

Appendix 3

Traffic Assessment Report

Reference number CHK50850710

**SECTION 16 PLANNING APPLICATION FOR THE PROPOSED
RESIDENTIAL DEVELOPMENT AT NO. 66 DEEP WATER BAY
ROAD, SHOUSON HILL, HONG KONG**

FINAL TRAFFIC ASSESSMENT REPORT



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1. INTRODUCTION

1.1. Background

- 1.1.1. The Subject Site is located at No. 66 Deep Water Bay Road, Shouson Hill, Hong Kong where it is zoned as "R(C)3" in accordance with the approved Shouson Hill & Repulse Bay Outline Zoning Plan No. S/H17/13. The Subject Site currently comprises 6 houses with 12 car parking spaces. An approximately 4.0m wide Right of Way (ROW) provides access for the Subject Site via Deep Water Bay Road.
- 1.1.2. The Client intends to redevelop the Subject Site into 2 houses and increase the maximum permitted site coverage from 25% to 37%. The 2 houses will be expected to be completed by Year 2029. Due to the proposed increase in the permitted site coverage, a Section 16 Planning Application will therefore be required.
- 1.1.3. MVA Hong Kong Ltd. has been commissioned as the traffic consultant to prepare a traffic study to review the traffic impact inducted by the proposed change of development parameters of the Subject Site and provide traffic engineering input in support of the Section 16 Planning Application. The location of the Subject Site is shown in **Drawing No. 1.1**.

2. THE SUBJECT SITE

2.1. Existing Development Parameter and Provision of Internal Transport Facilities

- 2.1.1. The existing development parameter for the Subject Site is summarized in **Table 2.1** below.

Table 2.1 The Existing Development Parameter for the Subject Site

	The Existing Development Parameters
Site Area	About 2,043.869 m ² ⁽¹⁾
Domestic Plot Ratio (PR)	0.75
No. of houses	6 ⁽²⁾
Maximum Domestic Gross Floor Area (GFA)	1,532.902 m ² (Approximately 255m ² GFA per house)

Note:

(1) Based on the lease.

(2) Based on the General Building Plan (GBP) approved in Year 1990.

- 2.1.2. With reference to the General Building Plan (GBP) approved in Year 1990, the Subject Site comprises of 6 houses, the existing provision of internal transport facilities under lease requirement is summarized in **Table 2.2** below.

Table 2.2 Requirement on the Provision of Internal Transport Facilities under Lease Requirement and Existing Provision

Transport Facilities	Development Component	Development Parameters ⁽¹⁾	Existing Provision ⁽²⁾
Private Car Parking Space	Residential (6 houses)	1,532.902 m ² (Approximately 255m ² GFA per house)	12
Total Car Parking Space			12 ⁽³⁾

Note:

- (1) Based on the lease.
- (2) Based on the General Building Plan (GBP) approved in Year 1990.
- (3) Under the Lease requirement, car parking spaces should be provided at a rate of not less than 1.5 spaces for each residential unit in the building or buildings erected or to be erected on the said piece or parcel of ground or not less than 2 spaces for each free-standing dwelling unit.

2.1.3. As shown in the above **Table 2.2**, with reference to the lease requirement, not less than 1.5 no. of private car parking spaces should be provided for each residential unit, therefore a total 12 nos. of car parking spaces are currently provided within the Subject Site.

2.2. Proposed Development Schedule and Provision of Internal Transport Facilities

2.2.1. Under the proposed residential redevelopment, the Client intends to redevelop into 2 houses and the development parameters are summarised in **Table 2.3** below.

Table 2.3 Development Parameter for the Proposed Residential Development

	Development Parameters
Site Area	About 2,043.869 m ²
Domestic Plot Ratio (PR)	0.75
No. of houses	2
Maximum Domestic Gross Floor Area (GFA)	1,532.902 m ² (Approximately 1,370 m ² GFA for House 1 and 162 m ² GFA for House 2)

2.2.2. The internal transport provision of parking facilities are proposed in accordance with the lease requirement. The proposed provision of internal transport facilities under the proposed residential redevelopment is summarised in **Table 2.4** below.

Table 2.4 Proposed Provision of Internal Transport Facilities under Lease Requirement

Transport Facilities	Development Component	Development Parameters	Proposed Provision ⁽¹⁾
Private Car Parking Space	Residential (2 houses)	1,532.902 m ² (Approximately 1,370 m ² GFA for House 1 and 162 m ² GFA for House 2)	4
Total Car Parking Space			4

Note:

- (1) Under the Lease requirement, car parking spaces should be provided at a rate of not less than 1.5 spaces for each residential unit in the building or buildings erected or to be erected on the said piece or parcel of ground or not less than 2 spaces for each free-standing dwelling unit.

- 2.2.3. Based on the development parameters of the Subject Site given in **Table 2.2** and **2.4**, the net difference of internal transport facilities between the existing condition and the proposed residential redevelopment are presented in **Table 2.5** below.

Table 2.5 Net difference of Existing and Proposed Provision of Internal Transport Facilities

Transport Facilities		Existing Provision based on GBP approved in Year 1990 ⁽¹⁾ (A)	Proposed Provision for the Residential Redevelopment based on lease requirement (B)	Net Change ((B) – (A))
Private Car Parking Space	Residential	12	4	-8
Total Net Difference for Internal Transport Facilities		12	4	-8

Note:

- (1) Based on the latest General Building Plan (GBP) approved in Year 1990.

- 2.2.4. As indicated in **Table 2.5**, the number of private car parking spaces will be reduced significantly from 12 nos. to 4 nos. due to the change of development parameters from 6 houses into 2 houses.
- 2.2.5. Sufficient manoeuvring space is allowed for the internal circulation for the proposed residential development and all the internal access roads can comply with government standards. The internal Ground floor and basement floor layout are illustrated in **SK1** and **SK2 in Annex A**.
- 2.2.6. Swept paths of private vehicles manoeuvring at Ground floor and basement floor are conducted and illustrated in **SK3** to **SK6** in **Annex A** respectively and sufficient horizontal clearance can be provided with smooth manoeuvring of vehicles achieved.

3. EXISTING TRAFFIC CONTEXT

3.1. Existing Road Network

- 3.1.1. The Subject Site is mainly served by Deep Water Bay Road which is connected to Island Road to the south and Shouson Hill Road East to the north. Currently, there is a 4m wide Right-of-way (ROW) connecting the Subject Site and Deep Water Bay Road. The ingress and egress traffic routing for the Subject Site is illustrated in **Drawing No. 3.1**.
- 3.1.2. Deep Water Bay Road is a local distributor running in a north-south direction connection Repulse Bay Road to the north and Island Road to the south. It is a single two carriageway with one traffic lane for both northbound and southbound traffic.
- 3.1.3. Island Road is a primary distributor running in an east-west direction connecting Repulse Bay to the east and Wong Chuk Hang Road to the west. It is a single two carriageway with one traffic lane for both eastbound and westbound traffic.
- 3.1.4. Shouson Hill Road East is a local road within Shouson Hill area which provide accesses for the adjacent developments in the area. It is a single two carriageway with one traffic lane for each bound of traffic.

3.2. Existing Junctions to be assessed

- 3.2.1. In order to assess the road links and junctions in the vicinity of the Subject Site, 2 junctions are identified to be assessed as listed in **Table 3.1**. The location of the identified junctions within the Area of Influence (AOI) are shown in **Drawing No. 3.2** and the existing junction layout of the identified junctions are shown in **Drawing No. 3.3 to 3.4**.

Table 3.1 Identified Critical junctions to be assessed

Ref	Junctions	Type pf Junction	Figure No.
J1	Island Road/ Deep Water Bay Road	Priority	3.3
J2	Shouson Hill Road East/ Deep Water Bay Road	Priority	3.4

- 3.2.2. To determine the existing traffic conditions of the identified critical junctions, manual classified count survey for J1 to J2 were carried out during the AM Peak between 07:00am to 09:30am and PM Peak between 4:30pm to 7:00pm on a typical weekday in October 2025.
- 3.2.3. Based on the observed traffic flows, it revealed that the AM and PM peak hours occurred during 7:45am to 8:45am and 4:45pm and 5:45pm respectively. The 2025 observed peak hour traffic flows are shown in **Figure 3.4**.

Junction Capacity Assessment

- 3.2.4. Based on the 2025 observed traffic flows as presented in **Drawing No. 3.5**, the existing operational performance of the identified critical junctions are assessed under the current junction configuration. The results are summarised in **Table 3.2** below.

Table 3.2 2025 Observed Junction Performance

Ref	Junctions	Type of Junction	Year 2025 DFC	
			AM Peak	PM Peak
J1	Island Road/ Deep Water Bay Road	Priority	0.046	0.055
J2	Shouson Hill Road East/ Deep Water Bay Road	Priority	0.042	0.075

Note:

- (1) DFC – Design flow to capacity ratio for roundabout/ priority junction. $DFC \leq 0.85$ implies the roundabout/ priority junction operates with ample capacity, $0.85 < DFC < 1.0$ implies the roundabout/ priority junction operates near capacity; $DFC > 1.0$ implies the roundabout/ priority junction is overloaded with traffic queue expected.

- 3.2.5. As indicated in above **Table 3.2**, all identified junctions are currently operating within their capacities during the AM Peak and PM Peak. Detailed calculations of the junction assessment are shown in **Annex B** of this report.

Road Links Capacity Assessment

- 3.2.6. Road link capacity analysis in terms of Volume-to-Capacity (V/C) ratio for the identified road links as shown in **Drawing No. 3.2** are also conducted based on the 2025 observed peak hour traffic flows. The results are summarised in **Table 3.3** below.

Table 3.3 2025 Observed Road Links Performance

Link No	Road Link	Direction	Design Capacity ⁽¹⁾ (pcu/hr)	Year 2025 Observed Peak Flows (pcu/hr) ⁽²⁾		Year 2025 V/C Ratio ⁽³⁾	
				AM Peak	PM Peak	AM Peak	PM Peak
L1	Deep Water Bay Road	NB	404	15	10	0.04	0.02
		SB	404	15	15	0.04	0.04
L2	Deep Water Bay Road	NB	404	20	35	0.05	0.09
		SB	404	40	30	0.10	0.07

Note:

- (1) Design flow capacity derived from Transport Planning and Design Manual (TPDM) Volume 2 Chapter 2 paragraph 2.4.1.1. Design Flow Capacity = 400 veh/hr each bound x surveyed pcu factor 1.01 (observed average values) = 404 pcu/hr (HV% less than 15%)
- (2) The observed traffic flow refers to **Drawing No. 3.5**
- (3) V/C Ratio – volume to capacity ratio for road link. V/C ratio < 1 implies the road has sufficient capacity to cope with the anticipated traffic volume. A V/C ratio above 1.0 indicates the onset of mild congestion and a $1.0 < V/C \text{ Ratio} < 1.2$ indicates a manageable degree of congestion along the road; V/C ratio > 1.2 implies the road link is overloaded with extensively long traffic queue.

- 3.2.7. The assessment results in **Table 3.3** indicated that all the identified road links are operating with sufficient capacities during AM Peak and PM Peak.

4. TRAFFIC FORECASTS AND ASSESSMENT

4.1 Design Year

- 4.1.1 It is planned that the proposed residential redevelopment would be completed by Year 2029 tentatively. To assess the impact on the local road network due to the proposed residential redevelopment, Year 2032 (i.e. 3 years after completion of the proposed residential redevelopment) is adopted as the design year for this study.
- 4.1.2 It is anticipated that the future local road network will remain unchanged and there is no plan for any major road infrastructure in the vicinity by 2032. Therefore, reference (background) traffic flows for design year 2032 would be derived from the expected growth of traffic in the area with reference to the historical growth trend and area planning data, then assigning the estimated trips generation of the proposed residential redevelopment in the vicinity to the existing road network.

4.2 Year 2032 Reference Traffic Flows

- 4.2.1 To forecast the 2032 traffic flows, an appropriate growth factor will be identified as reference scenario. The growth factors will be derived based on the historical growth trend and the population and employment projections with reference to the following information:
- Historical traffic data of the Annual Traffic Census (ATC) reports published annually by Transport Department in **Table 4.1**;
 - 2021-Based Territorial Population and Employment Data Matrices (TPEDM) planning data published by Planning Department for years 2021-2031 in **Table 4.2**;
 - Projections of Population Distribution 2025-2031 by District Council District published by Planning Department in **Table 4.3**; and
 - Hong Kong Population Projections 2022-2046 published by Census and Statistics Department in **Table 4.4**.

Historical Trend

- 4.2.2 Transport Department has traffic count stations in the vicinity of the Subject Site where covers the key access junctions of the subject site. The Average Annual Daily Traffic (A.A.D.T.) data from year 2013 to 2023 as reported in the latest Annual Traffic Census (ATC) are summarized in **Table 4.1**.

Table 4.1 Average Annual Daily Traffic (A.A.D.T.) Data

ATC Stn. No.	Road Section	A.A.D.T. (Vehicle/Day)											Annual Growth Rate (% p.a.)	
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2018/ 2023	2013/ 2018
1223	Wong Chuk Hang Rd (Nam Fung Rd – Shouson Hill Rd)	19,260	19,430	19,030	19,080	18,860	18,210	16,040	15,500	16,750	15,930	20,140	2.04%	-1.11%
1423	Island Rd (Deep Water Bay Rd – Shouson Hill Rd)	17,190	18,200	18,470	18,520	18,310	18,220	20,850	22,470	24,280	23,090	23,610	5.32%	1.17%
1618	Island Rd (Deep Water Bay Rd – Repulse Bay Rd)	17,080	17,240	18,300	20,190	19,960	19,860	20,070	21,750	24,620	23,420	23,940	3.81%	3.06%
1858	Deep Water Bay Rd (Nam Fung Rd – Wong Nai Chung Gap Rd)	10,620	10,410	10,610	12,290	13,230	12,770	13,060	12,280	14,270	12,610	12,750	-0.03%	3.76%
2612	Deep Water Bay Rd (Nam Fung Rd – Island Rd)	4,390	4,360	4,640	5,070	5,390	3,930	4,950	5,420	4,930	4,940	4,740	3.82%	-2.19%
2637	Shouson Hill Rd (Shouson Hill Rd – restricted boundary)	790	720	810	790	970	800	1,000	1,230	1,000	1,030	980	4.14%	0.25%
Total		69,330	70,360	71,860	75,940	76,720	73,790	75,970	78,650	85,850	81,020	86,160	3.15%	1.25%

Source: The Annual Traffic Census 2013 - 2023 as available on Transport Department's website

4.2.3 The A.A.D.T. flows in **Table 4.1** show that the overall average traffic growth on the road sections in the vicinity of the Subject Site, a historical growth rate of +1.25% per annum is derived for years from 2013 to 2018. Although the year 2019 – 2023 ATC traffic data would be affected by pandemic, the overall average traffic growth rate is also derived as reference and it is noted that +3.15% per annum from year 2018 to 2023.

Planning Data

4.2.4 Other than the historical trend, the population and employment estimates from Territorial Population and Employment Data Matrix (TPEDM) as available on Planning Department's website are also referred for the review on the background traffic growth. The population and employment estimates for Eastern District in year 2021, 2026 and 2031 are presented in **Table 4.2**.

Table 4.2 Population and Employment Estimates from TPEDM

Planning Data District	TPEDM Estimates	Population			Growth Rate (% p.a.)	
		2021	2026	2031	2021/2031	2026/2031
Southern	Population	263,300	258,800	267,200	0.15%	0.64%
	Employment	117,200	126,700	121,850	0.39%	-0.78%

Source: 2021 - based Territorial Population and Employment Data Matrix as available on Planning Department's website

4.2.5 As presented in **Table 4.2**, the growth rates as derived from the TPEDM estimates for Southern District from year 2021 to 2031 are ranged from -0.78% to +0.64% p.a.

4.2.6 The Projections of Population Distribution 2025-2031 by District Council District published by Planning Department and Hong Kong Population Projections 2022-2046 published by Census and Statistics Department are shown in **Tables 4.3 to 4.4** respectively.

Table 4.3 Growth Rates Derived from Projection of Distribution by District 2025-2031

Year	Projection of Population by District Council District, 2025-2031 ⁽¹⁾
2025	259,600
2026	258,800
2027	262,500
2028	261,600
2029	263,900
2030	266,900
2031	267,200
Growth Rates Derived from Project of Population by District Council District (Annual Growth Rate (%))	
2025/2031	0.48%

Note:

- (1) "Projected Population by District Council District, 2024-2031" is taken from Table 1 of "Projections of Population Distribution 2025-2031" published by Planning Department of the HKSAR Government in August 2023.
(Source: https://www.pland.gov.hk/pland_en/resources/population_data/pop_dist_proj/index.html)

4.2.7 **Table 4.3** indicates the average annual growth rates of population in the area from 2025 to 2031 is +0.48%.

Table 4.4 Growth Rates Derived from Hong Kong Population Projections 2025-2032

Year	Projection of Hong Kong Population Projections, 2025-2032 ⁽¹⁾
2025	7,559,800
2026	7,596,800
2027	7,638,700
2028	7,684,500
2029	7,731,100
2030	7,777,100
2031	7,820,200
2032	7,862,100
Growth Rates Derived from Project of Population by Hong Kong Population Projections (Annual Growth Rate (%))	
2025/2032	+0.56%

Note:

- (1) According to "Hong Kong Population Projections 2022-2046" published by the Census and Statistics Department of the HKSAR Government in August 2023 (Source: https://www.censtatd.gov.hk/en/data/stat_report/product/B1120015/att/B1120015092023XXXXB01.pdf)

4.2.8 **Table 4.4** indicates the average annual growth rates of population in Hong Kong is +0.56% from 2025 to 2032.

4.2.9 Based on the results given by A.A.D.T. historical data and TPEDM estimates, the annual growth rates are ranging from -0.78% to +3.15%.

4.2.10 For conservative approach, it is assumed to have a local traffic growth of **+3.15 % per annum**, to cover the growth from observed year of 2025 to design year of 2032 for assessment. It is deemed sufficient to allow for any unexpected future growth as a result of some unexpected

changes in land use or redevelopment in the area. This adopted growth rates would be able to ensure a conservative estimation of future traffic flows.

Year 2032 Reference Traffic Flows

- 4.2.11 According to **Chapters 4.1 to 4.2**, the year 2032 reference traffic flows (With the existing 6 residential houses) were derived by applying the adopted growth rate of +3.15 % per annum from 2025 to 2032 on the observed 2025 traffic flows.
- 4.2.12 As the Subject Site is currently vacant, the trip generation and attraction of the existing 6 residential houses should be considered in order to produce 2032 Reference Traffic Flows to reflect a more realistic condition.

Vehicular Trip Rates for Subject Site under existing condition of 6 residential houses

- 4.2.13 To estimate the traffic generation and attraction of the 6 residential houses, reference has been made to the Transport Planning and Design Manual (TPDM) published by Transport Department. The adopted vehicular trip rates and the traffic generation and attraction of the Subject site under existing condition are listed in **Table 4.5** and **4.6** below.

Table 4.5 Adopted Vehicular Trip Rates for Subject Site under the Existing Condition

Development Type		Adopted Vehicular Trip Rates (pcu/hr/flat)			
		AM Peak		PM Peak	
		Generation	Attraction	Generation	Attraction
Residential	Approximately 255m ² GFA per house ⁽¹⁾⁽²⁾	0.3524	0.2837	0.2842	0.3948

Note:

- (1) Adopted trip rates based on Private Housing: Low Density/ R(C) with Average Flat Size of 240m²
- (2) Taking into consideration of the remoteness of the Subject Site and lack of public transport services in the vicinity, the upper limit trip rates is adopted for the Subject Site.

Table 4.6 Adopted Traffic Generation and Attraction for Subject Site under the Existing Condition

Development		Vehicular Trip (pcu/hr)			
		AM Peak		PM Peak	
		Generation	Attraction	Generation	Attraction
Residential	6 houses	3	2	2	3

- 4.2.14 As indicated in **Table 4.6**, it is summarized that the Subject Site under existing condition of 6 houses will generate and attract a total of 5 pcus (2-way) during AM Peak hour and 5 pcus (2-way) during PM Peak hour respectively.
- 4.2.15 The trip generation and attraction of the existing 6 residential houses as shown in **Table 4.6** above will be superimposed onto the year 2032 traffic flows to produce a more realistic condition. The 2032 reference traffic flows are shown in **Drawing No. 4.1**.

4.3 Year 2032 Design Traffic Flows (With Proposed Residential Redevelopment)

Vehicular Trip Rates for the Proposed Residential Redevelopment

- 4.3.1 To estimate the traffic generation and attraction of the proposed residential redevelopment, reference has been made to the Transport Planning and Design Manual (TPDM) published by Transport Department. It is understood that there is no specific vehicular trip rate for house with flat size at around or over 1,000m² for House 1. Therefore, in-house traffic generation and attraction surveys were conducted on a typical weekday in September 2025 at 4 residential houses in Southern District with similar sizes and parking provision (i.e. 2 parking space per house) as House 1. The traffic generation and attraction survey results are summarised in **Table 4.7** below.

Table 4.7 Identified Traffic Generation and attraction surveys at 4 Residential Houses in Southern District with similar sizes as House 1

Development Type ⁽¹⁾		Vehicular Trips (pcu/hr)			
		AM Peak		PM Peak	
		Generation	Attraction	Generation	Attraction
Residential House A	Approx. 900 m ² GFA	1	0	0	1
Residential House B	Approx. 1,000 m ² GFA	2	1	0	2
Residential House C	Approx 920 m ² GFA	0	0	0	0
Residential House D	Approx 1,120 m ² GFA	1	1	0	1

Note:

(1) Residential House A, B and C are located along Repulse Bay Road while Residential House D is located at South Bay Road.

- 4.3.2 As indicated in **Table 4.7**, it is summarised that Residential House B will generate the most traffic amongst the 4 identified residential houses, therefore the vehicular trips generated from Residential House B will be adopted as the vehicular trips generated from our proposed House 1.
- 4.3.3 The adopted vehicular trip rates and the traffic generation and attraction of the proposed residential redevelopment are listed in **Table 4.8** and **4.9** below.

Table 4.8 Adopted Vehicular Trip Rates for Proposed Residential Redevelopment

Development Type		Adopted Vehicular Trip Rates (pcu/hr/flat)			
		AM Peak		PM Peak	
		Generation	Attraction	Generation	Attraction
House 1	Approximately 1,370 m ² GFA ⁽¹⁾	2	1	0	2
House 2	Approximately 180 m ² GFA ⁽²⁾⁽³⁾	0.3276	0.2407	0.2233	0.3097

Note:

- (1) With reference to **Table 4.7**, adopted vehicular trips are based on our in-house traffic generation and attraction surveys conducted on a typical weekday in September 2025 at 4 residential houses in Southern District with similar sizes as House 1.
- (2) With reference to **Table 2.3**, adopted trip rates based on Private Housing: Low Density/ R(C) with Average Flat Size of 180m²

- (3) Taking into consideration of the remoteness of the Subject Site and lack of public transport services in the vicinity, the upper limit trip rates is adopted for the Subject Site.

Table 4.9 Adopted Traffic Generation and attraction for Proposed Residential Redevelopment

Development		Vehicular Trip (pcu/hr)			
		AM Peak		PM Peak	
		Generation	Attraction	Generation	Attraction
Residential	House 1	2	1	0	2
	House 2	1	1	1	1

- 4.3.4 As indicated in **Table 4.9**, it is summarized that the proposed residential redevelopment will generate and attract a total of 5 pcus (2-way) during AM Peak and 4 pcus (2-way) during PM Peak respectively.

Comparison of Vehicular Traffic Generation and Attraction for the Subject Site under the Existing Condition and Proposed Residential Redevelopment

- 4.3.5 Based on the development parameter of the Subject Site given in **Table 2.1** and **2.3** and the vehicular traffic generation and attraction as shown in **Tables 4.6** and **4.9**, the net difference of vehicular traffic generation and attraction between the existing condition and the proposed residential redevelopment are presented in **Table 4.10**.

Table 4.10 Net Difference of Vehicular Trip Generation and Attraction for Subject Site under the Existing Condition and Proposed Residential Redevelopment

Development Type	GFA ⁽¹⁾	Vehicular Trip (pcu/hr)			
		AM Peak		PM Peak	
		Generation	Attraction	Generation	Attraction
Subject Site under Existing Condition [a]	1,532.902m ²	3	2	2	3
Proposed Residential Redevelopment [b]		3	2	1	3
Net Difference [b] – [a]		0	0	-1	0

Note:

- (1) Refer to **Table 2.1** and **2.3**, the maximum domestic GFA for Subject Site is 1,532.902m².

- 4.3.6 As shown in **Table 4.10**, it is revealed that there will be no additional vehicular traffic generation for the proposed residential redevelopment as compared with the existing condition during AM Peak, while there will be less vehicular traffic generated from the proposed residential redevelopment as compared to the existing condition during the PM Peak.

Year 2032 Design Traffic Flows (With Proposed Residential Redevelopment)

- 4.3.7 The net difference of vehicular trip generation and attraction for the Subject Site under the condition and the proposed residential redevelopment as shown in **Table 4.10** above will be superimposed onto the year 2032 reference traffic flows as shown in **Drawing No. 4.1**. The 2032 design traffic flows are shown in **Drawing No. 4.2**

5 TRAFFIC IMPACT ASSESSMENTS

5.1 Junction Operational Assessment

- 5.1.1. The operational performances of the junctions as identified in **Chapter 3.2** are assessed with the 2032 reference traffic flows (**Drawing No. 4.1**) and design traffic flows (**Drawing No. 4.2**).
- 5.1.2. The assessment results are summarised in **Table 5.1**, and the details of junction assessments are attached in **Annex B**.

Table 5.1 Year 2032 Junctions Operation Performance

Ref	Junctions	Type of Junction	Year 2032 DFC ⁽¹⁾			
			Reference Scenario (With the Existing 6 Residential Houses)		Design Scenario (With the Proposed Residential Redevelopment)	
			AM Peak	PM Peak	AM Peak	PM Peak
J1	Island Road/ Deep Water Bay Road	Priority	0.107	0.106	0.107	0.075
J2	Shouson Hill Road East / Deep Water Bay Road	Priority	0.055	0.098	0.055	0.098

Note:

- (1) DFC = Ratio of flow to capacity for a priority junction. $DFC \leq 0.85$ implies the priority junction operates with ample capacity, $0.85 < RC < 1.00$ implies the priority junction operates near capacity; DFC is over 1.00 implies the priority junction is overloaded with traffic queue expected.

- 5.1.3. **Table 5.1** indicates that all the key access junctions will be operating within capacity during both AM peak and PM peak under both the reference and design scenarios in the design year 2032.

5.2 Road Links Capacity Assessment

- 5.2.1 Road link capacity analysis in terms of Volume-to-Capacity (V/C) ratio for the identified road links as shown in **Drawing No. 3.2** are also conducted based on the 2032 reference traffic flow and design traffic flows. The results are summarised in **Table 5.2** below.

Table 5.2 2032 Reference and Design Road Links Performance

Link No	Road Link	Direction	Design Capacity ⁽¹⁾ (pcu/hr)	Year 2032 Reference Flows (pcu/hr) ⁽²⁾ and V/C Ratio ⁽³⁾		Year 2032 Design Flows (pcu/hr) ⁽²⁾ and V/C Ratio ⁽³⁾	
				AM Peak	PM Peak	AM Peak	PM Peak
L1	Deep Water Bay Road	NB	404	15 (0.04)	15 (0.04)	15 (0.04)	15 (0.04)
		SB	404	25 (0.06)	20 (0.05)	25 (0.06)	15 (0.04)
L2	Deep Water Bay Road	NB	404	25 (0.06)	45 (0.11)	25 (0.06)	45 (0.11)
		SB	404	50 (0.12)	40 (0.10)	50 (0.12)	40 (0.10)

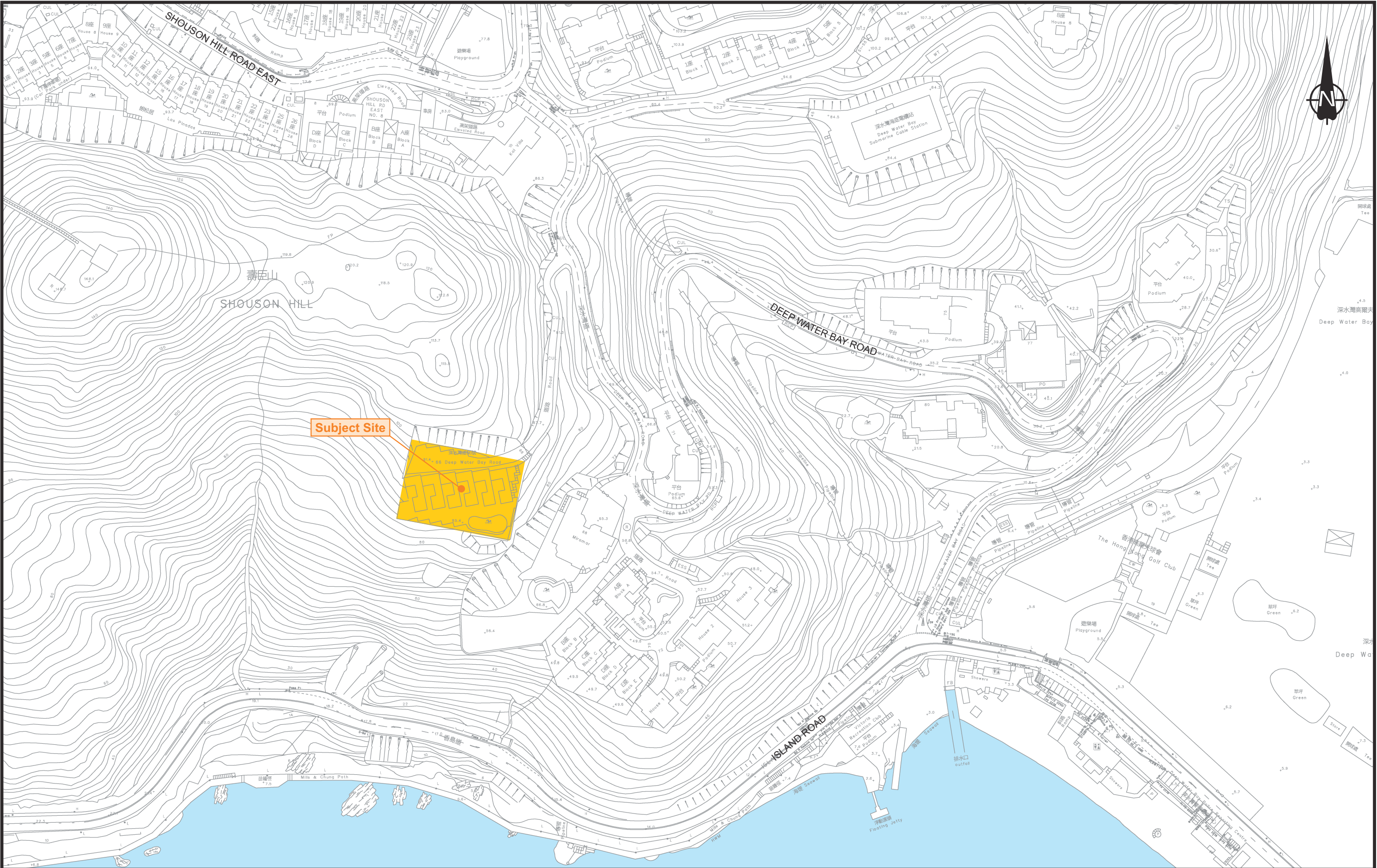
Note:

- (1) Design flow capacity derived from Transport Planning and Design Manual (TPDM) Volume 2 Chapter 2 paragraph 2.4.1.1. Design Flow Capacity = 400 veh/hr each bound x surveyed pcu factor 1.01 (observed average values) = 404 pcu/hr (HV% less than 15%)
- (2) The 2032 reference and design traffic flow can refers to **Drawing No. 4.1 & 4.2**
- (3) V/C Ratio – volume to capacity ratio for road link. V/C ratio < implies the road has sufficient capacity to cope with the anticipated traffic volume. A V/C ratio above 1.0 indicates the onset of mild congestion and a 1.0 < V/C Ratio < 1.2 indicates a manageable degree of congestion along the road; V/C ratio > 1.2 implies the road link is overloaded with extensively long traffic queue.

5.2.2 The assessment results in **Table 5.2** indicated that all the identified road links are operating with sufficient capacities during AM peak and PM peak.

6 CONCLUSION

- 6.1.1 The overall internal transport facilities will be reduced from 12 car parking spaces for the existing condition of 6 residential houses to 4 car parking spaces for the proposed residential redevelopment.
- 6.1.2 The overall vehicular traffic generation and attraction of the proposed residential redevelopment will be less than that of the existing condition of 6 residential houses. Referring to the result of traffic assessment in Chapter 5 above, the proposed residential redevelopment will not pose any adverse traffic impact on the concerned road links and junctions in the vicinity of the Subject Site.
- 6.1.3 Therefore, the proposed residential redevelopment is considered acceptable from traffic engineering point of view.

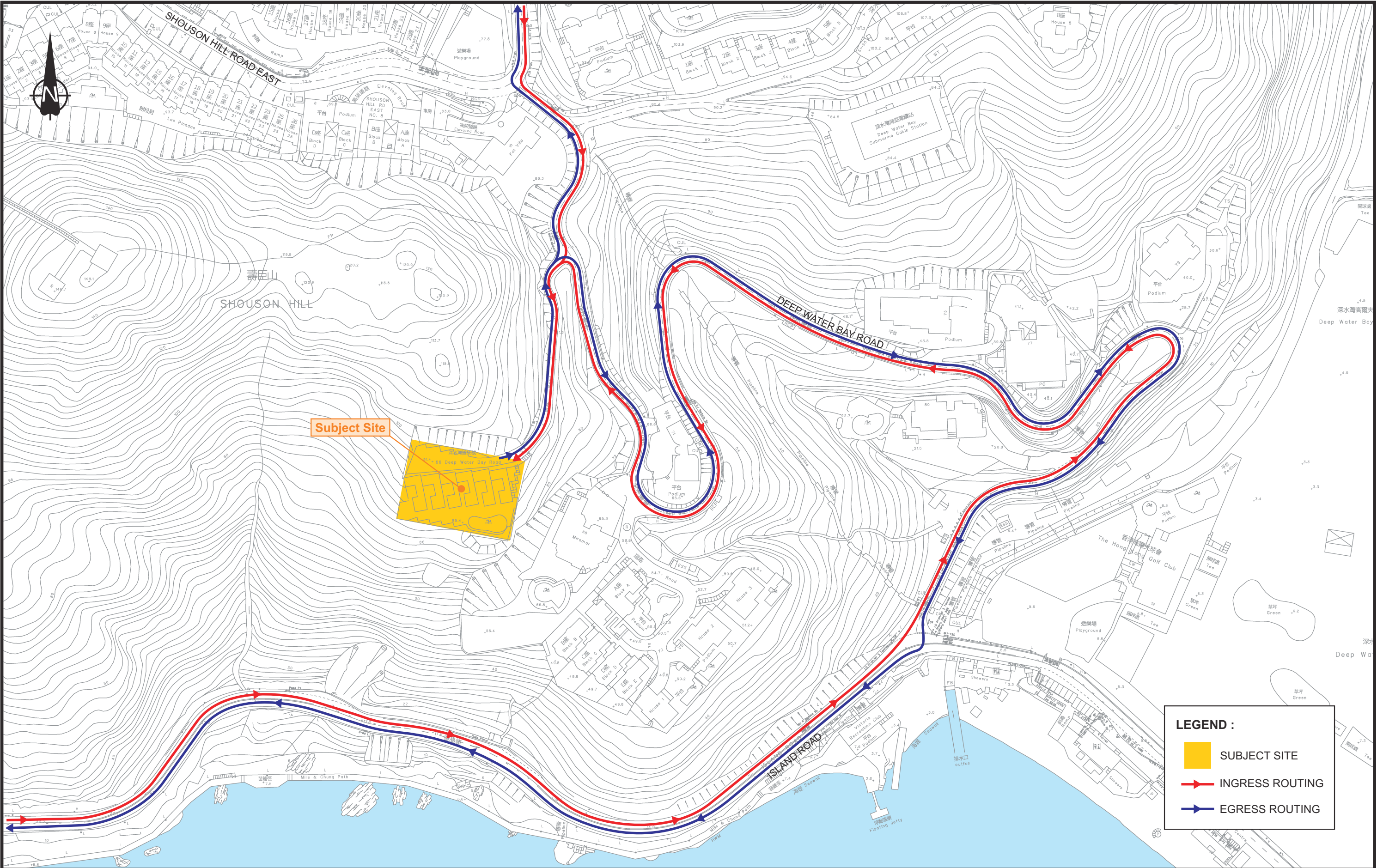


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Rev.	Description	Checked	Date

Project Title

SECTION 16 PLANNING APPLICATION FOR
THE PROPOSED RESIDENTIAL DEVELOPMENT AT
NO. 66, DEEP WATER BAY ROAD, SHOUSON HILL,
HONG KONG

Drawing Title							
LOCATION OF SUBJECT SITE							
Designed	WFT	Checked	SKK	Scale	NTS	Date	OCT 2025
Drawing No.						1.1	Rev.
						-	



LEGEND :

SUBJECT SITE

INGRESS ROUTING

EGRESS ROUTING

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

Project Title

SECTION 16 PLANNING APPLICATION FOR
THE PROPOSED RESIDENTIAL DEVELOPMENT AT
NO. 66, DEEP WATER BAY ROAD, SHOUSON HILL,
HONG KONG

Drawing Title

INGRESS / EGRESS ROUTING TO / FROM SUBJECT SITE

DesignedWFT

CheckedSKK

ScaleNTS

DateOCT 2025

Drawing No.3.1

Rev.-





LEGEND :

SUBJECT SITE

AREA OF INFLUENCE (AOI)

IDENTIFIED JUNCTIONS TO BE ASSESSED

IDENTIFIED ROAD LINK TO BE ASSESSED

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

Project Title

SECTION 16 PLANNING APPLICATION FOR
THE PROPOSED RESIDENTIAL DEVELOPMENT AT
NO. 66, DEEP WATER BAY ROAD, SHOUSON HILL,
HONG KONG

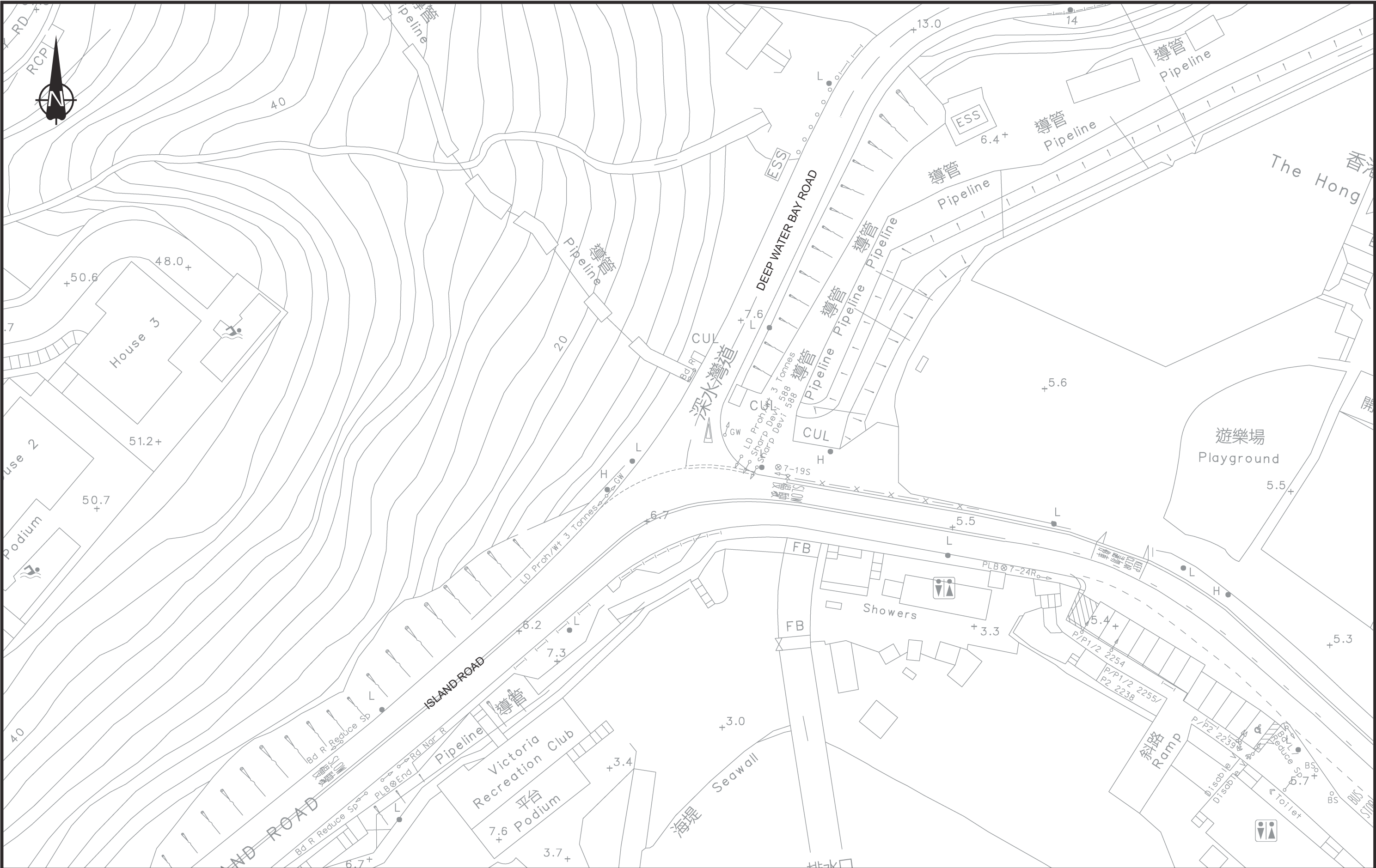
Drawing Title

IDENTIFIED JUNCTIONS AND ROAD LINKS

Designed	WFT	Checked	SKK	Scale	NTS	Date	OCT 2025	Drawing No.	3.2	Rev.	-
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SYSTRAMVA

Original Size : A3



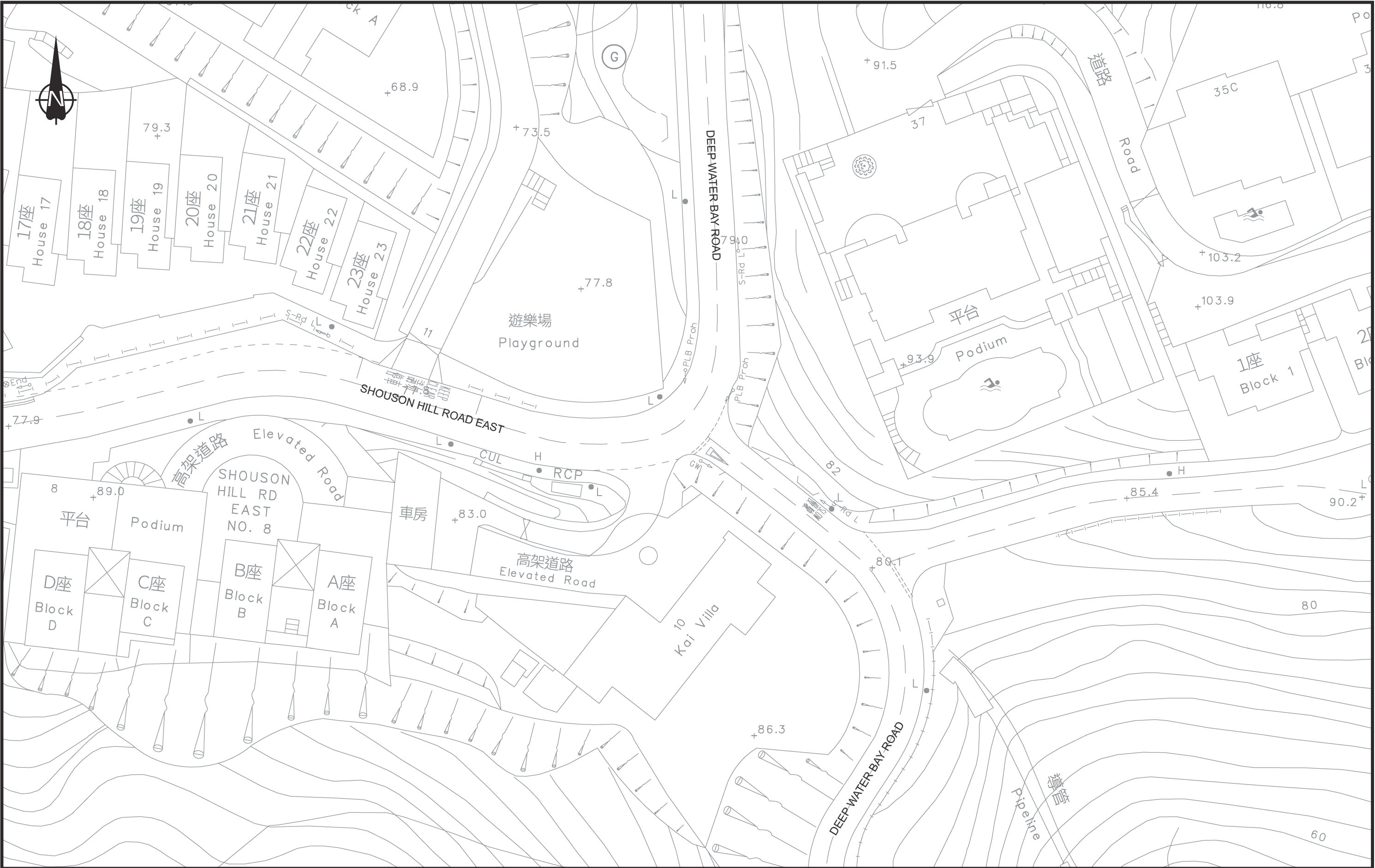
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Rev.	Description	Checked	Date

Project Title

SECTION 16 PLANNING APPLICATION FOR
THE PROPOSED RESIDENTIAL DEVELOPMENT AT
NO. 66, DEEP WATER BAY ROAD, SHOUSON HILL,
HONG KONG

Drawing Title			
EXISTING JUNCTION LAYOUT OF ISLAND ROAD / DEEP WATER BAY ROAD (J1)			
Designed	WFT	Checked	SKK
Scale	1:500@A3	Date	OCT 2025
Drawing No.	3.3	Rev.	-





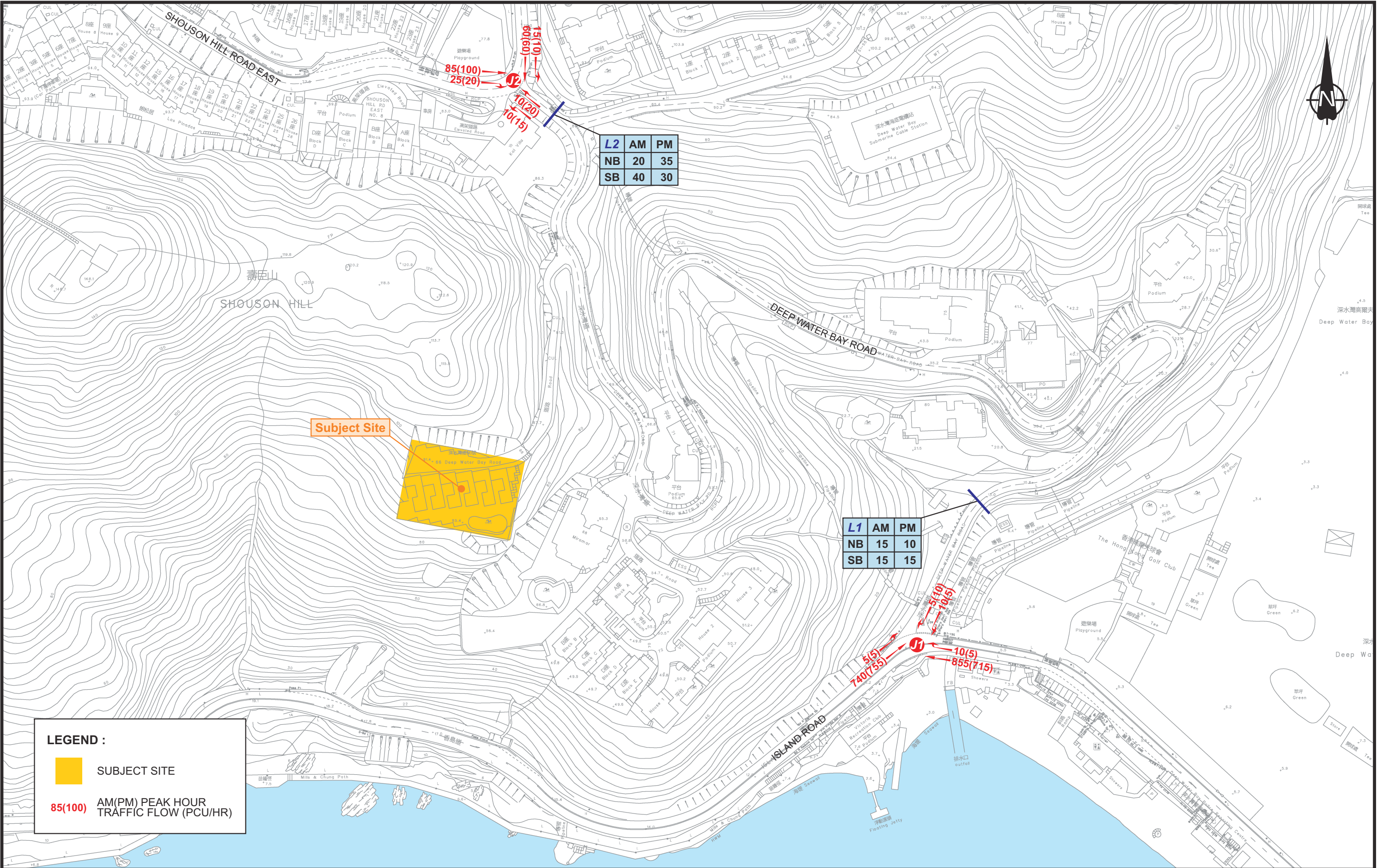
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-	-	-	-
Rev.	Description	Checked	Date

Project Title

SECTION 16 PLANNING APPLICATION FOR
THE PROPOSED RESIDENTIAL DEVELOPMENT AT
NO. 66, DEEP WATER BAY ROAD, SHOUSON HILL,
HONG KONG

Drawing Title							
EXISTING JUNCTION LAYOUT OF SHOUSON HILL ROAD EAST / DEEP WATER BAY ROAD (J2)							
Designed	WFT	Checked	SKK	Scale	1:500@A3	Date	OCT 2025
Drawing No.						3.4	Rev.
						-	

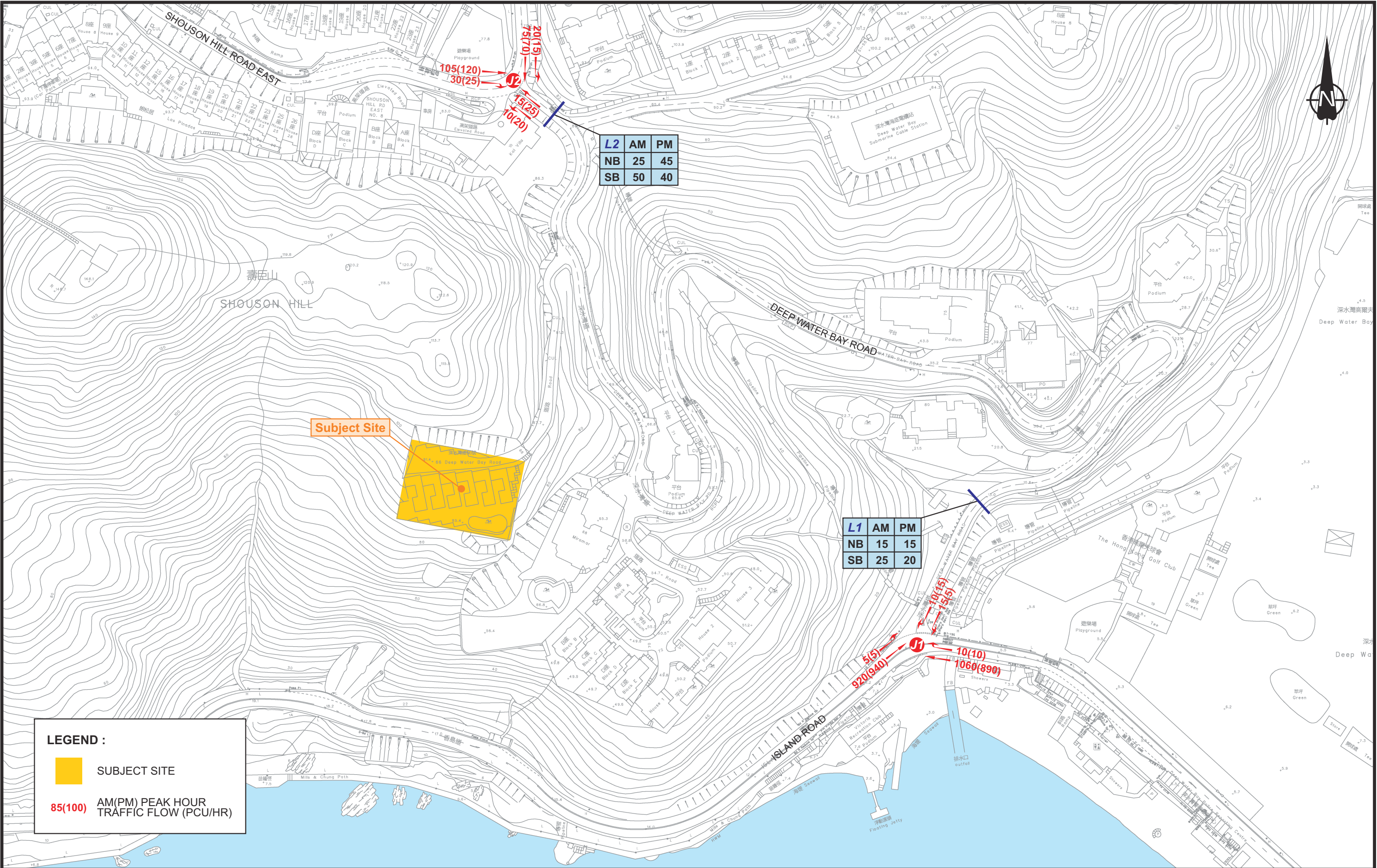




-		-	-	Project Title SECTION 16 PLANNING APPLICATION FOR THE PROPOSED RESIDENTIAL DEVELOPMENT AT NO. 66, DEEP WATER BAY ROAD, SHOUSON HILL, HONG KONG	Drawing Title YEAR 2025 OBSERVED TRAFFIC FLOWS											
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Rev.	Description	Checked	Date		Designed	WFT	Checked	SKK	Scale	NTS	Date	OCT 2025	Drawing No.	3.5	Rev.	-

CHK50850710/TIA/F35.CDR/LLH/16OCT25

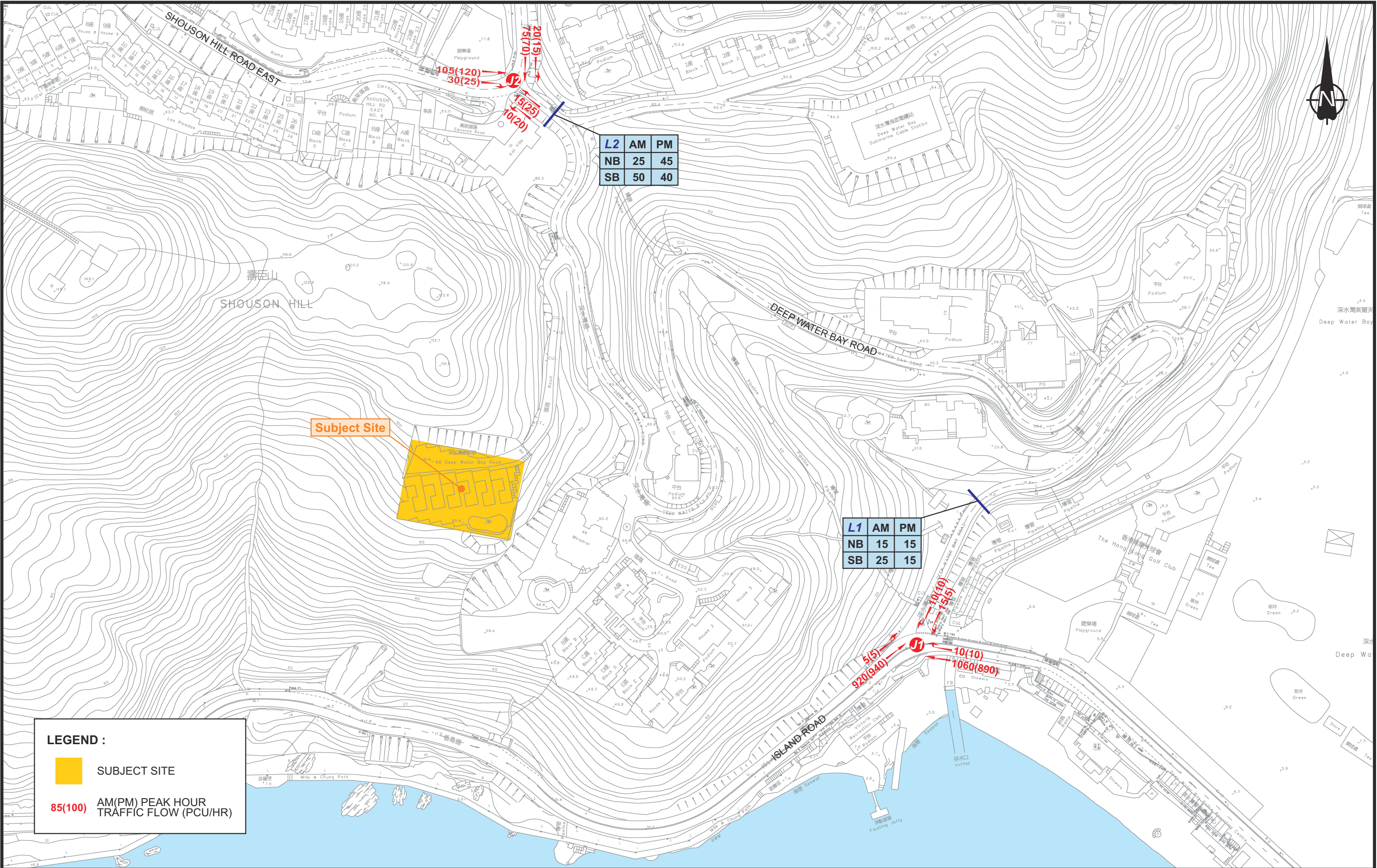
Original Size : A3



-	-	-	Project Title SECTION 16 PLANNING APPLICATION FOR THE PROPOSED RESIDENTIAL DEVELOPMENT AT NO. 66, DEEP WATER BAY ROAD, SHOUSON HILL, HONG KONG	Drawing Title YEAR 2032 REFERENCE TRAFFIC FLOWS							
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Rev.	Description	Checked	Date	Designed WFT Checked SKK Scale NTS Date OCT 2025 Drawing No. 4.1 Rev. -							

CHK50850710/TIA/F41.CDR/LLH/16OCT25

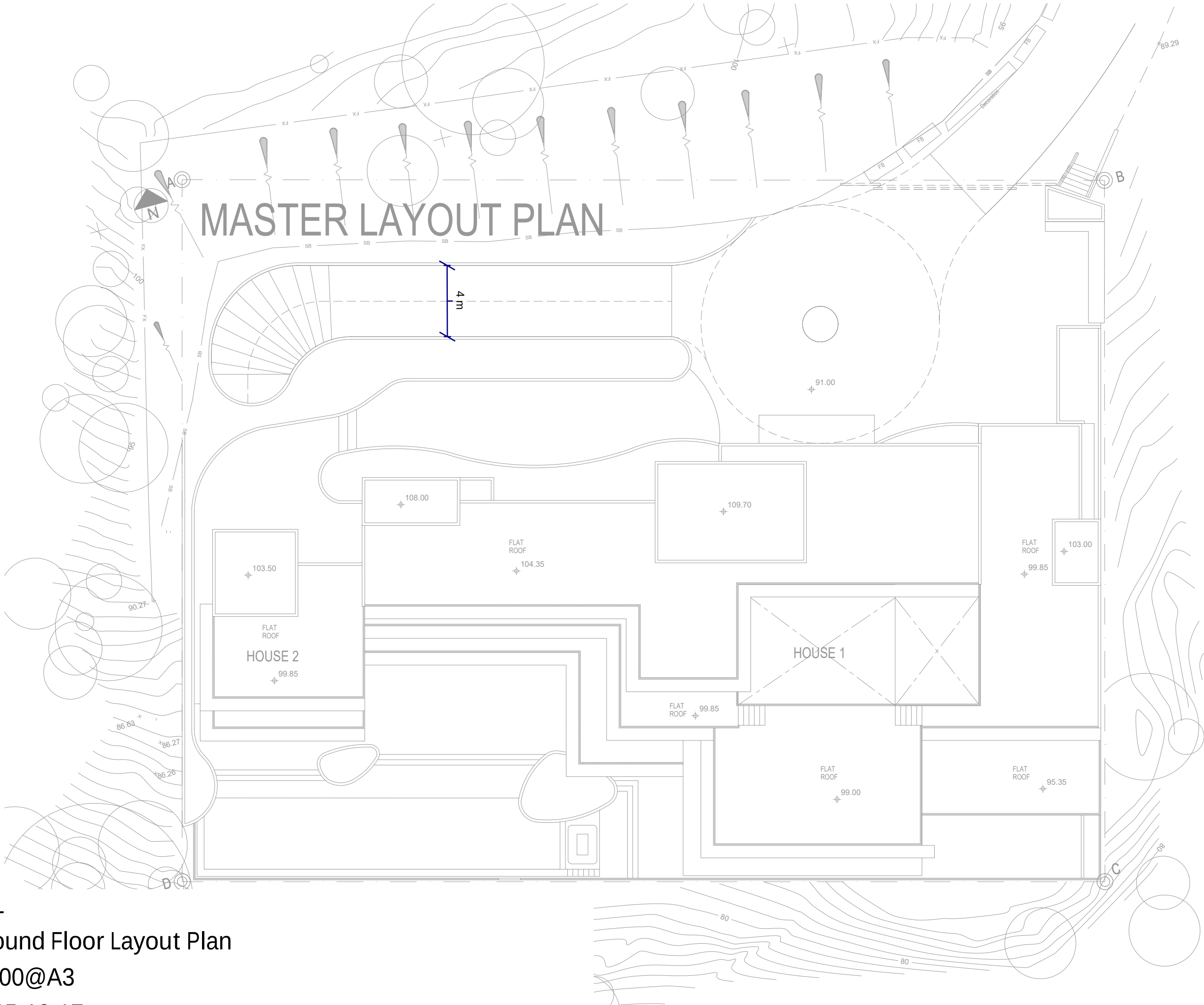
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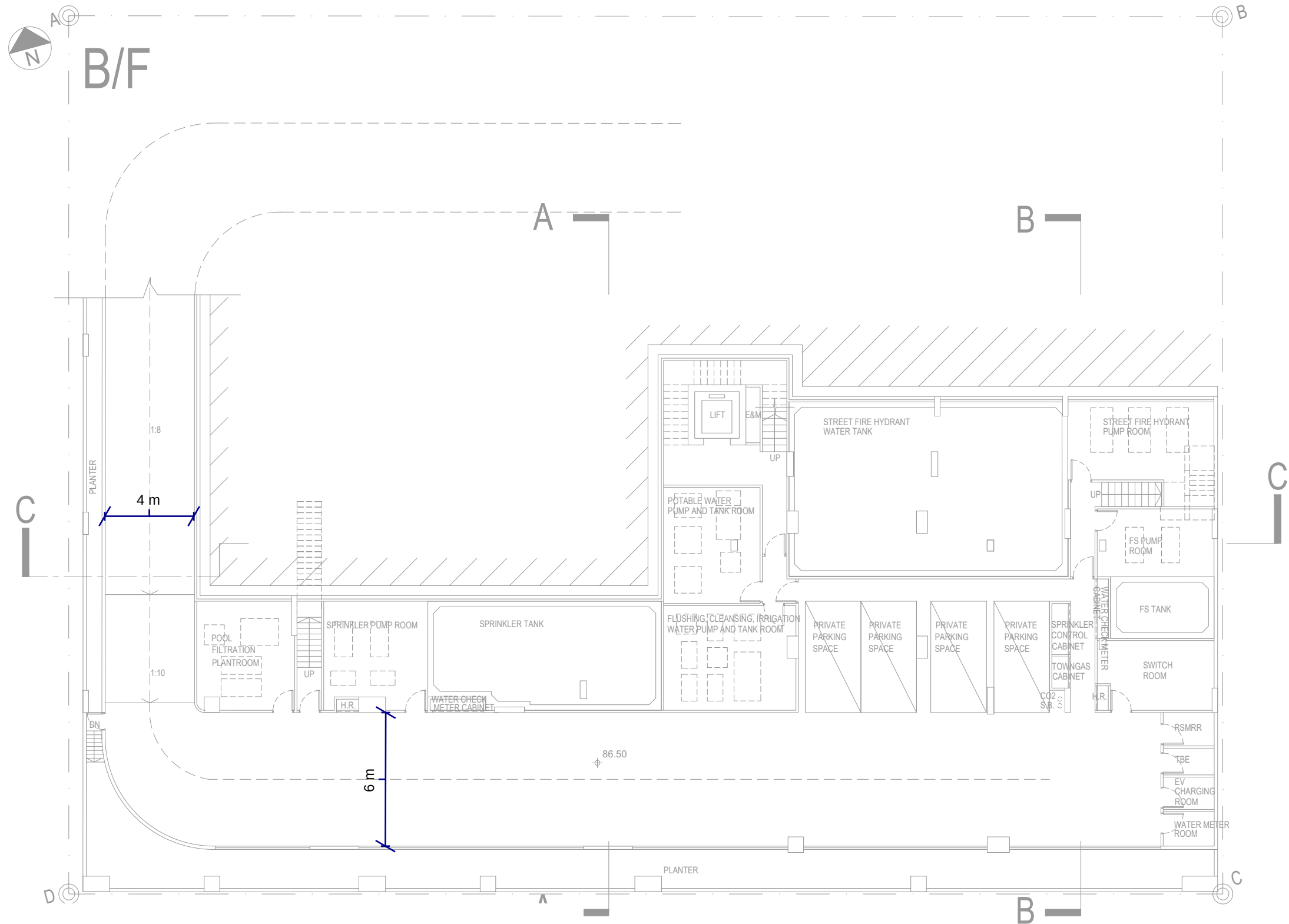


-	-	-	-	Project Title SECTION 16 PLANNING APPLICATION FOR THE PROPOSED RESIDENTIAL DEVELOPMENT AT NO. 66, DEEP WATER BAY ROAD, SHOUSON HILL, HONG KONG	Drawing Title YEAR 2032 DESIGN TRAFFIC FLOWS										
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Rev.	Description	Checked	Date		Designed	WFT	Checked	SKK	Scale	NTS	Date		OCT 2025	Drawing No.	4.2

Annex A

SK1
Ground Floor Layout Plan
1:200@A3
2025-10-17





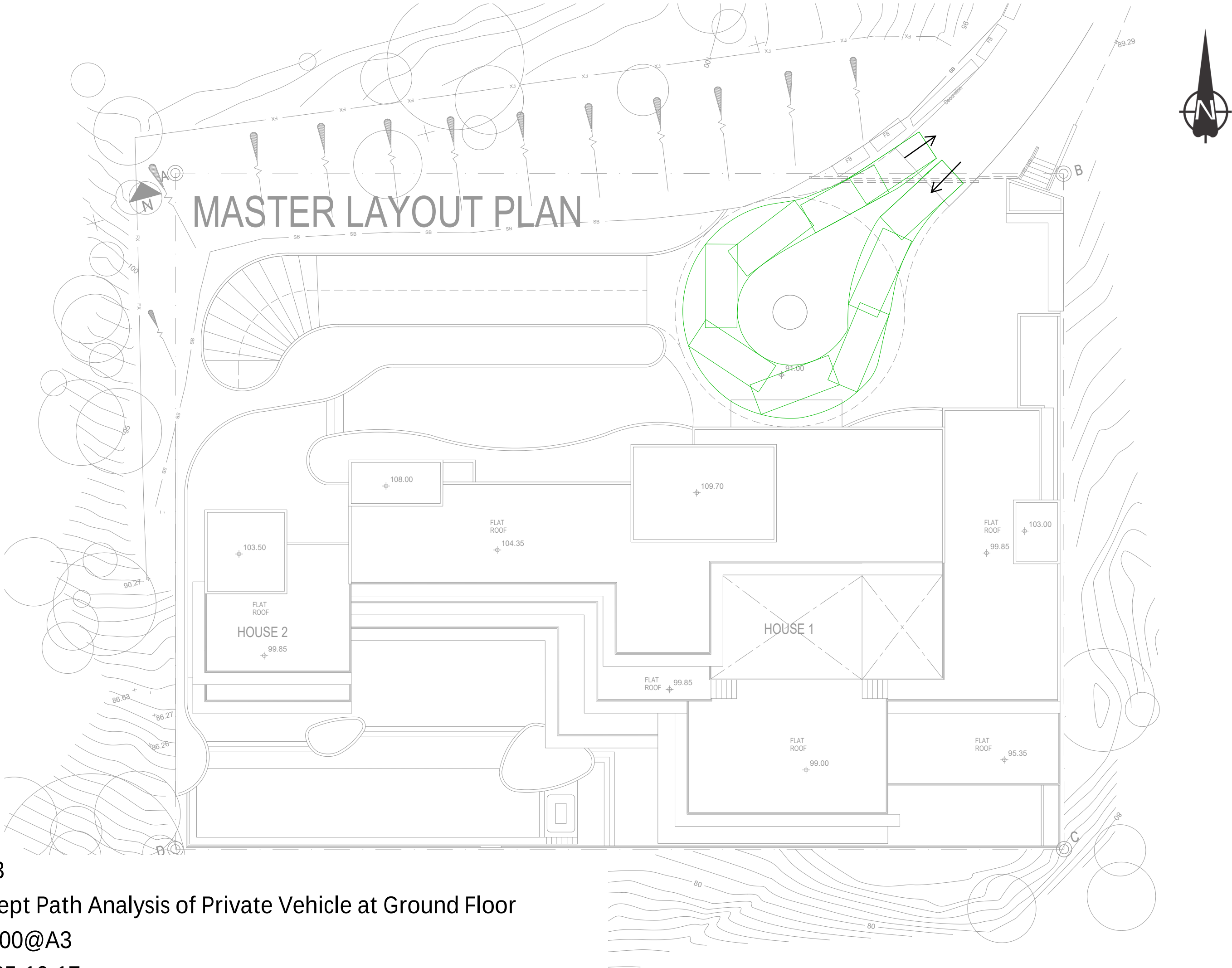
SK2
Basement Floor Layout Plan
1:200@A3
2025-10-17

SK3

Swept Path Analysis of Private Vehicle at Ground Floor

1:200@A3

2025-10-17

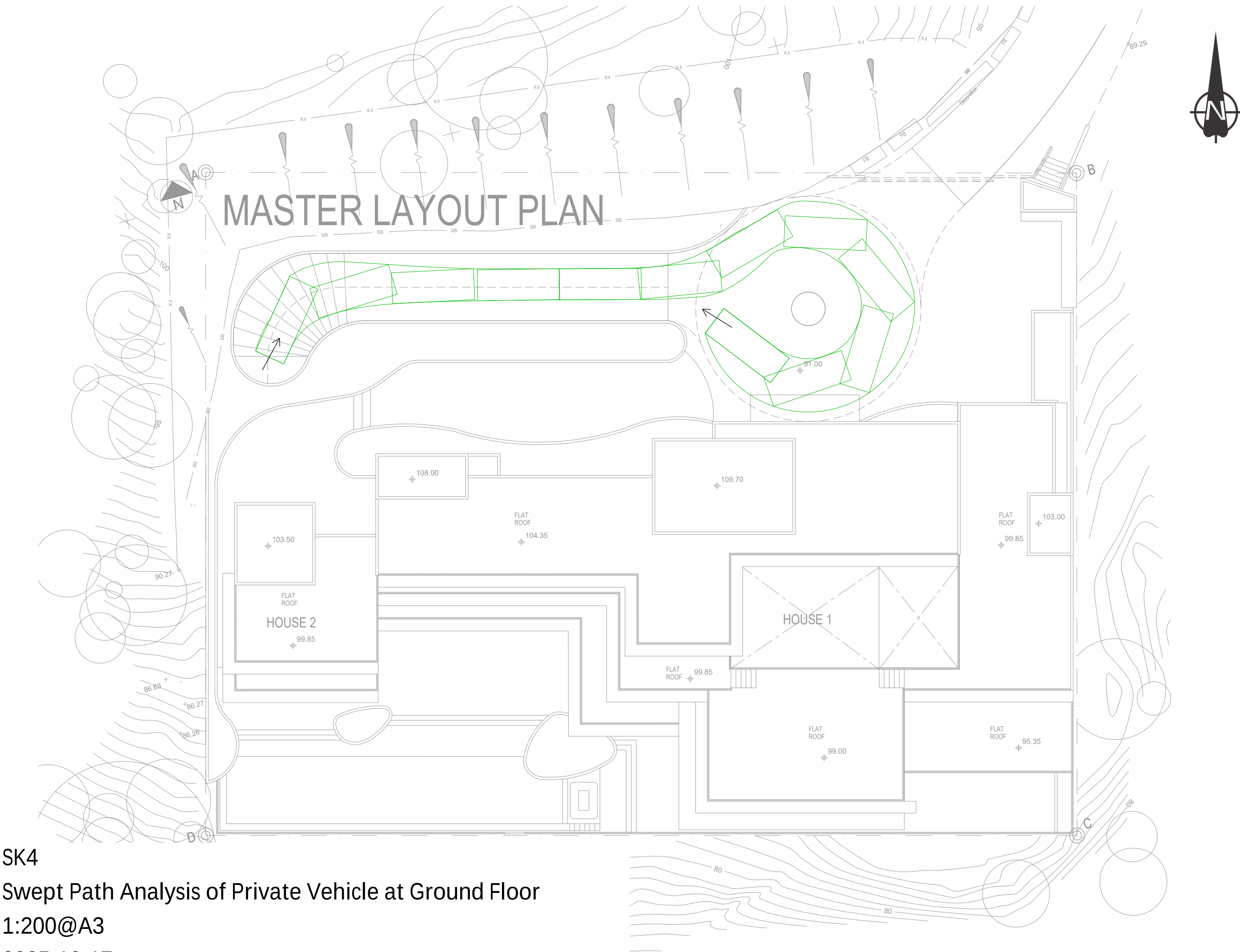


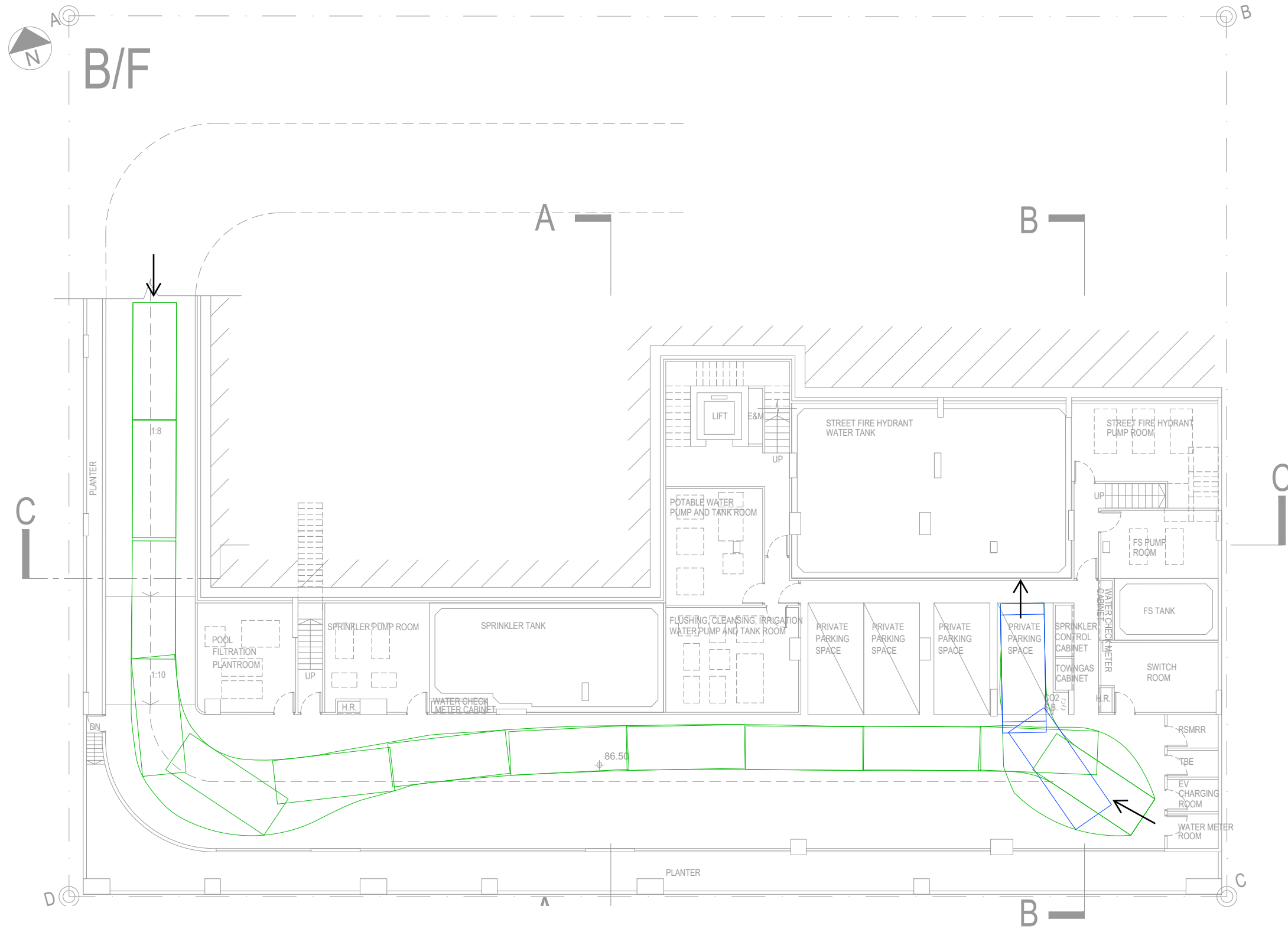
SK4

Swept Path Analysis of Private Vehicle at Ground Floor

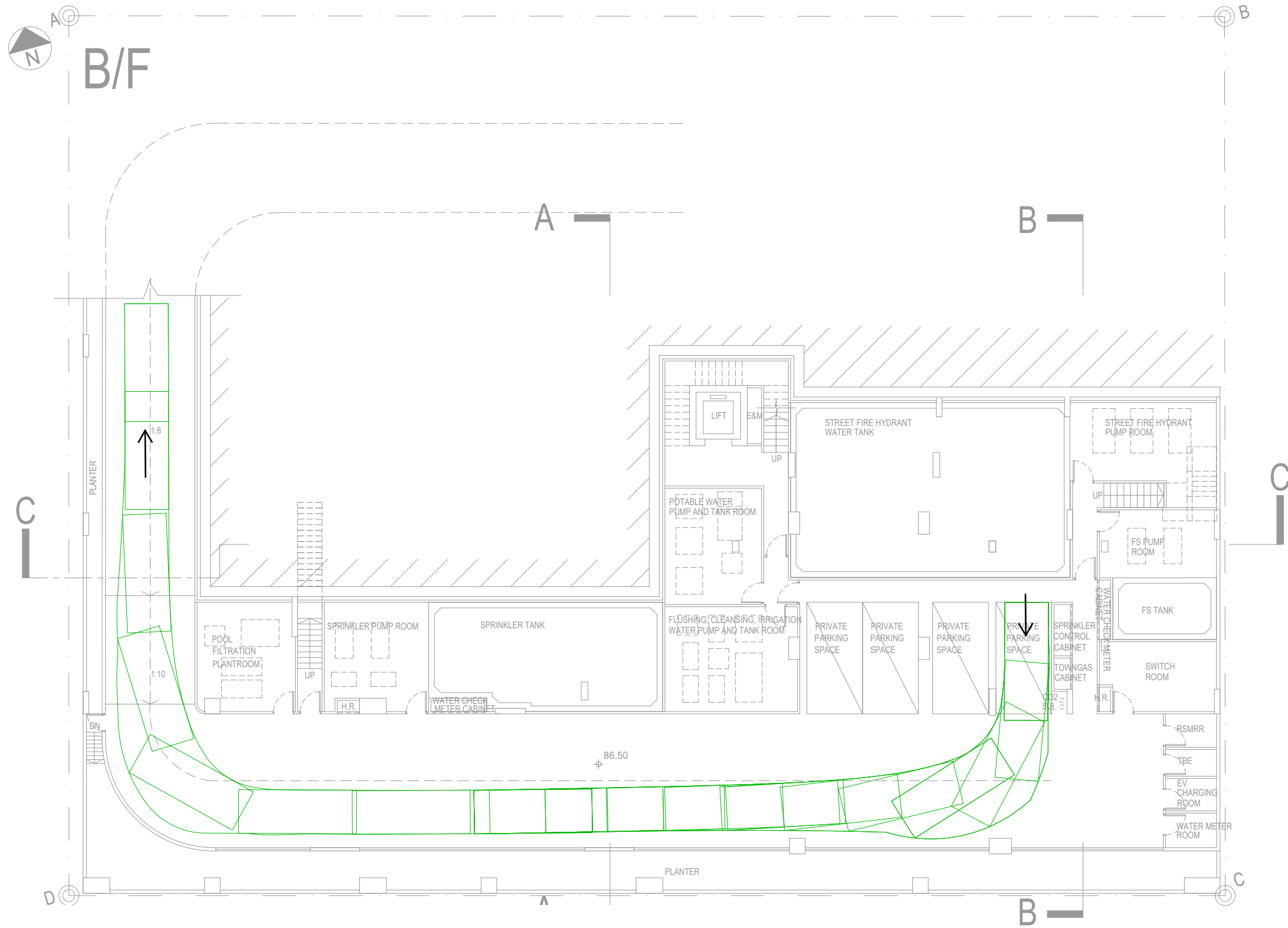
1:200@A3

2025-10-17





SK5
Swept Path Analysis of Private Vehicle at Basement Floor (Ingress)
1:200@A3
2025-10-17



SK6
Swept Path Analysis of Private Vehicle at Basement Floor (Egress)
1:200@A3
2025-10-17

Annex B

Simplified Priority Junction Capacity Calculation

Job Title: Residential in Southern District			
Junction: Island Road / Deep Water Bay Road (J1)		Ref. No.: J1 (2025 obs)	
Scheme: 2025 Observed		Ref. No.:	
Year: 2025	Job No.: CHK50850710		Rev.: -
ARM A: Island Road (EB)			
ARM B: Deep Water Bay Road (SB)			
ARM C: Island Road (WB)			

ARM C

AM	(PM)
855	(715)
10	(5)

ARM A

AM	(PM)
740	(755)
5	(5)

Minor ARM B

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

GEOMETRY					
Major road width	W	6.75	Lane widths	w(b-a)	2.01
Central Reserve width	Wcr	0.00		w(b-c)	2.01
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.00
Visibilities	Vr(b-a)	110	Calculated	D	0.79
	VI(b-a)	60		E	0.84
	Vr(b-c)	110		F	0.88
	Vr(c-b)	50		Y	0.77

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	855	715
	q(c-b)	10	5
	q(a-b)	5	5
	q(a-c)	740	755
	q(b-a)	5	10
	q(b-c)	10	5
	f	0.67	0.33
CAPACITIES	Q(b-a)	211	228
	Q(b-c)	451	447
	Q(c-b)	472	469
	Q(b-ac)	327	273
RFC's	b-a	0.024	0.044
	b-c	0.022	0.011
	c-b	0.021	0.011
	b-ac	0.046	0.055
Worst RFC		0.046	0.055

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

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

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

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

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

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

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by:	Date: Oct-25	Checked by:
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Simplified Priority Junction Capacity Calculation

Job Title: Residential in Southern District			
Junction: Island Road / Deep Water Bay Road (J1)		Ref. No.: J1 (2032 ref)	
Scheme: 2032 Reference		Ref. No.:	
Year: 2025	Job No.: CHK50850710	Rev.: -	
ARM A: Island Road (EB)			
ARM B: Deep Water Bay Road (SB)			
ARM C: Island Road (WB)			

GEOMETRY					
Major road width	W	6.75	Lane widths	w(b-a)	2.01
Central Reserve width	Wcr	0.00		w(b-c)	2.01
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.00
Visibilities	Vr(b-a)	110	Calculated	D	0.79
	VI(b-a)	60		E	0.84
	Vr(b-c)	110		F	0.88
	Vr(c-b)	50		Y	0.77

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	1060	890
	q(c-b)	10	10
	q(a-b)	5	5
	q(a-c)	920	940
	q(b-a)	10	15
	q(b-c)	15	5
	f	0.60	0.25
CAPACITIES	Q(b-a)	142	161
	Q(b-c)	409	404
	Q(c-b)	428	423
	Q(b-ac)	233	189
RFC's	b-a	0.070	0.093
	b-c	0.037	0.012
	c-b	0.023	0.024
	b-ac	0.107	0.106
Worst RFC		0.107	0.106

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

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

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

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

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

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

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by:	Date: Oct-25	Checked by:
----------------	--------------	-------------

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

Simplified Priority Junction Capacity Calculation

Job Title: Residential in Southern District			
Junction: Island Road / Deep Water Bay Road (J1)		Ref. No.: J1 (2032 des)	
Scheme: 2032 Design		Ref. No.:	
Year: 2025	Job No.: CHK50850710	Rev.: -	
ARM A: Island Road (EB)			
ARM B: Deep Water Bay Road (SB)			
ARM C: Island Road (WB)			

ARM C

AM	(PM)
1060	(890)
10	(10)

ARM A

AM	(PM)
920	(940)
5	(5)

Minor ARM B

AM	(PM)
15	10
(5)	(10)

GEOMETRY					
Major road width	W	6.75	Lane widths	w(b-a)	2.01
Central Reserve width	Wcr	0.00		w(b-c)	2.01
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.00
Visibilities	Vr(b-a)	110	Calculated	D	0.79
	VI(b-a)	60		E	0.84
	Vr(b-c)	110		F	0.88
	Vr(c-b)	50		Y	0.77

ANALYSIS			
		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	1060	890
	q(c-b)	10	10
	q(a-b)	5	5
	q(a-c)	920	940
	q(b-a)	10	10
	q(b-c)	15	5
	f	0.60	0.33
CAPACITIES	Q(b-a)	142	161
	Q(b-c)	409	404
	Q(c-b)	428	423
	Q(b-ac)	233	201
RFC's	b-a	0.070	0.062
	b-c	0.037	0.012
	c-b	0.023	0.024
	b-ac	0.107	0.075
Worst RFC		0.107	0.075

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

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

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

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

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

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

Capacity of combined streams

- in accordance with TPDM V2.4

Calculated by:	Date: Oct-25	Checked by:
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Simplified Priority Junction Capacity Calculation

Job Title: Residential in Southern District																					
Junction: Shouson Hill Road East / Deep Water Bay Road (J2)		Ref. No.: J2 (2025 obs)																			
Scheme: 2025 Observed		Ref. No.:																			
Year: 2025	Job No.: CHK50850710	Rev.: -																			
ARM A: Deep Water Bay Road (WB)																					
ARM B: Deep Water Bay Road (NB)																					
ARM C: Shouson Hill Road East (EB)																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">AM</td> <td style="width: 15%;">(PM)</td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> </tr> <tr> <td>85</td> <td>(100)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>25</td> <td>(20)</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				AM	(PM)					85	(100)					25	(20)				
AM	(PM)																				
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25	(20)																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">AM</td> <td style="width: 15%;">(PM)</td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> </tr> <tr> <td>60</td> <td>(60)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>15</td> <td>(10)</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				AM	(PM)					60	(60)					15	(10)				
AM	(PM)																				
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15	(10)																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">AM</td> <td style="width: 15%;">(PM)</td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> </tr> <tr> <td>10</td> <td>(15)</td> <td>10</td> <td>(20)</td> <td></td> <td></td> </tr> </table>				AM	(PM)					10	(15)	10	(20)								
AM	(PM)																				
10	(15)	10	(20)																		
Minor ARM B																					
GEOMETRY																					
Major road width	W	6.63	Lane widths	w(b-a)	1.29																
Central Reserve width	Wcr	0.00		w(b-c)	1.29																
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.60																
Visibilities	Vr(b-a)	80	Calculated	D	0.72																
	VI(b-a)	75		E	0.75																
	Vr(b-c)	80		F	0.92																
	Vr(c-b)	40		Y	0.77																
ANALYSIS																					
			AM PEAK		(PM) PEAK																
TRAFFIC FLOWS	q(c-a)		85	100																	
	q(c-b)		25	20																	
	q(a-b)		15	10																	
	q(a-c)		60	60																	
	q(b-a)		10	20																	
	q(b-c)		10	15																	
	f		0.50	0.43																	
CAPACITIES	Q(b-a)	Factor	418	418																	
	Q(b-c)	1	545	545																	
	Q(c-b)	1	669	670																	
	Q(b-ac)	1	473	465																	
RFC's	b-a		0.024	0.048																	
	b-c		0.018	0.028																	
	c-b		0.037	0.030																	
	b-ac		0.042	0.075																	
Worst RFC			0.042	0.075																	
Where VI and Vr are visibility distances to the left or right of the respective streams $D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$ $E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$ $F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$ $Y = 1-0.0345W$ f = proportion of minor traffic turning left $Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$ T.P.D.M.V.2.4 Appendix 1 Capacity of combined streams - in accordance with TPDM V2.4																					
Calculated by:		Date:	Oct-25	Checked by:																	

Simplified Priority Junction Capacity Calculation

Job Title: Residential in Southern District		Ref. No.: J2 (2032 ref)	
Junction: Shouson Hill Road East / Deep Water Bay Road (J2)		Ref. No.:	
Scheme: 2032 Reference		Rev.: -	
Year: 2025	Job No.: CHK50850710		
ARM A: Deep Water Bay Road (WB)			
ARM B: Deep Water Bay Road (NB)			
ARM C: Shouson Hill Road East (EB)			

ARM C

AM	(PM)
105	(120)
30	(25)

ARM A

AM	(PM)
75	(70)
20	(15)

Minor ARM B

AM	(PM)
10	(20)
15	(25)

GEOMETRY					
Major road width	W	6.63	Lane widths	w(b-a)	1.29
Central Reserve width	Wcr	0.00		w(b-c)	1.29
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.60
Visibilities	Vr(b-a)	80	Calculated	D	0.72
	VI(b-a)	75		E	0.75
	Vr(b-c)	80		F	0.92
	Vr(c-b)	40		Y	0.77

ANALYSIS			AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)		105	120
	q(c-b)		30	25
	q(a-b)		20	15
	q(a-c)		75	70
	q(b-a)		15	25
	q(b-c)		10	20
	f	0.40		0.44
CAPACITIES	Q(b-a)	Factor 1	411	412
	Q(b-c)	1	541	543
	Q(c-b)	1	663	666
	Q(b-ac)	1	455	461
RFC's	b-a		0.036	0.061
	b-c		0.018	0.037
	c-b		0.045	0.038
	b-ac		0.055	0.098
Worst RFC			0.055	0.098

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

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

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

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

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

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

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

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

Calculated by:	Date: Oct-25	Checked by:
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Simplified Priority Junction Capacity Calculation

Job Title: Residential in Southern District					
Junction: Shouson Hill Road East / Deep Water Bay Road (J2)		Ref. No.: J2 (2032 des)			
Scheme: 2032 Design		Ref. No.:			
Year: 2025	Job No.: CHK50850710	Rev.: -			
ARM A: Deep Water Bay Road (WB)					
ARM B: Deep Water Bay Road (NB)					
ARM C: Shouson Hill Road East (EB)					
GEOMETRY					
Major road width	W	6.63	Lane widths	w(b-a)	1.29
Central Reserve width	Wcr	0.00		w(b-c)	1.29
2 Lane Minor Arm (Y/N)		N		w(c-b)	3.60
Visibilities	Vr(b-a)	80	Calculated	D	0.72
	VI(b-a)	75		E	0.75
	Vr(b-c)	80		F	0.92
	Vr(c-b)	40		Y	0.77
ANALYSIS					
			AM PEAK		(PM) PEAK
TRAFFIC FLOWS	q(c-a)		105	120	
	q(c-b)		30	25	
	q(a-b)		20	15	
	q(a-c)		75	70	
	q(b-a)		15	25	
	q(b-c)		10	20	
	f		0.40	0.44	
CAPACITIES	Q(b-a)	Factor	411	412	
	Q(b-c)	1	541	543	
	Q(c-b)	1	663	666	
	Q(b-ac)	1	455	461	
RFC's	b-a		0.036	0.061	
	b-c		0.018	0.037	
	c-b		0.045	0.038	
	b-ac		0.055	0.098	
Worst RFC			0.055	0.098	
Where VI and Vr are visibility distances to the left or right of the respective streams $D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$ $E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$ $F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$ $Y = 1-0.0345W$ f = proportion of minor traffic turning left $Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$ T.P.D.M.V.2.4 Appendix 1 Capacity of combined streams - in accordance with TPDM V2.4					
Calculated by:		Date: Oct-25	Checked by:		