486	0.89	0.55
B	1.03	10.62	2980.96	3216	1.00	0.66	1179	1619	0.74	0.35
C	1.03	9.67	2980.96	2931	1.00	0.62	1238	1576	0.77	0.66
D	0.99	9.74	2980.96	2952	1.00	0.62	901	1157	0.82	0.51
E	0.96	10.32	2980.96	3127	1.00	0.64	1620	1848	0.69	0.42
F	0.98	9.19	2980.96	2783	1.00	0.60	1950	1903	0.76	0.85
G	0.99	9.29	2980.96	2815	1.00	0.60	1358	1212	0.74	0.54
								Q _E	RFC	
								Critical Arm:	A	F
								RFC:	0.89	0.85
									AM	PM
- In accordance with TPDM V2.4										
Calculated by: MYC				Date: Aug-25			Checked by: CFC			

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Mai Po South Road (I)		Ref. No.:	2034D
Scheme: Design		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: Mai Po South Road			
ARM C: Castle Peak Road - Mai Po			

GEOMETRY					
Major road width	W	6.90	Lane widths	w(b-a)	3.60
Central Reserve width	Wcr	0.00		w(b-c)	3.60
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.30
Visibilities	Vr(b-a)	50	Calculated	D	0.87
	VI(b-a)	30		E	0.93
	Vr(b-c)	50		F	0.91
	Vr(c-b)	50		Y	0.76

ANALYSIS			AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)		290	255
	q(c-b)		180	180
	q(a-b)		80	75
	q(a-c)		290	295
	q(b-a)		120	65
	q(b-c)		270	150
	f		0.69	0.70
	CAPACITIES	Q(b-a)	Factor: 1	360
Q(b-c)		1	612	611
Q(c-b)		1	582	582
Q(b-ac)		1	503	507
RFC's		b-a		0.333
	b-c		0.441	0.245
	c-b		0.309	0.309
	b-ac		0.775	0.424
	Worst RFC		0.775	0.424

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$

$E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$

$F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$

$Y = 1 - 0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c) * Q(b-a) / ((1-f) * Q(b-c) + f * Q(b-a))$

Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD103			
Junction: Castle Peak Road San Tin / Kwu Tung Road (J)			Ref. No.: 2034D
Scheme: Design			Ref. No.:
Year: 2034	Job No.: CHK50800610		Rev.: -
ARM A: Castle Peak Road - San Tin			
ARM B: Kwu Tung Road			
ARM C: Castle Peak Road - San Tin			

ARM C

AM	(PM)
495	(435)
165	(135)

ARM A

AM	(PM)
240	(215)
125	(65)

Minor ARM B

AM	(PM)
245	80
(315)	(115)

GEOMETRY			
Major road width	W	8.00	Lane widths
Central Reserve width	Wcr	0.00	w(b-a)
2 Lane Minor Arm (Y/N)		N	w(b-c)
Visibilities	Vr(b-a)	40	w(c-b)
	VI(b-a)	40	Calculated
	Vr(b-c)	35	D
	Vr(c-b)	35	E
			F
			Y

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	495	435
	q(c-b)	165	135
	q(a-b)	125	65
	q(a-c)	240	215
	q(b-a)	80	115
	q(b-c)	245	315
	f	0.75	0.73
	CAPACITIES	Q(b-a)	351
Q(b-c)		615	626
Q(c-b)		579	599
Q(b-ac)		519	534
RFC's		b-a	0.228
	b-c	0.398	0.503
	c-b	0.285	0.225
	b-ac	0.626	0.805
	Worst RFC	0.626	0.805

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

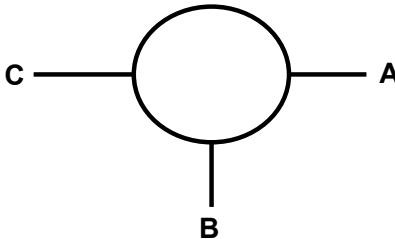
Calculated by: MYC

Date: Sept-25

Checked by: CFC

Capacity of combined streams
- in accordance with TPDM V2.4

Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD103										
Junction: San Tin Interchange (K)							Ref. No.: 2034D			
Scheme: Design							Ref. No.:			
Year: 2034			Job No.: CHK50800610				Rev.: -			
AM		PM								
ARM A:		San Tin Highway Slip Road								
ARM B:		San Sham Road								
ARM C:		Fanling Highway Slip Road								
										
GEOMETRY										
ARM	v	e	L	r	D	Phi	S			
A	7.70	14.40	75	30	103	40	0.14			
B	8.80	11.70	75	30	103	40	0.06			
C	8.80	12.00	40	100	103	30	0.13			
AM FLOWS										
from \ to	A	B	C				Circ	Entry		
A	950	645	1300				360	2895		
B	570	0	0				2515	570		
C	635	95	265				1520	995		
PM FLOWS										
from \ to	A	B	C				Circ	Entry		
A	675	560	855				390	2090		
B	775	0	0				1795	775		
C	570	125	265				1450	960		
CALCULATIONS										
ARM	K	X ₂	M	F	t _D	f _c	Q _E		RFC	
							AM	PM	AM	PM
A	0.98	12.91	73.70	3912	1.01	0.76	3572	3550	0.81	0.59
B	0.98	11.38	73.70	3448	1.01	0.69	1675	2165	0.34	0.36
C	1.04	11.35	73.70	3438	1.01	0.69	2481	2531	0.40	0.38
							Critical Arm:		A	A
							RFC:		0.81	0.59
									AM	PM
- In accordance with TPDM V2.4										
Calculated by: MYC			Date: Sept-25			Checked by: CFC				

**Calculation Spreadsheets
for 2034
Reference & Design Scenario
(Sensitivity Test 2)
(With Improvement)**

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Tam Mi / Kam Pok Road (G)		Ref. No.: 2034R	
Scheme: Reference		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.: -	
ARM A: Castle Peak Road - Tam Mi			
ARM B: Kam Pok Road			
ARM C: Castle Peak Road - Tam Mi			

ARM C

AM	(PM)
360	(325)
170	(105)

ARM A

AM	(PM)
270	(335)
240	(215)

Minor ARM B

AM	(PM)
140	250
(100)	(160)

GEOMETRY					
Major road width	W	6.90	Lane widths	w(b-a)	4.30
Central Reserve width	Wcr	0.00		w(b-c)	4.30
2 Lane Minor Arm (Y/N)		Y		w(c-b)	2.05
Visibilities	Vr(b-a)	53	Calculated	D	0.93
	VI(b-a)	35		E	1.01
	Vr(b-c)	70		F	0.78
	Vr(c-b)	30		Y	0.76

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	360	325
	q(c-b)	170	105
	q(a-b)	240	215
	q(a-c)	270	335
	q(b-a)	250	160
	q(b-c)	140	100
	f	0.36	0.38
	CAPACITIES	Q(b-a)	367
Q(b-c)		652	637
Q(c-b)		471	463
Q(b-ac)		436	452
RFC's	b-a	0.681	0.418
	b-c	0.215	0.157
	c-b	0.361	0.227
	b-ac	0.000	0.000
Worst RFC		0.681	0.418

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$

$E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$

$F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$

$Y = 1 - 0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c) * Q(b-a) / ((1-f) * Q(b-c) + f * Q(b-a))$

Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Tam Mi / Kam Pok Road (G)		Ref. No.: 2034D	
Scheme: Design		Ref. No.:	
Year: 2034	Job No.: CHK50800610	Rev.: -	
ARM A: Castle Peak Road - Tam Mi			
ARM B: Kam Pok Road			
ARM C: Castle Peak Road - Tam Mi			

GEOMETRY					
Major road width	W	6.90	Lane widths	w(b-a)	4.30
Central Reserve width	Wcr	0.00		w(b-c)	4.30
2 Lane Minor Arm (Y/N)		Y		w(c-b)	2.05
Visibilities	Vr(b-a)	53	Calculated	D	0.93
	VI(b-a)	35		E	1.01
	Vr(b-c)	70		F	0.78
	Vr(c-b)	30		Y	0.76

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	480	375
	q(c-b)	170	105
	q(a-b)	240	215
	q(a-c)	340	410
	q(b-a)	250	160
	q(b-c)	140	100
	f	0.36	0.38
	CAPACITIES	Q(b-a)	330
Q(b-c)		633	616
Q(c-b)		456	446
Q(b-ac)		398	424
RFC's		b-a	0.758
	b-c	0.221	0.162
	c-b	0.373	0.235
	b-ac	0.000	0.000
	Worst RFC	0.758	0.451

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Calculation Spreadsheets
for 2039
Reference & Design Scenario
(Sensitivity Test 3)

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50800610**

MVA HONG KONG LIMITED

Junction: Shek Wu Wai Road / San Tin Highway Slip Road (A)

Design Year: 2039

Description: Reference

Designed By: MYC

Checked By: CFC

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
San Tin highway Slip Road (EB)	→	A	1,2	3.650		12.5		98%	98%	1770	1770	309	0.175	0.175	316	0.179	0.179
	↘	A	1,2	3.650		10				1845	1845	321	0.174		329	0.178	
San Tin highway Slip Road (WB)	←	B	1	3.900		10		94%	93%	1865	1865	86	0.046		76	0.041	
	↙	B	1	3.900		12.5				1800	1805	84	0.047		74	0.041	
Shek Wu Wai Road (SB)	↓	C	2,3	3.500						1965	1965	529	0.269		530	0.270	
	↔	C	2,3	3.500		15		30%	18%	2045	2070	550	0.269		558	0.270	
	↘	C	2,3	3.500		12.5				1880	1880	506	0.269		507	0.270	
Shek Wu Wai Road (NB)	↑	D	4	3.500				60%	65%	1965	1965	396	0.202		273	0.139	
	↔	D	4	3.500		15				1985	1975	400	0.202		275	0.139	
	↗	D	4	3.500		12.5				1880	1880	379	0.202	0.202	262	0.139	0.139
Shek Wu Wai Road (SB)	↓	E	3	3.500						2105	2105	327	0.155		327	0.155	
	↔	E	3	3.500						2105	2105	328	0.156	0.156	328	0.156	0.156
	↘	E	3	3.500						1965	1965	305	0.155		305	0.155	
Shek Wu Wai Road (NB)	↑	F	4	3.500						1965	1965	321	0.163		212	0.108	
	↔	F	4	3.500						2105	2105	345	0.164		226	0.107	
	↗	F	4	3.500						2105	2105	344	0.163		227	0.108	

- In accordance with TPDM V4 - Road Traffic Signals

Formual of Total lost time per cycle

$$L = \sum (I - 1)$$

AM peak

Group:

A,E,D

L

$$= (6-1)+(8-1)+(5-1) = 14$$

PM peak

Group:

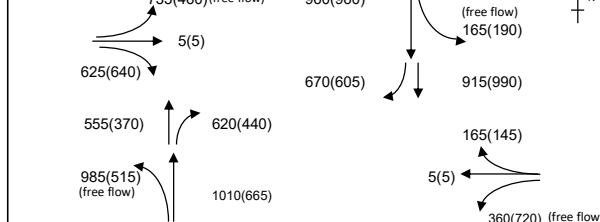
A,E,D

L

$$= (7-1)+(5-1)+(5-1) = 14$$

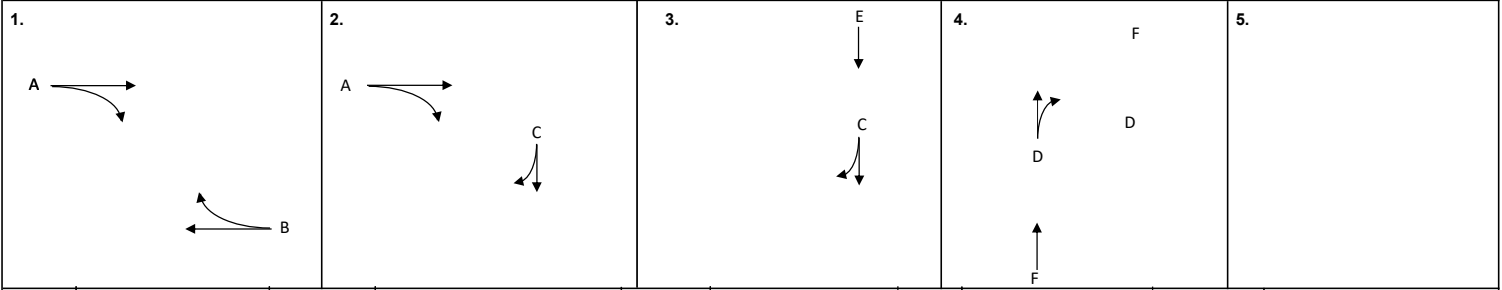
Notes:

Flow: (pcu/hr)



Group	B,C,D	A,E,D	Group	B,C,D	A,E,D
y	0.517	0.532	y	0.450	0.474
L (sec)	16	14	L (sec)	16	14
C (sec)	90	90	C (sec)	90	90
y pract.	0.740	0.760	y pract.	0.740	0.760
R.C. (%)	43%	43%	R.C. (%)	64%	60%

Stage / Phase Diagrams



I/G= 5		I/G=		I/G= 7		I/G= 5		I/G=	
I/G= 5		I/G=		I/G= 7		I/G= 5		I/G=	

Date: AUG, 2025

Junction:

Shek Wu Wai Road / San Tin Highway Slip Road (A)

(A)

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50800610**

MVA HONG KONG LIMITED

Junction: Shek Wu Wai Road / Road D3 / Road L11 / Road L12 (B)

Design Year: 2039

Description: Reference

Designed By: MYC

Checked By: CFC

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Road L11 EB	→	A	1	4.000	15					1830	1830	175	0.096		115	0.063	
	↔	A	1	4.000	17.5	20		0% / 18%	0% / 7%	2125	2145	238	0.112	0.112	257	0.120	
	←	A	1	4.000		17.5				1985	1985	222	0.112		238	0.120	0.120
Road D2 NB	↑	B	2	3.200	15					1760	1760	292	0.166	0.166	190	0.108	
	↑	B	2	3.200	17.5			1%	30%	2075	2025	343	0.165		219	0.108	0.108
	↑	B	2	3.200						2075	2075	344	0.166		224	0.108	
	↑	B	2	3.200		12.5		74%	92%	1905	1870	316	0.166		202	0.108	
Road L11 WB	←	C	3	3.300	12.5					1735	1735	144	0.083	0.083	110	0.063	
	↔	C	3	3.300	15			82%	43%	1925	2000	159	0.083		128	0.064	0.064
	→	C	3	3.300		20		3%	4%	2080	2080	172	0.083		132	0.063	
Road D3 SB	↓	D	4	4.000	12.5			2%	1%	2010	2010	259	0.129		355	0.177	
	↓	D	4	4.000						2155	2155	278	0.129		380	0.176	
	↓	D	4	4.000		20		78%	100%	2035	2005	263	0.129	0.129	440	0.219	0.219
- In accordance with TPDM V4 - Road Traffic Signals Formual of Total lost time per cycle $L = \sum (I - 1)$ AM peak Group: A,B,C,D $L = (6-1)+(6-1)+(7-1)+(7-1) = 22$ PM peak Group: A,B,C,D $L = (6-1)+(6-1)+(7-1)+(7-1) = 22$																	

Notes:	Flow: (pcu/hr)	Group	A,B,C,D	Group	A,B,C,D
		y	0.490	y	0.511
		L (sec)	22	L (sec)	22
		C (sec)	105	C (sec)	105
		y pract.	0.711	y pract.	0.711
		R.C. (%)	45%	R.C. (%)	39%

Stage / Phase Diagrams									
1.		2.		3.		4.		5.	
									
I/G= 6		I/G= 6		I/G= 7		I/G= 7		I/G=	
I/G= 6		I/G= 6		I/G= 7		I/G= 7		I/G=	
Date: AUG, 2025						Junction: B Shek Wu Wai Road / Road D3 / Road L11 / Road L12 (B)			

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / San Tam Road (C)		Ref. No.:	2039R
Scheme: Reference		Ref. No.:	
Year: 2039	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: San Tam Road			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
325	(280)
10	(15)

ARM A

AM	(PM)
250	(265)
130	(145)

Minor ARM B

AM	(PM)
25	(15)
225	(120)

GEOMETRY					
Major road width	W	7.40	Lane widths	w(b-a)	3.20
Central Reserve width	Wcr	0.00		w(b-c)	3.20
2 Lane Minor Arm (Y/N)		N		w(c-b)	4.10
Visibilities	Vr(b-a)	50	Calculated	D	0.85
	VI(b-a)	70		E	0.90
	Vr(b-c)	50		F	0.98
	Vr(c-b)	50		Y	0.74

ANALYSIS			AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)		325	280
	q(c-b)		10	15
	q(a-b)		130	145
	q(a-c)		250	265
	q(b-a)		225	120
	q(b-c)		25	15
	f		0.10	0.11
	CAPACITIES	Q(b-a)	Factor: 1	415
Q(b-c)		1	595	590
Q(c-b)		1	627	619
Q(b-ac)		1	428	429
RFC's		b-a	0.542	0.289
	b-c	0.042	0.025	
	c-b	0.016	0.024	
	b-ac	0.584	0.315	
Worst RFC			0.584	0.315

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$

$E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$

$F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$

$Y = 1 - 0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c) * Q(b-a) / ((1-f) * Q(b-c) + f * Q(b-a))$

T.P.D.M.V.2.4
Appendix 1

Capacity of combined streams
- in accordance with TPDM V2.4

Calculated by: MYC	Date: Sept-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Palm Springs Boulevard (D)		Ref. No.:	2039R
Scheme: Reference		Ref. No.:	
Year: 2039	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: Palm Springs Boulevard			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
230	(230)
10	(30)

ARM A

AM	(PM)
230	(230)
155	(215)

Minor ARM B

AM	(PM)
25	(50)
235	(170)

GEOMETRY					
Major road width	W	7.00	Lane widths	w(b-a)	4.00
Central Reserve width	Wcr	0.00		w(b-c)	4.00
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.00
Visibilities	Vr(b-a)	30	Calculated	D	0.88
	VI(b-a)	30		E	0.95
	Vr(b-c)	30		F	0.86
	Vr(c-b)	30		Y	0.76

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	230	230
	q(c-b)	10	30
	q(a-b)	155	215
	q(a-c)	230	230
	q(b-a)	235	170
	q(b-c)	25	50
	f	0.10	0.23
	CAPACITIES	Q(b-a)	443
Q(b-c)		631	625
Q(c-b)		551	537
Q(b-ac)		456	463
RFC's		b-a	0.530
	b-c	0.040	0.080
	c-b	0.018	0.056
	b-ac	0.570	0.475
	Worst RFC	0.570	0.475

Where VI and Vr are visibility distances to the left or right of the respective streams
 $D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$
 $E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$
 $F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$
 $Y = 1-0.0345W$
f = proportion of minor traffic turning left
 $Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4
Appendix 1

Capacity of combined streams
- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Geranium Path (E)		Ref. No.:	2039R
Scheme: Reference		Ref. No.:	
Year: 2039	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: Geranium Path			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
460	(395)
5	(5)

ARM A

AM	(PM)
380	(440)
5	(5)

Minor ARM B

AM	(PM)
5	(5)
5	(5)

GEOMETRY					
Major road width	W	7.00	Lane widths	w(b-a)	3.00
Central Reserve width	Wcr	0.00		w(b-c)	3.00
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.60
Visibilities	Vr(b-a)	50	Calculated	D	0.82
	VI(b-a)	30		E	0.88
	Vr(b-c)	50		F	0.93
	Vr(c-b)	50		Y	0.76

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	460	395
	q(c-b)	5	5
	q(a-b)	5	5
	q(a-c)	380	440
	q(b-a)	5	5
	q(b-c)	5	5
	f	0.50	0.50
CAPACITIES	Q(b-a)	359	355
	Q(b-c)	563	548
	Q(c-b)	596	580
	Q(b-ac)	438	431
RFC's	b-a	0.014	0.014
	b-c	0.009	0.009
	c-b	0.008	0.009
	b-ac	0.023	0.023
Worst RFC		0.023	0.023

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Tam Mi / Yau Pok Road (F)		Ref. No.:	2039R
Scheme: Reference		Ref. No.:	
Year: 2039	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Tam Mi			
ARM B: Yau Pok Road			
ARM C: Castle Peak Road - Tam Mi			

ARM C

AM	(PM)
465	(400)
0	(0)

ARM A

AM	(PM)
365	(425)
0	(0)

Minor ARM B

AM	(PM)
20	20
(20)	(20)

GEOMETRY			
Major road width	W	6.50	Lane widths
Central Reserve width	Wcr	0.00	w(b-a)
2 Lane Minor Arm (Y/N)		N	w(b-c)
Visibilities	Vr(b-a)	16	w(c-b)
	VI(b-a)	31	Calculated
	Vr(b-c)	16	D
	Vr(c-b)	0	E
			F
			Y

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	465	400
	q(c-b)	0	0
	q(a-b)	0	0
	q(a-c)	365	425
	q(b-a)	20	20
	q(b-c)	20	20
	f	0.50	0.50
CAPACITIES	Q(b-a)	310	306
	Q(b-c)	485	472
	Q(c-b)	376	366
	Q(b-ac)	378	371
RFC's	b-a	0.065	0.065
	b-c	0.041	0.042
	c-b	0.000	0.000
	b-ac	0.106	0.108
Worst RFC		0.106	0.108

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Calculated by: MYC

Date: Aug-25

Checked by: CFC

Capacity of combined streams
- in accordance with TPDM V2.4

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Tam Mi / Kam Pok Road (G)		Ref. No.:	2039R
Scheme: Reference		Ref. No.:	
Year: 2039	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Tam Mi			
ARM B: Kam Pok Road			
ARM C: Castle Peak Road - Tam Mi			

ARM C

AM	(PM)
370	(330)
115	(90)

ARM A

AM	(PM)
275	(340)
170	(160)

Minor ARM B

AM	(PM)
90	(80)
190	(110)

GEOMETRY			
Major road width	W	7.00	Lane widths
Central Reserve width	Wcr	0.00	w(b-a)
2 Lane Minor Arm (Y/N)		N	w(b-c)
			w(c-b)
Visibilities	Vr(b-a)	50	Calculated
	VI(b-a)	35	D
	Vr(b-c)	50	E
	Vr(c-b)	50	F
			Y

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	370	330
	q(c-b)	115	90
	q(a-b)	170	160
	q(a-c)	275	340
	q(b-a)	190	110
	q(b-c)	90	80
	f	0.32	0.42
	CAPACITIES	Q(b-a)	364
Q(b-c)		601	585
Q(c-b)		575	561
Q(b-ac)		417	433
RFC's		b-a	0.522
	b-c	0.150	0.137
	c-b	0.200	0.160
	b-ac	0.671	0.439
	Worst RFC	0.671	0.439

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Calculated by: MYC

Date: Aug-25

Checked by: CFC

Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101											
Junction: Fairview Park Interchange (H)								Ref. No.: 2039R			
Scheme: Reference (Under Improvement 2)								Ref. No.:			
Year: 2039				Job No.: CHK50800610				Rev.: -			
AM ARM A: Fairview Park Boulevard ARM B: Castle Peak Rd E ARM C: NTCR E ARM D: San Tam Rd E ARM E: San Tam Rd W ARM F: NTCR W ARM G: Castle Peak Rd W											
GEOMETRY											
ARM	v	e	L	r	D	Phi	S				
A	7.00	11.80	20	25	140	35	0.38				
B	7.30	12.00	36	30	140	25	0.21				
C	7.30	13.00	13	45	140	30	0.70				
D	7.30	11.00	23	25	140	35	0.26				
E	7.30	12.00	27	25	140	45	0.28				
F	6.00	12.50	20	25	140	40	0.52				
G	6.50	11.20	22	25	140	35	0.34				
AM FLOWS											
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit	
A	10	20	205	40	225	470	30	2680	1000	655	
B	10	10	145	10	245	255	30	3120	705	560	
C	90	70	10	100	470	10	215	2595	965	1230	
D	65	20	45	10	255	260	95	3105	750	455	
E	40	35	455	65	10	520	20	2030	1145	1825	
F	330	250	10	150	610	10	0	1335	1360	1840	
G	110	155	360	80	10	315	0	2305	1030	390	
PM FLOWS											
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit	
A	10	10	165	50	205	335	30	2250	805	980	
B	35	10	90	10	165	135	30	2540	475	515	
C	185	125	20	80	410	20	200	2205	1040	810	
D	70	20	55	20	200	145	65	2820	575	425	
E	95	30	275	70	10	285	20	1755	785	1640	
F	495	230	10	145	640	20	0	1385	1540	1155	
G	90	90	195	50	10	215	10	2570	660	355	
CALCULATIONS											
ARM	K	X ₂	M	F	t _D	f _c	AM	PM	AM	PM	
A	0.99	9.71	2980.96	2944	1.00	0.62	1277	1541	0.78	0.52	
B	1.03	10.62	2980.96	3216	1.00	0.66	1209	1602	0.58	0.30	
C	1.03	9.67	2980.96	2931	1.00	0.62	1367	1614	0.71	0.64	
D	0.99	9.74	2980.96	2952	1.00	0.62	1021	1196	0.73	0.48	
E	0.96	10.32	2980.96	3127	1.00	0.64	1743	1913	0.66	0.41	
F	0.98	9.19	2980.96	2783	1.00	0.60	1938	1909	0.70	0.81	
G	0.99	9.29	2980.96	2815	1.00	0.60	1421	1263	0.72	0.52	
								Q _E	RFC		
								Critical Arm:		A	F
								RFC:		0.78	0.81
										AM	PM
- In accordance with TPDM V2.4											
Calculated by: MYC				Date: Aug-25			Checked by: CFC				

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Mai Po South Road (I)		Ref. No.:	2039R
Scheme: Reference		Ref. No.:	
Year: 2039	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - Mai Po			
ARM B: Mai Po South Road			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
240	(245)
5	(5)

ARM A

AM	(PM)
245	(275)
10	(5)

GEOMETRY					
Major road width	W	6.90	Lane widths	w(b-a)	3.60
Central Reserve width	Wcr	0.00		w(b-c)	3.60
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.30
Visibilities	Vr(b-a)	50	Calculated	D	0.87
	VI(b-a)	30		E	0.93
	Vr(b-c)	50		F	0.91
	Vr(c-b)	50		Y	0.76

ANALYSIS			AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	240	245	
	q(c-b)	5	5	
	q(a-b)	10	5	
	q(a-c)	245	275	
	q(b-a)	0	15	
	q(b-c)	0	10	
	f	0.00	0.40	
CAPACITIES	Q(b-a)	445	437	
	Q(b-c)	630	623	
	Q(c-b)	611	605	
	Q(b-ac)	445	496	
RFC's	b-a	0.000	0.034	
	b-c	0.000	0.016	
	c-b	0.008	0.008	
	b-ac	0.000	0.050	
Worst RFC		0.008	0.050	

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Calculated by: MYC

Date: Aug-25

Checked by: CFC

Capacity of combined streams
- in accordance with TPDM V2.4

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD102			
Junction: Castle Peak Road San Tin / Kwu Tung Road (J)		Ref. No.:	2039R
Scheme: Reference		Ref. No.:	
Year: 2039	Job No.: CHK50800610	Rev.:	-
ARM A: Castle Peak Road - San Tin			
ARM B: Kwu Tung Road			
ARM C: Castle Peak Road - San Tin			

ARM C

AM	(PM)
505	(440)
165	(135)

ARM A

AM	(PM)
240	(220)
125	(65)

Minor ARM B

AM	(PM)
250	75
(325)	(115)

GEOMETRY					
Major road width	W	8.00	Lane widths	w(b-a)	3.60
Central Reserve width	Wcr	0.00		w(b-c)	3.60
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.30
Visibilities	Vr(b-a)	40	Calculated	D	0.86
	VI(b-a)	40		E	0.92
	Vr(b-c)	35		F	0.89
	Vr(c-b)	35		Y	0.72

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	505	440
	q(c-b)	165	135
	q(a-b)	125	65
	q(a-c)	240	220
	q(b-a)	75	115
	q(b-c)	250	325
	f	0.77	0.74
CAPACITIES	Q(b-a)	349	378
	Q(b-c)	615	625
	Q(c-b)	579	598
	Q(b-ac)	523	534
RFC's	b-a	0.215	0.304
	b-c	0.407	0.520
	c-b	0.285	0.226
	b-ac	0.621	0.824
Worst RFC		0.621	0.824

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

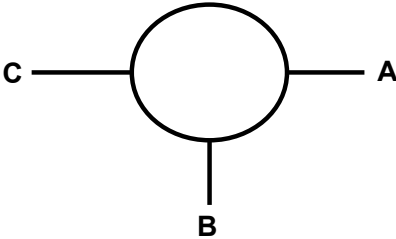
Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

Calculated by: MYC	Date: Sept-25	Checked by: CFC
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Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD102												
Junction: San Tin Interchange (K)					Ref. No.: 2039R							
Scheme: Reference					Ref. No.:							
Year: 2039		Job No.: CHK50800610			Rev.: -							
AM PM ARM A: San Tin Highway Slip Road ARM B: San Sham Road ARM C: Fanling Highway Slip Road												
GEOMETRY												
ARM	v	e	L	r	D	Phi	S					
A	7.70	14.40	75	30	103	40	0.14					
B	8.80	11.70	75	30	103	40	0.06					
C	8.80	12.00	40	100	103	30	0.13					
AM FLOWS												
from \ to	A	B	C				Circ	Entry				
A	1060	655	1315				365	3030				
B	585	0	0				2645	585				
C	645	95	270				1645	1010				
PM FLOWS												
from \ to	A	B	C				Circ	Entry				
A	770	570	870				395	2210				
B	790	0	0				1910	790				
C	580	125	270				1560	975				
CALCULATIONS												
ARM	K	X ₂	M	F	t _D	f _c	Q _E	AM	PM	RFC	AM	PM
A	0.98	12.91	73.70	3912	1.01	0.76		3569	3546	0.85	0.62	
B	0.98	11.38	73.70	3448	1.01	0.69		1587	2086	0.37	0.38	
C	1.04	11.35	73.70	3438	1.01	0.69		2391	2452	0.42	0.40	
										Critical Arm: A A		
										RFC: 0.85 0.62		
										AM PM		
- In accordance with TPDM V2.4												
Calculated by: MYC			Date: Sept-25			Checked by: CFC						

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50800610**

MVA HONG KONG LIMITED

Junction: Shek Wu Wai Road / San Tin Highway Slip Road (A)

Design Year: 2039

Description: Design

Designed By: MYC

Checked By: CFC

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
San Tin highway Slip Road (EB)	→	A	1,2	3.650		12.5		98%	98%	1770	1770	309	0.175		316	0.179	
	↘	A	1,2	3.650		10				1845	1845	321	0.174		329	0.178	
San Tin highway Slip Road (WB)	←	B	1	3.900		10				1865	1865	130	0.070	0.070	120	0.064	0.064
	↙	B	1	3.900		12.5		96%	96%	1800	1800	125	0.069		115	0.064	
Shek Wu Wai Road (SB)	↓	C	2,3	3.500						1965	1965	574	0.292	0.292	557	0.283	
	↔	C	2,3	3.500		15		36%	20%	2030	2065	592	0.292		585	0.283	
	↘	C	2,3	3.500		12.5				1880	1880	549	0.292		533	0.284	0.284
Shek Wu Wai Road (NB)	↑	D	4	3.500						1965	1965	434	0.221		312	0.159	
	↔	D	4	3.500		15		46%	44%	2015	2015	445	0.221		320	0.159	0.159
	↙	D	4	3.500		12.5				1880	1880	416	0.221	0.221	298	0.159	
Shek Wu Wai Road (SB)	↓	E	3	3.500						2105	2105	372	0.177		355	0.169	
	↔	E	3	3.500						2105	2105	371	0.176		354	0.168	
	↘	E	3	3.500						1965	1965	347	0.177		331	0.168	
Shek Wu Wai Road (NB)	↑	F	4	3.500						1965	1965	334	0.170		223	0.113	
	↔	F	4	3.500						2105	2105	358	0.170		238	0.113	
	↙	F	4	3.500						2105	2105	358	0.170		239	0.114	

- In accordance with TPDM V4 - Road Traffic Signals

Formual of Total lost time per cycle

$$L = \sum (I - 1)$$

AM peak

Group: B,C,D

L

$$= (6-1)+(8-1)+(5-1) = 16$$

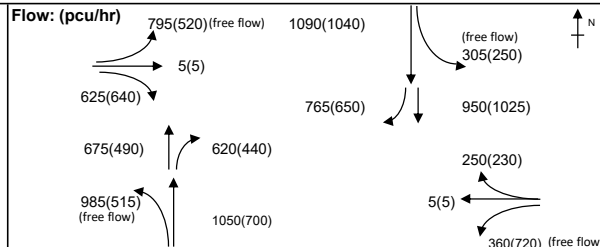
PM peak

Group: B,C,D

L

$$= (7-1)+(5-1)+(5-1) = 16$$

Notes:



Group	A,E,D	B,C,D	Group	A,E,D	B,C,D
y	0.573	0.583	y	0.506	0.507
L (sec)	14	16	L (sec)	14	16
C (sec)	90	90	C (sec)	90	90
y pract.	0.760	0.740	y pract.	0.760	0.740
R.C. (%)	33%	27%	R.C. (%)	50%	46%

Stage / Phase Diagrams

1.	2.	3.	4.	5.
I/G= 5	I/G= 6	I/G=	I/G= 8	I/G=
I/G= 5	I/G= 6	I/G=	I/G= 8	I/G=

Date: AUG, 2025

Junction: Shek Wu Wai Road / San Tin Highway Slip Road (A)

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50800610**

MVA HONG KONG LIMITED

Junction: Shek Wu Wai Road / Road D3 / Road L11 / Road L12 (B)

Design Year: 2039

Description: Design

Designed By: MYC

Checked By: CFC

Approach	Movements	Phase	Stage	Width (m)	Radius (m)		Gradient (%)	Pro. Turning (%)		Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right		AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Road L11 EB	↔	A	1	4.000	15					1830	1830	175	0.096		115	0.063	
	↕	A	1	4.000	17.5	20		0% / 48%	0% / 26%	2080	2115	374	0.180	0.180	330	0.156	
	↔	A	1	4.000		17.5				1985	1985	356	0.179		310	0.156	0.156
Road D2 NB	↕	B	2	3.200	15					1760	1760	333	0.189	0.189	231	0.131	
	↕	B	2	3.200	17.5			36%	78%	2015	1945	381	0.189		256	0.132	0.132
	↕	B	2	3.200						2075	2075	392	0.189		273	0.132	
	↕	B	2	3.200		12.5		65%	74%	1925	1905	364	0.189		250	0.131	
Road L11 WB	↔	C	3	3.300	12.5					1735	1735	145	0.084		110	0.063	
	↕	C	3	3.300	15			81%	43%	1930	2000	161	0.083		128	0.064	0.064
	↔	C	3	3.300		20		3%	4%	2080	2080	174	0.084	0.084	132	0.063	
Road D3 SB	↕	D	4	4.000	12.5			2%	1%	2010	2010	259	0.129		355	0.177	
	↕	D	4	4.000						2155	2155	278	0.129		380	0.176	
	↕	D	4	4.000		20		78%	100%	2035	2005	263	0.129	0.129	440	0.219	0.219
- In accordance with TPDM V4 - Road Traffic Signals Formual of Total lost time per cycle $L = \sum (I - 1)$ AM peak Group: A,B,C,D $L = (6-1)+(6-1)+(7-1)+(7-1) = 22$ PM peak Group: A,B,C,D $L = (6-1)+(6-1)+(7-1)+(7-1) = 22$																	

Notes:	Flow: (pcu/hr)	Group	A,B,C,D	Group	A,B,C,D
		y	0.582	y	0.571
		L (sec)	22	L (sec)	22
		C (sec)	105	C (sec)	105
		y pract.	0.711	y pract.	0.711
		R.C. (%)	22%	R.C. (%)	25%

Stage / Phase Diagrams																			
1.				2.				3.				4.				5.			
																			
I/G= 6				I/G= 6				I/G= 7				I/G= 7				I/G=			
I/G= 6				I/G= 6				I/G= 7				I/G= 7				I/G=			

Date: **SEPT, 2025** Junction: **Shek Wu Wai Road / Road D3 / Road L11 / Road L12 (B)** **(B)**

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / San Tam Road (C)		Ref. No.:	2039D
Scheme: Design		Ref. No.:	
Year: 2039	Job No.:	CHK50800610	Rev.: -
ARM A: Castle Peak Road - Mai Po			
ARM B: San Tam Road			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
595	(430)
10	(15)

ARM A

AM	(PM)
430	(440)
135	(150)

Minor ARM B

AM	(PM)
25	225
(15)	(120)

GEOMETRY					
Major road width	W	7.40	Lane widths	w(b-a)	3.20
Central Reserve width	Wcr	0.00		w(b-c)	3.20
2 Lane Minor Arm (Y/N)		N		w(c-b)	4.10
Visibilities	Vr(b-a)	50	Calculated	D	0.85
	VI(b-a)	70		E	0.90
	Vr(b-c)	50		F	0.98
	Vr(c-b)	50		Y	0.74

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a) q(c-b) q(a-b) q(a-c) q(b-a) q(b-c) f	595 10 135 430 225 25 0.10	430 15 150 440 120 15 0.11
CAPACITIES	Q(b-a) Q(b-c) Q(c-b) Q(b-ac)	334 551 578 348	352 547 571 367
RFC's	b-a b-c c-b b-ac	0.674 0.045 0.017 0.718	0.341 0.027 0.026 0.368
Worst RFC		0.718	0.368

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Calculated by: MYC

Date: Sept-25

Checked by: CFC

Capacity of combined streams
- in accordance with TPDM V2.4

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Palm Springs Boulevard (D)		Ref. No.:	2039D
Scheme: Design		Ref. No.:	
Year: 2039	Job No.:	CHK50800610	Rev.: -
ARM A: Castle Peak Road - Mai Po			
ARM B: Palm Springs Boulevard			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
350	(280)
10	(30)

ARM A

AM	(PM)
300	(305)
155	(215)

Minor ARM B

AM	(PM)
25	(50)
235	(170)

GEOMETRY					
Major road width	W	7.00	Lane widths	w(b-a)	4.00
Central Reserve width	Wcr	0.00		w(b-c)	4.00
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.00
Visibilities	Vr(b-a)	30	Calculated	D	0.88
	VI(b-a)	30		E	0.95
	Vr(b-c)	30		F	0.86
	Vr(c-b)	30		Y	0.76

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	350	280
	q(c-b)	10	30
	q(a-b)	155	215
	q(a-c)	300	305
	q(b-a)	235	170
	q(b-c)	25	50
	f	0.10	0.23
	CAPACITIES	Q(b-a)	407
Q(b-c)		612	605
Q(c-b)		534	519
Q(b-ac)		421	437
RFC's		b-a	0.577
	b-c	0.041	0.083
	c-b	0.019	0.058
	b-ac	0.618	0.503
	Worst RFC	0.618	0.503

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Geranium Path (E)		Ref. No.:	2039D
Scheme: Design		Ref. No.:	
Year: 2039	Job No.:	CHK50800610	Rev.: -
ARM A: Castle Peak Road - Mai Po			
ARM B: Geranium Path			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
580	(445)
5	(5)

ARM A

AM	(PM)
450	(515)
5	(5)

Minor ARM B

AM	(PM)
5	(5)
5	(5)

GEOMETRY					
Major road width	W	7.00	Lane widths	w(b-a)	3.00
Central Reserve width	Wcr	0.00		w(b-c)	3.00
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.60
Visibilities	Vr(b-a)	50	Calculated	D	0.82
	VI(b-a)	30		E	0.88
	Vr(b-c)	50		F	0.93
	Vr(c-b)	50		Y	0.76

ANALYSIS			AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)		580	445
	q(c-b)		5	5
	q(a-b)		5	5
	q(a-c)		450	515
	q(b-a)		5	5
	q(b-c)		5	5
	f		0.50	0.50
CAPACITIES	Q(b-a)	Factor 1	326	331
	Q(b-c)	1	546	530
	Q(c-b)	1	578	561
	Q(b-ac)	1	408	407
RFC's	b-a		0.015	0.015
	b-c		0.009	0.009
	c-b		0.009	0.009
	b-ac		0.025	0.025
Worst RFC			0.025	0.025

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Tam Mi / Yau Pok Road (F)		Ref. No.:	2039D
Scheme: Design		Ref. No.:	
Year: 2039	Job No.:	CHK50800610	Rev.: -
ARM A: Castle Peak Road - Tam Mi			
ARM B: Yau Pok Road			
ARM C: Castle Peak Road - Tam Mi			

ARM C

AM	(PM)
585	(450)
0	(0)

ARM A

AM	(PM)
435	(500)
0	(0)

Minor ARM B

AM	(PM)
20	(20)
(20)	(20)

GEOMETRY			
Major road width	W	6.50	Lane widths
Central Reserve width	Wcr	0.00	w(b-a)
2 Lane Minor Arm (Y/N)		N	w(b-c)
Visibilities	Vr(b-a)	16	w(c-b)
	VI(b-a)	31	Calculated
	Vr(b-c)	16	D
	Vr(c-b)	0	E
			F
			Y

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	585	450
	q(c-b)	0	0
	q(a-b)	0	0
	q(a-c)	435	500
	q(b-a)	20	20
	q(b-c)	20	20
	f	0.50	0.50
	CAPACITIES	Q(b-a)	281
Q(b-c)		470	456
Q(c-b)		365	354
Q(b-ac)		352	351
RFC's		b-a	0.071
	b-c	0.043	0.044
	c-b	0.000	0.000
	b-ac	0.114	0.114
	Worst RFC	0.114	0.114

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Tam Mi / Kam Pok Road (G)		Ref. No.:	2039D
Scheme: Design		Ref. No.:	
Year: 2039	Job No.:	CHK50800610	Rev.: -
ARM A: Castle Peak Road - Tam Mi			
ARM B: Kam Pok Road			
ARM C: Castle Peak Road - Tam Mi			

ARM C

AM	(PM)
485	(385)
115	(90)

ARM A

AM	(PM)
345	(415)
170	(160)

Minor ARM B

AM	(PM)
90	190
(80)	(110)

GEOMETRY					
Major road width	W	7.00	Lane widths	w(b-a)	3.50
Central Reserve width	Wcr	0.00		w(b-c)	3.50
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.50
Visibilities	Vr(b-a)	50	Calculated	D	0.86
	VI(b-a)	35		E	0.92
	Vr(b-c)	50		F	0.92
	Vr(c-b)	50		Y	0.76

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	485	385
	q(c-b)	115	90
	q(a-b)	170	160
	q(a-c)	345	415
	q(b-a)	190	110
	q(b-c)	90	80
	f	0.32	0.42
	CAPACITIES	Q(b-a)	330
Q(b-c)		583	566
Q(c-b)		557	542
Q(b-ac)		384	407
RFC's		b-a	0.576
	b-c	0.154	0.141
	c-b	0.206	0.166
	b-ac	0.729	0.467
	Worst RFC	0.729	0.467

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$

$E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$

$F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$

$Y = 1 - 0.0345W$

f = proportion of minor traffic turning left

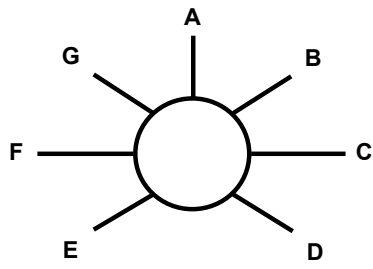
$Q(b-ac) = Q(b-c) * Q(b-a) / ((1-f) * Q(b-c) + f * Q(b-a))$

T.P.D.M.V.2.4
Appendix 1

Capacity of combined streams
- in accordance with TPDM V2.4

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101											
Junction: Fairview Park Interchange (H)								Ref. No.: 2039D			
Scheme: Design (Under Improvement 2)								Ref. No.:			
Year: 2039				Job No.: CHK50800610				Rev.: -			
AM		PM									
ARM A:		Fairview Park Boulevard									
ARM B:		Castle Peak Rd E									
ARM C:		NTCR E									
ARM D:		San Tam Rd E									
ARM E:		San Tam Rd W									
ARM F:		NTCR W									
ARM G:		Castle Peak Rd W									
GEOMETRY											
ARM	v	e	L	r	D	Phi	S				
A	7.00	11.80	20	25	140	35	0.38				
B	7.30	12.00	36	30	140	25	0.21				
C	7.30	13.00	13	45	140	30	0.70				
D	7.30	11.00	23	25	140	35	0.26				
E	7.30	12.00	27	25	140	45	0.28				
F	6.00	12.50	20	25	140	40	0.52				
G	6.50	11.20	22	25	140	35	0.34				
AM FLOWS											
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit	
A	10	20	205	40	225	470	30	2750	1000	655	
B	10	10	145	10	245	375	30	3120	825	630	
C	90	70	10	100	470	10	215	2715	965	1230	
D	65	20	45	10	260	260	95	3225	755	455	
E	40	35	455	65	10	520	20	2150	1145	1830	
F	330	320	10	150	610	10	0	1335	1430	1960	
G	110	155	360	80	10	315	0	2375	1030	390	
PM FLOWS											
from \ to	A	B	C	D	E	F	G	Circ	Entry	Exit	
A	10	10	165	50	205	335	30	2325	805	980	
B	35	10	90	10	165	185	30	2540	525	590	
C	185	125	20	80	410	20	200	2255	1040	810	
D	70	20	55	20	200	145	65	2870	575	425	
E	95	30	275	70	10	285	20	1805	785	1640	
F	495	300	10	145	640	20	0	1385	1610	1205	
G	90	95	195	50	10	215	10	2640	665	355	
CALCULATIONS											
ARM	K	X ₂	M	F	t _D	f _c	AM	PM	AM	PM	
A	0.99	9.71	2980.96	2944	1.00	0.62	1234	1495	0.81	0.54	
B	1.03	10.62	2980.96	3216	1.00	0.66	1209	1602	0.68	0.33	
C	1.03	9.67	2980.96	2931	1.00	0.62	1291	1583	0.75	0.66	
D	0.99	9.74	2980.96	2952	1.00	0.62	948	1166	0.80	0.49	
E	0.96	10.32	2980.96	3127	1.00	0.64	1669	1882	0.69	0.42	
F	0.98	9.19	2980.96	2783	1.00	0.60	1938	1909	0.74	0.84	
G	0.99	9.29	2980.96	2815	1.00	0.60	1379	1221	0.75	0.54	
									Critical Arm:	A	F
									RFC:	0.81	0.84
- In accordance with TPDM V2.4									AM	PM	
Calculated by: MYC				Date: Aug-25			Checked by: CFC				

Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Mai Po South Road (I)		Ref. No.:	2039D
Scheme: Design		Ref. No.:	
Year: 2039	Job No.:	CHK50800610	Rev.: -
ARM A: Castle Peak Road - Mai Po			
ARM B: Mai Po South Road			
ARM C: Castle Peak Road - Mai Po			

Diagram Data:

Direction	AM	PM
ARM C (Left)	240	245
ARM C (Left)	180	180
Minor ARM B (Bottom)	270	120
Minor ARM B (Bottom)	(150)	(65)
ARM A (Right)	245	280
ARM A (Right)	80	75

GEOMETRY			
Major road width	W	6.90	Lane widths
Central Reserve width	Wcr	0.00	w(b-a)
2 Lane Minor Arm (Y/N)		N	w(b-c)
			w(c-b)
Visibilities	Vr(b-a)	50	Calculated
	VI(b-a)	30	D
	Vr(b-c)	50	E
	Vr(c-b)	50	F
			Y

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	240	245
	q(c-b)	180	180
	q(a-b)	80	75
	q(a-c)	245	280
	q(b-a)	120	65
	q(b-c)	270	150
	f	0.69	0.70
	CAPACITIES	Q(b-a)	378
Q(b-c)		623	615
Q(c-b)		593	586
Q(b-ac)		520	512
RFC's		b-a	0.317
	b-c	0.433	0.244
	c-b	0.304	0.307
	b-ac	0.750	0.420
	Worst RFC	0.750	0.420

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

Calculated by: MYC	Date: Aug-25	Checked by: CFC
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Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD103			
Junction: Castle Peak Road San Tin / Kwu Tung Road (J)			Ref. No.: 2039D
Scheme: Design			Ref. No.:
Year: 2039	Job No.: CHK50800610		Rev.: -
ARM A: Castle Peak Road - San Tin			
ARM B: Kwu Tung Road			
ARM C: Castle Peak Road - San Tin			

ARM C

AM	(PM)
505	(445)
165	(135)

ARM A

AM	(PM)
245	(220)
125	(65)

Minor ARM B

AM	(PM)
250	80
(325)	(120)

GEOMETRY			
Major road width	W	8.00	Lane widths
Central Reserve width	Wcr	0.00	w(b-a)
2 Lane Minor Arm (Y/N)		N	w(b-c)
Visibilities	Vr(b-a)	40	w(c-b)
	VI(b-a)	40	Calculated
	Vr(b-c)	35	D
	Vr(c-b)	35	E
			F
			Y

ANALYSIS		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	505	445
	q(c-b)	165	135
	q(a-b)	125	65
	q(a-c)	245	220
	q(b-a)	80	120
	q(b-c)	250	325
	f	0.76	0.73
	CAPACITIES	Q(b-a)	348
Q(b-c)		613	625
Q(c-b)		578	598
Q(b-ac)		518	532
RFC's		b-a	0.230
	b-c	0.408	0.520
	c-b	0.285	0.226
	b-ac	0.637	0.836
	Worst RFC	0.637	0.836

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

Y = 1-0.0345W

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$

T.P.D.M.V.2.4

Appendix 1

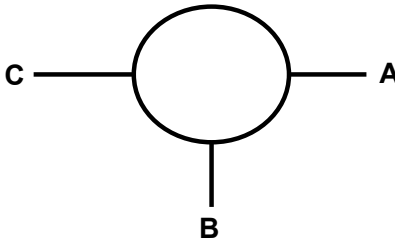
Calculated by: MYC

Date: Sept-25

Checked by: CFC

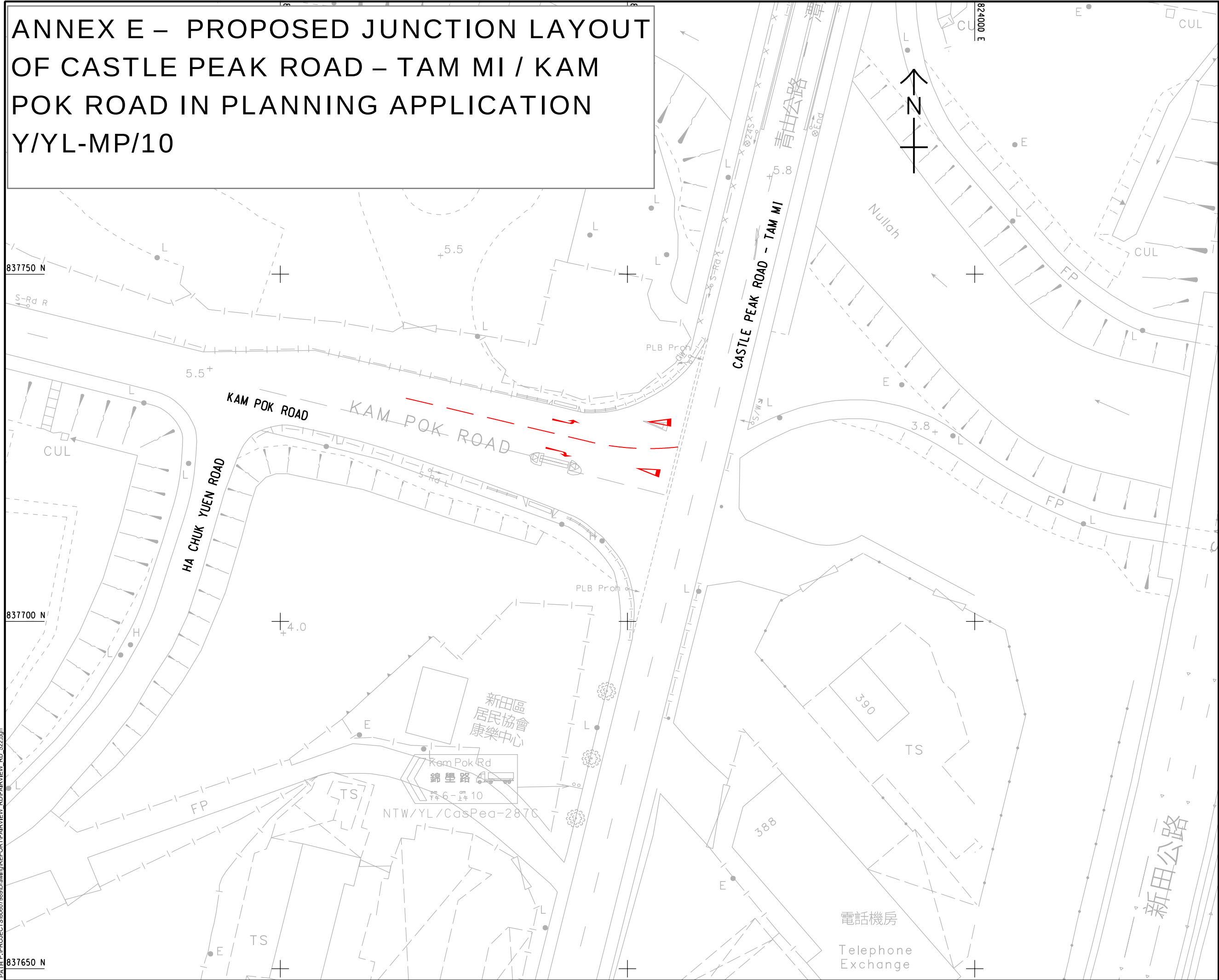
Capacity of combined streams
- in accordance with TPDM V2.4

Roundabout Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD103									
Junction: San Tin Interchange (K)							Ref. No.: 2039D		
Scheme: Design							Ref. No.:		
Year: 2039			Job No.: CHK50800610				Rev.: -		
AM		PM							
ARM A:		San Tin Highway Slip Road							
ARM B:		San Sham Road							
ARM C:		Fanling Highway Slip Road							
									
GEOMETRY									
ARM	v	e	L	r	D	Phi	S		
A	7.70	14.40	75	30	103	40	0.14		
B	8.80	11.70	75	30	103	40	0.06		
C	8.80	12.00	40	100	103	30	0.13		
AM FLOWS									
from \ to	A	B	C				Circ	Entry	
A	1060	655	1315				365	3030	
B	585	0	0				2645	585	
C	645	95	270				1645	1010	
PM FLOWS									
from \ to	A	B	C				Circ	Entry	
A	770	570	870				395	2210	
B	790	0	0				1910	790	
C	580	125	270				1560	975	
CALCULATIONS									
ARM	K	X ₂	M	F	t _D	f _c	AM	PM	RFC
A	0.98	12.91	73.70	3912	1.01	0.76	3569	3546	0.85
B	0.98	11.38	73.70	3448	1.01	0.69	1587	2086	0.37
C	1.04	11.35	73.70	3438	1.01	0.69	2391	2452	0.42
							Q _E		
									RFC
									AM
									PM
							Critical Arm:	A	A
							RFC:	0.85	0.62
								AM	PM
- In accordance with TPDM V2.4									
Calculated by: MYC			Date: Sept-25			Checked by: CFC			

**ANNEX E –
PROPOSED JUNCTION LAYOUT
OF CASTLE PEAK ROAD – TAM MI /
KAM POK ROAD IN
PLANNING APPLICATION
Y/YL-MP/10**

ANNEX E – PROPOSED JUNCTION LAYOUT
OF CASTLE PEAK ROAD – TAM MI / KAM
POK ROAD IN PLANNING APPLICATION
Y/YL-MP/10

**AECOM**

PROJECT 項目

S.12A PLANNING
APPLICATION FOR
REZONING VARIOUS LOTS
& ADJACENT G.L. IN
DD 104, "R(D)" SITE,
KAM TIN, YUEN LONG

CLIENT
業主

CONSULTANT

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

分判工程顧問公司

ISSUE/REVISION

修

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK 被檢
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STATUS

R5

SCALE

比例

DIMENSION UNIT

尺寸單位

KEY PLAN

✱

PROJECT NO.

60607989

SHEET TITLE
(100,000, 4 x 60)

圖紙名稱

PROPOSED IMPROVEMENT LAYOUT
FOR CASTLE PEAK ROAD - TAM MI/
KAM POK ROAD (J2)

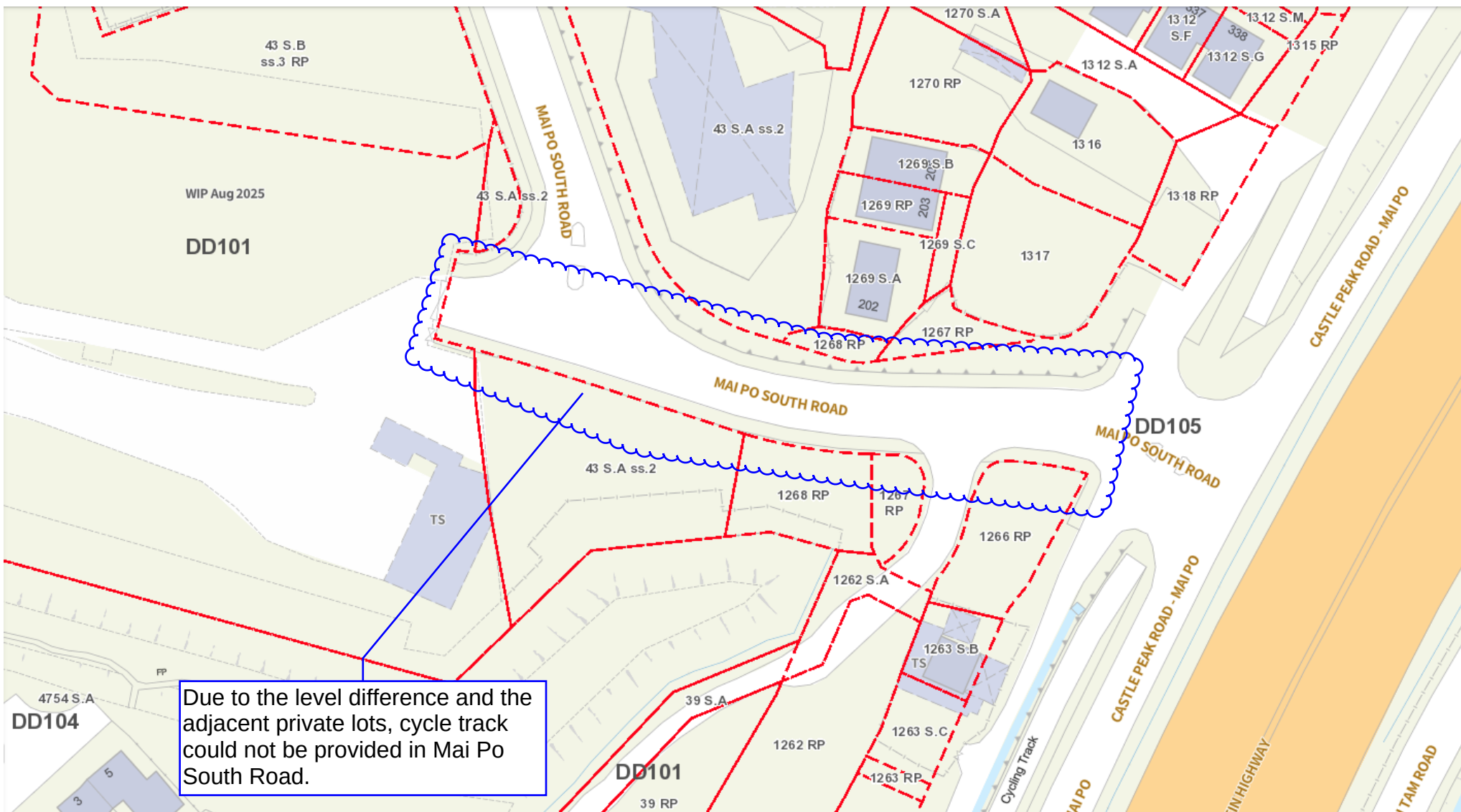
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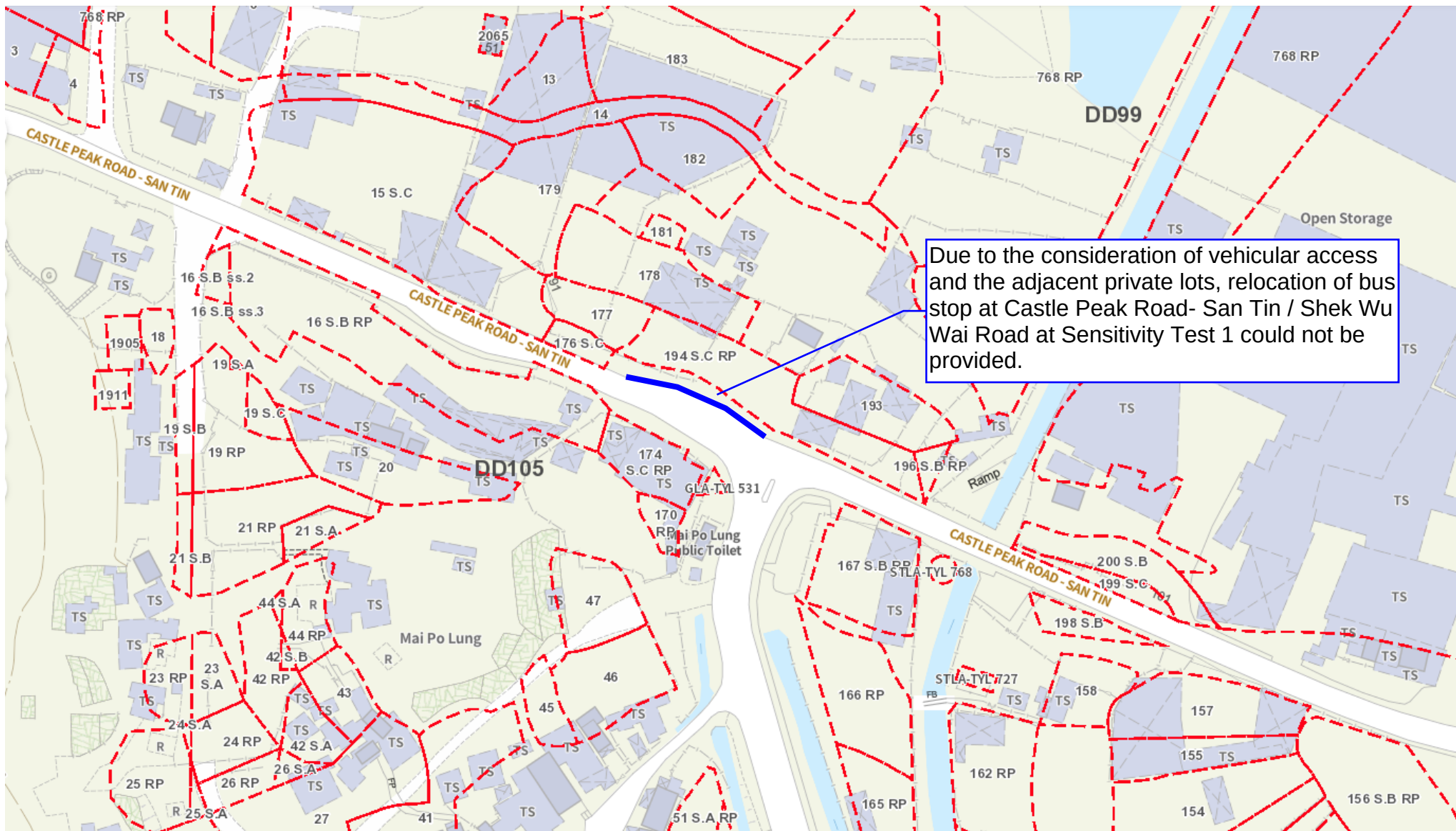
SHEET NUMBER
(001 OF 60441)

固紙編貼

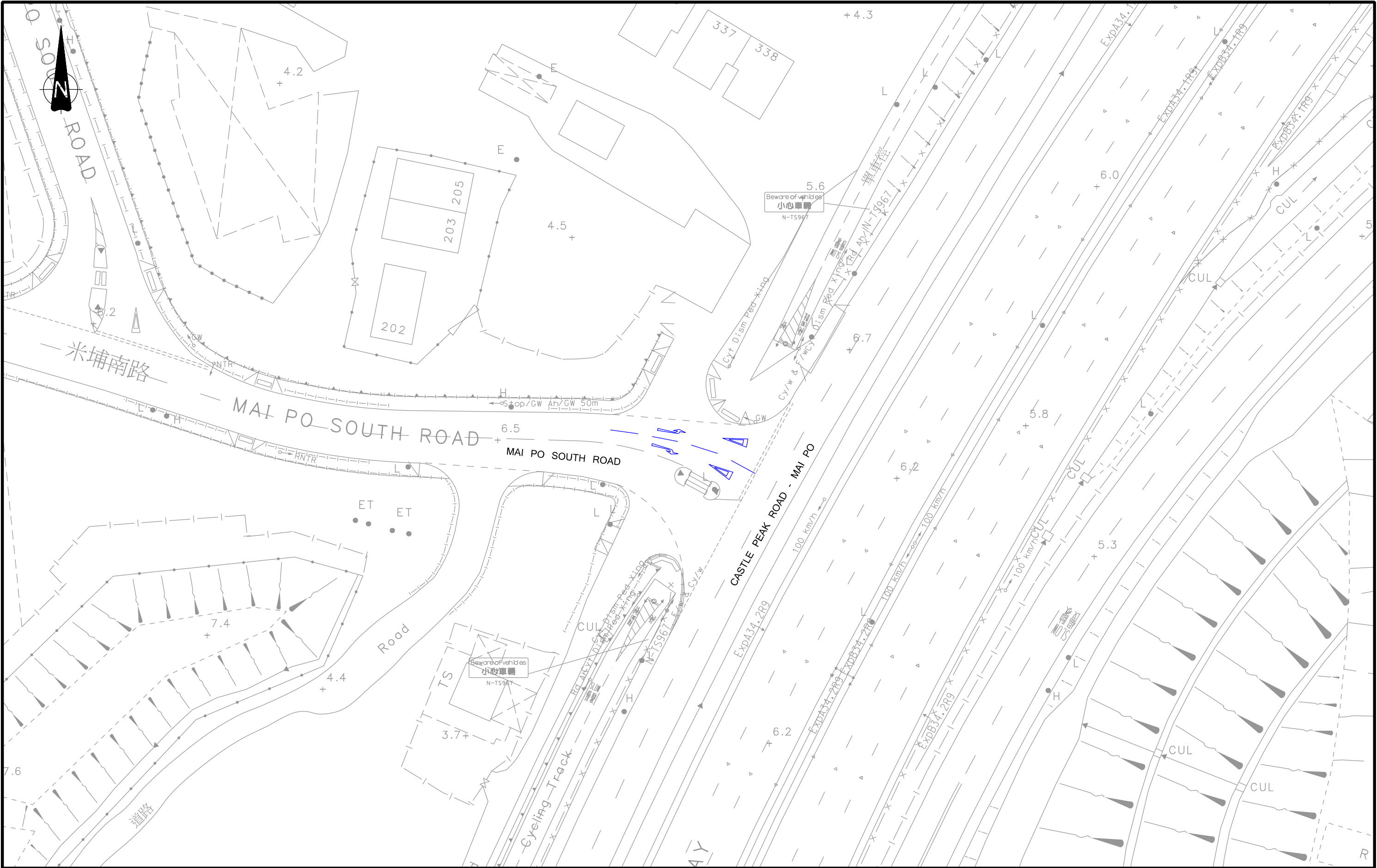
FIGURE 4.8

ANNEX F – SCREEN CAPTURE FROM GEOINFO MAP





ANNEX G – INDICATIVE JUNCTION IMPROVEMENT LAYOUT OF JUNCTION I



-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
Rev.	Description	Checked	Date

Project Title
PROPOSED COMPREHENSIVE DEVELOPMENT AT WO SHANG WAI, YUEN LONG, LOTS 77 AND 50 S.A IN DD101

Drawing Title				
INDICATIVE JUNCTION IMPROVEMENT OF CASTLE PEAK ROAD - MAI PO / MAI PO SOUTH ROAD (I)				
Designed MYC	Checked CFC	Scale 1:500(A3)	Date JUN 2024	Drawing No. 1
				Rev. -



Priority Junction Capacity Calculation

Job Title: Proposed Residential Development at Wo Shang Wai, Mai Po, Yuen Long, Lots 77 and 50 S.A in DD101			
Junction: Castle Peak Road Mai Po / Mai Po South Road (I)			Ref. No.: 2034D
Scheme: Design			Ref. No.:
Year: 2034	Job No.: CHK50800610		Rev.: -
ARM A: Castle Peak Road - Mai Po			
ARM B: Mai Po South Road			
ARM C: Castle Peak Road - Mai Po			

ARM C

AM	(PM)
235	(240)
180	(180)

ARM A

AM	(PM)
240	(275)
80	(75)

Minor ARM B

AM	(PM)
270	120
(150)	(65)

GEOMETRY					
Major road width	W	6.90	Lane widths	w(b-a)	3.60
Central Reserve width	Wcr	0.00		w(b-c)	3.60
2 Lane Minor Arm (Y/N)		Y		w(c-b)	3.30
Visibilities	Vr(b-a)	50	Calculated	D	0.87
	VI(b-a)	30		E	0.93
	Vr(b-c)	50		F	0.91
	Vr(c-b)	50		Y	0.76

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	235	240
	q(c-b)	180	180
	q(a-b)	80	75
	q(a-c)	240	275
	q(b-a)	120	65
	q(b-c)	270	150
	f	0.69	0.70
CAPACITIES	Q(b-a)	380	372
	Q(b-c)	625	616
	Q(c-b)	595	587
	Q(b-ac)	521	514
RFC's	b-a	0.316	0.175
	b-c	0.432	0.244
	c-b	0.303	0.307
	b-ac	0.000	0.000
Worst RFC		0.432	0.307

Where VI and Vr are visibility distances to the left or right of the respective streams

$D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$

$E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$

$F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$

$Y = 1 - 0.0345W$

f = proportion of minor traffic turning left

$Q(b-ac) = Q(b-c) * Q(b-a) / ((1-f) * Q(b-c) + f * Q(b-a))$

Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

Calculated by: MYC	Date: Sept-25	Checked by: CFC
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