Appendix 6

Traffic Impact Assessment

MOTT MACDONALD

Proposed 'Social Welfare Facility' (Residential Care Home for Persons with Disabilities) ("RCHD") and Proposed Excavation of Land associated with the Proposed RCHD in "Village Type Development" Zone, at portion of Former Wa Fung School (華封學校) and adjoining Government Land, Lam Hau Tsuen, Yuen Long, New Territories

Traffic Impact Assessment (TIA) Report

August 2025

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Proposed 'Social Welfare Facility' (Residential Care Home for Persons with Disabilities) ("RCHD") and Proposed Excavation of Land associated with the Proposed RCHD in "Village Type Development" Zone, at portion of Former Wa Fung School (華封學校) and adjoining Government Land, Lam Hau Tsuen, Yuen Long, New Territories

Traffic Impact Assessment (TIA) Report (Rev. A)

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APPENDICES

1 INTRODUCTION

1.1 Background

1.1.1 The Applicant intends to convert part of the former Wa Fung School and its adjoining government land into a Residential Care Home for Persons with Disabilities ("RCHD") with a maximum of 90 beds. The former Wa Fung School site is located at Lam Hau Tsuen, Yuen Long (hereinafter referred to as "the Site").

1.1.2 The location plan of the Site is shown in **Figure 1.1**.

1.1.3 Mott MacDonald Hong Kong Limited (hereinafter referred to as "MOTT") has been commissioned as the traffic consultant on behalf of the Applicant to conduct a traffic impact assessment (TIA) to support this planning application.

1.2 Study Objectives

1.2.1 The objectives of this TIA study are listed below:

a) To review and recommend the provision of parking spaces and loading/unloading facilities for the proposed development;

b) To review the internal traffic circulation and vehicular access for the proposed development;

c) To conduct a traffic survey to reveal the baseline traffic situation within the study area during the appropriate period;

d) To review the baseline traffic situation and identify the prevailing public transport facilities in the vicinity of the Site;

e) To estimate the traffic generation and attraction of the proposed development and the future traffic by adopting the growth factor method; and

f) To assess the traffic and transport impacts arising from the proposed development within the study area and recommend mitigation measures if necessary.

1.3 Structure of this Report

1.3.1 This TIA report contains the following sections in addition to this introduction (Section 1):

- **Section 2 – Proposed Development**
  Describes the proposed development parameters, parking provision and vehicular access arrangements.

- **Section 3 – Existing Traffic Conditions**
  Discusses the existing road network, baseline traffic survey, baseline junction assessment and baseline public transport facilities.

- **Section 4 – Traffic Forecast and Assessment**
  Describes the traffic forecasting methodology and discusses the assessment results of the Reference Scenario and Design Scenario.

- **Section 5 – Summary and Conclusion**
  Presents the key findings of this TIA study.

2 PROPOSED DEVELOPMENT

2.1 Development Parameters

2.1.1 The proposed RCHD will provide a maximum of 90 beds and is tentatively scheduled for operation in 2027.

2.2 Parking Provision

2.2.1 There are no specific guidelines on the parking provision in accordance with the requirements set out in HKPSG for the proposed type of development.

2.2.2 The proposed parking provisions are summarized in **Table 2.1**, and the layout of parking is shown in **Figure 2.1**.

Table 2.1: Proposed Parking and Loading/Unloading Bay Provisions

Type of Parking Space	Proposed Provision
Private Car Parking Space (5m x 2.5m)	2 nos.
Light Goods Vehicles (LGV) Loading and Unloading bay (7m x 3.5m)	1 no.

2.2.3 The above provision of parking spaces is considered adequate for the proposed operational needs due to its special operational nature, and under normal circumstances, visiting is not allowed during the operational phase.

2.3 Vehicular Access Arrangements

2.3.1 The proposed vehicular access is located on the western part of the Site which connects to the local access road that branches directly off Shan Ha Road.

2.3.2 Swept path analysis in **Figure 2.2** demonstrates the safe and smooth manoeuvring of the design vehicles (i.e. 7m LGV) accessing from/to the adjacent road at the concerned development site.

2.3.3 For the road serving as an Emergency Vehicular Access (EVA), a minimum 6.0m wide access road will be provided. Swept path analysis in **Figure 2.3** demonstrates the safe and smooth manoeuvring of the emergency vehicles (i.e. 7m light fire appliance) accessing from/to the adjacent road at the concerned development site.

3 EXISTING TRAFFIC CONDITIONS

3.1 Existing Road Network

3.1.1 The local access road connecting the Site to Shan Ha Road is an unnamed access road with a width varying from 3m to 6m.

3.1.2 Shan Ha Road is a single two-way carriageway connecting to the Tong Yan San Tsuen Interchange which serves as a key junction linking several district and local roads, including Yuen Long Highway, Long Tin Road, Castle Peak Road – Ping Shan, Lam Yu Road and Town Park Road North.

3.1.3 The Area of Influence (AOI) covers the key junctions in the vicinity of the Site, as shown in **Figure 3.1**.

3.2 Baseline Traffic Survey

Vehicular Survey

3.2.1 To appreciate the existing traffic conditions, traffic counts were carried out on a normal weekday (without the school summer vacation/long holidays and adverse weather condition) in March 2025 during the period of 07:00 to 20:00.

3.2.2 For the local road network, the AM and PM peak hours were identified as 08:00–09:00 and 17:30–18:30 respectively.

3.2.3 The observed traffic flows for the concerned junctions during peak periods are presented in **Appendix A**.

3.3 Baseline Junction Assessment

3.3.1 The base year capacity assessment of key junctions was conducted for the AM and PM peak periods, and the assessment results are summarized in **Table 3.1**.

Table 3.1: 2025 Base Year Capacity Assessment of Key Junctions for Peak Hours

No.	Junction	Type	DFC (1)	
			AM	PM
J1	Shan Ha Road / Unnamed Access Road	Priority	0.05	0.03
J2	Shan Ha Road / Tong Yan San Tsuen Interchange	Priority	1.02	1.11
J3	Slip Road from Shan Ha Road / Slip Road from Long Tin Road SB	Priority	0.70	0.43

Note:
(1) DFC refers to design flow to capacity ratio, which is an indicator of the operational performance at a roundabout/priority junction.

3.3.2 The base year capacity assessment of key junctions as enclosed in **Appendix B** indicates that J2 operates marginally beyond its capacities during the AM and PM peak periods, while J1 and J3 operate within their capacities during the AM and PM peak periods.

3.4 Baseline Public Transport Facilities

3.4.1 The existing public transport facilities in the vicinity are shown in Figure 3.2. Within a 500m radius of the Site, there is the Shan Ha Tsuen Minibus Terminus, currently served GMB 604. Additionally, a red minibus route operates between Pak Sha Tsuen and Long Ping Station provide service, with pick-up and drop-off points at Lam Yu Road and Lam Hi Road.

3.4.2 Staff who are expeted to reside in proximity of the proposed RCHD can commute to/from the Site via this route between Shan Ha Tsuen and Yuen Long Town Centre. No visitors are allowed.

4 TRAFFIC FORECAST AND ASSESSMENT

4.1 Forecasting Methodology

4.1.1 The proposed development is anticipated to commence in 2027. A design year is set at 3 years after the commencement (i.e. 2030) to assess the traffic impact on the identified junctions upon completion of the development.

4.1.2 The traffic forecast on traffic growth within the study area is conducted based on:

- The available traffic data published in the Annual Traffic Census (ATC) report by Transport Department (TD); and/or
- The available planning data published in the 2019-based Territorial Population and Employment Data Matrix (TPEDM) from Planning Department (PlanD) Website.

Traffic Data

4.1.3 Historical traffic data for the surrounding road links are based on the Annual Average Daily Traffic (AADT) figures extracted from the ATC. The relevant AADT data from 2019 to 2023 are summarized in **Table 4.1**.

Table 4.1: AADT at Counting Stations Extracted from ATC for 2019-2023

Station No.	Road Name	2019	2020	2021	2022	2023
5894	Yuen Long Highway (Shap Pat Heung INT to Tong Yan San Tsuen INT)	86,540	82,380	86,740	90,880	96,570
6095	Yuen Long Highway (Tong Yan San Tsuen INT to Hung Tin Rd INT)	92,140	87,710	91,980	99,080	108,420
Total		**178,680**	**170,090**	**178,720**	**189,960**	**204,990**
Overall Growth Rate (% p.a.)		***+3.49%***				

Planning Data

4.1.4 Population and employment data are extracted from the 2021-based TPEDM. The relevant planning data/forecasts from 2021 to 2031 are summarized in **Table 4.2**.

Table 4.2: TPEDM Population and Employment Forecast

District/Year		2021	2026	2031
Yuen Long	Population + Employment	820,950	923,500	1,018,800
Annual Growth Rate (%)		***+2.38%***		***+1.98%***

Adopted Growth Rate

4.1.5 Upon reviewing the AADT traffic data from the ATC and the planning data forecast from the TPEDM, it is proposed to adopt an annual growth rate of +3.49% p.a. from 2025 to 2030 for the future year traffic forecast, as a conservative approach.

4.2 Planned/Committed Developments

4.2.1 The planned/committed developments within/adjacent to the AOI have been included in the assessment for the cumulative traffic impact at the design year.

4.2.2 A list of the existing and other proposed major developments/infrastructures in the vicinity are provided in **Table 4.3**.

Table 4.3: Summary of Planned/Committed Developments in the Vicinity

Development	No. of Flats	Completion Year
Proposed Public Housing Development at Long Bin, Yuen Long (Phase 1)	About 3,080	2025

4.2.3 The forecasted traffic flows for the concerned junctions under the Reference Scenario are presented in **Appendix A**.

4.3 Development Traffic

4.3.1 The anticipated traffic flows generated from/ attracted to the proposed development are based on the Applicant's practical operational experience and are summarized in **Table 4.4**.

Table 4.4: Anticipated Trips from Proposed Development on Weekdays

Time Period	Anticipated Trips
AM	• Staff private car to proposed RCHD • Shuttle bus departs from proposed RCHD to sheltered workshop & hospital and returns to proposed RCHD
PM	• Shuttle bus departs from proposed RCHD to sheltered workshop & hospital and returns to proposed RCHD • Staff private car departs from proposed RCHD

4.3.2 For conservative purposes, the anticipated traffic flows generated from/ attracted to the proposed development are taken as 5 pcu (one-way) during peak hours.

4.3.3 Apart from the vehicle trips listed in **Table 4.4**, no additional traffic is expected to be generated from/ attracted to the proposed development under normal operating practices as no visitors are allowed. It is also not expected that traffic flows will be generated from/ attracted to the proposed development on weekends.

4.4 Traffic Impact Assessment

Future Year Capacity Assessment of Key Junctions

4.4.1 The future year capacity assessment of key junctions was conducted for both the Reference Scenario and Design Scenario during the AM and PM peak periods, and the assessment results are summarized in **Table 4.5.**

Table 4.5: 2030 Future Year Capacity Assessment of Key Junctions for Peak Hours

No.	Junction	Type			DFC (1)			
					2030 Reference		2030 Design	
					AM Peak	PM Peak	AM Peak	PM Peak
J1	Shan Ha Road / Unnamed Access Road	Priority	0.06	0.05	0.07		0.07	
J2	Shan Ha Road / Tong Yan San Tsuen Interchange	Priority	1.27	1.35	1.27		1.35	
J3	Slip Road from Shan Ha Road / Slip Road from Long Tin Road SB	Priority	0.83	0.52	0.84		0.52	

Note:
(1) DFC refers to design flow to capacity ratio, which is an indicator of the operational performance at a roundabout/priority junction.

4.4.2 The future year capacity assessment of key junctions as enclosed in **Appendix B** indicates that under both the Reference Scenario and Design Scenario, J1 and J3 will operate satisfactorily within their capacities while J2 will operate beyond its capacity.

4.4.3 With comparison of the assessment results of the Reference Scenario (without development traffic) and Design Scenario (with development traffic), it is revealed that there will be a minimal reduction in capacity for the assessed junctions including J2. The reduction in junction capacity for J2, as compared to the baseline condition, is mainly attributed to the growth in background traffic instead of the traffic induced by the proposed development.

Review on Situation of Yuen Long South Development in the Vicinity

4.4.4 It is also noted from the information available in the public domain that Yuen Long South Development will carry out a series of road upgrading works at Shan Ha Road and Tong Yan San Tsuen Interchange. According to Legco Paper PWSC (2022-23) 6, the mentioned road upgrading works are covered under the "First Phase Development" (Stage 1 and Stage 2A Works), for which the programme of completion is yet to be confirmed.

4.4.5 At the same time, the proposed developments (other than roadworks for Tong Yan San Tsuen Interchange and Shan Ha Road) at Yuen Long South in the vicinity of the Site are under the "Third Phase Development", which is being studied under an intensification review.

4.4.6 As such, it is anticipated that in case the Yuen Long South's roadworks in the vicinity have been completed by the assessment year 2030, the traffic conditions of J1, J2 and J3 will be better than that assessed in **Table 4.5** (based on the existing road configuration). In such case, the traffic impact of the proposed development will still be acceptable from a traffic engineering viewpoint.

5 SUMMARY AND CONCLUSION

5.1 Summary

Proposed Development

5.1.1 The Applicant proposes to develop a Residential Care Home for Persons with Disabilities (RCHD) with a maximum of 90 beds.

5.1.2 There are no specific guidelines on the provision of parking spaces in accordance with the HKPSG for the proposed type of development. A total of 2 private car parking spaces and 1 loading and unloading bay for LGV are proposed to meet the operational needs.

Existing Traffic Conditions

5.1.3 The base year capacity assessment of key junctions indicates that J1 and J3 operate within their capacities while J2 operates beyond its capacity during the AM and PM peak periods.

Proposed Operational Traffic Arrangements

5.1.4 Taking account of the nature of the proposed RCHD, the traffic induced by the development is daily operational trips generated by and attracted to the proposed development, including the staff private car and shuttle bus to/ from the Site.

Traffic Forecast and Assessment

5.1.5 It is anticipated that the Site will be fully developed by 2027. A design year is set at 2030 (i.e. 3 years after the completion) for the traffic forecast.

5.1.6 A set of traffic forecasts on the following has been prepared:

- traffic growth within the study area (traffic growth factor with reference to the ATC reports);
- traffic generated by the existing and other proposed major developments/infrastructures within the study area;
- traffic generated from the development.

5.1.7 For the assessment of the cumulative traffic impact at the design year, the anticipated traffic flows generated from/ attracted to the proposed development are taken as 5 pcu (one-way) during peak hours.

5.1.8 The assessment results indicate that under both the Reference Scenario and Design Scenario, J1 and J3 will operate within their capacities while J2 will operate beyond its capacity.

5.1.9 Traffic induced by the proposed development is expected to cause minimal reduction in the capacity of all assessed junctions.

5.2 Conclusion

5.2.1 The findings of this TIA study suggest that the negligible development traffic will not cause adverse traffic impact on the local road network.

5.2.2 The proposed development is therefore supported from a traffic engineering viewpoint at this stage.

Figures

LAM HAU TSUEN

SHAN HA ROAD

露天貨倉
Open Storage

骨殖甕
Graves

LEGENDS:

SITE BOUNDARY

0 10 20 30 40 50
METRES
1 : 500 @ A1

Job Title
PROPOSED RCHD (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES) AT FORMER WA FUNG SCHOOL, LAM HAU TSUEN, YUEN LONG, NEW TERRITORIES

Drawing no.
FIGURE 1.1

Date	Scale	Drawing Title
MAR 2025	1 : 500 @ A1	LOCATION PLAN
Drawn	Job No.	
WTL	601100775	

MOTT MACDONALD

C:\Users\LAM10227\OneDrive - Mott MacDonald\Desktop\jobs\601100775 Rehab centre at ex-Wa Fung School\Drawing\Fig 1.1.dgn

LEGENDS:

- SITE BOUNDARY
- PARKING SPACE
- LOADING & UNLOADING AREA

Job Title: PROPOSED RCHD (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES) AT FORMER WA FUNG SCHOOL, LAM HAU TSUEN, YUEN LONG, NEW TERRITORIES		Drawing no.: FIGURE 2.1
Date: MAR 2025	Scale: 1 : 250 @ A1	Drawing Title: LAYOUT OF PARKING AND LGV LOADING & UNLOADING SPACE
Drawn: WTL	Job No.: 601100775	

MOTT MACDONALD

C:\Users\LAM10227\OneDrive - Mott MacDonald\Desktop\jobs\601100775 Rehab centre at ex-Wa Fung School\Drawing\Fig 2.1.dgn

LEGENDS:

SITE BOUNDARY

7m LIGHT GOODS VEHICLE

0 5 10 15 20 25

METRES

1 : 250 @ A1

Job Title

PROPOSED RCHD (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES) AT FORMER WA FUNG SCHOOL, LAM HAU TSUEN, YUEN LONG, NEW TERRITORIES

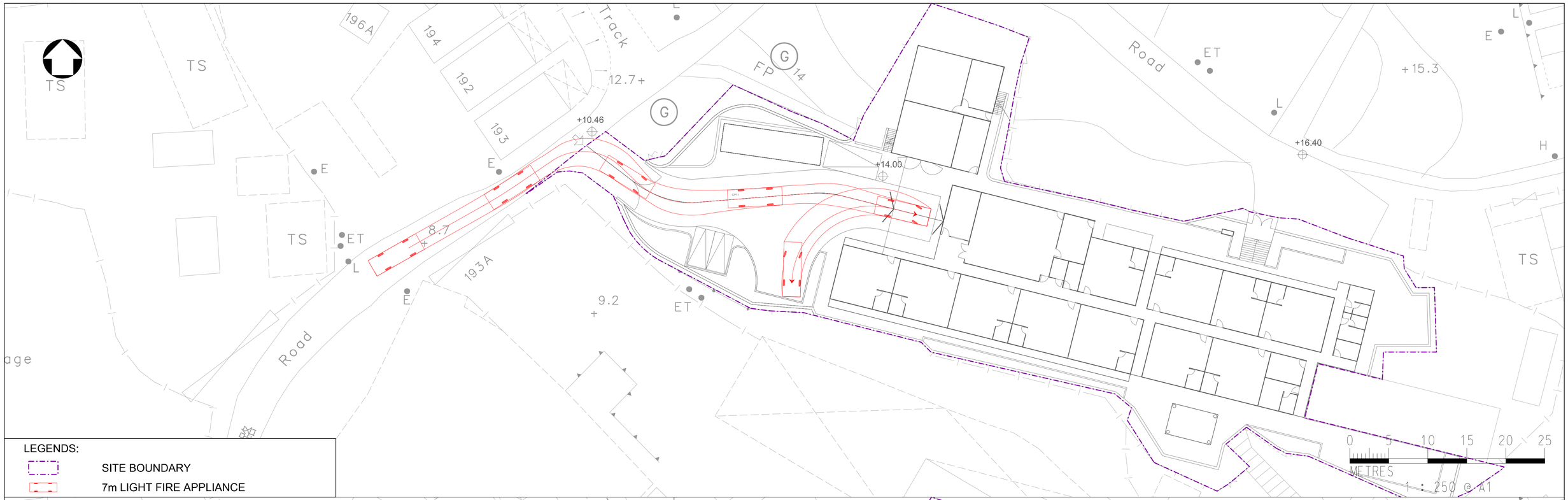
Drawing no.

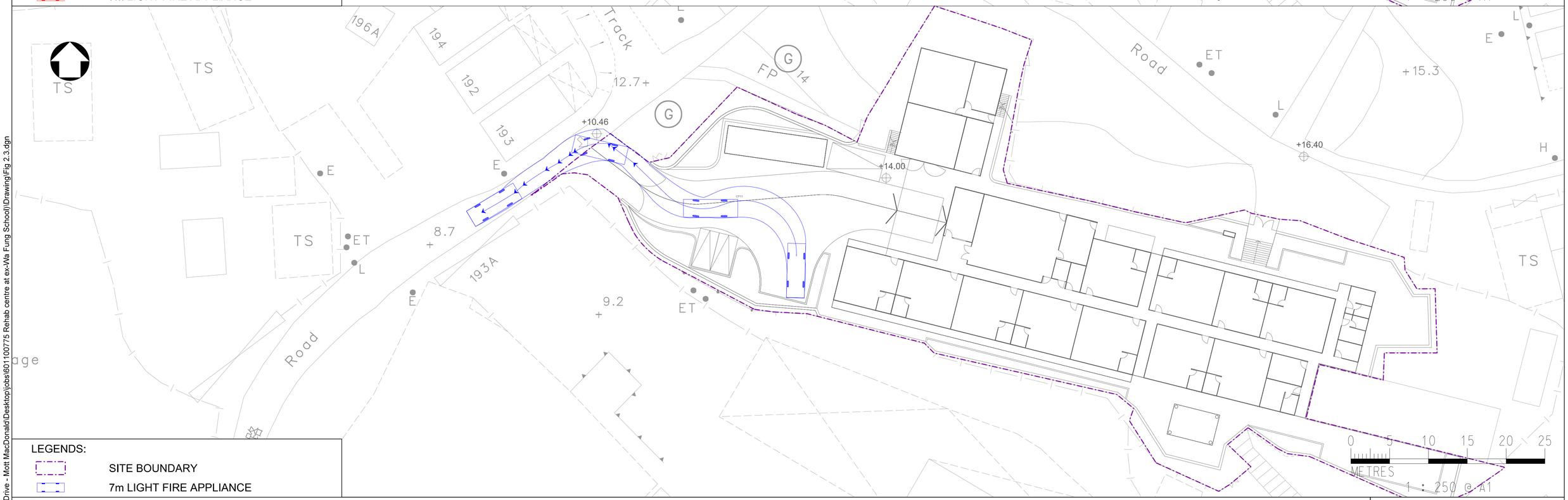
FIGURE 2.2

Date	Scale	Drawing Title
MAR 2025	1 : 250 @ A1	SWEPT PATH ANALYSIS OF 7m LIGHT GOODS VEHICLE FOR THE PROPOSED VEHICULAR ACCESS
Drawn	Job No.	
WTL	601100775	

MOTT MACDONALD

C:\Users\LAM102274\OneDrive - Mott MacDonald\Desktop\jobs\601100775 Rehab centre at ex-Wa Fung School\Drawing\Fig 2.6.dgn





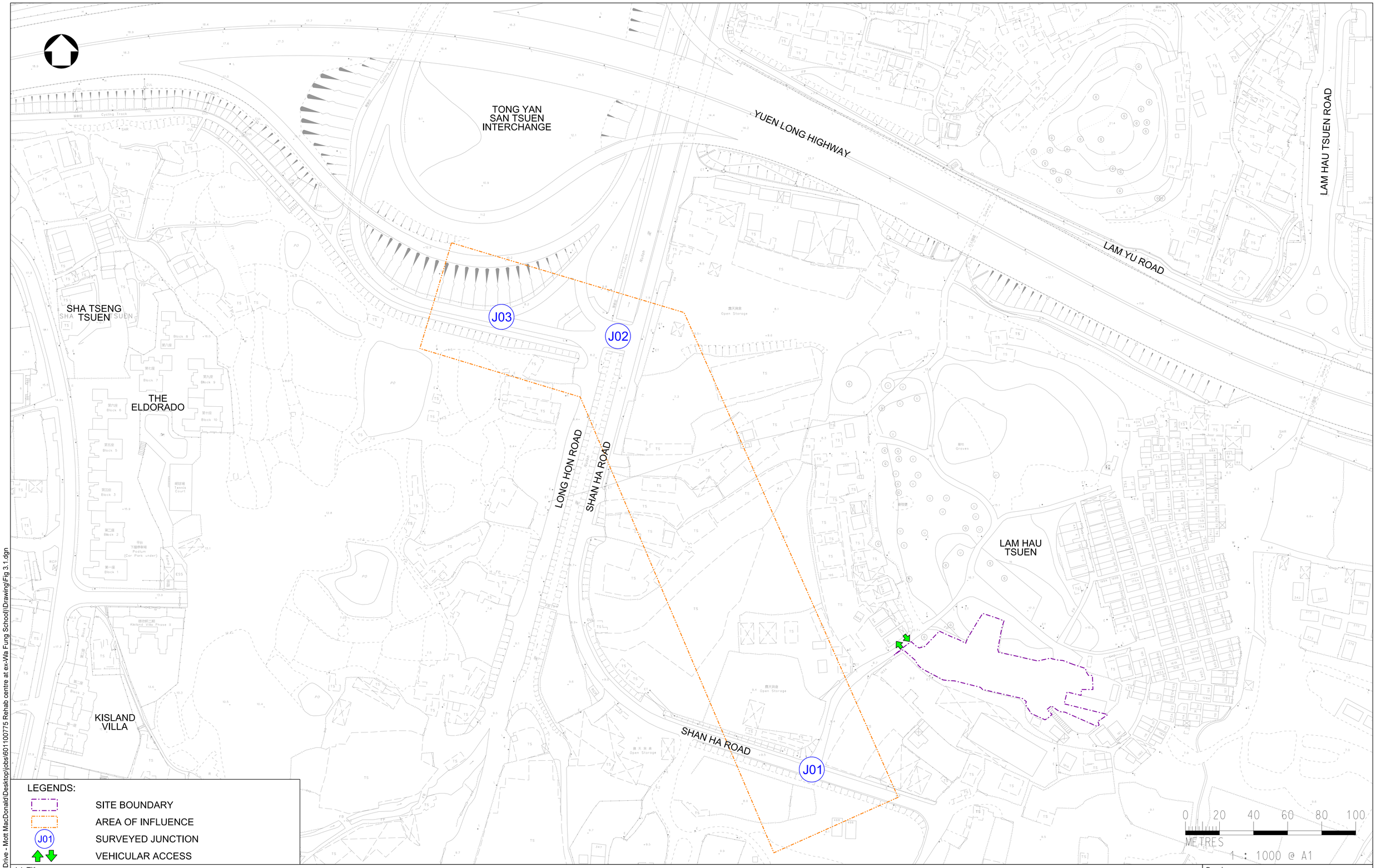
C:\Users\LAM102274\OneDrive - Mott MacDonald\Desktop\jobs\601100775 Rehab centre at ex-Wa Fung School\Drawing\Fig 2.3.dgn

Job Title
PROPOSED RCHD (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES) AT FORMER WA FUNG SCHOOL, LAM HAU TSUEN, YUEN LONG, NEW TERRITORIES

Drawing no.
FIGURE 2.3

Date	Scale	Drawing Title
MAR 2025	1 : 250 @ A1	SWEPT PATH ANALYSIS OF 7m LIGHT FIRE APPLIANCE FOR THE PROPOSED VEHICULAR ACCESS
Drawn	Job No.	
WTL	601100775	

MOTT MACDONALD



C:\Users\LAM10227\OneDrive - Mott MacDonald\Desktop\jobs\601100775 Rehab centre at ex-Wa Fung School\Drawing\Fig 3.1.dgn

Job Title
PROPOSED RCHD (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES) AT FORMER WA FUNG SCHOOL, LAM HAU TSUEN, YUEN LONG, NEW TERRITORIES

Drawing no.
FIGURE 3.1

Date	Scale	Drawing Title
MAR 2025	1 : 1000 @ A1	AREA OF INFLUENCE AND KEY JUNCTIONS
Drawn	Job No.	
WTL	601100775	

MOTT MACDONALD

SAN HI TSUEN STREET
CURIO COURT
MA FUNG LING ROAD
JASPER COURT
LONG TIN ROAD
SHAN HA ROAD
PARKSIDE VILLA
GREENERY PLACE
EMERALD GREEN
FUNG YU ROAD
YUEN LONG TAI YUK ROAD
SILVER FIELD GARDEN
MA TIN VILLAGE
YUEN LONG VILLA
LAM HAU YUEN
LUNG TIN TSUEN
SHAP PAT HEUNG ROAD
YUEN LONG HIGHWAY
TONG YAN SAN TSUEN INTERCHANGE
LAM HAU TSUEN ROAD
LA GROVE
LAM YU ROAD
PARK SIGNATURE
KUNG UM ROAD
KIU HING ROAD
MA TIN POK
TONG YAN SAN TSUEN ROAD
SHA TSENG TSUEN
THE ELDORADO
LAM HI ROAD
LONG HON ROAD
SHAN HA ROAD
LAM HAU TSUEN
YUEN LONG HIGHWAY
TONG YAN SAN TSUEN
KISLAND VILLA
SHA TSENG ROAD
GREENVILLE RESIDENCE
WINDSOR VILLA
TONG YAN SAN TSUEN ROAD
604
THE PARKHILL
SHAN HA TSUEN
TIN LIU TSUEN
QUEEN'S PARK
KUNG UM ROAD
KIU HING ROAD
LAM TAI WEST ROAD
LAM TAI EAST ROAD
CHUN FAI GARDEN

LEGENDS:

- SITE BOUNDARY
- 500m CATCHMENT
- EXISTING GMB STOP

0 50 100 150 200 250
METRES
1 : 2500 @ A1

Job Title
PROPOSED RCHD (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES) AT FORMER WA FUNG SCHOOL, LAM HAU TSUEN, YUEN LONG, NEW TERRITORIES

Drawing no.
FIGURE 3.2

Date	Scale	Drawing Title
MAR 2025	1 : 2500 @ A1	EXISTING PUBLIC TRANSPORT FACILITIES IN THE VICINITY
Drawn	Job No.	
WTL	601100775	

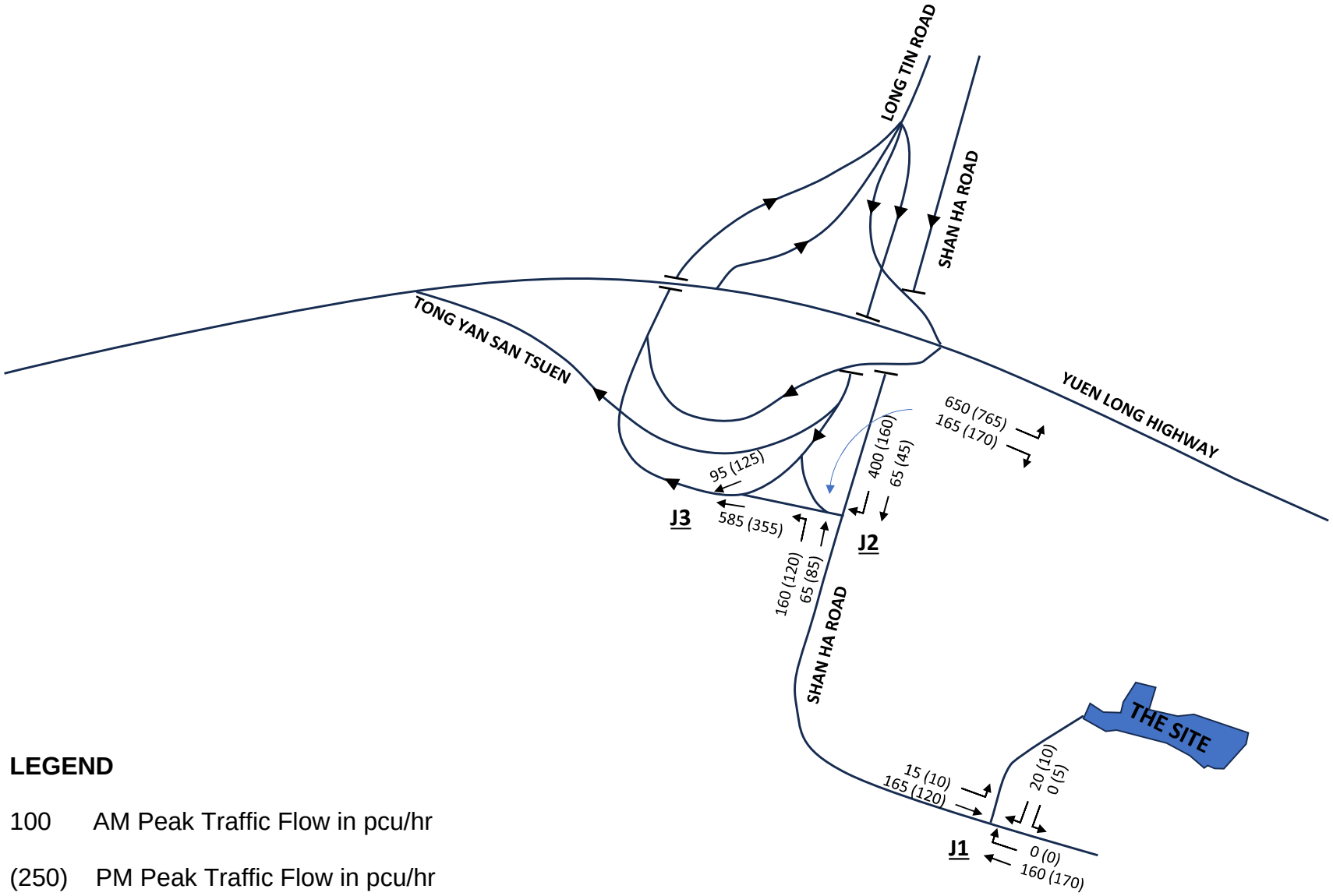
MOTT MACDONALD

C:\Users\LAM102274\OneDrive - Mott MacDonald\Desktop\jobs\601100775 Rehab centre at ex-Wa Fung School\Drawing\Fig 3.3.dgn

Appendix A

Traffic Flow Diagrams

Appendix A - 2025 Observed Traffic Flows (Peak)

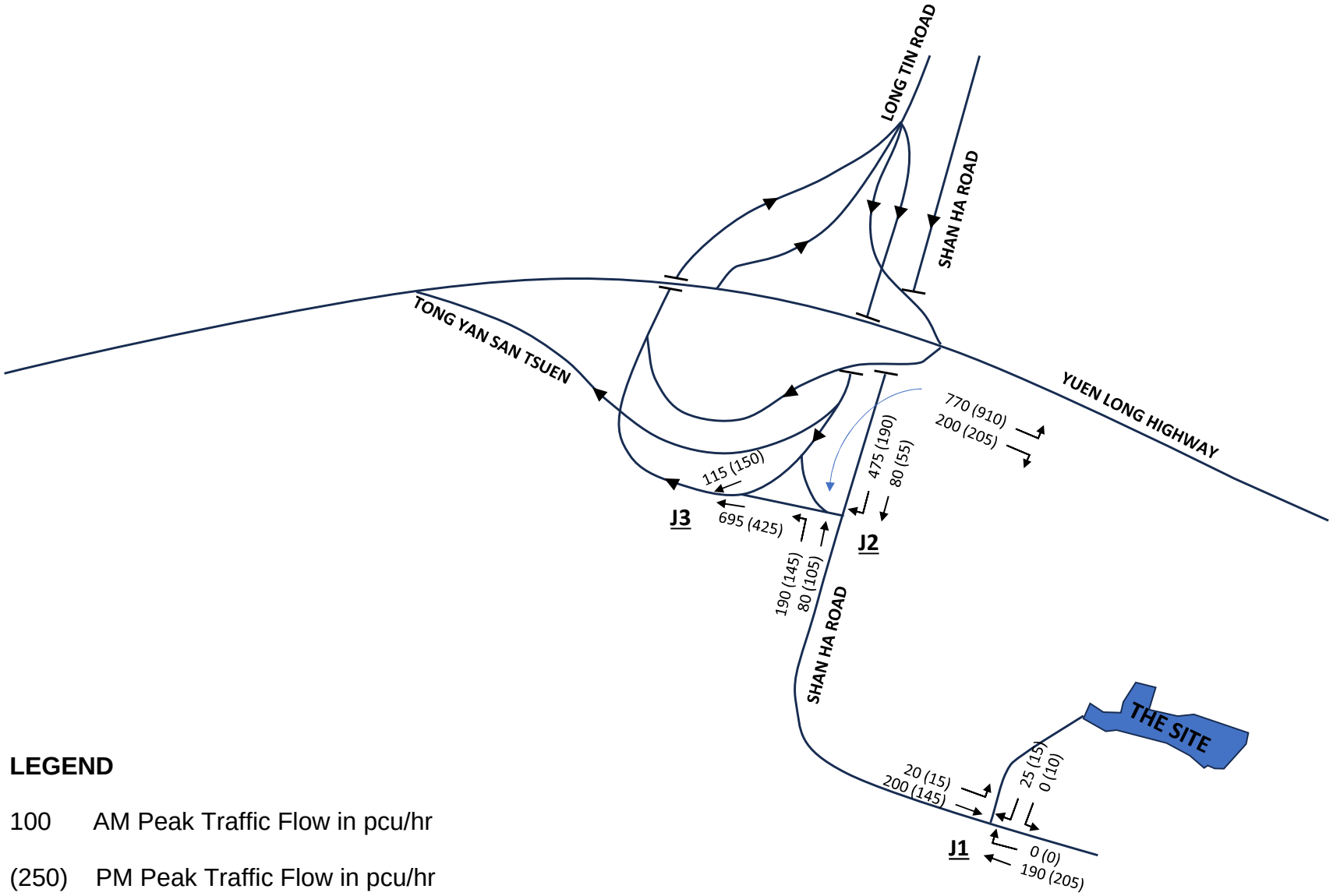


LEGEND

100 AM Peak Traffic Flow in pcu/hr

(250) PM Peak Traffic Flow in pcu/hr

Appendix A - 2030 Reference Traffic Flows (Peak)

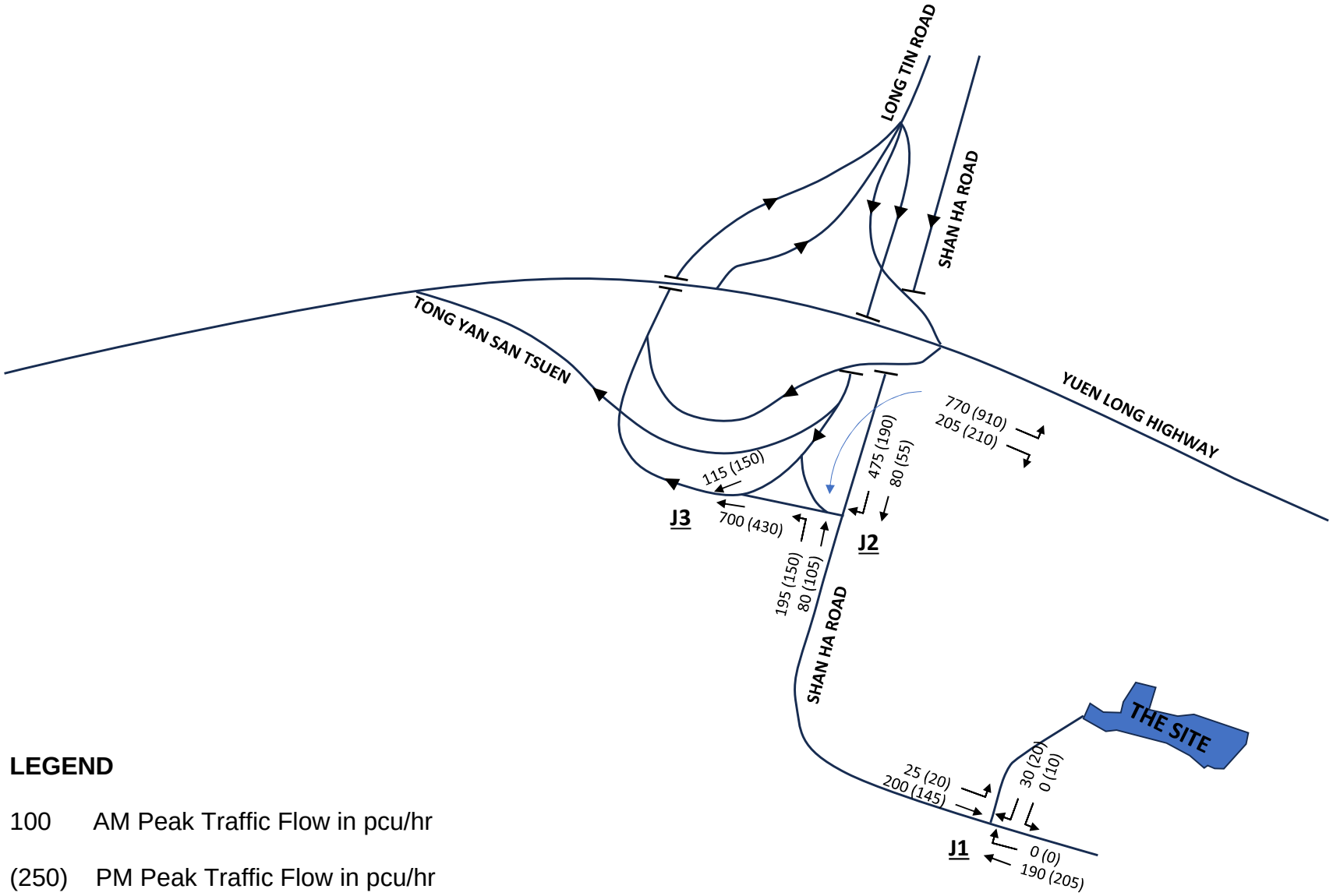


LEGEND

100 AM Peak Traffic Flow in pcu/hr

(250) PM Peak Traffic Flow in pcu/hr

Appendix A - 2030 Design Traffic Flows (Peak)



LEGEND

100 AM Peak Traffic Flow in pcu/hr

(250) PM Peak Traffic Flow in pcu/hr

Appendix B

Junction Calculation Sheets

DESIGN SHEET - PRIORITY JUNCTION CAPACITY

Job No.: _____

Junction: J1 - Shan Ha Road / Unnamed Access Road — Design Year: 2025

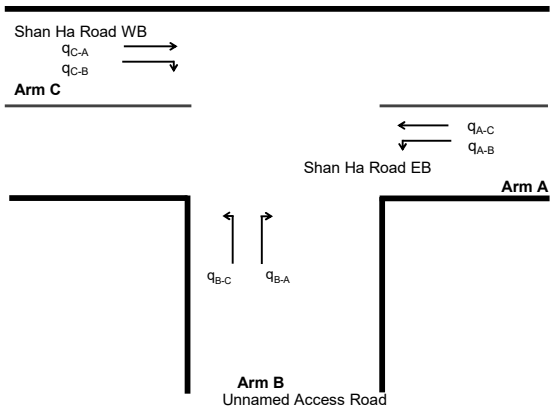
Description: 2025 Baseline Traffic Condition (Peak) — Designed By: — Checked By:

Approach Arms

Arm A : Shan Ha Road EB

Arm B : Unnamed Access Road

Arm C : Shan Ha Road WB



Design Flow

		AM Peak	PM Peak
q_{A-C}	=	165	120
q_{A-B}	=	15	10
q_{B-A}	=	20	10
q_{B-C}	=	0	5
q_{C-A}	=	160	170
q_{C-B}	=	0	0

Geometric Configurations

W =	major road width	=	6
W_{CR} =	central reserve width	=	0
W_{B-A} =	lane width available to vehicle waiting in stream B-A	=	2.5
W_{B-C} =	lane width available to vehicle waiting in stream B-C	=	2.5
W_{C-B} =	lane width available to vehicle waiting in stream C-B	=	0
V_{rB-A} =	visibility to the right for vehicles waiting in stream B-A	=	30
V_{rB-C} =	visibility to the right for vehicles waiting in stream B-C	=	30
V_{rC-B} =	visibility to the right for vehicles waiting in stream C-B	=	30
V_{lB-A} =	visibility to the left for vehicles waiting in stream B-A	=	25

Capacity Assessment

			AM Peak	PM Peak
$D = [1 + 0.094(w_{B-A} - 3.65)] [1 + 0.0009(V_{rB-A} - 120)] [1 + 0.0006(V_{lB-A} - 150)]$		=	0.76	
$E = [1 + 0.094(w_{B-C} - 3.65)] [1 + 0.0009(V_{rB-C} - 120)]$		=	0.82	
$F = [1 + 0.094(w_{C-B} - 3.65)] [1 + 0.0009(V_{rC-B} - 120)]$		=	0.60	
$Y = (1 - 0.0345W)$		=	0.79	
			AM Peak	**PM Peak**
f = proportion of minor road traffic turning left		=	0.00	0.33
$Q_{B-A} = D [627 + 14W_{CR} - Y (0.364q_{A-C} + 0.144q_{A-B} + 0.229q_{C-A} + 0.52q_{C-B})]$		=	416	425
$RFC_{B-A} = q_{B-A}/Q_{B-A}$		=	0.05	0.02
$Q_{B-C} = E [745 - Y(0.364q_{A-C} + 0.144q_{A-B})]$		=	570.20	581
$RFC_{B-C} = q_{B-C}/Q_{B-C}$		=	N/A	0.01
$Q_{C-B} = F [745 - 0.364Y(q_{A-C} + q_{A-B})]$		=	418.38	427.10
$RFC_{C-B} = q_{C-B}/Q_{C-B}$		=	N/A	N/A
$Q_{B-AC} = (Q_{B-C})(Q_{B-A})/[(1-f)(Q_{B-C})+(f)(Q_{B-A})]$		=	416	467
$RFC_{B-AC} = (q_{B-A} + q_{B-C}) / Q_{B-AC}$		=	0.05	0.03

Results Summary

		AM	PM
RFC_{B-A}	=	**0.05**	**0.02**
RFC_{B-C}	=	**N/A**	**0.01**
RFC_{C-B}	=	**N/A**	**N/A**
RFC_{B-AC}	=	**0.05**	**0.03**

DESIGN SHEET - PRIORITY JUNCTION CAPACITY

Job No.: _____

Junction: J2 - Shan Ha Road / Tong Yan San Tsuen Interchange — Design Year: 2025

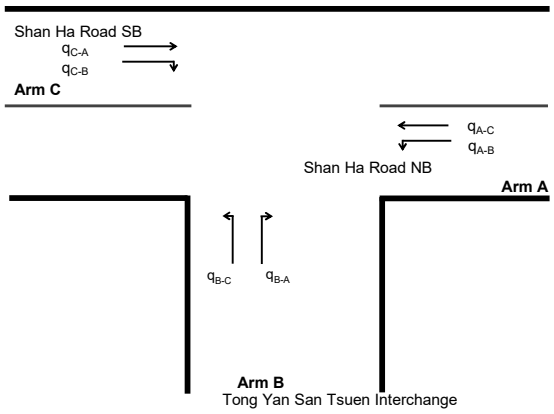
Description: 2025 Baseline Traffic Condition (Peak) — Designed By: — Checked By:

Approach Arms

Arm A : Shan Ha Road NB

Arm B : Tong Yan San Tsuen Interchange

Arm C : Shan Ha Road SB



Design Flow

		AM Peak	PM Peak
q_{A-C}	=	65	85
q_{A-B}	=	160	120
q_{B-A}	=	165	170
q_{B-C}	=	650	765
q_{C-A}	=	65	45
q_{C-B}	=	400	160

Geometric Configurations

W =	major road width	=	7
W_{CR} =	central reserve width	=	0
W_{B-A} =	lane width available to vehicle waiting in stream B-A	=	6
W_{B-C} =	lane width available to vehicle waiting in stream B-C	=	6
W_{C-B} =	lane width available to vehicle waiting in stream C-B	=	3.5
V_{rB-A} =	visibility to the right for vehicles waiting in stream B-A	=	150
V_{rB-C} =	visibility to the right for vehicles waiting in stream B-C	=	150
V_{rC-B} =	visibility to the right for vehicles waiting in stream C-B	=	40
V_{lB-A} =	visibility to the left for vehicles waiting in stream B-A	=	250

Capacity Assessment

$D = [1 + 0.094(w_{B-A} - 3.65)] [1 + 0.0009(V_{rB-A} - 120)] [1 + 0.0006(V_{lB-A} - 150)]$	=	1.33	
$E = [1 + 0.094(w_{B-C} - 3.65)] [1 + 0.0009(V_{rB-C} - 120)]$	=	1.25	
$F = [1 + 0.094(w_{C-B} - 3.65)] [1 + 0.0009(V_{rC-B} - 120)]$	=	0.91	
$Y = (1 - 0.0345W)$	=	0.76	
		AM Peak	**PM Peak**
f = proportion of minor road traffic turning left	=	0.80	0.82
$Q_{B-A} = D [627 + 14W_{CR} - Y (0.364q_{A-C} + 0.144q_{A-B} + 0.229q_{C-A} + 0.52q_{C-B})]$	=	562	690
$RFC_{B-A} = q_{B-A}/Q_{B-A}$	=	0.29	0.25
$Q_{B-C} = E [745 - Y(0.364q_{A-C} + 0.144q_{A-B})]$	=	889.71	888
$RFC_{B-C} = q_{B-C}/Q_{B-C}$	=	0.73	0.86
$Q_{C-B} = F [745 - 0.364Y(q_{A-C} + q_{A-B})]$	=	624.78	629.83
$RFC_{C-B} = q_{C-B}/Q_{C-B}$	=	0.64	0.25
$Q_{B-AC} = (Q_{B-C})(Q_{B-A})/[(1-f)(Q_{B-C})+(f)(Q_{B-A})]$	=	796	844
$RFC_{B-AC} = (q_{B-A} + q_{B-C}) / Q_{B-AC}$	=	1.02	1.11

Results Summary

		AM	PM
RFC_{B-A}	=	**0.29**	**0.25**
RFC_{B-C}	=	**0.73**	**0.86**
RFC_{C-B}	=	**0.64**	**0.25**
RFC_{B-AC}	=	**1.02**	**1.11**

DESIGN SHEET - PRIORITY JUNCTION CAPACITY

Job No.: _____

Junction: J3 - Slip Road from Shan Ha Road / Slip Road from Long Tin Road SB

Design Year: 2025

Description: 2025 Baseline Traffic Condition (Peak)

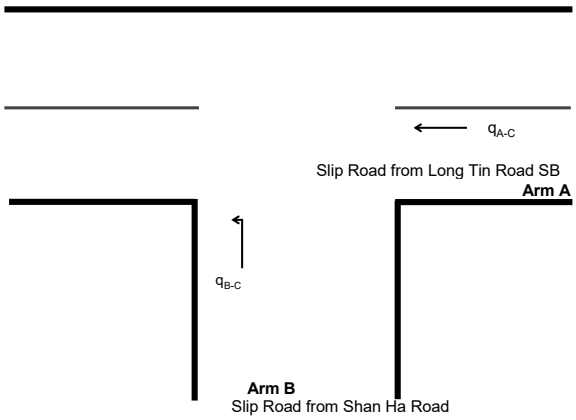
Designed By:

Checked By:

Approach Arms

Arm A : Slip Road from Long Tin Road SB

Arm B : Slip Road from Shan Ha Road



Design Flow

		AM Peak	PM Peak
q_{A-C}	=	95	125
q_{B-C}	=	585	355

Geometric Configurations

W =	major road width	=	5.5
W_{CR} =	central reserve width	=	0
W_{B-A} =	lane width available to vehicle waiting in stream B-A	=	0
W_{B-C} =	lane width available to vehicle waiting in stream B-C	=	5.5
W_{C-B} =	lane width available to vehicle waiting in stream C-B	=	0
V_{rB-A} =	visibility to the right for vehicles waiting in stream B-A	=	120
V_{rB-C} =	visibility to the right for vehicles waiting in stream B-C	=	120
V_{rC-B} =	visibility to the right for vehicles waiting in stream C-B	=	0
V_{lB-A} =	visibility to the left for vehicles waiting in stream B-A	=	0

Capacity Assessment

$D = [1 + 0.094(w_{B-A} - 3.65)] [1 + 0.0009(V_{rB-A} - 120)] [1 + 0.0006(V_{lB-A} - 150)]$	=	0.60	
$E = [1 + 0.094(w_{B-C} - 3.65)] [1 + 0.0009(V_{rB-C} - 120)]$	=	1.17	
$F = [1 + 0.094(w_{C-B} - 3.65)] [1 + 0.0009(V_{rC-B} - 120)]$	=	0.59	
$Y = (1 - 0.0345W)$	=	0.81	
		AM Peak	**PM Peak**
f = proportion of minor road traffic turning left	=	1.00	1.00
$Q_{B-A} = D [627 + 14W_{CR} - Y (0.364q_{A-C} + 0.144q_{A-B} + 0.229q_{C-A} + 0.52q_{C-B})]$	=	358	353
$RFC_{B-A} = q_{B-A}/Q_{B-A}$	=	N/A	N/A
$Q_{B-C} = E [745 - Y(0.364q_{A-C} + 0.144q_{A-B})]$	=	841.66	831
$RFC_{B-C} = q_{B-C}/Q_{B-C}$	=	0.70	0.43
$Q_{C-B} = F [745 - 0.364Y(q_{A-C} + q_{A-B})]$	=	420.12	414.93
$RFC_{C-B} = q_{C-B}/Q_{C-B}$	=	N/A	N/A
$Q_{B-AC} = (Q_{B-C})(Q_{B-A})/[(1-f)(Q_{B-C})+(f)(Q_{B-A})]$	=	842	831
$RFC_{B-AC} = (q_{B-A} + q_{B-C}) / Q_{B-AC}$	=	0.70	0.43

Results Summary

		AM	PM
RFC_{B-A}	**=**	**N/A**	**N/A**
RFC_{B-C}	**=**	**0.70**	**0.43**
RFC_{C-B}	**=**	**N/A**	**N/A**
RFC_{B-AC}	**=**	**0.70**	**0.43**

DESIGN SHEET - PRIORITY JUNCTION CAPACITY

Job No.: _____

Junction: J1 - Shan Ha Road / Unnamed Access Road — Design Year: 2025

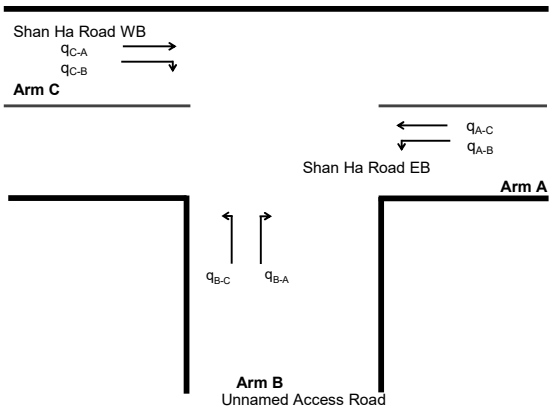
Description: 2030 Reference Scenario (Peak) — Designed By: — Checked By:

Approach Arms

Arm A : Shan Ha Road EB

Arm B : Unnamed Access Road

Arm C : Shan Ha Road WB



Design Flow

		AM Peak	PM Peak
q_{A-C}	=	200	145
q_{A-B}	=	20	15
q_{B-A}	=	25	15
q_{B-C}	=	0	10
q_{C-A}	=	190	205
q_{C-B}	=	0	0

Geometric Configurations

W = major road width	=	6
W_{CR} = central reserve width	=	0
W_{B-A} = lane width available to vehicle waiting in stream B-A	=	2.5
W_{B-C} = lane width available to vehicle waiting in stream B-C	=	2.5
W_{C-B} = lane width available to vehicle waiting in stream C-B	=	0
V_{rB-A} = visibility to the right for vehicles waiting in stream B-A	=	30
V_{rB-C} = visibility to the right for vehicles waiting in stream B-C	=	30
V_{rC-B} = visibility to the right for vehicles waiting in stream C-B	=	30
V_{lB-A} = visibility to the left for vehicles waiting in stream B-A	=	25

Capacity Assessment

$D = [1 + 0.094(w_{B-A} - 3.65)] [1 + 0.0009(V_{rB-A} - 120)] [1 + 0.0006(V_{lB-A} - 150)]$	=	0.76	
$E = [1 + 0.094(w_{B-C} - 3.65)] [1 + 0.0009(V_{rB-C} - 120)]$	=	0.82	
$F = [1 + 0.094(w_{C-B} - 3.65)] [1 + 0.0009(V_{rC-B} - 120)]$	=	0.60	
$Y = (1 - 0.0345W)$	=	0.79	
		AM Peak	**PM Peak**
f = proportion of minor road traffic turning left	=	0.00	0.40
$Q_{B-A} = D [627 + 14W_{CR} - Y (0.364q_{A-C} + 0.144q_{A-B} + 0.229q_{C-A} + 0.52q_{C-B})]$	=	404	414
$RFC_{B-A} = q_{B-A}/Q_{B-A}$	=	0.06	0.04
$Q_{B-C} = E [745 - Y(0.364q_{A-C} + 0.144q_{A-B})]$	=	561.45	575
$RFC_{B-C} = q_{B-C}/Q_{B-C}$	=	N/A	0.02
$Q_{C-B} = F [745 - 0.364Y(q_{A-C} + q_{A-B})]$	=	411.41	421.87
$RFC_{C-B} = q_{C-B}/Q_{C-B}$	=	N/A	N/A
$Q_{B-AC} = (Q_{B-C})(Q_{B-A})/[(1-f)(Q_{B-C})+(f)(Q_{B-A})]$	=	404	466
$RFC_{B-AC} = (q_{B-A} + q_{B-C}) / Q_{B-AC}$	=	0.06	0.05

Results Summary

		AM	PM
RFC_{B-A}	=	**0.06**	**0.04**
RFC_{B-C}	=	**N/A**	**0.02**
RFC_{C-B}	=	**N/A**	**N/A**
RFC_{B-AC}	=	**0.06**	**0.05**

DESIGN SHEET - PRIORITY JUNCTION CAPACITY

Job No.: _____

Junction: J2 - Shan Ha Road / Tong Yan San Tsuen Interchange — Design Year: 2025

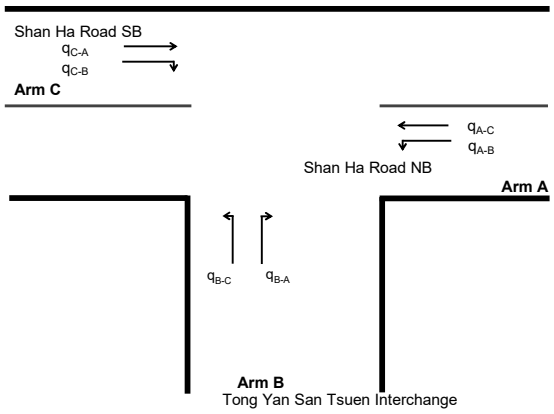
Description: 2030 Reference Scenario (Peak) — Designed By: — Checked By:

Approach Arms

Arm A : Shan Ha Road NB

Arm B : Tong Yan San Tsuen Interchange

Arm C : Shan Ha Road SB



Design Flow

		AM Peak	PM Peak
q_{A-C}	=	80	105
q_{A-B}	=	190	145
q_{B-A}	=	200	205
q_{B-C}	=	770	910
q_{C-A}	=	80	55
q_{C-B}	=	475	190

Geometric Configurations

W =	major road width	=	7
W_{CR} =	central reserve width	=	0
W_{B-A} =	lane width available to vehicle waiting in stream B-A	=	6
W_{B-C} =	lane width available to vehicle waiting in stream B-C	=	6
W_{C-B} =	lane width available to vehicle waiting in stream C-B	=	3.5
V_{rB-A} =	visibility to the right for vehicles waiting in stream B-A	=	150
V_{rB-C} =	visibility to the right for vehicles waiting in stream B-C	=	150
V_{rC-B} =	visibility to the right for vehicles waiting in stream C-B	=	40
V_{lB-A} =	visibility to the left for vehicles waiting in stream B-A	=	250

Capacity Assessment

$D = [1 + 0.094(w_{B-A} - 3.65)] [1 + 0.0009(V_{rB-A} - 120)] [1 + 0.0006(V_{lB-A} - 150)]$	=	1.33	
$E = [1 + 0.094(w_{B-C} - 3.65)] [1 + 0.0009(V_{rB-C} - 120)]$	=	1.25	
$F = [1 + 0.094(w_{C-B} - 3.65)] [1 + 0.0009(V_{rC-B} - 120)]$	=	0.91	
$Y = (1 - 0.0345W)$	=	0.76	
		AM Peak	**PM Peak**
f = proportion of minor road traffic turning left	=	0.79	0.82
$Q_{B-A} = D [627 + 14W_{CR} - Y (0.364q_{A-C} + 0.144q_{A-B} + 0.229q_{C-A} + 0.52q_{C-B})]$	=	509	661
$RFC_{B-A} = q_{B-A}/Q_{B-A}$	=	0.39	0.31
$Q_{B-C} = E [745 - Y(0.364q_{A-C} + 0.144q_{A-B})]$	=	880.41	878
$RFC_{B-C} = q_{B-C}/Q_{B-C}$	=	0.87	1.04
$Q_{C-B} = F [745 - 0.364Y(q_{A-C} + q_{A-B})]$	=	613.41	618.46
$RFC_{C-B} = q_{C-B}/Q_{C-B}$	=	0.77	0.31
$Q_{B-AC} = (Q_{B-C})(Q_{B-A})/[(1-f)(Q_{B-C})+(f)(Q_{B-A})]$	=	765	828
$RFC_{B-AC} = (q_{B-A} + q_{B-C}) / Q_{B-AC}$	=	1.27	1.35

Results Summary

		AM	PM
RFC_{B-A}	=	**0.39**	**0.31**
RFC_{B-C}	=	**0.87**	**1.04**
RFC_{C-B}	=	**0.77**	**0.31**
RFC_{B-AC}	=	**1.27**	**1.35**

DESIGN SHEET - PRIORITY JUNCTION CAPACITY

Job No.: _____

Junction: J3 - Slip Road from Shan Ha Road / Slip Road from Long Tin Road SB

Design Year: 2025

Description: 2030 Reference Scenario (Peak)

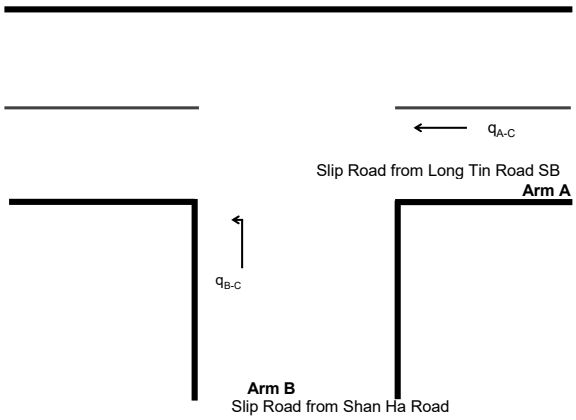
Designed By:

Checked By:

Approach Arms

Arm A : Slip Road from Long Tin Road SB

Arm B : Slip Road from Shan Ha Road



Design Flow

		AM Peak	PM Peak
q_{A-C}	=	115	150
q_{B-C}	=	695	425

Geometric Configurations

W =	major road width	=	5.5
W_{CR} =	central reserve width	=	0
W_{B-A} =	lane width available to vehicle waiting in stream B-A	=	0
W_{B-C} =	lane width available to vehicle waiting in stream B-C	=	5.5
W_{C-B} =	lane width available to vehicle waiting in stream C-B	=	0
V_{rB-A} =	visibility to the right for vehicles waiting in stream B-A	=	120
V_{rB-C} =	visibility to the right for vehicles waiting in stream B-C	=	120
V_{rC-B} =	visibility to the right for vehicles waiting in stream C-B	=	0
V_{lB-A} =	visibility to the left for vehicles waiting in stream B-A	=	0

Capacity Assessment

$D = [1 + 0.094(w_{B-A} - 3.65)] [1 + 0.0009(V_{rB-A} - 120)] [1 + 0.0006(V_{lB-A} - 150)]$	=	0.60	
$E = [1 + 0.094(w_{B-C} - 3.65)] [1 + 0.0009(V_{rB-C} - 120)]$	=	1.17	
$F = [1 + 0.094(w_{C-B} - 3.65)] [1 + 0.0009(V_{rC-B} - 120)]$	=	0.59	
$Y = (1 - 0.0345W)$	=	0.81	
		AM Peak	**PM Peak**
f = proportion of minor road traffic turning left	=	1.00	1.00
$Q_{B-A} = D [627 + 14W_{CR} - Y (0.364q_{A-C} + 0.144q_{A-B} + 0.229q_{C-A} + 0.52q_{C-B})]$	=	355	348
$RFC_{B-A} = q_{B-A}/Q_{B-A}$	=	N/A	N/A
$Q_{B-C} = E [745 - Y(0.364q_{A-C} + 0.144q_{A-B})]$	=	834.74	823
$RFC_{B-C} = q_{B-C}/Q_{B-C}$	=	0.83	0.52
$Q_{C-B} = F [745 - 0.364Y(q_{A-C} + q_{A-B})]$	=	416.66	410.61
$RFC_{C-B} = q_{C-B}/Q_{C-B}$	=	N/A	N/A
$Q_{B-AC} = (Q_{B-C})(Q_{B-A})/[(1-f)(Q_{B-C})+(f)(Q_{B-A})]$	=	835	823
$RFC_{B-AC} = (q_{B-A} + q_{B-C}) / Q_{B-AC}$	=	0.83	0.52

Results Summary

		AM	PM
RFC_{B-A}	**=**	**N/A**	**N/A**
RFC_{B-C}	**=**	**0.83**	**0.52**
RFC_{C-B}	**=**	**N/A**	**N/A**
RFC_{B-AC}	**=**	**0.83**	**0.52**

DESIGN SHEET - PRIORITY JUNCTION CAPACITY

Job No.: _____

Junction: J1 - Shan Ha Road / Unnamed Access Road — Design Year: 2025

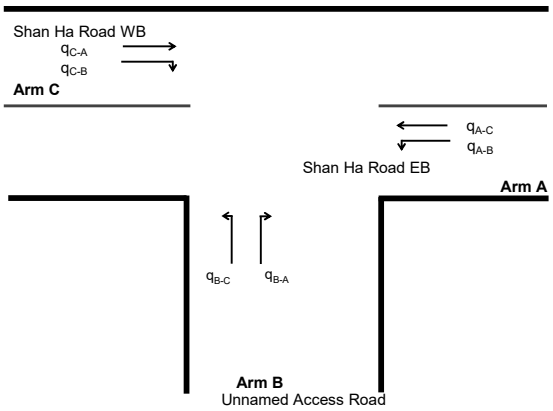
Description: 2030 Design Scenario (Peak) — Designed By: — Checked By:

Approach Arms

Arm A : Shan Ha Road EB

Arm B : Unnamed Access Road

Arm C : Shan Ha Road WB



Design Flow

		AM Peak	PM Peak
q_{A-C}	=	200	145
q_{A-B}	=	25	20
q_{B-A}	=	30	20
q_{B-C}	=	0	10
q_{C-A}	=	190	205
q_{C-B}	=	0	0

Geometric Configurations

W =	major road width	=	6
W_{CR} =	central reserve width	=	0
W_{B-A} =	lane width available to vehicle waiting in stream B-A	=	2.5
W_{B-C} =	lane width available to vehicle waiting in stream B-C	=	2.5
W_{C-B} =	lane width available to vehicle waiting in stream C-B	=	0
V_{rB-A} =	visibility to the right for vehicles waiting in stream B-A	=	30
V_{rB-C} =	visibility to the right for vehicles waiting in stream B-C	=	30
V_{rC-B} =	visibility to the right for vehicles waiting in stream C-B	=	30
V_{lB-A} =	visibility to the left for vehicles waiting in stream B-A	=	25

Capacity Assessment

$D = [1 + 0.094(w_{B-A} - 3.65)] [1 + 0.0009(V_{rB-A} - 120)] [1 + 0.0006(V_{lB-A} - 150)]$	=	0.76	
$E = [1 + 0.094(w_{B-C} - 3.65)] [1 + 0.0009(V_{rB-C} - 120)]$	=	0.82	
$F = [1 + 0.094(w_{C-B} - 3.65)] [1 + 0.0009(V_{rC-B} - 120)]$	=	0.60	
$Y = (1 - 0.0345W)$	=	0.79	
		AM Peak	**PM Peak**
f = proportion of minor road traffic turning left	=	0.00	0.33
$Q_{B-A} = D [627 + 14W_{CR} - Y (0.364q_{A-C} + 0.144q_{A-B} + 0.229q_{C-A} + 0.52q_{C-B})]$	=	403	414
$RFC_{B-A} = q_{B-A}/Q_{B-A}$	=	0.07	0.05
$Q_{B-C} = E [745 - Y(0.364q_{A-C} + 0.144q_{A-B})]$	=	560.98	574
$RFC_{B-C} = q_{B-C}/Q_{B-C}$	=	N/A	0.02
$Q_{C-B} = F [745 - 0.364Y(q_{A-C} + q_{A-B})]$	=	410.54	421.00
$RFC_{C-B} = q_{C-B}/Q_{C-B}$	=	N/A	N/A
$Q_{B-AC} = (Q_{B-C})(Q_{B-A})/[(1-f)(Q_{B-C})+(f)(Q_{B-A})]$	=	403	456
$RFC_{B-AC} = (q_{B-A} + q_{B-C}) / Q_{B-AC}$	=	0.07	0.07

Results Summary

		AM	PM
RFC_{B-A}	=	**0.07**	**0.05**
RFC_{B-C}	=	**N/A**	**0.02**
RFC_{C-B}	=	**N/A**	**N/A**
RFC_{B-AC}	=	**0.07**	**0.07**

DESIGN SHEET - PRIORITY JUNCTION CAPACITY

Job No.: _____

Junction: J2 - Shan Ha Road / Tong Yan San Tsuen Interchange — Design Year: 2025

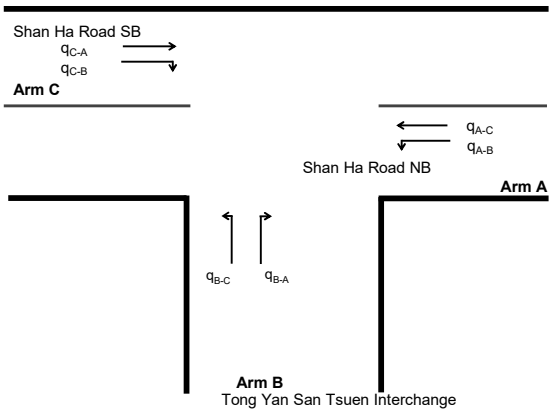
Description: 2030 Design Scenario (Peak) — Designed By: — Checked By:

Approach Arms

Arm A : Shan Ha Road NB

Arm B : Tong Yan San Tsuen Interchange

Arm C : Shan Ha Road SB



Design Flow

		AM Peak	PM Peak
q_{A-C}	=	80	105
q_{A-B}	=	195	150
q_{B-A}	=	205	210
q_{B-C}	=	770	910
q_{C-A}	=	80	55
q_{C-B}	=	475	190

Geometric Configurations

W =	major road width	=	7
W_{CR} =	central reserve width	=	0
W_{B-A} =	lane width available to vehicle waiting in stream B-A	=	6
W_{B-C} =	lane width available to vehicle waiting in stream B-C	=	6
W_{C-B} =	lane width available to vehicle waiting in stream C-B	=	3.5
V_{rB-A} =	visibility to the right for vehicles waiting in stream B-A	=	150
V_{rB-C} =	visibility to the right for vehicles waiting in stream B-C	=	150
V_{rC-B} =	visibility to the right for vehicles waiting in stream C-B	=	40
V_{lB-A} =	visibility to the left for vehicles waiting in stream B-A	=	250

Capacity Assessment

$D = [1 + 0.094(w_{B-A} - 3.65)] [1 + 0.0009(V_{rB-A} - 120)] [1 + 0.0006(V_{lB-A} - 150)]$	=	1.33	
$E = [1 + 0.094(w_{B-C} - 3.65)] [1 + 0.0009(V_{rB-C} - 120)]$	=	1.25	
$F = [1 + 0.094(w_{C-B} - 3.65)] [1 + 0.0009(V_{rC-B} - 120)]$	=	0.91	
$Y = (1 - 0.0345W)$	=	0.75	
		AM Peak	**PM Peak**
f = proportion of minor road traffic turning left	=	0.79	0.81
$Q_{B-A} = D [627 + 14W_{CR} - Y (0.364q_{A-C} + 0.144q_{A-B} + 0.229q_{C-A} + 0.52q_{C-B})]$	=	513	663
$RFC_{B-A} = q_{B-A}/Q_{B-A}$	=	0.40	0.32
$Q_{B-C} = E [745 - Y(0.364q_{A-C} + 0.144q_{A-B})]$	=	880.47	878
$RFC_{B-C} = q_{B-C}/Q_{B-C}$	=	0.87	1.04
$Q_{C-B} = F [745 - 0.364Y(q_{A-C} + q_{A-B})]$	=	613.09	618.08
$RFC_{C-B} = q_{C-B}/Q_{C-B}$	=	0.77	0.31
$Q_{B-AC} = (Q_{B-C})(Q_{B-A})/[(1-f)(Q_{B-C})+(f)(Q_{B-A})]$	=	765	828
$RFC_{B-AC} = (q_{B-A} + q_{B-C}) / Q_{B-AC}$	=	1.27	1.35

Results Summary

		AM	PM
RFC_{B-A}	=	**0.40**	**0.32**
RFC_{B-C}	=	**0.87**	**1.04**
RFC_{C-B}	=	**0.77**	**0.31**
RFC_{B-AC}	=	**1.27**	**1.35**

DESIGN SHEET - PRIORITY JUNCTION CAPACITY

Job No.: _____

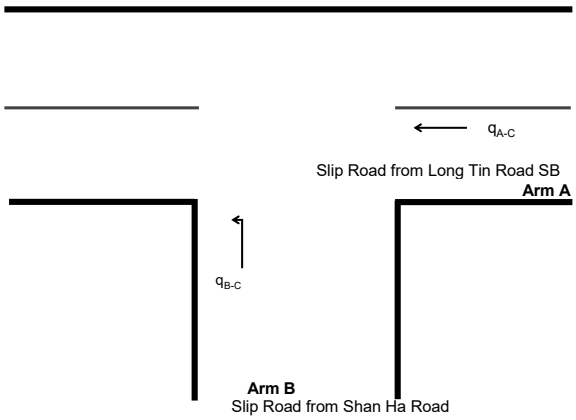
Junction: J3 - Slip Road from Shan Ha Road / Slip Road from Long Tin Road SB — Design Year: 2025

Description: 2030 Design Scenario (Peak) — Designed By: — Checked By:

Approach Arms

Arm A : Slip Road from Long Tin Road SB

Arm B : Slip Road from Shan Ha Road



Design Flow

		AM Peak	PM Peak
q_{A-C}	=	115	150
q_{B-C}	=	700	430

Geometric Configurations

W =	major road width	=	5.5
W_{CR} =	central reserve width	=	0
W_{B-A} =	lane width available to vehicle waiting in stream B-A	=	0
W_{B-C} =	lane width available to vehicle waiting in stream B-C	=	5.5
W_{C-B} =	lane width available to vehicle waiting in stream C-B	=	0
V_{rB-A} =	visibility to the right for vehicles waiting in stream B-A	=	120
V_{rB-C} =	visibility to the right for vehicles waiting in stream B-C	=	120
V_{rC-B} =	visibility to the right for vehicles waiting in stream C-B	=	0
V_{lB-A} =	visibility to the left for vehicles waiting in stream B-A	=	0

Capacity Assessment

$D = [1 + 0.094(w_{B-A} - 3.65)] [1 + 0.0009(V_{rB-A} - 120)] [1 + 0.0006(V_{lB-A} - 150)]$	=	0.60	
$E = [1 + 0.094(w_{B-C} - 3.65)] [1 + 0.0009(V_{rB-C} - 120)]$	=	1.17	
$F = [1 + 0.094(w_{C-B} - 3.65)] [1 + 0.0009(V_{rC-B} - 120)]$	=	0.59	
$Y = (1 - 0.0345W)$	=	0.81	
		AM Peak	**PM Peak**
f = proportion of minor road traffic turning left	=	1.00	1.00
$Q_{B-A} = D [627 + 14W_{CR} - Y (0.364q_{A-C} + 0.144q_{A-B} + 0.229q_{C-A} + 0.52q_{C-B})]$	=	355	348
$RFC_{B-A} = q_{B-A}/Q_{B-A}$	=	N/A	N/A
$Q_{B-C} = E [745 - Y(0.364q_{A-C} + 0.144q_{A-B})]$	=	834.74	823
$RFC_{B-C} = q_{B-C}/Q_{B-C}$	=	0.84	0.52
$Q_{C-B} = F [745 - 0.364Y(q_{A-C} + q_{A-B})]$	=	416.66	410.61
$RFC_{C-B} = q_{C-B}/Q_{C-B}$	=	N/A	N/A
$Q_{B-AC} = (Q_{B-C})(Q_{B-A})/[(1-f)(Q_{B-C})+(f)(Q_{B-A})]$	=	835	823
$RFC_{B-AC} = (q_{B-A} + q_{B-C}) / Q_{B-AC}$	=	0.84	0.52

Results Summary

		AM	PM
RFC_{B-A}	=	**N/A**	**N/A**
RFC_{B-C}	=	**0.84**	**0.52**
RFC_{C-B}	=	**N/A**	**N/A**
RFC_{B-AC}	=	**0.84**	**0.52**