

**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) –
Further Information No. 3**

Appendix IV

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

January 2025



CTA Consultants Limited

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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 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 m²
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 (Rev A)**. 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

Development Parameters		Parking Requirement						Loading/Unloading Requirement		
Required										
Average Flat Size (m ²)	No. of Flats	Private Car Parking Space						L/UL for Goods Vehicles		
		Residents			Visitors					
		5m x 2.5m								
		GPS 1 car space per 4-7 flats	R1	R2	R3	GPS x R1 x R2 x R3 ⁽¹⁾				
Lower Deck: 11 nos. of units										
>160	11	4-7	7.0	1.0	1.3	15 to 25	-	1 per 800 flats or part thereof, subject to a minimum of 1 bay for each housing block	1	
		-	-	-	-	15 to 25				
		Motorcycle Parking Space								
		2.4m x 1m								
		1 per 100-150 flats			-					
Upper Deck: 12 nos. of units										
>160	12	4-7	7.0	1.0	1.3	16 to 28	-	1 per 800 flats or part thereof, subject to a minimum of 1 bay for each housing block	1	
		-	-	-	-	16 to 28				
		Motorcycle Parking Space								
		2.4m x 1m								
		1 per 100-150 flats			-					



Development Parameters	Parking Requirement		Loading/Unloading Requirement
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
	31 to 53	-	7m x 3.5m: 1 no. 8m x 3.5m: 1 no. (shared use with light buses/28-seater coaches)
	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
	53	2	7m x 3.5m: 1 no. 8m x 3.5m: 1 no. (shared use with light buses/28-seater coaches)
	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 (Rev A)** to **Figure 2.3** respectively. Swept path analysis demonstrates it is feasible to maneuver private car for parking space, pick-up/drop-off, 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-04**.

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 (Rev A)**.



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-05**.



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 (Rev A)** 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
-	Cape Road (R.B.L. 1204)	Residential	Maximum residential GFA of about 44,615m ² and assumed GFA for RCHE of about 4,210m ²	-	-	-	-	-

Note: Trip rate as stipulated in 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
-	Cape Road (R.B.L. 1204)	Residential	Maximum residential GFA of about 44,615m ² and assumed GFA for RCHE of about 4,210m ²	pcu/hr	106 (week day) ⁽¹⁾ 36 (week end) ⁽¹⁾	61 (week day) ⁽¹⁾ 22 (week end) ⁽¹⁾	57 (week day) ⁽¹⁾ 36 (week end) ⁽¹⁾	77 (week day) ⁽¹⁾ 22 (week end) ⁽¹⁾

Note: (1) From its TIA report.



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:

$$\begin{array}{l} \text{2031} \\ \text{Reference Traffic} \\ \text{Flows} \\ \text{(Without Proposed} \\ \text{Development)} \end{array} = \left(\begin{array}{l} \text{2024} \\ \text{Observed} \\ \text{Traffic Flows} \end{array} \times \begin{array}{l} \text{Adopted Growth} \\ \text{Factor} \\ \text{(i.e. +1\% p.a.} \\ \text{for 7 year)} \end{array} \right) + \begin{array}{l} \text{Traffic Flows of} \\ \text{Planned} \\ \text{Adjacent} \\ \text{Development} \end{array}$$

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

$$\begin{array}{l}
 \mathbf{2031\ Design} \\
 \mathbf{Traffic\ Flows} \\
 \mathbf{(with\ proposed} \\
 \mathbf{development)}
 \end{array}
 =
 \begin{array}{l}
 \mathbf{2031\ Reference} \\
 \mathbf{Traffic\ Flows} \\
 \mathbf{(without\ proposed} \\
 \mathbf{development)}
 \end{array}
 +
 \begin{array}{l}
 \mathbf{Proposed} \\
 \mathbf{Development} \\
 \mathbf{Traffic\ Flows}
 \end{array}$$

4.6.2 Year 2031 design traffic flows (with proposed development) weekday and Sunday are shown in **Figure 4.4 (Rev B)** and **Figure 4.5 (Rev B)** 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	0.66	0.65	0.67
B	Stanley Village Road / Stanley Beach Road	Priority	0.30	0.28	0.31	0.28
C	Stanley Village Road / Stanley Mound Road	Priority	0.29	0.28	0.30	0.29
D	Stanley Village Road / Access Road	Priority	0.27	0.16	0.28	0.16
E	Stanley Gap Road / Chung Hom Kok Road	Priority	0.79	0.77	0.79	0.77
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	0.78	0.55	0.79
B	Stanley Village Road / Stanley Beach Road	Priority	0.21	0.26	0.21	0.26
C	Stanley Village Road / Stanley Mound Road	Priority	0.22	0.29	0.22	0.30
D	Stanley Village Road / Access Road	Priority	0.13	0.15	0.13	0.16
E	Stanley Gap Road / Chung Hom Kok Road	Priority	0.55	0.83	0.55	0.83
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.



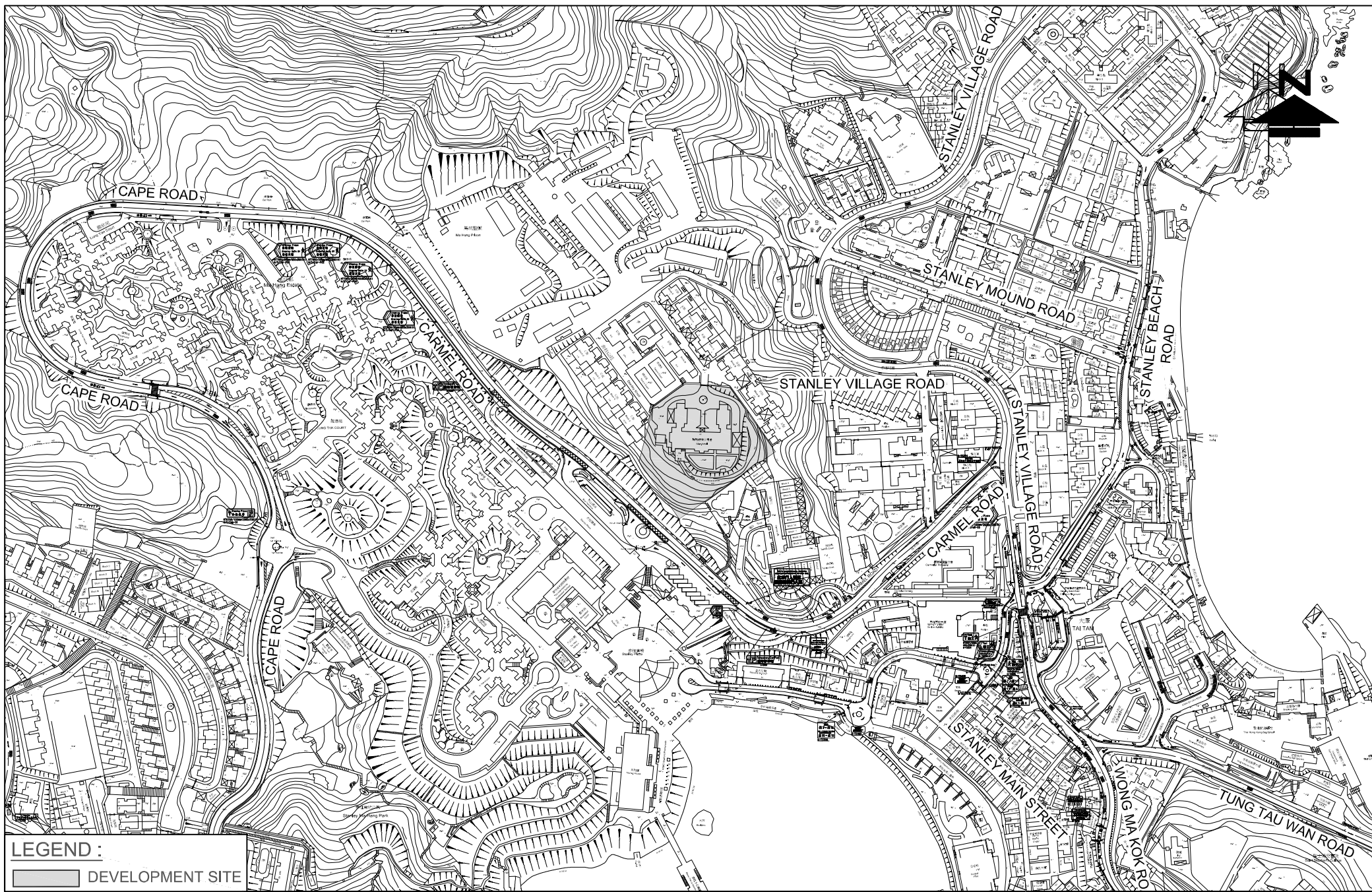
6. SUMMARY AND CONCLUSION

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	
PROJECT NO.: 24048HK		DRAWING TITLE:	
SCALE: 1 : 4100 @A4	DATE: 11 JUL 2024	SITE LOCATION PLAN	



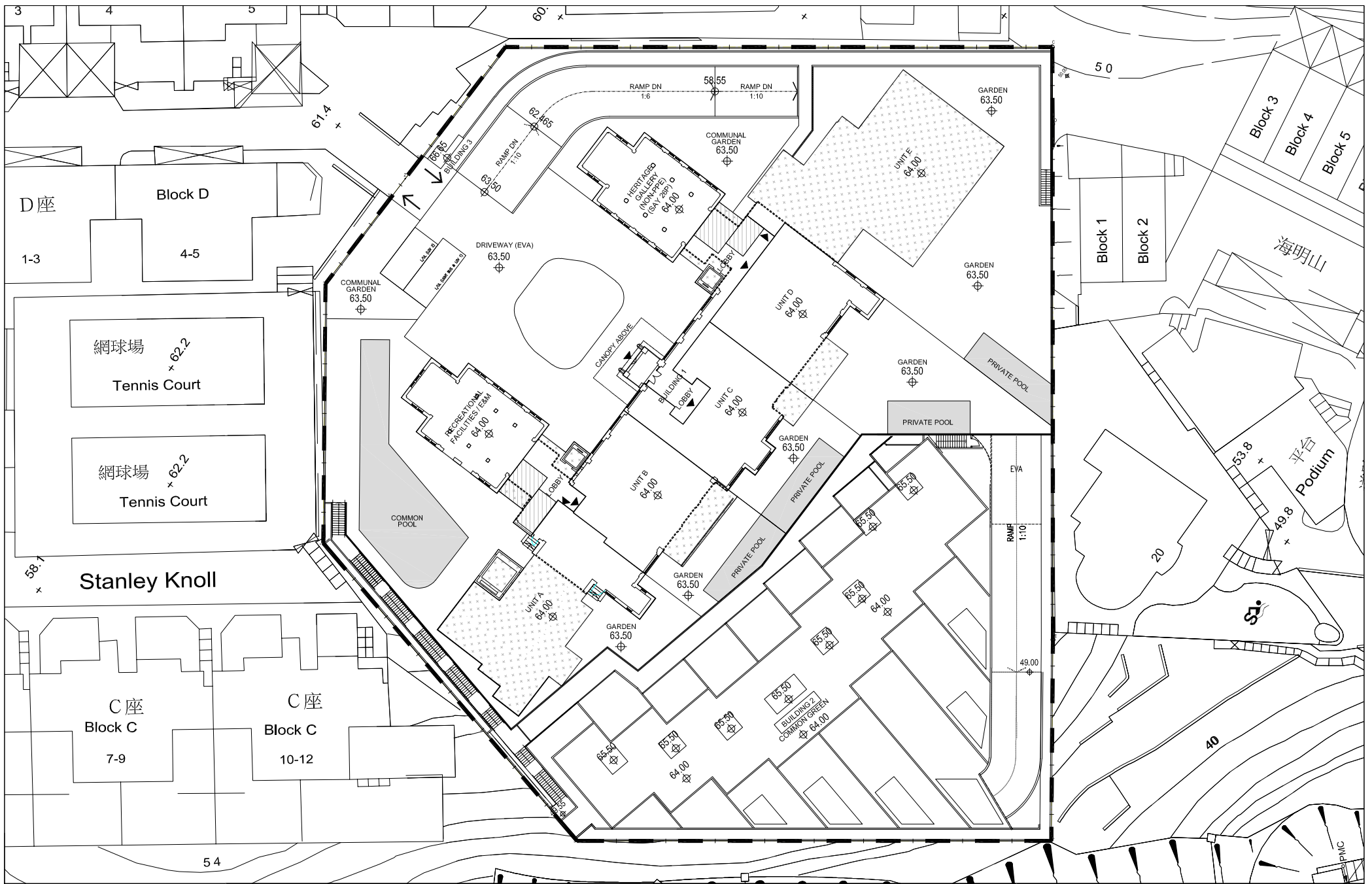


FIGURE NO.: **2.1 (REV A)**

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:

SCALE: 1 : 600 @A4
DATE: 10 JAN 2025

PROPOSED UPPER DECK G/F LAYOUT PLAN



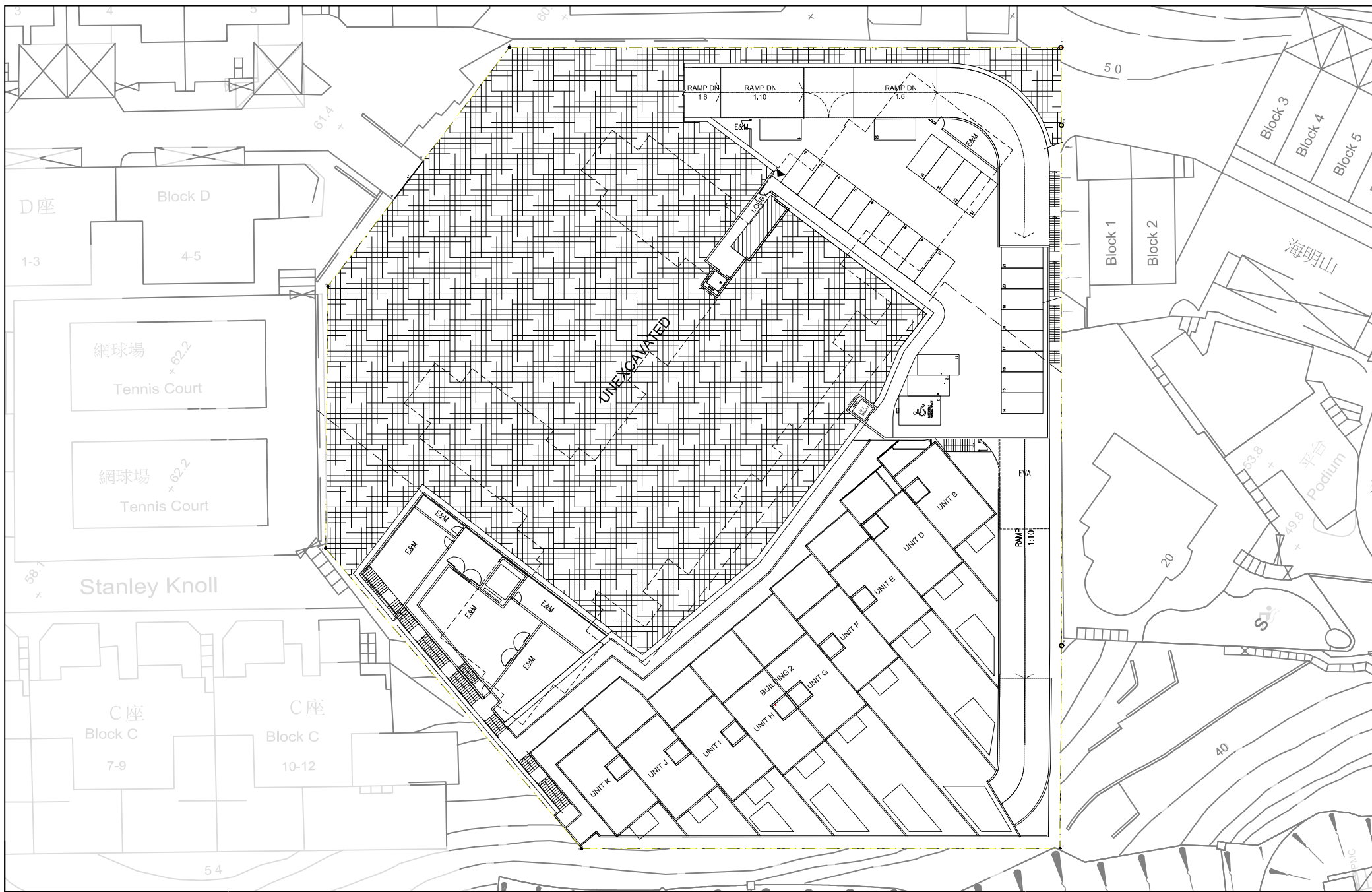


FIGURE NO.: **2.2**

PROJECT NO.: 24048HK

SCALE: 1 : 600 @A4

DATE: 12 AUG 2024

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

DRAWING TITLE: **PROPOSED UPPER DECK LG/F & LOWER DECK 3/F LAYOUT PLAN**



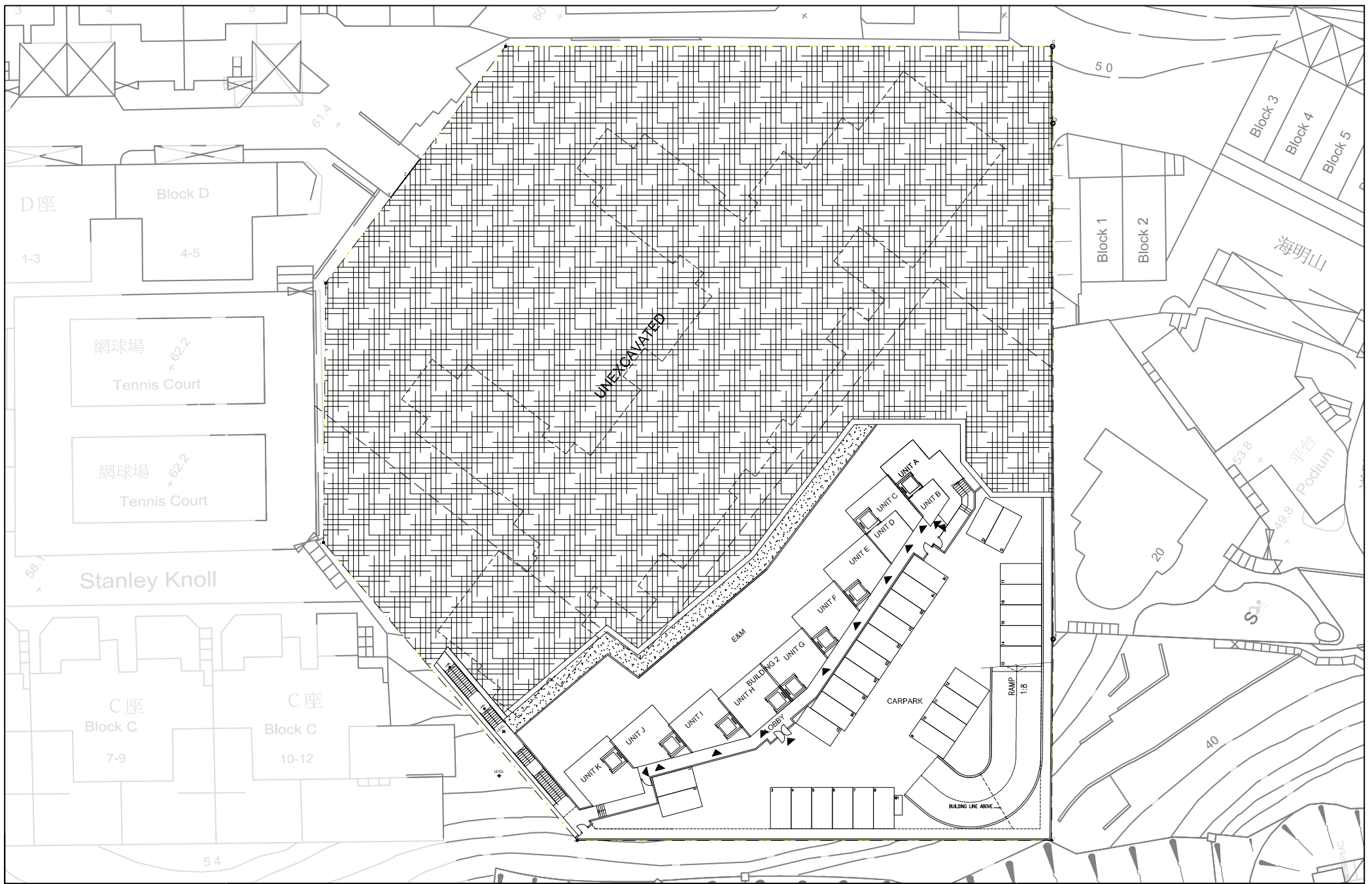


FIGURE NO.:		2.3
PROJECT NO.:		24048HK
SCALE:	DATE:	
1 : 600 @A4	12 NOV 2024	

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

DRAWING TITLE:

PROPOSED LOWER DECK LG/F LAYOUT PLAN



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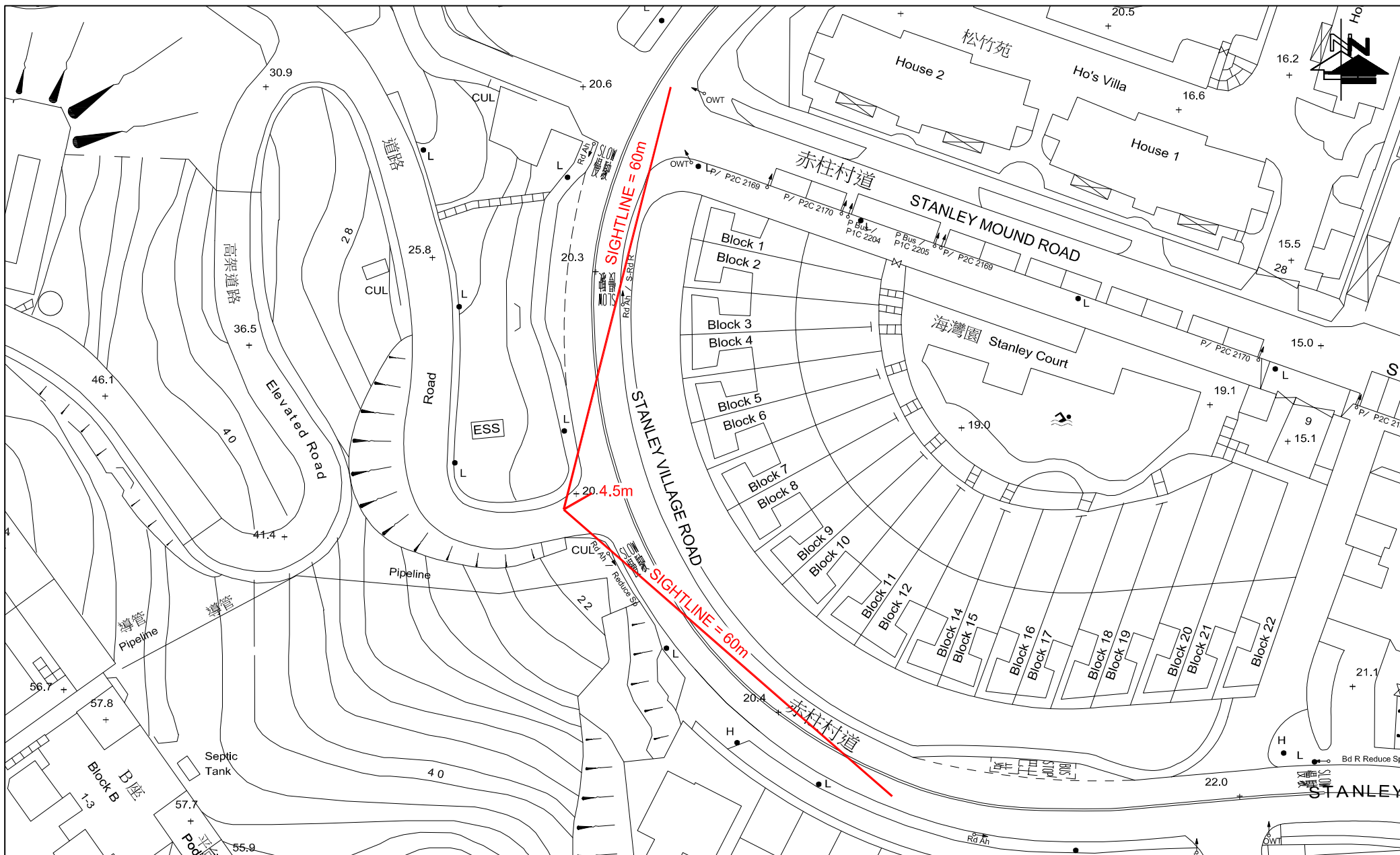



FIGURE NO.: 2.4		PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	 CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK		DRAWING TITLE: SIGHTLINE ASSESSMENT FOR PROPOSED VEHICULAR ACCESS CONNECTING "RIGHT OF WAY" TO STANLEY VILLAGE ROAD	
SCALE: 1 : 700 @A4	DATE: 12 NOV 2024		

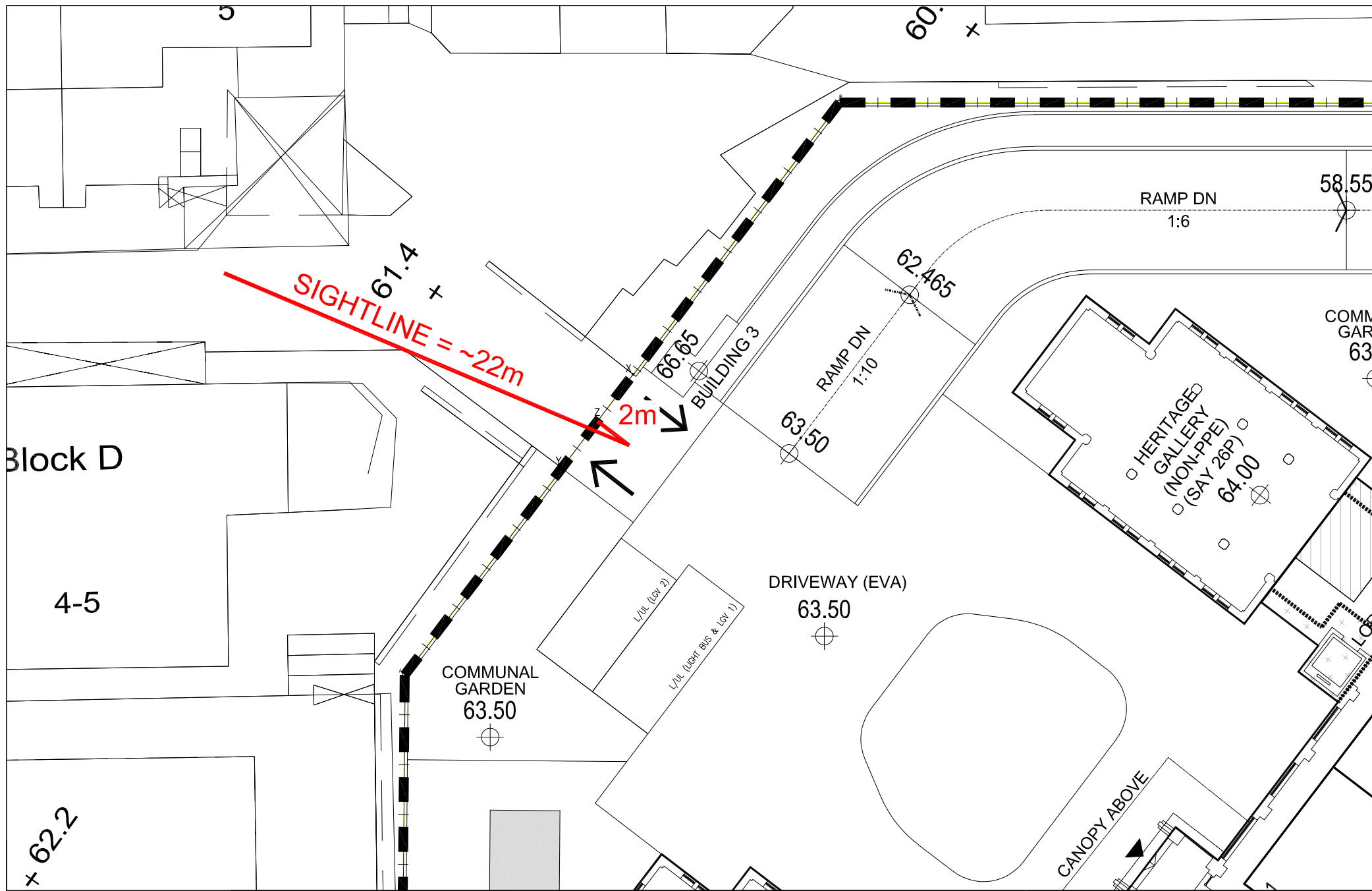


FIGURE NO.: 2.5 (REV A)

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

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: 10 JAN 2025



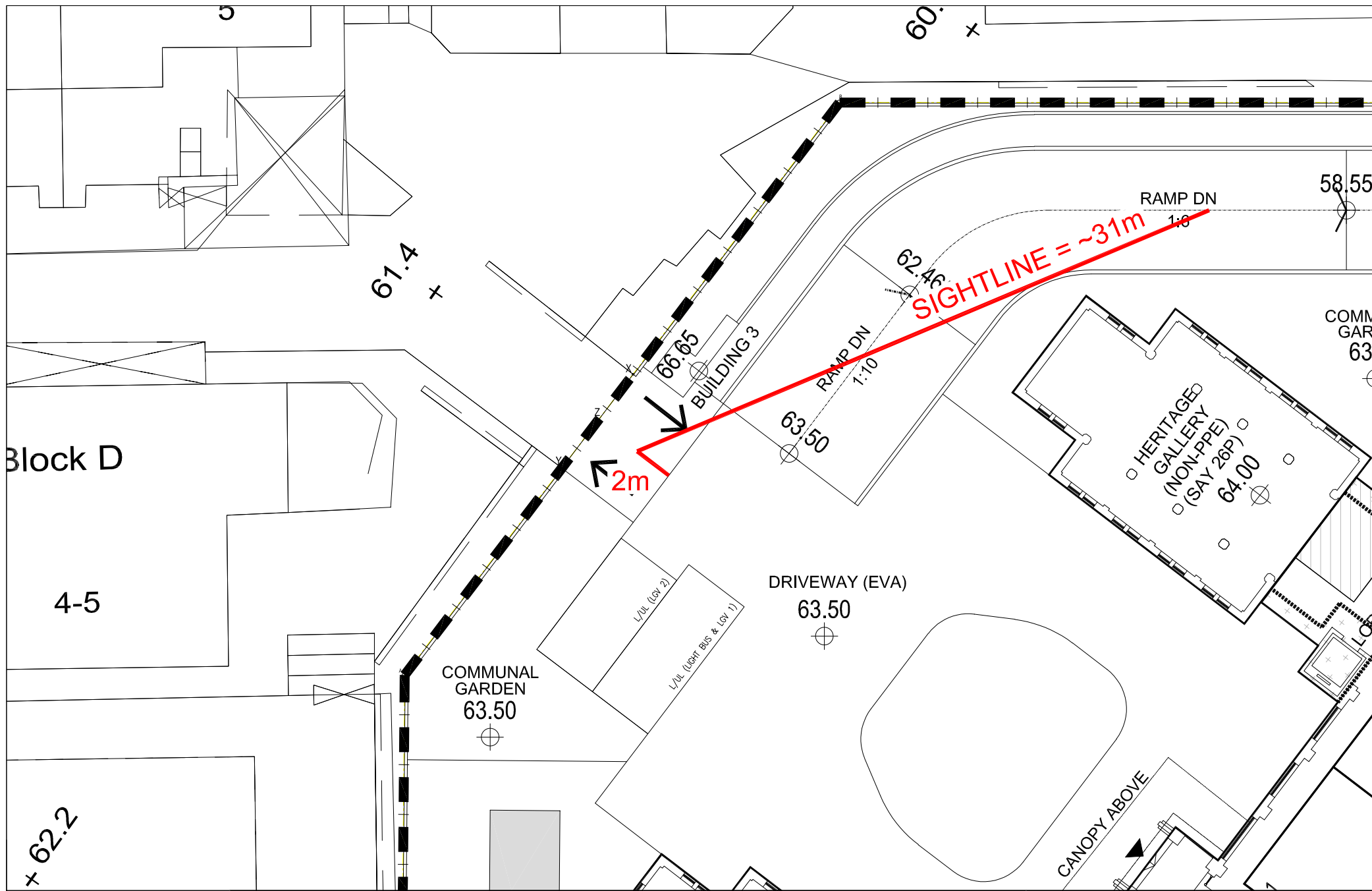


FIGURE NO.: 2.6 (REV A)

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

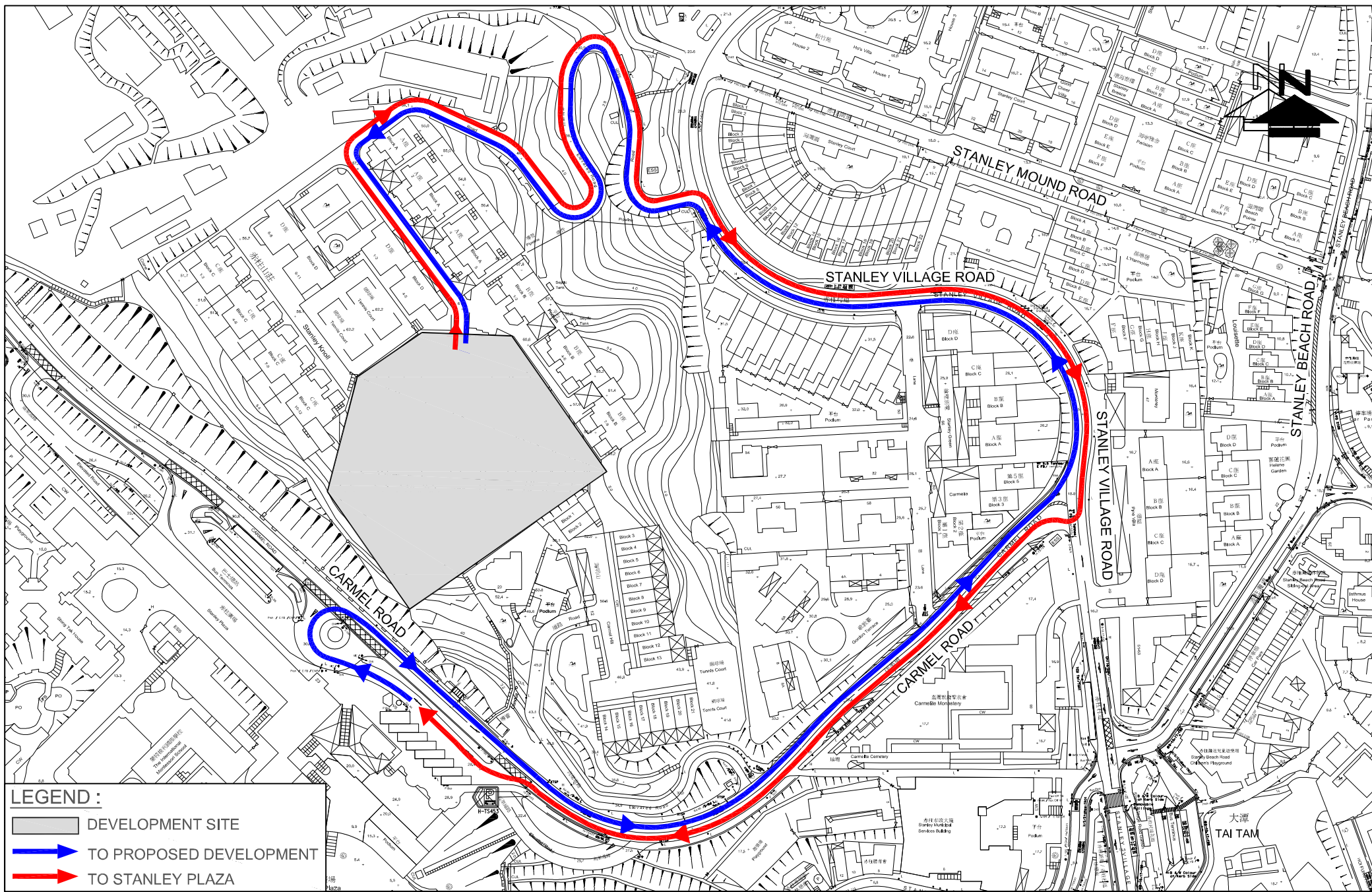
PROJECT NO.: 24048HK

DRAWING TITLE: SIGHTLINE ASSESSMENT FOR RUN IN / OUT OF RAMP TO CARPARK ON G/F LEVEL

SCALE: 1 : 200 @A4

DATE: 10 JAN 2025





LEGEND :





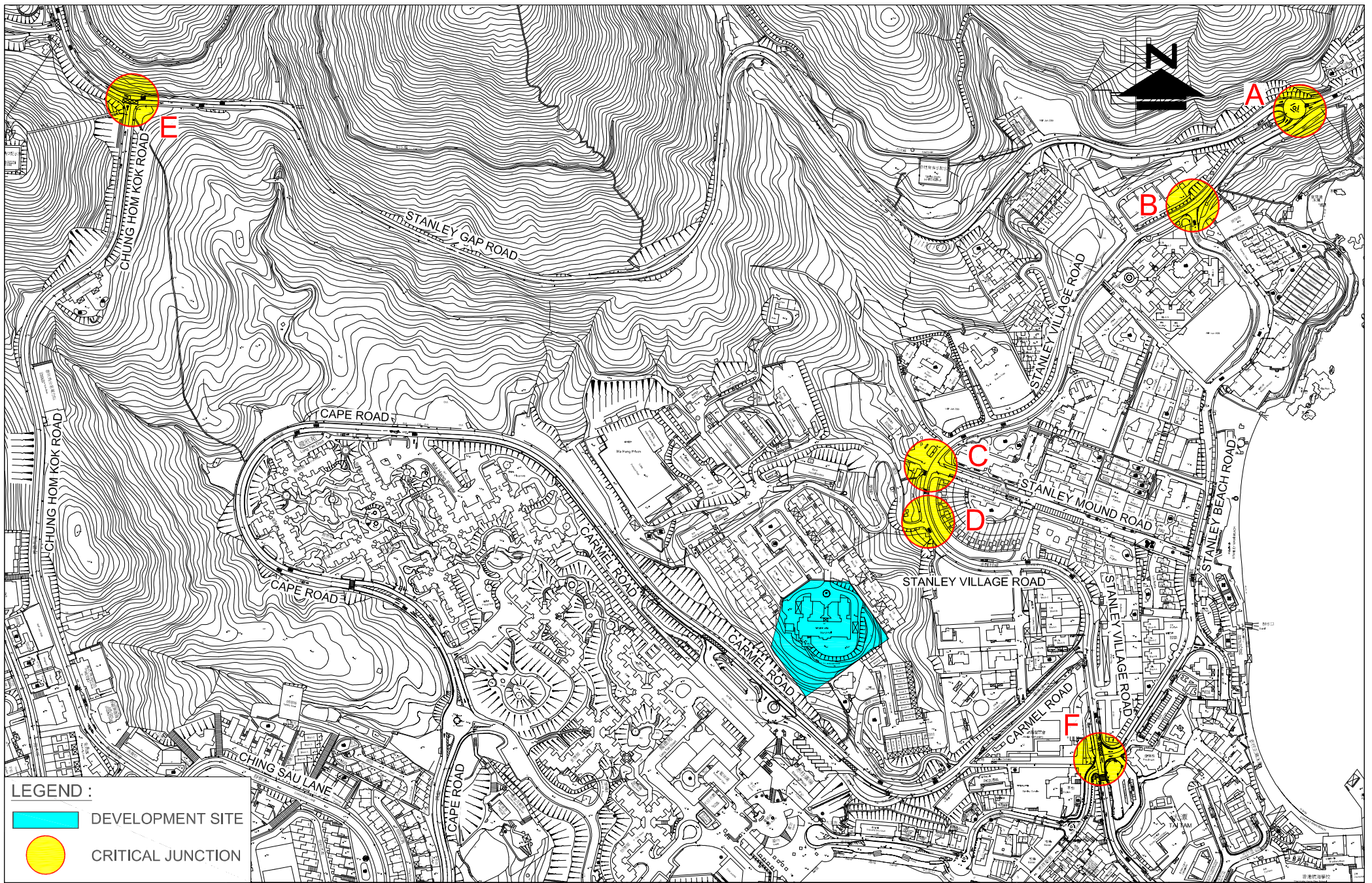
-  DEVELOPMENT SITE
-  TO PROPOSED DEVELOPMENT
-  TO STANLEY PLAZA

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	 CTA Consultants Limited 志達顧問有限公司



LEGEND :

- DEVELOPMENT SITE
- CRITICAL JUNCTION

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:
SCALE:	DATE:	IDENTIFIED KEY JUNCTIONS
1 : 4700 @A4	29 JUL 2024	

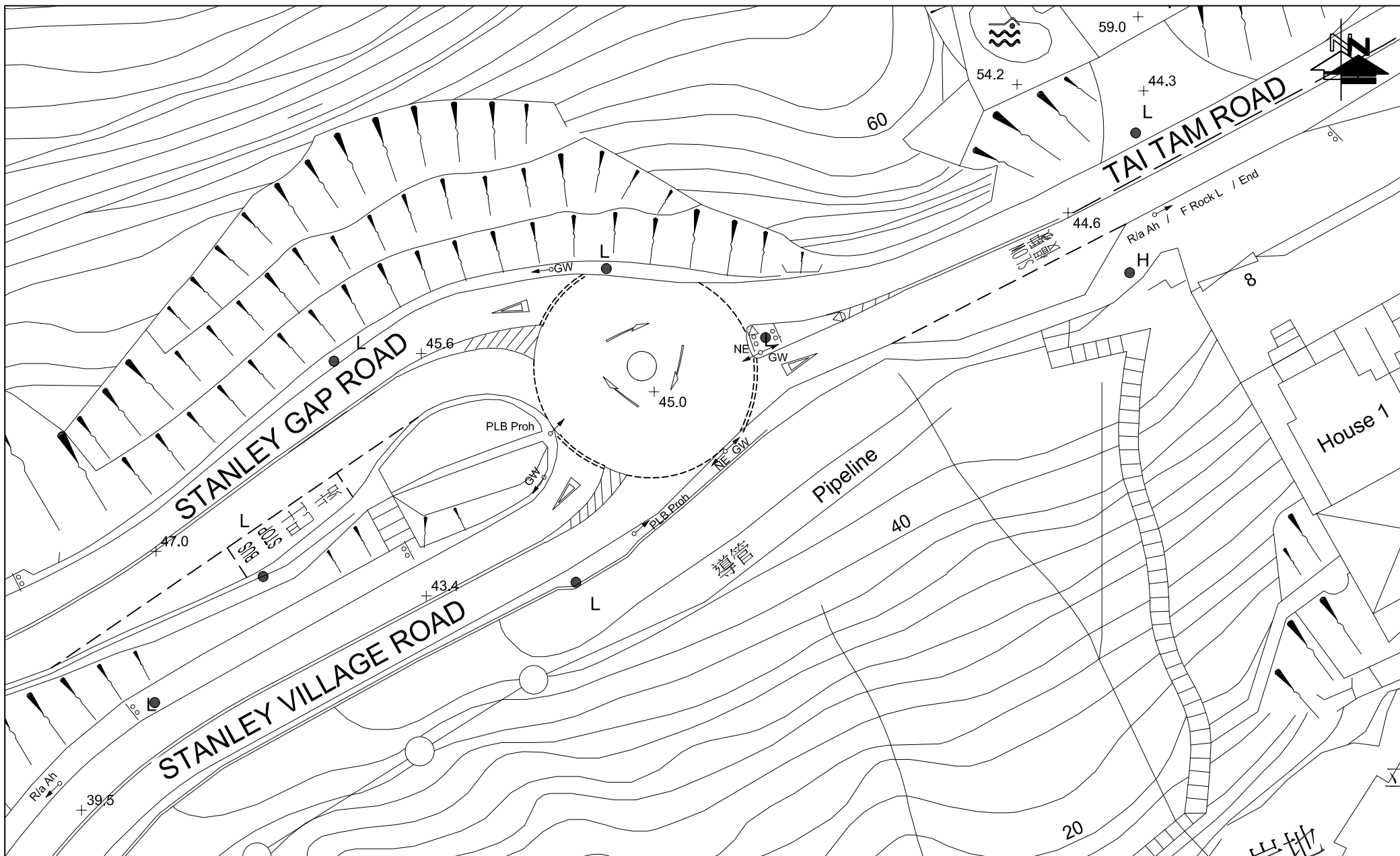


FIGURE NO.: 3.2		PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	 CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK		DRAWING TITLE: EXISTING JUNCTION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

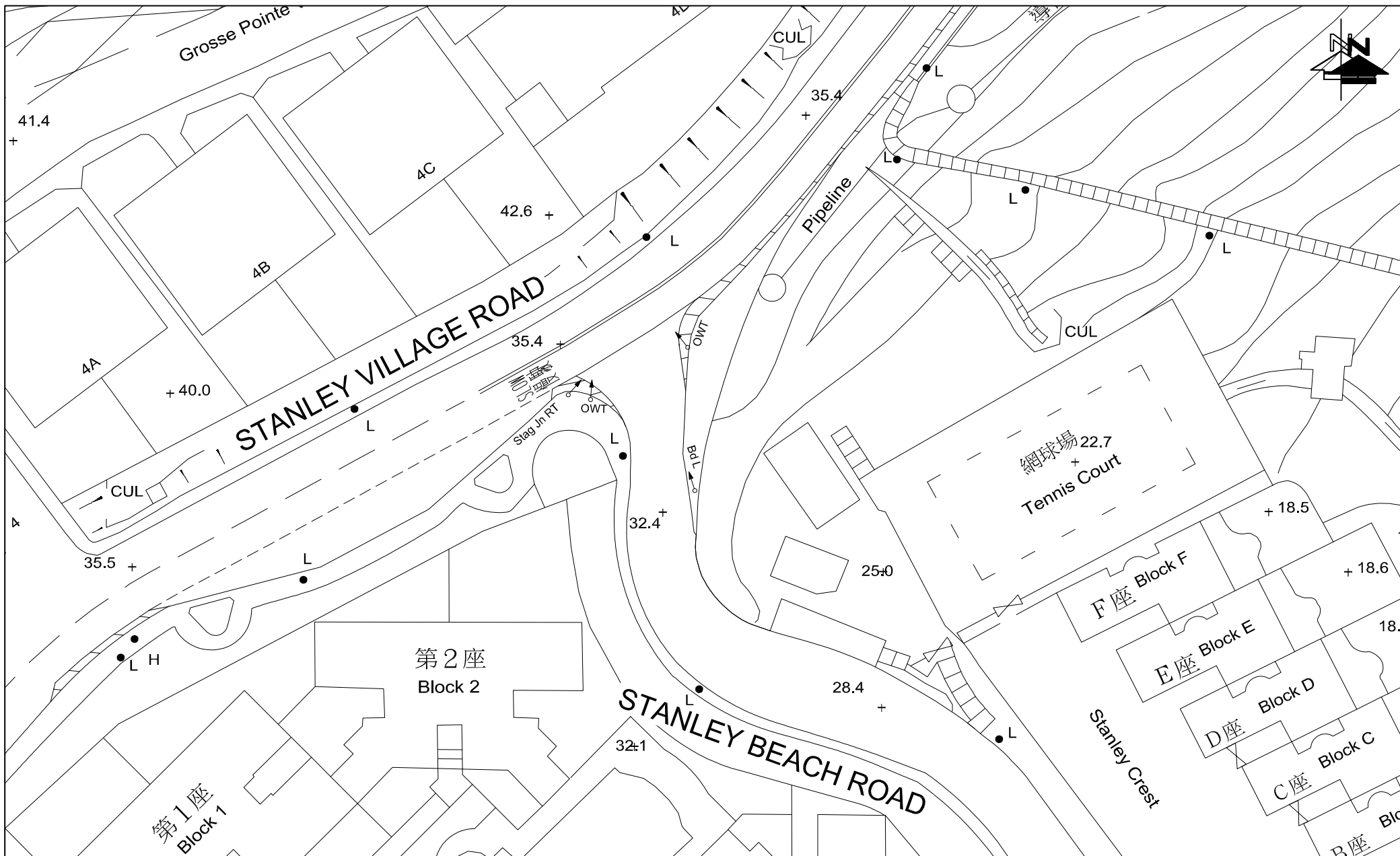



FIGURE NO.:		PROJECT TITLE:		 CTA Consultants Limited 志達顧問有限公司
3.3		Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong		
PROJECT NO.:		DRAWING TITLE:		
24048HK		EXISTING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

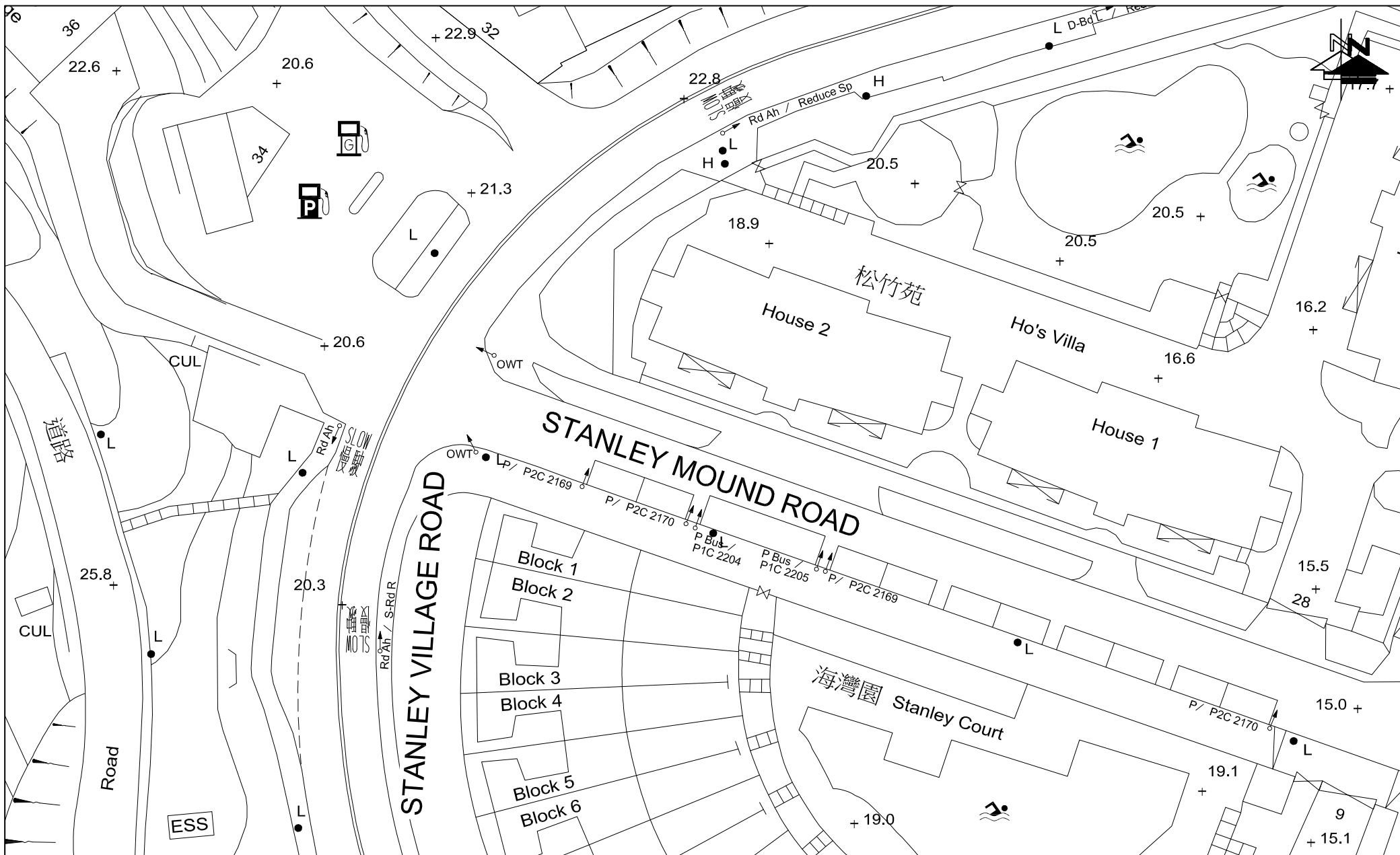



FIGURE NO.: 3.4		PROJECT TITLE: Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	 CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 24048HK		DRAWING TITLE: EXISTING JUNCTION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

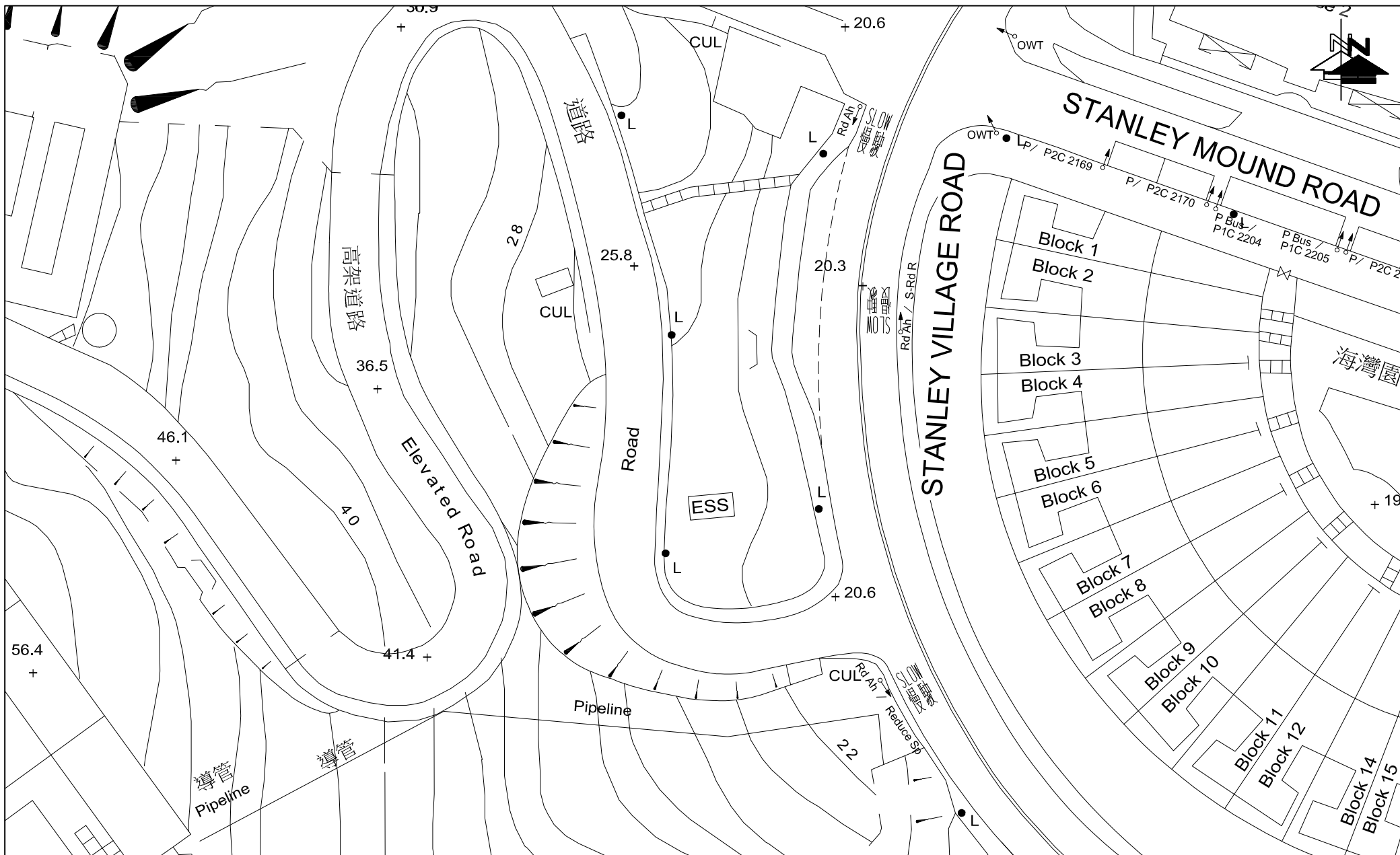



FIGURE NO.:		3.5		PROJECT TITLE:		Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	
PROJECT NO.:		24048HK		DRAWING TITLE:		EXISTING JUNCTION LAYOUT OF STANLEY VILLAGE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

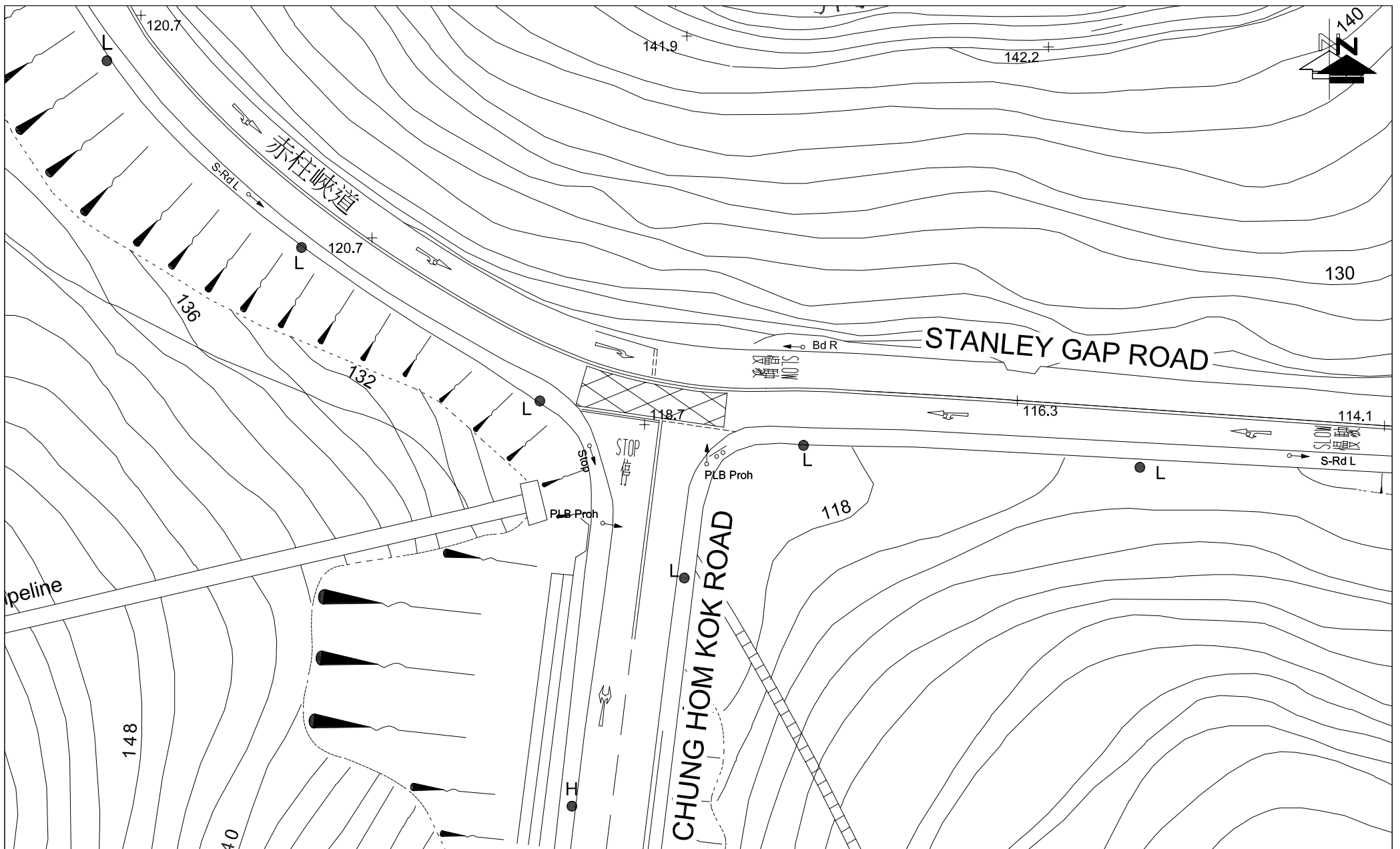



FIGURE NO.:		3.6		PROJECT TITLE:		Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	
PROJECT NO.:		24048HK		DRAWING TITLE:		EXISTING JUNCTION LAYOUT OF STANLEY GAP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

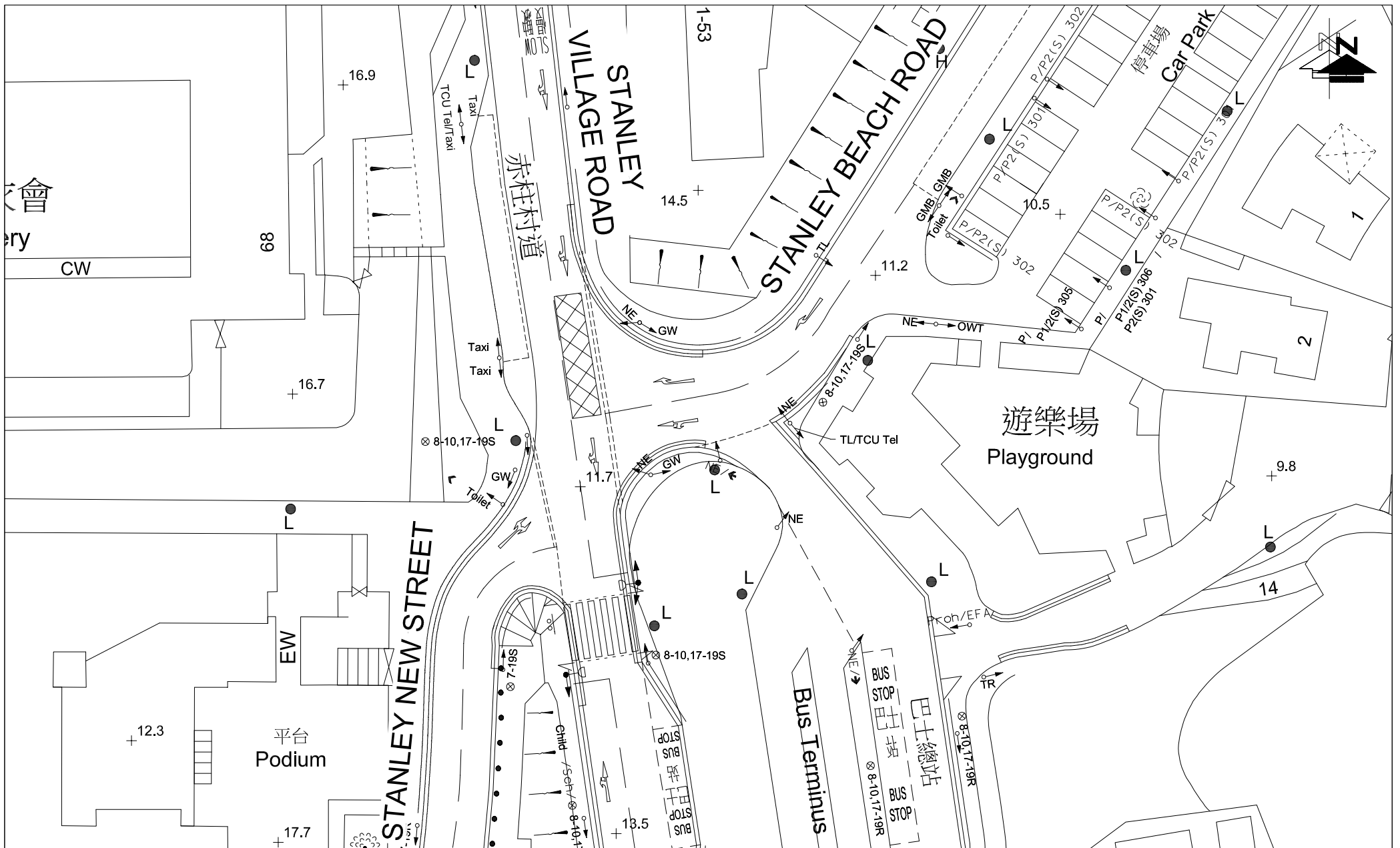
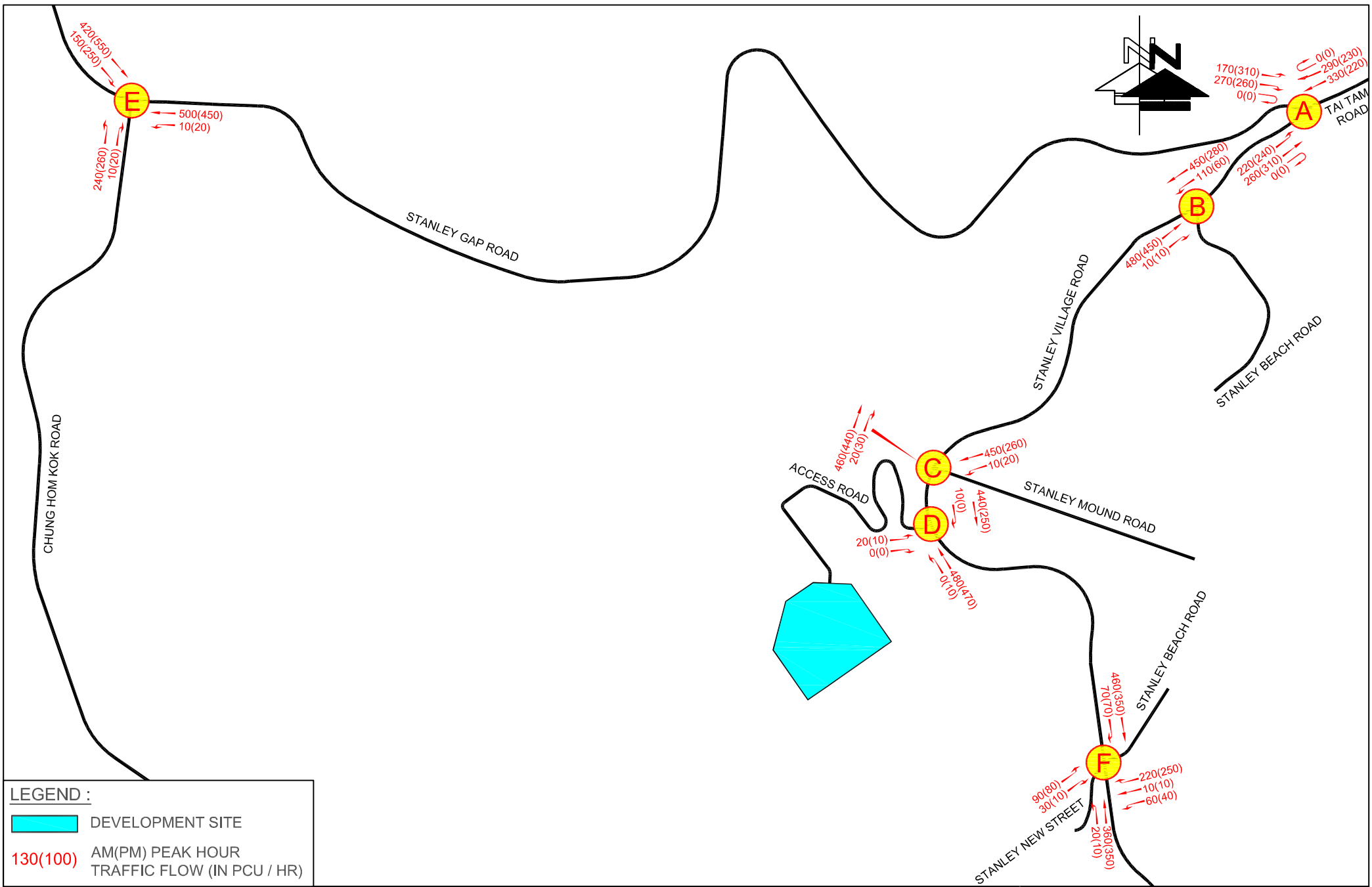


FIGURE NO.:		3.7		PROJECT TITLE:		Section 16 Planning Application for Minor Relaxation of Plot Ratio, Building Height & Site Coverage Restrictions for Proposed Residential Development at 44 Stanley Village Road, Hong Kong	
PROJECT NO.:		24048HK		DRAWING TITLE:		EXISTING JUNCTION LAYOUT OF STANLEY VILLAGE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






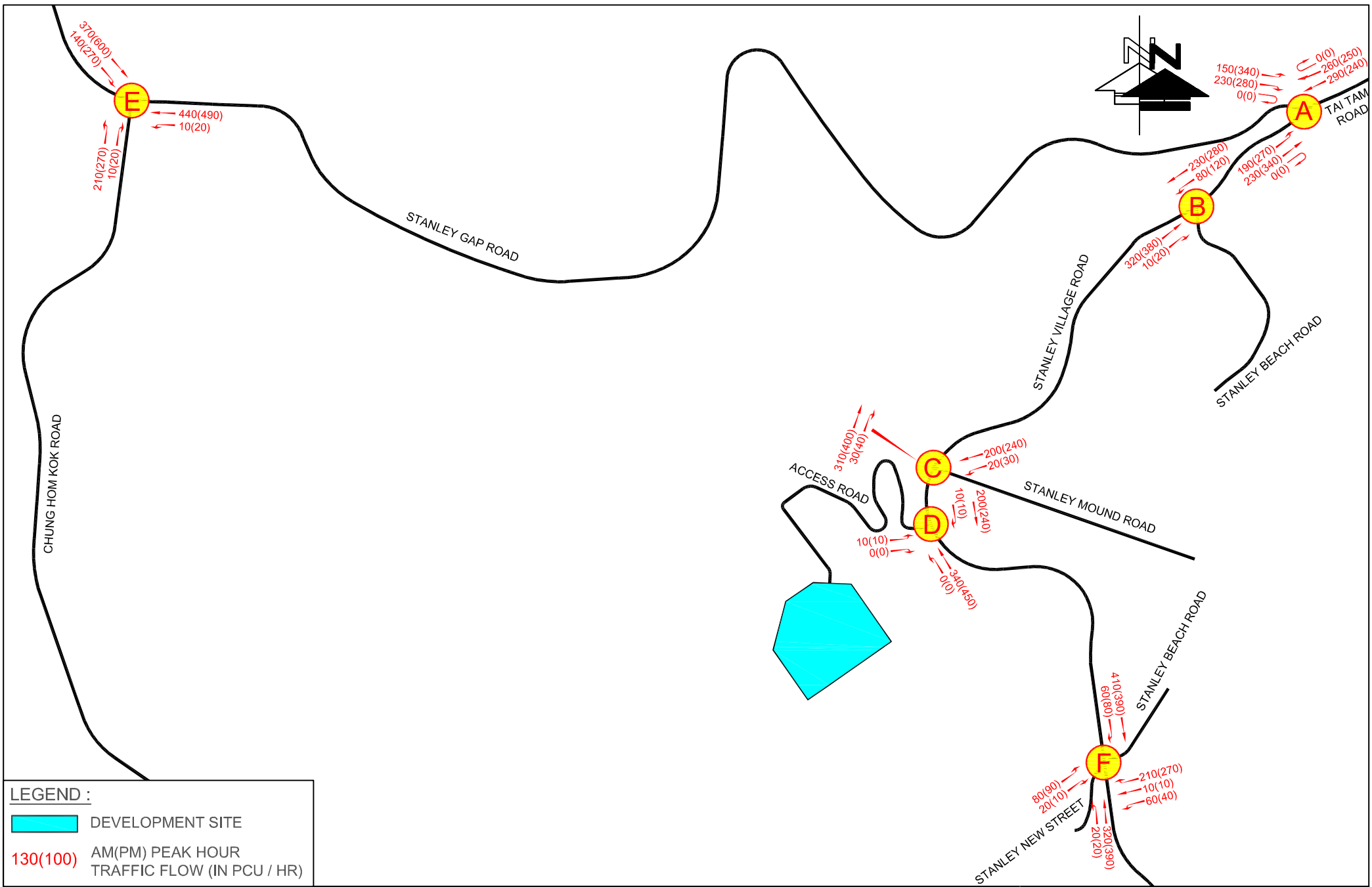
LEGEND :	
	DEVELOPMENT SITE
130(100)	AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

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
PROJECT NO.:	24048HK	DRAWING TITLE:
SCALE:	N.T.S. @A4	2024 OBSERVED TRAFFIC FLOWS - WEEKDAY
DATE:	12 NOV 2024	



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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:
SCALE:	N.T.S. @A4	2024 OBSERVED TRAFFIC FLOWS - SUNDAY
DATE:	12 NOV 2024	



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LEGEND :

 DEVELOPMENT SITE

FIGURE NO.: **4.1 (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

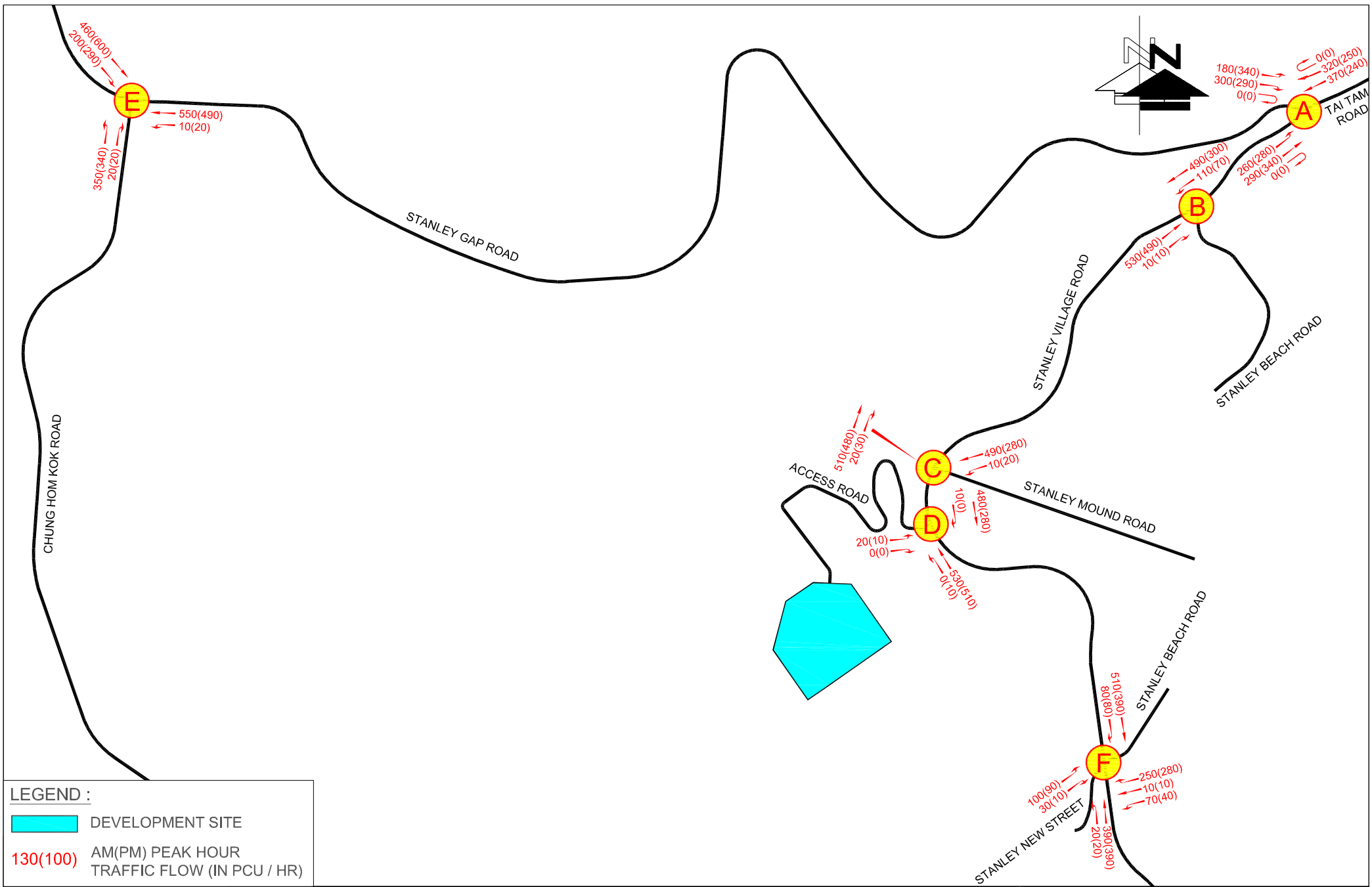
PROJECT NO.: 24048HK

DRAWING TITLE:

PLANNED MAJOR DEVELOPMENTS IN THE VICINITY

SCALE: 1 : 4000 @A4

DATE: 10 JAN 2025




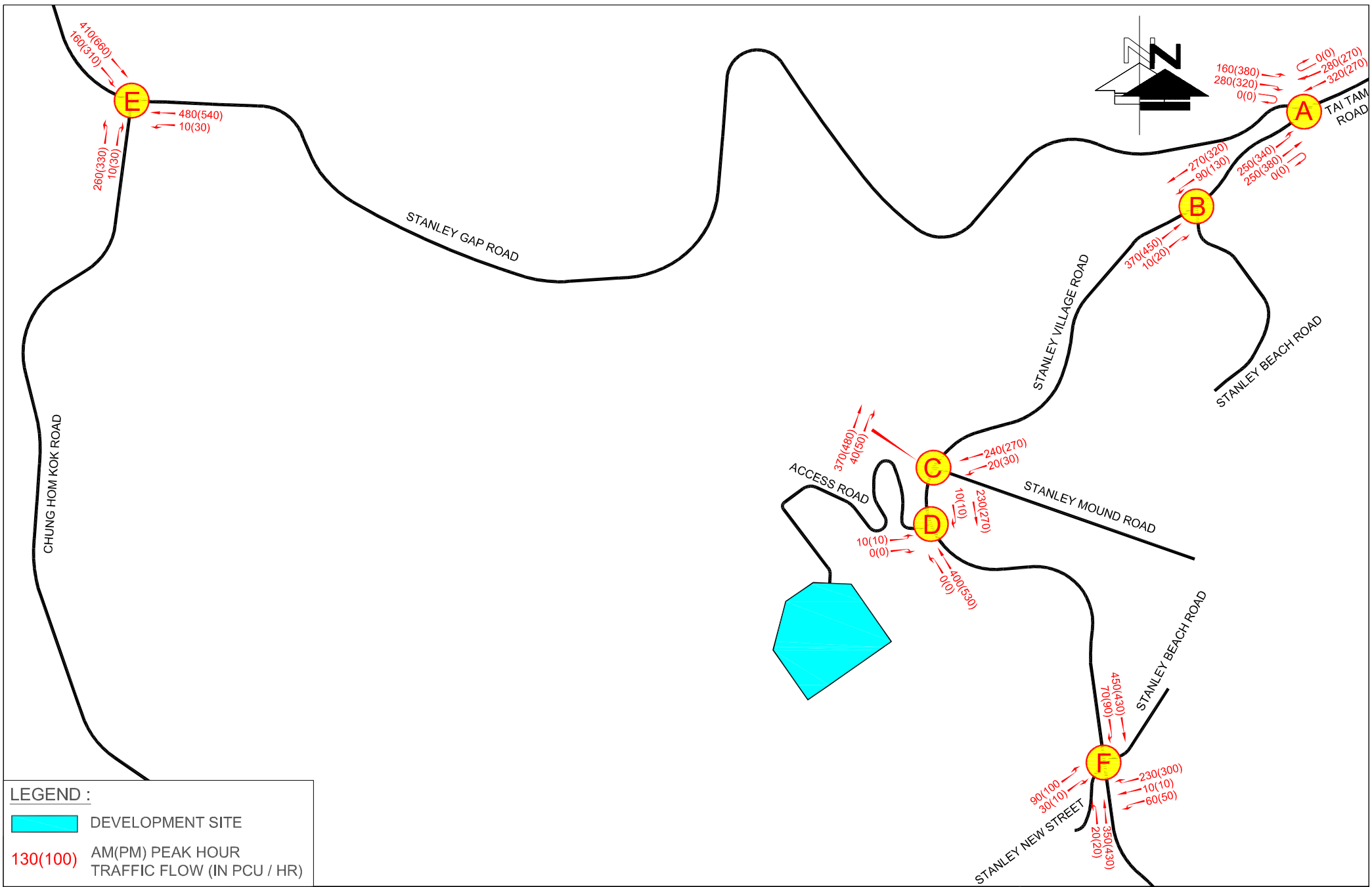
LEGEND :
 DEVELOPMENT SITE
130(100) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.:	4.2 (Rev B)	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:
SCALE: N.T.S. @A4	DATE: 27 JAN 2025	2031 REFERENCE TRAFFIC FLOWS - WEEKDAY






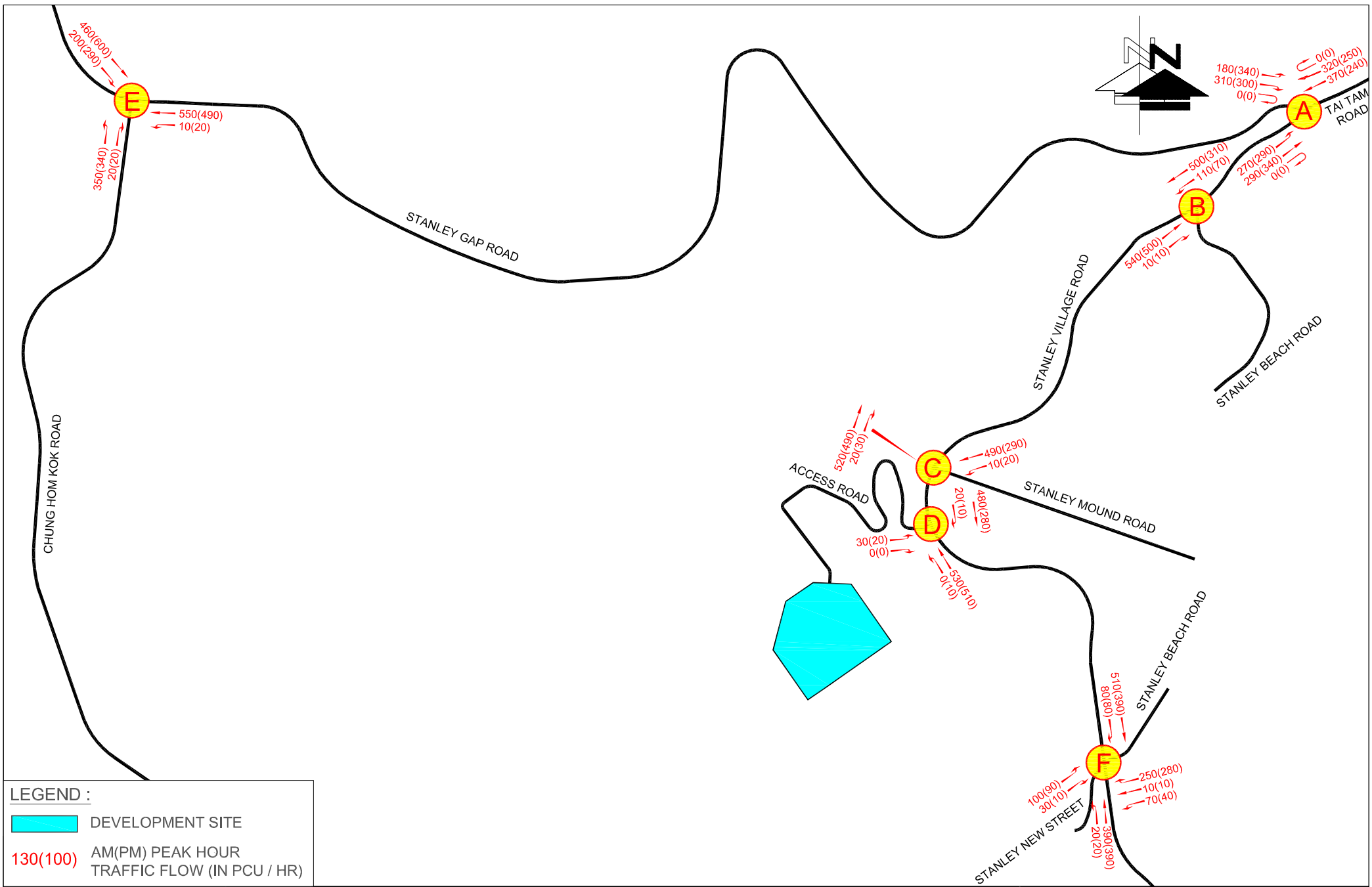
LEGEND :
 DEVELOPMENT SITE
130(100) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.:	4.3 (Rev B)	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:
SCALE:	N.T.S. @A4	2031 REFERENCE TRAFFIC FLOWS - SUNDAY
DATE:	27 JAN 2025	



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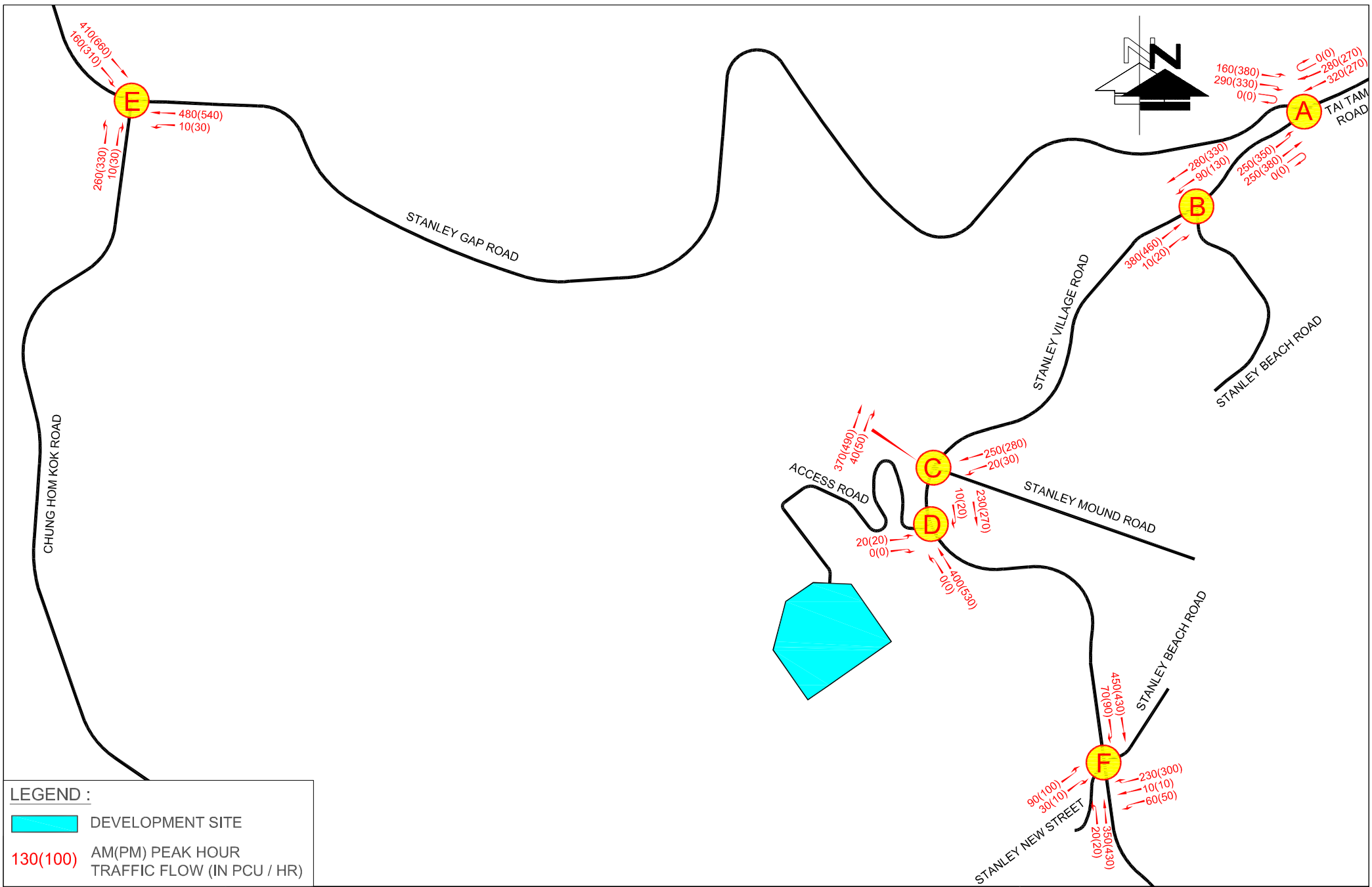
LEGEND :
 DEVELOPMENT SITE
130(100) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.:	4.4 (Rev B)	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:
SCALE:	N.T.S. @A4	2031 DESIGN TRAFFIC FLOWS - WEEKDAY
DATE:	27 JAN 2025	






LEGEND :
 DEVELOPMENT SITE
 130(100) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.:	4.5 (Rev B)	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:
SCALE:	N.T.S. @A4	2031 DESIGN TRAFFIC FLOWS - SUNDAY
DATE:	27 JAN 2025	



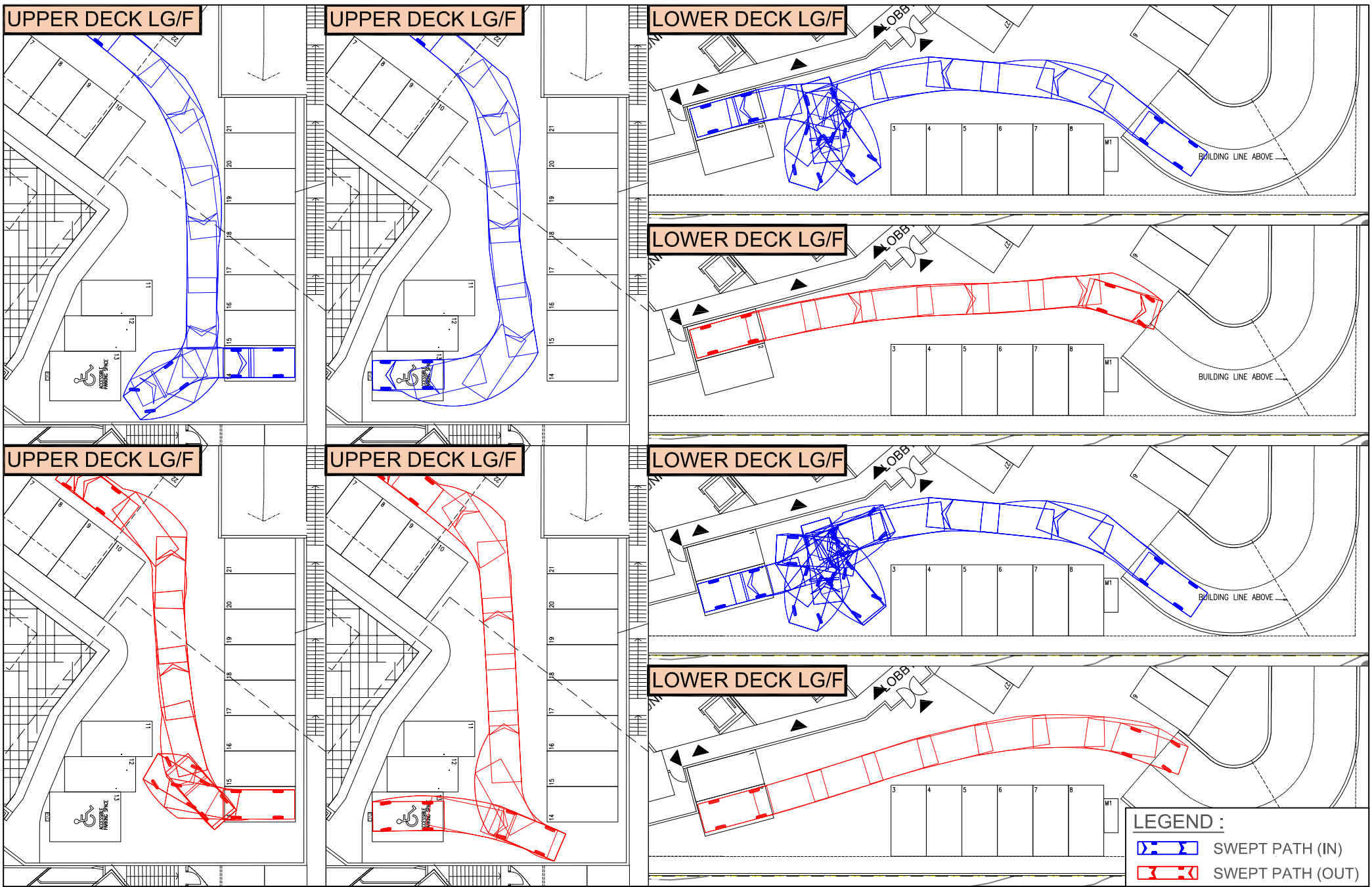


FIGURE NO.: **SP-01**

PROJECT NO.: 24048HK

SCALE: 1 : 350 @A4

DATE: 12 NOV 2024

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

DRAWING TITLE: **SWEPT PATH ANALYSIS OF PRIVATE CAR FOR PARKING SPACE**

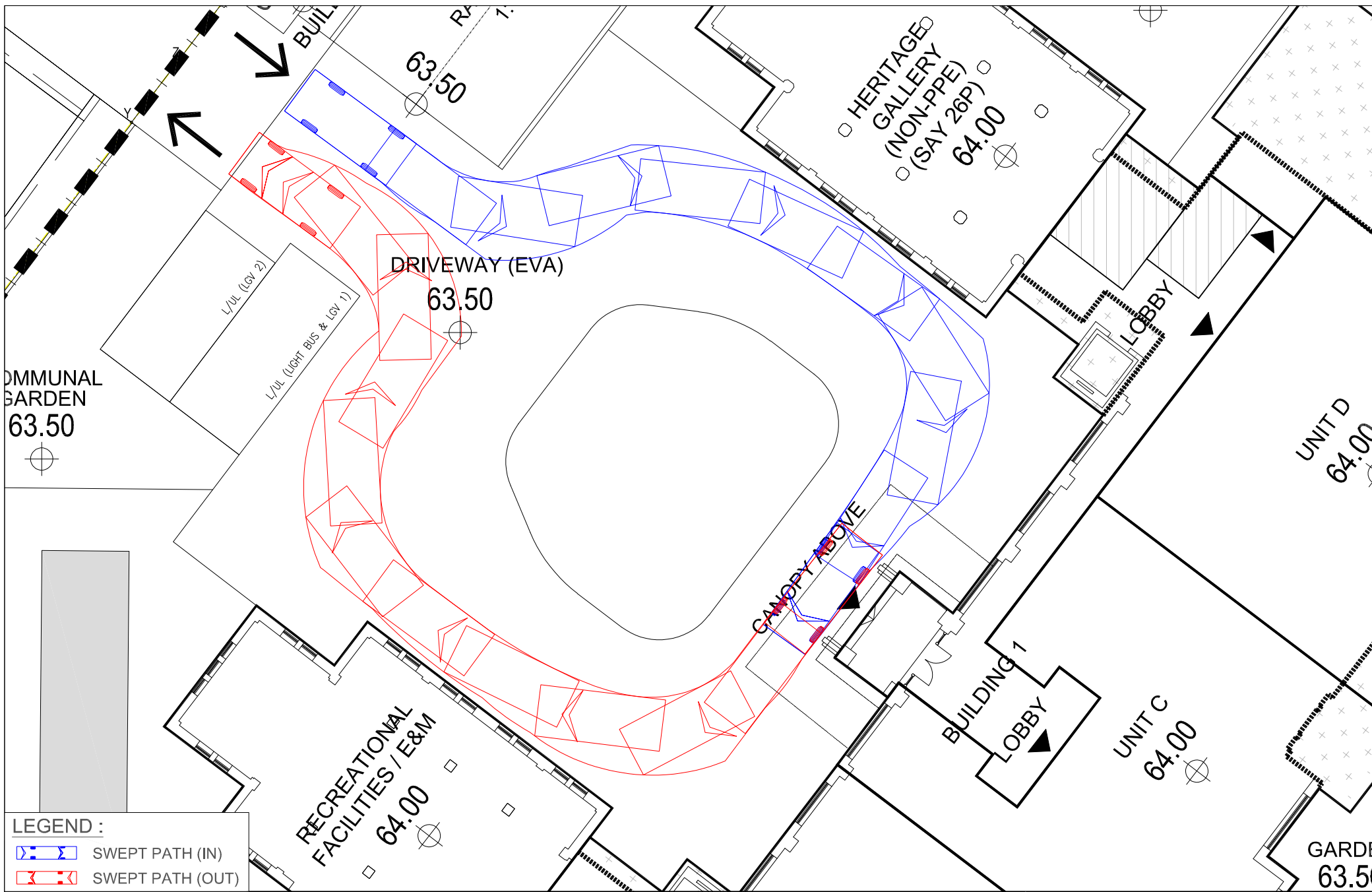
LEGEND :

 SWEEP PATH (IN)

 SWEEP PATH (OUT)



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LEGEND :

- ▬ SWEEP PATH (IN)
- ▬ SWEEP PATH (OUT)

FIGURE NO.:	SP-02
PROJECT NO.:	24048HK
SCALE:	DATE:
1 : 200 @A4	13 JAN 2025

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

DRAWING TITLE:
SWEPT PATH ANALYSIS OF PRIVATE CAR FOR PICK-UP / DROP-OFF



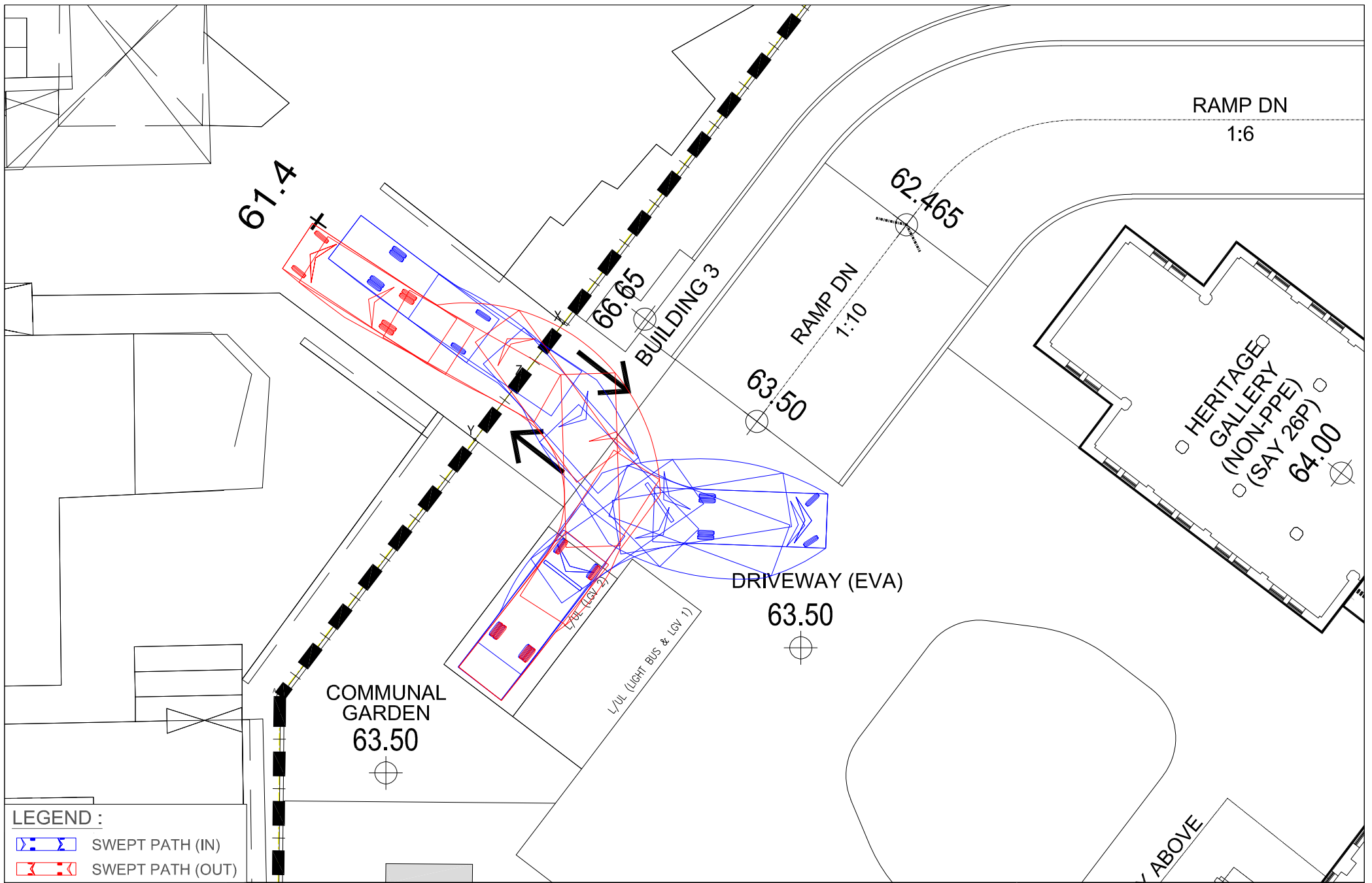


FIGURE NO.: **SP-03**

PROJECT NO.: 24048HK

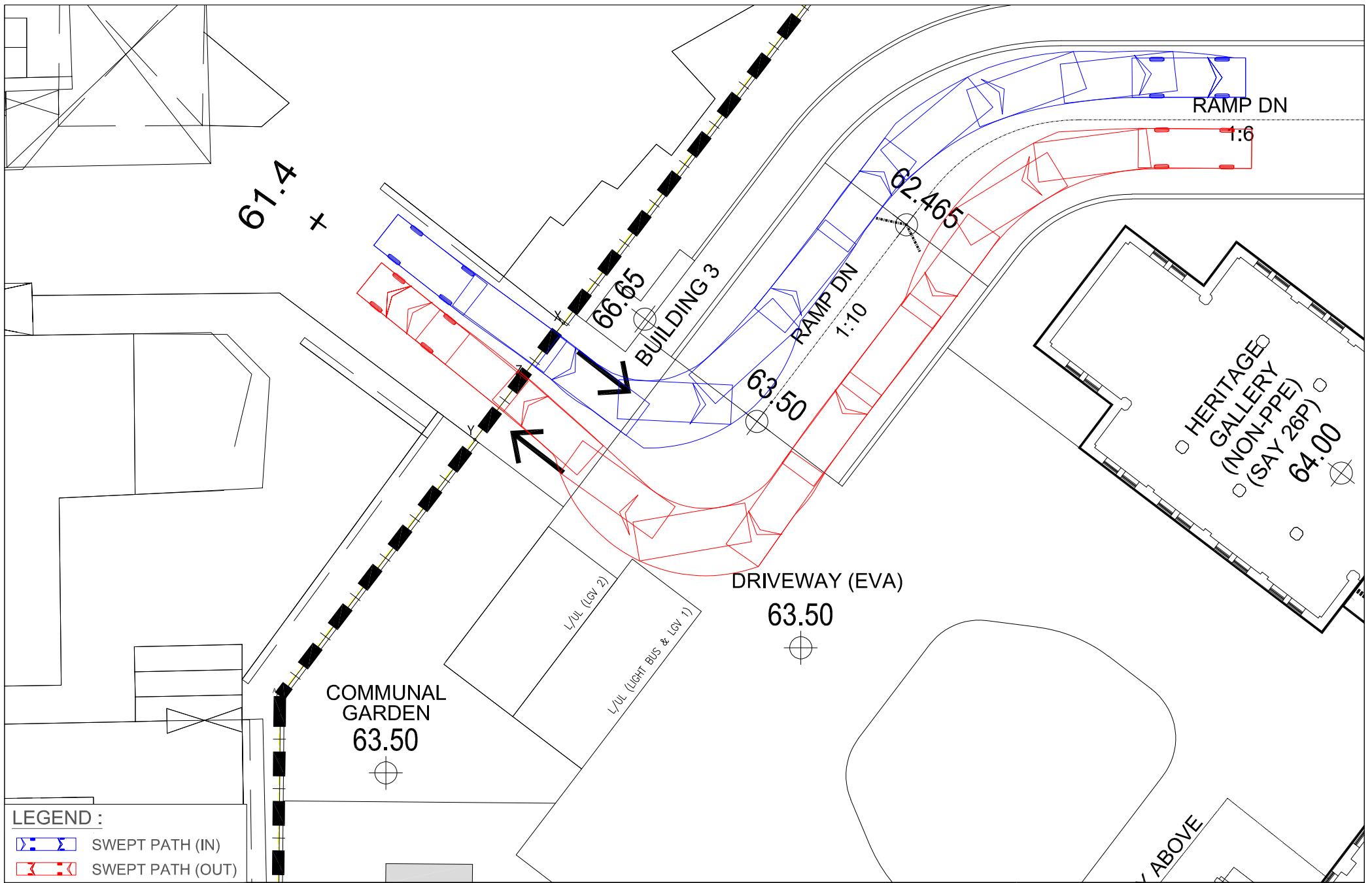
SCALE: 1 : 200 @A4

DATE: 10 JAN 2025

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

DRAWING TITLE: **SWEPT PATH ANALYSIS OF LGV AT PROPOSED VEHICULAR ACCESS**





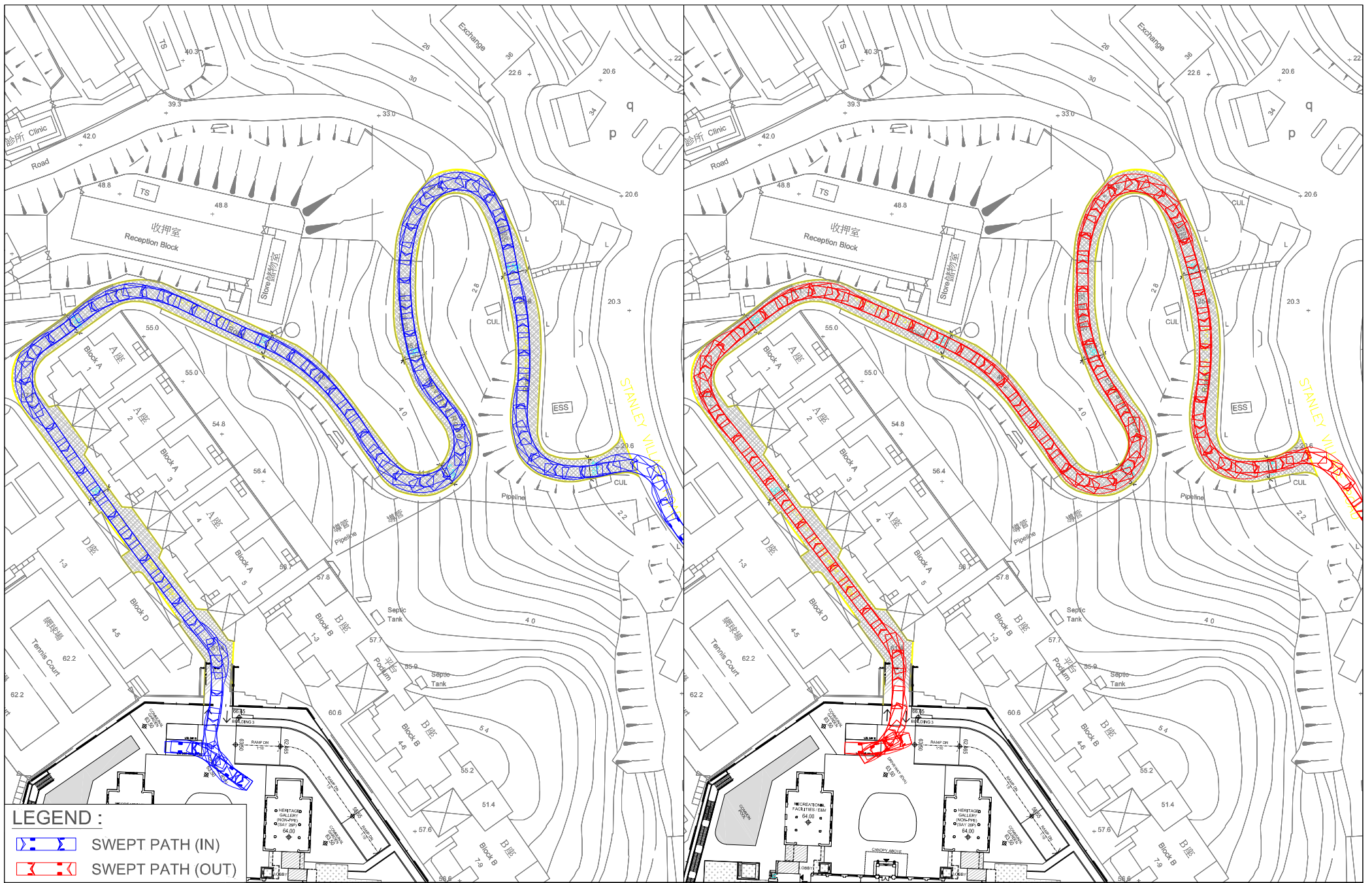
LEGEND :

- ▭ SWEEP PATH (IN)
- ▭ SWEEP PATH (OUT)

FIGURE NO.:		SP-04
PROJECT NO.:		24048HK
SCALE:	DATE:	
1 : 200 @A4	10 JAN 2025	

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	
DRAWING TITLE: SWEPT PATH ANALYSIS AT ENTRANCE OF RAMP TO CARPARK FROM "RIGHT OF WAY" ACCESS ROAD	

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LEGEND :

SWEPT PATH (IN)

SWEPT PATH (OUT)

FIGURE NO.: **SP-05**

PROJECT NO.: 24048HK

SCALE: 1 : 1100 @A4

DATE: 10 JAN 2025

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

DRAWING TITLE: **SWEPT PATH ANALYSIS 28-SEATER COACH AT CRITICAL ROAD SECTIONS**

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APPENDIX A

Junction Calculation Sheets

Roundabout Junction Calculation

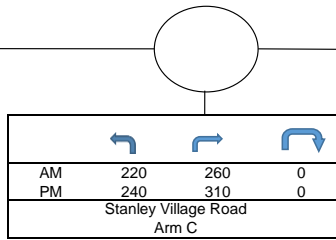
Roundabout Junction : **Tai Tam Road / Stanley Gap Road / Stanley Village Road (A)**

Project No. 24048HK

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

Arm A		→
AM	PM	
170	310	↻
270	260	
0	0	

Stanley Gap Road



Arm B		←
AM	PM	
0	0	↻
290	230	
330	220	

Tai Tam Road

	←	→	↻
AM	220	260	0
PM	240	310	0

Stanley Village Road
Arm C

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 = $1.6 \cdot (E-V)/L$	0.28	0.28	1.76	1.76	0.77	0.77
K = $1 - 0.00347 \cdot (A-30) - 0.978 \cdot (1/R - 0.05)$	1.12	1.12	1.11	1.11	0.86	0.86
X2 = $V + ((E-V)/(1+2 \cdot S))$	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 = $303 \cdot X2$	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 = $0.21 \cdot Td \cdot (1 + 0.2 \cdot X2)$	0.55	0.55	0.55	0.55	0.57	0.57
Qe = Capacity = $K \cdot (F - Fc) \cdot Qc$	1139	1139	1094	1100	918	947
DFC = Entry Flow/Capacity = Q/Qe	0.39	0.50	0.57	0.41	0.52	0.58
DFC of Critical Approach	=	AM 0.57	PM 0.58			

CTA

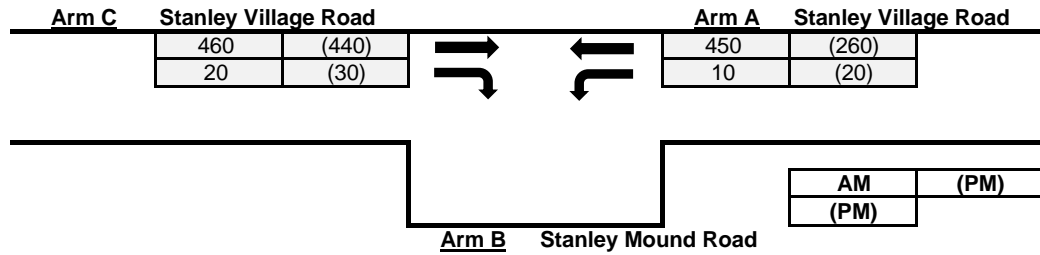
Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Beach Road (B)	Job No.:	24048HK					
Scenario :	2024 Observed Traffic Flows (Weekday)							
<p>The predictive equations of capacity of movement are:</p> $Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))$ $Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))$ $Q-CB = F(745 - 0.364Y(q-AC + q-AB))$								
<p>The geometric parameters represented by D, E, F are:</p> $D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$ $E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))$ $F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))$								
where	<p>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</p>							
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	AM	PM	Capacity	AM	PM		
	pcu/hr			pcu/hr				
	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			
CTA Consultants Ltd.								

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

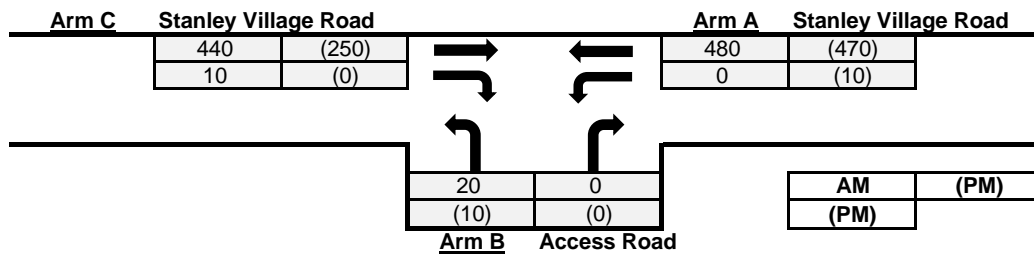
Results :	Ratio of Flow-to-Capacity	AM	PM
	B-A	0.00	0.00
	B-C	0.00	0.00
	C-B	0.04	0.05
	C-A	0.26	0.26
	B-AC	N/A	N/A

Critical DFC **0.26** **0.26**

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

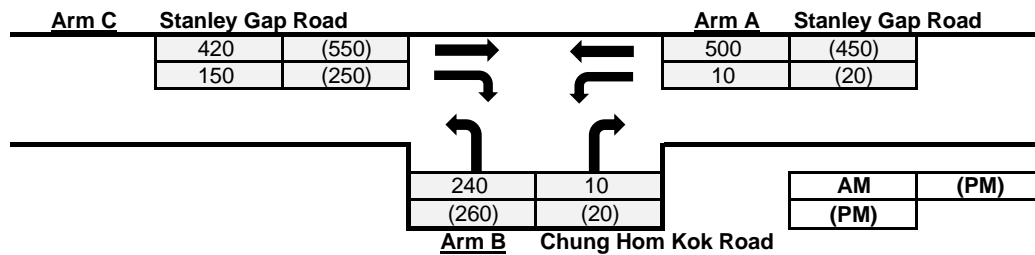
Analysis :	Traffic Flow	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
q-CA	440	250	Q-BA	300	326		
q-CB	10	0	Q-BC	476	477		
q-AB	0	10	Q-CB	597	597		
q-AC	480	470	Q-CA	1770	1800		(If C-B blocked C-A)
q-BA	0	0	Q-BAC	476	477		(If Minor Road Share LT&RT)
q-BC	20	10					
f	1.000	1.000					

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

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

Analysis :	Traffic Flow	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
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**

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Roundabout Junction Calculation

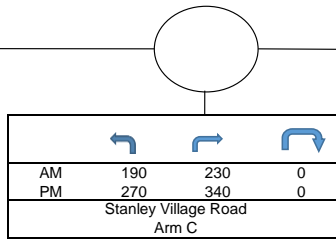
Roundabout Junction : **Tai Tam Road / Stanley Gap Road / Stanley Village Road (A)**

Project No. 24048HK

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

Arm A		→
AM	PM	
150	340	↻
230	280	
0	0	

Stanley Gap Road



Arm B		←
AM	PM	
0	0	↻
260	250	
290	240	

Tai Tam Road

	AM	PM	AM	PM
AM	190	230	0	0
PM	270	340	0	0

Stanley Village Road
Arm C

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 = $1.6 \cdot (E-V)/L$	0.28	0.28	1.76	1.76	0.77	0.77
K = $1 - 0.00347 \cdot (A-30) - 0.978 \cdot (1/R - 0.05)$	1.12	1.12	1.11	1.11	0.86	0.86
X2 = $V + ((E-V)/(1+2 \cdot S))$	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 = $303 \cdot X2$	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 = $0.21 \cdot Td \cdot (1 + 0.2 \cdot X2)$	0.55	0.55	0.55	0.55	0.57	0.57
Qe = Capacity = $K \cdot (F - Fc) \cdot Qc$	1158	1158	1118	1088	932	937
DFC = Entry Flow/Capacity = Q/Qe	0.33	0.54	0.49	0.45	0.45	0.65
DFC of Critical Approach	=	AM 0.49	PM 0.65			

CTA

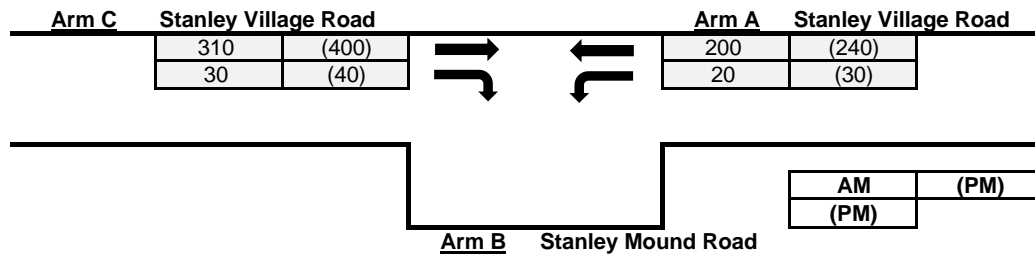
Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Beach Road (B)	Job No.:	24048HK					
Scenario :	2024 Observed Traffic Flows (Sunday)							
<p>The predictive equations of capacity of movement are:</p> $Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))$ $Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))$ $Q-CB = F(745 - 0.364Y(q-AC + q-AB))$								
<p>The geometric parameters represented by D, E, F are:</p> $D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$ $E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))$ $F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))$								
<p>where</p> <p>Y = 1 - 0.0345W</p> <p>q-AB, etc = the design flow of movement AB, etc</p> <p>W = major road width</p> <p>W-CR = central reserve width</p> <p>w-BA, etc = lane width to vehicle</p> <p>v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc</p> <p>v-IBA = visibility to the left for waiting vehicles in stream BA, etc</p>								
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	AM	PM	Capacity	AM	PM		
	pcu/hr			pcu/hr				
	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			
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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	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
	q-CA	310	400	Q-BA	271	255	(If C-B blocked C-A) (If Minor Road Share LT&RT)
	q-CB	30	40	Q-BC	404	397	
	q-AB	20	30	Q-CB	625	613	
	q-AC	200	240	Q-CA	1714	1683	
	q-BA	0	0	Q-BAC	N/A	N/A	
	q-BC	0	0				
	f	0.000	0.000				

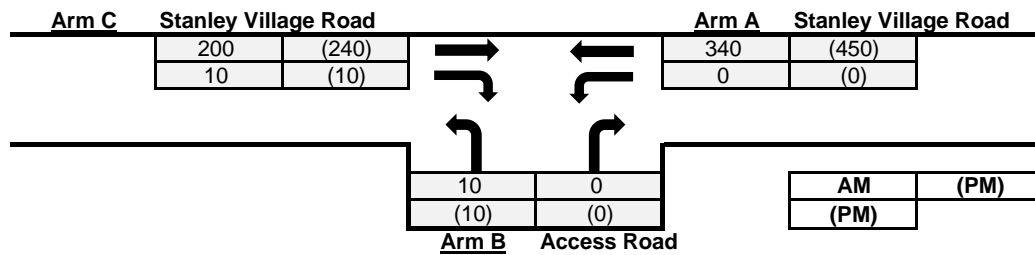
Results :	Ratio of Flow-to-Capacity	AM	PM
	B-A	0.00	0.00
	B-C	0.00	0.00
	C-B	0.05	0.07
	C-A	0.18	0.24
	B-AC	N/A	N/A

Critical DFC **0.18** **0.24**

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

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

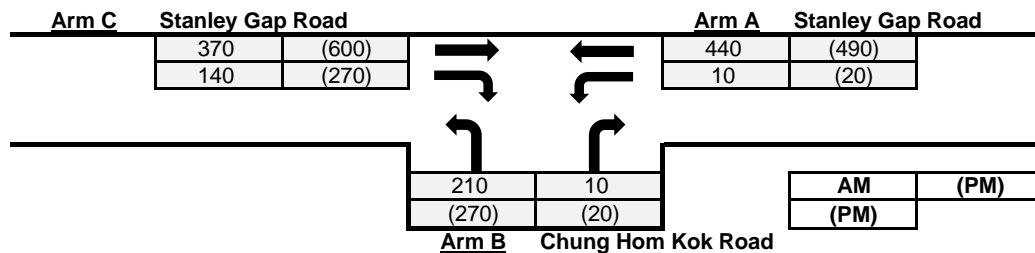
Results :	Ratio of Flow-to-Capacity	AM	PM
B-A		N/A	N/A
B-C		N/A	N/A
C-B		0.02	0.02
C-A		0.11	0.14
B-AC		0.02	0.02
Critical DFC		0.11	0.14

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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	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
	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

Roundabout Junction Calculation

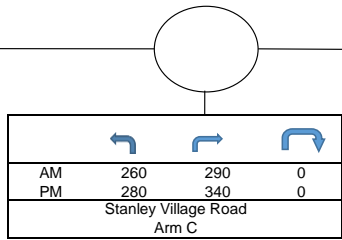
Roundabout Junction : **Tai Tam Road / Stanley Gap Road / Stanley Village Road (A)**

Project No. 24048HK

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

Arm A		→
AM	PM	
180	340	↻
300	290	
0	0	

Stanley Gap Road



Arm B		←
AM	PM	
0	0	↻
320	250	
370	240	

Tai Tam Road

Arm C			
	←	→	↻
AM	260	290	0
PM	280	340	0

Stanley Village Road

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	550	620
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 = $1.6 \cdot (E-V)/L$	0.28	0.28	1.76	1.76	0.77	0.77
K = $1 - 0.00347 \cdot (A-30) - 0.978 \cdot (1/R - 0.05)$	1.12	1.12	1.11	1.11	0.86	0.86
X2 = $V + ((E-V)/(1+2 \cdot S))$	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 = $303 \cdot X2$	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 = $0.21 \cdot Td \cdot (1 + 0.2 \cdot X2)$	0.55	0.55	0.55	0.55	0.57	0.57
Qe = Capacity = $K \cdot (F - Fc) \cdot Qc$	1121	1121	1075	1082	903	937
DFC = Entry Flow/Capacity = Q/Qe	0.43	0.56	0.64	0.45	0.61	0.66
DFC of Critical Approach	=	AM 0.64	PM 0.66			

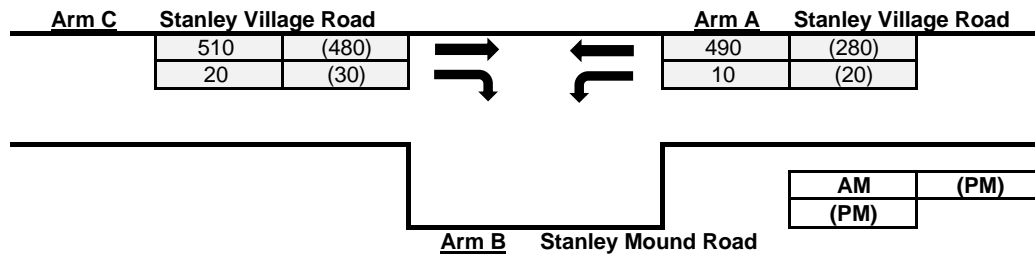
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Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Beach Road (B)	Job No.:	24048HK				
Scenario :	2031 Reference Traffic Flows (Weekday)						
<p>The predictive equations of capacity of movement are:</p> $Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))$ $Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))$ $Q-CB = F(745 - 0.364Y(q-AC + q-AB))$							
<p>The geometric parameters represented by D, E, F are:</p> $D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$ $E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))$ $F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))$							
<p>where</p> <p>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</p>							
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	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
	q-CA	530	490	Q-BA	242	262	
	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	242	262	(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	0.30	0.28				
	B-AC	0.00	0.00				
Critical DFC		0.30	0.28				
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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	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
	q-CA	510	480	Q-BA	214	244	(If C-B blocked C-A) (If Minor Road Share LT&RT)
	q-CB	20	30	Q-BC	359	392	
	q-AB	10	20	Q-CB	557	605	
	q-AC	490	280	Q-CA	1735	1711	
	q-BA	0	0	Q-BAC	N/A	N/A	
	q-BC	0	0				
	f	0.000	0.000				

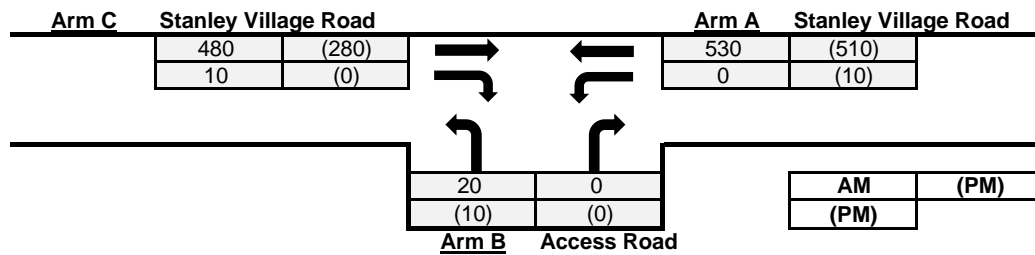
Results :	Ratio of Flow-to-Capacity	AM	PM
	B-A	0.00	0.00
	B-C	0.00	0.00
	C-B	0.04	0.05
	C-A	0.29	0.28
	B-AC	N/A	N/A

Critical DFC **0.29** **0.28**

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

Analysis :	Traffic Flow	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
q-CA	480	280	Q-BA	286	315		
q-CB	10	0	Q-BC	465	469		
q-AB	0	10	Q-CB	584	587		
q-AC	530	510	Q-CA	1769	1800		(If C-B blocked C-A)
q-BA	0	0	Q-BAC	465	469		(If Minor Road Share LT&RT)
q-BC	20	10					
f	1.000	1.000					

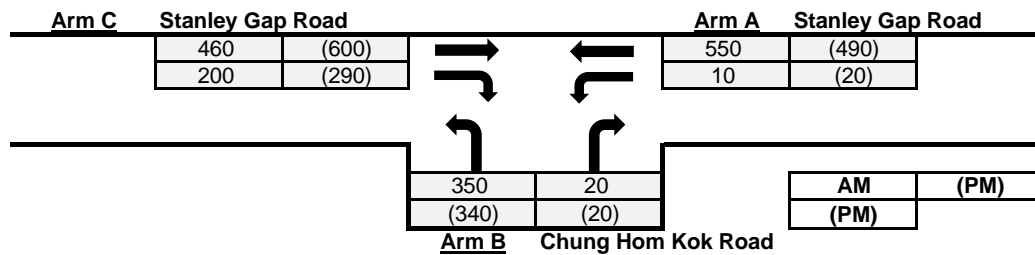
Results :	Ratio of Flow-to-Capacity	AM	PM
B-A		N/A	N/A
B-C		N/A	N/A
C-B		0.02	0.00
C-A		0.27	0.16
B-AC		0.04	0.02

Critical DFC **0.27** **0.16**

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	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
	q-CA	460	600	Q-BA	236	203	
	q-CB	200	290	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	468	469	(If Minor Road Share LT&RT)
	q-BC	350	340				
	f	0.946	0.944				

Results :	Ratio of Flow-to-Capacity	AM	PM
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.40	0.56
	C-A	N/A	N/A
	B-AC	0.79	0.77
	Critical DFC	0.79	0.77

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Roundabout Junction Calculation

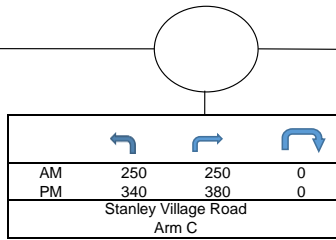
Roundabout Junction : **Tai Tam Road / Stanley Gap Road / Stanley Village Road (A)**

Project No. 24048HK

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

Arm A		→
AM	PM	
160	380	↻
280	320	
0	0	

Stanley Gap Road



Arm B		←
AM	PM	
0	0	↻
280	270	
320	270	

Tai Tam Road

	Arm C		
	AM	PM	0
AM	250	250	0
PM	340	380	0

Stanley Village Road

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	700	600	540	500	720
Qc	= Circulating flow across entry (pcu/hr)	250	250	280	320	280	270
Output Parameters		Arm A		Arm B		Arm C	
		AM	PM	AM	PM	AM	PM
S	= Sharpness of flare = $1.6 \cdot (E-V)/L$	0.28	0.28	1.76	1.76	0.77	0.77
K	= $1 - 0.00347 \cdot (A-30) - 0.978 \cdot (1/R - 0.05)$	1.12	1.12	1.11	1.11	0.86	0.86
X2	= $V + ((E-V)/(1+2 \cdot S))$	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	= $303 \cdot X2$	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	= $0.21 \cdot Td \cdot (1 + 0.2 \cdot X2)$	0.55	0.55	0.55	0.55	0.57	0.57
Qe	= Capacity = $K \cdot (F - Fc) \cdot Qc$	1145	1145	1088	1063	923	928
DFC	= Entry Flow/Capacity = Q/Qe	0.38	0.61	0.55	0.51	0.54	0.78
DFC of Critical Approach		=	AM	PM			
			0.55	0.78			

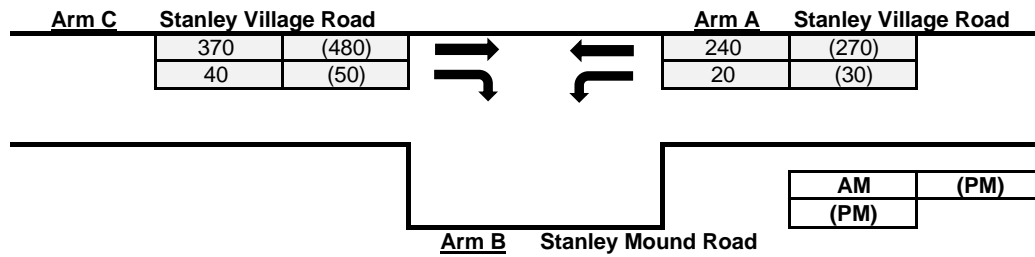
CTA

Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Beach Road (B)	Job No.:	24048HK					
Scenario :	2031 Reference Traffic Flows (Sunday)							
<p>The predictive equations of capacity of movement are:</p> $Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))$ $Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))$ $Q-CB = F(745 - 0.364Y(q-AC + q-AB))$								
<p>The geometric parameters represented by D, E, F are:</p> $D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$ $E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))$ $F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))$								
<p>where</p> <p>Y = 1 - 0.0345W</p> <p>q-AB, etc = the design flow of movement AB, etc</p> <p>W = major road width</p> <p>W-CR = central reserve width</p> <p>w-BA, etc = lane width to vehicle</p> <p>v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc</p> <p>v-IBA = visibility to the left for waiting vehicles in stream BA, etc</p>								
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	AM	PM	Capacity	AM	PM		
	pcu/hr			pcu/hr				
	q-CA	370	450	Q-BA	271	254		
	q-CB	10	20	Q-BC	406	396		
	q-AB	270	320	Q-CB	600	577		
	q-AC	90	130	Q-CA	1770	1738	(If C-B blocked C-A)	
	q-BA	0	0	Q-BAC	271	254	(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	0.21	0.26		
				B-AC	0.00	0.00		
	Critical DFC			0.21	0.26			
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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	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
	q-CA	370	480	Q-BA	258	241	(If C-B blocked C-A) (If Minor Road Share LT&RT)
	q-CB	40	50	Q-BC	398	392	
	q-AB	20	30	Q-CB	615	605	
	q-AC	240	270	Q-CA	1683	1651	
	q-BA	0	0	Q-BAC	N/A	N/A	
	q-BC	0	0				
	f	0.000	0.000				

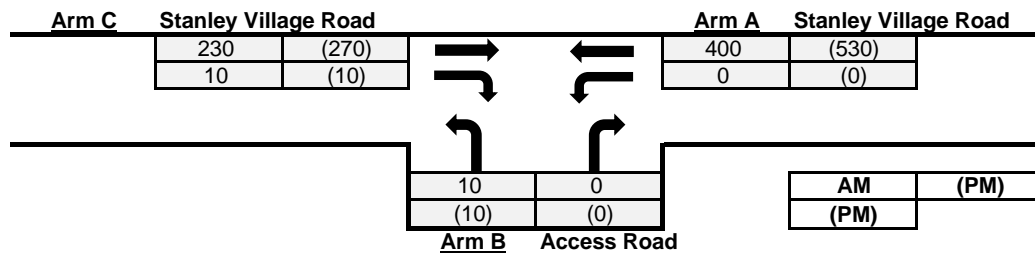
Results :	Ratio of Flow-to-Capacity	AM	PM
	B-A	0.00	0.00
	B-C	0.00	0.00
	C-B	0.07	0.08
	C-A	0.22	0.29
	B-AC	N/A	N/A

Critical DFC **0.22** **0.29**

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

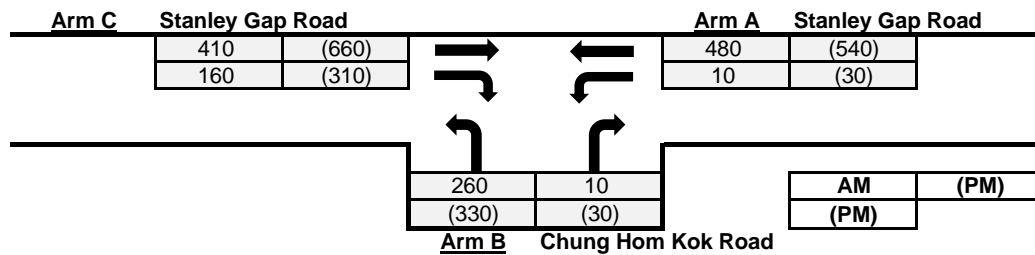
Analysis :	Traffic Flow	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
	q-CA	230	270	Q-BA	340	311	
	q-CB	10	10	Q-BC	492	465	
	q-AB	0	0	Q-CB	618	584	
	q-AC	400	530	Q-CA	1771	1769	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	492	465	(If Minor Road Share LT&RT)
	q-BC	10	10				
	f	1.000	1.000				

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	0.13	0.15
	B-AC	0.02	0.02
	Critical DFC	0.13	0.15

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

Analysis :	Traffic Flow		Capacity		
	AM	PM	AM	PM	
pcu/hr			pcu/hr		
q-CA	410	660	Q-BA	269	178
q-CB	160	310	Q-BC	512	496
q-AB	10	30	Q-CB	521	502
q-AC	480	540	Q-CA	N/A	N/A
q-BA	10	30	Q-BAC	495	432
q-BC	260	330			
f	0.963	0.917			

(If C-B blocked C-A)
(If Minor Road Share LT&RT)

Results :	Ratio of Flow-to-Capacity	
	AM	PM
B-A	N/A	N/A
B-C	N/A	N/A
C-B	0.31	0.62
C-A	N/A	N/A
B-AC	0.55	0.83
Critical DFC	0.55	0.83

Roundabout Junction Calculation

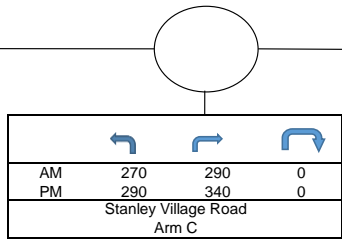
Roundabout Junction : **Tai Tam Road / Stanley Gap Road / Stanley Village Road (A)**

Project No. 24048HK

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

Arm A		→
AM	PM	
180	340	↻
310	300	
0	0	

Stanley Gap Road



Arm B		←
AM	PM	
0	0	↻
320	250	
370	240	

Tai Tam Road

Arm C			
	←	→	↻
AM	270	290	0
PM	290	340	0

Stanley Village Road

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)	490	640	690	490	560	630
Qc = Circulating flow across entry (pcu/hr)	290	290	310	300	320	250
Output Parameters	Arm A		Arm B		Arm C	
	AM	PM	AM	PM	AM	PM
S = Sharepness of flare = $1.6 \cdot (E-V)/L$	0.28	0.28	1.76	1.76	0.77	0.77
K = $1 - 0.00347 \cdot (A-30) - 0.978 \cdot (1/R - 0.05)$	1.12	1.12	1.11	1.11	0.86	0.86
X2 = $V + ((E-V)/(1+2 \cdot S))$	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 = $303 \cdot X2$	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 = $0.21 \cdot Td \cdot (1 + 0.2 \cdot X2)$	0.55	0.55	0.55	0.55	0.57	0.57
Qe = Capacity = $K \cdot (F - Fc) \cdot Qc$	1121	1121	1069	1075	903	937
DFC = Entry Flow/Capacity = Q/Qe	0.44	0.57	0.65	0.46	0.62	0.67
DFC of Critical Approach	=	AM 0.65	PM 0.67			

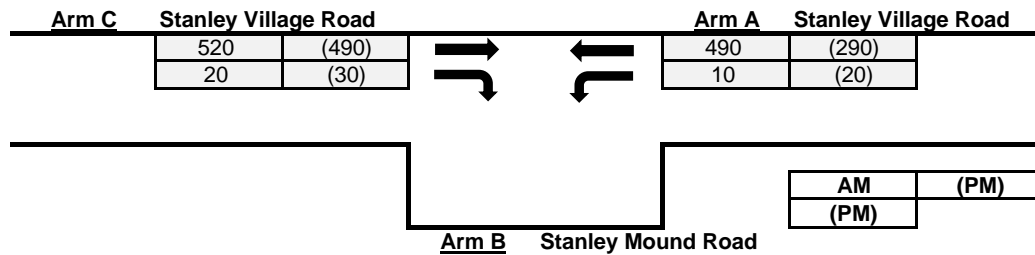
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Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Beach Road (B)	Job No.:	24048HK					
Scenario :	2031 Design Traffic Flows (Weekday)							
<p>The predictive equations of capacity of movement are:</p> $Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))$ $Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))$ $Q-CB = F(745 - 0.364Y(q-AC + q-AB))$								
<p>The geometric parameters represented by D, E, F are:</p> $D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$ $E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))$ $F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))$								
<p>where</p> <p>Y = 1 - 0.0345W</p> <p>q-AB, etc = the design flow of movement AB, etc</p> <p>W = major road width</p> <p>W-CR = central reserve width</p> <p>w-BA, etc = lane width to vehicle</p> <p>v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc</p> <p>v-IBA = visibility to the left for waiting vehicles in stream BA, etc</p>								
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	AM	PM	Capacity	AM	PM		
	pcu/hr			pcu/hr				
	q-CA	540	500	Q-BA	240	260		
	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	240	260	(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	0.31	0.28		
				B-AC	0.00	0.00		
	Critical DFC			0.31	0.28			
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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	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
	q-CA	520	490	Q-BA	214	242	(If C-B blocked C-A) (If Minor Road Share LT&RT)
	q-CB	20	30	Q-BC	359	390	
	q-AB	10	20	Q-CB	557	603	
	q-AC	490	290	Q-CA	1735	1710	
	q-BA	0	0	Q-BAC	N/A	N/A	
	q-BC	0	0				
	f	0.000	0.000				

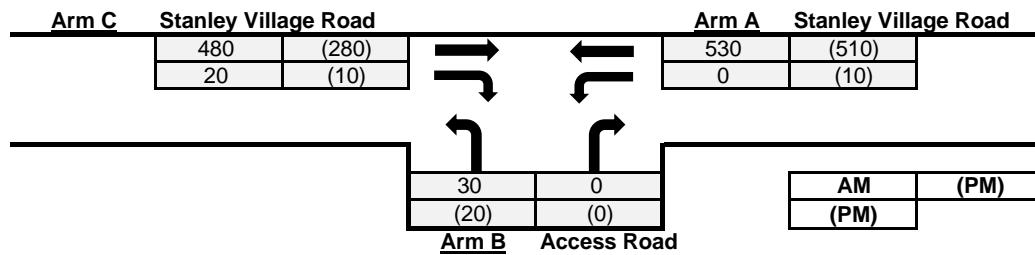
Results :	Ratio of Flow-to-Capacity	AM	PM
	B-A	0.00	0.00
	B-C	0.00	0.00
	C-B	0.04	0.05
	C-A	0.30	0.29
	B-AC	N/A	N/A

Critical DFC **0.30** **0.29**

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

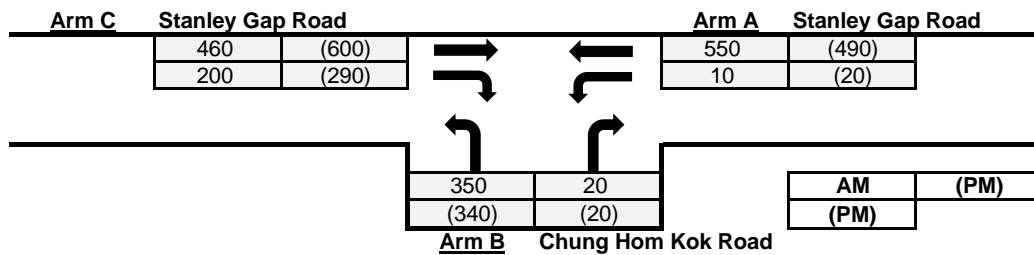
Analysis :	Traffic Flow	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
	q-CA	480	280	Q-BA	283	313	
	q-CB	20	10	Q-BC	465	469	
	q-AB	0	10	Q-CB	584	587	
	q-AC	530	510	Q-CA	1738	1769	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	465	469	(If Minor Road Share LT&RT)
	q-BC	30	20				
	f	1.000	1.000				

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	0.28	0.16
	B-AC	0.06	0.04
	Critical DFC	0.28	0.16

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	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
	q-CA	460	600	Q-BA	236	203	
	q-CB	200	290	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	468	469	(If Minor Road Share LT&RT)
	q-BC	350	340				
	f	0.946	0.944				

Results :	Ratio of Flow-to-Capacity	AM	PM
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.40	0.56
	C-A	N/A	N/A
	B-AC	0.79	0.77

Critical DFC **0.79** **0.77**

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Roundabout Junction Calculation

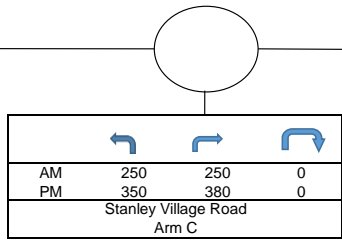
Roundabout Junction : **Tai Tam Road / Stanley Gap Road / Stanley Village Road (A)**

Project No. 24048HK

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

Arm A		→
AM	PM	
160	380	↻
290	330	
0	0	

Stanley Gap Road



Arm B		←
AM	PM	
0	0	↻
280	270	
320	270	

Tai Tam Road

	AM	PM	AM
AM	250	250	0
PM	350	380	0

Stanley Village Road
Arm C

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)	450	710	600	540	500	730
Qc = Circulating flow across entry (pcu/hr)	250	250	290	330	280	270
Output Parameters	Arm A		Arm B		Arm C	
	AM	PM	AM	PM	AM	PM
S = Sharepness of flare = $1.6 \cdot (E-V)/L$	0.28	0.28	1.76	1.76	0.77	0.77
K = $1 - 0.00347 \cdot (A-30) - 0.978 \cdot (1/R - 0.05)$	1.12	1.12	1.11	1.11	0.86	0.86
X2 = $V + ((E-V)/(1+2 \cdot S))$	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 = $303 \cdot X2$	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 = $0.21 \cdot Td \cdot (1 + 0.2 \cdot X2)$	0.55	0.55	0.55	0.55	0.57	0.57
Qe = Capacity = $K \cdot (F - Fc) \cdot Qc$	1145	1145	1082	1057	923	928
DFC = Entry Flow/Capacity = Q/Qe	0.39	0.62	0.55	0.51	0.54	0.79
DFC of Critical Approach	=	AM 0.55	PM 0.79			

CTA

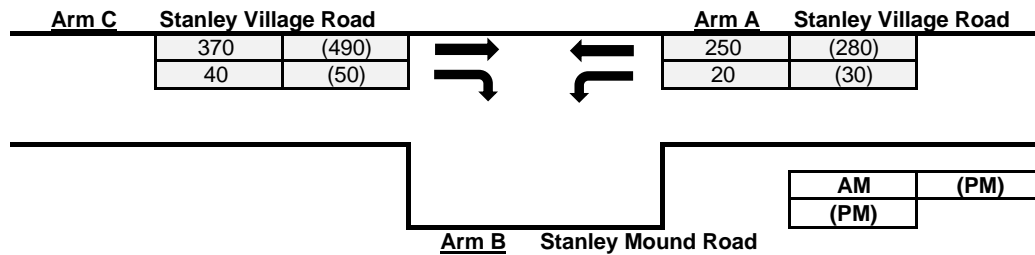
Priority Junction Calculation

Junction :	Stanley Village Road / Stanley Beach Road (B)	Job No.:	24048HK				
Scenario :	2031 Design Traffic Flows (Sunday)						
<p>The predictive equations of capacity of movement are:</p> $Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))$ $Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))$ $Q-CB = F(745 - 0.364Y(q-AC + q-AB))$							
<p>The geometric parameters represented by D, E, F are:</p> $D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))$ $E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))$ $F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))$							
<p>where</p> <p>Y = 1 - 0.0345W</p> <p>q-AB, etc = the design flow of movement AB, etc</p> <p>W = major road width</p> <p>W-CR = central reserve width</p> <p>w-BA, etc = lane width to vehicle</p> <p>v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc</p> <p>v-IBA = visibility to the left for waiting vehicles in stream BA, etc</p>							
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	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
	q-CA	380	460	Q-BA	270	252	
	q-CB	10	20	Q-BC	405	396	
	q-AB	280	330	Q-CB	597	575	
	q-AC	90	130	Q-CA	1770	1737	(If C-B blocked C-A)
	q-BA	0	0	Q-BAC	270	252	(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	0.21	0.26	
				B-AC	0.00	0.00	
	Critical DFC			0.21	0.26		
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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	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
	q-CA	370	490	Q-BA	256	239	(If C-B blocked C-A) (If Minor Road Share LT&RT)
	q-CB	40	50	Q-BC	396	391	
	q-AB	20	30	Q-CB	613	603	
	q-AC	250	280	Q-CA	1683	1651	
	q-BA	0	0	Q-BAC	N/A	N/A	
	q-BC	0	0				
	f	0.000	0.000				

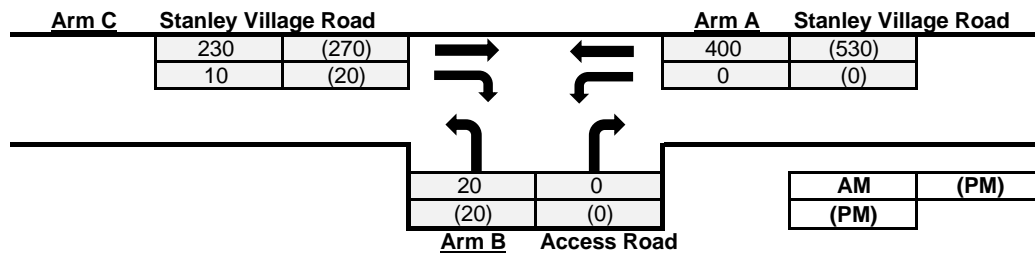
Results :	Ratio of Flow-to-Capacity	AM	PM
	B-A	0.00	0.00
	B-C	0.00	0.00
	C-B	0.07	0.08
	C-A	0.22	0.30
	B-AC	N/A	N/A

Critical DFC **0.22** **0.30**

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

Analysis :	Traffic Flow	AM	PM	Capacity	AM	PM
	pcu/hr			pcu/hr		
	q-CA	<u>230</u>	<u>270</u>	Q-BA	<u>340</u>	<u>308</u>
	q-CB	<u>10</u>	<u>20</u>	Q-BC	<u>492</u>	<u>465</u>
	q-AB	<u>0</u>	<u>0</u>	Q-CB	<u>618</u>	<u>584</u>
	q-AC	<u>400</u>	<u>530</u>	Q-CA	<u>1771</u>	<u>1738</u>
	q-BA	<u>0</u>	<u>0</u>	Q-BAC	<u>492</u>	<u>465</u>
	q-BC	<u>20</u>	<u>20</u>			
	f	<u>1.000</u>	<u>1.000</u>			

(If C-B blocked C-A)
(If Minor Road Share LT&RT)

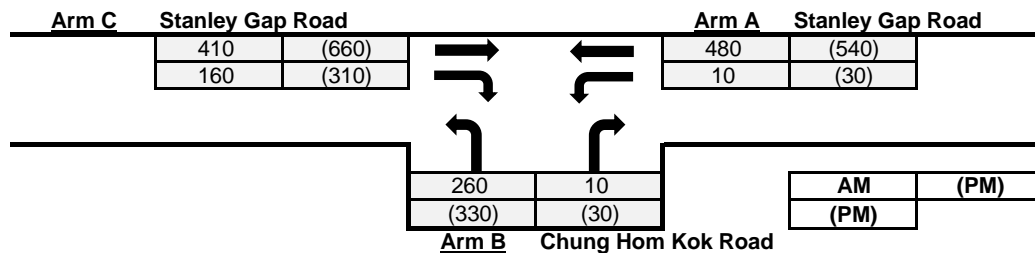
Results :	Ratio of Flow-to-Capacity	AM	PM
	B-A	<u>N/A</u>	<u>N/A</u>
	B-C	<u>N/A</u>	<u>N/A</u>
	C-B	<u>0.02</u>	<u>0.03</u>
	C-A	<u>0.13</u>	<u>0.16</u>
	B-AC	<u>0.04</u>	<u>0.04</u>
	Critical DFC	<u>0.13</u>	<u>0.16</u>

CTA Consultants Ltd.

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	AM	PM	Capacity	AM	PM	
	pcu/hr			pcu/hr			
	q-CA	410	660	Q-BA	269	178	
	q-CB	160	310	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	495	432	(If Minor Road Share LT&RT)
	q-BC	260	330				
	f	0.963	0.917				

Results :	Ratio of Flow-to-Capacity	AM	PM
	B-A	N/A	N/A
	B-C	N/A	N/A
	C-B	0.31	0.62
	C-A	N/A	N/A
	B-AC	0.55	0.83
	Critical DFC	0.55	0.83

Junctions 8
PICADY 8 - Priority Intersection Module
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Filename: JnF.arc8

Path: \\CTA_NAS01\Project\CTA Consultants Limited\CTA - Project\24048HK (knc) - TIA & TF for S16 Application of Prop Dev at Maryknoll, Stanley\Calculation\2025-01-10

Report generation date: 13/1/2025 11:15:15

-
- » 24048HK - 2024 Observed, Weekday AM
 - » 24048HK - 2024 Observed, Weekday PM
 - » 24048HK - 2024 Observed, Sunday AM
 - » 24048HK - 2031 Reference, Weekday AM
 - » 24048HK - 2031 Reference, Weekday PM
 - » 24048HK - 2031 Reference, Sunday AM
 - » 24048HK - 2031 Design, Weekday AM
 - » 24048HK - 2031 Design, Weekday PM
 - » 24048HK - 2031 Design, Sunday AM
 - » 24048HK - 2024 Observed, Sunday PM
 - » 24048HK - 2031 Reference, Sunday PM
 - » 24048HK - 2031 Design, Sunday PM

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 13/1/2025 11:15:03

File summary

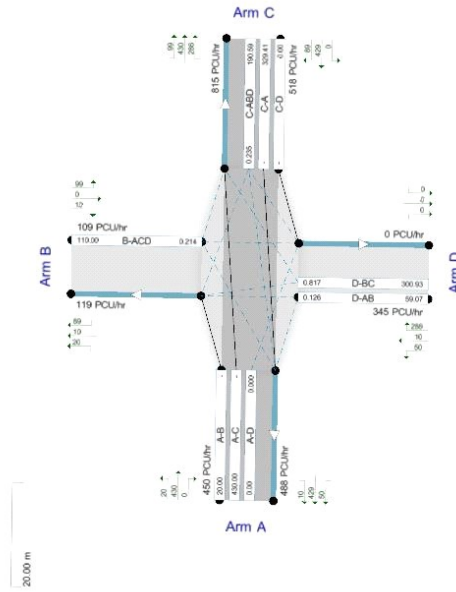
Title	(untitled)
Location	
Site Number	
Date	3/9/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	user
Description	

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			
From		A	B	C	D
	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)

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 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

Email to Housing Department for Arrangement of Proposed Pick- up/Drop-off point of 28-seater Coach Serving the Public Guided Tours Located at Stanley Plaza

Catherina Chu

From: Catherina Chu <catherinachu@ctaconsultants.com>
Sent: 13 January 2025 1:01 pm
To: 'hoikai.wong@housingauthority.gov.hk'
Cc: 'kramanlam@td.gov.hk'; 'Horace Mak'; 'Edmund Yip'
Subject: RE: Maryknoll House, Stanley - Proposed Assembly Point for 28-seater Coach (Making use of the coach parking space close to Stanley Plaza)
Attachments: E_20250107 - Comments to Applicant_FI_highlighted.pdf; 24048HK - Revised TIA Report_20241112_extract.pdf; Restricted Road of Ma Hang Est_Ass Pt_Routing.pdf

Dear Mr. Wong,

We, CTA Consultants Limited, are commissioned as the traffic consultant of the captioned project.

To cope with the heritage building inside the proposed development, guided tour will be arranged for the public. As in the attached TIA report extract, it is proposed that guided tours will be provided 12 times per year during non-peak hours (weekday and/or weekend to be determined at later stage). It is anticipated that visitors will assemble at Stanley Plaza (attached "Location plan – Assembly point" refers) and then take 28-seater coach provided by the Applicant to/from the proposed development. The proposed routing of 28-seater coach serving the guided tours between the proposed development and Stanley Plaza is shown in attached drawing. Since the Assembly point (making use of the coach parking space close to Stanley Plaza) will be located within the restricted road of Ma Hang Estate, we therefore would like to seek your agreement on the proposed Assembly point for the captioned project.

Should you have any queries or require further information, please do not hesitate to contact Mr. Horace Mak or the undersigned at 2214 0849.

Thank you very much for your kind attention and we are looking forward to your favourable reply at your earliest convenience.

Best Regards,

Catherina Chu

Chief Transport Planner

CTA Consultants Limited

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APPENDIX C

Summary of ‘Responses to Comments’ (January 2025)



**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’ (January 2025)**

Comments of Transport Department dated 7 January 2025 (Mr. TAM Sze Wai, Vincent, 2829 5407)	Responses
i. Please take into account the planned residential development at Cape Road (R.B.L. 1204) in Section 4.3 of the TIA report;	Noted and please note that the planned residential development at Cape Road (R.B.L. 1204) has been added, please refer to Section 4.3 of the revised TIA report for details.
ii. It is noted that the proposed pick up/drop off point of the 28-seater coach serving the public guided tours is located at Stanley Plaza, which is within the restricted road of Ma Hang Estate. Please consult Housing Department for such arrangement; and	Please refer to Appendix B of the revised TIA report for email to Housing Department for arrangement of the proposed pick up/drop off point of the 28-seater coach serving the public guided tours located at Stanley Plaza.
iii. It is noted that the size of the proposed pick up/drop off point for 28-seater coach is 7m x 3.5m. Please review if the proposed pick up/drop off point at the proposed development site can accommodate the 28-seater coach.	Noted and reviewed, please note that the size of a L/UL has been revised to 8m x 3.5m to accommodate the 28-seater coach, please refer to Table 2.2 of the revised TIA report for details.