Proposed Residential Development with Minor Relaxation of Plot Ratio, Building Height and Site Coverage Restrictions at 44 Stanley Village Road in Stanley

- S16 Planning Application (TPB Ref.: A/H19/87) -

REVISED TRAFFIC IMPACT ASSESSMENT

Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong

Revised TIA Report

November 2024

CTA Consultants Limited
志達顧問有限公司

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1. INTRODUCTION

1.1 Background

1.1.1 CTA Consultants Limited was commissioned as the traffic consultant to prepare a Traffic Impact Assessment (TIA) study for Proposed Residential Development at 44 Stanley Village Road, Hong Kong (hereafter called "proposed development"). The proposed development is bounded by Stanley Knoll Block to the north, to the east and to the west, and Carmel Hill to the southeast as shown in **Figure 1.1**.

1.2 Study Objectives

1.2.1 The main objectives of this study are as follows:

- To assess the existing traffic conditions in the vicinity of the proposed development;
- To forecast traffic demands on the adjacent road network in the design year 2031;
- To estimate the likely traffic generated by the proposed development;
- To assess the impacts of traffic generated by the proposed development on the adjacent road network; and
- To recommend improvement measures, if necessary, to alleviate any traffic problems on the road network.

2. THE PROPOSED DEVELOPMENT

2.1 Site Location

2.1.1 The proposed development is located at Proposed Residential Development at 44 Stanley Village Road, Hong Kong which is is bounded by Stanley Knoll Block to the north, to the east and to the west, and Carmel Hill to the southeast as shown in **Figure 1.1**.

2.2 Proposed Development

2.1.2 The development schedule for the proposed development is summarized in **Table 2.1**.

Table 2.1 Development Parameters of the Proposed Development

Site Location	**44 Stanley Village Road, Hong Kong**		
Proposed Use	Residential Development		
Site Area	~7,646m^2		
	Lower Deck	Upper Deck	**Total**
Total GFA	~2,668 m^2	~4,213 m^2	**~6,881 m^2**
No. of Blocks	1	1	**2**
Number of Units	11	12	**23**
Average Flat Size	~237 m^2	~272 m^2	**-**

2.2.1 It is anticipated that the proposed development will be completed by 2028 tentatively. Therefore, design year 2031 (i.e. 3 years after the planned commencement year of the proposed development) is adopted for the Traffic Impact Assessment.

2.3 Vehicular Access

2.3.1 The existing vehicular access will be adopted for the proposed development. Location of the vehicular access is shown diagrammatically in **Figure 2.1**. Swept path analysis demonstrates it is feasible to maneuver LGV in/out the proposed vehicular access is shown in **Figure SP-01**.

2.4 Internal Transport Facilities Provision

2.4.1 According to the requirements as stipulated under the latest Hong Kong Planning Standards and Guidelines (HKPSG), the proposed development shall provide the following internal transport facilities as summarized in **Table 2.2**.

Table 2.2 Proposed Parking Provision

<table>
<tr><th colspan="2">Development Parameters</th><th colspan="8">Parking Requirement</th><th colspan="2">Loading/Unloading Requirement</th></tr>
<tr><td colspan="12">Required</td></tr>
<tr><td rowspan="5">Average Flat Size (m^2)</td><td rowspan="5">No. of Flats</td><td colspan="8">Private Car Parking Space</td><td colspan="2" rowspan="5">L/UL for Goods Vehicles</td></tr>
<tr><td colspan="6">Residents</td><td colspan="2">Visitors</td></tr>
<tr><td colspan="6">5m x 2.5m</td><td colspan="2"></td></tr>
<tr><td>GPS 1 car space per 4-7 flats</td><td>R1</td><td>R2</td><td>R3</td><td>GPS x R1 x R2 x R3(1)</td><td colspan="2">For private residential developments with 75 units or less per block, the visitor car parking provision will be determined by TD on a case-by-case basis.</td></tr>
<tr><td colspan="12"></td></tr>
<tr><td colspan="12">Lower Deck: 11 nos. of units</td></tr>
<tr><td rowspan="5">>160</td><td rowspan="5">11</td><td>4-7</td><td>7.0</td><td>1.0</td><td>1.3</td><td>15 to 25</td><td colspan="2">-</td><td rowspan="5">1 per 800 flats or part thereof, subject to a minimum of 1 bay for each housing block</td><td rowspan="5">1</td></tr>
<tr><td>-</td><td>-</td><td>-</td><td>-</td><td colspan="3">15 to 25</td></tr>
<tr><td colspan="7">Motorcycle Parking Space</td></tr>
<tr><td colspan="7">2.4m x 1m</td></tr>
<tr><td colspan="3">1 per 100-150 flats</td><td colspan="4">-</td></tr>
<tr><td colspan="12">Upper Deck: 12 nos. of units</td></tr>
<tr><td rowspan="3">>160</td><td rowspan="3">12</td><td>4-7</td><td>7.0</td><td>1.0</td><td>1.3</td><td>16 to 28</td><td colspan="2">-</td><td rowspan="3">1 per 800 flats or part thereof, subject to a minimum of 1</td><td rowspan="3">1</td></tr>
<tr><td>-</td><td>-</td><td>-</td><td>-</td><td colspan="3">16 to 28</td></tr>
<tr><td colspan="7">Motorcycle Parking Space</td></tr>
</table>

Development Parameters		Parking Requirement		Loading/Unloading Requirement	
		2.4m x 1m		bay for each housing block	
		1 per 100-150 flats	-		
Total (Lower Deck + Upper Deck): 23 nos. of units					
Total Required		**Private Car Parking Space**		**L/UL for Goods Vehicles**	
		Residents	**Visitors**		
		5m x 2.5m		**LGV: 7m x 3.5m**	
		31 to 53	-	2	
		31 to 53			
		Motorcycle Parking Space			
		2.4m x 1m			
		-			
Total Proposed		**Private Car Parking Space**		**L/UL for Goods Vehicles**	
		Residents	**Visitors**		
		5m x 2.5m		**LGV: 7m x 3.5m**	
		53	2	2	
		55			
		Motorcycle Parking Space			
		2.4m x 1m			
		1			

Notes:
(1) Including 1 accessible car parking space for 1-50 car parking spaces.
(2) GPS = Global Parking Standard; R1 = Demand Adjustment Ratio; R2 = Accessibility Adjustment Ratio; R3 = Development Intensity Adjustment Ratio.

2.4.2 Carpark layout plan for Upper Deck G/F, Upper Deck LG/F and Lower Deck 3/F and Lower Deck LG/F of the proposed development are presented in **Figure 2.1** to **Figure 2.3 (Rev A)** respectively. Swept path analysis demonstrates it is feasible to maneuver private car for parking space, the loading/unloading bay on G/F and the entrance of ramp to carpark from "Right of Way" access road are shown in **Figure SP-01** to **Figure SP-03**.

2.4.3 Sightline assessments for proposed vehicular access connecting "Right of Way" to Stanley Village Road, the run in/out of the site at the "Right of Way" access road, and the run in/out of ramp to carpark on G/F level are shown in **Figure 2.4** to **Figure 2.6**.

2.5 Public Transport Services in the Vicinity

2.5.1 Numerous road-based public transport services are provided in vicinity of the proposed development. Details of the current services of franchised buses and GMB routes within 500 meters catchment area are listed in **Table 2.3**.

Table 2.3 Road-Based Public Transport Services in the Vicinity

Service	Route	Origin - Destination	Headway (mins)
Franchised Bus	6	Central (Exchange Square) - Stanley Village	12-20
	6A	Shau Kei Wan - Stanley Fort (Gate)	From Shau Kei Wan: 5 dep(1)
	6X	Central (Exchange Square) - Stanley Village	20-25
	14	Grand Promenade - Stanley Fort (Gate)	20
	63	North Point Ferry Pier - Stanley Market	30
	65	North Point Ferry Pier - Stanley Market	12-20(2)
	66	Central (Exchange Square) - Stanley Plaza	20-30(1)
	73	Cyberport - Stanley Market	20
	260	Central (Exchange Square) - Stanley Plaza	15-20
	973	Tsim Sha Tsui - Stanley Market	30
GMB	16A	Chai Wan Station - Chung Hom Kok (Cheshire Home)	From Chai Wan Station: 5 dep From Chung Hom Kok (Cheshire Home): 6 dep
	16M	Chai Wan Station - Chung Hom Kok	15
	16X	Chai Wan Station - Stanley Beach Road	15
	40	Causeway Bay - Stanley Village	10-20
	40X	Causeway Bay - Stanley (Stanley Prison)	3-9
	52	Aberdeen (Shek Pai Wan) - Stanley Prison	5-12

Notes:
(1) Monday to Friday.
(2) Sunday and public holidays.

2.5.2 It is revealed that the proposed development is well-served by the comprehensive public transport services in the vicinity.

2.6 Public Guided Tour Traffic Arrangement Plan

2.6.1 Guided tours will be provided 12 times per year during non-peak hours (weekday and/or weekend to be determined at later stage). The target number of visitors is 25 visitors per tour.

2.6.2 Visitors will only be allowed to join the public guided tour via booking. Visitors will not be allowed to join with their private vehicles, i.e. visitor parking is not allowed.

2.6.3 It is anticipated that visitors will access the proposed development using public transport to Stanley Plaza and will then take 28-seater coach provided by the Applicant to/from the proposed development.

2.6.4 There will be 1 veh/day/bound for days with the guided tour. The proposed routing of 28-seater coach serving the guided tours between the proposed development and Stanley Plaza is shown in **Figure 2.7**. Swept path analysis demonstrates it is feasible to maneuver 28-seater coach serving the guided tours is shown in **Figure SP-04**.

3. THE EXISTING TRAFFIC CONDITIONS

3.1 Critical Junctions

3.1.1 As shown in **Figure 3.1**, 6 junctions were identified to be critical for assessment of traffic impact due to the proposed development. They are listed in below **Table 3.1** and their existing junction layout arrangements are shown in **Figure 3.2** to **Figure 3.7** respectively.

Table 3.1 Identified Critical Junction

Ref.	Junction	Method of Control	Figure No.
A	Tai Tam Road / Stanley Gap Road / Stanley Village Road	Roundabout	3.2
B	Stanley Village Road / Stanley Beach Road	Priority	3.3
C	Stanley Village Road / Stanley Mound Road	Priority	3.4
D	Stanley Village Road / Access Road	Priority	3.5
E	Stanley Gap Road / Chung Hom Kok Road	Priority	3.6
F	Stanley Village Road / Stanley Beach Road / Stanley New Street	Priority	3.7

3.1.2 In order to establish the existing traffic condition in the above-mentioned critical junctions, traffic survey in the form of manual classified count was conducted during AM and PM peak periods during 7:00am to 9:00am and 5:00pm to 7:00pm on a typical weekday on 14 June 2024, and during AM and PM peak periods during 8:30am to 6:30pm on a typical Sunday on 7 July 2024.

3.1.3 Analysis of the observed traffic data indicates that the weekday AM and PM peak hour flows occurred from 7:15am to 8:15am and 5:30pm to 6:30pm respectively, and Sunday AM and PM peak hour flows occurred from 9:00am to 10:00am and 4pm to 5pm respectively. The existing traffic flows for weekday and Sunday are presented in **Figure 3.8 (Rev A)** and **Figure 3.9 (Rev A)** respectively.

3.1.4 Existing performance of the identified critical junction are assessed. The results are for weekday and Sunday are summarized in **Table 3.2** and **Table 3.3** respectively, and the junction calculation sheets are attached in **Appendix A**.

Table 3.2 Operational Performance of Identified Critical Junctions in 2024 - Weekday

Ref.	Junction	Method of Control	Year 2024 DFC (1)	
			Weekday AM Peak	Weekday PM Peak
A	Tai Tam Road / Stanley Gap Road / Stanley Village Road	Roundabout	0.57	0.58
B	Stanley Village Road / Stanley Beach Road	Priority	0.27	0.25
C	Stanley Village Road / Stanley Mound Road	Priority	0.26	0.26
D	Stanley Village Road / Access Road	Priority	0.25	0.14
E	Stanley Gap Road / Chung Hom Kok Road	Priority	0.51	0.59
F	Stanley Village Road / Stanley Beach Road / Stanley New Street	Priority	0.59	0.61

Note: (1) DFC = Design Flow/Capacity ratio for Priority Junction

Table 3.3 Operational Performance of Identified Critical Junctions in 2024 – Sunday

Ref.	Junction	Method of Control	Year 2024 DFC (1)	
			Sunday AM Peak	Sunday PM Peak
A	Tai Tam Road / Stanley Gap Road / Stanley Village Road	Roundabout	0.49	0.65
B	Stanley Village Road / Stanley Beach Road	Priority	0.18	0.22
C	Stanley Village Road / Stanley Mound Road	Priority	0.18	0.24
D	Stanley Village Road / Access Road	Priority	0.11	0.14
E	Stanley Gap Road / Chung Hom Kok Road	Priority	0.44	0.63
F	Stanley Village Road / Stanley Beach Road / Stanley New Street	Priority	0.52	0.69

Note: (1) DFC = Design Flow/Capacity ratio for Priority Junction

3.1.5 The assessment results in **Table 3.2** and **Table 3.3** indicate that all critical junctions are at present operating within their capacities during peak hours for weekday and Sunday.

4. TRAFFIC IMPACT ASSESSMENT

4.1 Design Year

4.1.1 The proposed development is anticipated to be completed by year 2028 tentatively. Year 2031 (i.e. 3 years after completion) is therefore adopted as the design year for this TIA.

4.2 Traffic Forecast

4.2.1 The traffic growth can be estimated by applying growth factor, based on the following information sources:

I. Historical traffic growth in Annual Traffic Census (ATC) published by the Transport Department (TD).

II. Territorial planning assumptions prepared by the Planning Department.

Annual Traffic Census

4.2.2 Numerous of traffic count stations are located in the vicinity of the proposed development. The traffic counts reported in the Annual Traffic Census (ATC), which is published by Transport Department, over a period of six years, i.e. 2016 to 2021 are summarized in **Table 4.1**.

Table 4.1 Historical Traffic Data from Annual Traffic Census (ATC)

ATC Stn	Road Name	Annual Average Daily Traffic (AADT)						Avg. Annual Growth Rate
		2014	2015	2016	2017	2018	2022	
1103	Stanley Village Rd (From Tai Tam Rd to Stanely New St)	13,330	12,280	12,510	12,220	11,620	10,420	-3.03%
1255	Carmel Rd & Cape Rd (From Stanley Village Rd to Chung Hom Kok Rd)	8,060	8,220*	8,310*	8,240*	6,290	6,610*	-2.45%
2023	Tai Tam Rd (From Stanley Gap Rd to Red Hill Rd)	10,200*	9,990*	10,010*	11,770	8,050	9,100	-1.42%
Total		**31,590**	**30,490**	**30,830**	**32,230**	**25,960**	**26,130**	**-2.34%**

Notes:
(1) * AADT estimated by Growth factor.
(2) Traffic volumes for Year 2019 to Year 2021 may be suppressed by the special working arrangement implemented during the COVID-19 outbreak period and/or social event outbreak, therefore AADT from Year 2019 to Year 2021 are not adopted.

Planning Data

4.2.3 Reference has also been made to the latest 2019-based Territorial Population Employment Data Matrices (TPEDM) planning data published by the Planning Department for years 2019 and 2031 in the study district. The average annual growth rates in terms of population and employment from 2019 to 2031 are tabulated in **Table 4.2**.

Table 4.2 TPEDM Planning Data from 2019 to 2031

Zone	Population			Avg. Annual Growth Rate	Employment			Avg. Annual Growth Rate
	2019	2026	2031		2019	2026	2031	
Southern	273,150	268,700	282,400	0.28%	114,900	119,500	116,300	0.10%

4.2.4 It is indicated that the average annual growth rate of population in the study area from 2019 to 2031 under the 2019-based Territorial Planning Data is +0.28% per year while the growth rate of employment is +0.1% per year.

Adopted Growth Rate

4.2.5 A.A.D.T. of ATC indicates that the traffic flow of the local road network has an average annual growth rate of -2.34% from year 2014 to year 2022.

4.2.6 Whilst, the planning data indicates that the population and employment in the area are expected to develop with an average annual growth rate of +0.28% and +0.1% respectively from 2019 to 2031.

4.2.7 As a conservative approach, annual growth rate **+1%** p.a. is adopted.

4.3 Traffic Generations of Adjacent New Developments

4.3.1 To fully reflect the growth traffic, trip generation of the future vicinity developments have been taken into consideration. The major planned development is detailed in **Figure 4.1** and the estimated trip rate with reference to TPDM and trips of the adjacent planned developments are shown in **Table 4.3** and **Table 4.4** respectively.

Table 4.3 Estimated Trip Rates of Adjacent Developments

Approved Planning Application No.	Major Development	Proposed Use	Development Parameters	Unit	AM Peak Hour		PM Peak Hour	
					GEN	ATT	GEN	ATT
A/H19/69	86 & 88 Stanley Main Street, Stanley, Hong Kong (Stanley Inland Lot 10 & Stanley Lot 1130)	Hotel	13 hotel rooms	pcu/hr/ guest room	0.1329	0.1457	0.129	0.1546
A/H19/85	Rural Building Lot No. 1033, 1 Stanley Link Road, Stanley, Hong Kong	Residential	3 flats (av. flat size: ~102m^2	pcu/hr/ flat	0.1961	0.1116	0.0955	0.1321

Note:
(1) Trip rate as stipulated n TPDM Volume 1 Annex C Table 1.

Table 4.4 Estimated Trip Generations and Attractions of Adjacent Developments

Approved Planning Application No.	Major Development	Proposed Use	Development Parameters	Unit	AM Peak Hour		PM Peak Hour	
					GEN	ATT	GEN	ATT
A/H19/69	86 & 88 Stanley Main Street, Stanley, Hong Kong (Stanley Inland Lot 10 & Stanley Lot 1130)	Hotel	13 hotel rooms	pcu/hr	2	2	2	3
A/H19/85	Rural Building Lot No. 1033, 1 Stanley Link Road, Stanley, Hong Kong	Residential	3 flats (av. flat size: ~102m^2	pcu/hr	1	1	1	1

4.4 Reference Traffic Flows

4.4.1 The reference traffic flow is estimated by applying the adopted growth rate to the observed traffic flow in the current year, and the 2031 reference traffic flows can be computed with the following calculation:

2031 Reference Traffic Flows (Without Proposed Development) = (**2024 Observed Traffic Flows** x **Adopted Growth Factor (i.e. +1% p.a. for 7 year)**) + **Traffic Flows of Planned Adjacent Development**

4.4.2 The 2031 reference traffic flows for weekday and Sunday are shown in **Figure 4.2 (Rev A)** and **Figure 4.3 (Rev A)** respectively.

4.5 Traffic Generations and Attractions

4.5.1 In order to estimate the traffic generations and attractions of the proposed development, reference has been made to the trip generation rates as stipulated in Volume 1 Chapter 3 Appendix D Table 2 of the latest T.P.D.M which is extracted and summarized in **Table 4.4**.

Table 4.5 Adopted Trip Rates of Proposed Development

Use	Unit	AM Peak Hour		PM Peak Hour	
		GEN	ATT	GEN	ATT
Residential	pcu/hr/flat	0.3252	0.2609	0.2835	0.4074

4.5.2 Based on the adopted trip rates in **Table 4.4** and the proposed development parameters listed in **Table 2.1**, the estimated generation and attraction due to the proposed development are summarized in **Table 4.5**.

Table 4.6 Estimated Traffic Generation and Attraction of Proposed Development

Proposed Use	Development	AM Peak Hour		PM Peak Hour	
		GEN (pcu/hr)	ATT (pcu/hr)	GEN (pcu/hr)	ATT (pcu/hr)
Residential of 23 nos. of flats	pcu/hr	8	7	7	10

4.5.3 It is anticipated that the proposed development would generate and attract +8 pcu/hr and +7 pcu/hr respectively during AM peak hour, and generate and attract +7 pcu/hr and +10 pcu/hr respectively during PM peak hour.

4.6 Design Traffic Forecasts

4.6.1 The future traffic generations of the proposed development were then assigned onto the road network and superimposed onto the 2031 reference traffic flows (without proposed development) to derive the 2031 design traffic forecasts (with proposed development).

2031 Design Traffic Flows (with proposed development)	=	**2031 Reference Traffic Flows (without proposed development)**	+	**Proposed Development Traffic Flows**

4.6.2 Year 2031 design traffic flows (with proposed development) weekday and Sunday are shown in **Figure 4.4 (Rev A)** and **Figure 4.5 (Rev A)** respectively.

5. TRAFFIC IMPACT ASSESSMENT

5.1 Operational Assessment

5.1.1 To assess the potential traffic impact due to the proposed development, capacity analysis of the identified critical junctions for both reference and design scenarios in year 2031 for weekday and Sunday were carried out. The results for weekday and Sunday are summarized in **Table 5.1** and **Table 5.2** respectively, and the junction calculation sheets are attached in **Appendix A**.

Table 5.1 Junction Performance of Identified Critical Junction in Year 2031 (With and Without Proposed Development) - Weekday

Ref.	Junction	Method of Control	Year 2031 DFC [(1)]			
			Reference Scenario (Without Proposed Development)		Design Scenario (With Proposed Development)	
			Weekday AM Peak	Weekday PM Peak	Weekday AM Peak	Weekday PM Peak
A	Tai Tam Road / Stanley Gap Road / Stanley Village Road	Roundabout	0.64	0.65	0.64	0.66
B	Stanley Village Road / Stanley Beach Road	Priority	0.29	0.27	0.29	0.28
C	Stanley Village Road / Stanley Mound Road	Priority	0.29	0.27	0.29	0.28
D	Stanley Village Road / Access Road	Priority	0.27	0.16	0.27	0.16
E	Stanley Gap Road / Chung Hom Kok Road	Priority	0.61	0.67	0.61	0.67
F	Stanley Village Road / Stanley Beach Road / Stanley New Street	Priority	0.71	0.72	0.71	0.72

Note: (1) DFC = Design Flow/Capacity ratio for Priority Junction

Table 5.2 Junction Performance of Identified Critical Junction in Year 2031 (With and Without Proposed Development) - Sunday

Ref.	Junction	Method of Control	Year 2031 DFC (1)			
			Reference Scenario (Without Proposed Development)		Design Scenario (With Proposed Development)	
			Sunday AM Peak	Sunday PM Peak	Sunday AM Peak	Sunday PM Peak
A	Tai Tam Road / Stanley Gap Road / Stanley Village Road	Roundabout	0.55	0.73	0.55	0.74
B	Stanley Village Road / Stanley Beach Road	Priority	0.19	0.24	0.20	0.24
C	Stanley Village Road / Stanley Mound Road	Priority	0.20	0.26	0.20	0.27
D	Stanley Village Road / Access Road	Priority	0.12	0.15	0.12	0.15
E	Stanley Gap Road / Chung Hom Kok Road	Priority	0.51	0.77	0.51	0.77
F	Stanley Village Road / Stanley Beach Road / Stanley New Street	Priority	0.61	0.82	0.61	0.82

Note: (1) DFC = Design Flow/Capacity ratio for Priority Junction

5.1.2 The assessment results in **Table 5.1** and **Table 5.2** revealed that all critical junctions would still operate within their capacities in both reference and design year 2031 during the peak hours for weekday and Sunday.

6. SUMMARY AND CONCLUSION

6.1 Summary

6.1.1 CTA Consultants Limited (CTA) is commissioned as the traffic consultant to prepare the Traffic Impact Assessment (TIA) and provide technical justifications in supporting the planning application from traffic engineering point of view.

6.1.2 To appraise the existing traffic condition, manual-classified counting surveys were conducted at critical junctions in 2024. Current operational performance of the critical junctions has been assessed. The results reveal that all critical junctions are at present operating within its capacities during the peak hours for weekday and Sunday.

6.1.3 Assessment of operational performance of the critical junctions revealed that all critical junctions would still operate within their capacities in both reference scenario (without proposed development) and design scenario (with proposed development) in 2031 during the peak hours for weekday and Sunday.

6.2 Conclusion

6.2.1 In conclusion, this TIA has demonstrated that the related traffic trips related to the proposed development can be absorbed by the nearby road network and no insurmountable traffic impact will be induced.

6.2.2 Therefore, the proposed development is considered feasible from traffic engineering point of view.

LEGEND :

DEVELOPMENT SITE

FIGURE NO.: 1.1	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK	DRAWING TITLE: SITE LOCATION PLAN	
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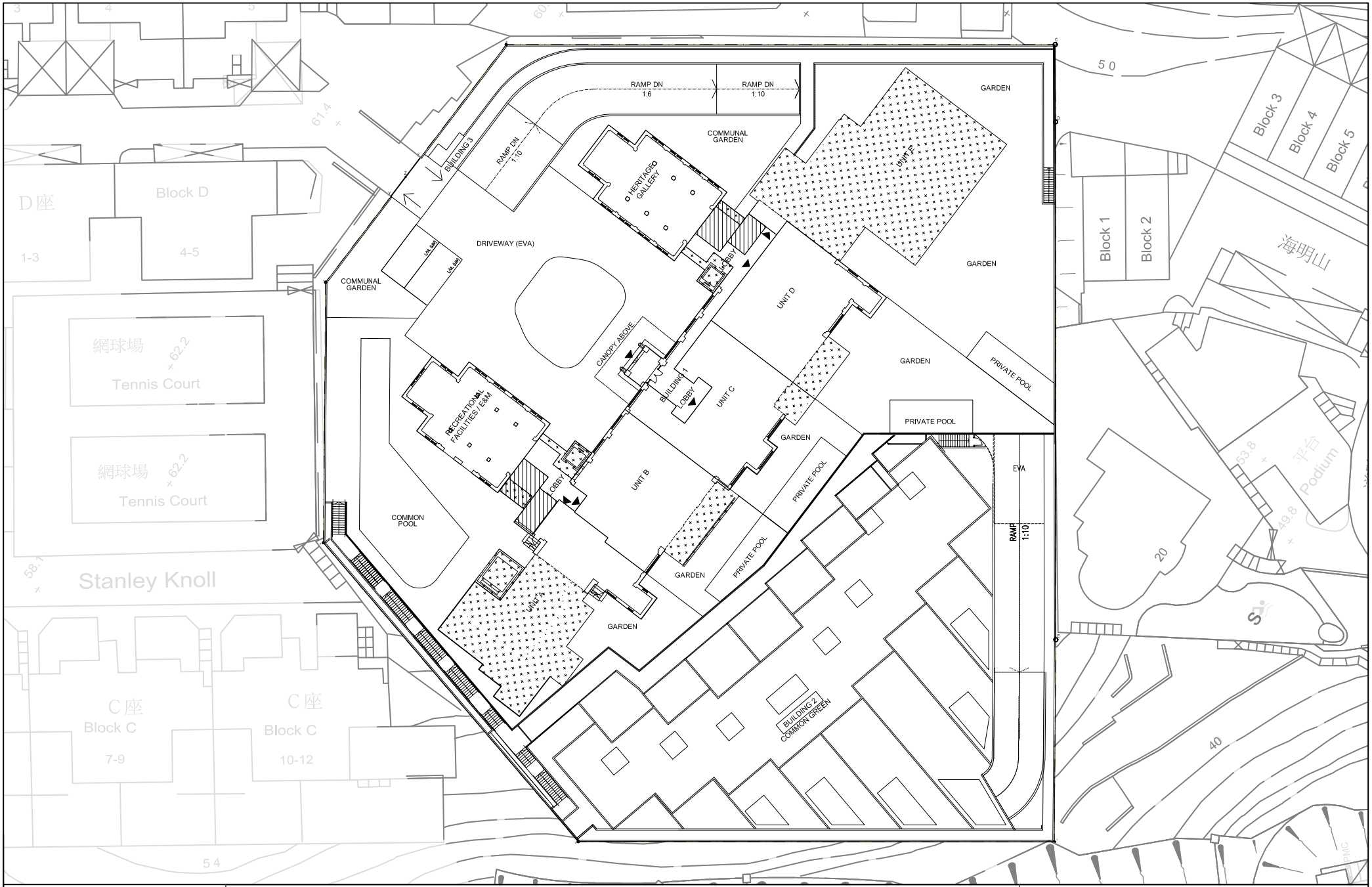

FIGURE NO.: 2.1	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.: 24048HK	DRAWING TITLE: PROPOSED UPPER DECK G/F LAYOUT PLAN
SCALE: 1 : 600 @A4 / DATE: 12 NOV 2024	CTA Consultants Limited 志達顧問有限公司

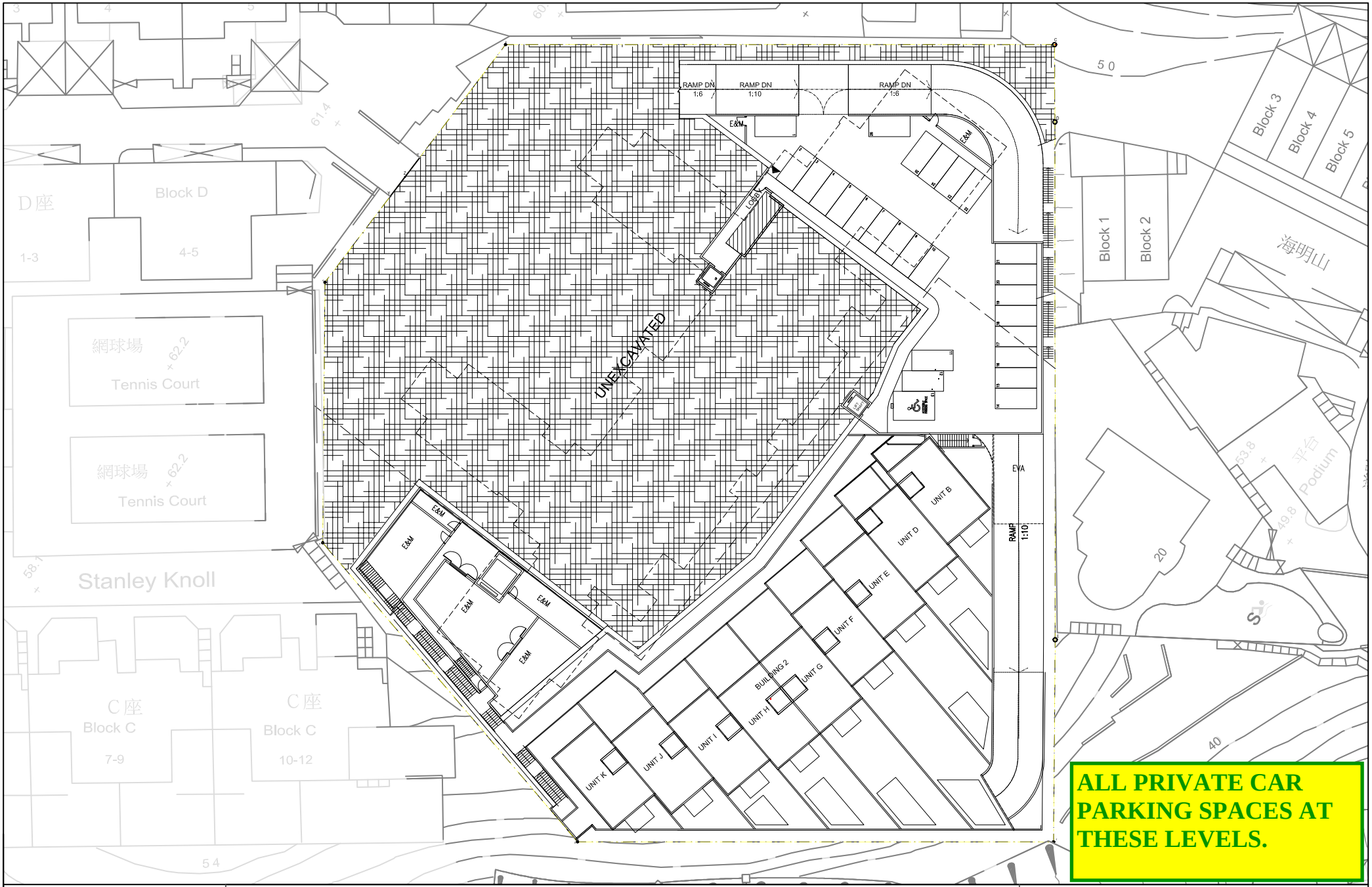

FIGURE NO.: 2.2 (REV A)	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.: 24048HK	DRAWING TITLE: PROPOSED UPPER DECK LG/F & LOWER DECK 3/F LAYOUT PLAN
SCALE: 1 : 600 @A4	DATE: 12 AUG 2024

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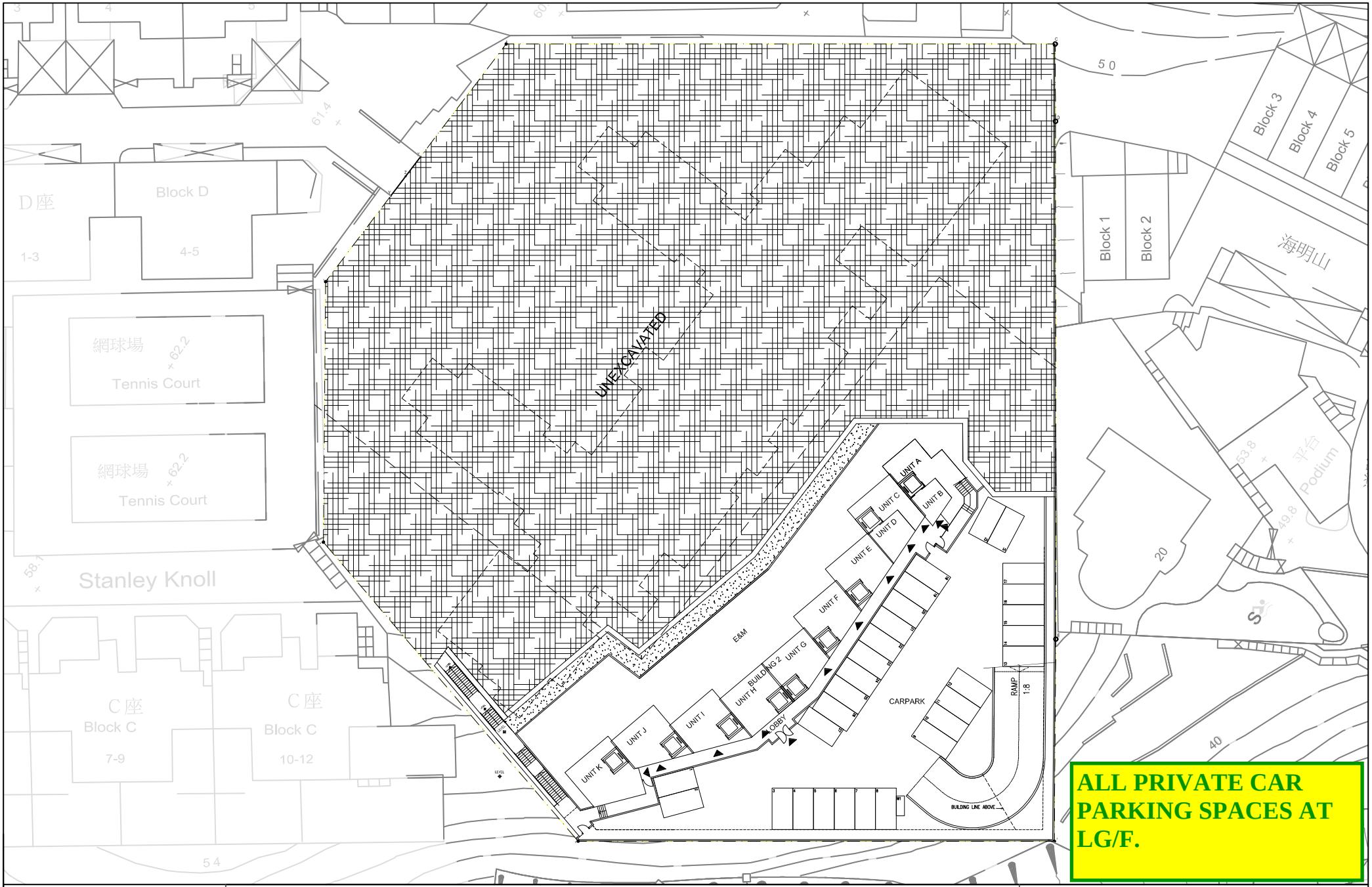

FIGURE NO.: 2.3 (REV A)	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.: 24048HK	DRAWING TITLE: PROPOSED LOWER DECK LG/F LAYOUT PLAN
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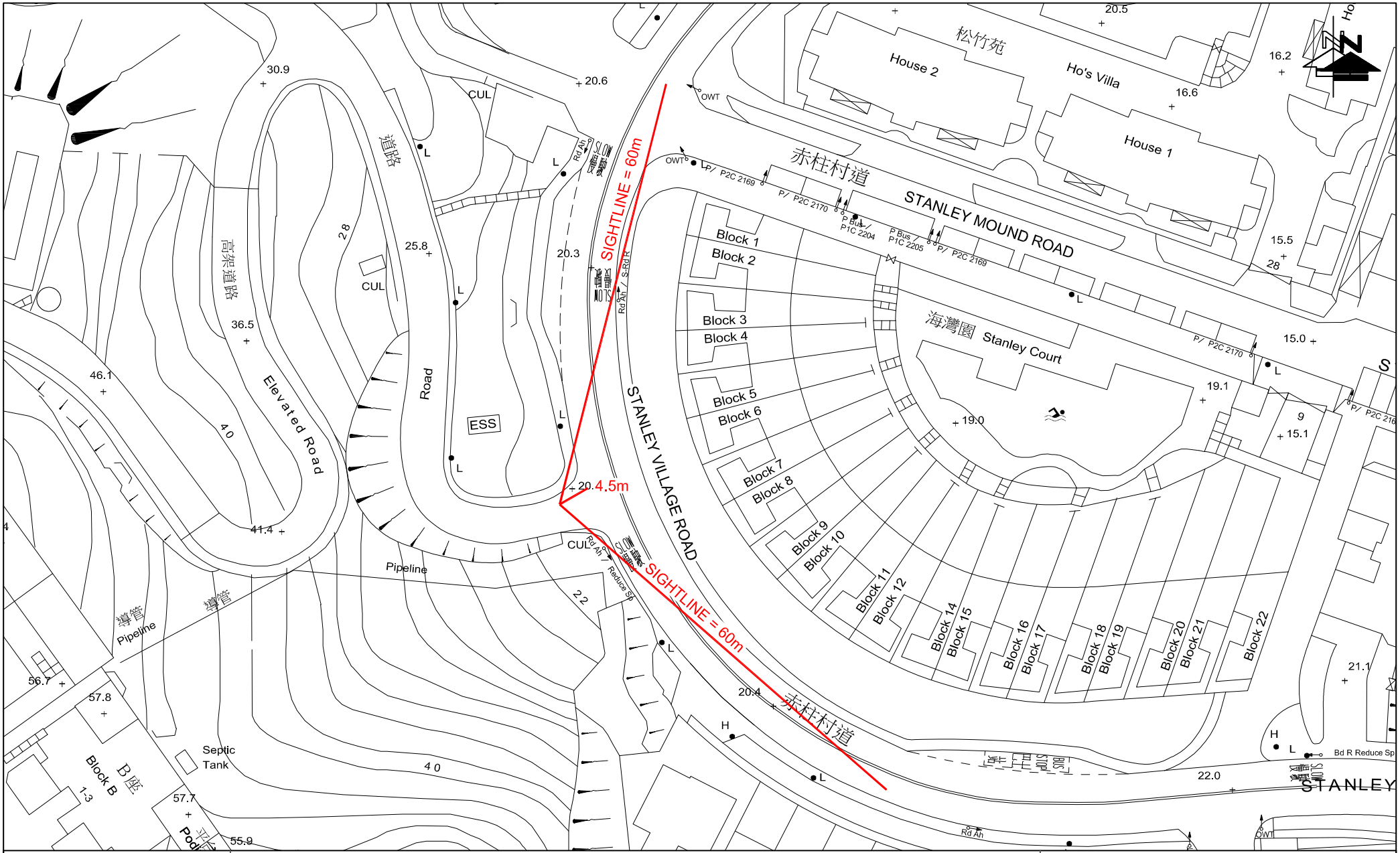

FIGURE NO.: 2.4	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.: 24048HK	DRAWING TITLE: SIGHTLINE ASSESSMENT FOR PROPOSED VEHICULAR ACCESS CONNECTING "RIGHT OF WAY" TO STANLEY VILLAGE ROAD
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志達顧問有限公司

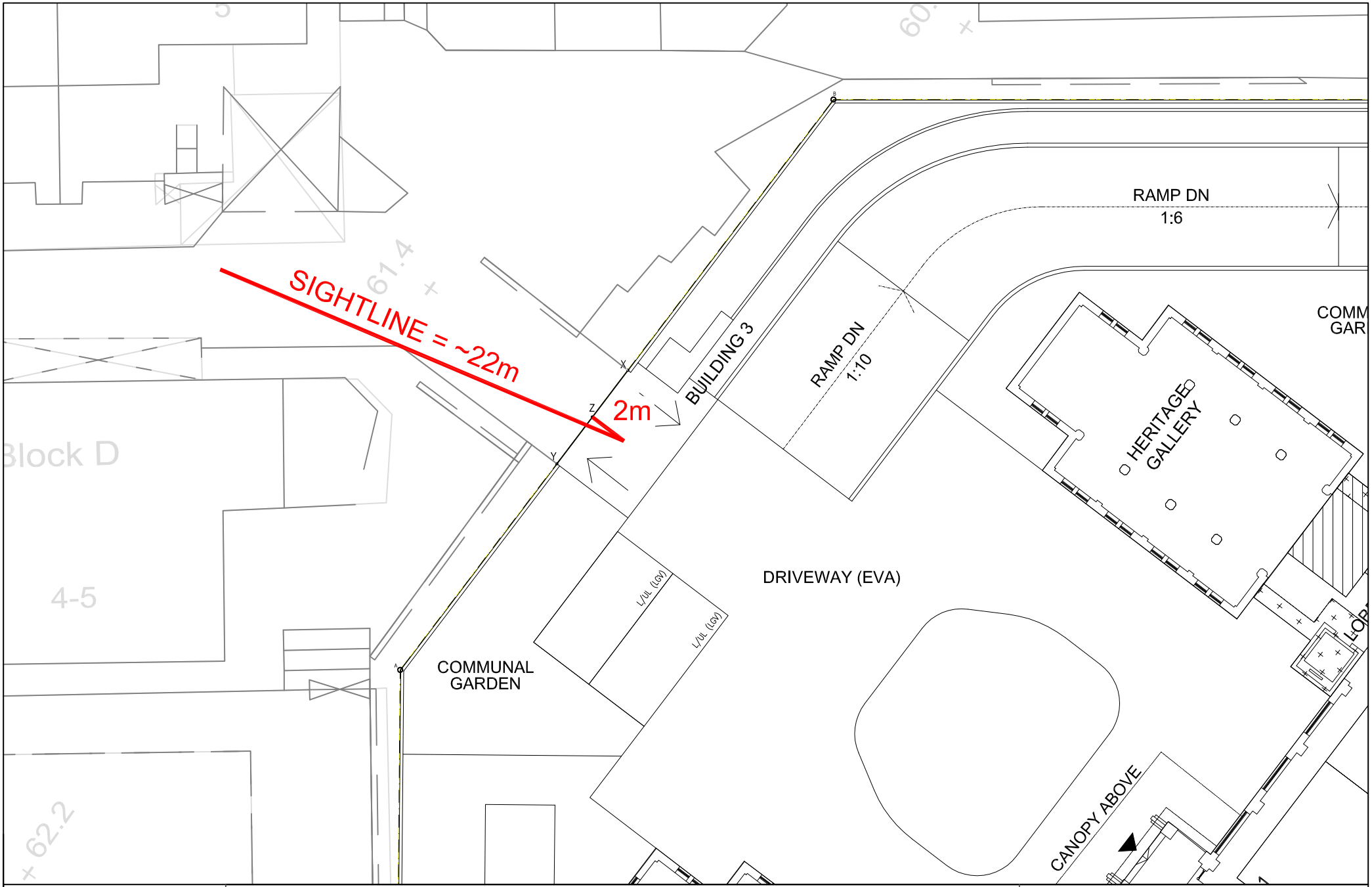

FIGURE NO.: 2.5	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK	DRAWING TITLE: SIGHTLINE ASSESSMENT FOR RUN IN/OUT OF THE SITE AT THE "RIGHT OF WAY" ACCESS ROAD	
SCALE: 1 : 200 @A4 / DATE: 12 NOV 2024		

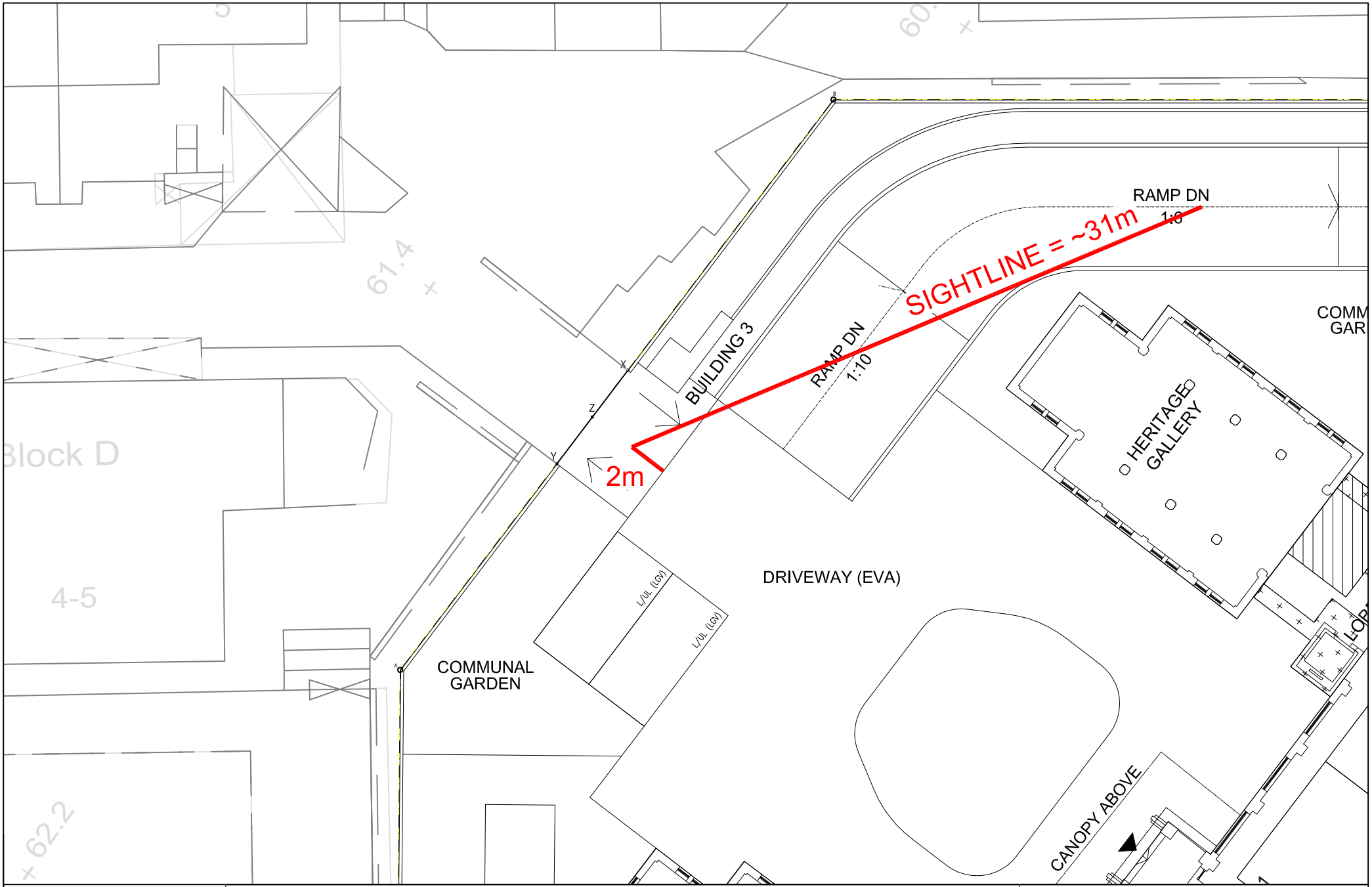

FIGURE NO.: 2.6	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK	DRAWING TITLE: SIGHTLINE ASSESSMENT FOR RUN IN/OUT OF RAMP TO CARPARK ON G/F LEVEL	
SCALE: 1 : 200 @A4 / DATE: 12 NOV 2024		

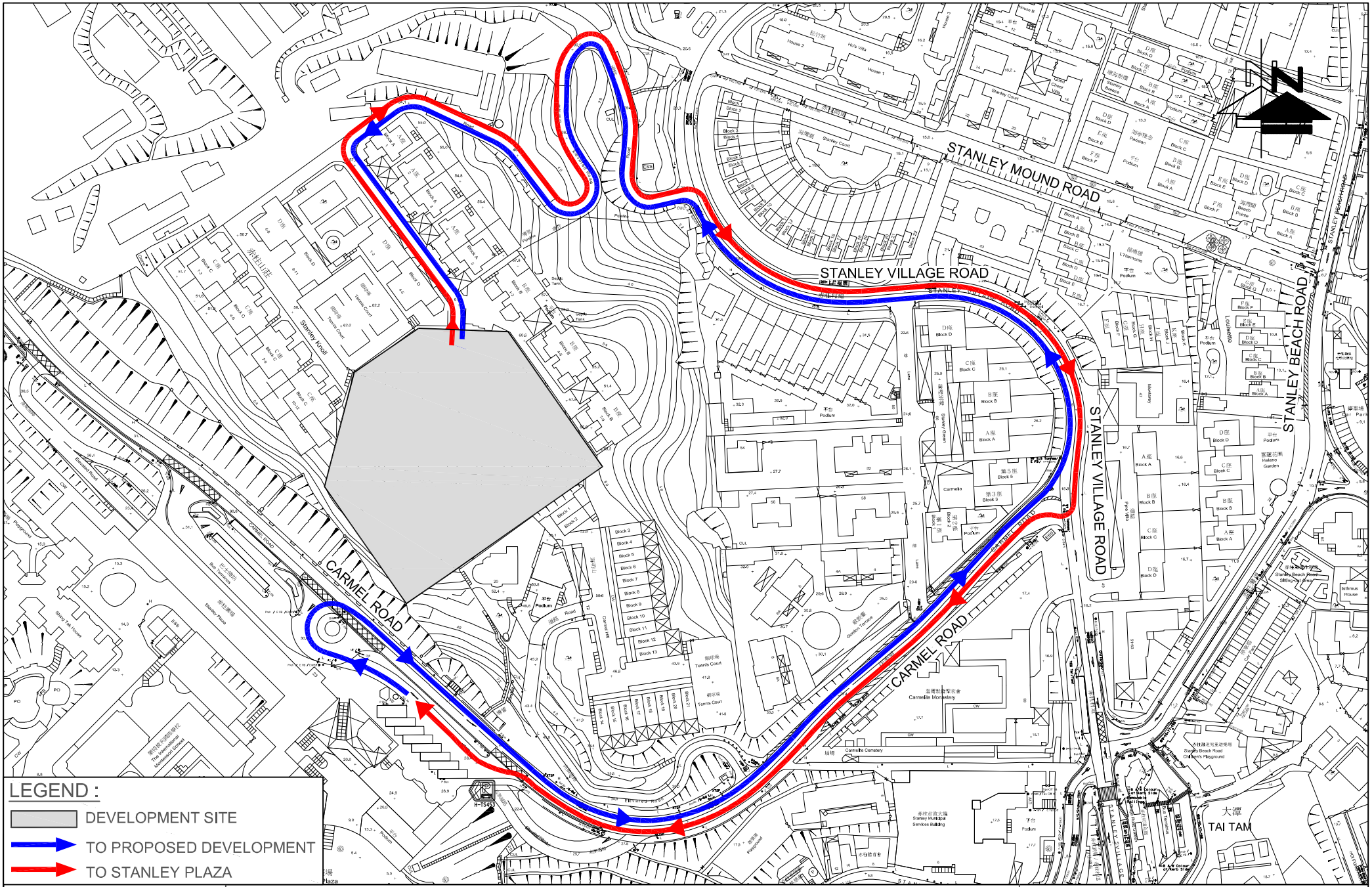

FIGURE NO.: 2.7	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.: 24048HK	DRAWING TITLE: PROPOSED ROUTING OF 28-SEATER COACH SERVING GUIDE TOURS
SCALE: 1 : 2000 @A4	DATE: 12 NOV 2024

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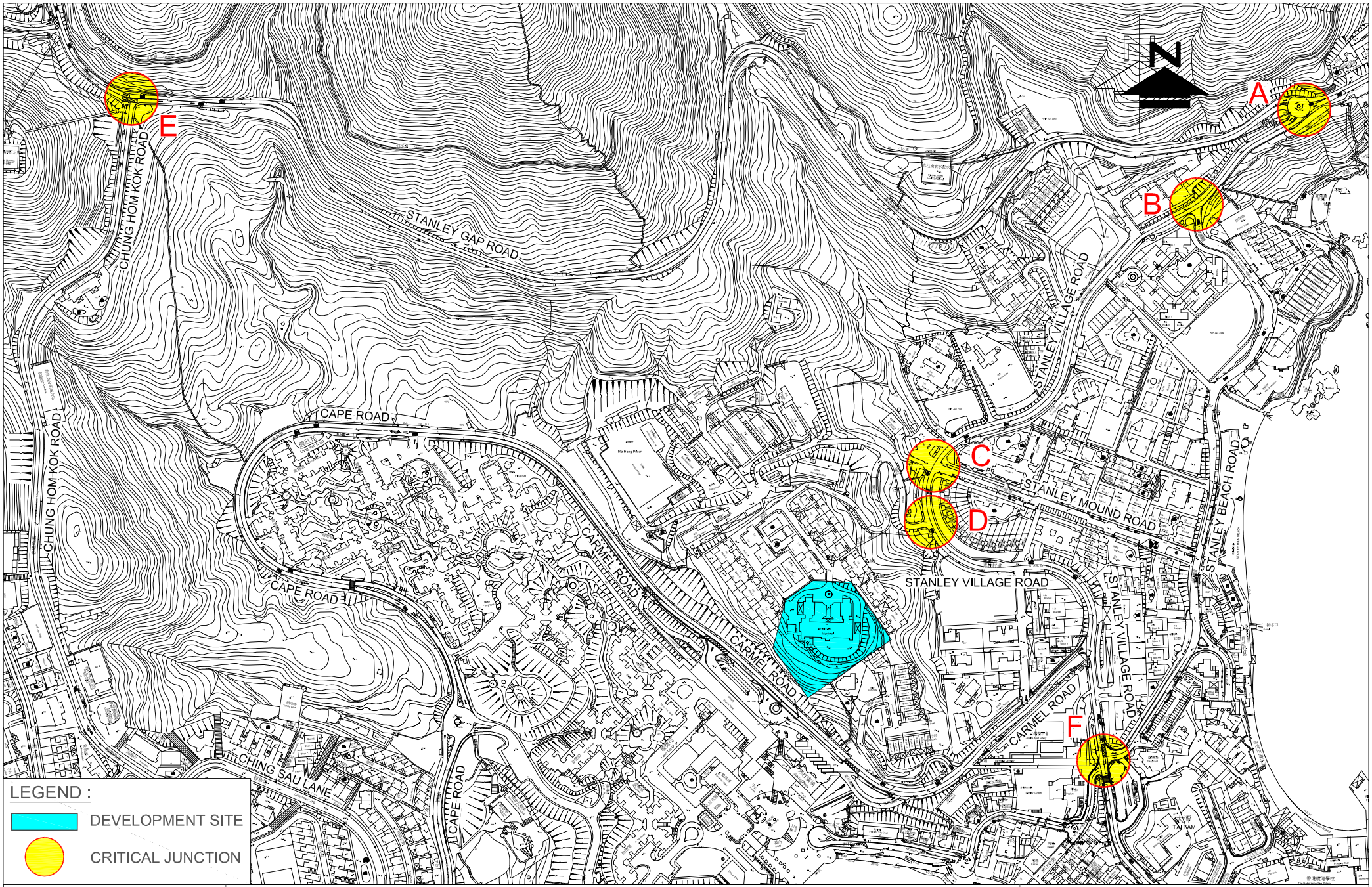

FIGURE NO.: 3.1	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.: 24048HK	DRAWING TITLE: IDENTIFIED KEY JUNCTIONS
SCALE: 1 : 4700 @A4 / DATE: 29 JUL 2024	CTA Consultants Limited 志達顧問有限公司

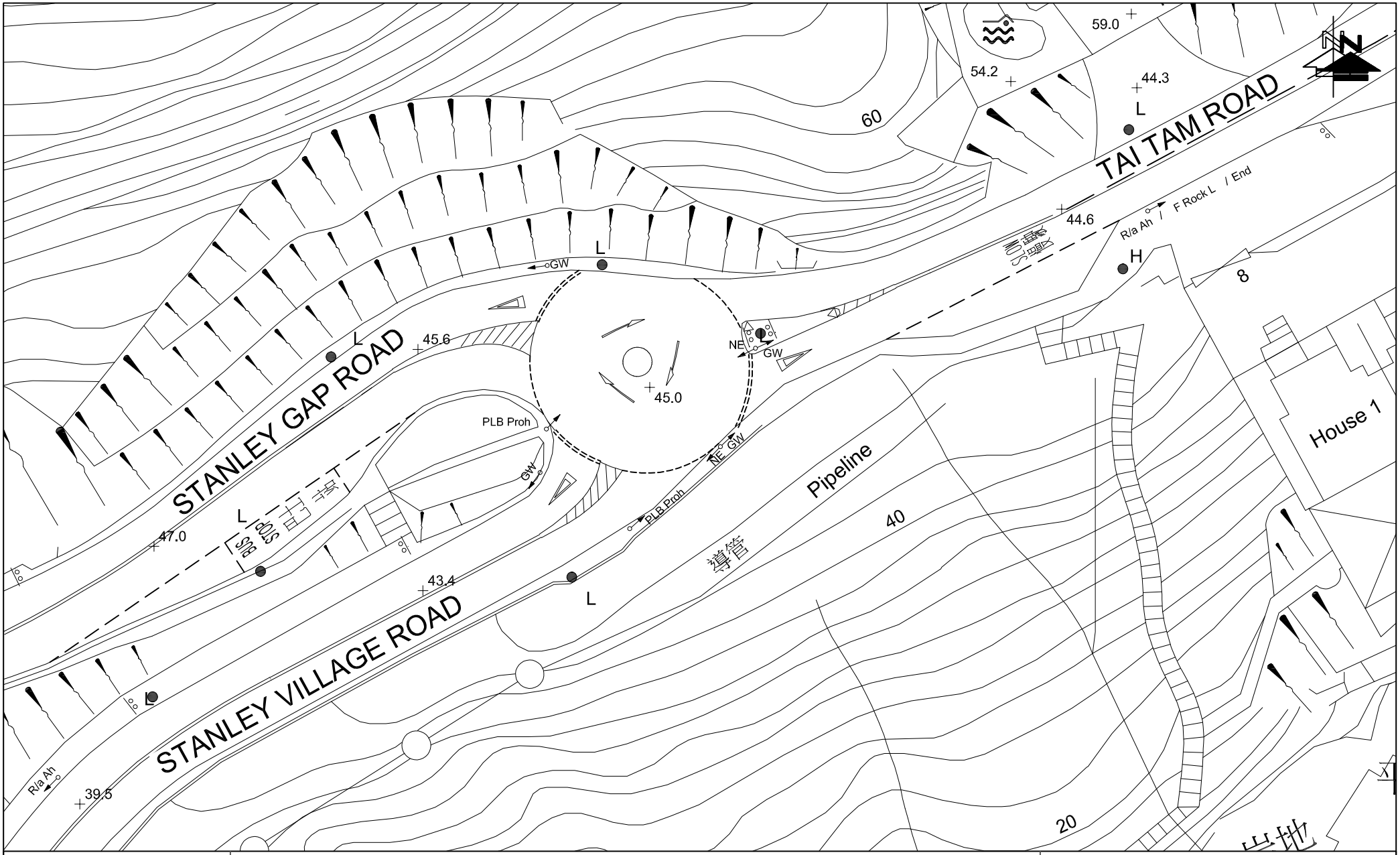

FIGURE NO.: 3.2	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.: 24048HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF TAI LAM ROAD / STANLEY GAP ROAD / STANLEY VILLAGE ROAD (A)
SCALE: 1 : 500 @A4 / DATE: 17 JUL 2024	CTA Consultants Limited 志達顧問有限公司

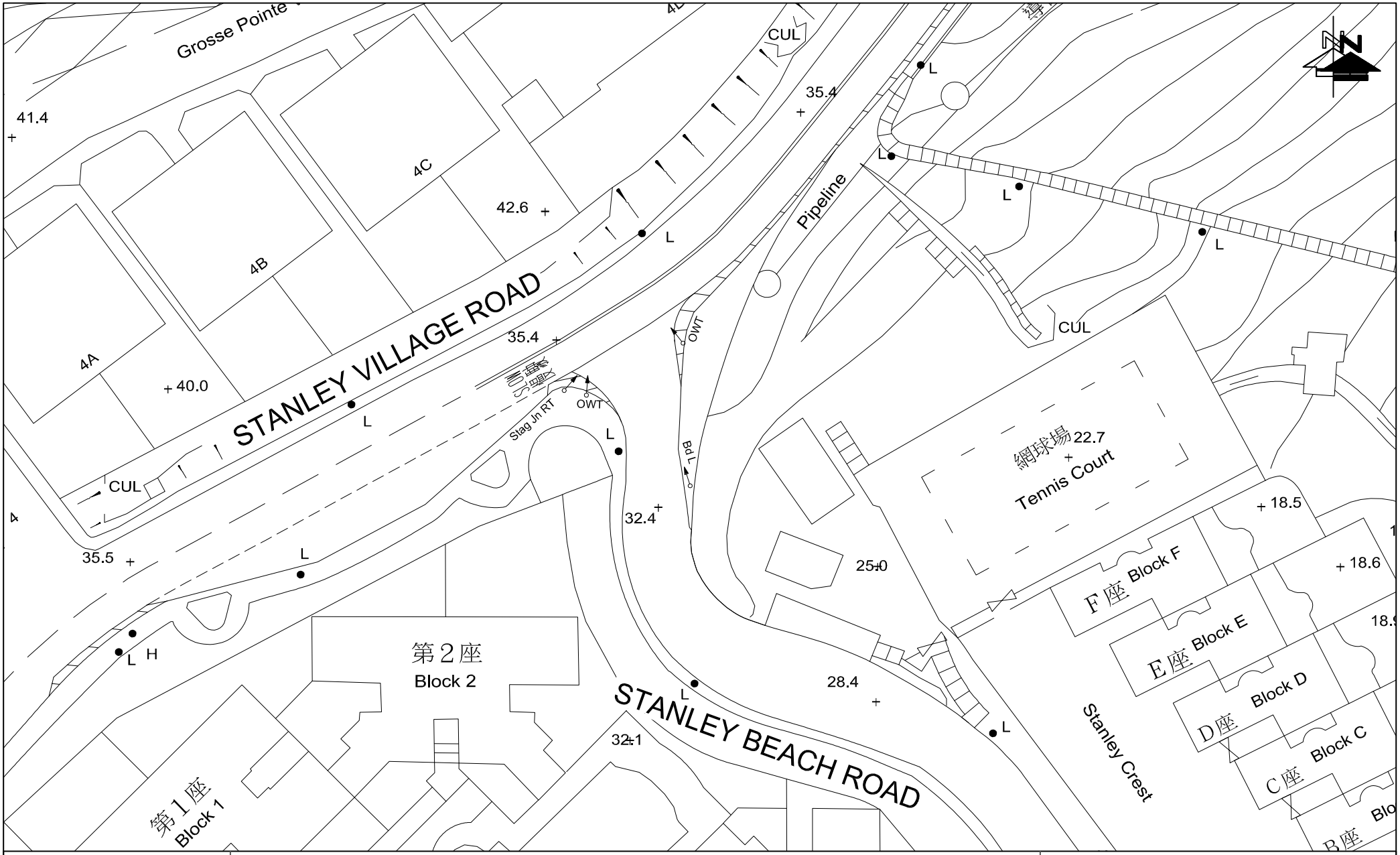

FIGURE NO.: 3.3	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF STANLEY VILLAGE ROAD / STANLEY BEACH ROAD (B)	
SCALE: 1 : 500 @A4 / DATE: 17 JUL 2024		

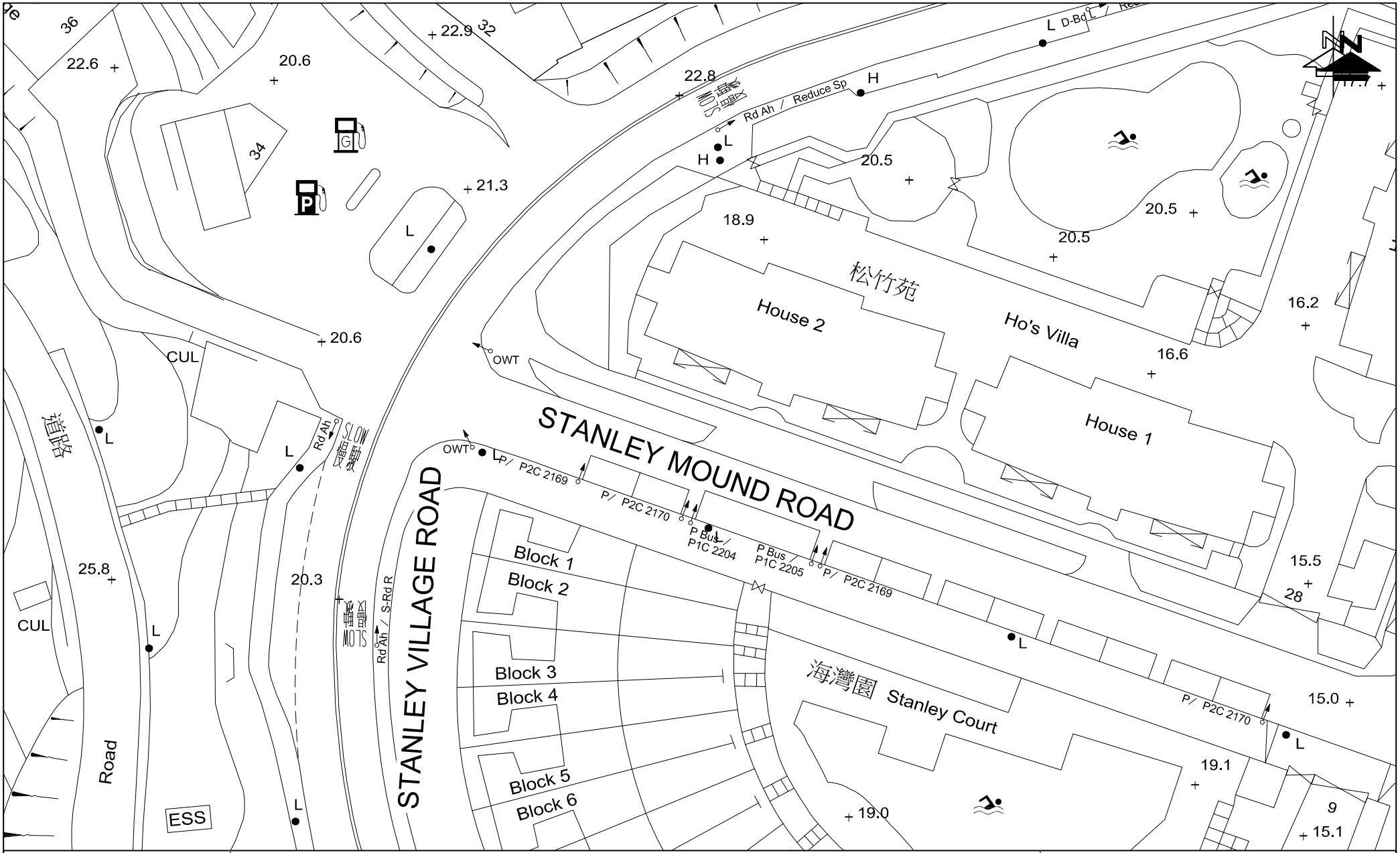

FIGURE NO.: 3.4	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.: 24048HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF STANLEY VILLAGE ROAD / STANLEY MOUND ROAD (C)
SCALE: 1 : 500 @A4	DATE: 17 JUL 2024

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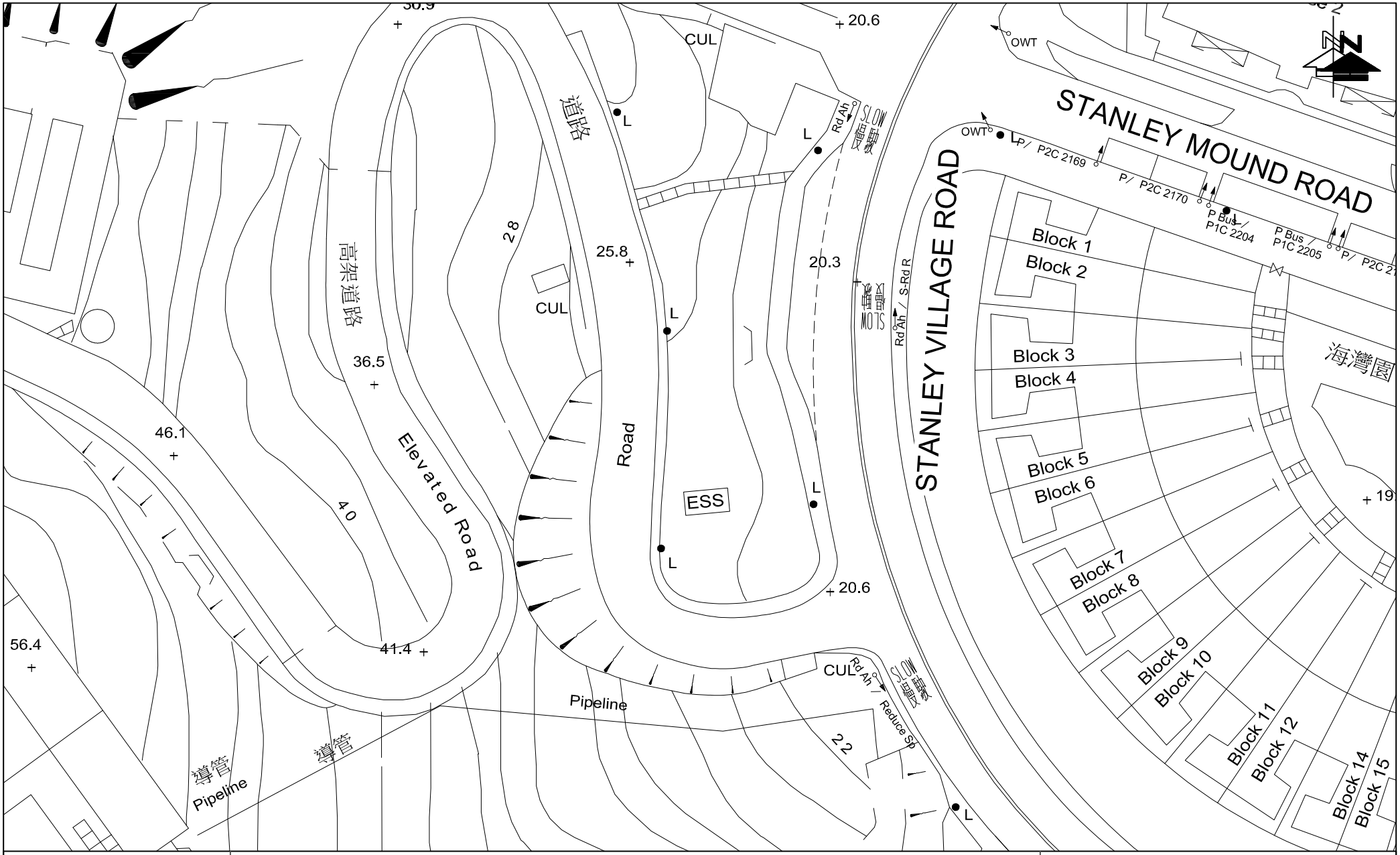

FIGURE NO.: 3.5	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.: 24048HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF STANLEY VILLAGE ROAD / ACCESS ROAD (D)
SCALE: 1 : 500 @A4	DATE: 17 JUL 2024

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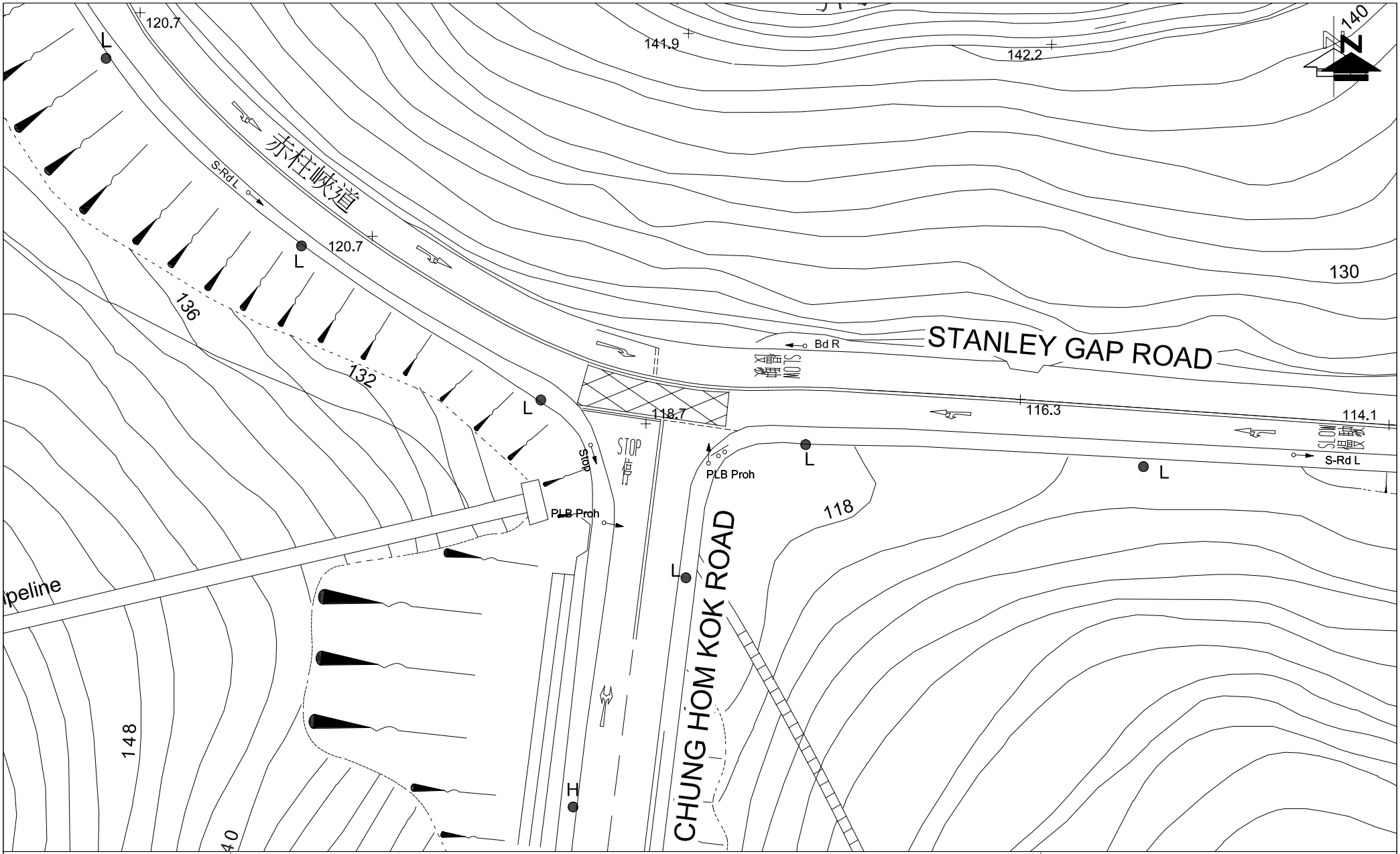


FIGURE NO.: 3.6	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.: 24048HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF STANLEY GAP ROAD / CHUNG HOM KOK ROAD (E)
SCALE: 1 : 500 @A4	DATE: 29 JUL 2024

CTA Consultants Limited
志達顧問有限公司

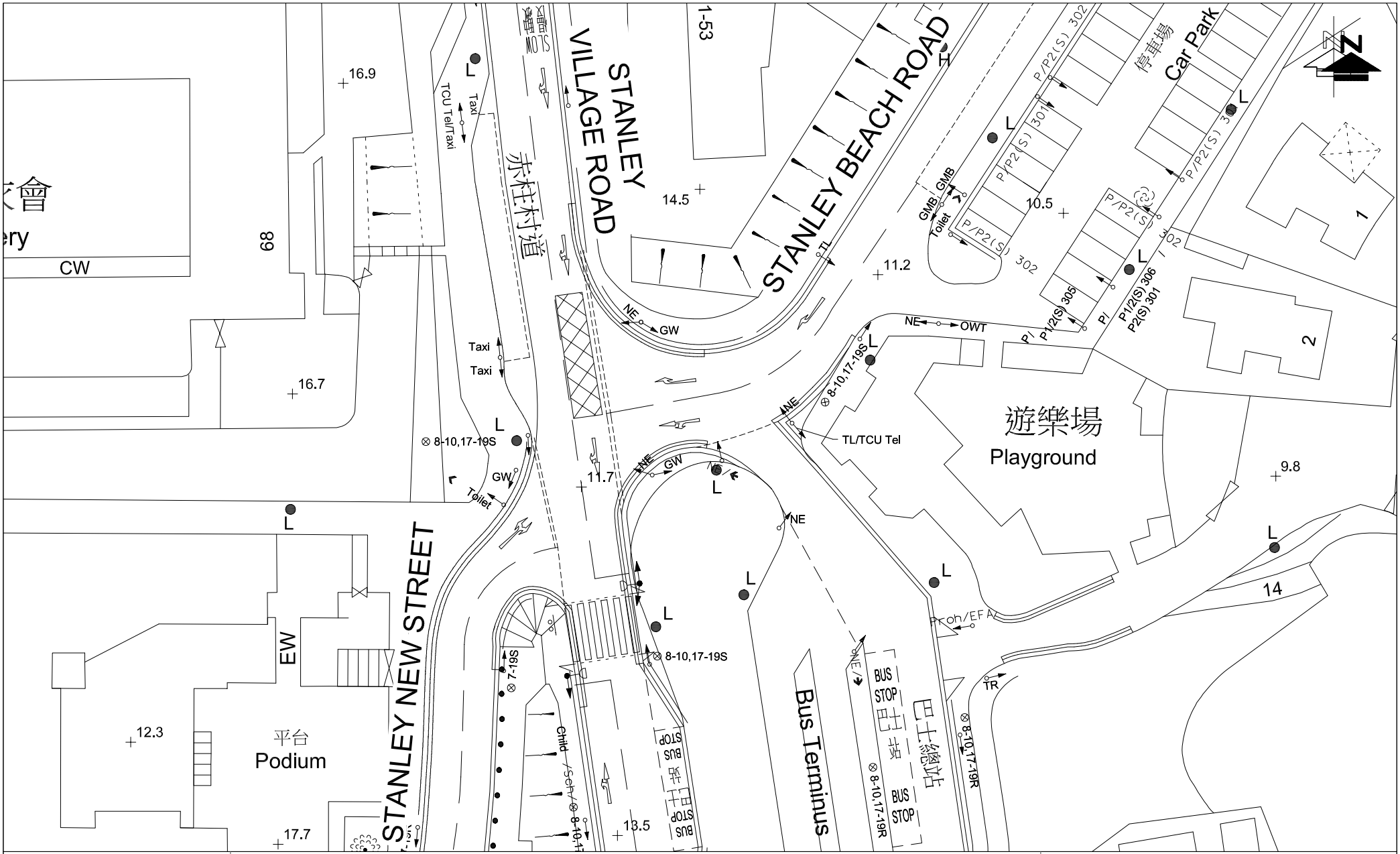
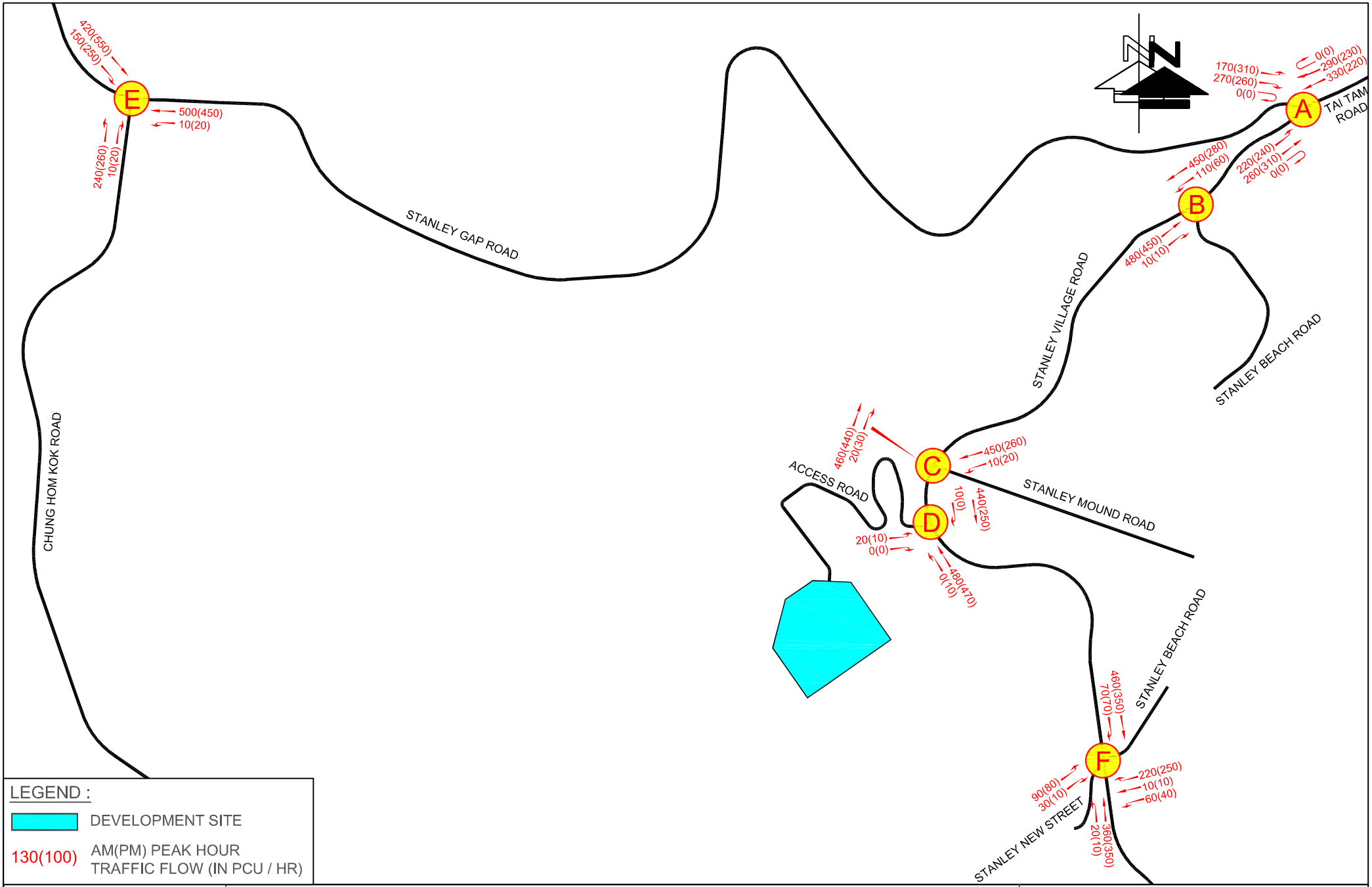


FIGURE NO.: 3.7	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	
PROJECT NO.: 24048HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF STANLEY VILLAGE ROAD / STANLEY BEACH ROAD / STANLEY NEW STREET (F)	CTA Consultants Limited 志達顧問有限公司
SCALE: 1 : 500 @A4 / DATE: 29 JUL 2024		

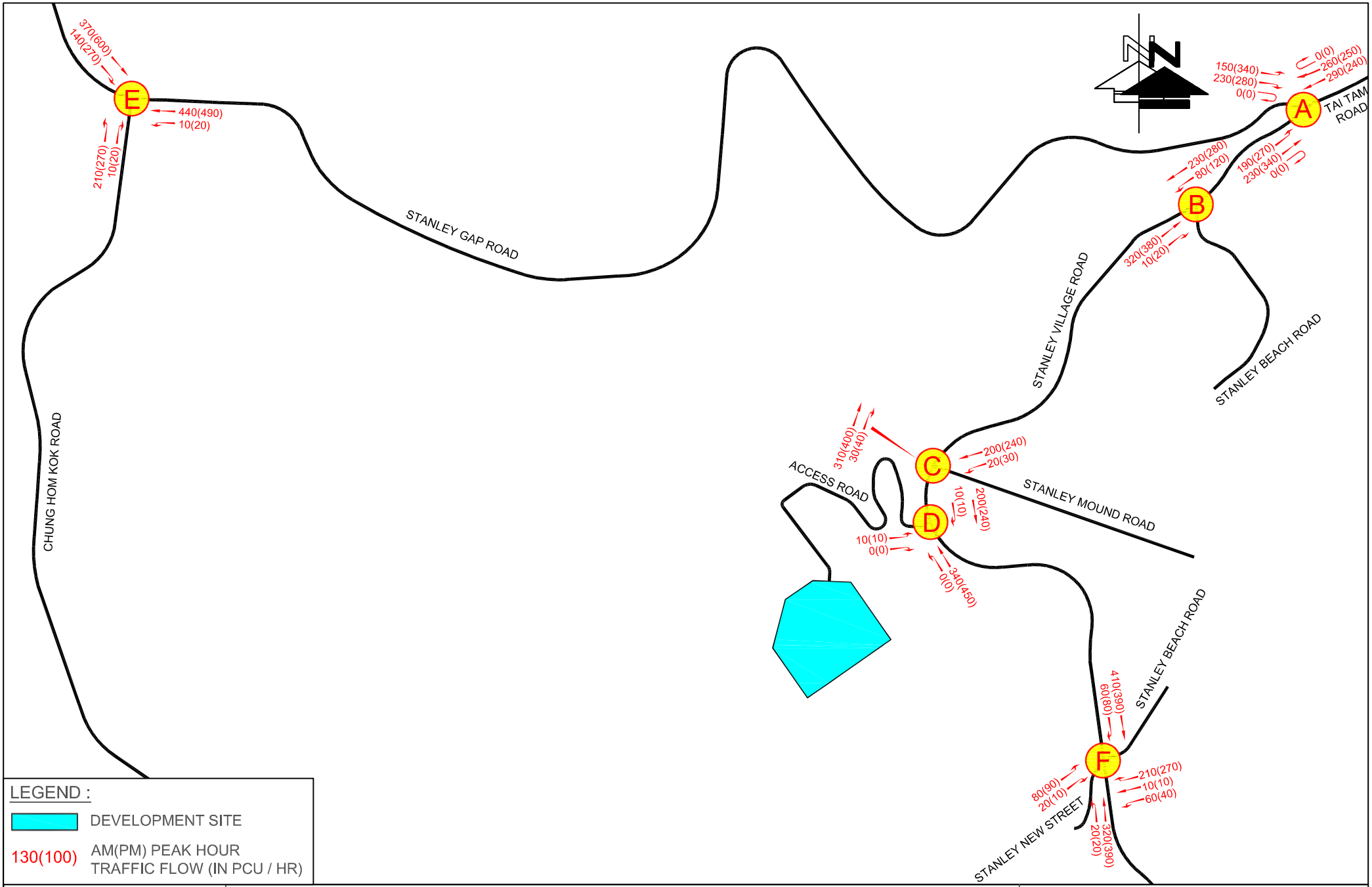


LEGEND :

DEVELOPMENT SITE

130(100) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.: 3.8 (Rev A)	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK	DRAWING TITLE: 2024 OBSERVED TRAFFIC FLOWS - WEEKDAY	
SCALE: N.T.S. @A4 / DATE: 12 NOV 2024		

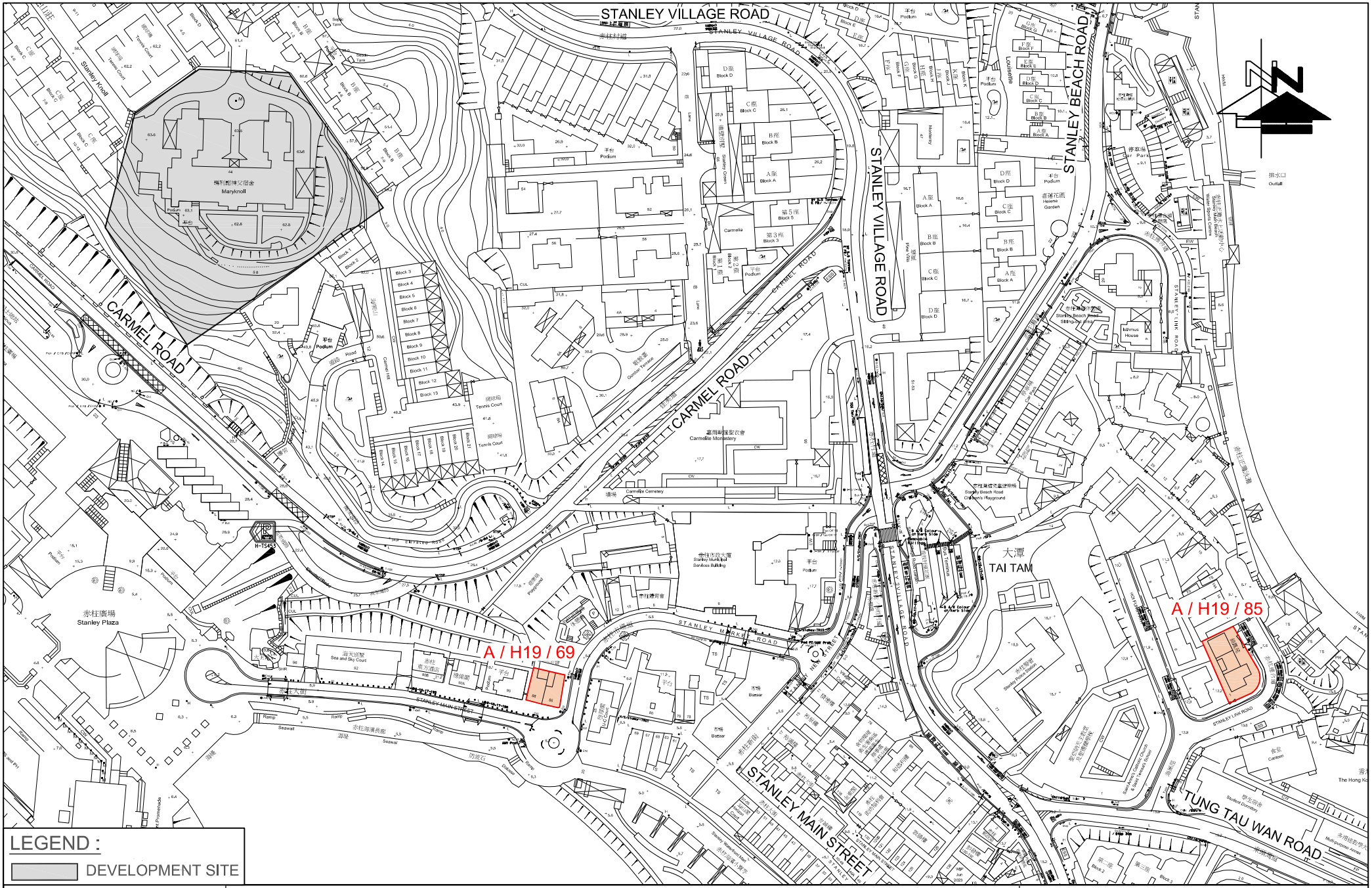


LEGEND :

DEVELOPMENT SITE

130(100) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.: 3.9 (Rev A)	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	
PROJECT NO.: 24048HK	DRAWING TITLE: 2024 OBSERVED TRAFFIC FLOWS - SUNDAY	CTA Consultants Limited 志達顧問有限公司
SCALE: N.T.S. @A4 / DATE: 12 NOV 2024		



LEGEND :

DEVELOPMENT SITE

FIGURE NO.: 4.1	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.: 24048HK	DRAWING TITLE: PLANNED MAJOR DEVELOPMENTS IN THE VICINITY
SCALE: 1 : 2000 @A4 / DATE: 16 JUL 2024	

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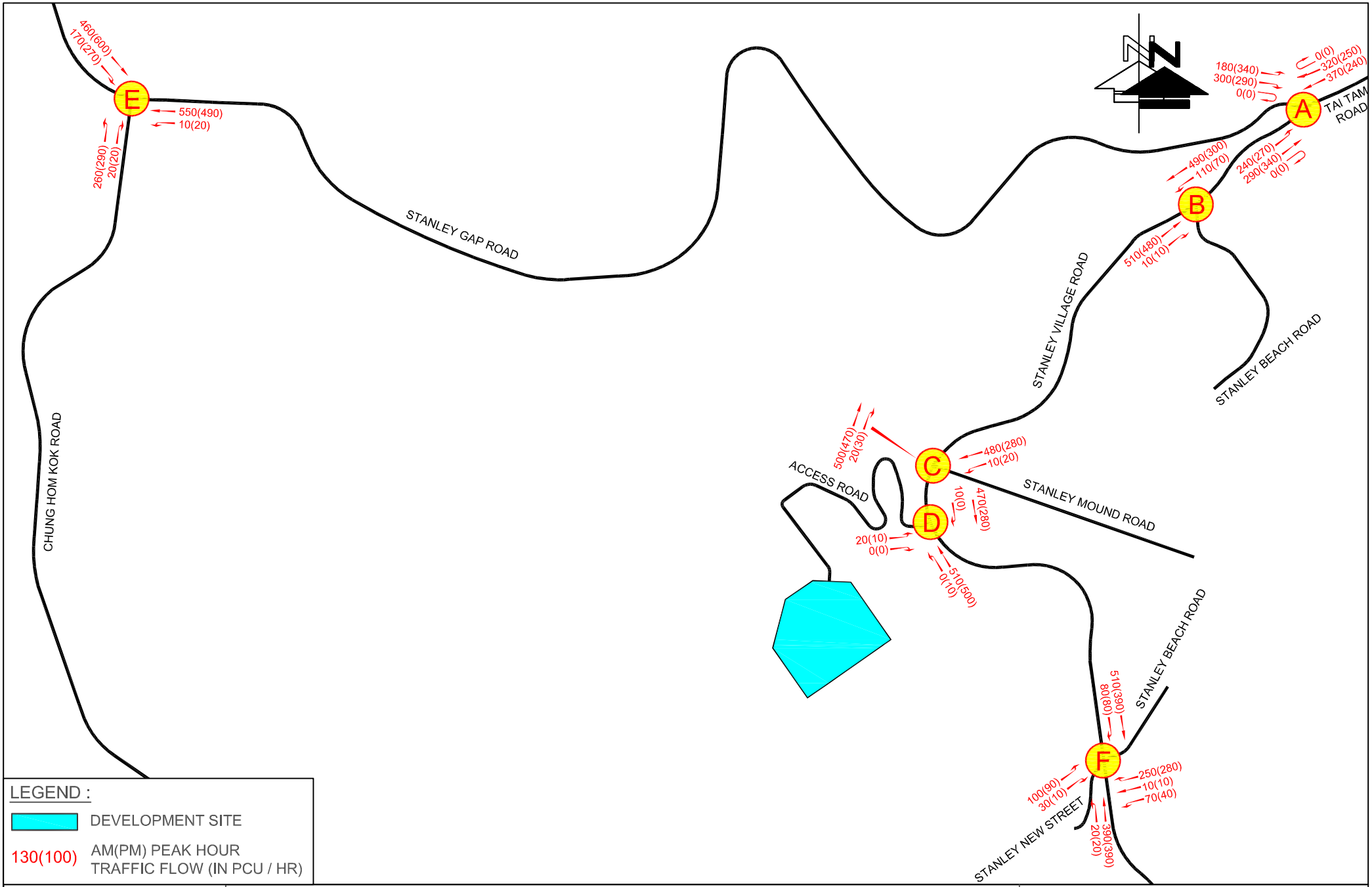
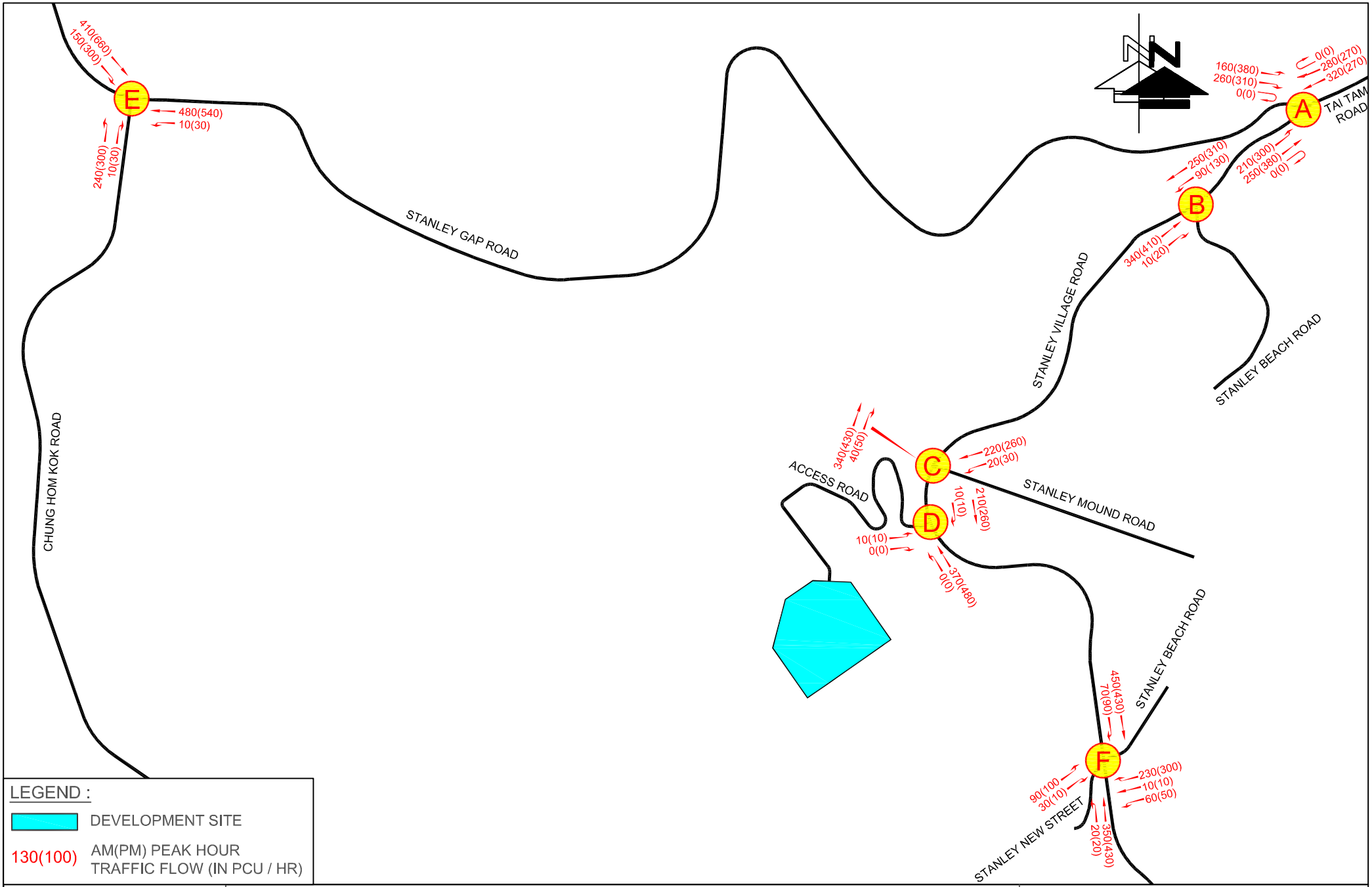


LEGEND :

DEVELOPMENT SITE

130(100) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.: 4.2 (Rev A)	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK	DRAWING TITLE: 2031 REFERENCE TRAFFIC FLOWS - WEEKDAY	
SCALE: N.T.S. @A4 / DATE: 12 NOV 2024		



LEGEND :

DEVELOPMENT SITE

130(100) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.: 4.3 (Rev A)	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK	DRAWING TITLE: 2031 REFERENCE TRAFFIC FLOWS - SUNDAY	
SCALE: N.T.S. @A4 / DATE: 12 NOV 2024		

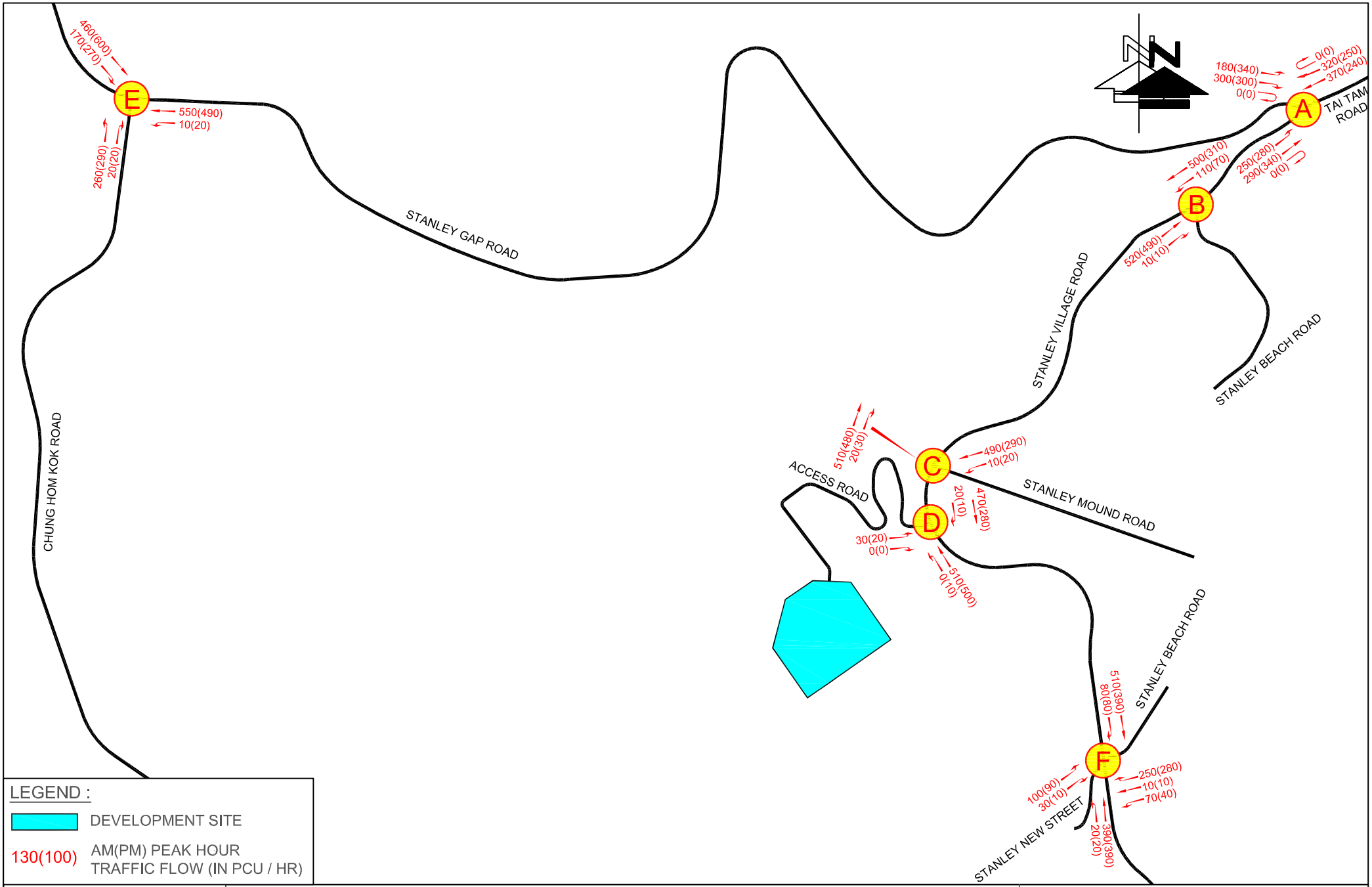
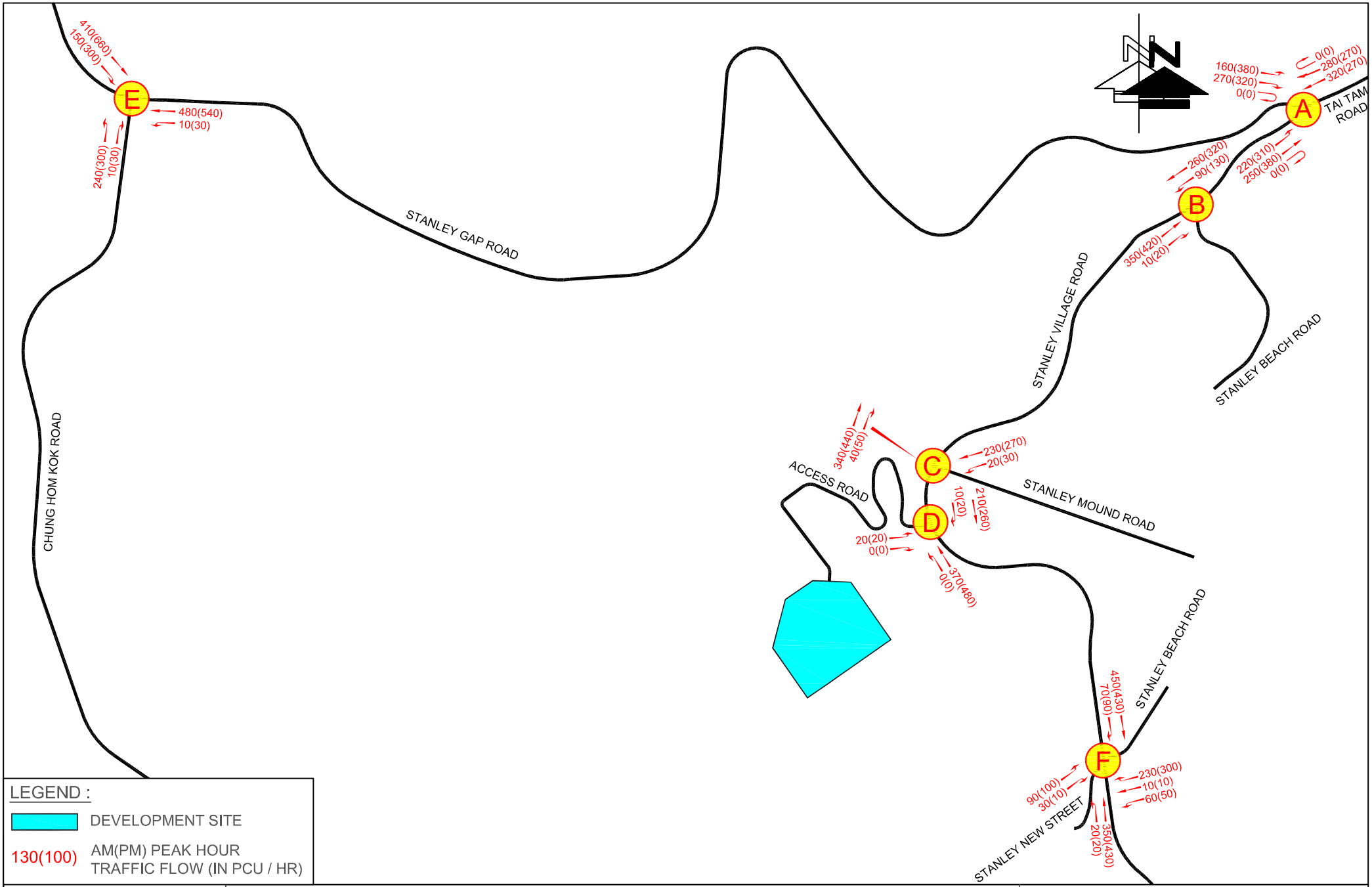


FIGURE NO.: 4.4 (Rev A)	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK	DRAWING TITLE: 2031 DESIGN TRAFFIC FLOWS - WEEKDAY	
SCALE: N.T.S. @A4 / DATE: 12 NOV 2024		



LEGEND :

DEVELOPMENT SITE

130(100) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.: 4.5 (Rev A)	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK	DRAWING TITLE: 2031 DESIGN TRAFFIC FLOWS - SUNDAY	
SCALE: N.T.S. @A4 / DATE: 12 NOV 2024		

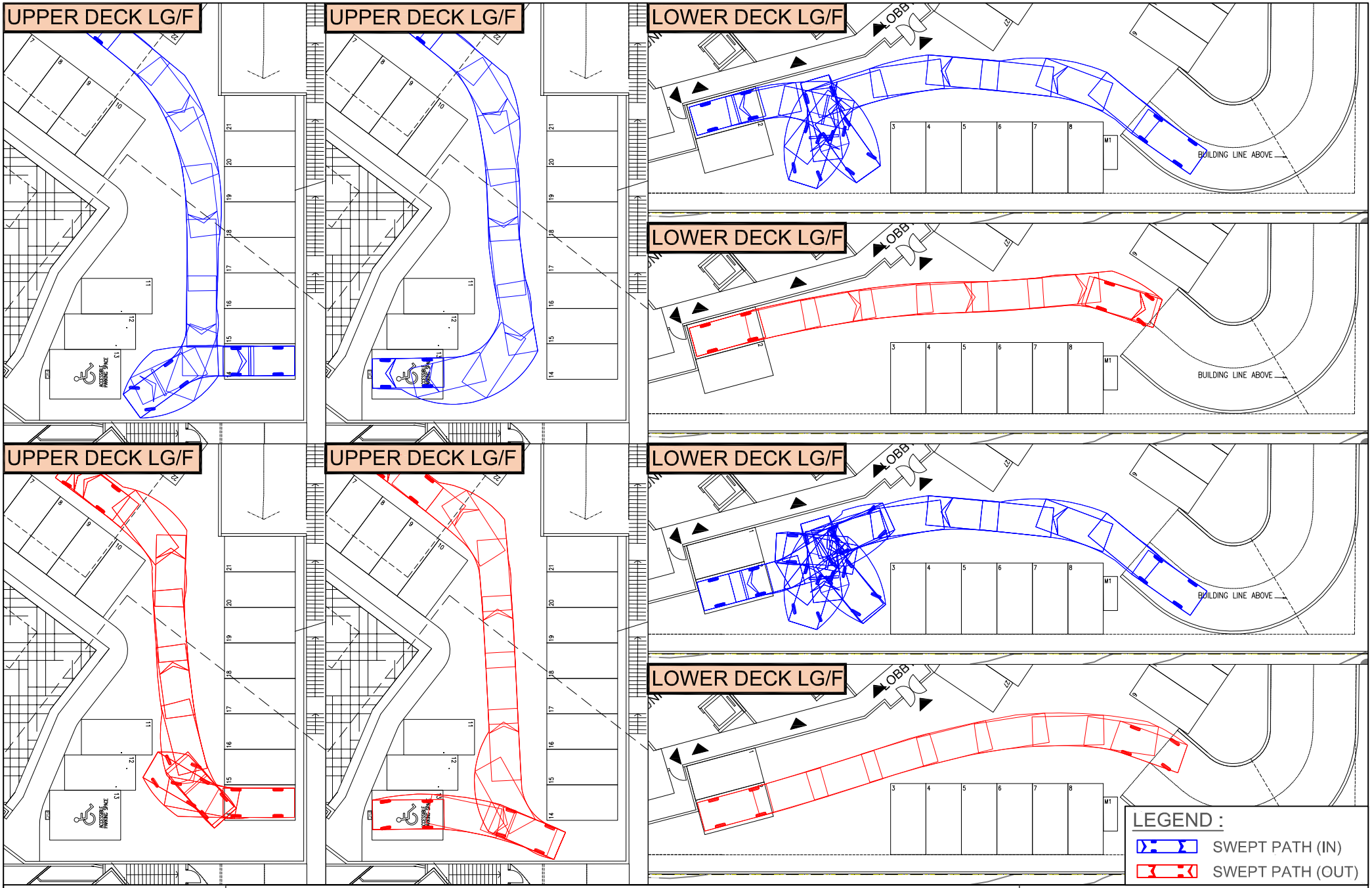


FIGURE NO.: SP-01	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.: 24048HK	DRAWING TITLE: SWEPT PATH ANALYSIS OF PRIVATE CAR FOR PARKING SPACE
SCALE: 1 : 350 @A4 / DATE: 12 NOV 2024	CTA Consultants Limited 志達顧問有限公司

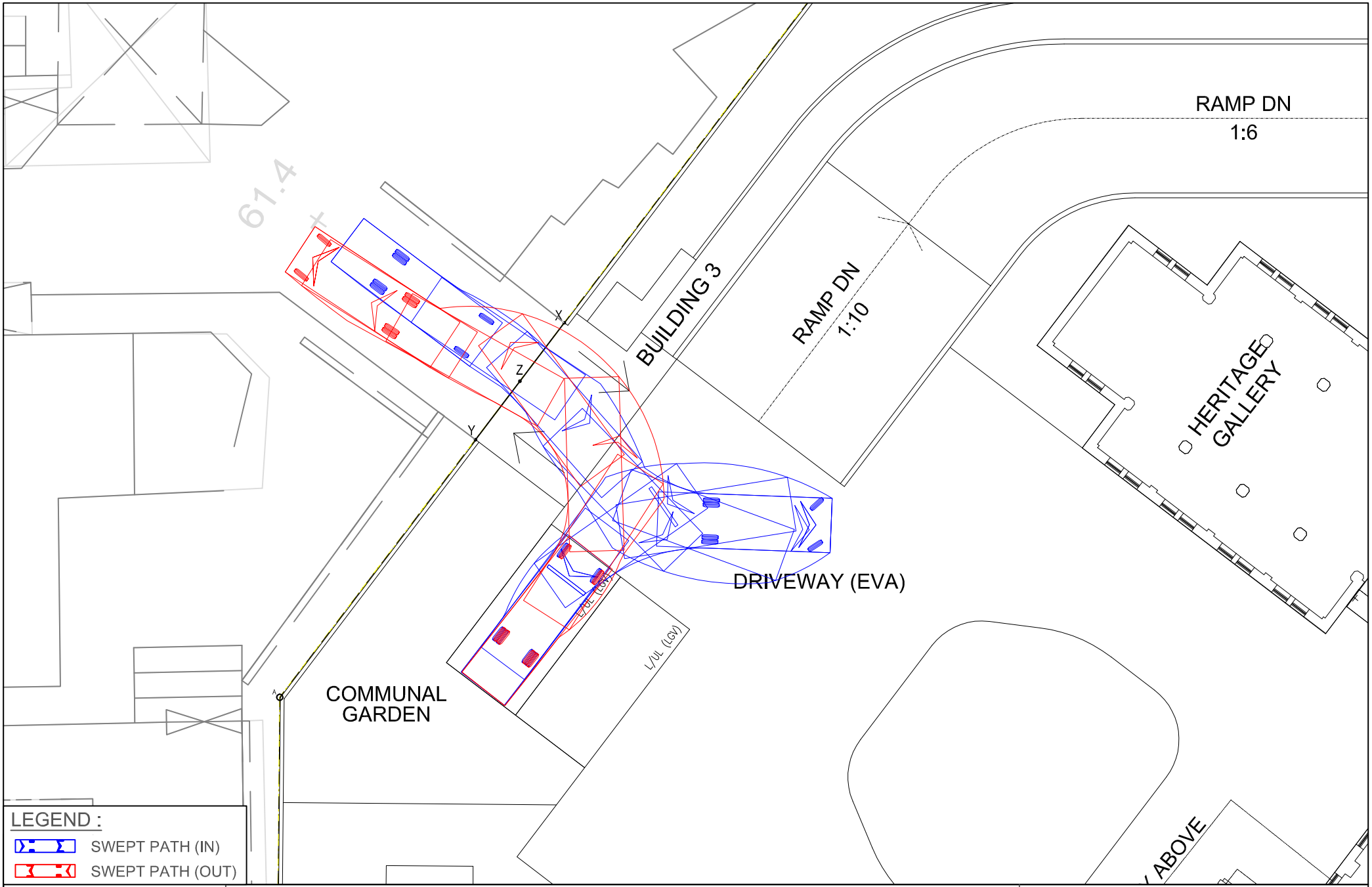


FIGURE NO.: SP-02	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.: 24048HK	DRAWING TITLE: SWEPT PATH ANALYSIS OF LGV AT PROPOSED VEHICULAR ACCESS
SCALE: 1 : 200 @A4	DATE: 12 NOV 2024

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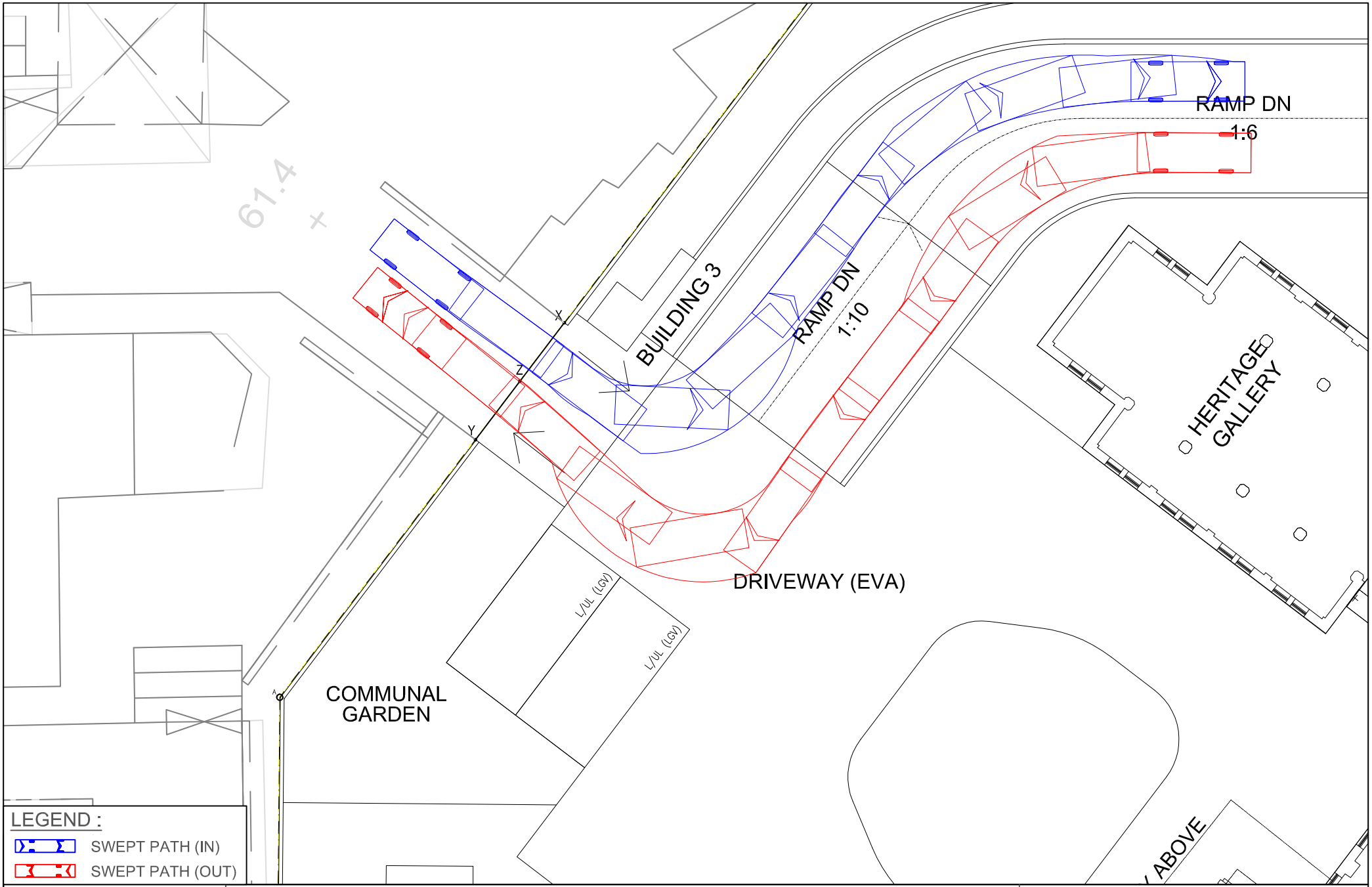

FIGURE NO.: SP-03	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK	DRAWING TITLE: SWEPT PATH ANALYSIS AT ENTRANCE OF RAMP TO CARPARK FROM "RIGHT OF WAY" ACCESS ROAD	
SCALE: 1 : 200 @A4 / DATE: 12 NOV 2024		

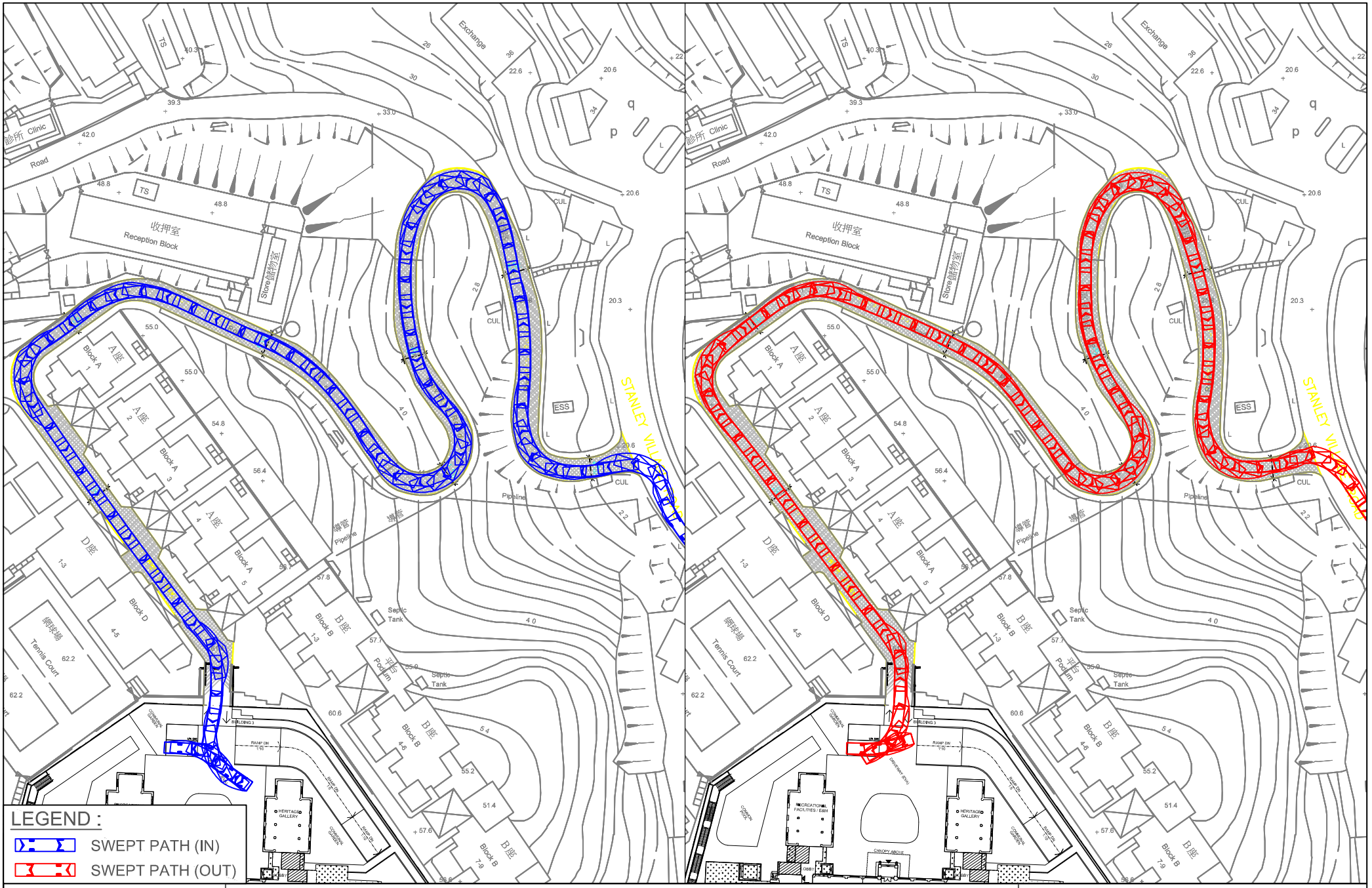

FIGURE NO.: SP-04	PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong
PROJECT NO.: 24048HK	DRAWING TITLE: SWEPT PATH ANALYSIS 28-SEATER COACH AT CRITICAL ROAD SECTIONS
SCALE: 1 : 1100 @A4	DATE: 12 NOV 2024

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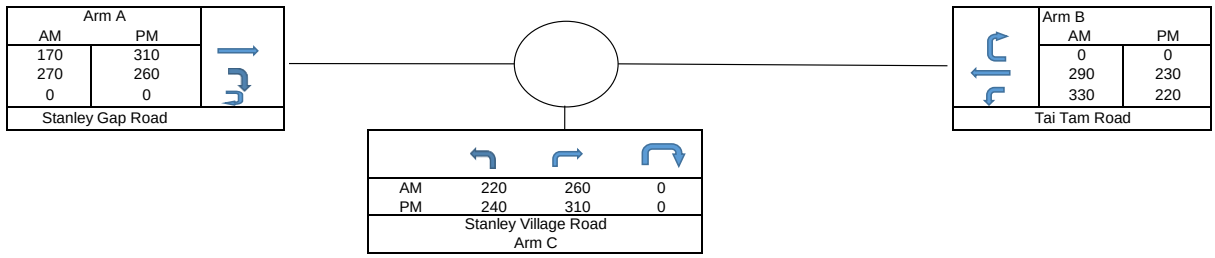
APPENDIX A

JUNCTION CALCULATION SHEETS

Roundabout Junction Calculation

Roundabout Junction : **Tai Tam Road / Stanley Gap Road / Stanley Village Road (A)** Project No. 24048HK

Design Year : **2024 Observed Traffic Flows (Weekday)**



Input Parameters			Arm A - Stanley Gap Road		Arm B - Tai Tam Road		Arm C - Stanley Village Road	
			AM	PM	AM	PM	AM	PM
V	=	Approach half width (m)	2.5	2.5	3.5	3.5	3.6	3.6
E	=	Entry width (m)	4.6	4.6	4.6	4.6	4.8	4.8
L	=	Effective length of flare (m)	12	12	1	1	2.5	2.5
R	=	Entry radius	320	320	100	100	6	6
D	=	Inscribed circle diameter (m)	22	22	22	22	22	22
A	=	Entry angle (degree)	10	10	10	10	38	38
Q	=	Entry flow (pcu/hr)	440	570	620	450	480	550
Qc	=	Circulating flow across entry (pcu/hr)	260	260	270	260	290	230

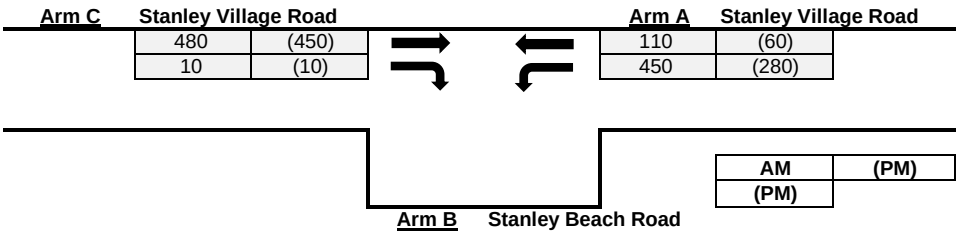
Output Parameters			Arm A		Arm B		Arm C	
			AM	PM	AM	PM	AM	PM
S	=	Sharepness of flare = 1.6*(E-V)/L	0.28	0.28	1.76	1.76	0.77	0.77
K	=	1-0.00347*(A-30)-0.978*(1/R-0.05)	1.12	1.12	1.11	1.11	0.86	0.86
X_2	=	V+((E-V)/(1+2*S))	3.85	3.85	3.74	3.74	4.07	4.07
M	=	Exp((D-60)/10)	0.02	0.02	0.02	0.02	0.02	0.02
F	=	303*X_2	1165	1165	1134	1134	1234	1234
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49	1.49	1.49	1.49
Fc	=	0.21*Td*(1+0.2*X_2)	0.55	0.55	0.55	0.55	0.57	0.57
Qe	=	Capacity = K*(F-Fc*Qc)	1139	1139	1094	1100	918	947
DFC	=	Entry Flow/Capacity = Q/Qe	0.39	0.50	0.57	0.41	0.52	0.58

		AM	PM
DFC of Critical Approach	=	**0.57**	**0.58**

CTA

Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Beach Road (B)	Job No.:	24048HK
Scenario :	2024 Observed Traffic Flows (Weekday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	0	w-BA	0	D	0.533
W-CR	0	V-IBA	0	w-BC	0	E	0.586
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	0	w-CB	3.5	F	0.924
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	50			Y	0.733

Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	480	450	Q-BA	248	268	
	q-CB	10	10	Q-BC	392	410	
	q-AB	450	280	Q-CB	550	604	
	q-AC	110	60	Q-CA	1767	1770	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	248	268	(If Minor Road Share LT&RT)
	q-BC	0	0				
	f	0.000	0.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.02	0.02
	C-A	0.27	0.25
	B-AC	0.00	0.00
	Critical DFC	**0.27**	**0.25**

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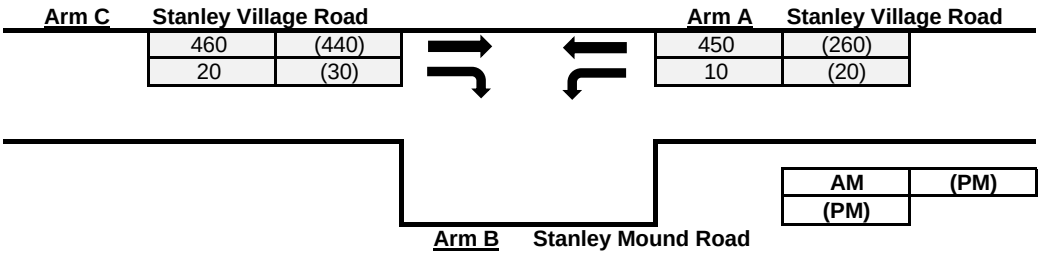
Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Mound Road (C)	Job No.:	24048HK
Scenario :	2024 Observed Traffic Flows (Weekday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	0	w-BA	0	D	0.533
W-CR	0	V-IBA	0	w-BC	0	E	0.586
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	0	w-CB	3.3	F	0.911
Minor Road Share LT&RT? (Yes: 1, No: 0)	0	V-rCB	55			Y	0.733

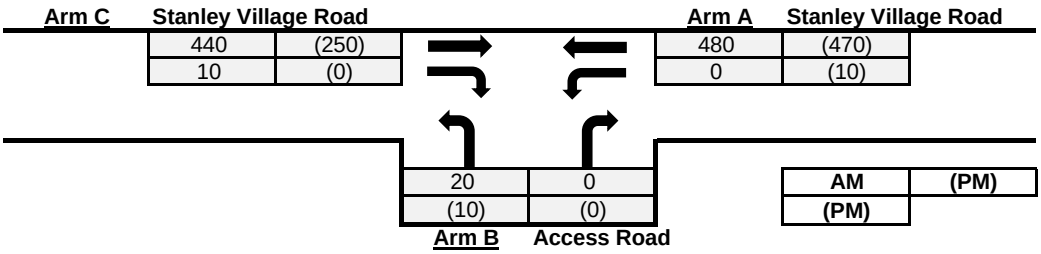
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	460	440	Q-BA	225	251	
	q-CB	20	30	Q-BC	366	395	
	q-AB	10	20	Q-CB	567	610	
	q-AC	450	260	Q-CA	1736	1712	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	N/A	N/A	(If Minor Road Share LT&RT)
	q-BC	0	0				
	f	0.000	0.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	0.00	0.00
	B-C	0.00	0.00
	C-B	0.04	0.05
	C-A	0.26	0.26
	B-AC	N/A	N/A
	Critical DFC	**0.26**	**0.26**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Village Road / Access Road (D)	Job No.:	24048HK
Scenario :	2024 Observed Traffic Flows (Weekday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	17	w-BA	2.05		D	0.712
W-CR	0	V-IBA	22	w-BC	2.05		E	0.771
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	17	w-CB	4		F	0.968
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	50				Y	0.733

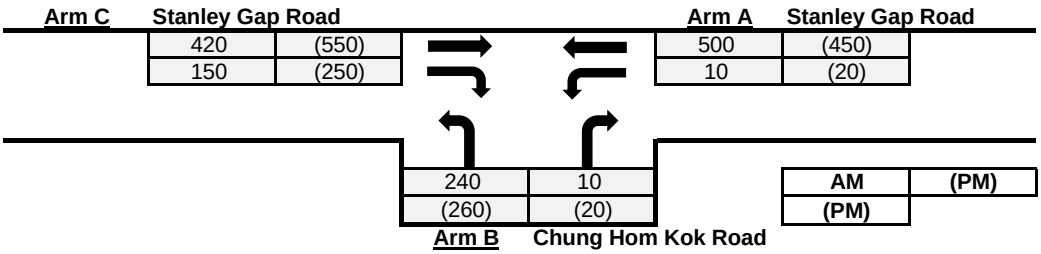
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	440	250	Q-BA	300	326	
	q-CB	10	0	Q-BC	476	477	
	q-AB	0	10	Q-CB	597	597	
	q-AC	480	470	Q-CA	1770	1800	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	476	477	(If Minor Road Share LT&RT)
	q-BC	20	10				
	f	1.000	1.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.02	0.00
	C-A	0.25	0.14
	B-AC	0.04	0.02
	Critical DFC	**0.25**	**0.14**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Gap Road / Chung Hom Kok Road (E)	Job No.:	24048HK
Scenario :	2024 Observed Traffic Flows (Weekday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7	V-rBA	34	w-BA	2.35		D	0.750
W-CR	0	V-IBA	27	w-BC	2.35		E	0.837
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	0	V-rBC	68	w-CB	2.1		F	0.854
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	120				Y	0.759

Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	420	550	Q-BA	267	230	
	q-CB	150	250	Q-BC	507	518	
	q-AB	10	20	Q-CB	516	526	
	q-AC	500	450	Q-CA	N/A	N/A	(If C-B blocked C-A)
	q-BA	10	20	Q-BAC	489	475	(If Minor Road Share LT&RT)
	q-BC	240	260				
	f	0.960	0.929				

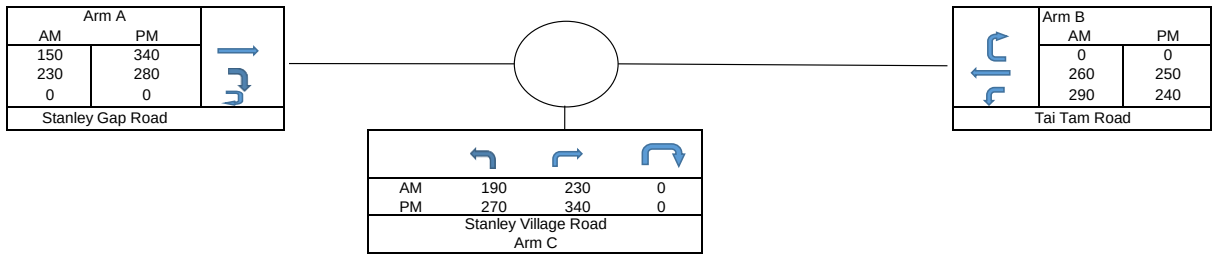
Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.29	0.48
	C-A	N/A	N/A
	B-AC	0.51	0.59
	Critical DFC	**0.51**	**0.59**

CTA Consultants Ltd.

Roundabout Junction Calculation

Roundabout Junction : **Tai Tam Road / Stanley Gap Road / Stanley Village Road (A)** Project No. 24048HK

Design Year : **2024 Observed Traffic Flows (Sunday)**



Input Parameters			Arm A - Stanley Gap Road		Arm B - Tai Tam Road		Arm C - Stanley Village Road	
			AM	PM	AM	PM	AM	PM
V	=	Approach half width (m)	2.5	2.5	3.5	3.5	3.6	3.6
E	=	Entry width (m)	4.6	4.6	4.6	4.6	4.8	4.8
L	=	Effective length of flare (m)	12	12	1	1	2.5	2.5
R	=	Entry radius	320	320	100	100	6	6
D	=	Inscribed circle diameter (m)	22	22	22	22	22	22
A	=	Entry angle (degree)	10	10	10	10	38	38
Q	=	Entry flow (pcu/hr)	380	620	550	490	420	610
Qc	=	Circulating flow across entry (pcu/hr)	230	230	230	280	260	250

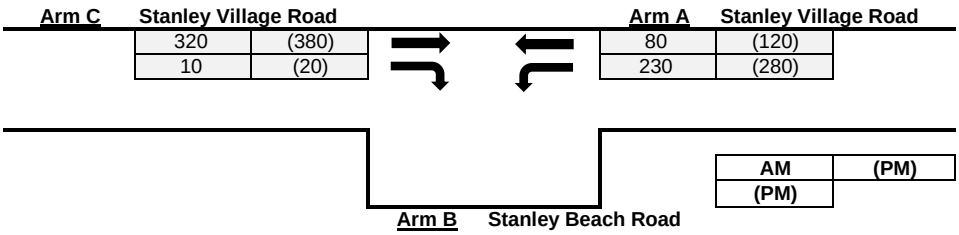
Output Parameters			Arm A		Arm B		Arm C	
			AM	PM	AM	PM	AM	PM
S	=	Sharepness of flare = 1.6*(E-V)/L	0.28	0.28	1.76	1.76	0.77	0.77
K	=	1-0.00347*(A-30)-0.978*(1/R-0.05)	1.12	1.12	1.11	1.11	0.86	0.86
X_2	=	V+((E-V)/(1+2*S))	3.85	3.85	3.74	3.74	4.07	4.07
M	=	Exp((D-60)/10)	0.02	0.02	0.02	0.02	0.02	0.02
F	=	303*X_2	1165	1165	1134	1134	1234	1234
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49	1.49	1.49	1.49
Fc	=	0.21*Td*(1+0.2*X_2)	0.55	0.55	0.55	0.55	0.57	0.57
Qe	=	Capacity = K*(F-Fc*Qc)	1158	1158	1118	1088	932	937
DFC	=	Entry Flow/Capacity = Q/Qe	0.33	0.54	0.49	0.45	0.45	0.65

		AM	PM
DFC of Critical Approach	=	**0.49**	**0.65**

CTA

Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Beach Road (B)	Job No.:	24048HK
Scenario :	2024 Observed Traffic Flows (Sunday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	0	w-BA	0	D	0.533
W-CR	0	V-IBA	0	w-BC	0	E	0.586
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	0	w-CB	3.5	F	0.924
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	50			Y	0.733

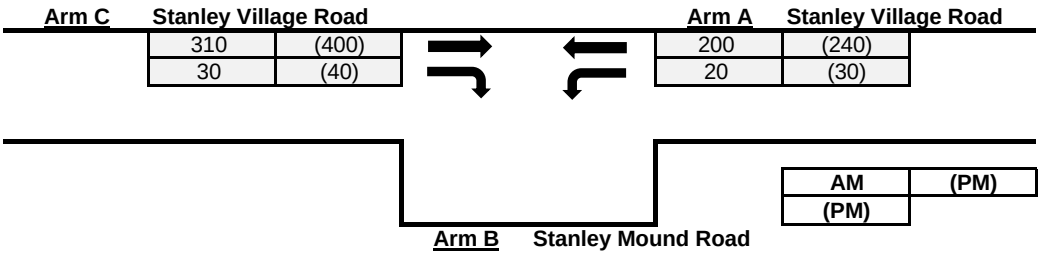
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	320	380	Q-BA	279	263	
	q-CB	10	20	Q-BC	410	400	
	q-AB	230	280	Q-CB	612	590	
	q-AC	80	120	Q-CA	1771	1739	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	279	263	(If Minor Road Share LT&RT)
	q-BC	0	0				
	f	0.000	0.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.02	0.03
	C-A	0.18	0.22
	B-AC	0.00	0.00
	Critical DFC	**0.18**	**0.22**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Mound Road (C)	Job No.:	24048HK
Scenario :	2024 Observed Traffic Flows (Sunday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	0	w-BA	0	D	0.533
W-CR	0	V-IBA	0	w-BC	0	E	0.586
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	0	w-CB	3.3	F	0.911
Minor Road Share LT&RT? (Yes: 1, No: 0)	0	V-rCB	55			Y	0.733

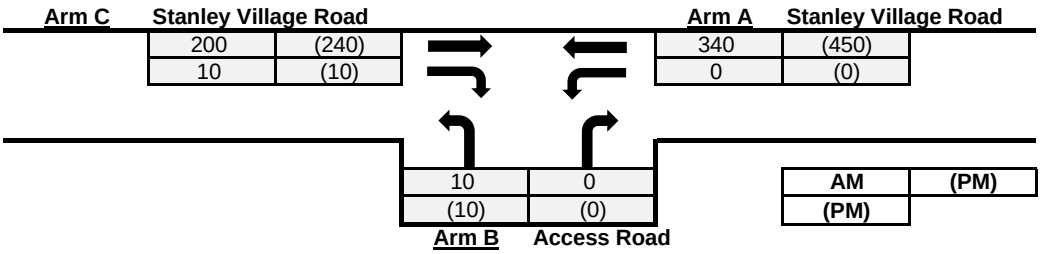
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	310	400	Q-BA	271	255	
	q-CB	30	40	Q-BC	404	397	
	q-AB	20	30	Q-CB	625	613	
	q-AC	200	240	Q-CA	1714	1683	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	N/A	N/A	(If Minor Road Share LT&RT)
	q-BC	0	0				
	f	0.000	0.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	0.00	0.00
	B-C	0.00	0.00
	C-B	0.05	0.07
	C-A	0.18	0.24
	B-AC	N/A	N/A
	Critical DFC	**0.18**	**0.24**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Village Road / Access Road (D)	Job No.:	24048HK
Scenario :	2024 Observed Traffic Flows (Sunday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	17	w-BA	2.05		D	0.712
W-CR	0	V-IBA	22	w-BC	2.05		E	0.771
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	17	w-CB	4		F	0.968
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	50				Y	0.733

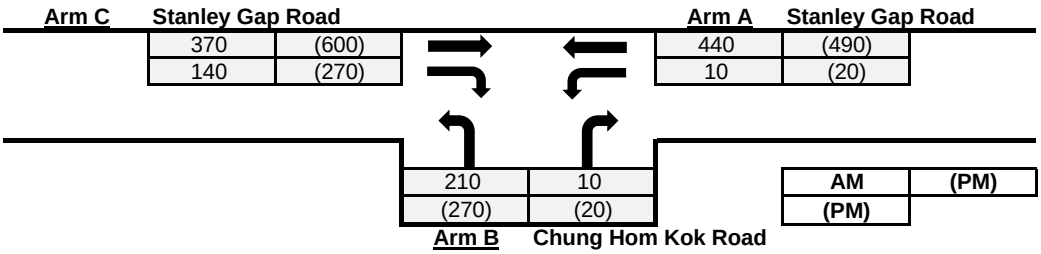
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	200	240	Q-BA	355	329	
	q-CB	10	10	Q-BC	504	482	
	q-AB	0	0	Q-CB	633	605	
	q-AC	340	450	Q-CA	1772	1770	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	504	482	(If Minor Road Share LT&RT)
	q-BC	10	10				
	f	1.000	1.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.02	0.02
	C-A	0.11	0.14
	B-AC	0.02	0.02
	Critical DFC	**0.11**	**0.14**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Gap Road / Chung Hom Kok Road (E)	Job No.:	24048HK
Scenario :	2024 Observed Traffic Flows (Sunday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7	V-rBA	34	w-BA	2.35		D	0.750
W-CR	0	V-IBA	27	w-BC	2.35		E	0.837
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	0	V-rBC	68	w-CB	2.1		F	0.854
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	120				Y	0.759

Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	370	600	Q-BA	289	209	
	q-CB	140	270	Q-BC	521	508	
	q-AB	10	20	Q-CB	530	516	
	q-AC	440	490	Q-CA	N/A	N/A	(If C-B blocked C-A)
	q-BA	10	20	Q-BAC	502	463	(If Minor Road Share LT&RT)
	q-BC	210	270				
	f	0.955	0.931				

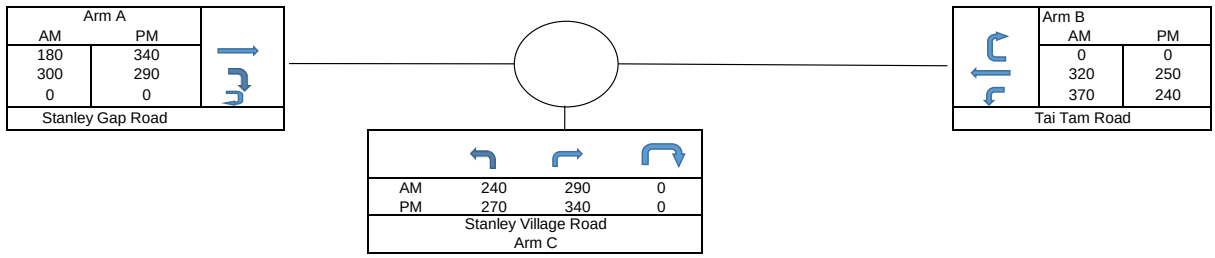
Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.26	0.52
	C-A	N/A	N/A
	B-AC	0.44	0.63
	Critical DFC	**0.44**	**0.63**

CTA Consultants Ltd.

Roundabout Junction Calculation

Roundabout Junction : **Tai Tam Road / Stanley Gap Road / Stanley Village Road (A)** Project No. 24048HK

Design Year : **2031 Reference Traffic Flows (Weekday)**



Input Parameters			Arm A - Stanley Gap Road		Arm B - Tai Tam Road		Arm C - Stanley Village Road	
			AM	PM	AM	PM	AM	PM
V	=	Approach half width (m)	2.5	2.5	3.5	3.5	3.6	3.6
E	=	Entry width (m)	4.6	4.6	4.6	4.6	4.8	4.8
L	=	Effective length of flare (m)	12	12	1	1	2.5	2.5
R	=	Entry radius	320	320	100	100	6	6
D	=	Inscribed circle diameter (m)	22	22	22	22	22	22
A	=	Entry angle (degree)	10	10	10	10	38	38
Q	=	Entry flow (pcu/hr)	480	630	690	490	530	610
Qc	=	Circulating flow across entry (pcu/hr)	290	290	300	290	320	250

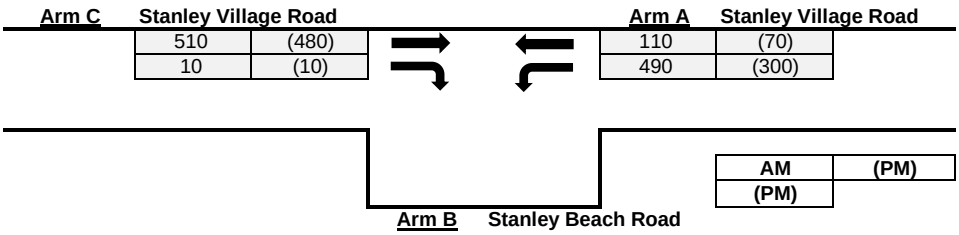
Output Parameters			Arm A		Arm B		Arm C	
			AM	PM	AM	PM	AM	PM
S	=	Sharepness of flare = 1.6*(E-V)/L	0.28	0.28	1.76	1.76	0.77	0.77
K	=	1-0.00347*(A-30)-0.978*(1/R-0.05)	1.12	1.12	1.11	1.11	0.86	0.86
X_2	=	V+((E-V)/(1+2*S))	3.85	3.85	3.74	3.74	4.07	4.07
M	=	Exp((D-60)/10)	0.02	0.02	0.02	0.02	0.02	0.02
F	=	303*X_2	1165	1165	1134	1134	1234	1234
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49	1.49	1.49	1.49
Fc	=	0.21*Td*(1+0.2*X_2)	0.55	0.55	0.55	0.55	0.57	0.57
Qe	=	Capacity = K*(F-Fc*Qc)	1121	1121	1075	1082	903	937
DFC	=	Entry Flow/Capacity = Q/Qe	0.43	0.56	0.64	0.45	0.59	0.65

		AM	PM
DFC of Critical Approach	=	**0.64**	**0.65**

CTA

Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Beach Road (B)	Job No.:	24048HK
Scenario :	2031 Reference Traffic Flows (Weekday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	0	w-BA	0	D	0.533
W-CR	0	V-IBA	0	w-BC	0	E	0.586
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	0	w-CB	3.5	F	0.924
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	50			Y	0.733

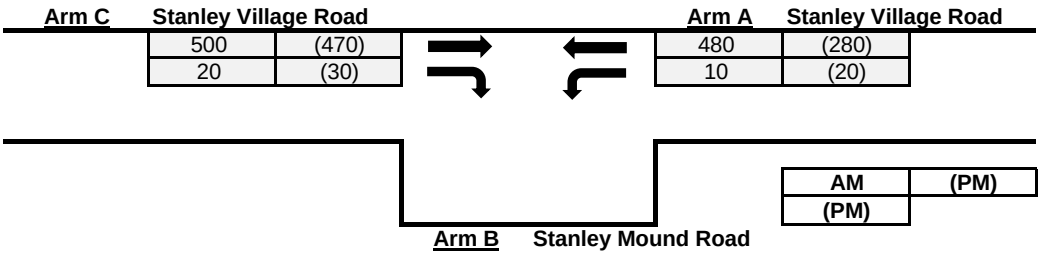
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	510	480	Q-BA	243	263	
	q-CB	10	10	Q-BC	389	407	
	q-AB	490	300	Q-CB	540	597	
	q-AC	110	70	Q-CA	1767	1770	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	243	263	(If Minor Road Share LT&RT)
	q-BC	0	0				
	f	0.000	0.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.02	0.02
	C-A	0.29	0.27
	B-AC	0.00	0.00
	Critical DFC	**0.29**	**0.27**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Mound Road (C)	Job No.:	24048HK
Scenario :	2031 Reference Traffic Flows (Weekday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	0	w-BA	0	D	0.533
W-CR	0	V-IBA	0	w-BC	0	E	0.586
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	0	w-CB	3.3	F	0.911
Minor Road Share LT&RT? (Yes: 1, No: 0)	0	V-rCB	55			Y	0.733

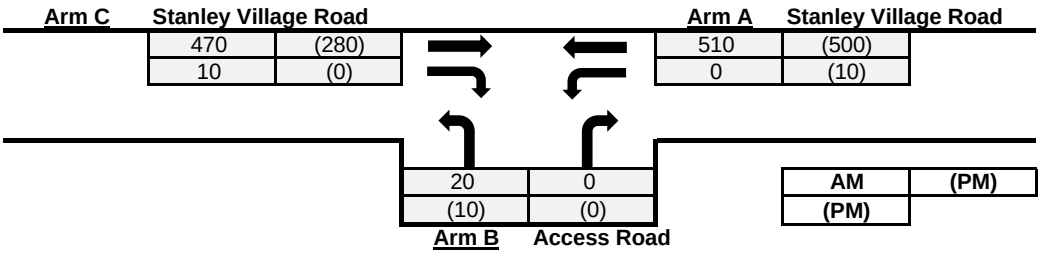
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	500	470	Q-BA	217	245	
	q-CB	20	30	Q-BC	361	392	
	q-AB	10	20	Q-CB	559	605	
	q-AC	480	280	Q-CA	1736	1711	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	N/A	N/A	(If Minor Road Share LT&RT)
	q-BC	0	0				
	f	0.000	0.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	0.00	0.00
	B-C	0.00	0.00
	C-B	0.04	0.05
	C-A	0.29	0.27
	B-AC	N/A	N/A
	Critical DFC	**0.29**	**0.27**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Village Road / Access Road (D)	Job No.:	24048HK
Scenario :	2031 Reference Traffic Flows (Weekday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	17	w-BA	2.05		D	0.712
W-CR	0	V-IBA	22	w-BC	2.05		E	0.771
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	17	w-CB	4		F	0.968
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	50				Y	0.733

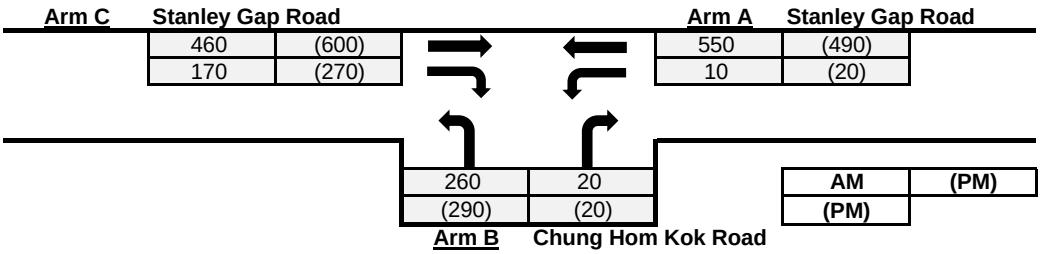
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	470	280	Q-BA	291	317	
	q-CB	10	0	Q-BC	469	471	
	q-AB	0	10	Q-CB	589	589	
	q-AC	510	500	Q-CA	1769	1800	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	469	471	(If Minor Road Share LT&RT)
	q-BC	20	10				
	f	1.000	1.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.02	0.00
	C-A	0.27	0.16
	B-AC	0.04	0.02
	Critical DFC	**0.27**	**0.16**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Gap Road / Chung Hom Kok Road (E)	Job No.:	24048HK
Scenario :	2031 Reference Traffic Flows (Weekday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7	V-rBA	34	w-BA	2.35		D	0.750
W-CR	0	V-IBA	27	w-BC	2.35		E	0.837
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	0	V-rBC	68	w-CB	2.1		F	0.854
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	120				Y	0.759

Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	460	600	Q-BA	245	209	
	q-CB	170	270	Q-BC	495	508	
	q-AB	10	20	Q-CB	504	516	
	q-AC	550	490	Q-CA	N/A	N/A	(If C-B blocked C-A)
	q-BA	20	20	Q-BAC	462	465	(If Minor Road Share LT&RT)
	q-BC	260	290				
	f	0.929	0.935				

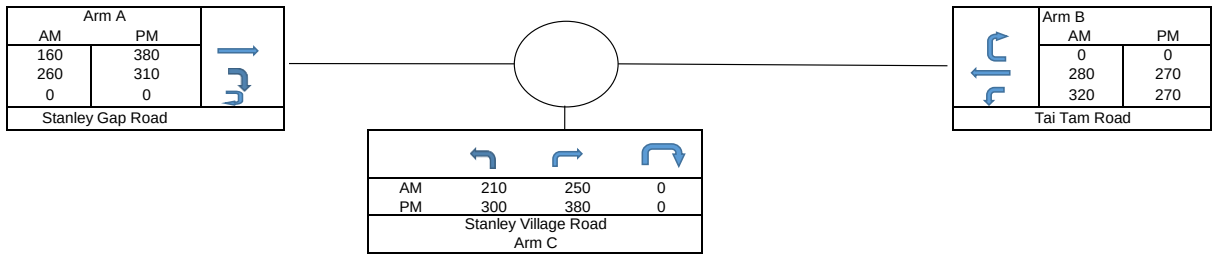
Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.34	0.52
	C-A	N/A	N/A
	B-AC	0.61	0.67
	Critical DFC	**0.61**	**0.67**

CTA Consultants Ltd.

Roundabout Junction Calculation

Roundabout Junction : **Tai Tam Road / Stanley Gap Road / Stanley Village Road (A)** Project No. 24048HK

Design Year : **2031 Reference Traffic Flows (Sunday)**



Input Parameters			Arm A - Stanley Gap Road		Arm B - Tai Tam Road		Arm C - Stanley Village Road	
			AM	PM	AM	PM	AM	PM
V	=	Approach half width (m)	2.5	2.5	3.5	3.5	3.6	3.6
E	=	Entry width (m)	4.6	4.6	4.6	4.6	4.8	4.8
L	=	Effective length of flare (m)	12	12	1	1	2.5	2.5
R	=	Entry radius	320	320	100	100	6	6
D	=	Inscribed circle diameter (m)	22	22	22	22	22	22
A	=	Entry angle (degree)	10	10	10	10	38	38
Q	=	Entry flow (pcu/hr)	420	690	600	540	460	680
Qc	=	Circulating flow across entry (pcu/hr)	250	250	260	310	280	270

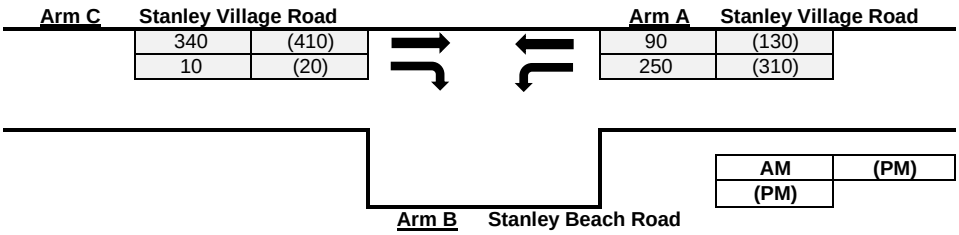
Output Parameters			Arm A		Arm B		Arm C	
			AM	PM	AM	PM	AM	PM
S	=	Sharepness of flare = 1.6*(E-V)/L	0.28	0.28	1.76	1.76	0.77	0.77
K	=	1-0.00347*(A-30)-0.978*(1/R-0.05)	1.12	1.12	1.11	1.11	0.86	0.86
X_2	=	V+((E-V)/(1+2*S))	3.85	3.85	3.74	3.74	4.07	4.07
M	=	Exp((D-60)/10)	0.02	0.02	0.02	0.02	0.02	0.02
F	=	303*X_2	1165	1165	1134	1134	1234	1234
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49	1.49	1.49	1.49
Fc	=	0.21*Td*(1+0.2*X_2)	0.55	0.55	0.55	0.55	0.57	0.57
Qe	=	Capacity = K*(F-Fc*Qc)	1145	1145	1100	1069	923	928
DFC	=	Entry Flow/Capacity = Q/Qe	0.37	0.60	0.55	0.50	0.50	0.73

		AM	PM
DFC of Critical Approach	=	**0.55**	**0.73**

CTA

Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Beach Road (B)	Job No.:	24048HK
Scenario :	2031 Reference Traffic Flows (Sunday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	0	w-BA	0	D	0.533
W-CR	0	V-IBA	0	w-BC	0	E	0.586
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	0	w-CB	3.5	F	0.924
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	50			Y	0.733

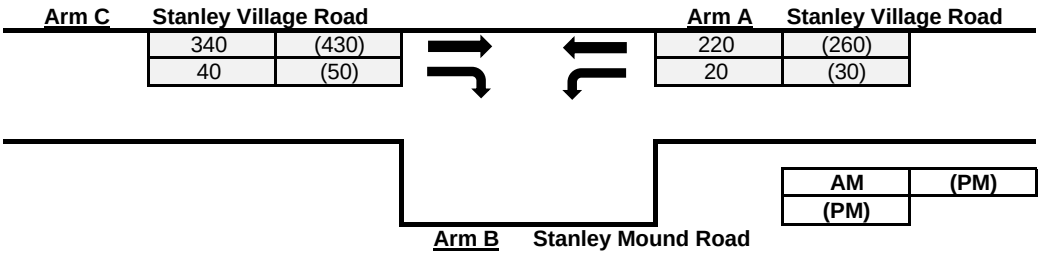
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	340	410	Q-BA	275	258	
	q-CB	10	20	Q-BC	407	397	
	q-AB	250	310	Q-CB	604	580	
	q-AC	90	130	Q-CA	1770	1738	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	275	258	(If Minor Road Share LT&RT)
	q-BC	0	0				
	f	0.000	0.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.02	0.03
	C-A	0.19	0.24
	B-AC	0.00	0.00
	Critical DFC	**0.19**	**0.24**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Mound Road (C)	Job No.:	24048HK
Scenario :	2031 Reference Traffic Flows (Sunday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	0	w-BA	0	D	0.533
W-CR	0	V-IBA	0	w-BC	0	E	0.586
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	0	w-CB	3.3	F	0.911
Minor Road Share LT&RT? (Yes: 1, No: 0)	0	V-rCB	55			Y	0.733

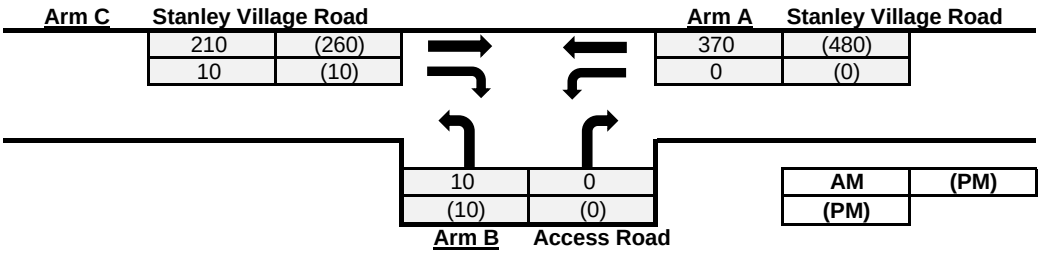
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	340	430	Q-BA	263	247	
	q-CB	40	50	Q-BC	401	394	
	q-AB	20	30	Q-CB	620	608	
	q-AC	220	260	Q-CA	1684	1652	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	N/A	N/A	(If Minor Road Share LT&RT)
	q-BC	0	0				
	f	0.000	0.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	0.00	0.00
	B-C	0.00	0.00
	C-B	0.06	0.08
	C-A	0.20	0.26
	B-AC	N/A	N/A
	Critical DFC	**0.20**	**0.26**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Village Road / Access Road (D)	Job No.:	24048HK
Scenario :	2031 Reference Traffic Flows (Sunday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	17	w-BA	2.05		D	0.712
W-CR	0	V-IBA	22	w-BC	2.05		E	0.771
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	17	w-CB	4		F	0.968
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	50				Y	0.733

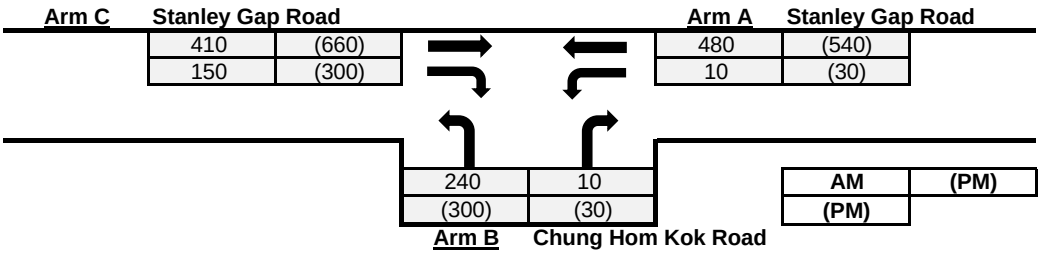
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	210	260	Q-BA	348	321	
	q-CB	10	10	Q-BC	498	476	
	q-AB	0	0	Q-CB	626	597	
	q-AC	370	480	Q-CA	1771	1770	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	498	476	(If Minor Road Share LT&RT)
	q-BC	10	10				
	f	1.000	1.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.02	0.02
	C-A	0.12	0.15
	B-AC	0.02	0.02
	Critical DFC	**0.12**	**0.15**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Gap Road / Chung Hom Kok Road (E)	Job No.:	24048HK
Scenario :	2031 Reference Traffic Flows (Sunday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7	V-rBA	34	w-BA	2.35		D	0.750
W-CR	0	V-IBA	27	w-BC	2.35		E	0.837
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	0	V-rBC	68	w-CB	2.1		F	0.854
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	120				Y	0.759

Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	410	660	Q-BA	272	181	
	q-CB	150	300	Q-BC	512	496	
	q-AB	10	30	Q-CB	521	502	
	q-AC	480	540	Q-CA	N/A	N/A	(If C-B blocked C-A)
	q-BA	10	30	Q-BAC	494	428	(If Minor Road Share LT&RT)
	q-BC	240	300				
	f	0.960	0.909				

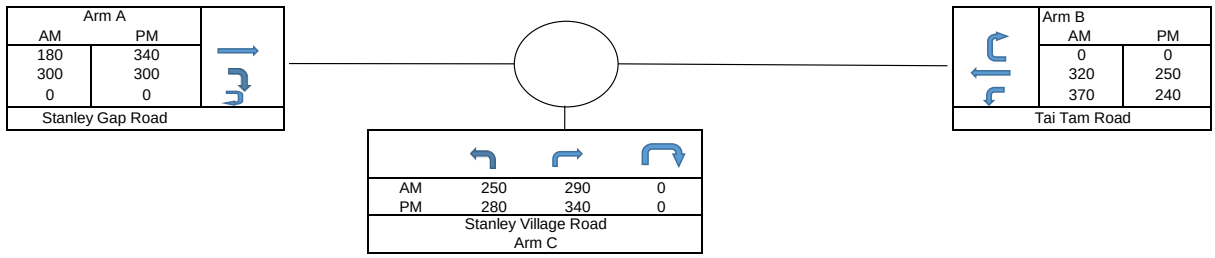
Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.29	0.60
	C-A	N/A	N/A
	B-AC	0.51	0.77
	Critical DFC	**0.51**	**0.77**

CTA Consultants Ltd.

Roundabout Junction Calculation

Roundabout Junction : **Tai Tam Road / Stanley Gap Road / Stanley Village Road (A)** Project No. 24048HK

Design Year : **2031 Design Traffic Flows (Weekday)**



Input Parameters			Arm A - Stanley Gap Road		Arm B - Tai Tam Road		Arm C - Stanley Village Road	
			AM	PM	AM	PM	AM	PM
V	=	Approach half width (m)	2.5	2.5	3.5	3.5	3.6	3.6
E	=	Entry width (m)	4.6	4.6	4.6	4.6	4.8	4.8
L	=	Effective length of flare (m)	12	12	1	1	2.5	2.5
R	=	Entry radius	320	320	100	100	6	6
D	=	Inscribed circle diameter (m)	22	22	22	22	22	22
A	=	Entry angle (degree)	10	10	10	10	38	38
Q	=	Entry flow (pcu/hr)	480	640	690	490	540	620
Qc	=	Circulating flow across entry (pcu/hr)	290	290	300	300	320	250

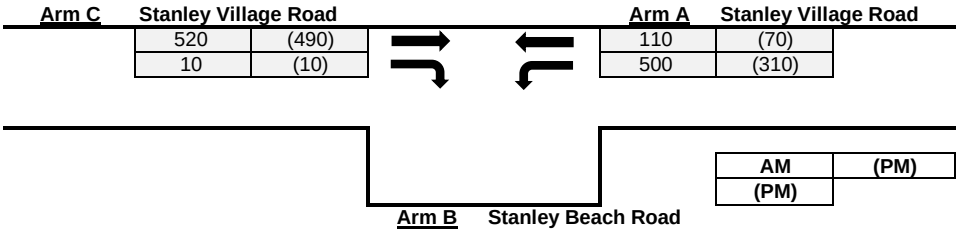
Output Parameters			Arm A		Arm B		Arm C	
			AM	PM	AM	PM	AM	PM
S	=	Sharepness of flare = 1.6*(E-V)/L	0.28	0.28	1.76	1.76	0.77	0.77
K	=	1-0.00347*(A-30)-0.978*(1/R-0.05)	1.12	1.12	1.11	1.11	0.86	0.86
X_2	=	V+((E-V)/(1+2*S))	3.85	3.85	3.74	3.74	4.07	4.07
M	=	Exp((D-60)/10)	0.02	0.02	0.02	0.02	0.02	0.02
F	=	303*X_2	1165	1165	1134	1134	1234	1234
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49	1.49	1.49	1.49
Fc	=	0.21*Td*(1+0.2*X_2)	0.55	0.55	0.55	0.55	0.57	0.57
Qe	=	Capacity = K*(F-Fc*Qc)	1121	1121	1075	1075	903	937
DFC	=	Entry Flow/Capacity = Q/Qe	0.43	0.57	0.64	0.46	0.60	0.66

		AM	PM
DFC of Critical Approach	=	**0.64**	**0.66**

CTA

Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Beach Road (B)	Job No.:	24048HK
Scenario :	2031 Design Traffic Flows (Weekday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	0	w-BA	0	D	0.533
W-CR	0	V-IBA	0	w-BC	0	E	0.586
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	0	w-CB	3.5	F	0.924
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	50			Y	0.733

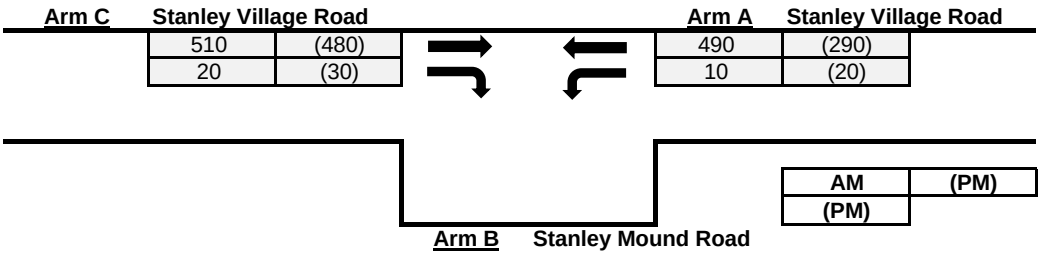
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	520	490	Q-BA	242	261	
	q-CB	10	10	Q-BC	388	406	
	q-AB	500	310	Q-CB	538	595	
	q-AC	110	70	Q-CA	1767	1770	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	242	261	(If Minor Road Share LT&RT)
	q-BC	0	0				
	f	0.000	0.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.02	0.02
	C-A	0.29	0.28
	B-AC	0.00	0.00
	Critical DFC	**0.29**	**0.28**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Mound Road (C)	Job No.:	24048HK
Scenario :	2031 Design Traffic Flows (Weekday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	0	w-BA	0	D	0.533
W-CR	0	V-IBA	0	w-BC	0	E	0.586
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	0	w-CB	3.3	F	0.911
Minor Road Share LT&RT? (Yes: 1, No: 0)	0	V-rCB	55			Y	0.733

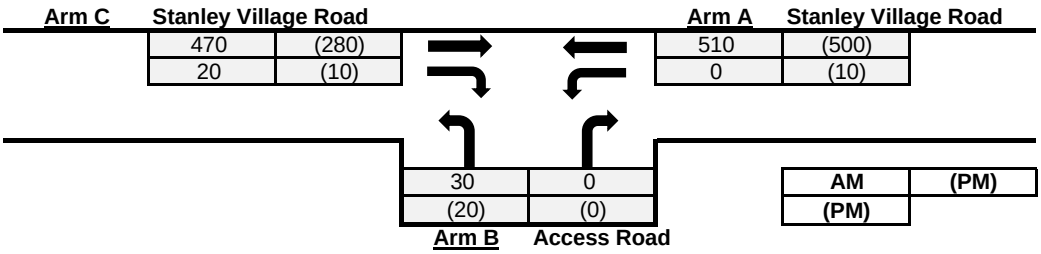
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	510	480	Q-BA	214	243	
	q-CB	20	30	Q-BC	359	390	
	q-AB	10	20	Q-CB	557	603	
	q-AC	490	290	Q-CA	1735	1710	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	N/A	N/A	(If Minor Road Share LT&RT)
	q-BC	0	0				
	f	0.000	0.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	0.00	0.00
	B-C	0.00	0.00
	C-B	0.04	0.05
	C-A	0.29	0.28
	B-AC	N/A	N/A
	Critical DFC	**0.29**	**0.28**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Village Road / Access Road (D)	Job No.:	24048HK
Scenario :	2031 Design Traffic Flows (Weekday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	17	w-BA	2.05		D	0.712
W-CR	0	V-IBA	22	w-BC	2.05		E	0.771
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	17	w-CB	4		F	0.968
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	50				Y	0.733

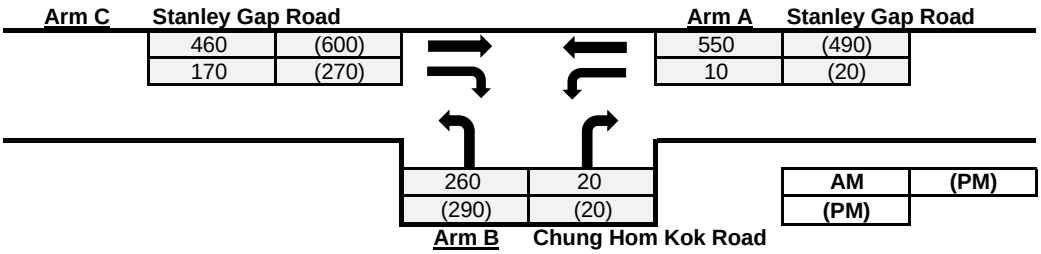
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	470	280	Q-BA	288	314	
	q-CB	20	10	Q-BC	469	471	
	q-AB	0	10	Q-CB	589	589	
	q-AC	510	500	Q-CA	1739	1769	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	469	471	(If Minor Road Share LT&RT)
	q-BC	30	20				
	f	1.000	1.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.03	0.02
	C-A	0.27	0.16
	B-AC	0.06	0.04
	Critical DFC	**0.27**	**0.16**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Gap Road / Chung Hom Kok Road (E)	Job No.:	24048HK
Scenario :	2031 Design Traffic Flows (Weekday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7	V-rBA	34	w-BA	2.35		D	0.750
W-CR	0	V-IBA	27	w-BC	2.35		E	0.837
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	0	V-rBC	68	w-CB	2.1		F	0.854
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	120				Y	0.759

Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	460	600	Q-BA	245	209	
	q-CB	170	270	Q-BC	495	508	
	q-AB	10	20	Q-CB	504	516	
	q-AC	550	490	Q-CA	N/A	N/A	(If C-B blocked C-A)
	q-BA	20	20	Q-BAC	462	465	(If Minor Road Share LT&RT)
	q-BC	260	290				
	f	0.929	0.935				

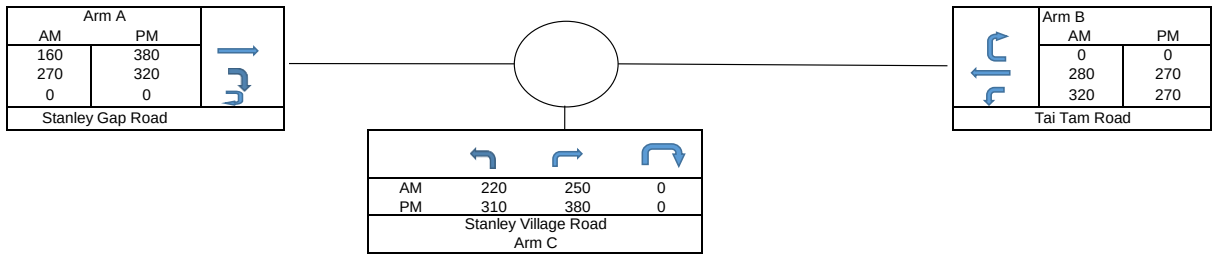
Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.34	0.52
	C-A	N/A	N/A
	B-AC	0.61	0.67
	Critical DFC	**0.61**	**0.67**

CTA Consultants Ltd.

Roundabout Junction Calculation

Roundabout Junction : **Tai Tam Road / Stanley Gap Road / Stanley Village Road (A)** Project No. 24048HK

Design Year : **2031 Design Traffic Flows (Sunday)**



Input Parameters			Arm A - Stanley Gap Road		Arm B - Tai Tam Road		Arm C - Stanley Village Road	
			AM	PM	AM	PM	AM	PM
V	=	Approach half width (m)	2.5	2.5	3.5	3.5	3.6	3.6
E	=	Entry width (m)	4.6	4.6	4.6	4.6	4.8	4.8
L	=	Effective length of flare (m)	12	12	1	1	2.5	2.5
R	=	Entry radius	320	320	100	100	6	6
D	=	Inscribed circle diameter (m)	22	22	22	22	22	22
A	=	Entry angle (degree)	10	10	10	10	38	38
Q	=	Entry flow (pcu/hr)	430	700	600	540	470	690
Qc	=	Circulating flow across entry (pcu/hr)	250	250	270	320	280	270

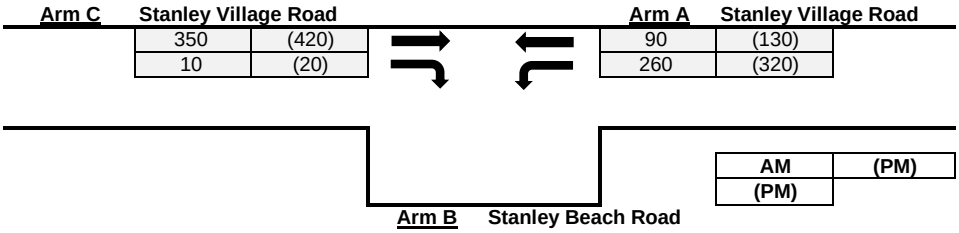
Output Parameters			Arm A		Arm B		Arm C	
			AM	PM	AM	PM	AM	PM
S	=	Sharepness of flare = 1.6*(E-V)/L	0.28	0.28	1.76	1.76	0.77	0.77
K	=	1-0.00347*(A-30)-0.978*(1/R-0.05)	1.12	1.12	1.11	1.11	0.86	0.86
X_2	=	V+((E-V)/(1+2*S))	3.85	3.85	3.74	3.74	4.07	4.07
M	=	Exp((D-60)/10)	0.02	0.02	0.02	0.02	0.02	0.02
F	=	303*X_2	1165	1165	1134	1134	1234	1234
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49	1.49	1.49	1.49
Fc	=	0.21*Td*(1+0.2*X_2)	0.55	0.55	0.55	0.55	0.57	0.57
Qe	=	Capacity = K*(F-Fc*Qc)	1145	1145	1094	1063	923	928
DFC	=	Entry Flow/Capacity = Q/Qe	0.38	0.61	0.55	0.51	0.51	0.74

		AM	PM
DFC of Critical Approach	=	**0.55**	**0.74**

CTA

Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Beach Road (B)	Job No.:	24048HK
Scenario :	2031 Design Traffic Flows (Sunday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	0	w-BA	0	D	0.533
W-CR	0	V-IBA	0	w-BC	0	E	0.586
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	0	w-CB	3.5	F	0.924
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	50			Y	0.733

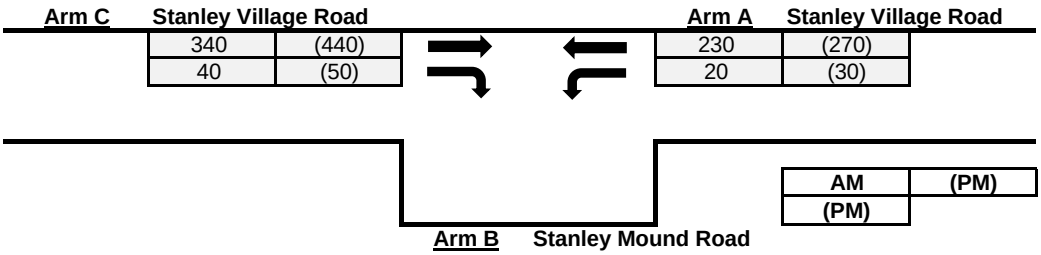
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	350	420	Q-BA	274	256	
	q-CB	10	20	Q-BC	406	396	
	q-AB	260	320	Q-CB	602	577	
	q-AC	90	130	Q-CA	1770	1738	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	274	256	(If Minor Road Share LT&RT)
	q-BC	0	0				
	f	0.000	0.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.02	0.03
	C-A	0.20	0.24
	B-AC	0.00	0.00
	Critical DFC	**0.20**	**0.24**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Mound Road (C)	Job No.:	24048HK
Scenario :	2031 Design Traffic Flows (Sunday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	0	w-BA	0	D	0.533
W-CR	0	V-IBA	0	w-BC	0	E	0.586
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	0	w-CB	3.3	F	0.911
Minor Road Share LT&RT? (Yes: 1, No: 0)	0	V-rCB	55			Y	0.733

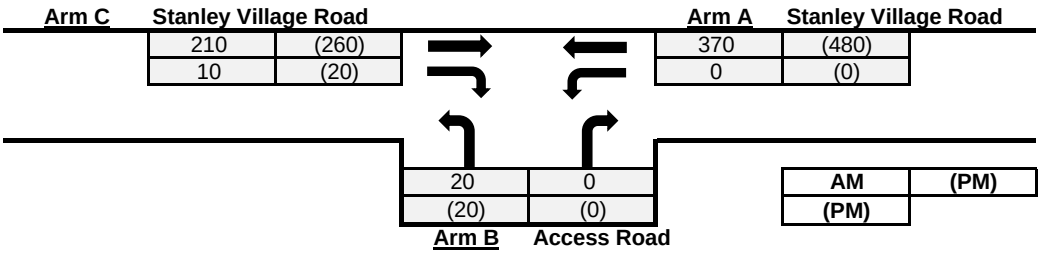
Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	340	440	Q-BA	262	245	
	q-CB	40	50	Q-BC	399	392	
	q-AB	20	30	Q-CB	618	605	
	q-AC	230	270	Q-CA	1683	1651	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	N/A	N/A	(If Minor Road Share LT&RT)
	q-BC	0	0				
	f	0.000	0.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	0.00	0.00
	B-C	0.00	0.00
	C-B	0.06	0.08
	C-A	0.20	0.27
	B-AC	N/A	N/A
	Critical DFC	**0.20**	**0.27**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Stanley Village Road / Access Road (D)	Job No.:	24048HK
Scenario :	2031 Design Traffic Flows (Sunday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7.75	V-rBA	17	w-BA	2.05		D	0.712
W-CR	0	V-IBA	22	w-BC	2.05		E	0.771
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	17	w-CB	4		F	0.968
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	50				Y	0.733

Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	210	260	Q-BA	348	319	
	q-CB	10	20	Q-BC	498	476	
	q-AB	0	0	Q-CB	626	597	
	q-AC	370	480	Q-CA	1771	1740	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	498	476	(If Minor Road Share LT&RT)
	q-BC	20	20				
	f	1.000	1.000				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.02	0.03
	C-A	0.12	0.15
	B-AC	0.04	0.04
	Critical DFC	**0.12**	**0.15**

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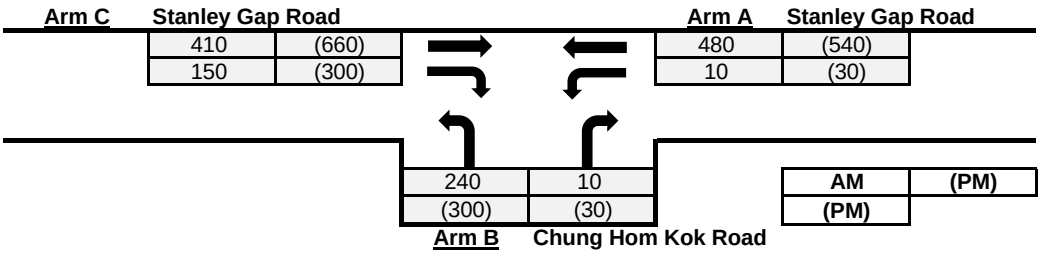
Priority Junction Calculation

Junction :	Stanley Gap Road / Chung Hom Kok Road (E)	Job No.:	24048HK
Scenario :	2031 Design Traffic Flows (Sunday)		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

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

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where

Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	**Input**						**Calculated**	
W	7	V-rBA	34	w-BA	2.35		D	0.750
W-CR	0	V-IBA	27	w-BC	2.35		E	0.837
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	0	V-rBC	68	w-CB	2.1		F	0.854
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	120				Y	0.759

Analysis :	**Traffic Flow pcu/hr**	**AM**	**PM**	**Capacity pcu/hr**	**AM**	**PM**	
	q-CA	410	660	Q-BA	272	181	
	q-CB	150	300	Q-BC	512	496	
	q-AB	10	30	Q-CB	521	502	
	q-AC	480	540	Q-CA	N/A	N/A	(If C-B blocked C-A)
	q-BA	10	30	Q-BAC	494	428	(If Minor Road Share LT&RT)
	q-BC	240	300				
	f	0.960	0.909				

Results :	**Ratio of Flow-to-Capacity**	**AM**	**PM**
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.29	0.60
	C-A	N/A	N/A
	B-AC	0.51	0.77
	Critical DFC	**0.51**	**0.77**

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Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.5.523 [19102,19/06/2015]

For sales and distribution information, program advice and maintenance, contact TRL:
Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk

Filename: JnF.arc8
Path: C:\Users\user\Desktop
Report generation date: 12/11/2024 18:27:21

Summary of junction performance

	Sunday AM				Sunday PM				Weekday AM				Weekday PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	L
	24048HK - 2024 Observed															
Stream B-ACD	0.20	8.01	0.17	A	0.24	8.49	0.19	A	0.34	10.20	0.25	B	0.20	8.10	0.17	
Stream A-B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stream A-C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stream A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	A	0.00	0.00	0.00	A	0.00	0.00	0.00	
Stream D-AB	0.14	7.70	0.13	A	0.11	8.15	0.10	A	0.15	8.18	0.13	A	0.10	7.63	0.09	
Stream D-BC	1.09	18.59	0.52	C	2.23	30.03	0.69	D	1.42	23.19	0.59	C	1.53	22.15	0.61	
Stream C-ABD	0.32	5.19	0.15	A	0.44	5.72	0.20	A	0.43	5.23	0.18	A	0.34	5.62	0.17	
Stream C-D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stream C-A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	24048HK - 2031 Design															
Stream B-ACD	0.34	10.12	0.25	B	0.27	8.94	0.21	A	0.39	10.86	0.28	B	0.24	8.50	0.19	
Stream A-B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stream A-C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stream A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	A	0.00	0.00	0.00	A	0.00	0.00	0.00	
Stream D-AB	0.15	8.19	0.13	A	0.15	8.95	0.13	A	0.20	9.06	0.17	A	0.11	8.24	0.10	
Stream D-BC	1.53	24.03	0.61	C	4.27	52.78	0.82	F	2.42	35.37	0.71	E	2.51	32.70	0.72	
Stream C-ABD	0.42	5.25	0.18	A	0.56	5.83	0.24	A	0.56	5.28	0.22	A	0.44	5.72	0.20	
Stream C-D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stream C-A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	24048HK - 2031 Reference															
Stream B-ACD	0.34	10.12	0.25	B	0.27	8.94	0.21	A	0.39	10.86	0.28	B	0.24	8.50	0.19	
Stream A-B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stream A-C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stream A-D	0.00	0.00	0.00	A	0.00	0.00	0.00	A	0.00	0.00	0.00	A	0.00	0.00	0.00	
Stream D-AB	0.15	8.19	0.13	A	0.15	8.95	0.13	A	0.20	9.06	0.17	A	0.11	8.24	0.10	
Stream D-BC	1.53	24.03	0.61	C	4.27	52.78	0.82	F	2.42	35.37	0.71	E	2.51	32.70	0.72	
Stream C-ABD	0.42	5.25	0.18	A	0.56	5.83	0.24	A	0.56	5.28	0.22	A	0.44	5.72	0.20	
Stream C-D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stream C-A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle.

"D1 - 2024 Observed, Weekday AM " model duration: 8:15 - 9:45
"D2 - 2024 Observed, Weekday PM" model duration: 16:30 - 18:00
"D3 - 2024 Observed, Sunday AM" model duration: 8:15 - 9:45
"D7 - 2031 Reference, Weekday AM" model duration: 8:15 - 9:45
"D8 - 2031 Reference, Weekday PM" model duration: 16:30 - 18:00
"D9 - 2031 Reference, Sunday AM" model duration: 8:15 - 9:45
"D13 - 2031 Design, Weekday AM" model duration: 8:15 - 9:45
"D14 - 2031 Design, Weekday PM" model duration: 16:30 - 18:00
"D15 - 2031 Design, Sunday AM" model duration: 8:15 - 9:45
"D16 - 2024 Observed, Sunday PM" model duration: 8:15 - 9:45
"D17 - 2031 Reference, Sunday PM" model duration: 8:15 - 9:45
"D18 - 2031 Design, Sunday PM" model duration: 8:15 - 9:45

Run using Junctions 8.0.5.523 at 12/11/2024 18:27:08

File summary

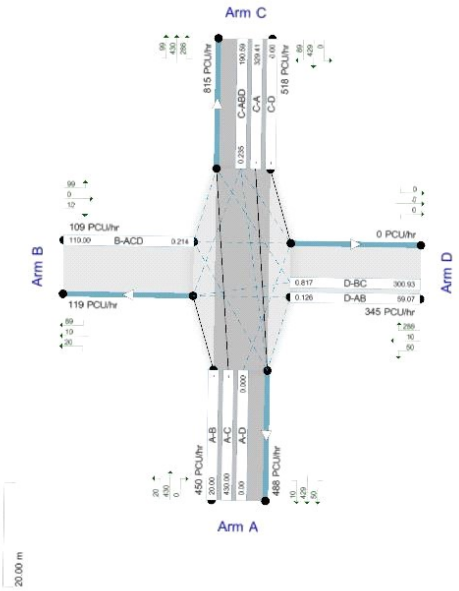
Title	(untitled)
Location	
Site Number	
Date	3/9/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	user
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Streams (upstreams) show Total Demand (PCU/hr); Streams (downstreams) show RFC ()
Time Segment: (08:15-08:30)
Showing Analysis Set "A1 - 24048HK "; Demand Set "D1 - 2024 Observed, Weekday AM "

The junction diagram reflects the last run of ARCADY.

24048HK - 2024 Observed, Weekday AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2024 Observed, Weekday AM	2024 Observed	Weekday AM		FLAT	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	13.75	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	380.00	100.000
B	FLAT	✓	120.00	100.000
C	FLAT	✓	530.00	100.000
D	FLAT	✓	290.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	20.000	360.000	0.000
	B	30.000	0.000	90.000	0.000
	C	460.000	70.000	0.000	0.000
	D	60.000	10.000	220.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.05	0.95	0.00
	B	0.25	0.00	0.75	0.00
	C	0.87	0.13	0.00	0.00
	D	0.21	0.03	0.76	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.25	10.20	0.34	B
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.13	8.18	0.15	A
D-BC	0.59	23.19	1.42	C
C-ABD	0.18	5.23	0.43	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	118.66	0.00	473.73	0.253	0.33	10.103	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.65	0.000	0.00	0.000	A
D-AB	67.91	67.31	0.00	511.23	0.133	0.15	8.099	A
D-BC	222.09	216.71	0.00	377.92	0.588	1.34	21.682	C
C-ABD	150.33	148.66	0.00	840.97	0.179	0.42	5.199	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	379.67	379.67	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	119.99	0.00	473.04	0.254	0.34	10.196	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.20	0.000	0.00	0.000	A
D-AB	67.99	67.98	0.00	508.39	0.134	0.15	8.173	A
D-BC	222.01	221.84	0.00	377.14	0.589	1.39	23.115	C
C-ABD	151.26	151.24	0.00	841.57	0.180	0.42	5.226	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	378.74	378.74	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	120.00	0.00	473.02	0.254	0.34	10.197	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.20	0.000	0.00	0.000	A
D-AB	67.99	67.99	0.00	508.31	0.134	0.15	8.175	A
D-BC	222.01	221.95	0.00	377.13	0.589	1.40	23.161	C
C-ABD	151.27	151.26	0.00	841.58	0.180	0.42	5.226	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	378.73	378.73	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	120.00	0.00	473.02	0.254	0.34	10.197	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.20	0.000	0.00	0.000	A
D-AB	67.99	67.99	0.00	508.28	0.134	0.15	8.176	A
D-BC	222.01	221.98	0.00	377.13	0.589	1.41	23.177	C
C-ABD	151.27	151.27	0.00	841.59	0.180	0.43	5.226	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	378.73	378.73	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	120.00	0.00	473.01	0.254	0.34	10.197	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.20	0.000	0.00	0.000	A
D-AB	67.99	67.99	0.00	508.27	0.134	0.15	8.176	A
D-BC	222.01	221.99	0.00	377.13	0.589	1.41	23.184	C
C-ABD	151.27	151.27	0.00	841.59	0.180	0.43	5.226	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	378.73	378.73	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	120.00	0.00	473.01	0.254	0.34	10.197	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.19	0.000	0.00	0.000	A
D-AB	67.99	67.99	0.00	508.26	0.134	0.15	8.176	A
D-BC	222.01	222.00	0.00	377.13	0.589	1.42	23.189	C
C-ABD	151.27	151.27	0.00	841.59	0.180	0.43	5.228	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	378.73	378.73	0.00	-	-	-	-	-

24048HK - 2024 Observed, Weekday PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2024 Observed, Weekday PM	2024 Observed	Weekday PM		FLAT	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	14.28	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	360.00	100.000
B	FLAT	✓	90.00	100.000
C	FLAT	✓	420.00	100.000
D	FLAT	✓	300.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	10.000	350.000	0.000
	B	10.000	0.000	80.000	0.000
	C	350.000	70.000	0.000	0.000
	D	40.000	10.000	250.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.03	0.97	0.00
	B	0.11	0.00	0.89	0.00
	C	0.83	0.17	0.00	0.00
	D	0.13	0.03	0.83	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.17	8.10	0.20	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.09	7.63	0.10	A
D-BC	0.61	22.15	1.53	C
C-ABD	0.17	5.62	0.34	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	89.20	0.00	534.81	0.168	0.20	8.064	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	501.46	0.000	0.00	0.000	A
D-AB	48.01	47.61	0.00	522.95	0.092	0.10	7.567	A
D-BC	251.99	246.15	0.00	414.92	0.607	1.46	20.690	C
C-ABD	127.11	125.76	0.00	768.82	0.165	0.34	5.596	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	292.89	292.89	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	534.48	0.168	0.20	8.099	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	501.08	0.000	0.00	0.000	A
D-AB	48.09	48.08	0.00	520.15	0.092	0.10	7.625	A
D-BC	251.91	251.73	0.00	414.34	0.608	1.50	22.074	C
C-ABD	127.73	127.72	0.00	769.24	0.166	0.34	5.620	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	292.27	292.27	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	534.47	0.168	0.20	8.099	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	501.08	0.000	0.00	0.000	A
D-AB	48.09	48.09	0.00	520.06	0.092	0.10	7.626	A
D-BC	251.91	251.85	0.00	414.33	0.608	1.52	22.118	C
C-ABD	127.73	127.73	0.00	769.25	0.166	0.34	5.620	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	292.27	292.27	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	534.47	0.168	0.20	8.099	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	501.08	0.000	0.00	0.000	A
D-AB	48.09	48.09	0.00	520.04	0.092	0.10	7.627	A
D-BC	251.91	251.88	0.00	414.33	0.608	1.53	22.133	C
C-ABD	127.74	127.73	0.00	769.25	0.166	0.34	5.620	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	292.26	292.26	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	534.46	0.168	0.20	8.099	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	501.08	0.000	0.00	0.000	A
D-AB	48.09	48.09	0.00	520.02	0.092	0.10	7.627	A
D-BC	251.91	251.89	0.00	414.33	0.608	1.53	22.142	C
C-ABD	127.74	127.74	0.00	769.25	0.166	0.34	5.620	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	292.26	292.26	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	534.46	0.168	0.20	8.099	A
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	501.08	0.000	0.00	0.000	A
D-AB	48.09	48.09	0.00	520.01	0.092	0.10	7.627	A
D-BC	251.91	251.90	0.00	414.33	0.608	1.53	22.146	C
C-ABD	127.74	127.74	0.00	769.25	0.166	0.34	5.621	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	292.26	292.26	0.00	-	-	-	-	-

24048HK - 2024 Observed, Sunday AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2024 Observed, Sunday AM	2024 Observed	Sunday AM		FLAT	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	11.87	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	340.00	100.000
B	FLAT	✓	90.00	100.000
C	FLAT	✓	470.00	100.000
D	FLAT	✓	280.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	20.000	320.000	0.000
	B	10.000	0.000	80.000	0.000
	C	410.000	60.000	0.000	0.000
	D	60.000	10.000	210.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.06	0.94	0.00
	B	0.11	0.00	0.89	0.00
	C	0.87	0.13	0.00	0.00
	D	0.21	0.04	0.75	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.17	8.01	0.20	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.13	7.70	0.14	A
D-BC	0.52	18.59	1.09	C
C-ABD	0.15	5.19	0.32	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	89.21	0.00	539.90	0.167	0.20	7.974	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	320.00	320.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	491.15	0.000	0.00	0.000	A
D-AB	67.58	67.01	0.00	536.98	0.126	0.14	7.650	A
D-BC	212.42	208.22	0.00	406.51	0.523	1.05	17.806	C
C-ABD	118.72	117.44	0.00	813.73	0.146	0.32	5.171	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	351.28	351.28	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	539.62	0.167	0.20	8.006	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	320.00	320.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	490.80	0.000	0.00	0.000	A
D-AB	67.64	67.63	0.00	534.90	0.126	0.14	7.704	A
D-BC	212.36	212.27	0.00	405.95	0.523	1.07	18.562	C
C-ABD	119.37	119.36	0.00	814.17	0.147	0.32	5.191	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	350.63	350.63	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	539.61	0.167	0.20	8.006	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	320.00	320.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	490.80	0.000	0.00	0.000	A
D-AB	67.64	67.64	0.00	534.86	0.126	0.14	7.704	A
D-BC	212.36	212.33	0.00	405.95	0.523	1.08	18.579	C
C-ABD	119.38	119.37	0.00	814.17	0.147	0.32	5.191	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	350.62	350.62	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	539.61	0.167	0.20	8.006	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	320.00	320.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	490.79	0.000	0.00	0.000	A
D-AB	67.64	67.64	0.00	534.85	0.126	0.14	7.705	A
D-BC	212.36	212.34	0.00	405.95	0.523	1.09	18.585	C
C-ABD	119.38	119.38	0.00	814.17	0.147	0.32	5.189	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	350.62	350.62	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	539.61	0.167	0.20	8.006	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	320.00	320.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	490.79	0.000	0.00	0.000	A
D-AB	67.64	67.64	0.00	534.84	0.126	0.14	7.705	A
D-BC	212.36	212.35	0.00	405.94	0.523	1.09	18.588	C
C-ABD	119.38	119.38	0.00	814.17	0.147	0.32	5.189	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	350.62	350.62	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	90.00	90.00	0.00	539.61	0.167	0.20	8.006	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	320.00	320.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	490.79	0.000	0.00	0.000	A
D-AB	67.64	67.64	0.00	534.84	0.126	0.14	7.705	A
D-BC	212.36	212.35	0.00	405.94	0.523	1.09	18.590	C
C-ABD	119.38	119.38	0.00	814.17	0.147	0.32	5.189	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	350.62	350.62	0.00	-	-	-	-	-

24048HK - 2031 Reference, Weekday AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2031 Reference, Weekday AM	2031 Reference	Weekday AM		FLAT	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	18.47	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	410.00	100.000
B	FLAT	✓	130.00	100.000
C	FLAT	✓	590.00	100.000
D	FLAT	✓	330.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	20.000	390.000	0.000
	B	30.000	0.000	100.000	0.000
	C	510.000	80.000	0.000	0.000
	D	70.000	10.000	250.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.05	0.95	0.00
	B	0.23	0.00	0.77	0.00
	C	0.86	0.14	0.00	0.00
	D	0.21	0.03	0.76	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.28	10.86	0.39	B
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.17	9.06	0.20	A
D-BC	0.71	35.37	2.42	E
C-ABD	0.22	5.28	0.56	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	130.00	128.46	0.00	462.61	0.281	0.38	10.725	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	462.16	0.000	0.00	0.000	A
D-AB	78.54	77.76	0.00	481.18	0.163	0.19	8.907	A
D-BC	251.46	242.71	0.00	353.68	0.711	2.19	30.467	D
C-ABD	189.92	187.75	0.00	874.15	0.217	0.54	5.244	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	400.08	400.08	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	130.00	129.98	0.00	461.56	0.282	0.39	10.857	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	461.58	0.000	0.00	0.000	A
D-AB	78.67	78.66	0.00	476.54	0.165	0.20	9.047	A
D-BC	251.33	250.79	0.00	352.71	0.713	2.32	34.880	D
C-ABD	191.28	191.25	0.00	875.03	0.219	0.55	5.282	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	398.72	398.72	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	130.00	129.99	0.00	461.52	0.282	0.39	10.858	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	461.57	0.000	0.00	0.000	A
D-AB	78.68	78.67	0.00	476.28	0.165	0.20	9.053	A
D-BC	251.32	251.13	0.00	352.69	0.713	2.37	35.171	E
C-ABD	191.29	191.28	0.00	875.05	0.219	0.55	5.283	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	398.71	398.71	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	130.00	130.00	0.00	461.50	0.282	0.39	10.859	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	461.57	0.000	0.00	0.000	A
D-AB	78.68	78.68	0.00	476.19	0.165	0.20	9.056	A
D-BC	251.32	251.22	0.00	352.69	0.713	2.40	35.279	E
C-ABD	191.29	191.29	0.00	875.05	0.219	0.55	5.283	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	398.71	398.71	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	130.00	130.00	0.00	461.49	0.282	0.39	10.859	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	461.57	0.000	0.00	0.000	A
D-AB	78.68	78.68	0.00	476.14	0.165	0.20	9.057	A
D-BC	251.32	251.26	0.00	352.69	0.713	2.41	35.336	E
C-ABD	191.29	191.29	0.00	875.05	0.219	0.56	5.281	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	398.71	398.71	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	130.00	130.00	0.00	461.49	0.282	0.39	10.859	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	461.57	0.000	0.00	0.000	A
D-AB	78.68	78.68	0.00	476.11	0.165	0.20	9.057	A
D-BC	251.32	251.28	0.00	352.69	0.713	2.42	35.369	E
C-ABD	191.30	191.29	0.00	875.06	0.219	0.56	5.281	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	398.70	398.70	0.00	-	-	-	-	-

24048HK - 2031 Reference, Weekday PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2031 Reference, Weekday PM	2031 Reference	Weekday PM		FLAT	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	19.34	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	410.00	100.000
B	FLAT	✓	100.00	100.000
C	FLAT	✓	470.00	100.000
D	FLAT	✓	330.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	20.000	390.000	0.000
	B	10.000	0.000	90.000	0.000
	C	390.000	80.000	0.000	0.000
	D	40.000	10.000	280.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.05	0.95	0.00
	B	0.10	0.00	0.90	0.00
	C	0.83	0.17	0.00	0.00
	D	0.12	0.03	0.85	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.19	8.50	0.24	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.10	8.24	0.11	A
D-BC	0.72	32.70	2.51	D
C-ABD	0.20	5.72	0.44	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	99.07	0.00	524.07	0.191	0.23	8.452	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	489.22	0.000	0.00	0.000	A
D-AB	48.58	48.14	0.00	490.44	0.099	0.11	8.133	A
D-BC	281.42	272.30	0.00	391.70	0.718	2.28	28.356	D
C-ABD	155.98	154.25	0.00	787.64	0.198	0.43	5.683	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	314.02	314.02	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	99.99	0.00	523.60	0.191	0.23	8.498	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	488.74	0.000	0.00	0.000	A
D-AB	48.70	48.69	0.00	485.99	0.100	0.11	8.232	A
D-BC	281.30	280.78	0.00	390.99	0.719	2.41	32.289	D
C-ABD	156.85	156.83	0.00	788.23	0.199	0.44	5.716	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	313.15	313.15	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	523.58	0.191	0.24	8.498	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	488.74	0.000	0.00	0.000	A
D-AB	48.70	48.70	0.00	485.75	0.100	0.11	8.236	A
D-BC	281.30	281.10	0.00	390.98	0.719	2.46	32.533	D
C-ABD	156.86	156.85	0.00	788.24	0.199	0.44	5.714	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	313.14	313.14	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	523.57	0.191	0.24	8.498	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	488.73	0.000	0.00	0.000	A
D-AB	48.71	48.71	0.00	485.67	0.100	0.11	8.238	A
D-BC	281.29	281.19	0.00	390.98	0.719	2.48	32.624	D
C-ABD	156.86	156.86	0.00	788.24	0.199	0.44	5.716	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	313.14	313.14	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	523.57	0.191	0.24	8.498	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	488.73	0.000	0.00	0.000	A
D-AB	48.71	48.71	0.00	485.63	0.100	0.11	8.239	A
D-BC	281.29	281.23	0.00	390.98	0.719	2.50	32.670	D
C-ABD	156.86	156.86	0.00	788.24	0.199	0.44	5.717	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	313.14	313.14	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	523.56	0.191	0.24	8.498	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	488.73	0.000	0.00	0.000	A
D-AB	48.71	48.71	0.00	485.60	0.100	0.11	8.239	A
D-BC	281.29	281.25	0.00	390.97	0.719	2.51	32.697	D
C-ABD	156.86	156.86	0.00	788.24	0.199	0.44	5.714	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	313.14	313.14	0.00	-	-	-	-	-

24048HK - 2031 Reference, Sunday AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2031 Reference, Sunday AM	2031 Reference	Sunday AM		FLAT	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	14.29	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	370.00	100.000
B	FLAT	✓	120.00	100.000
C	FLAT	✓	520.00	100.000
D	FLAT	✓	300.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	20.000	350.000	0.000
	B	30.000	0.000	90.000	0.000
	C	450.000	70.000	0.000	0.000
	D	60.000	10.000	230.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.05	0.95	0.00
	B	0.25	0.00	0.75	0.00
	C	0.87	0.13	0.00	0.00
	D	0.20	0.03	0.77	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.25	10.12	0.34	B
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.13	8.19	0.15	A
D-BC	0.61	24.03	1.53	C
C-ABD	0.18	5.25	0.42	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	118.67	0.00	476.56	0.252	0.33	10.023	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	478.91	0.000	0.00	0.000	A
D-AB	68.01	67.40	0.00	510.88	0.133	0.15	8.107	A
D-BC	231.99	226.20	0.00	382.33	0.607	1.45	22.328	C
C-ABD	147.82	146.19	0.00	835.85	0.177	0.41	5.219	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	372.18	372.18	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	119.99	0.00	475.84	0.252	0.33	10.116	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	478.47	0.000	0.00	0.000	A
D-AB	68.09	68.08	0.00	507.89	0.134	0.15	8.185	A
D-BC	231.91	231.71	0.00	381.56	0.608	1.50	23.942	C
C-ABD	148.72	148.70	0.00	836.44	0.178	0.41	5.247	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	371.28	371.28	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	120.00	0.00	475.83	0.252	0.34	10.116	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	478.46	0.000	0.00	0.000	A
D-AB	68.09	68.09	0.00	507.80	0.134	0.15	8.186	A
D-BC	231.91	231.84	0.00	381.55	0.608	1.52	23.999	C
C-ABD	148.72	148.72	0.00	836.45	0.178	0.41	5.247	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	371.28	371.28	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	120.00	0.00	475.82	0.252	0.34	10.116	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	478.46	0.000	0.00	0.000	A
D-AB	68.09	68.09	0.00	507.77	0.134	0.15	8.187	A
D-BC	231.91	231.87	0.00	381.55	0.608	1.52	24.018	C
C-ABD	148.73	148.73	0.00	836.45	0.178	0.41	5.246	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	371.27	371.27	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	120.00	0.00	475.82	0.252	0.34	10.117	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	478.46	0.000	0.00	0.000	A
D-AB	68.09	68.09	0.00	507.75	0.134	0.15	8.187	A
D-BC	231.91	231.88	0.00	381.55	0.608	1.53	24.028	C
C-ABD	148.73	148.73	0.00	836.45	0.178	0.42	5.248	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	371.27	371.27	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	120.00	0.00	475.82	0.252	0.34	10.117	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	478.46	0.000	0.00	0.000	A
D-AB	68.10	68.09	0.00	507.74	0.134	0.15	8.188	A
D-BC	231.90	231.89	0.00	381.55	0.608	1.53	24.031	C
C-ABD	148.73	148.73	0.00	836.45	0.178	0.42	5.248	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	371.27	371.27	0.00	-	-	-	-	-

24048HK - 2031 Design, Weekday AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2031 Design, Weekday AM	2031 Design	Weekday AM		FLAT	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	18.47	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	410.00	100.000
B	FLAT	✓	130.00	100.000
C	FLAT	✓	590.00	100.000
D	FLAT	✓	330.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	20.000	390.000	0.000
	B	30.000	0.000	100.000	0.000
	C	510.000	80.000	0.000	0.000
	D	70.000	10.000	250.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.05	0.95	0.00
	B	0.23	0.00	0.77	0.00
	C	0.86	0.14	0.00	0.00
	D	0.21	0.03	0.76	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.28	10.86	0.39	B
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.17	9.06	0.20	A
D-BC	0.71	35.37	2.42	E
C-ABD	0.22	5.28	0.56	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	130.00	128.46	0.00	462.61	0.281	0.38	10.725	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	462.16	0.000	0.00	0.000	A
D-AB	78.54	77.76	0.00	481.18	0.163	0.19	8.907	A
D-BC	251.46	242.71	0.00	353.68	0.711	2.19	30.467	D
C-ABD	189.92	187.75	0.00	874.15	0.217	0.54	5.244	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	400.08	400.08	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	130.00	129.98	0.00	461.56	0.282	0.39	10.857	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	461.58	0.000	0.00	0.000	A
D-AB	78.67	78.66	0.00	476.54	0.165	0.20	9.047	A
D-BC	251.33	250.79	0.00	352.71	0.713	2.32	34.880	D
C-ABD	191.28	191.25	0.00	875.03	0.219	0.55	5.282	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	398.72	398.72	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	130.00	129.99	0.00	461.52	0.282	0.39	10.858	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	461.57	0.000	0.00	0.000	A
D-AB	78.68	78.67	0.00	476.28	0.165	0.20	9.053	A
D-BC	251.32	251.13	0.00	352.69	0.713	2.37	35.171	E
C-ABD	191.29	191.28	0.00	875.05	0.219	0.55	5.283	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	398.71	398.71	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	130.00	130.00	0.00	461.50	0.282	0.39	10.859	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	461.57	0.000	0.00	0.000	A
D-AB	78.68	78.68	0.00	476.19	0.165	0.20	9.056	A
D-BC	251.32	251.22	0.00	352.69	0.713	2.40	35.279	E
C-ABD	191.29	191.29	0.00	875.05	0.219	0.55	5.283	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	398.71	398.71	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	130.00	130.00	0.00	461.49	0.282	0.39	10.859	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	461.57	0.000	0.00	0.000	A
D-AB	78.68	78.68	0.00	476.14	0.165	0.20	9.057	A
D-BC	251.32	251.26	0.00	352.69	0.713	2.41	35.336	E
C-ABD	191.29	191.29	0.00	875.05	0.219	0.56	5.281	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	398.71	398.71	0.00	-	-	-	-	-

Main results: (09:30-09:45)

B-ACD	130.00	130.00	0.00	461.49	0.282	0.39	10.859	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	461.57	0.000	0.00	0.000	A
D-AB	78.68	78.68	0.00	476.11	0.165	0.20	9.057	A
D-BC	251.32	251.28	0.00	352.69	0.713	2.42	35.369	E
C-ABD	191.30	191.29	0.00	875.06	0.219	0.56	5.281	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	398.70	398.70	0.00	-	-	-	-	-

24048HK - 2031 Design, Weekday PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2031 Design, Weekday PM	2031 Design	Weekday PM		FLAT	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	19.34	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	410.00	100.000
B	FLAT	✓	100.00	100.000
C	FLAT	✓	470.00	100.000
D	FLAT	✓	330.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	20.000	390.000	0.000
	B	10.000	0.000	90.000	0.000
	C	390.000	80.000	0.000	0.000
	D	40.000	10.000	280.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.05	0.95	0.00
	B	0.10	0.00	0.90	0.00
	C	0.83	0.17	0.00	0.00
	D	0.12	0.03	0.85	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.19	8.50	0.24	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.10	8.24	0.11	A
D-BC	0.72	32.70	2.51	D
C-ABD	0.20	5.72	0.44	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	99.07	0.00	524.07	0.191	0.23	8.452	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	489.22	0.000	0.00	0.000	A
D-AB	48.58	48.14	0.00	490.44	0.099	0.11	8.133	A
D-BC	281.42	272.30	0.00	391.70	0.718	2.28	28.356	D
C-ABD	155.98	154.25	0.00	787.64	0.198	0.43	5.683	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	314.02	314.02	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	99.99	0.00	523.60	0.191	0.23	8.498	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	488.74	0.000	0.00	0.000	A
D-AB	48.70	48.69	0.00	485.99	0.100	0.11	8.232	A
D-BC	281.30	280.78	0.00	390.99	0.719	2.41	32.289	D
C-ABD	156.85	156.83	0.00	788.23	0.199	0.44	5.716	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	313.15	313.15	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	523.58	0.191	0.24	8.498	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	488.74	0.000	0.00	0.000	A
D-AB	48.70	48.70	0.00	485.75	0.100	0.11	8.236	A
D-BC	281.30	281.10	0.00	390.98	0.719	2.46	32.533	D
C-ABD	156.86	156.85	0.00	788.24	0.199	0.44	5.714	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	313.14	313.14	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	523.57	0.191	0.24	8.498	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	488.73	0.000	0.00	0.000	A
D-AB	48.71	48.71	0.00	485.67	0.100	0.11	8.238	A
D-BC	281.29	281.19	0.00	390.98	0.719	2.48	32.624	D
C-ABD	156.86	156.86	0.00	788.24	0.199	0.44	5.716	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	313.14	313.14	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	523.57	0.191	0.24	8.498	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	488.73	0.000	0.00	0.000	A
D-AB	48.71	48.71	0.00	485.63	0.100	0.11	8.239	A
D-BC	281.29	281.23	0.00	390.98	0.719	2.50	32.670	D
C-ABD	156.86	156.86	0.00	788.24	0.199	0.44	5.717	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	313.14	313.14	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	523.56	0.191	0.24	8.498	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	488.73	0.000	0.00	0.000	A
D-AB	48.71	48.71	0.00	485.60	0.100	0.11	8.239	A
D-BC	281.29	281.25	0.00	390.97	0.719	2.51	32.697	D
C-ABD	156.86	156.86	0.00	788.24	0.199	0.44	5.714	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	313.14	313.14	0.00	-	-	-	-	-

24048HK - 2031 Design, Sunday AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2031 Design, Sunday AM	2031 Design	Sunday AM		FLAT	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	14.29	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	370.00	100.000
B	FLAT	✓	120.00	100.000
C	FLAT	✓	520.00	100.000
D	FLAT	✓	300.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	20.000	350.000	0.000
	B	30.000	0.000	90.000	0.000
	C	450.000	70.000	0.000	0.000
	D	60.000	10.000	230.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.05	0.95	0.00
	B	0.25	0.00	0.75	0.00
	C	0.87	0.13	0.00	0.00
	D	0.20	0.03	0.77	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.25	10.12	0.34	B
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.13	8.19	0.15	A
D-BC	0.61	24.03	1.53	C
C-ABD	0.18	5.25	0.42	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	118.67	0.00	476.56	0.252	0.33	10.023	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	478.91	0.000	0.00	0.000	A
D-AB	68.01	67.40	0.00	510.88	0.133	0.15	8.107	A
D-BC	231.99	226.20	0.00	382.33	0.607	1.45	22.328	C
C-ABD	147.82	146.19	0.00	835.85	0.177	0.41	5.219	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	372.18	372.18	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	119.99	0.00	475.84	0.252	0.33	10.116	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	478.47	0.000	0.00	0.000	A
D-AB	68.09	68.08	0.00	507.89	0.134	0.15	8.185	A
D-BC	231.91	231.71	0.00	381.56	0.608	1.50	23.942	C
C-ABD	148.72	148.70	0.00	836.44	0.178	0.41	5.247	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	371.28	371.28	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	120.00	0.00	475.83	0.252	0.34	10.116	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	478.46	0.000	0.00	0.000	A
D-AB	68.09	68.09	0.00	507.80	0.134	0.15	8.186	A
D-BC	231.91	231.84	0.00	381.55	0.608	1.52	23.999	C
C-ABD	148.72	148.72	0.00	836.45	0.178	0.41	5.247	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	371.28	371.28	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	120.00	0.00	475.82	0.252	0.34	10.116	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	478.46	0.000	0.00	0.000	A
D-AB	68.09	68.09	0.00	507.77	0.134	0.15	8.187	A
D-BC	231.91	231.87	0.00	381.55	0.608	1.52	24.018	C
C-ABD	148.73	148.73	0.00	836.45	0.178	0.41	5.246	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	371.27	371.27	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	120.00	0.00	475.82	0.252	0.34	10.117	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	478.46	0.000	0.00	0.000	A
D-AB	68.09	68.09	0.00	507.75	0.134	0.15	8.187	A
D-BC	231.91	231.88	0.00	381.55	0.608	1.53	24.028	C
C-ABD	148.73	148.73	0.00	836.45	0.178	0.42	5.248	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	371.27	371.27	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	120.00	120.00	0.00	475.82	0.252	0.34	10.117	B
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	350.00	350.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	478.46	0.000	0.00	0.000	A
D-AB	68.10	68.09	0.00	507.74	0.134	0.15	8.188	A
D-BC	231.90	231.89	0.00	381.55	0.608	1.53	24.031	C
C-ABD	148.73	148.73	0.00	836.45	0.178	0.42	5.248	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	371.27	371.27	0.00	-	-	-	-	-

24048HK - 2024 Observed, Sunday PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2024 Observed, Sunday PM	2024 Observed	Sunday PM		FLAT	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	17.85	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	410.00	100.000
B	FLAT	✓	100.00	100.000
C	FLAT	✓	470.00	100.000
D	FLAT	✓	320.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	20.000	390.000	0.000
	B	10.000	0.000	90.000	0.000
	C	390.000	80.000	0.000	0.000
	D	40.000	10.000	270.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.05	0.95	0.00
	B	0.10	0.00	0.90	0.00
	C	0.83	0.17	0.00	0.00
	D	0.13	0.03	0.84	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.19	8.49	0.24	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.10	8.15	0.11	A
D-BC	0.69	30.03	2.23	D
C-ABD	0.20	5.72	0.44	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	99.07	0.00	524.41	0.191	0.23	8.445	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	489.22	0.000	0.00	0.000	A
D-AB	48.45	48.02	0.00	494.79	0.098	0.11	8.051	A
D-BC	271.55	263.35	0.00	391.72	0.693	2.05	26.604	D
C-ABD	155.98	154.25	0.00	787.64	0.198	0.43	5.683	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	314.02	314.02	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	99.99	0.00	523.97	0.191	0.23	8.490	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	488.74	0.000	0.00	0.000	A
D-AB	48.56	48.55	0.00	490.73	0.099	0.11	8.141	A
D-BC	271.44	271.03	0.00	391.00	0.694	2.15	29.753	D
C-ABD	156.85	156.83	0.00	788.23	0.199	0.44	5.716	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	313.15	313.15	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	523.96	0.191	0.23	8.491	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	488.74	0.000	0.00	0.000	A
D-AB	48.56	48.56	0.00	490.55	0.099	0.11	8.144	A
D-BC	271.44	271.29	0.00	390.99	0.694	2.19	29.922	D
C-ABD	156.86	156.85	0.00	788.24	0.199	0.44	5.714	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	313.14	313.14	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	523.95	0.191	0.24	8.491	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	488.73	0.000	0.00	0.000	A
D-AB	48.57	48.56	0.00	490.48	0.099	0.11	8.146	A
D-BC	271.43	271.36	0.00	390.99	0.694	2.21	29.980	D
C-ABD	156.86	156.86	0.00	788.24	0.199	0.44	5.716	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	313.14	313.14	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	523.95	0.191	0.24	8.491	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	488.73	0.000	0.00	0.000	A
D-AB	48.57	48.57	0.00	490.45	0.099	0.11	8.146	A
D-BC	271.43	271.39	0.00	390.99	0.694	2.22	30.013	D
C-ABD	156.86	156.86	0.00	788.24	0.199	0.44	5.717	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	313.14	313.14	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	100.00	100.00	0.00	523.95	0.191	0.24	8.491	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	390.00	390.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	488.73	0.000	0.00	0.000	A
D-AB	48.57	48.57	0.00	490.42	0.099	0.11	8.147	A
D-BC	271.43	271.40	0.00	390.99	0.694	2.23	30.030	D
C-ABD	156.86	156.86	0.00	788.24	0.199	0.44	5.714	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	313.14	313.14	0.00	-	-	-	-	-

24048HK - 2031 Reference, Sunday PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2031 Reference, Sunday PM	2031 Reference	Sunday PM		FLAT	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	27.97	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	450.00	100.000
B	FLAT	✓	110.00	100.000
C	FLAT	✓	520.00	100.000
D	FLAT	✓	360.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	20.000	430.000	0.000
	B	10.000	0.000	100.000	0.000
	C	430.000	90.000	0.000	0.000
	D	50.000	10.000	300.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.04	0.96	0.00
	B	0.09	0.00	0.91	0.00
	C	0.83	0.17	0.00	0.00
	D	0.14	0.03	0.83	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.21	8.94	0.27	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.13	8.95	0.15	A
D-BC	0.82	52.78	4.27	F
C-ABD	0.24	5.83	0.56	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.00	108.92	0.00	513.47	0.214	0.27	8.877	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	430.00	430.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.98	0.000	0.00	0.000	A
D-AB	59.07	58.50	0.00	469.77	0.126	0.14	8.743	A
D-BC	300.93	286.87	0.00	368.51	0.817	3.51	39.247	E
C-ABD	190.59	188.39	0.00	810.89	0.235	0.55	5.782	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	329.41	329.41	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.00	109.99	0.00	512.77	0.215	0.27	8.937	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	430.00	430.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.38	0.000	0.00	0.000	A
D-AB	59.27	59.26	0.00	462.79	0.128	0.15	8.921	A
D-BC	300.73	299.14	0.00	367.62	0.818	3.91	50.168	F
C-ABD	191.83	191.81	0.00	811.72	0.236	0.56	5.826	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	328.17	328.17	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.00	110.00	0.00	512.71	0.215	0.27	8.939	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	430.00	430.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.37	0.000	0.00	0.000	A
D-AB	59.29	59.29	0.00	462.06	0.128	0.15	8.937	A
D-BC	300.71	300.04	0.00	367.61	0.818	4.08	51.602	F
C-ABD	191.84	191.83	0.00	811.74	0.236	0.56	5.827	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	328.16	328.16	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.00	110.00	0.00	512.69	0.215	0.27	8.939	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	430.00	430.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.37	0.000	0.00	0.000	A
D-AB	59.30	59.30	0.00	461.76	0.128	0.15	8.944	A
D-BC	300.70	300.33	0.00	367.60	0.818	4.17	52.218	F
C-ABD	191.85	191.84	0.00	811.74	0.236	0.56	5.827	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	328.15	328.15	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.00	110.00	0.00	512.67	0.215	0.27	8.939	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	430.00	430.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.37	0.000	0.00	0.000	A
D-AB	59.31	59.31	0.00	461.60	0.128	0.15	8.948	A
D-BC	300.69	300.46	0.00	367.60	0.818	4.23	52.562	F
C-ABD	191.85	191.85	0.00	811.74	0.236	0.56	5.825	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	328.15	328.15	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.00	110.00	0.00	512.66	0.215	0.27	8.940	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	430.00	430.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.37	0.000	0.00	0.000	A
D-AB	59.31	59.31	0.00	461.49	0.129	0.15	8.950	A
D-BC	300.69	300.53	0.00	367.60	0.818	4.27	52.784	F
C-ABD	191.85	191.85	0.00	811.74	0.236	0.56	5.827	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	328.15	328.15	0.00	-	-	-	-	-

24048HK - 2031 Design, Sunday PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
24048HK	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2031 Design, Sunday PM	2031 Design	Sunday PM		FLAT	08:15	09:45	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
F	Stanley Village Road / Stanley New Road / Stanley Beach Road	Crossroads	Two-way	A,B,C,D	27.97	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Stanley Village Road (S)		Major
B	B	Stanley New Road		Minor
C	C	Stanley Village Road (N)		Major
D	D	Stanley Beach Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.80		0.00		2.20	50.00		
C	6.80		0.00		2.20	50.00	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.20										50	50
D	Two lanes		4.80	4.80								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
F	A-D	602.919	-	-	-	-	-	-	0.225	0.322	0.225	-	-	-
F	B-A	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	-	0.235	0.235	0.118
F	B-C	668.537	0.099	0.250	-	-	-	-	-	-	-	-	-	-
F	B-D, nearside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	B-D, offside lane	528.889	0.093	0.235	0.235	-	-	-	0.148	0.336	0.148	-	-	-
F	C-B	602.919	0.225	0.225	0.322	-	-	-	-	-	-	-	-	-
F	D-A	773.526	-	-	-	-	-	-	0.289	-	0.114	-	-	-
F	D-B, nearside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-B, offside lane	611.947	0.171	0.171	0.388	-	-	-	0.272	0.272	0.108	-	-	-
F	D-C	611.947	-	0.171	0.388	0.136	0.272	0.272	0.272	0.272	0.108	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	450.00	100.000
B	FLAT	✓	110.00	100.000
C	FLAT	✓	520.00	100.000
D	FLAT	✓	360.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.000	20.000	430.000	0.000
	B	10.000	0.000	100.000	0.000
	C	430.000	90.000	0.000	0.000
	D	50.000	10.000	300.000	0.000

Turning Proportions (PCU) - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.04	0.96	0.00
	B	0.09	0.00	0.91	0.00
	C	0.83	0.17	0.00	0.00
	D	0.14	0.03	0.83	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction F (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction F (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.21	8.94	0.27	A
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.00	0.00	0.00	A
D-AB	0.13	8.95	0.15	A
D-BC	0.82	52.78	4.27	F
C-ABD	0.24	5.83	0.56	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.00	108.92	0.00	513.47	0.214	0.27	8.877	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	430.00	430.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.98	0.000	0.00	0.000	A
D-AB	59.07	58.50	0.00	469.77	0.126	0.14	8.743	A
D-BC	300.93	286.87	0.00	368.51	0.817	3.51	39.247	E
C-ABD	190.59	188.39	0.00	810.89	0.235	0.55	5.782	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	329.41	329.41	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.00	109.99	0.00	512.77	0.215	0.27	8.937	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	430.00	430.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.38	0.000	0.00	0.000	A
D-AB	59.27	59.26	0.00	462.79	0.128	0.15	8.921	A
D-BC	300.73	299.14	0.00	367.62	0.818	3.91	50.168	F
C-ABD	191.83	191.81	0.00	811.72	0.236	0.56	5.826	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	328.17	328.17	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.00	110.00	0.00	512.71	0.215	0.27	8.939	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	430.00	430.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.37	0.000	0.00	0.000	A
D-AB	59.29	59.29	0.00	462.06	0.128	0.15	8.937	A
D-BC	300.71	300.04	0.00	367.61	0.818	4.08	51.602	F
C-ABD	191.84	191.83	0.00	811.74	0.236	0.56	5.827	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	328.16	328.16	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.00	110.00	0.00	512.69	0.215	0.27	8.939	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	430.00	430.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.37	0.000	0.00	0.000	A
D-AB	59.30	59.30	0.00	461.76	0.128	0.15	8.944	A
D-BC	300.70	300.33	0.00	367.60	0.818	4.17	52.218	F
C-ABD	191.85	191.84	0.00	811.74	0.236	0.56	5.827	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	328.15	328.15	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.00	110.00	0.00	512.67	0.215	0.27	8.939	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	430.00	430.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.37	0.000	0.00	0.000	A
D-AB	59.31	59.31	0.00	461.60	0.128	0.15	8.948	A
D-BC	300.69	300.46	0.00	367.60	0.818	4.23	52.562	F
C-ABD	191.85	191.85	0.00	811.74	0.236	0.56	5.825	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	328.15	328.15	0.00	-	-	-	-	-

Main results: (09:30-09:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.00	110.00	0.00	512.66	0.215	0.27	8.940	A
A-B	20.00	20.00	0.00	-	-	-	-	-
A-C	430.00	430.00	0.00	-	-	-	-	-
A-D	0.00	0.00	0.00	476.37	0.000	0.00	0.000	A
D-AB	59.31	59.31	0.00	461.49	0.129	0.15	8.950	A
D-BC	300.69	300.53	0.00	367.60	0.818	4.27	52.784	F
C-ABD	191.85	191.85	0.00	811.74	0.236	0.56	5.827	A
C-D	0.00	0.00	0.00	-	-	-	-	-
C-A	328.15	328.15	0.00	-	-	-	-	-

APPENDIX B

Summary of 'Responses to Comments' (November 2024)

Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong Traffic Impact Assessment Report

Summary of 'Responses to Comments' (November 2024)

Comments of Transport Department dated 30 October 2024 (Ms. LAM Nga Man, Kraman, 2829 5539)	**Responses**
i. Please indicate the date of traffic survey conducted for weekday and weekend.	Please refer to **Para. 3.1.2** of the revised TIA report for the date of traffic survey conducted for weekday and weekend.
ii. Please provide the junction assessment for both the AM Peak and PM Peak of weekend for the existing and design scenarios.	Noted and please refer to **Table 3.3** and **Table 5.2** of the revised TIA report for the junction assessment for both the AM Peak and PM Peak of weekend for the existing and design scenarios respectively.
iii. Please explain the drastic change in the operational junction performance of (A) Tai Tam Road/Stanley Gap/Road/Stanley Village Road, (E) Stanley Gap Road/Chung Hom Kok Road and (F) Stanley Village Road/Stanley Beach Road/Stanley New Street for weekday and weekend when compared to the TIA submitted in 2021.	Please note that the traffic flows for weekday and weekend have been reviewed and revised, please refer to **Table 3.2**, **Table 3.3**, **Table 5.1** and **Table 5.2** of the revised TIA report for details.
iv. Please indicate the category of parking space on plan to demonstrate the total number of parking space proposed in Figure 2.2 and 2.3.	Noted and please refer to **Figure 2.2 (Rev A)** and **Figure 2.3 (Rev A)** of the revised TIA report with the category and parking space number indicated on plan.
v. Please demonstrate the swept path of private car for parking space, the loading/unloading bay on G/F, the entrance of ramp to carpark from "Right of Way" access road and from "Right of Way" access road to the public road.	Noted and please refer to **Figure SP-01** to **Figure SP-04** of the revised TIA report for swept path analysis demonstrating that it is feasible to maneuver private car for parking space, the loading/unloading bay on G/F, the entrance of ramp to carpark from "Right of Way" access road and from "Right of Way" access road to Stanley Village Road.
vi. Please demonstrate that there would be sufficient sightline distance for the proposed vehicular access including the connection of "Right of Way" to the public road, the run in/out of site at the "Right of	Noted. Please refer to **Figure 2.4** to **Figure 2.6** of the revised TIA for the sightline assessments for proposed vehicular access connecting "Right of Way" to Stanley Village Road, the run in/out of the site at the

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Way" access road and the run in/out of the ramp to carpark on G/F level. Please consider appropriate improvement measures where necessary.	"Right of Way" access road, and the run in/out of ramp to carpark on G/F level.
vii. Please advise the frequency of guided tours, the target number of visitors per tour and whether it will be arranged on weekday and/or weekend.	Please refer to **Para. 2.6.1** of the revised TIA report for the frequency of guided tours and the target number of visitors per tour. Please note that whether it will be arranged on weekday and/or weekend will be determined at later stage.
viii. Please provide the proposed frequency, routing, pick up/drop off points, swept path along the "Right of Way" and critical road sections for the 28-seater coach serving the guided tours.	Please refer to **Para. 2.6.4** of the revised TIA report for the proposed frequency, routing, pick up/drop off points, swept path along the "Right of Way" and critical road sections for the 28-seater coach serving the guided tours.
ix. Please provide the traffic management plan for the access of visitors using public transport.	Please refer to **Section 2.6** of the revised TIA report for the traffic management plan for the access of visitors using public transport.