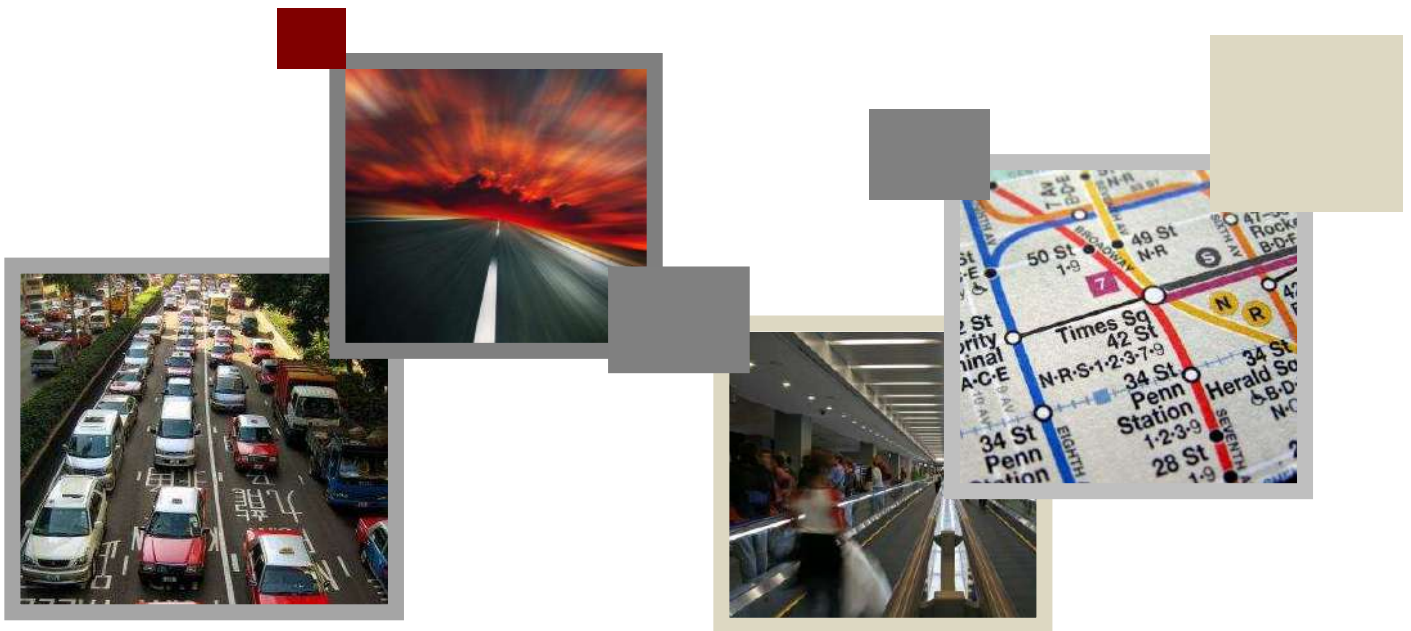


Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120, Shan Ha Road, Yuen Long, New Territories



TRAFFIC IMPACT ASSESSMENT REPORT

Reference: 31073-R01-04
Date: August 2026

Table of Contents

1	Introduction	5
1.1	Background	5
1.2	Objectives	5
2	The Existing Driving School	7
2.1	The Application Site	7
2.2	Access Arrangement	7
2.3	Internal Transport Facilities	7
2.4	Approved Routes for Driving Learning, Training and Testing	8
2.5	Proposed Operating Hours Extension	9
2.6	Existing Shuttle Service	11
3	Existing Traffic Conditions	13
3.1	Existing Road Networks	13
3.2	Public Transport	13
3.3	Survey Links (M1–M8)	13
3.4	Identifications of Assessment Periods	14
3.5	Traffic Count Surveys	18
3.6	Existing Assessment	19
4	Future Traffic Conditions	27
4.1	Design Year	27
4.2	Regional Traffic Growth	27
4.3	Major Planned/ Committed Developments	28
4.4	Traffic Generation of the Operation Schedule	30
4.5	Reference and Design Flows	31
4.6	Future Assessment	32

5	Conclusion	42
5.1	Summary of Findings	42
5.2	Conclusion	44

List of Tables

Table 2.1	Existing Provision of Internal Transport Facilities	8
Table 2.2	Approved Regular Training Route of Learning Vehicles	8
Table 2.3	Proposed Operational Schedule of the Driving School	10
Table 2.4	Details of the Existing Shuttle Services	12
Table 3.1	Public Transport Services in the vicinity	13
Table 3.2	Survey Links for Assessment Period Identification (M1–M8)	14
Table 3.3	2026 Observed Link Flows (Weekday) (pcu/hr)	15
Table 3.4	2026 Observed Link Flows (Saturday) (pcu/hr)	15
Table 3.5	2026 Observed Link Flows (Sunday) (pcu/hr)	16
Table 3.6	Assessment Hours for Junction Assessment	17
Table 3.7	Assessment Hours for Shan Ha Road Link Assessment	17
Table 3.8	Existing Junction Performance on Weekday (Half Cap)	19
Table 3.9	Existing Junction Performance on Weekday (Full Cap)	20
Table 3.10	Existing Junction Performance on Saturday	21
Table 3.11	Existing Junction Performance on Sunday	22
Table 3.12	Existing Link Performance (Weekday) (Half Cap)	23
Table 3.13	Existing Link Performance (Weekday) (Full Cap)	24
Table 3.14	Existing Link Performance on Saturday	25
Table 3.15	Existing Link Performance on Sunday	26
Table 4.1	Annual Traffic Census Data	27
Table 4.2	2021-Based TPEDM Data	28
Table 4.3	Major Planning Applications/ Committed Developments	28
Table 4.4	Trip Generation for Design Scenario Assessment	31
Table 4.5	Future Junction Performance on Weekday (Half Cap)	32
Table 4.6	Future Junction Performance on Weekday (Full Cap)	33
Table 4.7	Future Junction Performance on Saturday	33
Table 4.8	Future Junction Performance on Sunday	35
Table 4.9	Future Link Performance (Weekday) (Half Cap)	36
Table 4.10	Future Link Performance (Weekday) (Full Cap)	37
Table 4.11	Future Link Performance on Saturday (Reference Scenario)	38
Table 4.12	Future Link Performance on Saturday (Design Scenario)	39
Table 4.13	Future Link Performance on Sunday (Reference Scenario)	40
Table 4.14	Future Link Performance on Sunday (Design Scenario)	41
Table 5.1	Proposed Operational Schedule of the Driving School	43

List of Figures

Figure 2.1	Site Location
Figure 2.2	Approved Regular Training Routes of Learning Vehicles
Figure 3.1	Survey Links for Assessment Period Identification (M1–M8)
Figure 3.2	Key Junctions and Road Links within the Study Area
Figure 3.3	2026 Observed Traffic Flow (Weekday) – Half Cap (11:30–12:30 / 19:30–20:30)
Figure 3.4	2026 Observed Traffic Flow (Weekday) – Full Cap (10:30–11:30 / 20:30–21:30)
Figure 3.5	2026 Observed Traffic Flow (Weekend) – Saturday AM / Sunday AM
Figure 3.6	2026 Observed Traffic Flow (Weekend) – Saturday Noon / Sunday Noon
Figure 3.7	2026 Observed Traffic Flow (Weekend) – Saturday PM / Sunday PM
Figure 3.8	2026 Observed Traffic Flow (Weekend) – Saturday Late / Sunday Late
Figure 4.1	2029 Reference Traffic Flow (Weekday) – Half Cap (11:30–12:30 / 19:30–20:30)
Figure 4.2	2029 Reference Traffic Flow (Weekday) – Full Cap (10:30–11:30 / 20:30–21:30)
Figure 4.3	2029 Reference Traffic Flow (Weekend) – Saturday AM / Sunday AM
Figure 4.4	2029 Reference Traffic Flow (Weekend) – Saturday Noon / Sunday Noon
Figure 4.5	2029 Reference Traffic Flow (Weekend) – Saturday PM / Sunday PM
Figure 4.6	2029 Reference Traffic Flow (Weekend) – Saturday Late / Sunday Late
Figure 4.7	2029 Design Traffic Flow (Weekday) – Half Cap (11:30–12:30 / 19:30–20:30)
Figure 4.8	2029 Design Traffic Flow (Weekday) – Full Cap (10:30–11:30 / 20:30–21:30)
Figure 4.9	2029 Design Traffic Flow (Weekend) – Saturday AM / Sunday AM
Figure 4.10	2029 Design Traffic Flow (Weekend) – Saturday Noon / Sunday Noon
Figure 4.11	2029 Design Traffic Flow (Weekend) – Saturday PM / Sunday PM
Figure 4.12	2029 Design Traffic Flow (Weekend) – Saturday Late / Sunday Late

Appendix A	Layout of Proposed Development
Appendix B	Conditions Imposed with Issue of Learner's Driver License
Appendix C	Approved Shuttle Service
Appendix D	Junction Improvement Scheme by CEDD
Appendix E	Junction Calculation Sheets

1 Introduction

1.1 Background

Ankor Driving School Limited (the “Applicant”) operates a Designated Driving School (“the School”) at Lot 2620 RP (Part) in D.D. 120, No. 69 Shan Ha Road, Yuen Long (the “Site”). The School was originally approved under Planning Application Nos. A/YL-TYST/1084 and A/YL-TYST/1237 and has since been operating as a temporary use for a fixed period.

In connection with the Yuen Long South (YLS) Development land resumption programme, the Site has been refined to an area of approximately 2,945.3 m². Notwithstanding the boundary refinement, the approved access arrangement, internal circulation and parking provisions, and total training fleet size have been maintained in accordance with the previous planning approvals.

The School has been in full operation at the refined Site since Q4 2025. Operational records and on-site observations indicate that the surrounding traffic conditions along Shan Ha Road and the associated training routes have remained generally stable, and motorists have adapted to the traffic environment during the construction of nearby road works.

The Applicant now seeks renewal of the planning approval and regularization of the operating regime, including an extension of the permitted on-street training hours for learner drivers. No change is proposed to the site access, internal transport facilities, shuttle bus service, training routes. The proposal is limited to adjustments to the external operating hours and formalization of associated operational controls.

AXON Consultancy Limited has been commissioned by the Applicant to prepare this Traffic Impact Assessment (TIA) to support the renewal application and to demonstrate that the continued operation of the School, with the proposed operating hours and commitments, is acceptable from the traffic engineering point of view.

1.2 Objectives

The objectives of this TIA are focused on ensuring compliance and verifying that the continued operation remains sustainable within the current road network:

- Document the existing operation of the School, including site access, internal transport facilities, shuttle bus arrangements and approved on-street training routes.
- Describe the existing traffic conditions of the surrounding road network and identify the relevant assessment periods having regard to statutory restrictions on learner driver operation.
- Assess the future traffic conditions for the design year, taking into account natural traffic growth and major planned/committed developments in the area.
- Quantify the additional traffic associated with the proposed extension of on-street training hours, based on defined fleet caps and operational controls, and superimpose this on the reference traffic flows.

- Evaluate the performance of key junctions and road links under the future reference and design scenarios in accordance with the Transport Planning and Design Manual (TPDM) and relevant Transport Department criteria.
- Demonstrate that the renewed and extended operation of the School will not cause any unacceptable or adverse traffic impact on the surrounding road network.

2 The Existing Driving School

2.1 The Application Site

The Application Site is located at No. 69 Shan Ha Road, Yuen Long, within Lot 2620 RP (Part) in D.D. 120. It is situated immediately east of the Tong Yan San Tsuen Interchange of Yuen Long Highway, as shown in Figure 2.1. The refined site area is approximately 2,945.3 m² following the implementation of the Yuen Long South (YLS) Development land resumption programme.

The Site is currently occupied by the existing Designated Driving School, including internal training areas, parking spaces for the training fleet and shuttle light buses, and associated office/administrative facilities. No change in land use or site boundary is proposed under this renewal application.

2.2 Access Arrangement

The School is served by a single vehicular access on Shan Ha Road, which functions as the sole ingress and egress for all vehicles associated with the Site. The access has a clear width of approximately 8 m and operates as a two-way connection to Shan Ha Road, allowing safe entry and exit for private cars, light goods vehicles, motorcycles, and light buses.

The existing access arrangement, including geometric layout and connection to Shan Ha Road, was previously accepted under the earlier planning applications. No modification to the location, width or traffic control of the access is proposed as part of the present renewal; all access operations will remain unchanged. All vehicle queuing and vehicle forming-up for lessons are contained within the Site, and no on-street waiting or loading is permitted along Shan Ha Road as shown in **Appendix A**.

2.3 Internal Transport Facilities

The Hong Kong Planning Standards and Guidelines (HKPSG) do not prescribe specific parking standards for driving schools or driving test centres. In this context, the internal transport facilities for the School are based on, and will continue to follow, the provisions previously approved under Planning Application No. A/YL-TYST/1237.

Although certain parking spaces have been repositioned within the Site in response to the refined lot boundary, the total number and type of parking spaces remain identical to the previously approved scheme and are used exclusively for the operation of the School. The existing provision is summarised in Table 2.1.

Table 2.1 Existing Provision of Internal Transport Facilities

Types of Parking Space	Approved Provision and Dimensions of Parking Space *
Private Car Parking Spaces	24 nos., including (i) 23 nos. @ 5.0m (L) x 2.5m (W) x 2.4m (H), and (ii) 1 no. accessible @ 5.0m (L) x 3.5m (W) x 2.4m (H)
Motorcycle Parking Spaces	22 nos. @ 2.4m (L) x 1.0m (W) x 2.4m (H)
Light bus Parking Spaces	2 nos. @ 8.0m (L) x 3.0m (W) x 3.3m (H)

Note: L = Length, W = Width & H = Minimum Headroom;

* The dimensions of the proposed parking provisions are in accordance with HKPSG CH.8.

2.4 Approved Routes for Driving Learning, Training and Testing

The external on-street training routes remain strictly identical to those approved under previous planning applications. Learner drivers will continue to utilize the established testing circuits covering local distributors, including Shan Ha Road, Town Park Road North and South, Lam Hau Tsuen Road, Ma Tin Road, Yuen Long Tai Yuk Road, and Shap Pat Heung Road. Learner drivers are required to follow the regular training routings detailed in Table 2.2 and illustrated in Figure 2.2.

- i. **Shan Ha Road;**
- ii. Town Park Road North;
- iii. Town Park Road South;
- iv. Lam Hau Tsuen Road;
- v. Shap Pat Heung Road;
- vi. Yuen Long Tai Yuk Road;
- vii. Ma Tin Road.

Table 2.2 Approved Regular Training Route of Learning Vehicles

Section of Training Route	Proposed Regular Training Routing
Route 1 Section	Driving School → Jn A → Jn E → Jn D → Jn C → Jn B → Jn C → Jn D → Jn A;
Route 2 Section	End of Route 3 Section → Jn D → Jn C → Jn B → Jn C → Jn D → Jn E → Jn A → Driving School
Route 3 Section	End of Route 1 Section → Jn E → Jn D → Jn C → Jn G → Jn F → Jn E → Jn A;

2.5 Proposed Operating Hours Extension

To better utilise the existing facilities while respecting Transport Department (TD) guidelines on learner driver operations, the Applicant proposes to formalise the School's general operating hours as 08:30–23:30 daily (Mondays to Sundays and Public Holidays) for office / administrative functions and internal driving learning / training activities within the School compound. Within this overall envelope, external on-street training will only be arranged during off-peak periods permitted under the Road Traffic Ordinance (Cap. 374) and the conditions of Learner's Driving Licences, thereby avoiding statutory peak hours and the most traffic-sensitive periods on the surrounding road network.

In line with TD's established practice for designated driving schools, the proposed on-street training regime is based on a fixed class schedule with clearly defined fleet caps, rather than open-ended access to the public road network. For each permissible training window, the number of learning vehicles dispatched onto the public roads is limited to either a "half-cap" of 11 vehicles per hour or a "full-cap" of 22 vehicles per hour, depending on the time of day and day of week, with lower caps applied where background traffic is relatively higher and higher caps only applied in late-evening off-peak conditions. The detailed schedule is summarized in Table 2.3 below. These caps are enforced through the School's internal booking system and duty-roster controls, ensuring that the cumulative number of learning vehicles in circulation remains in acceptable level.

Operationally, learner drivers will first complete basic maneuvering and safety training within the School compound before being permitted to participate in on-street classes, in accordance with TD's safety expectations for designated driving schools. On-street classes will be programmed so that learning vehicles join and leave the public road network in an orderly, staggered manner, minimising platooning effects and avoiding queuing or blocking-back at the site access or nearby junctions. The School will also maintain records of class timetables and vehicle dispatch logs to facilitate compliance monitoring and any future review by TD.

During statutory restricted periods and other sensitive traffic windows identified by TD, all training activities will be confined to the internal training areas, with no learning vehicles allowed on public roads. The combination of restricted time windows, differentiated hourly caps, and mandatory internal training prior to on-street exposure ensures that the renewed operation remains compatible with TD guidelines and does not give rise to adverse traffic or safety impacts on the approved training and testing routes. Driving tests will continue to be scheduled and conducted solely by the Transport Department under its prevailing arrangements.

Table 2.3 Proposed Operational Schedule of the Driving School

Activities		*Operation Period	
Office / Administrative		Monday - Friday	08:30 – 23:30 hours
		Saturday, Sunday, and Public Holidays	08:30 – 23:30 hours
Driving Learning / Training Session	Internal within the Proposed Driving School	Monday - Friday	08:30 – 23:30 hours
		Saturday, Sunday, and Public Holidays	08:30 – 23:30 hours
	External on Public Road	Monday – Friday	Proposed training class schedule: <i>For max. 22 no. learning vehicles:</i> 1030-1130, 2030-2130, 2130-2230, 2230-2330 hours; <i>For max. 11 no. learning vehicles:</i> 0930 – 1030, 1130-1230, 1930-2030 hour
		Saturday	Proposed training class schedule: <i>For max. 22 no. learning vehicles:</i> 2030-2130, 2130-2230, 2230-2330 hours; <i>For max. 11 no. learning vehicles:</i> 0930-1030, 1030-1130, 1130-1230, 1230-1330, 1330-1430, 1430-1530, 1530-1630, 1630-1730, 1730-1830, 1830-1930, 1930-2030 hours
		Sunday, and Public Holidays	Proposed training class schedule: <i>For max. 22 no. learning vehicles:</i> 2030-2130, 2130-2230, 2230-2330 hours; <i>For max. 11 no. learning vehicles:</i> 0830-0930, 0930-1030, 1030-1130, 1130-1230, 1230-1330, 1330-1430, 1430-1530, 1530-1630, 1630-1730, 1730-1830, 1830-1930, 1930-2030 hours
Driving Test (to be conducted by Transport Department)		Schedule to be arranged by Transport Department	

To safeguard the surrounding road network, the Applicant commits to the following key operational controls:

- To safeguard the surrounding road network, the Applicant will adopt the following supplementary operational controls:

- Priority will be given to distributing on street training across the approved routes so that individual links and junctions are not subject to concentrated training flows in any particular period.
- The School will maintain a real time overview of learning vehicles in operation, allowing supervisors to adjust class dispatch and recall vehicles promptly if abnormal traffic conditions, incidents, or temporary lane closures arise on the surrounding road network.
- Instructors will be briefed and regularly reminded on TD's expectations regarding lane discipline, speed management and courteous driving, so that learning vehicles integrate smoothly with general traffic and avoid impeding public transport or goods vehicles along the training routes.
- The School will keep detailed records of daily class schedules, vehicle dispatch logs and any traffic related complaints, to facilitate ongoing monitoring of impacts and to support any future review or refinement of operating arrangements in consultation with TD.

2.6 Existing Shuttle Service

To reduce reliance on private cars by students, staff and visitors, the School operates an internal shuttle bus service between the Site and Tin Shui Wai MTR Station. The shuttle service has been previously agreed with the Transport Department, and the relevant approval documents are enclosed in **Appendix C**.

The shuttle operates daily with regular departures in both directions, with a maximum of approximately 2 departures per hour in most periods and up to 4 departures during the busiest hour in the evening (19:00-20:00). The service details, including origin and destination, pick-up/drop-off locations, service hours and headways, are summarised in Table 2.4.

All shuttle buses enter and exit the Site via the same vehicular access on Shan Ha Road and load/unload entirely within the School compound. By providing this shuttle service, the Applicant effectively suppresses additional private car trips to the Site and supports a higher use of public transport in accessing the School.

Table 2.4 Details of the Existing Shuttle Services

Item	Description
Origin - Destination	Tin Shui Wai MTR Station ↔ Ankor Driving School (Yuen Long Shan Ha Road)
Pick-up / Drop-off Point	Tin Shui Wai Side: Tin Shui Wai MTR Station Exit A near Ping Ha Road Shan Ha Road Side: Ankor Driving School Car Park
Service Period	From Tin Shui Wai Side: Monday – Sunday (18 departures between 08:30 and 22:00) (depart at 08:30, 09:10, 09:55, 10:40, 11:30, 12:15, 13:00, 14:00, 14:55, 16:00, 17:05, 17:55, 18:35, 19:15, 19:55, 20:35, 21:15 & 22:00) From Shan Ha Road Side: Monday – Sunday (19 departures between 08:55 and 23:10) (depart at 08:55, 09:35, 10:20, 11:10, 11:50, 12:45, 13:30, 14:30, 15:20, 16:45, 17:30, 18:20, 19:00, 19:40, 20:20, 21:00, 21:40, 22:30 & 23:10)
Headway:	Tin Shui Wai Side: 40 - 65 minutes Shan Ha Road Side: 40 - 50 minutes

3 Existing Traffic Conditions

3.1 Existing Road Networks

Shan Ha Road (the section between Town Park Road South to the north and Shan Ha Tsuen to the south) is a local single-two carriageway. It intersects with Tong Yan San Tsuen Interchange of Yuen Long Highway and provides regional access to and from the Driving School.

Tong Yan San Tsuen Interchange connects to Yuen Long Highway, a key road that links to the town center of Yuen Long and provides access to other districts in Hong Kong. It also integrates with Castle Peak Road – Ping Shan, which is a crucial route for motorists traveling within the Yuen Long District. Additionally, its connection with Long Tin Road offers convenient access to Tin Shui Wai.

Town Park Road North, Town Park Road South, Lam Hau Tsuen Road, Shap Pat Heung Road, Yuen Long Tai Yuk Road, and Ma Tin Road are single-two carriageways. Lam Yu Road (eastern section), which is connected to Lam Hau Tsuen Road at a roundabout, is a single-track access road, while its western section is a one-lane, one-way street. These road networks serve as the approved routes for learner drivers to practice driving skills, particularly simulating real-world driving conditions. These roads offer a suitable environment for beginners to learn basic driving maneuvers, such as turning, lane changing and understanding traffic flow, within a relatively low-traffic setting before progressing to busier roads or highways.

3.2 Public Transport

Shan Ha Road is served by one Green Minibus (“GMB”) route, as indicated in Table 3.1.

Table 3.1 Public Transport Services in the vicinity

Route No.	Origin – Destination	Headway (min)
GMB 604	Shan Ha Tsuen – Yuen Long (Fung Cheung Street)	10 - 20

3.3 Survey Links (M1–M8)

For the purpose of assessment-period identification, classified link flows were extracted at eight survey links along Shan Ha Road and the adjoining junction network used by learner drivers. These survey links are numbered M1–M8 and are shown in Figure 3.1. They are distinct from the assessed capacity links L1–L8 used later in the link performance tables: M1–M8 are used only to establish the assessment hours, whereas L1–L8 are used for volume-to-capacity appraisal.

Consistent with the peak-selection method in the following section, the eight survey links are considered in two groups: Shan Ha Road (M1+M2) and the junction-network links (M3–M8). The location and description of each survey link are summarised in Table 3.2 Survey Links for Assessment Period Identification (M1–M8).

Table 3.2 Survey Links for Assessment Period Identification (M1–M8)

Link Moment No.	Survey Link Description	Peak-Selection Group
M1	Shan Ha Road (northbound), between Town Park Road South and Tong Yan San Tsuen Interchange	Shan Ha Road
M2	Shan Ha Road (southbound), between Town Park Road South and Tong Yan San Tsuen Interchange	Shan Ha Road
M3	Town Park Road North (eastbound movements at the Shan Ha Road / Town Park Road junction)	Junction network
M4	Town Park Road North (westbound movements at the Shan Ha Road / Town Park Road junction)	Junction network
M5	Town Park Road South (eastbound), between Shan Ha Road and Lam Hau Tsuen Road	Junction network
M6	Town Park Road South (westbound), between Shan Ha Road and Lam Hau Tsuen Road	Junction network
M7	Lam Hau Tsuen Road (northbound), between Town Park Road South and Shap Pat Heung Road	Junction network
M8	Lam Hau Tsuen Road (southbound), between Town Park Road South and Shap Pat Heung Road	Junction network

As shown above, M1 and M2 represent the two directions of Shan Ha Road and are summed (M1+M2) when identifying the Shan Ha Road assessment hour. M3–M8 cover the Town Park Road North / Town Park Road South / Lam Hau Tsuen Road corridor forming the junction network used for junction capacity assessment-hour selection.

3.4 Identifications of Assessment Periods

In response to TD's comments, assessment periods are determined from the hourly link flow survey, and then screened against the allowable on-street training windows in Table 2.3, as follows:

Step 1 — Peak Hours from Link Flow Survey

Classified link flow surveys (Weekday, Saturday and Sunday) have been carried out at survey links M1–M8 described above and shown in Figure 3.1. From these profiles, the peak hour traffic flows were identified for each day type. The 2026 observed link flows for a normal weekday are summarised in Table 3.3 below. All tabulated link flow values in the following tables are expressed in pcu/hr.

Table 3.3 2026 Observed Link Flows (Weekday) (pcu/hr)

Link (pcu/hr)	M1	M2	M3	M4	M5	M6	M7	M8	Total
07:00-08:00	365	223	131	102	310	299	140	215	1786
07:30-08:30	486	255	94	104	331	362	148	214	1994
08:00-09:00	597	260	69	100	338	461	160	214	2197
08:30-09:30	580	229	80	90	381	597	161	244	2362
09:00-10:00	578	255	87	74	325	627	143	208	2294
09:30-10:30	551	236	75	81	296	545	129	210	2123
10:00-11:00	423	223	94	75	324	509	142	234	2023
10:30-11:30	444	252	101	70	324	444	162	196	1993
11:00-12:00	539	243	69	82	321	402	149	134	1940
11:30-12:30	561	242	67	67	342	497	115	164	2055
12:00-13:00	533	216	71	64	341	463	106	204	1997
12:30-13:30	496	195	73	71	306	405	111	173	1830
13:00-14:00	492	209	81	64	288	451	126	162	1873
13:30-14:30	504	207	83	69	313	389	120	187	1871
14:00-15:00	465	265	70	65	282	469	171	153	1940
14:30-15:30	529	280	67	61	312	558	211	183	2201
15:00-16:00	541	273	71	63	357	573	173	244	2295
15:30-16:30	504	261	69	52	376	601	181	283	2328
16:00-17:00	575	266	85	53	428	664	194	305	2569
16:30-17:30	678	281	74	54	405	612	160	221	2485
17:00-18:00	746	308	69	62	436	590	122	201	2534
17:30-18:30	856	281	79	72	522	610	113	242	2775
18:00-19:00	992	235	73	75	566	514	116	268	2838
18:30-19:30	508	140	33	39	287	250	57	138	1453
19:00-20:00	500	218	71	64	315	440	127	186	1921
19:30-20:30	414	209	61	46	286	414	120	165	1715
20:00-21:00	384	167	54	49	242	338	98	142	1473
20:30-21:30	370	161	52	48	233	326	94	137	1421
21:00-22:00	356	155	51	46	225	314	91	132	1369
21:30-22:30	339	148	48	44	214	298	86	126	1303
22:00-23:00	322	140	46	41	203	283	82	120	1237
22:30-23:30	281	122	40	36	177	247	71	104	1077
23:00-24:00	239	104	34	31	151	210	61	89	918

The 2026 observed link flows for Saturday (survey links M1–M8) is summarised in Table 3.4 below.

Table 3.4 2026 Observed Link Flows (Saturday) (pcu/hr)

Link (pcu/hr)	M1	M2	M3	M4	M5	M6	M7	M8	Total
07:00-08:00	144	126	77	50	161	180	149	94	144
07:30-08:30	204	153	59	55	183	233	168	99	204
08:00-09:00	265	165	46	56	198	314	191	105	265
08:30-09:30	287	162	58	55	254	464	216	135	287
09:00-10:00	319	201	69	49	249	560	216	129	319
09:30-10:30	318	194	62	56	240	513	204	137	318
10:00-11:00	254	191	80	54	275	504	236	160	254
10:30-11:30	272	220	87	51	281	448	274	136	272
11:00-12:00	338	215	61	62	283	411	256	95	338
11:30-12:30	360	217	60	52	307	516	201	118	360
12:00-13:00	351	196	66	52	311	487	187	150	351
12:30-13:30	330	177	68	58	280	426	197	127	330
13:00-14:00	331	189	76	53	264	474	223	120	331
13:30-14:30	329	179	75	56	276	393	203	134	329
14:00-15:00	295	220	61	52	240	455	279	106	295
14:30-15:30	322	221	57	48	243	494	320	119	322
15:00-16:00	317	204	59	49	256	465	246	148	317
15:30-16:30	297	195	57	41	273	492	259	174	297
16:00-17:00	342	197	70	42	314	549	278	189	342
16:30-17:30	404	206	60	43	301	511	229	137	404

Link (pcu/hr)	M1	M2	M3	M4	M5	M6	M7	M8	Total
17:00-18:00	446	223	56	50	330	500	175	126	446
17:30-18:30	513	202	64	59	393	513	161	151	513
18:00-19:00	596	168	58	62	425	430	164	167	596
18:30-19:30	307	99	27	33	215	208	81	86	307
19:00-20:00	283	163	55	45	234	377	184	113	283
19:30-20:30	254	146	49	40	210	338	165	101	254
20:00-21:00	225	129	44	35	186	299	146	89	225
20:30-21:30	233	134	45	37	192	310	151	92	233
21:00-22:00	241	138	47	38	199	321	157	96	241
21:30-22:30	241	138	47	38	199	321	157	96	241
22:00-23:00	241	138	47	38	199	321	157	96	241
22:30-23:30	215	123	42	34	177	286	140	85	215
23:00-24:00	189	108	37	30	156	251	123	75	189

The 2026 observed link flows for Sunday (survey links M1–M8) is summarised in Table 3.5 below.

Table 3.5 2026 Observed Link Flows (Sunday) (pcu/hr)

Link (pcu/hr)	M1	M2	M3	M4	M5	M6	M7	M8	Total
07:00-08:00	71	62	33	50	78	89	75	46	503
07:30-08:30	103	76	26	56	90	117	86	49	601
08:00-09:00	135	83	20	57	99	160	99	53	705
08:30-09:30	160	89	28	62	139	259	122	74	933
09:00-10:00	193	121	36	60	148	339	133	77	1107
09:30-10:30	210	128	35	74	155	339	137	89	1168
10:00-11:00	183	136	50	78	194	362	172	113	1288
10:30-11:30	204	164	57	77	206	336	209	101	1354
11:00-12:00	264	167	41	98	216	321	204	73	1384
11:30-12:30	290	173	42	85	242	415	164	94	1504
12:00-13:00	291	161	47	86	252	403	157	122	1519
12:30-13:30	272	144	49	97	225	350	164	103	1403
13:00-14:00	270	153	54	88	211	387	185	97	1445
13:30-14:30	275	149	54	95	226	328	172	110	1410
14:00-15:00	252	187	45	90	201	389	242	89	1495
14:30-15:30	275	187	42	83	203	422	278	100	1589
15:00-16:00	270	173	43	84	214	396	213	125	1518
15:30-16:30	251	163	41	71	226	416	223	145	1536
16:00-17:00	287	165	51	71	258	461	238	156	1687
16:30-17:30	335	170	43	72	245	425	193	112	1596
17:00-18:00	366	182	40	83	266	411	146	102	1596
17:30-18:30	417	163	45	97	313	417	133	121	1706
18:00-19:00	479	134	41	102	334	345	134	132	1700
18:30-19:30	253	81	19	55	173	171	67	70	889
19:00-20:00	245	138	40	76	198	325	160	95	1275
19:30-20:30	242	136	40	75	196	322	158	94	1262
20:00-21:00	240	135	39	74	193	318	156	93	1249
20:30-21:30	253	142	41	78	204	335	165	98	1315
21:00-22:00	265	149	43	82	214	352	173	103	1381
21:30-22:30	244	138	40	76	197	324	159	95	1272
22:00-23:00	223	126	36	69	180	296	146	86	1162
22:30-23:30	188	106	31	58	152	250	123	73	979
23:00-24:00	153	86	25	47	123	203	100	59	796

For presentation and assessment, peaks are grouped as follows:

- Weekday: morning and evening peak hours identified from the daily link flow profile.
- Saturday / Sunday: AM Peak (start before 12:00), Noon Peak (12:00–14:00) and PM Peak (14:00–20:00).

Step 2 — Assessment Hours by Learner-Vehicle Cap on Public Road

For each day type, assessment hours follow the proposed operation schedule (learner vehicles on public road) and the surveyed hourly flows. AM/Noon Period and PM Period labels are used instead of conventional “AM Peak / Noon Peak / PM Peak”, because learner-vehicle activity does not coincide with normal traffic peak hours. Where TD requires both half-cap (11 learner vehicles) and full-cap (22 learner vehicles) windows on weekdays, the existing two-column weekday tables are retained for one cap set and an additional table of the same format is provided for the other cap set.

Applying Steps 1 and 2, the assessment hours adopted for the junction network and for Shan Ha Road are summarised in the assessment-hours tables below, based on the number of learner vehicles on public road in the AM/Noon and PM periods.

The hours for junction capacity assessment are given in the following table, within the allowable on-street training windows under the proposed operation schedule.

Table 3.6 Assessment Hours for Junction Assessment

Day Type	AM / NN Periods (within proposed training windows)	PM Periods (within proposed training windows)
Weekday	WD-NN1: 11:30–12:30 (11 learner vehicles) WD-AM1: 10:30–11:30 (22 learner vehicles)	WD-PM1: 19:30–20:30 (11 learner vehicles) WD-PM2: 20:30–21:30 (22 learner vehicles)
Saturday	SA-AM1: 10:30–11:30 (11 learner vehicles)	SA-PM1: 17:30–18:30 (11 learner vehicles) SA-PM2: 21:30–22:30 (22 learner vehicles)
Sunday	SU-AM1: 11:30–12:30 (11 learner vehicles)	SU-PM1: 17:30–18:30 (11 learner vehicles) SU-PM2: 21:00–22:00 (22 learner vehicles)

Notes: Assessment period codes (day + period) — WD-AM1 = Weekday 10:30–11:30; WD-NN1 = Weekday 11:30–12:30; WD-PM1 = Weekday 19:30–20:30; WD-PM2 = Weekday 20:30–21:30; SA-AM1 = Saturday 10:30–11:30; SA-PM1 = Saturday 17:30–18:30; SA-PM2 = Saturday 21:30–22:30; SU-AM1 = Sunday 11:30–12:30; SU-PM1 = Sunday 17:30–18:30; SU-PM2 = Sunday 21:00–22:00. Learner-vehicle counts for each entry are shown in the table cells.

The corresponding assessment hours for Shan Ha Road link assessment follow the same learner-vehicle-based AM/Noon and PM period scenarios. Sunday evening 21:00–22:00 is adopted and aligns with the evening full-cap (22 learner vehicles) training windows.

Table 3.7 Assessment Hours for Shan Ha Road Link Assessment

Day Type	AM / NN Periods (within proposed training windows)	PM Periods (within proposed training windows)
Weekday	WD-NN1: 11:30–12:30 (11 learner vehicles) WD-AM1: 10:30–11:30 (22 learner vehicles)	WD-PM1: 19:30–20:30 (11 learner vehicles) WD-PM2: 20:30–21:30 (22 learner vehicles)

Day Type	AM / NN Periods (within proposed training windows)	PM Periods (within proposed training windows)
Saturday	SA-AM1: 10:30–11:30 (11 learner vehicles)	SA-PM1: 17:30–18:30 (11 learner vehicles) SA-PM2: 21:30–22:30 (22 learner vehicles)
Sunday	SU-AM1: 11:30–12:30 (11 learner vehicles)	SU-PM1: 17:30–18:30 (11 learner vehicles) SU-PM2: 21:00–22:00 (22 learner vehicles)

During the statutory restricted periods (Weekday 07:30–09:30 and 16:30–19:30; Saturday 07:30–09:30), the School's learning vehicles are not allowed on public roads. These hours are therefore excluded from the allowable window in Step 2. Development traffic in those hours comprises only the shuttle service and other ancillary trips, which are already embedded in the observed base flows.

3.5 Traffic Count Surveys

In order to appraise the existing traffic conditions and capture the full operational profile of the surrounding road network, classified traffic count surveys were conducted at the key junctions and road links within the study area (as depicted in Figure 3.2). The corresponding 2026 observed traffic flow diagrams are presented in Figures 3.3 to 3.8. Figures 3.3 and 3.4 show the weekday Half Cap and Full Cap assessment periods, while Figures 3.5 to 3.8 show the Saturday/Sunday AM, Noon, PM and late periods respectively.

To support the Applicant's proposed extension of operating hours, the surveys were undertaken at the survey periods in Table 3.6 and 3.7 on a typical Weekday, Saturday, and Sunday, thereby capturing:

- The statutory restricted hours during which learner drivers are not allowed to operate on public roads.
- The periods when on-street training is currently allowed and proposed to be extended.
- The full range of daily traffic variations, including morning, noon and evening peaks on both the junction network and Shan Ha Road.

Traffic volumes were recorded in 15-minute intervals by vehicle class and subsequently converted into Passenger Car Units (pcu) using the factors in the Transport Planning and Design Manual (TPDM). The highest consecutive 60-minute flows were used to identify local peak hours for assessment.

3.6 Existing Assessment

Junction Capacity Assessment

Junction capacity assessments have been conducted at major junctions along the learning vehicular ingress/egress route, following the guidelines set out in the Transport Planning and Design Manual ("TPDM") Volumes 2 and 4. The results of these assessments are summarised in Tables 3.8 to 3.11, while the detailed junction calculation sheets can be found in Appendix E.

The performance of a traffic signalised junction is indicated by its reserve capacity ("RC"). A RC value of 15% or above is considered within acceptable level without causing undue delay to motorists passing through the concerned junctions.

The performance of a priority junction or roundabout is indicated by its Design Flow / Capacity Ratio ("DFC"). A DFC value of 0.85 or below is considered within an acceptable level without causing undue delay to motorists passing through the concerned junctions.

Table 3.8 Existing Junction Performance on Weekday (Half Cap)

No.	Key Junction	Type / Capacity Index*	WD-NN1	WD-PM1
A	Town Park Road South/ Town Park Road North	Priority/DFC	0.13	0.10
B	Lam Hau Tsuen Road / Lam Yu Road	Roundabout/ DFC	0.07	0.09
C	Lam Hau Tsuen Road / Shap Pat Heung Road	Roundabout/ DFC	0.11	0.10
D	Town Park Road South / Lam Hau Tsuen Road	Signal/RC	73.3%	92.7%
E	Town Park Road South / Ma Tin Road / Town Park Road North	Priority/DFC	0.15	0.10
F	Ma Tin Road / Yuen Long Tai Yuk Road	Signal/RC	85.9%	>100%
G	Shap Pat Heung Road / Yuen Long Tai Yuk Road	Priority/DFC	0.43	0.32

Notes: WD-NN1 = 11:30–12:30 (11 learner vehicles); WD-PM1 = 19:30–20:30 (11 learner vehicles). * DFC - Design Flow / Capacity Ratio & RC – Reserved Capacity

Table 3.9 Existing Junction Performance on Weekday (Full Cap)

No.	Key Junction	Type / Capacity Index*	WD-AM1	WD-PM2
A	Town Park Road South/ Town Park Road North	Priority/DFC	0.14	0.08
B	Lam Hau Tsuen Road / Lam Yu Road	Roundabout/ DFC	0.07	0.07
C	Lam Hau Tsuen Road / Shap Pat Heung Road	Roundabout/ DFC	0.11	0.08
D	Town Park Road South / Lam Hau Tsuen Road	Signal/RC	67.7%	>100%
E	Town Park Road South / Ma Tin Road / Town Park Road North	Priority/DFC	0.16	0.08
F	Ma Tin Road / Yuen Long Tai Yuk Road	Signal/RC	79.6%	>100%
G	Shap Pat Heung Road / Yuen Long Tai Yuk Road	Priority/DFC	0.44	0.26

Notes: WD-AM1 = 10:30–11:30 (22 learner vehicles); WD-PM2 = 20:30–21:30 (22 learner vehicles). * DFC - Design Flow / Capacity Ratio & RC – Reserved Capacity

Under the existing 2026 weekday conditions, all assessed junctions operate within acceptable capacity limits during both the AM and PM periods. Priority and roundabout junctions exhibit low DFC values, while the signalised junctions retain positive reserved capacity above the TPDM threshold.

Table 3.10 Existing Junction Performance on Saturday

No.	Key Junction	Type / Capacity Index*	SA-AM1	SA-PM1	SA-PM2
A	Town Park Road South/ Town Park Road North	Priority/DFC	0.10	0.10	0.06
B	Lam Hau Tsuen Road / Lam Yu Road	Roundabout/ DFC	0.04	0.04	0.03
C	Lam Hau Tsuen Road / Shap Pat Heung Road	Roundabout/ DFC	0.11	0.11	0.07
D	Town Park Road South / Lam Hau Tsuen Road	Signal/RC	71.1%	63.2%	>100%
E	Town Park Road South / Ma Tin Road / Town Park Road North	Priority/DFC	0.10	0.10	0.06
F	Ma Tin Road / Yuen Long Tai Yuk Road	Signal/RC	63.7%	55.8%	>100%
G	Shap Pat Heung Road / Yuen Long Tai Yuk Road	Priority/DFC	0.40	0.42	0.26

Notes: SA-AM1 = 10:30–11:30 (11 learner vehicles); SA-PM1 = 17:30–18:30 (11 learner vehicles); SA-PM2 = 21:30–22:30 (22 learner vehicles). * DFC - Design Flow / Capacity Ratio & RC – Reserved Capacity

Table 3.10 shows that Saturday assessment-period junction performance remains satisfactory through the AM, PM and late periods. Priority and roundabout junctions continue to operate at low DFC levels, and the signalised junctions retain positive reserved capacity.

Sunday junction performance is summarised in Table 3.11. The Sunday peaks are generally comparable to or lighter than the Saturday peaks at most junctions, and all assessed junctions remain within capacity during the identified assessment hours.

Table 3.11 Existing Junction Performance on Sunday

No.	Key Junction	Type / Capacity Index*	SU-AM1	SU-PM1	SU-PM2
A	Town Park Road South/ Town Park Road North	Priority/DFC	0.12	0.13	0.11
B	Lam Hau Tsuen Road / Lam Yu Road	Roundabout/ DFC	0.03	0.04	0.03
C	Lam Hau Tsuen Road / Shap Pat Heung Road	Roundabout/ DFC	0.09	0.09	0.08
D	Town Park Road South / Lam Hau Tsuen Road	Signal/RC	>100%	>100%	>100%
E	Town Park Road South / Ma Tin Road / Town Park Road North	Priority/DFC	0.08	0.09	0.08
F	Ma Tin Road / Yuen Long Tai Yuk Road	Signal/RC	>100%	>100%	>100%
G	Shap Pat Heung Road / Yuen Long Tai Yuk Road	Priority/DFC	0.31	0.34	0.29

Notes: SU-AM1 = 11:30–12:30 (11 learner vehicles); SU-PM1 = 17:30–18:30 (11 learner vehicles); SU-PM2 = 21:00–22:00 (22 learner vehicles). * DFC - Design Flow / Capacity Ratio & RC – Reserved Capacity

Under the existing 2026 traffic conditions as shown in Tables 3.8 to 3.11, all assessed junctions operate within these TPDM threshold values during the identified assessment hours on weekdays, Saturdays and Sundays. While some junctions experience higher degrees of saturation during the busier evening periods, no junction currently exceeds its practical capacity or exhibits unacceptable levels of congestion in the base year.

Link Capacity Analysis

A road link capacity assessment has been carried out for the key road links listed in Tables 3.12 to 3.15 in order to examine their operational performance under the existing traffic conditions. These assessed road links are numbered L1–L8 and are distinct from the survey count locations M1–M8 used in Tables 3.3 to 3.5 for assessment-period identification. The assessment follows the Transport Planning and Design Manual (TPDM) and relevant Government guidelines, in which the volume-to-capacity ratio (v/c ratio) of road links is adopted as the principal performance indicator.

For each assessed link, the design capacity has been established with reference to its road classification, carriageway configuration and the corresponding capacity provisions in TPDM. The observed traffic flows obtained from the traffic counts have been converted into passenger car units (pcu) to facilitate comparison with the adopted design capacities. The v/c ratios for each direction and peak hour have then been derived by dividing the observed assessment-period flows by the respective link capacities.

The weekday, Saturday and Sunday link performance results are presented in Tables 3.12 to 3.15 respectively, in terms of the adopted link capacities, observed assessment-period flows and the corresponding v/c ratios.

Table 3.12 Existing Link Performance (Weekday) (Half Cap)

No.	Key Road Link	Direction	Carriageway Capacity (pcu/hr)	Observed Flows (pcu/hr)		Observed V/C Ratio	
				WD-NN1	WD-PM1	WD-NN1	WD-PM1
L1	Shan Ha Road between Town Park Road South and Shan Ha Road from Tong Yan San Tsuen Interchange	N/B	840	483	560	0.57	0.67
		S/B	840	256	280	0.30	0.33
L2	Town Park Road North between Shan Ha Road, Town Park Road South and Ma Tin Road	E/B	1020	99	61	0.10	0.06
		W/B	1020	68	46	0.07	0.05
L3	Town Park Road South between Shan Ha Road and Lam Hau Tsuen Road	E/B	1020	429	414	0.42	0.41
		W/B	1020	244	209	0.24	0.20
L4	Lam Hau Tsuen Road between Town Park Road South and Shap Pat Heung Road	N/B	1020	157	120	0.15	0.12
		S/B	1020	219	204	0.21	0.20
L5	Lam Hau Tsuen Road between Shap Pat Heung Road and Lam Yu Road	N/B	840	116	94	0.14	0.11
		S/B	840	104	131	0.12	0.16
L6	Shap Pat Heung Road between Lam Hau Tsuen Road and Yuen Long Tai Yuk Road	E/B	1020	274	181	0.27	0.18
		W/B	1020	137	128	0.13	0.13
L7	Yuen Long Tai Yuk Road between Shap Pat Heung Road and Ma Tin Road	N/B	1020	420	297	0.41	0.29
		S/B	1020	164	206	0.16	0.20
L8	Ma Tin Road between Town Park Road North and Yuen Long Tai Yuk Road	E/B	1020	353	304	0.35	0.30
		W/B	1020	199	168	0.20	0.16

Notes: WD-NN1 = 11:30–12:30 (11 learner vehicles); WD-PM1 = 19:30–20:30 (11 learner vehicles). Carriageway capacities follow TPDM Vol. 2 assumptions used in this study.

Table 3.13 Existing Link Performance (Weekday) (Full Cap)

No.	Key Road Link	Direction	Carriageway Capacity (pcu/hr)	Observed Flows (pcu/hr)		Observed V/C Ratio	
				WD-AM1	WD-PM2	WD-AM1	WD-PM2
L1	Shan Ha Road between Town Park Road South and Shan Ha Road from Tong Yan San Tsuen Interchange	N/B	840	500	457	0.60	0.54
		S/B	840	265	228	0.32	0.27
L2	Town Park Road North between Shan Ha Road, Town Park Road South and Ma Tin Road	E/B	1020	101	49	0.10	0.05
		W/B	1020	70	38	0.07	0.04
L3	Town Park Road South between Shan Ha Road and Lam Hau Tsuen Road	E/B	1020	444	338	0.44	0.33
		W/B	1020	252	171	0.25	0.17
L4	Lam Hau Tsuen Road between Town Park Road South and Shap Pat Heung Road	N/B	1020	162	98	0.16	0.10
		S/B	1020	226	166	0.22	0.16
L5	Lam Hau Tsuen Road between Shap Pat Heung Road and Lam Yu Road	N/B	840	120	76	0.14	0.09
		S/B	840	108	107	0.13	0.13
L6	Shap Pat Heung Road between Lam Hau Tsuen Road and Yuen Long Tai Yuk Road	E/B	1020	284	147	0.28	0.14
		W/B	1020	142	104	0.14	0.10
L7	Yuen Long Tai Yuk Road between Shap Pat Heung Road and Ma Tin Road	N/B	1020	435	242	0.43	0.24
		S/B	1020	170	168	0.17	0.16
L8	Ma Tin Road between Town Park Road North and Yuen Long Tai Yuk Road	E/B	1020	365	247	0.36	0.24
		W/B	1020	206	137	0.20	0.13

Notes: WD-AM1 = 10:30–11:30 (22 learner vehicles); WD-PM2 = 20:30–21:30 (22 learner vehicles). Carriageway capacities follow TPDM Vol. 2 assumptions used in this study.

Table 3.12 presents the existing weekday (Half Cap) link performance for the assessed road links in terms of the adopted carriageway capacities, observed assessment-period flows and the corresponding v/c ratios. Table 3.13 presents the corresponding weekday Full Cap results.

Table 3.14 Existing Link Performance on Saturday

No	Key Road Link	Dir.	Capacity (pcu/hr)	Observed Flows (pcu/hr)			Observed V/C Ratio		
				SA-AM1	SA-PM1	SA-PM2	SA-AM1	SA-PM1	SA-PM2
L1	Shan Ha Road between Town Park Road South and Shan Ha Road from Tong Yan San Tsuen Interchange	N/B	840	403	574	367	0.48	0.68	0.44
		S/B	840	252	235	150	0.30	0.28	0.18
L2	Town Park Road North between Shan Ha Road, Town Park Road South and Ma Tin Road	E/B	1020	60	64	40	0.06	0.06	0.04
		W/B	1020	56	59	37	0.05	0.06	0.04
L3	Town Park Road South between Shan Ha Road and Lam Hau Tsuen Road	E/B	1020	489	513	328	0.48	0.50	0.32
		W/B	1020	193	202	129	0.19	0.20	0.13
L4	Lam Hau Tsuen Road between Town Park Road South and Shap Pat Heung Road	N/B	1020	154	161	103	0.15	0.16	0.10
		S/B	1020	219	230	147	0.21	0.23	0.14
L5	Lam Hau Tsuen Road between Shap Pat Heung Road and Lam Yu Road	N/B	840	112	118	75	0.13	0.14	0.09
		S/B	840	60	63	40	0.07	0.07	0.05
L6	Shap Pat Heung Road between Lam Hau Tsuen Road and Yuen Long Tai Yuk Road	E/B	1020	347	364	232	0.34	0.36	0.23
		W/B	1020	144	151	96	0.14	0.15	0.09
L7	Yuen Long Tai Yuk Road between Shap Pat Heung Road and Ma Tin Road	N/B	1020	418	439	280	0.41	0.43	0.27
		S/B	1020	214	224	143	0.21	0.22	0.14
L8	Ma Tin Road between Town Park Road North and Yuen Long Tai Yuk Road	E/B	1020	462	486	311	0.45	0.48	0.30
		W/B	1020	163	172	110	0.16	0.17	0.11

Notes: SA-AM1 = 10:30–11:30 (11 learner vehicles); SA-PM1 = 17:30–18:30 (11 learner vehicles); SA-PM2 = 21:30–22:30 (22 learner vehicles). Carriageway capacities follow TPDM Vol. 2 assumptions used in this study.

Table 3.14 summarises the Saturday link performance for the AM, PM and late periods on the same L1–L8 assessment basis.

Table 3.15 presents the corresponding Sunday link performance for the AM, PM and late periods. As with the weekday and Saturday cases, the volume-to-capacity ratios provide the principal indicator of link operating conditions.

Table 3.15 Existing Link Performance on Sunday

No	Key Road Link	Dir.	Capacity (pcu/hr)	Observed Flows (pcu/hr)			Observed V/C Ratio		
				SU-AM1	SU-PM1	SU-PM2	SU-AM1	SU-PM1	SU-PM2
L1	Shan Ha Road between Town Park Road South and Shan Ha Road from Tong Yan San Tsuen Interchange	N/B	840	336	483	415	0.40	0.57	0.49
		S/B	840	210	198	170	0.25	0.24	0.20
L2	Town Park Road North between Shan Ha Road, Town Park Road South and Ma Tin Road	E/B	1020	41	45	39	0.04	0.04	0.04
		W/B	1020	89	97	83	0.09	0.10	0.08
L3	Town Park Road South between Shan Ha Road and Lam Hau Tsuen Road	E/B	1020	386	417	358	0.38	0.41	0.35
		W/B	1020	150	163	140	0.15	0.16	0.14
L4	Lam Hau Tsuen Road between Town Park Road South and Shap Pat Heung Road	N/B	1020	123	133	114	0.12	0.13	0.11
		S/B	1020	181	195	167	0.18	0.19	0.16
L5	Lam Hau Tsuen Road between Shap Pat Heung Road and Lam Yu Road	N/B	840	88	95	82	0.10	0.11	0.10
		S/B	840	49	53	45	0.06	0.06	0.05
L6	Shap Pat Heung Road between Lam Hau Tsuen Road and Yuen Long Tai Yuk Road	E/B	1020	271	294	253	0.27	0.29	0.25
		W/B	1020	116	125	107	0.11	0.12	0.10
L7	Yuen Long Tai Yuk Road between Shap Pat Heung Road and Ma Tin Road	N/B	1020	284	307	264	0.28	0.30	0.26
		S/B	1020	156	168	144	0.15	0.16	0.14
L8	Ma Tin Road between Town Park Road North and Yuen Long Tai Yuk Road	E/B	1020	338	366	315	0.33	0.36	0.31
		W/B	1020	144	155	133	0.14	0.15	0.13

Notes: SU-AM1 = 11:30–12:30 (11 learner vehicles); SU-PM1 = 17:30–18:30 (11 learner vehicles); SU-PM2 = 21:00–22:00 (22 learner vehicles). Carriageway capacities follow TPDM Vol. 2 assumptions used in this study.

Under existing 2026 conditions, the calculated v/c ratios for the critical traffic links in both directions on weekday, Saturday and Sunday are below 0.85 as shown in Tables 3.12 to 3.15, indicating that the links are currently operating within acceptable capacity limits with available spare capacity. No systematic queuing or blocking-back affecting the Site access was observed during the survey.

4 Future Traffic Conditions

4.1 Design Year

The application year is 2026. A short-term design horizon of three years has been adopted, and the year 2029 is therefore taken as the design year for this study.

For 2029, the Growth Factor Method is used to forecast traffic flows. This method combines historical traffic data from the Annual Traffic Census (ATC) with population and employment forecasts from the “2021-based Territorial Population and Employment Data Matrix” (TPEDM). The higher of the growth rates derived from ATC and TPEDM is adopted to provide a conservative estimate of background traffic growth.

Local infrastructure proposals, including the CEDD road improvement scheme at Tong Yan San Tsuen Interchange (refer to **Appendix D**), have been reviewed qualitatively. As these works are still at schematic stage and the School’s training routes are largely separate from the primary junction modifications, the use of growth factors based on the existing network configuration represents a conservative approach.

4.2 Regional Traffic Growth

To estimate traffic flows for the design year 2029, it is proposed to adjust the existing traffic flows to reflect anticipated natural traffic growth.

Annual Traffic Census (ATC)

Reference has been made to the 2018 to 2024 Annual Traffic Census Reports, published by the Transport Department. The traffic data recorded at counting stations adjacent to the Application Site are shown in Table 4.1.

Table 4.1 Annual Traffic Census Data

No.	Link	Between	RT	2018	2019	2020	2021	2022	2023	2024	Growth Rate p.a.
5008	Kau Yuk Rd	Yuen Long Tai Yuk Rd and Yuen Long Hong Lok Rd	DD	12,470	12,740	12,770	12,660	12,070	11,730	11,560	-1.25%
5894	Yuen Long Hwy	Shap Pat Heung Int and Tong Yan San Tsuen Int	EX	83,230	86,540	82,380	86,740	90,880	96,570	97,120	+2.61%
Total				95,700	99,280	95,150	99,400	102,950	108,300	108,680	+2.14%

Note: * EX= Expressway & DD = District Distributor

Table 4.1 presents traffic flow data spanning seven years. The data indicates variable annual growth rates across different road links, with one link experiencing a decline and another link showing an increase in traffic volume. When considering all the links collectively, the compounded annual growth rate averages out to an increase of +2.14%.

Projected Population Data

According to the report "2021 – based Territorial Population and Employment Data Matrix" ("TPEDM") published by the Planning Department, the population and employment growth data from year 2026 to 2031 in Yuen Long District Council District are presented in Table 4.2.

Table 4.2 2021-Based TPEDM Data

District Council District	Population		Employment		Population & Employment		Avg. Annual Growth
	2026	2031	2026	2031	2026	2031	
Yuen Long	685,000	760,600	238,500	258,200	923,500	1,018,800	+1.98%

The data indicate the growth in population and employment in Yuen Long District at an annual rate of **+1.98%** from 2026 to 2031.

By comparing the historical traffic data and future planning data, an annual growth rate of **+2.14%** has been adopted for conservative forecasting purposes. This growth factor will be applied to the traffic flows observed in 2026.

4.3 Major Planned/ Committed Developments

In addition to natural traffic growth, forecast traffic conditions in 2029 must reflect major planned or committed developments in the vicinity of the Site. The key developments considered in this TIA are summarised in Table 4.3.

Table 4.3 Major Planning Applications/ Committed Developments

Location	Development Parameters	Type of Development	Completion Year [^]
<u>Long Tin Court by HKHA Planning Brief</u> Proposed Public Housing Development at Long Bin, Yuen Long - Phase 1	About 3,080 units	Residential Development	2026
<u>Planning Application No. A/YL-TYST/1331</u> 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	90 bed spaces	Social Welfare Facility	2027
<u>Planning Application No. A/YL/316</u> Proposed Minor Relaxation of Plot Ratio and Building Height Restrictions for Permitted Public Housing Development and Social Welfare Facility Uses at Government Land along Shap Pat Heung Road, Yuen Long	About 944 units	Residential Development	2028

Location	Development Parameters	Type of Development	Completion Year [^]
<u>Planning Application No. A/YL/18</u> To rezone the application site from "Other Specified Uses" annotated "Art Storage and Public Open Space" to "Other Specified Uses" annotated "Private Subsidized Housing and Art Storage with Public Open Space" at Lots No. 2281 S.A, 2282 RP, 2283 RP, 2960 RP, 2964 S.B in D.D. 120 and adjoining Government Land at Lam Hi Road, Area 13, Yuen Long, New Territories	About 312 units	Residential Development	2028
<u>Planning Application No. Y/YL/19</u> To rezone the application site from "Village Type Development" to "Residential (Group A) 9" and to amend the Notes of the zone applicable to the site at Various Lots in D.D. 120 and Adjoining Government Land, Shap Pat Heung Road, Yuen Long, New Territories	About 1,116 units	Residential Development	2030
<u>Planning Application No. Y/YL/20</u> To rezone the application site from "Government, Institution or Community" to "Residential (Group A) 9" and to amend the Notes of the zone applicable to the site at Various Lots in D.D. 120 and Adjoining Government Land, Shap Pat Heung Road, Yuen Long, New Territories	About 943 units	Residential Development	2030
<u>Long Tin Phase 2 by HKHA Planning Brief</u> Proposed Public Housing Development at Long Bin, Yuen Long - Phase 2	About 8,860 units	Residential Development	2031

**Note: Developments with completion dates beyond the 2029 design year are reviewed for context; only those expected to be substantially completed by 2029 are explicitly reflected in the forecast traffic flows.*

4.4 Traffic Generation of the Operation Schedule

As the Proposed Driving School is a specialised facility governed by strict fleet caps, the traffic generation is derived directly from operational parameters and statutory constraints.

Learning Vehicle Quota and PCU Equivalency

During permitted off-peak operational hours, the Applicant commits to a strict operational cap on the number of learning vehicles dispatched onto the public road network at any one time, as set out in Table 2.3. As learning vehicles typically travel at lower speeds than normal private vehicles, an adjustment factor is applied to their trip generation in accordance with standard transport planning practice. A PCU factor of 2.0 is adopted for all learning vehicles to reflect the influence of slow-moving learner drivers on the local traffic stream. This is consistent with the approach for slow-moving vehicles as referenced in the Transport Planning and Design Manual (TPDM) Vol. 2 Chapter 2.

Based on the proposed operational schedule set out in Table 2.3, the maximum number of learning vehicles on the public road at any one time is 22 nos. Applying the PCU factor of 2.0, the maximum design training traffic generation is 44 pcu/hr.

Ancillary and Shuttle Traffic

In addition to the learning vehicles, the Driving School also generates trips associated with the shuttle bus service, staff and visitors, and goods delivery. The shuttle bus service operates on a fixed schedule (effective from 27 November 2025), with 19 departures daily from the Site between 08:55 and 23:10, translating to a maximum of 2 bus trips per hour per direction. Staff, visitor, and goods delivery vehicles are estimated to generate a combined maximum of 3 vehicle trips per hour during the peak operating period.

It is confirmed that all of the above supporting trips — shuttle bus, staff/visitors, and goods delivery — were inherently captured within the January 2026 baseline traffic count surveys, as the Driving School was already in operation at the time the surveys were conducted. Accordingly, these trips do not constitute an additional net increment to the baseline traffic flows used in this assessment, and no separate ancillary trips are superimposed in the Design Scenario. For clarity and consistency with the previous TIA submissions under Planning Application Nos. A/YL-TYST/1084 and A/YL-TYST/1237, a detailed breakdown of all trip generation categories is provided in Table 4.4 below.

The net training traffic used in the capacity assessment is summarised in Table 4.4.

Table 4.4 Trip Generation for Design Scenario Assessment

Trip Category	Vehicle Type	Max. Trips (veh/hr, one direction)	PCU Factor	Design Traffic (pcu/hr)	Included in 2026 Baseline Survey?
Learning Vehicles (on-street training)	Private Car / LGV	22	2.0	44	Yes
Shuttle Bus Service	Single-deck Bus	2	2.0	4	Yes
Staff and Visitors	Private Car	2	1.0	2	Yes
Goods Delivery	Light Goods Vehicle	1	1.5	1.5	Yes
Total (worst case)		27		40.5	

Notes:

- (1) PCU factors are adopted in accordance with the TPDM Vol. 2 Chapter 2.
- (2) The maximum of 2 shuttle bus trips per hour is derived from the fixed schedule (effective 27 November 2025) and represents the worst-case hourly frequency.
- (3) As the Driving School was in full operation during the January 2026 traffic surveys, all trip categories above are already reflected in the baseline traffic flows. No additional development traffic increment is applied for categories 2 to 4 in the link and junction capacity assessments.
- (4) The junction and link capacity assessments under Future Assessment (Section 4.6) are based on the learning vehicle trips of 44 pcu/hr (22 vehicles × PCU factor of 2.0), representing the net increment above the surveyed baseline. The PCU factor of 2.0 is applied to reflect the slower operating speed of learner vehicles and their influence on the local traffic stream.

4.5 Reference and Design Flows

The 2026 traffic surveys were undertaken while the School was already operating under its existing approval. The observed 2026 flows therefore comprise:

- General background traffic on the road network.
- Ancillary traffic associated with the School (shuttle, staff, deliveries, visitors).
- Existing learning-vehicle traffic on public roads during the currently permitted operating hours.

To isolate the impact of the renewed regime, design assessments apply the learner-vehicle dispatch cap applicable to each assessment period (11 learner vehicles = 22 pcu/hr; 22 learner vehicles = 44 pcu/hr, PCU factor 2.0).

2026 Observed without Learning Vehicles

For each assessment period, the learning-vehicle component in the 2026 observed flows is removed, while retaining the general background traffic and ancillary / shuttle traffic. The learning-vehicle component is identified using the School's booking records and observed on-street training during the surveys. The resulting flows form the 2026 base without learning vehicles.

2029 Reference Flows (without Learning Vehicles) and 2029 Design Flow (with Uniform 22-Vehicle Cap)

$$\begin{aligned} \text{2029 Reference Flows (without Learning Vehicles)} &= \text{2026 Observed without Learning Vehicles Flows} \times (1+2.14\%)^3 + \text{Planned/ Committed Development Traffic} \\ \text{2029 Design Flows} &= \text{2029 Reference Flows (without Learning Vehicles)} + \text{Learning-Vehicle Traffic (22 veh/hour cap)} \end{aligned}$$

Figures 4.1 through 4.12 illustrate these forecast traffic conditions. Figures 4.1 to 4.6 present the 2029 Reference Traffic Flows for the weekday Half Cap and Full Cap assessment periods and the Saturday/Sunday AM, Noon, PM and late periods. Figures 4.7 to 4.12 present the corresponding 2029 Design Traffic Flows with the proposed net learning-vehicle traffic superimposed for the same periods.

4.6 Future Assessment

Junction Capacity Analysis

The results of junction capacity analysis under year 2029 reference and design scenarios on weekday, Saturday and Sunday are summarised in Tables 4.5 to 4.8, and the detailed calculation sheets are enclosed in Appendix E.

Table 4.5 Future Junction Performance on Weekday (Half Cap)

No.	Key Junction	Type / Capacity Index*	Reference Scenario		Design Scenario	
			WD-NN1	WD-PM1	WD-NN1	WD-PM1
A	Town Park Road South/ Town Park Road North	Priority/DFC	0.14	0.11	0.19	0.15
B	Lam Hau Tsuen Road / Lam Yu Road	Roundabout/ DFC	0.08	0.10	0.11	0.13
C	Lam Hau Tsuen Road / Shap Pat Heung Road	Roundabout/ DFC	0.11	0.11	0.15	0.14
D	Town Park Road South / Lam Hau Tsuen Road	Signal/RC	62.6%	80.8%	42.7%	56.6%
E	Town Park Road South / Ma Tin Road / Town Park Road North	Priority/DFC	0.16	0.11	0.26	0.20
F	Ma Tin Road / Yuen Long Tai Yuk Road	Signal/RC	72.3%	95.6%	69.7%	92.2%
G	Shap Pat Heung Road / Yuen Long Tai Yuk Road	Priority/DFC	0.46	0.36	0.46	0.36

Notes: WD-NN1 = 11:30–12:30 (11 learner vehicles); WD-PM1 = 19:30–20:30 (11 learner vehicles). * DFC - Design Flow / Capacity Ratio & RC – Reserved Capacity

Table 4.6 Future Junction Performance on Weekday (Full Cap)

No.	Key Junction	Type / Capacity Index*	Reference Scenario		Design Scenario	
			WD-AM1	WD-PM2	WD-AM1	WD-PM2
A	Town Park Road South/ Town Park Road North	Priority/DFC	0.15	0.09	0.27	0.20
B	Lam Hau Tsuen Road / Lam Yu Road	Roundabout/ DFC	0.08	0.08	0.14	0.14
C	Lam Hau Tsuen Road / Shap Pat Heung Road	Roundabout/ DFC	0.12	0.09	0.18	0.15
D	Town Park Road South / Lam Hau Tsuen Road	Signal/RC	57.3%	>100%	23.9%	60.9%
E	Town Park Road South / Ma Tin Road / Town Park Road North	Priority/DFC	0.17	0.08	0.36	0.26
F	Ma Tin Road / Yuen Long Tai Yuk Road	Signal/RC	66.5%	>100%	61.6%	>100%
G	Shap Pat Heung Road / Yuen Long Tai Yuk Road	Priority/DFC	0.47	0.29	0.48	0.29

Notes: WD-AM1 = 10:30–11:30 (22 learner vehicles); WD-PM2 = 20:30–21:30 (22 learner vehicles). * DFC - Design Flow / Capacity Ratio & RC – Reserved Capacity

Under the 2029 weekday reference and design scenarios, all assessed junctions are forecast to operate within acceptable capacity limits during both the AM and PM Periods. The additional learning-vehicle traffic under the design scenario increases critical DFC values and reduces reserved capacity at the signalised junctions, but the residual capacity remains adequate.

Table 4.7 Future Junction Performance on Saturday

No.	Key Junction	Type / Capacity Index*	Reference Scenario			Design Scenario		
			SA-AM1	SA-PM1	SA-PM2	SA-AM1	SA-PM1	SA-PM2
A	Town Park Road South/ Town Park Road North	Priority/DFC	0.10	0.11	0.07	0.17	0.18	0.20
B	Lam Hau Tsuen Road / Lam Yu Road	Roundabout/ DFC	0.04	0.05	0.03	0.07	0.08	0.09
C	Lam Hau Tsuen Road / Shap Pat Heung Road	Roundabout/ DFC	0.11	0.12	0.08	0.15	0.15	0.14
D	Town Park Road South / Lam Hau Tsuen Road	Signal/RC	60.5%	53.2%	>100%	41.1%	35.4%	69.7%
E	Town Park Road South / Ma Tin Road / Town Park Road North	Priority/DFC	0.11	0.11	0.07	0.20	0.21	0.25

No.	Key Junction	Type / Capacity Index*	Reference Scenario			Design Scenario		
			SA-AM1	SA-PM1	SA-PM2	SA-AM1	SA-PM1	SA-PM2
F	Ma Tin Road / Yuen Long Tai Yuk Road	Signal/RC	53.6%	46.3%	>100%	51.5%	44.4%	>100%
G	Shap Pat Heung Road / Yuen Long Tai Yuk Road	Priority/DFC	0.43	0.46	0.28	0.44	0.46	0.28

Notes: SA-AM1 = 10:30–11:30 (11 learner vehicles); SA-PM1 = 17:30–18:30 (11 learner vehicles); SA-PM2 = 21:30–22:30 (22 learner vehicles). * DFC - Design Flow / Capacity Ratio & RC – Reserved Capacity

Table 4.7 shows that Saturday assessment-period junction performance remains satisfactory under both scenarios. Priority and roundabout junctions continue to operate at low DFC levels through the AM, PM and late periods, while signalised junctions D and F retain positive reserved capacity.

Sunday junction performance is summarised in Table 4.8 for the same reference and design scenarios. The Sunday peaks are generally lighter than the Saturday peaks at most junctions, and all assessed junctions remain within capacity under both scenarios.

Table 4.8 Future Junction Performance on Sunday

No.	Key Junction	Type / Capacity Index*	Reference Scenario			Design Scenario		
			SU-AM1	SU-PM1	SU-PM2	SU-AM1	SU-PM1	SU-PM2
A	Town Park Road South / Town Park Road North	Priority/DFC	0.13	0.15	0.12	0.20	0.22	0.27
B	Lam Hau Tsuen Road / Lam Yu Road	Roundabout/ DFC	0.04	0.04	0.03	0.07	0.07	0.09
C	Lam Hau Tsuen Road / Shap Pat Heung Road	Roundabout/ DFC	0.09	0.09	0.08	0.12	0.13	0.14
D	Town Park Road South / Lam Hau Tsuen Road	Signal/RC	>100%	87.9%	>100%	73.1%	61.9%	59.6%
E	Town Park Road South / Ma Tin Road / Town Park Road North	Priority/DFC	0.09	0.10	0.08	0.18	0.19	0.27
F	Ma Tin Road / Yuen Long Tai Yuk Road	Signal/RC	>100%	96.3%	>100%	>100%	92.9%	>100%
G	Shap Pat Heung Road / Yuen Long Tai Yuk Road	Priority/DFC	0.34	0.37	0.31	0.34	0.37	0.32

Notes: SU-AM1 = 11:30–12:30 (11 learner vehicles); SU-PM1 = 17:30–18:30 (11 learner vehicles); SU-PM2 = 21:00–22:00 (22 learner vehicles). * DFC - Design Flow / Capacity Ratio & RC – Reserved Capacity

As shown in Tables 4.5 to 4.8, all key junctions are forecast to operate below their maximum capacities during the identified weekday, Saturday and Sunday peaks under both the reference and design scenarios. On this basis, the renewed and extended school operation is not expected to result in unacceptable junction capacity impacts in the 2029 design year.

Link Capacity Analysis

The results of the link capacity assessment under the future reference and design scenarios for weekday, Saturday and Sunday conditions are summarised in Tables 4.9 to 4.14. The assessed road links are numbered L1–L8, consistent with Tables 3.12 to 3.15, and are distinct from the survey count locations M1–M8 used for assessment-period identification.

Table 4.9 presents the future weekday (Half Cap) link performance for the assessed road links in terms of the adopted carriageway capacities, projected reference and design assessment-period flows and the corresponding v/c ratios. Table 4.10 presents the corresponding weekday Full Cap results. Tables 4.11 and 4.12 and design results for the AM, PM and late periods, while Tables 4.13 and 4.14.

Table 4.9 Future Link Performance (Weekday) (Half Cap)

No.	Key Road Link	Dir	Carriageway Capacity (pcu/hr)	Reference Flows (pcu/hr)		Reference V/C Ratio		Design Flows (pcu/hr)		Design V/C Ratio	
				WD-NN1	WD-PM1	WD-NN1	WD-PM1	WD-NN1	WD-PM1	WD-NN1	WD-PM1
L1	Shan Ha Road between Town Park Road South and Shan Ha Road from Tong Yan San Tsuen Interchange	N/B	840	515	597	0.61	0.71	537	619	0.64	0.74
		S/B	840	273	298	0.33	0.35	295	320	0.35	0.38
L2	Town Park Road North between Shan Ha Road, Town Park Road South and Ma Tin Road	E/B	1020	106	65	0.10	0.06	150	109	0.15	0.11
		W/B	1020	73	49	0.07	0.05	117	93	0.11	0.09
L3	Town Park Road South between Shan Ha Road and Lam Hau Tsuen Road	E/B	1020	457	441	0.45	0.43	479	463	0.47	0.45
		W/B	1020	260	223	0.25	0.22	282	245	0.28	0.24
L4	Lam Hau Tsuen Road between Town Park Road South and Shap Pat Heung Road	N/B	1020	167	128	0.16	0.13	211	172	0.21	0.17
		S/B	1020	233	217	0.23	0.21	299	283	0.29	0.28
L5	Lam Hau Tsuen Road between Shap Pat Heung Road and Lam Yu Road	N/B	840	123	100	0.15	0.12	167	144	0.20	0.17
		S/B	840	111	139	0.13	0.17	155	183	0.18	0.22
L6	Shap Pat Heung Road between Lam Hau Tsuen Road and Yuen Long Tai Yuk Road	E/B	1020	292	192	0.29	0.19	314	214	0.31	0.21
		W/B	1020	146	136	0.14	0.13	146	136	0.14	0.13
L7	Yuen Long Tai Yuk Road between Shap Pat Heung Road and Ma Tin Road	N/B	1020	447	316	0.44	0.31	469	338	0.46	0.33
		S/B	1020	195	232	0.19	0.23	195	232	0.19	0.23
L8	Ma Tin Road between Town Park Road North and Yuen Long Tai Yuk Road	E/B	1020	376	324	0.37	0.32	376	324	0.37	0.32
		W/B	1020	213	179	0.21	0.18	235	201	0.23	0.20

Notes: WD-NN1 = 11:30–12:30 (11 learner vehicles); WD-PM1 = 19:30–20:30 (11 learner vehicles). Carriageway capacities follow TPDM Vol. 2 assumptions used in this study.

Table 4.10 Future Link Performance (Weekday) (Full Cap)

No.	Key Road Link	Dir	Carriageway Capacity (pcu/hr)	Reference Flows (pcu/hr)		Reference V/C Ratio		Design Flows (pcu/hr)		Design V/C Ratio	
				WD-AM1	WD-PM2	WD-AM1	WD-PM2	WD-AM1	WD-PM2	WD-AM1	WD-PM2
L1	Shan Ha Road between Town Park Road South and Shan Ha Road from Tong Yan San Tsuen Interchange	N/B	840	533	487	0.63	0.58	577	531	0.69	0.63
		S/B	840	282	243	0.34	0.29	326	287	0.39	0.34
L2	Town Park Road North between Shan Ha Road, Town Park Road South and Ma Tin Road	E/B	1020	108	52	0.11	0.05	196	140	0.19	0.14
		W/B	1020	75	40	0.07	0.04	163	128	0.16	0.13
L3	Town Park Road South between Shan Ha Road and Lam Hau Tsuen Road	E/B	1020	473	360	0.46	0.35	517	404	0.51	0.40
		W/B	1020	269	182	0.26	0.18	313	226	0.31	0.22
L4	Lam Hau Tsuen Road between Town Park Road South and Shap Pat Heung Road	N/B	1020	173	104	0.17	0.10	261	192	0.26	0.19
		S/B	1020	241	177	0.24	0.17	373	309	0.37	0.30
L5	Lam Hau Tsuen Road between Shap Pat Heung Road and Lam Yu Road	N/B	840	127	81	0.15	0.10	215	169	0.26	0.20
		S/B	840	115	114	0.14	0.14	203	202	0.24	0.24
L6	Shap Pat Heung Road between Lam Hau Tsuen Road and Yuen Long Tai Yuk Road	E/B	1020	303	157	0.30	0.15	347	201	0.34	0.20
		W/B	1020	151	111	0.15	0.11	151	111	0.15	0.11
L7	Yuen Long Tai Yuk Road between Shap Pat Heung Road and Ma Tin Road	N/B	1020	464	258	0.45	0.25	508	302	0.50	0.30
		S/B	1020	201	191	0.20	0.19	201	191	0.20	0.19
L8	Ma Tin Road between Town Park Road North and Yuen Long Tai Yuk Road	E/B	1020	389	263	0.38	0.26	389	263	0.38	0.26
		W/B	1020	220	146	0.22	0.14	264	190	0.26	0.19

Notes: WD-AM1 = 10:30–11:30 (22 learner vehicles); WD-PM2 = 20:30–21:30 (22 learner vehicles). Carriageway capacities follow TPDM Vol. 2 assumptions used in this study.

Table 4.11 summarises the Saturday reference-scenario link performance for the AM, PM and late periods. The reference flows reflect 2029 background growth applied to the observed baseline with learning-vehicle traffic removed, and provide the basis for comparison with the design scenario.

Table 4.11 Future Link Performance on Saturday (Reference Scenario)

No.	Key Road Link	Dir.	Capacity (pcu/hr)	Reference Flows (pcu/hr)			Reference V/C Ratio		
				SA-AM1	SA-PM1	SA-PM2	SA-AM1	SA-PM1	SA-PM2
L1	Shan Ha Road between Town Park Road South and Shan Ha Road from Tong Yan San Tsuen Interchange	N/B	840	429	612	391	0.51	0.73	0.47
		S/B	840	269	250	160	0.32	0.30	0.19
L2	Town Park Road North between Shan Ha Road, Town Park Road South and Ma Tin Road	E/B	1020	64	68	42	0.06	0.07	0.04
		W/B	1020	60	63	40	0.06	0.06	0.04
L3	Town Park Road South between Shan Ha Road and Lam Hau Tsuen Road	E/B	1020	521	546	350	0.51	0.54	0.34
		W/B	1020	206	215	138	0.20	0.21	0.14
L4	Lam Hau Tsuen Road between Town Park Road South and Shap Pat Heung Road	N/B	1020	164	172	110	0.16	0.17	0.11
		S/B	1020	234	245	157	0.23	0.24	0.15
L5	Lam Hau Tsuen Road between Shap Pat Heung Road and Lam Yu Road	N/B	840	119	126	79	0.14	0.15	0.09
		S/B	840	64	67	42	0.08	0.08	0.05
L6	Shap Pat Heung Road between Lam Hau Tsuen Road and Yuen Long Tai Yuk Road	E/B	1020	370	388	248	0.36	0.38	0.24
		W/B	1020	153	160	102	0.15	0.16	0.10
L7	Yuen Long Tai Yuk Road between Shap Pat Heung Road and Ma Tin Road	N/B	1020	445	467	299	0.44	0.46	0.29
		S/B	1020	228	239	153	0.22	0.23	0.15
L8	Ma Tin Road between Town Park Road North and Yuen Long Tai Yuk Road	E/B	1020	492	518	331	0.48	0.51	0.32
		W/B	1020	174	183	117	0.17	0.18	0.11

Notes: SA-AM1 = 10:30–11:30 (11 learner vehicles); SA-PM1 = 17:30–18:30 (11 learner vehicles); SA-PM2 = 21:30–22:30 (22 learner vehicles). Carriageway capacities follow TPDM Vol. 2 assumptions used in this study.

Table 4.12 presents the corresponding Saturday design-scenario results, in which the net learning-vehicle traffic of 44 pcu/hr associated with the uniform hourly dispatch cap is assigned onto the surrounding road links.

Table 4.12 Future Link Performance on Saturday (Design Scenario)

No.	Key Road Link	Dir.	Capacity (pcu/hr)	Design Flows (pcu/hr)			Design V/C Ratio		
				SA-AM1	SA-PM1	SA-PM2	SA-AM1	SA-PM1	SA-PM2
L1	Shan Ha Road between Town Park Road South and Shan Ha Road from Tong Yan San Tsuen Interchange	N/B	840	451	634	435	0.54	0.75	0.52
		S/B	840	291	272	204	0.35	0.32	0.24
L2	Town Park Road North between Shan Ha Road, Town Park Road South and Ma Tin Road	E/B	1020	108	112	130	0.11	0.11	0.13
		W/B	1020	104	107	128	0.10	0.10	0.13
L3	Town Park Road South between Shan Ha Road and Lam Hau Tsuen Road	E/B	1020	543	568	394	0.53	0.56	0.39
		W/B	1020	228	237	182	0.22	0.23	0.18
L4	Lam Hau Tsuen Road between Town Park Road South and Shap Pat Heung Road	N/B	1020	208	216	198	0.20	0.21	0.19
		S/B	1020	300	311	289	0.29	0.30	0.28
L5	Lam Hau Tsuen Road between Shap Pat Heung Road and Lam Yu Road	N/B	840	163	170	167	0.19	0.20	0.20
		S/B	840	108	111	130	0.13	0.13	0.15
L6	Shap Pat Heung Road between Lam Hau Tsuen Road and Yuen Long Tai Yuk Road	E/B	1020	392	410	292	0.38	0.40	0.29
		W/B	1020	153	160	102	0.15	0.16	0.10
L7	Yuen Long Tai Yuk Road between Shap Pat Heung Road and Ma Tin Road	N/B	1020	467	489	343	0.46	0.48	0.34
		S/B	1020	228	239	153	0.22	0.23	0.15
L8	Ma Tin Road between Town Park Road North and Yuen Long Tai Yuk Road	E/B	1020	492	518	331	0.48	0.51	0.32
		W/B	1020	196	205	161	0.19	0.20	0.16

Notes: SA-AM1 = 10:30–11:30 (11 learner vehicles); SA-PM1 = 17:30–18:30 (11 learner vehicles); SA-PM2 = 21:30–22:30 (22 learner vehicles). Carriageway capacities follow TPDM Vol. 2 assumptions used in this study.

Sunday link performance under the 2029 reference scenario is presented in Table 4.13 for the AM, PM and late periods, on the same assessment basis as the Saturday reference case.

Table 4.13 Future Link Performance on Sunday (Reference Scenario)

No.	Key Road Link	Dir.	Capacity (pcu/hr)	Reference Flows (pcu/hr)			Reference V/C Ratio		
				SU-AM1	SU-PM1	SU-PM2	SU-AM1	SU-PM1	SU-PM2
L1	Shan Ha Road between Town Park Road South and Shan Ha Road from Tong Yan San Tsuen Interchange	N/B	840	358	515	442	0.43	0.61	0.53
		S/B	840	224	211	181	0.27	0.25	0.22
L2	Town Park Road North between Shan Ha Road, Town Park Road South and Ma Tin Road	E/B	1020	43	48	41	0.04	0.05	0.04
		W/B	1020	95	104	89	0.09	0.10	0.09
L3	Town Park Road South between Shan Ha Road and Lam Hau Tsuen Road	E/B	1020	411	445	381	0.40	0.44	0.37
		W/B	1020	160	174	149	0.16	0.17	0.15
L4	Lam Hau Tsuen Road between Town Park Road South and Shap Pat Heung Road	N/B	1020	132	142	121	0.13	0.14	0.12
		S/B	1020	193	208	178	0.19	0.20	0.17
L5	Lam Hau Tsuen Road between Shap Pat Heung Road and Lam Yu Road	N/B	840	94	101	87	0.11	0.12	0.10
		S/B	840	52	56	48	0.06	0.07	0.06
L6	Shap Pat Heung Road between Lam Hau Tsuen Road and Yuen Long Tai Yuk Road	E/B	1020	289	313	269	0.28	0.31	0.26
		W/B	1020	124	133	113	0.12	0.13	0.11
L7	Yuen Long Tai Yuk Road between Shap Pat Heung Road and Ma Tin Road	N/B	1020	302	328	282	0.30	0.32	0.28
		S/B	1020	167	179	153	0.16	0.18	0.15
L8	Ma Tin Road between Town Park Road North and Yuen Long Tai Yuk Road	E/B	1020	360	390	335	0.35	0.38	0.33
		W/B	1020	154	165	142	0.15	0.16	0.14

Notes: SU-AM1 = 11:30–12:30 (11 learner vehicles); SU-PM1 = 17:30–18:30 (11 learner vehicles); SU-PM2 = 21:00–22:00 (22 learner vehicles). Carriageway capacities follow TPDM Vol. 2 assumptions used in this study.

Table 4.14 presents the Sunday design-scenario results. As with Saturday, the design flows include the net learning-vehicle loading under the proposed operating regime, allowing the incremental impact of the renewed school operation to be identified.

Table 4.14 Future Link Performance on Sunday (Design Scenario)

No.	Key Road Link	Dir.	Capacity (pcu/hr)	Design Flows (pcu/hr)			Design V/C Ratio		
				SU-AM1	SU-PM1	SU-PM2	SU-AM1	SU-PM1	SU-PM2
L1	Shan Ha Road between Town Park Road South and Shan Ha Road from Tong Yan San Tsuen Interchange	N/B	840	380	537	486	0.45	0.64	0.58
		S/B	840	246	233	225	0.29	0.28	0.27
L2	Town Park Road North between Shan Ha Road, Town Park Road South and Ma Tin Road	E/B	1020	87	92	129	0.09	0.09	0.13
		W/B	1020	139	148	177	0.14	0.15	0.17
L3	Town Park Road South between Shan Ha Road and Lam Hau Tsuen Road	E/B	1020	433	467	425	0.42	0.46	0.42
		W/B	1020	182	196	193	0.18	0.19	0.19
L4	Lam Hau Tsuen Road between Town Park Road South and Shap Pat Heung Road	N/B	1020	176	186	209	0.17	0.18	0.20
		S/B	1020	259	274	310	0.25	0.27	0.30
L5	Lam Hau Tsuen Road between Shap Pat Heung Road and Lam Yu Road	N/B	840	138	145	175	0.16	0.17	0.21
		S/B	840	96	100	136	0.11	0.12	0.16
L6	Shap Pat Heung Road between Lam Hau Tsuen Road and Yuen Long Tai Yuk Road	E/B	1020	311	335	313	0.30	0.33	0.31
		W/B	1020	124	133	113	0.12	0.13	0.11
L7	Yuen Long Tai Yuk Road between Shap Pat Heung Road and Ma Tin Road	N/B	1020	324	350	326	0.32	0.34	0.32
		S/B	1020	167	179	153	0.16	0.18	0.15
L8	Ma Tin Road between Town Park Road North and Yuen Long Tai Yuk Road	E/B	1020	360	390	335	0.35	0.38	0.33
		W/B	1020	176	187	186	0.17	0.18	0.18

Notes: SU-AM1 = 11:30–12:30 (11 learner vehicles); SU-PM1 = 17:30–18:30 (11 learner vehicles); SU-PM2 = 21:00–22:00 (22 learner vehicles). Carriageway capacities follow TPDM Vol. 2 assumptions used in this study.

As shown in Tables 4.9 to 4.14, all assessed links are forecast to operate within acceptable capacity limits ($v/c \leq 0.85$) in both directions during all assessed peak hours under both the 2029 Reference and Design scenarios. The weekend design-scenario loadings remain only marginally higher than the corresponding reference cases, confirming that the proposed operating regime would not give rise to unacceptable link capacity impacts.

5 Conclusion

5.1 Summary of Findings

The Applicant seeks renewal of the planning approval for the temporary Designated Driving School at Lot 2620 RP (Part) in D.D. 120, No. 69 Shan Ha Road, Yuen Long, for a further period of three years, together with an extension of the permitted on-street learner driving hours in accordance with the operating regime set out in this TIA. The proposal does not involve any change to the existing site access, internal circulation, parking provision, shuttle service arrangement or approved training routes. The proposed operational schedule (learner-vehicle caps by period) is reproduced in the Conclusion chapter for ease of reference.

To establish the baseline traffic conditions, classified traffic count surveys were undertaken continuously from 07:30 to 23:30 on a typical weekday, Saturday and Sunday in January 2026. Assessment periods for the junction network and for Shan Ha Road were identified from the surveyed link flows within the legally allowable learner driving windows. Existing junction and link performance was evaluated for weekday AM/PM Periods and for Saturday and Sunday AM, PM and late periods (Tables 3.8 to 3.15). Under the 2026 observed conditions, all assessed junctions operate within the relevant TPDM capacity thresholds, and all assessed road links operate with v/c ratios below 0.85 in both directions.

For the future assessment, a 2029 design year has been adopted. Background traffic has been projected using a conservative annual growth rate of 2.14%, with allowance also made for relevant planned and committed developments in the vicinity. In support of the proposed operating regime, the Applicant has committed to a maximum dispatch cap of 22 learner vehicles per hour during all permitted off-peak periods. Applying the adopted passenger car unit (pcu) factor of 2.0 for learner vehicles, the corresponding maximum net training traffic for capacity assessment is 44 pcu/hr. Ancillary shuttle, staff/visitor and delivery trips were already reflected in the January 2026 baseline surveys.

Two future scenarios have been assessed: the 2029 Reference scenario (background growth without learning-vehicle traffic) and the 2029 Design scenario (background growth plus the uniform 22-vehicle hourly cap). Junction capacity results for weekday, Saturday and Sunday conditions are presented in Tables 4.5 to 4.8, while link capacity results are presented in Tables 4.9 to 4.14. Under both scenarios, all assessed junctions are forecast to operate within acceptable capacity limits during the identified peaks, and all assessed road links (L1–L8) are forecast to operate with v/c ratios not exceeding 0.85 in both directions. The design-scenario loadings are only marginally higher than the corresponding reference cases, indicating that the incremental impact of the renewed operating regime is limited.

The review also confirms that the existing internal transport facilities, comprising 23 private car parking spaces, 1 accessible parking space, 22 motorcycle parking spaces and 2 light bus parking spaces, remain adequate for the continued operation of the School. The existing shuttle service between the Site and Tin Shui Wai MTR Station will continue to assist in reducing reliance on private car access by students and staff.

For completeness, the proposed operational schedule of the Driving School is included in this Conclusion chapter. The schedule is identical to that set out in Table 2.3, and is reproduced below.

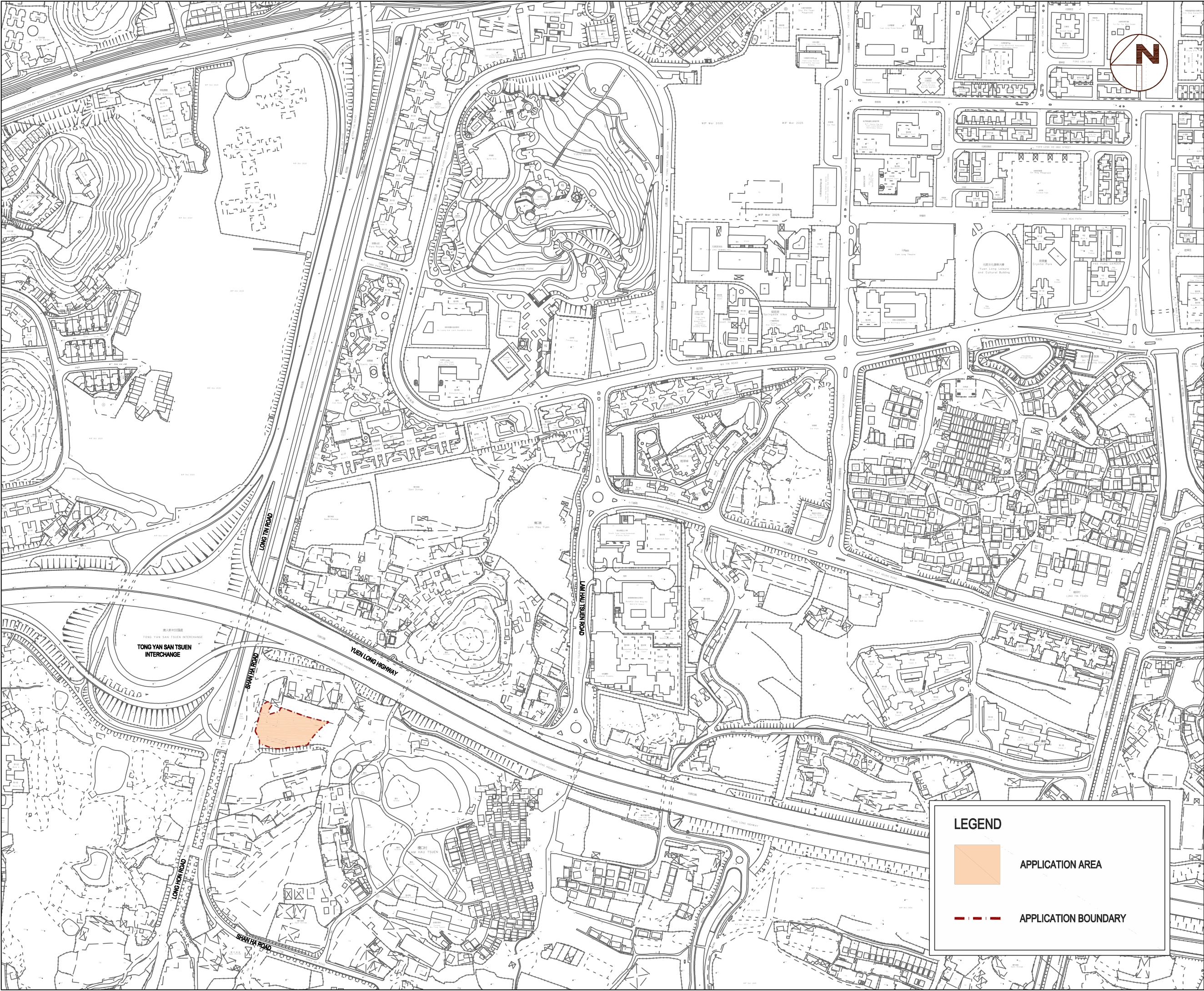
Table 5.1 Proposed Operational Schedule of the Driving School

Activities		*Operation Period	
Office / Administrative		Monday - Friday	08:30 – 23:30 hours
		Saturday, Sunday, and Public Holidays	08:30 – 23:30 hours
Driving Learning / Training Session	Internal within the Proposed Driving School	Monday - Friday	08:30 – 23:30 hours
		Saturday, Sunday, and Public Holidays	08:30 – 23:30 hours
	External on Public Road	Monday – Friday	Proposed training class schedule: <i>For max. 22 no. learning vehicles:</i> 1030-1130, 2030-2130, 2130-2230, 2230-2330 hours; <i>For max. 11 no. learning vehicles:</i> 0930 – 1030, 1130-1230, 1930-2030 hour
			Saturday
		Sunday, and Public Holidays	
Driving Test (to be conducted by Transport Department)		Schedule to be arranged by Transport Department	

5.2 Conclusion

Based on the findings of this Traffic Impact Assessment, the continued operation of the temporary Designated Driving School at Lot 2620 RP (Part) in D.D. 120, Shan Ha Road, Yuen Long, for a further period of three years, together with the proposed extension of permitted on-street learner driving hours under the committed hourly dispatch cap, is considered acceptable from a traffic engineering point of view. No unacceptable junction or road link capacity impacts are anticipated on the surrounding road network in the 2029 design year.

Figures



Traffic Impact
Assessment For
Section 16 Planning
Application For
Proposed Temporary
Driving School For A
Period Of 3 years At
Lot 2620 RP (Part) in
D.D. 120, Shan Ha
Road, Yuen Long, New
Territories

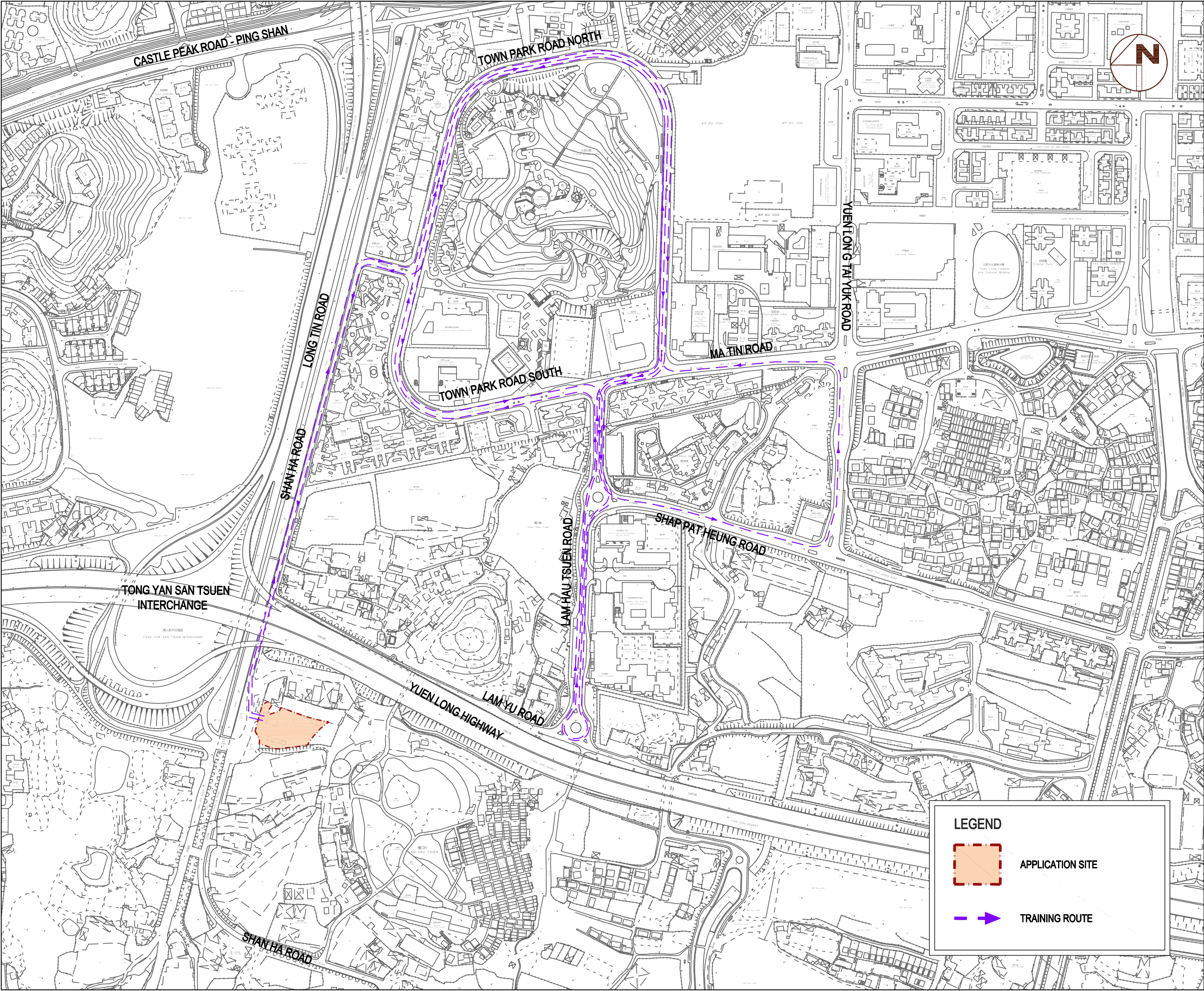
SITE LOCATION

FIGURE 2.1

Scale : 1:4000 (A3)

Date : FEB 2026

Rev. :



Traffic Assessment For Section 16 Planning Application For Proposed Temporary Driving School For A Period Of 3 years At Lot 2620 RP (Part) in D.D. 120, Shan Ha Road, Yuen Long, New Territories

REGULAR TRAINING ROUTE OF LEARNING VEHICLES

FIGURE 2.2

Scale : 1:4000 (A3)

Date : FEB 2026

Rev. :

LEGEND

APPLICATION SITE

TRAINING ROUTE

Observed Traffic Link for Peak Hours Determination

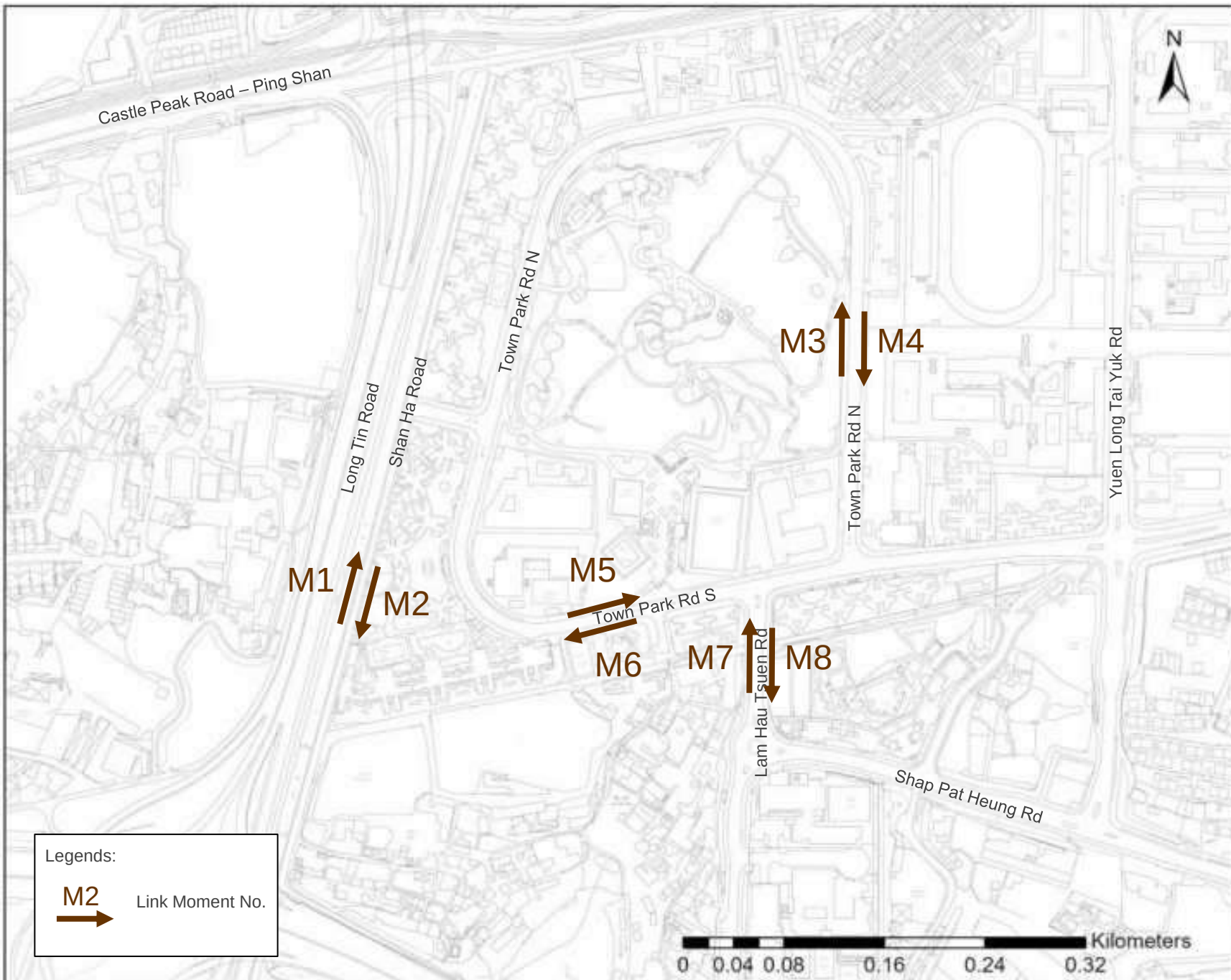
Figure 3.1

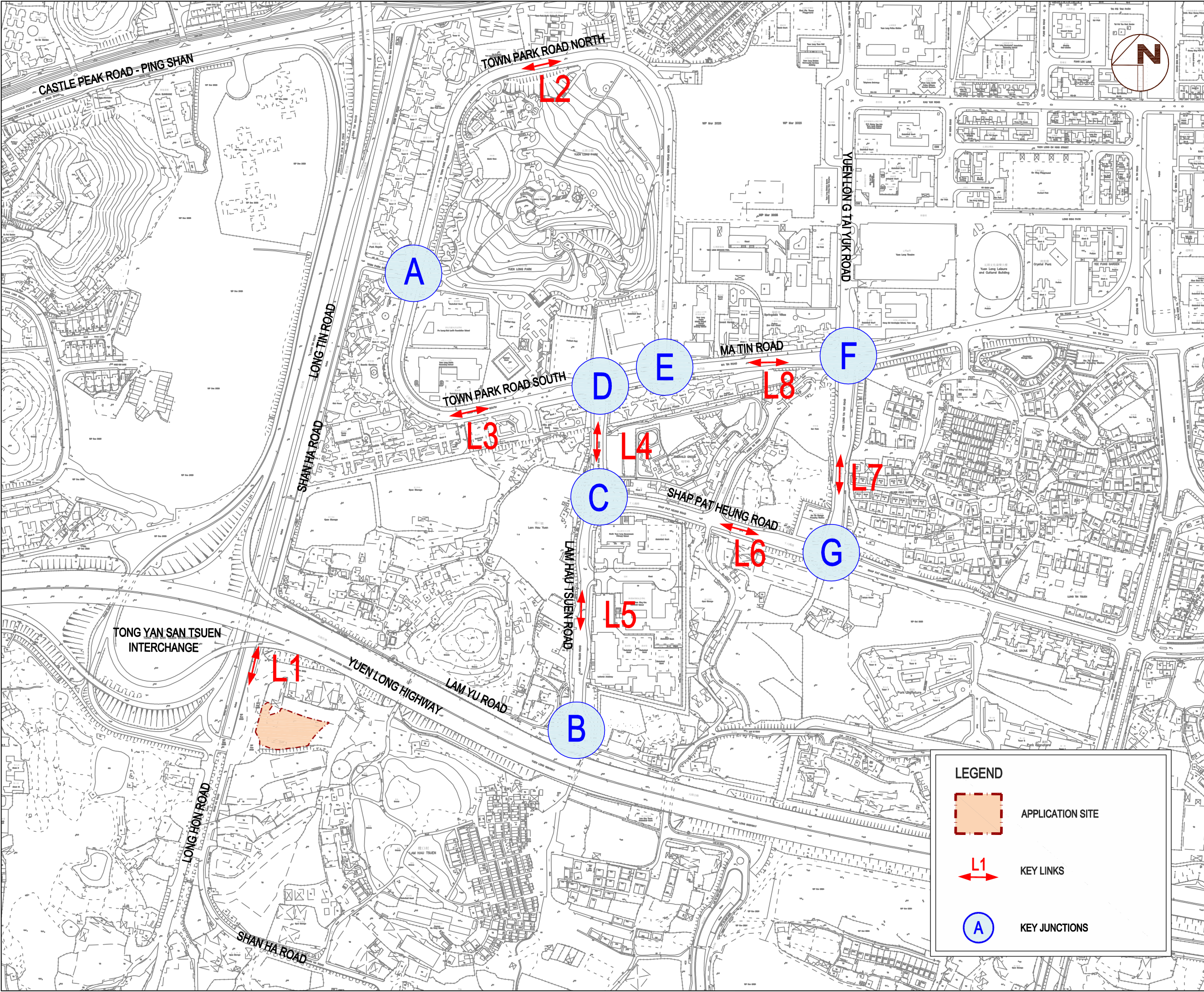
Scale: 1:4,000

Date: Jul 2026

Rev: -

AXON
CONSULTANCY





Traffic Assessment For
Section 16 Planning Application For
Proposed Temporary Driving School For A
Period Of 3 years At
Lot 2620 RP (Part) in
D.D. 120, Shan Ha
Road, Yuen Long, New
Territories

KEY LINKS AND KEY
JUNCTIONS

FIGURE 3.2

LEGEND

APPLICATION SITE

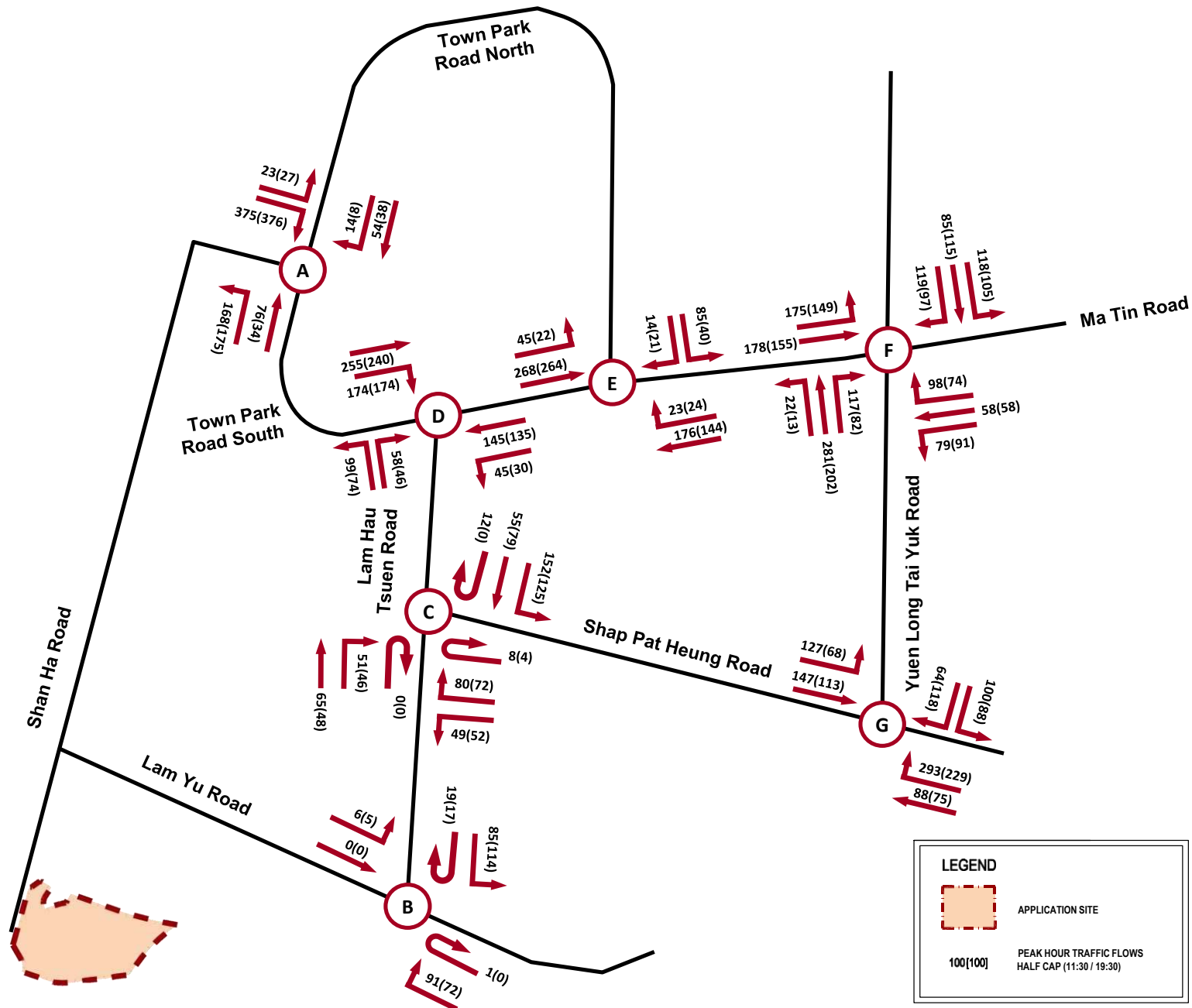
KEY LINKS

KEY JUNCTIONS

Scale : 1:4000 (A3)

Date : FEB 2026

Rev. :



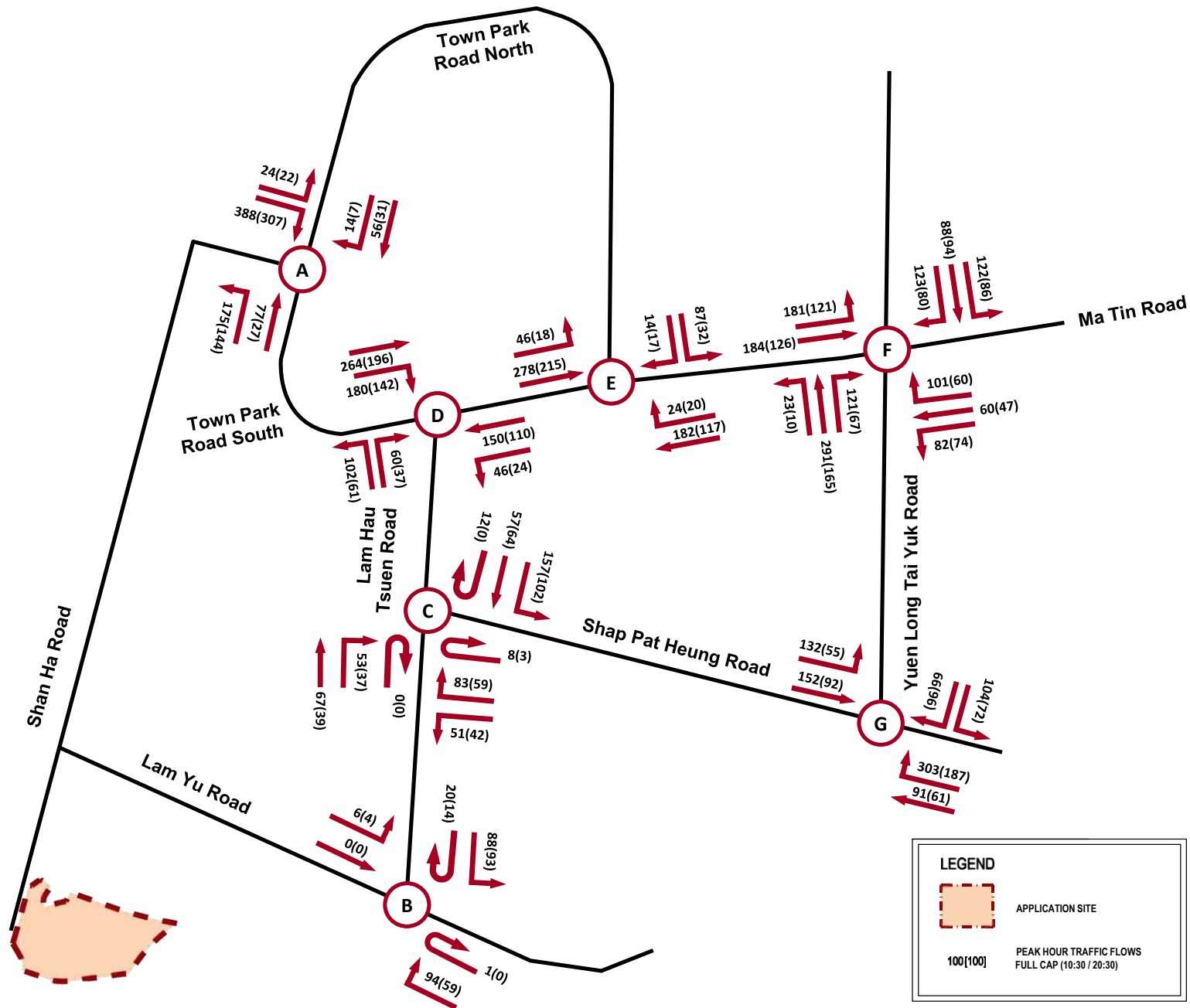
2026 OBSERVED TRAFFIC FLOW (WEEKDAY) HALF CAP – 11:30-12:30 / 19:30-20:30

FIGURE 3.3

Scale : N.T.S.

Date : JUN 2026

Rev. :



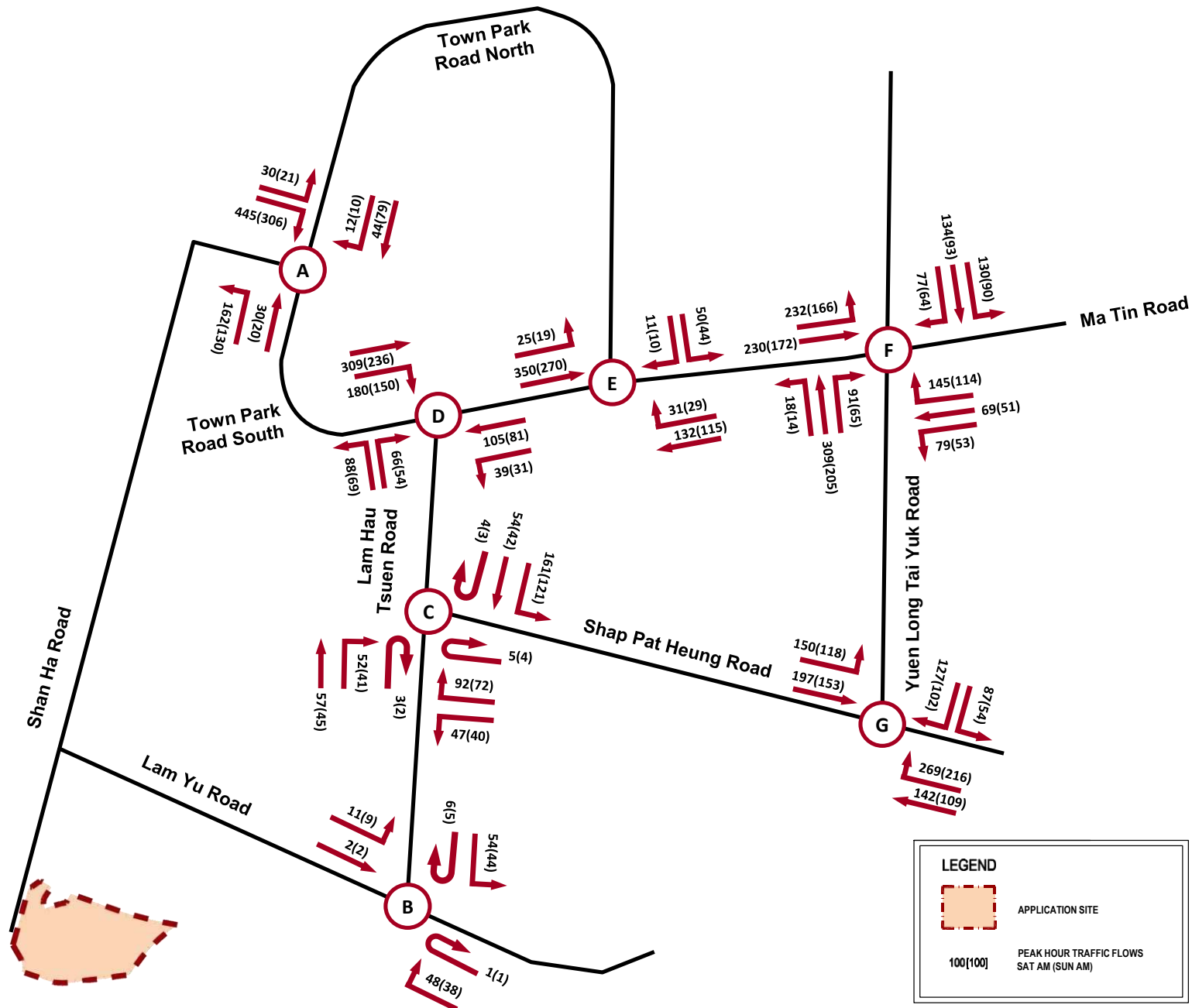
2026 OBSERVED
TRAFFIC FLOW
(WEEKDAY)
FULL CAP – 10:30-
11:30 / 20:30-21:30

FIGURE 3.4

Scale : N.T.S.

Date : JUN 2026

Rev. :



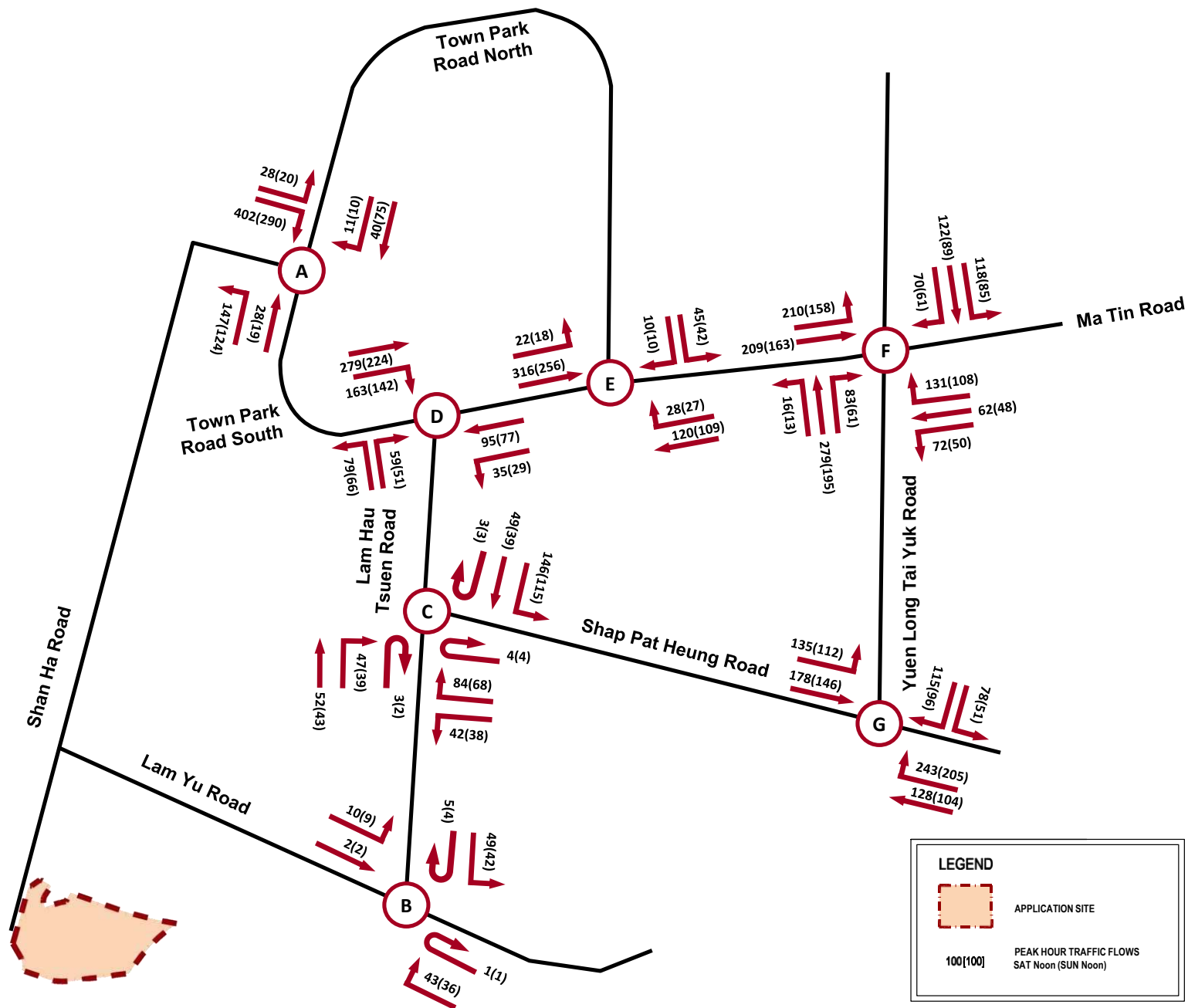
2026 OBSERVED
TRAFFIC FLOW
(WEEKEND)
SATURDAY AM /
SUNDAY AM

FIGURE 3.5

Scale : N.T.S.

Date : JUN 2026

Rev. :



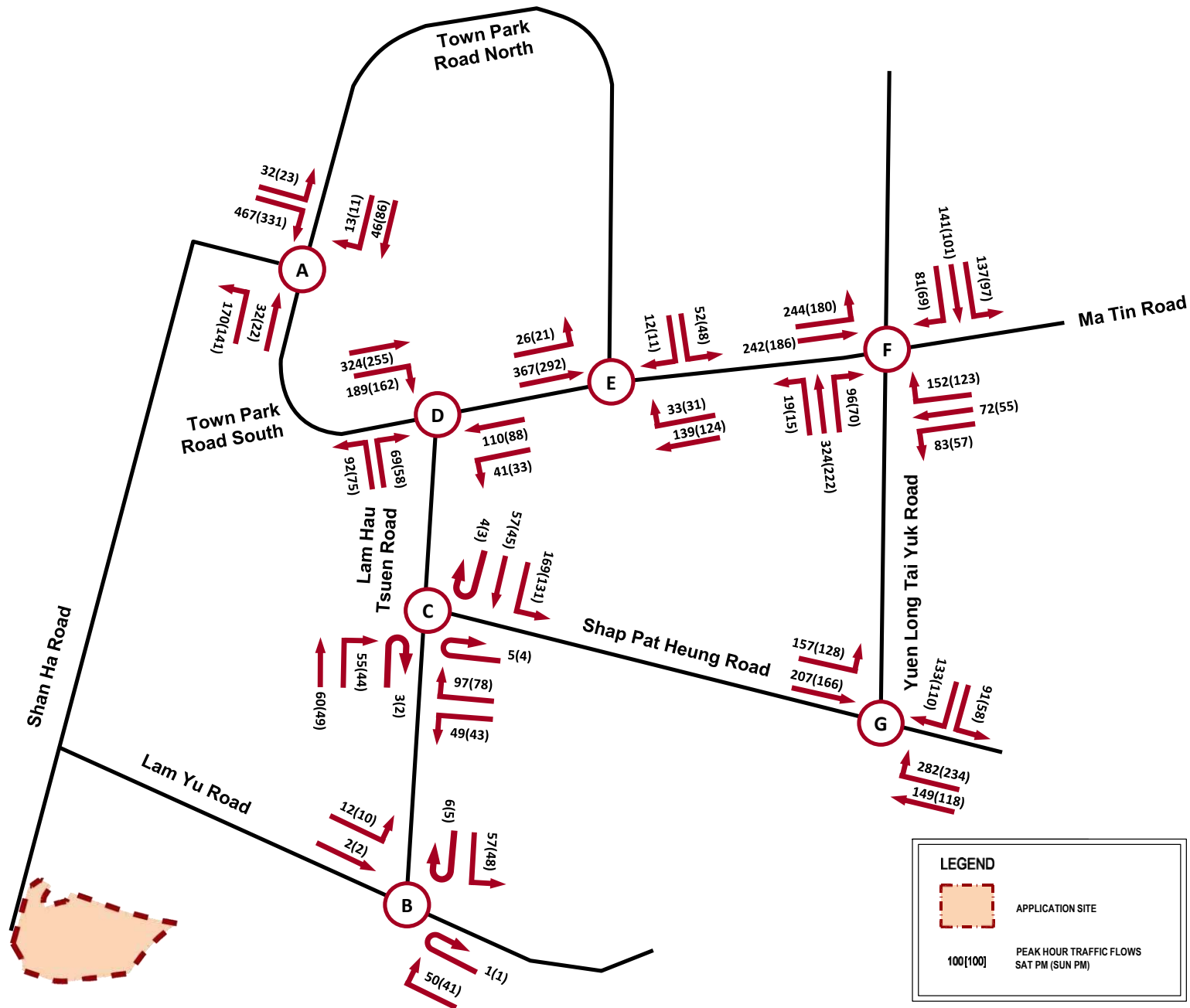
2026 OBSERVED
TRAFFIC FLOW
(WEEKEND)
SATURDAY NOON
/ SUNDAY NOON

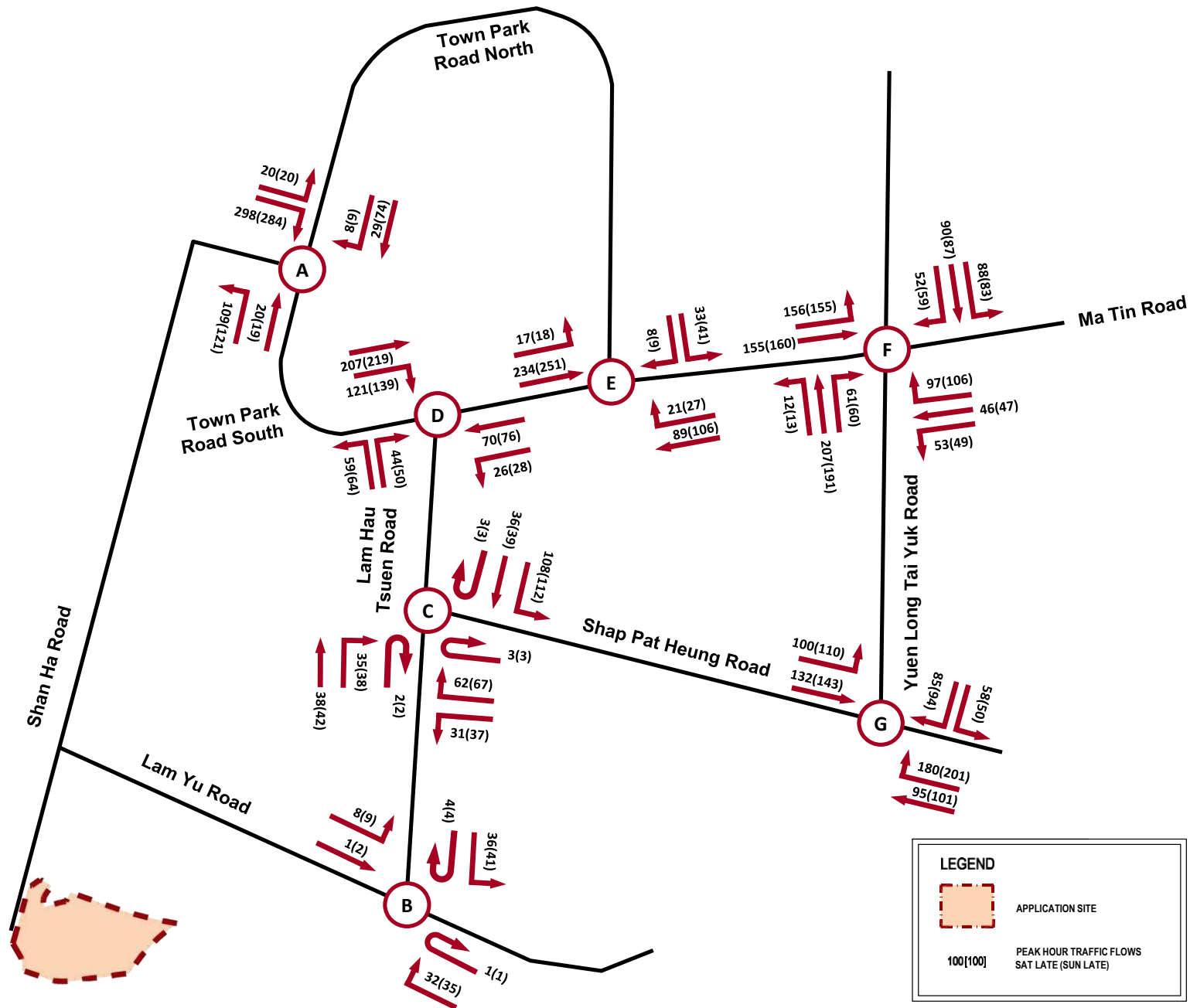
FIGURE 3.6

Scale : N.T.S.

Date : JUN 2026

Rev. :





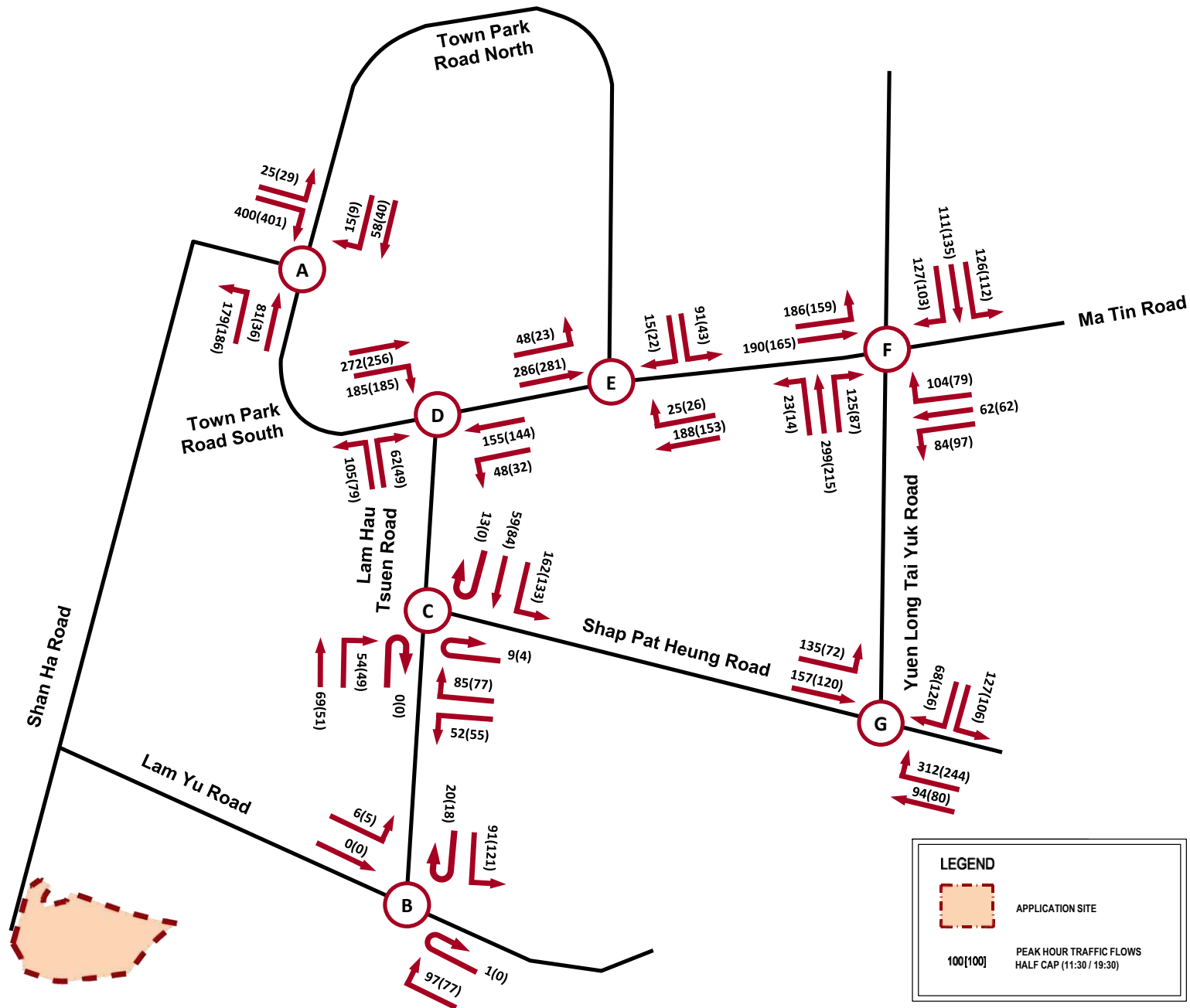
2026 OBSERVED TRAFFIC FLOW (WEEKEND) SATURDAY LATE / SUNDAY LATE

FIGURE 3.8

Scale : N.T.S.

Date : JUN 2026

Rev. :



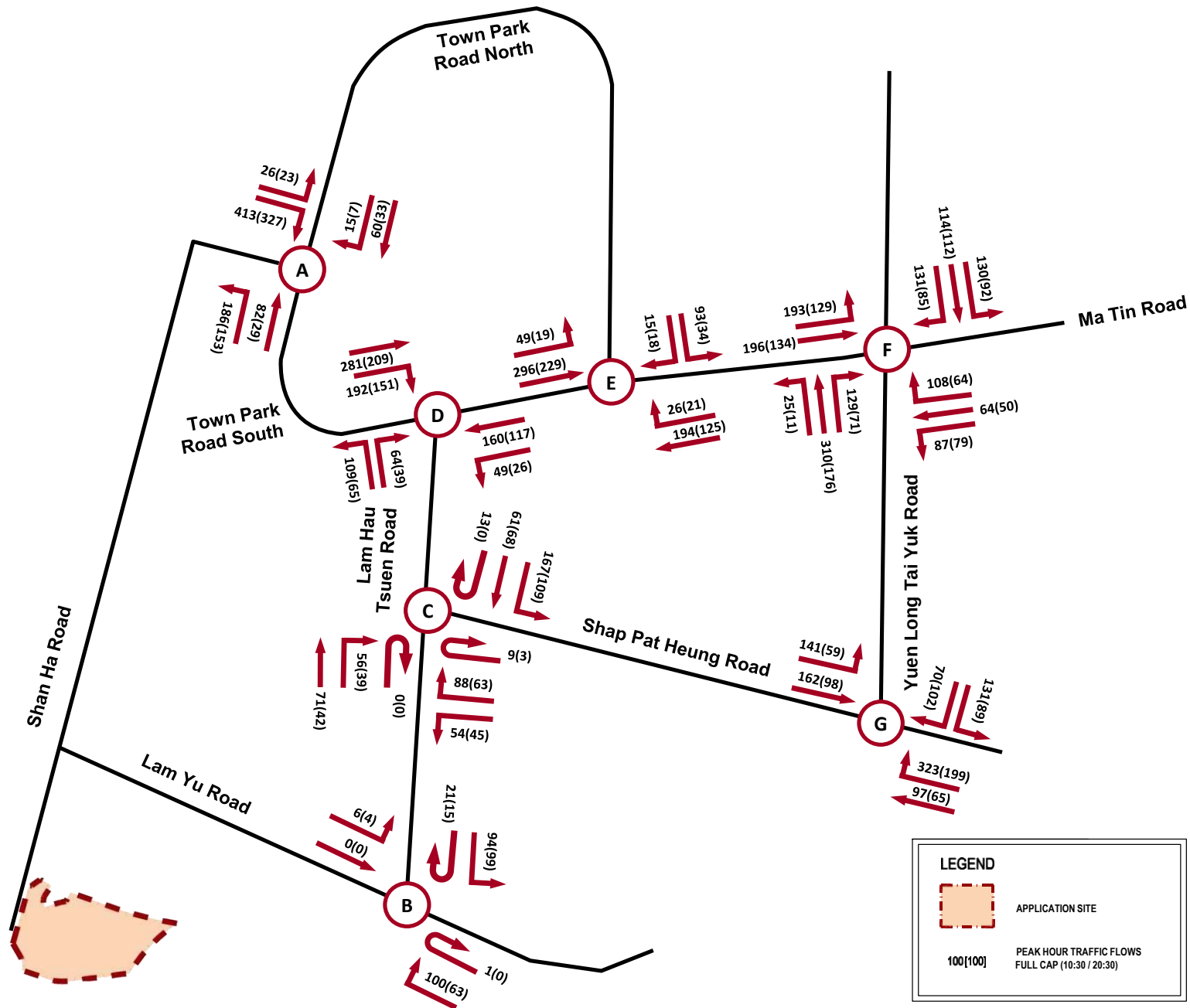
2029 REFERENCE
TRAFFIC FLOW
(WEEKDAY)
HALF CAP –
11:30-12:30 /
19:30-20:30

FIGURE 4.1

Scale : N.T.S.

Date : JUN 2026

Rev. :



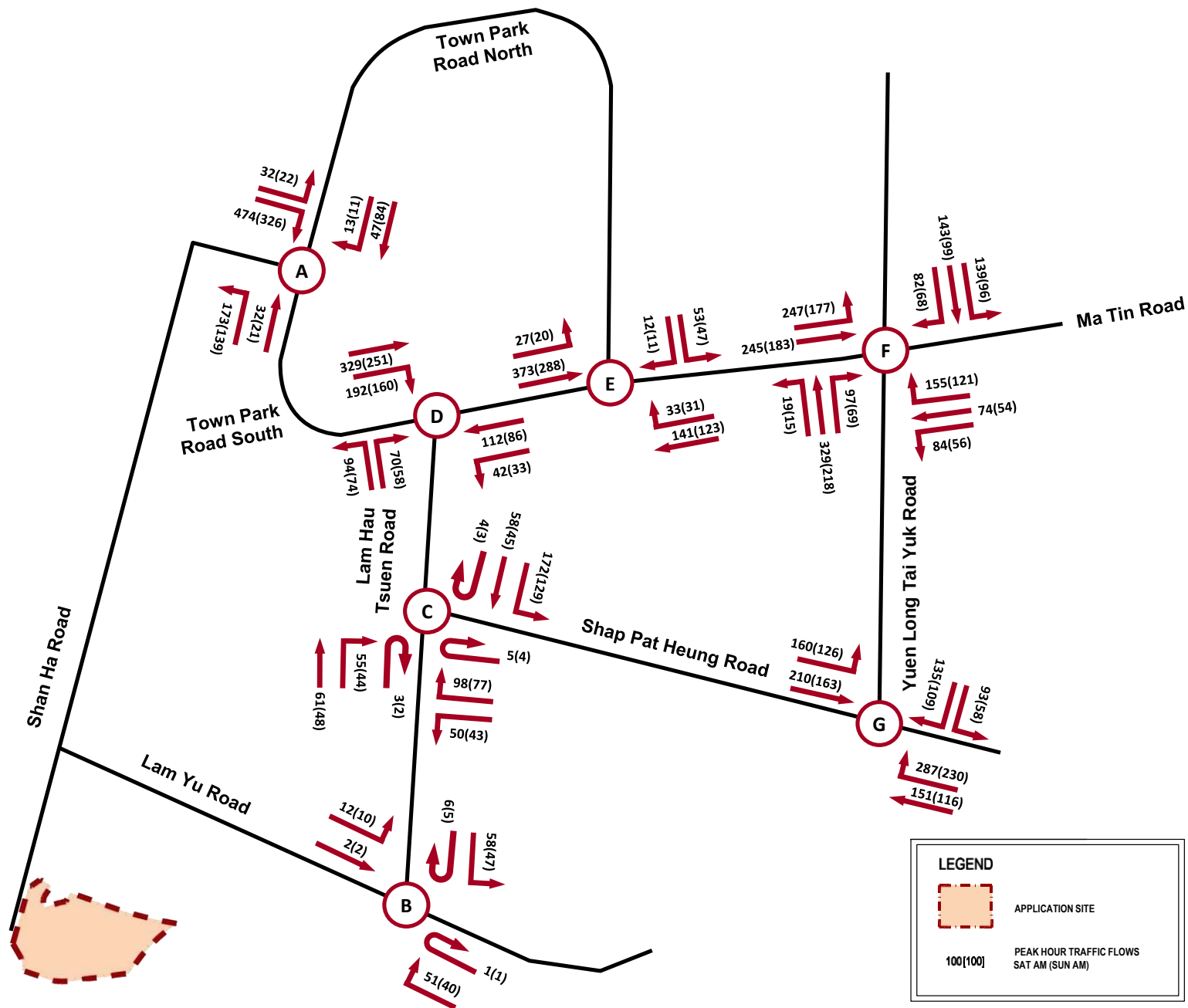
2029 REFERENCE
TRAFFIC FLOW
(WEEKDAY)
FULL CAP – 10:30-
11:30 / 20:30-21:30

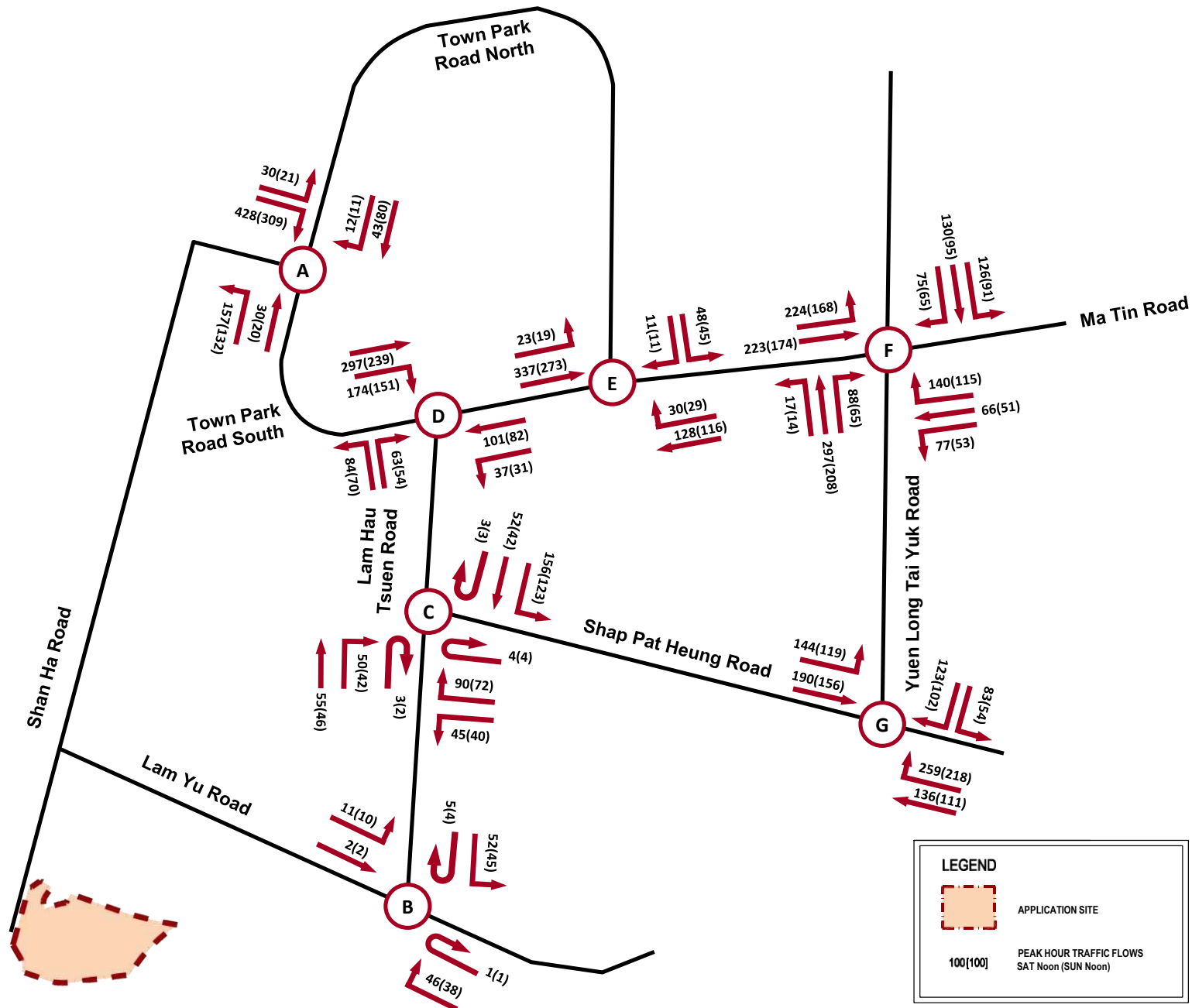
FIGURE 4.2

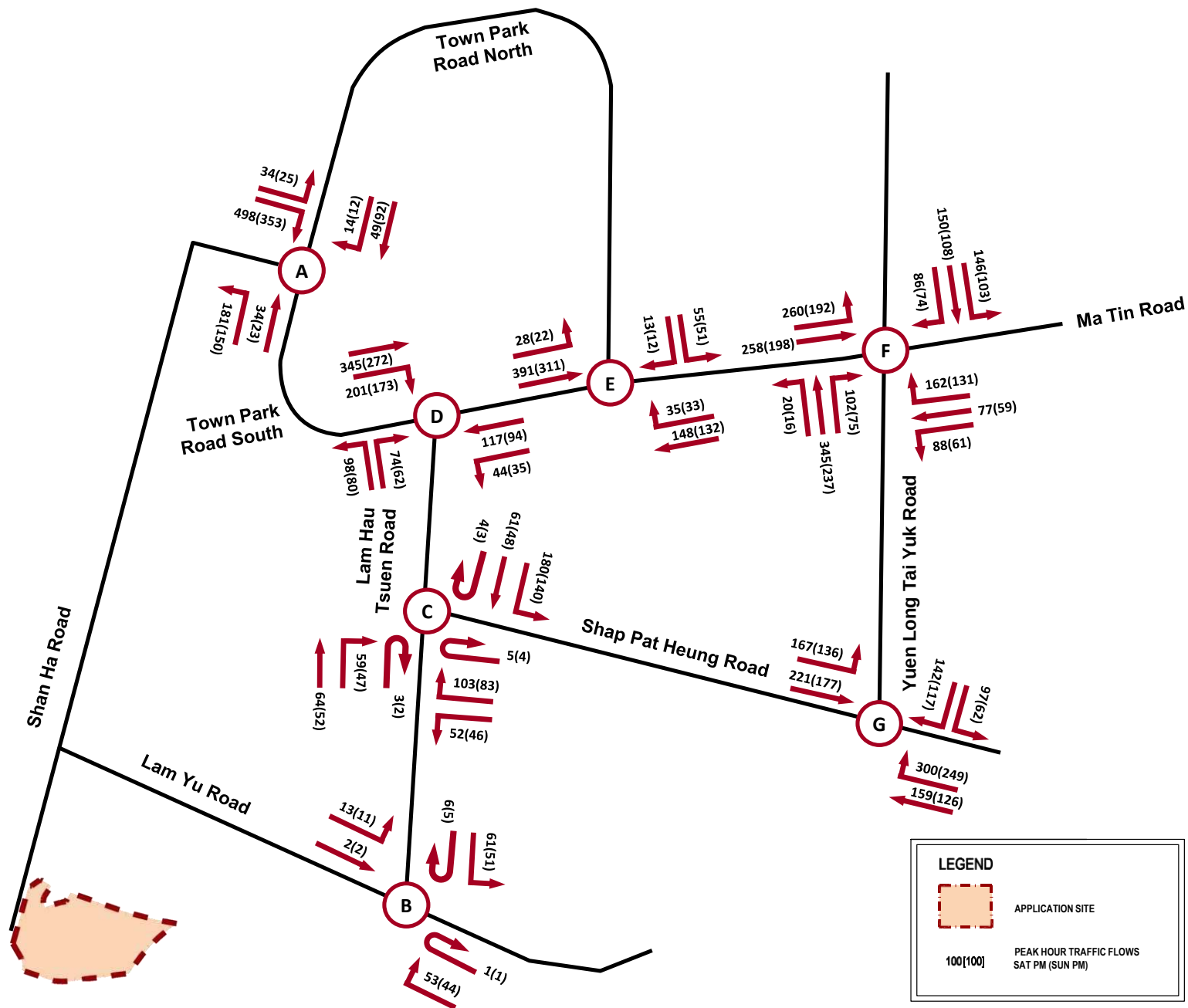
Scale : N.T.S.

Date : JUN 2026

Rev. :







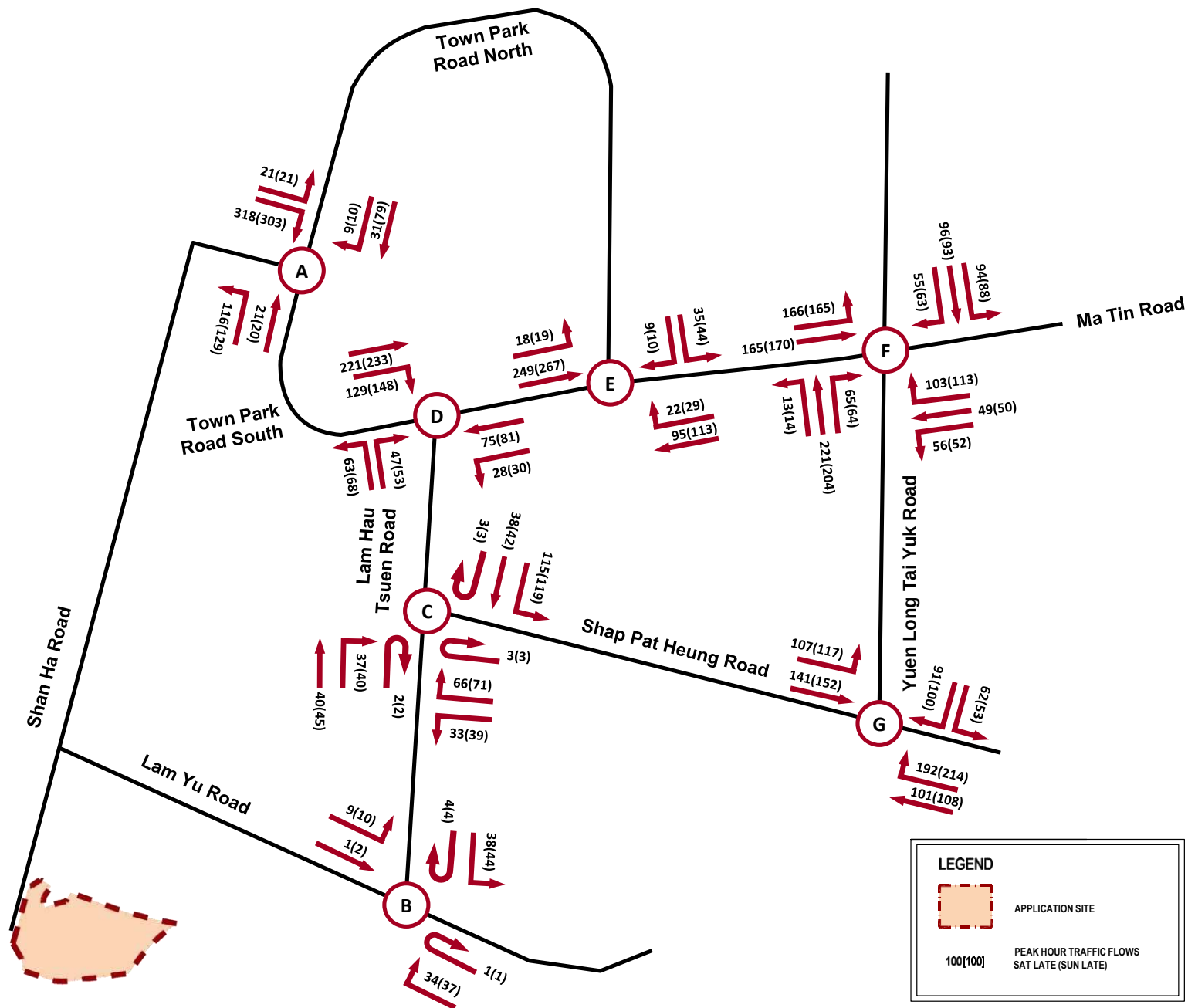
2029 REFERENCE
TRAFFIC FLOW
(WEEKEND)
SATURDAY PM /
SUNDAY PM

FIGURE 4.5

Scale : N.T.S.

Date : JUN 2026

Rev. :



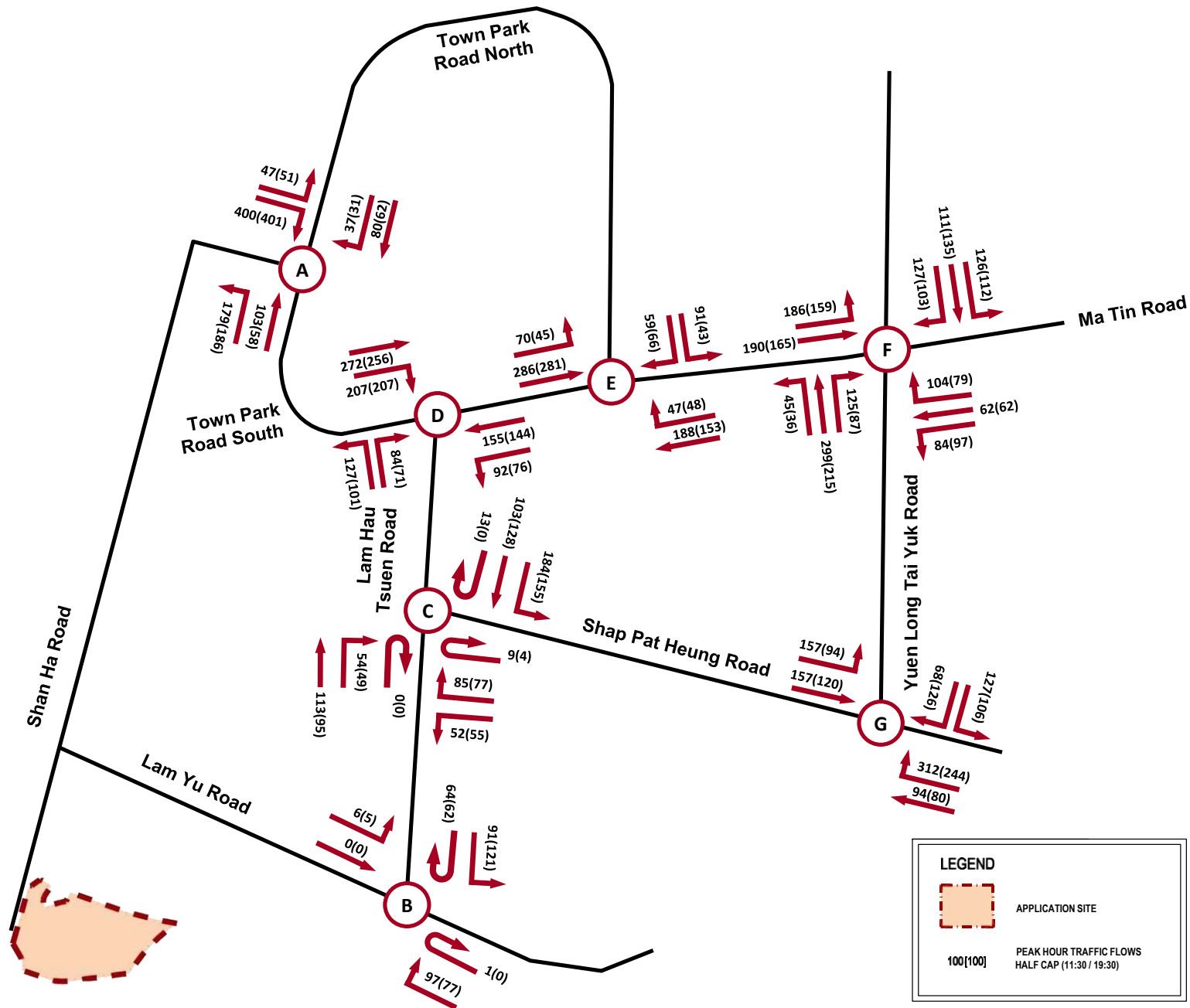
2029 REFERENCE
TRAFFIC FLOW
(WEEKEND)
SATURDAY LATE /
SUNDAY LATE

FIGURE 4.6

Scale : N.T.S.

Date : JUN 2026

Rev. :



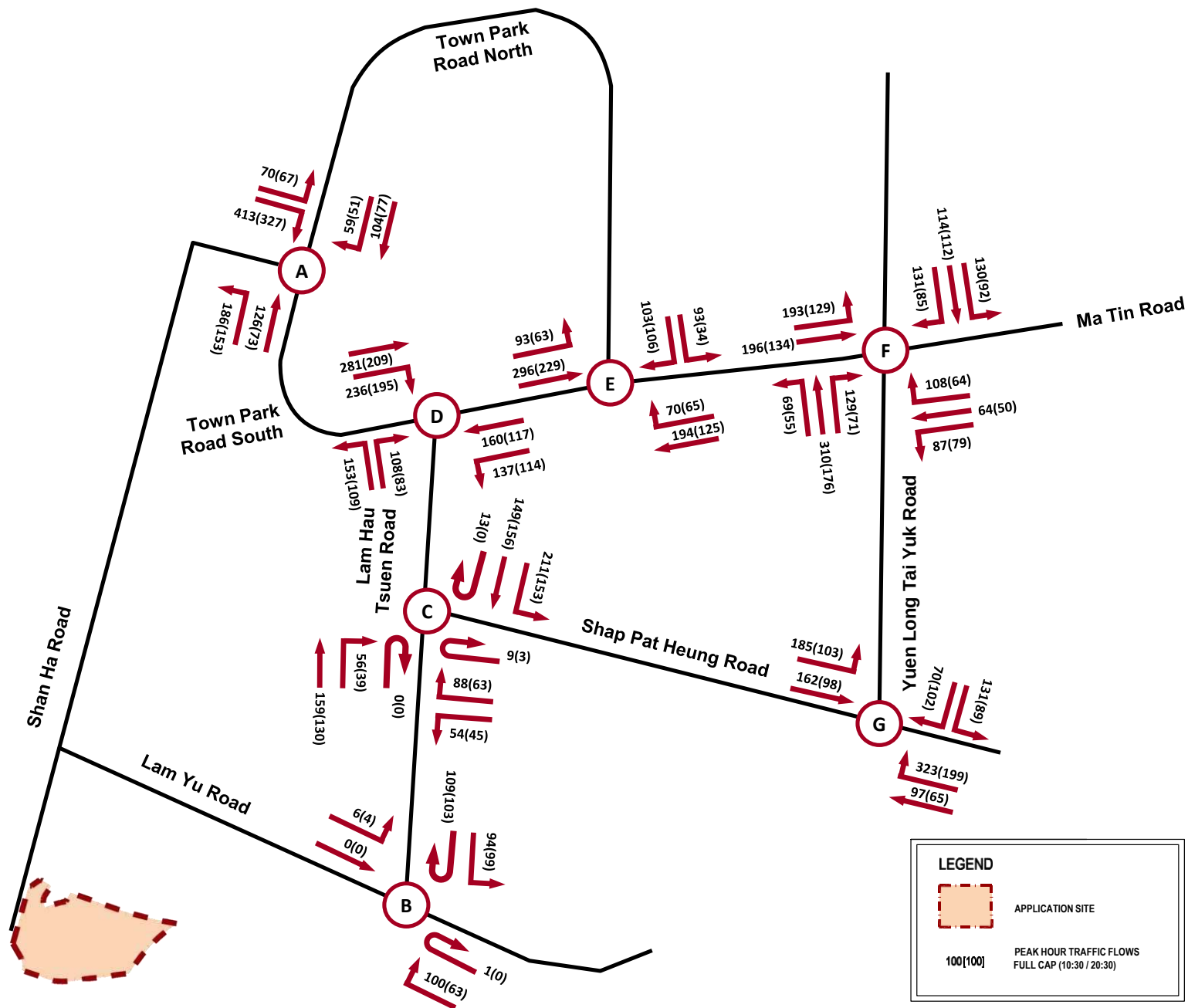
2029 DESIGN
TRAFFIC FLOW
(WEEKDAY)
HALF CAP –
11:30-12:30 /
19:30-20:30

FIGURE 4.7

Scale : N.T.S.

Date : JUN 2026

Rev. :



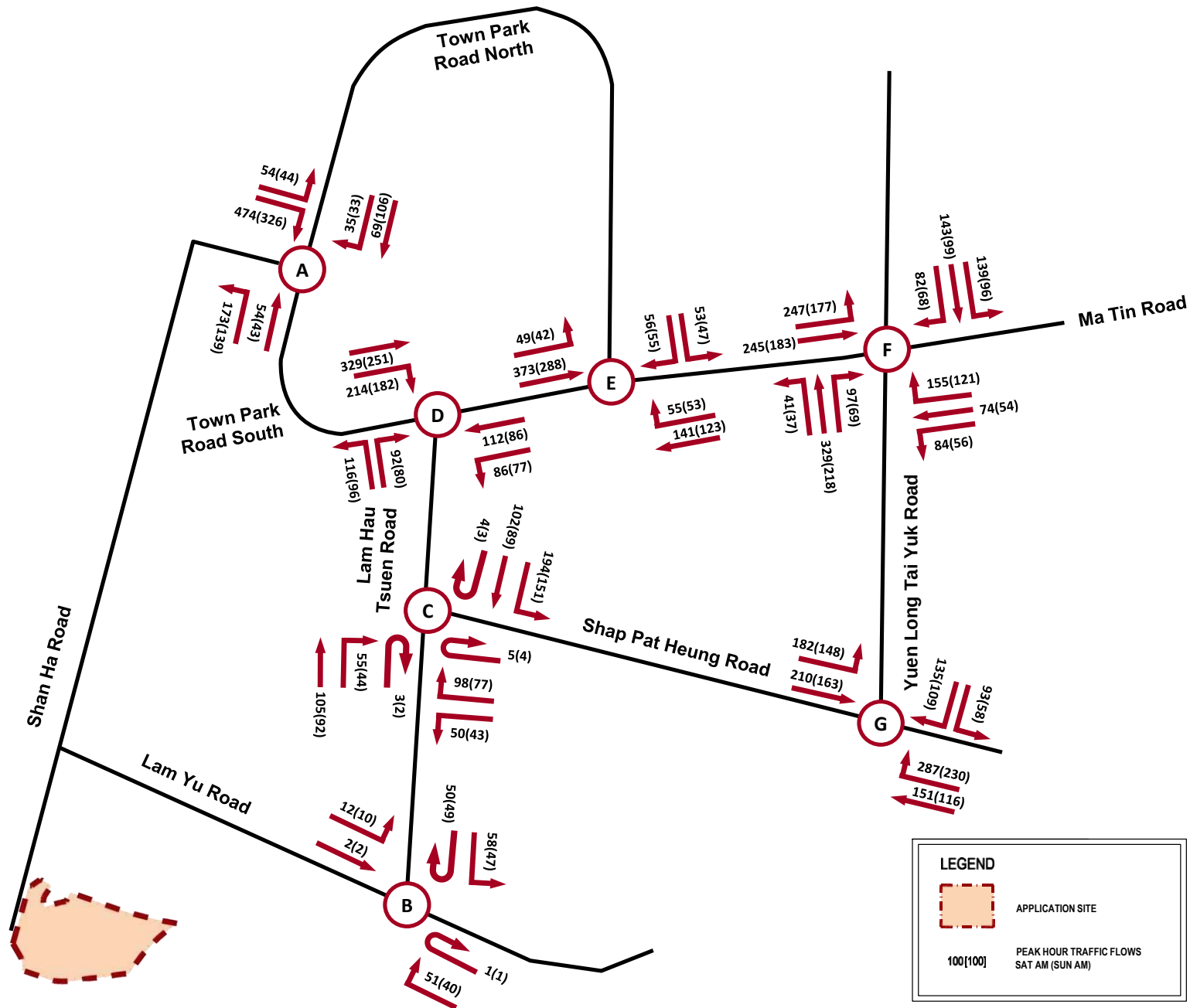
2029 DESIGN
TRAFFIC FLOW
(WEEKDAY)
FULL CAP – 10:30-
11:30 / 20:30-21:30

FIGURE 4.8

Scale : N.T.S.

Date : JUN 2026

Rev. :



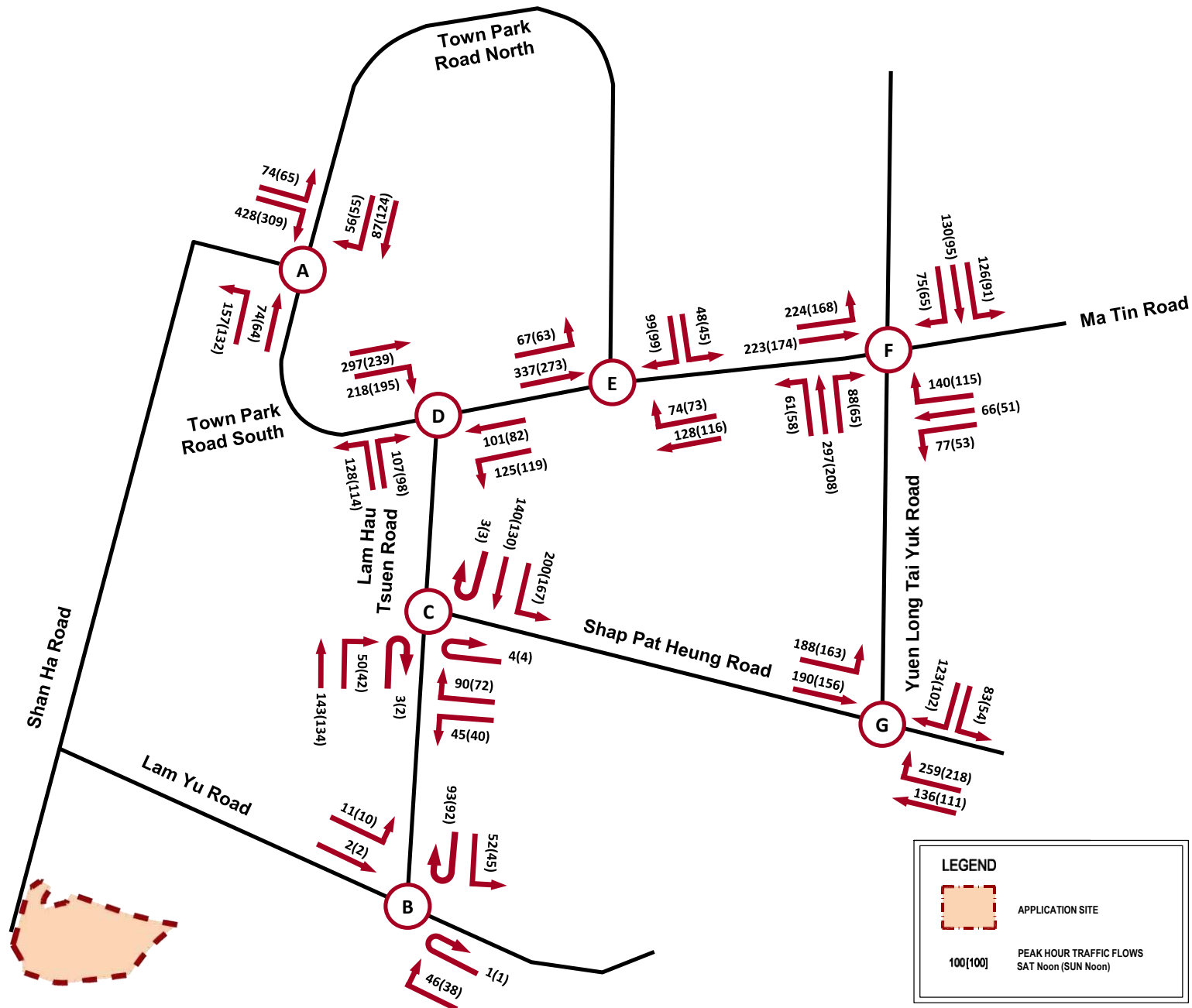
2029 DESIGN
TRAFFIC FLOW
(WEEKEND)
SATURDAY AM /
SUNDAY AM

FIGURE 4.9

Scale : N.T.S.

Date : JUN 2026

Rev. :



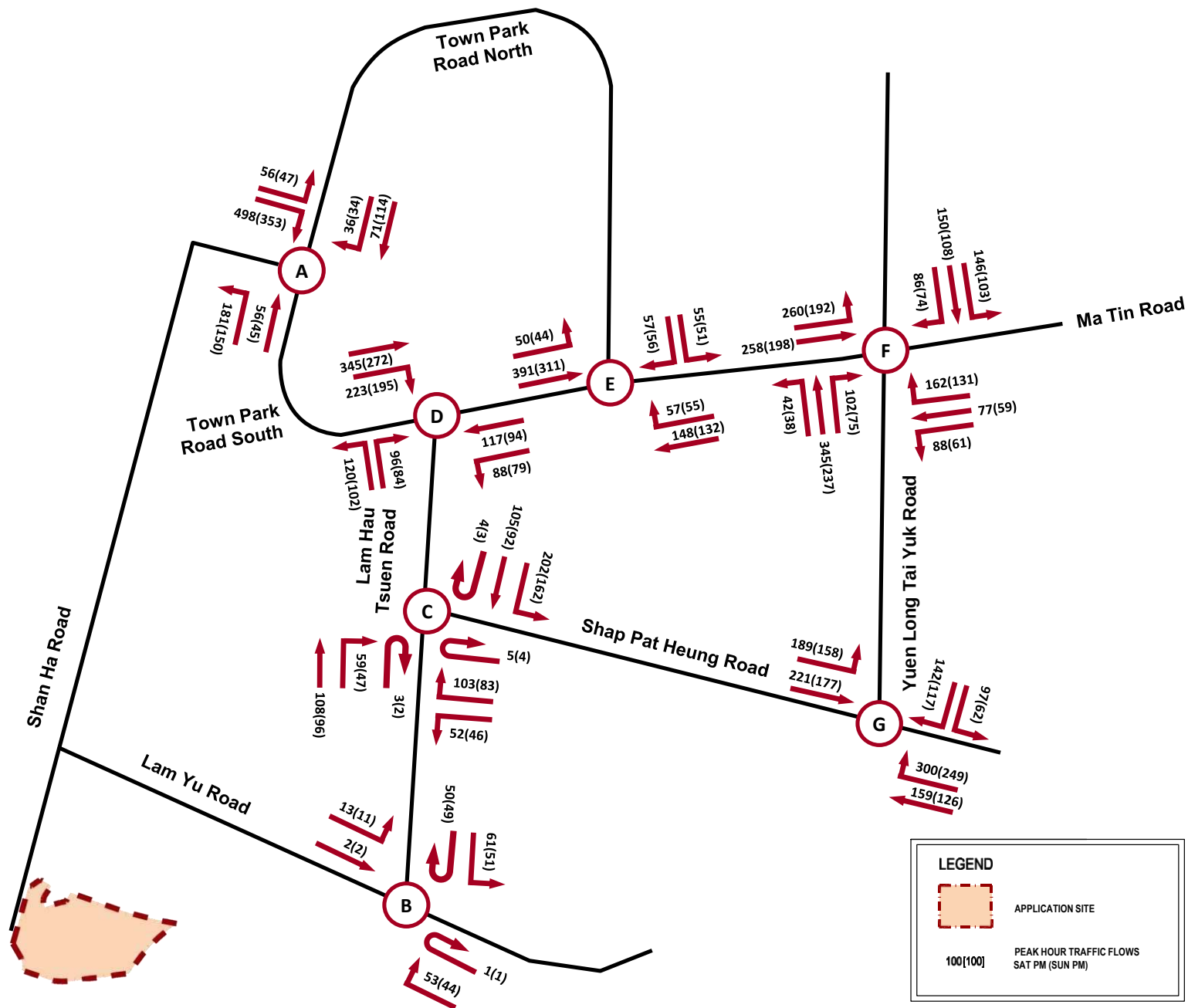
2029 DESIGN TRAFFIC FLOW (WEEKEND) SATURDAY NOON / SUNDAY NOON

FIGURE 4.10

Scale : N.T.S.

Date : JUN 2026

Rev. :



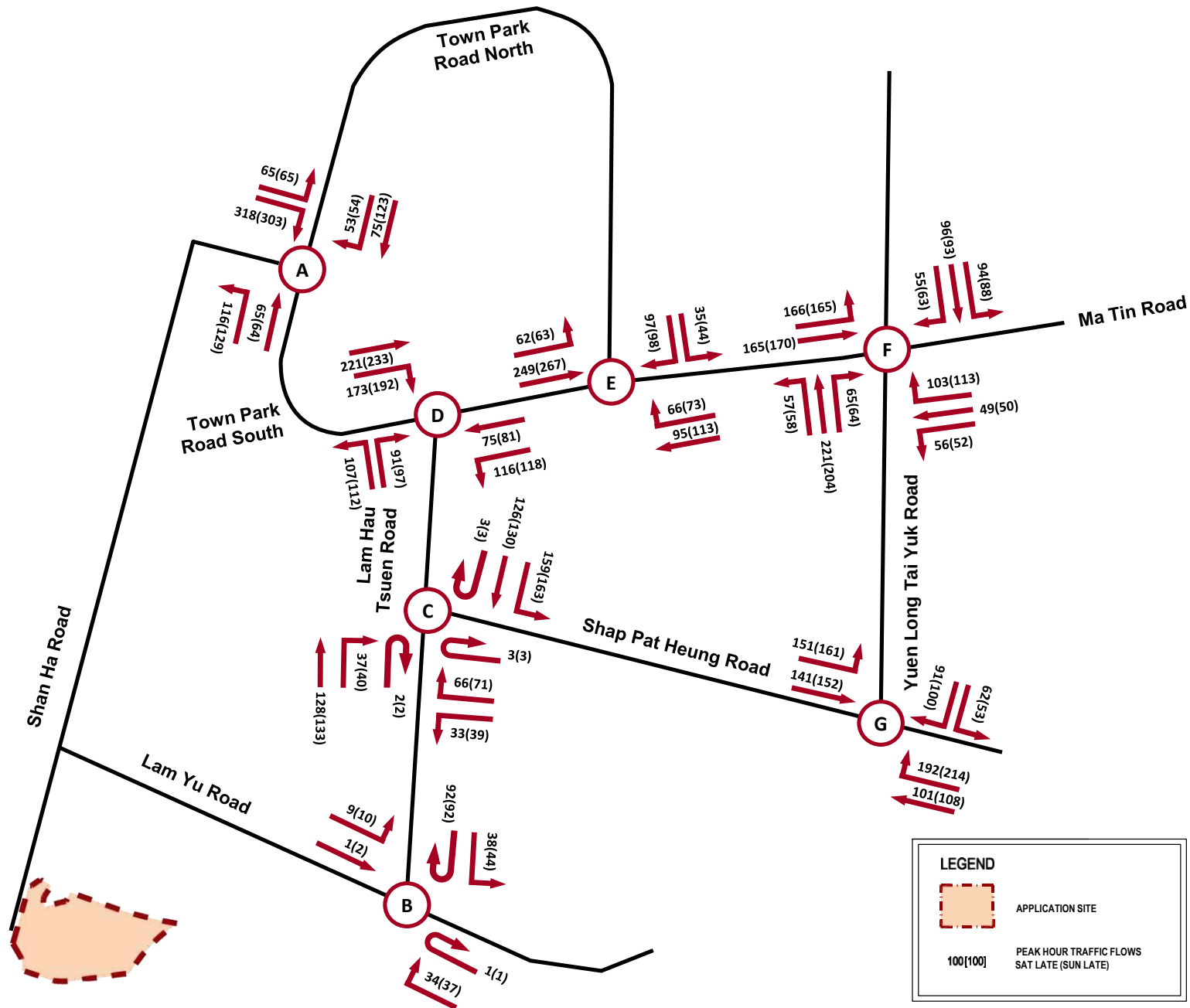
2029 DESIGN
TRAFFIC FLOW
(WEEKEND)
SATURDAY PM /
SUNDAY PM

FIGURE 4.11

Scale : N.T.S.

Date : JUN 2026

Rev. :



Appendix A

Layout of Proposed Development

Appendix B

Conditions Imposed with Issue of Learner's Driver License

Conditions Imposed with Issue of Learner's Driving Licence

1. Except when undergoing a driving test or driving in the premises of a driving school within the meaning of Section 88J of the Road Traffic Ordinance (Cap. 374) while following a driving instruction course and for the purpose of the course, a learner driver shall not drive a motor vehicle unless he is accompanied by a holder of a valid driving instructor's licence in respect of the class of vehicle specified in the learner's driving licence.
2. Unless authorized in writing by the Commissioner, a learner driver when driving a motor vehicle shall not carry any person in or on the vehicle other than a driving instructor, one other learner driver for the purpose of receiving driving instruction and one or more authorized examiners.
3. A learner driver shall not drive a motor vehicle unless the vehicle has:
 - (a) a handbrake easily accessible to the driving instructor (vehicle which as an effective system of remote braking control which is under the driving instructor's manual control can be used for the purpose of driving instruction course in the premises of a driving school within the meaning of Section 88J of the Road Traffic Ordinance (Cap. 374)).
 - (b) securely fixed, at the front and rear, a white plate 250mm by 250mm on which shall appear in red the letter "L" with arms 200mm long and 25mm in width and within the arms and occupying an area 125mm shall also appear in red the Chinese character "學".
4. A learner driver may drive on any public road except those which by traffic signs of other legal provisions are prohibited to learner drivers, and only during such times as are specified hereunder-

Mondays to Fridays-	6:00a.m. to 7:30 a.m. 9:30 a.m. to 4:30 p.m. 7:30 p.m. to 11:30 p.m.
Saturdays-	6:00 a.m. to 7:30 a.m. 9:30 a.m. to 11:30 p.m.
Sundays and Public Holidays-	6:00 a.m. to 11:30 p.m.
5. Paras. (1), (2) and (3)(a) shall not apply to a learner driver when driving a motor cycle, an invalid carriage, or a motor vehicle designed to carry only a driver.
6. No variation shall be made to a learner's driving licence except by order of a court or by the Commissioner.

Appendix C

Approved Shuttle Service



運輸署

Transport Department

本署編號：(17) in TD PV 41/150/2-668

電話：2804 2533

傳真：2865 1227

安佳駕駛學院有限公司
新界屯門洪祥路 3B 號
民生物流中心地下 A 座

掛號郵件

執事先生/女士：

申請客運營業證及客運營業證證明書 — 私家巴士服務及
登記兩部私家巴士以提供僱員服務(B02)及其他服務(B04)

多謝貴公司的上述申請。

本署原則上批准貴公司可獲發為期一年的客運營業證，及登記兩部全新的 28 座位的私家巴士（下稱「有關車輛」），同時「有關車輛」會獲發客運營業證證明書以提供僱員服務(B02)及其他服務(B04)，惟貴公司必須完全遵照下列條件：

- (i) 「有關車輛」只可在運輸署署長根據香港法例第 374 章《道路交通條例》第 88K 條，指定元朗山下路 69 號為駕駛學校或得到運輸署署長書面同意後，才可提供獲批准的私家巴士服務。
- (ii) 「有關車輛」車身必須在當眼位置展示貴公司的名字及標誌，並根據香港法例第 374A 章《道路交通（車輛構造及保養）規例》第 54(1)(b)條，向本署提出申請「有關車輛」車身展示有關標記。貴公司日後為「有關車輛」續領客運營業證證明書時，必須附上「有關車輛」的彩色照片，照片必須清楚顯示「有關車輛」上述的標記及「有關車輛」前方或後方的車牌登記號碼；
- (iii) 私家巴士服務客運營業證條件（副本備閱）；
- (iv) 非專利巴士的發牌條件（副本備閱）；
- (v) 「有關車輛」只可登記為私家巴士，並且不會獲批准過戶或更改車輛登記類別為公共巴士

- (vi) 「有關車輛」只可提供獲批准的非專營私家巴士僱員服務(B02)及其他服務(B04)，運載貴公司的僱員及學生往返位於山下路 69 號的駕駛學校及天福路（天水圍港鐵站 D 出口）。除特殊情況下，本署不會再批准「有關車輛」提供其他非專營巴士服務；
- (vii) 「有關車輛」不應阻塞交通，或阻礙公共交通服務、行人路或其他道路使用者；
- (viii) 「有關車輛」提供的私家巴士服務上落客活動必須於限制區、禁區、巴士站、巴士線、的士站及專線小巴士站以外的位置進行，並且不應對交通構成影響。「有關車輛」如欲於禁區/限制區進行上落客活動，貴公司必須向有關部門另行提出申請。另外，貴公司必須先取得有關管理處同意，方可於私人路段上落客；
- (ix) 在客運營業證有效期內，如欲更改「有關車輛」獲准提供的非專營巴士服務，貴公司必須另行提出申請，而本署將根據有關審批條件考慮是項申請；及
- (x) 於客運營業證及客運營業證證明書屆滿前四個月內及不少於十四日前，貴公司須提出客運營業證及客運營業證證明書續期申請，並遞交有關支持文件，其中包括(i)項所述的「有關車輛」的彩色照片。本署將根據有關審批條件及提交文件，考慮是否批准該客運營業證續期。

「有關車輛」的車身必須按照本署所核准的圖則建造，而「有關車輛」在獲登記及發牌前，其車身構造必須經本署檢驗合格；送檢前，你必須確保「有關車輛」車身構造符合相關法例規定。如果「有關車輛」是新型號，而其車輛類型圖則尚未經本署批核，貴公司便要向本署位於新界青衣西草灣路 18 號的運輸署車輛檢驗綜合大樓二樓（電話：3961 0324）遞交圖則，以待審核。有關圖則在經本署核准後，貴公司便可前往上述驗車中心預約驗車。

根據香港法例第 374 章《道路交通條例》第 25 條，運輸署署長可拒絕為某一車輛發牌或註銷該車輛的牌照。該條例第 33 條又列明，當事人可申請由交通審裁處覆核運輸署署長的決定。而按照該條例第 79 條，當局可要求當事人把巴士送往驗車中心檢驗。

請貴公司於本函件發出日期起計兩星期內以書面回覆是否接納上述條件，並於本函件發出日期起計六個月內為「有關車輛」辦理登記及領牌手續，否則，在此函件中批准的事項，將告無效。貴公司為「有關車輛」辦理登記及領牌手續時，請帶備下列文件及費用：

- (1) 本信正本；
- (2) 確認接納本信條件的聲明書（隨函夾附）；
- (3) 客運營業證申請書 - 私家巴士服務（運輸署表格 T.D.246B）；
- (4) 「有關車輛」的「車輛登記及牌照申請書」（運輸署表格 T.D.22）；
- (5) 由本署驗車中心所簽發的，「有關車輛」的檢驗汽車機械合格證書；
- (6) 「有關車輛」的有效第三者意外保險單/證書；
- (7) 「有關車輛」有效的保養文件（正本）；
- (9) 貴公司的公司註冊證及有效的商業登記證；
- (10) 「有關車輛」的應繳登記稅款及牌照費用；及
- (11) 客運營業證及客運營業證證明書指定費用（分別為每證每年 396 元及每證每年 160 元）。

請注意，根據香港法例第 374 章《道路交通條例》第 52 條的規定，營辦未經批准的私家巴士服務即屬違法。此外，按照客運營業證的條件，除客運營業證所批准的巴士服務外，持證人不得營辦其他巴士服務。如營辦任何未經批准的巴士服務，即屬違反客運營業證所訂的條件。根據香港法例第 374 章《道路交通條例》第 30 和 31 條的規定，運輸署署長可委派一名公職人員主持研訊，並取消該客運營業證。

本署並同時提醒貴公司，營辦未經批准的私家巴士服務，可導致提供有關服務的巴士的第三者風險保險計劃失效。如無有效的第三者風險保險計劃，一旦發生意外，使用有關巴士服務的乘客將可能不會獲得保障，而貴公司可能被要求全部承擔有關乘客保險責任，並面對刑事檢控。

根據本署於 2021 年 10 月發出的通告，在 2022 年 7 月 1 日或之後首次登記的非專營巴士必須備有安全帶，而安全帶及其固定點須符合《道路交通（安全設備）條例》第 374F 章（附副本）。

如有任何疑問，請致電 2804 2450 與布女士或與下方簽署人聯絡。

運輸署署長

（林錦玲



代行)

連附件

2024 年 8 月 22 日



運輸署

Transport Department

本署檔號：(5) in 030-020-421-PV-002-001-210

電話：2804 2533

傳真：2865 1227

安佳駕駛學院有限公司

G/F, BLOCK/TOWER A,

MAN SUN LOGISTICS CTR,

3B HUNG CHEUNG RD,

TUEN MUN, N.T.

郵遞

執事先生／女士：

申請修訂兩部私家巴士的上落客點
以提供僱員服務(B02)及其他服務(B04)

多謝貴公司的上述申請。

本署不反對貴公司（客運營業證號碼：12965B）下兩部私家巴士（車輛登記號碼：ZW5455 及 ZW6188）（下稱「有關車輛」）修訂其上落客點，以提供僱員服務(B02)及其他服務(B04)，惟須完全遵從本署於 2024 年 8 月 22 日發出的信件（本署檔號：(17) in TD PV 41/150/2-68）所詳述的條款。有關車輛的上落客點將修訂為屏廈路（天水圍港鐵站 A 出口）。請注意，貴公司於屏廈路（天水圍港鐵站 A 出口）上下客必須事先取得有關管理處同意。

如有任何疑問，請致電 2804 2533 與下方簽署人聯絡。

運輸署署長

（林錦玲

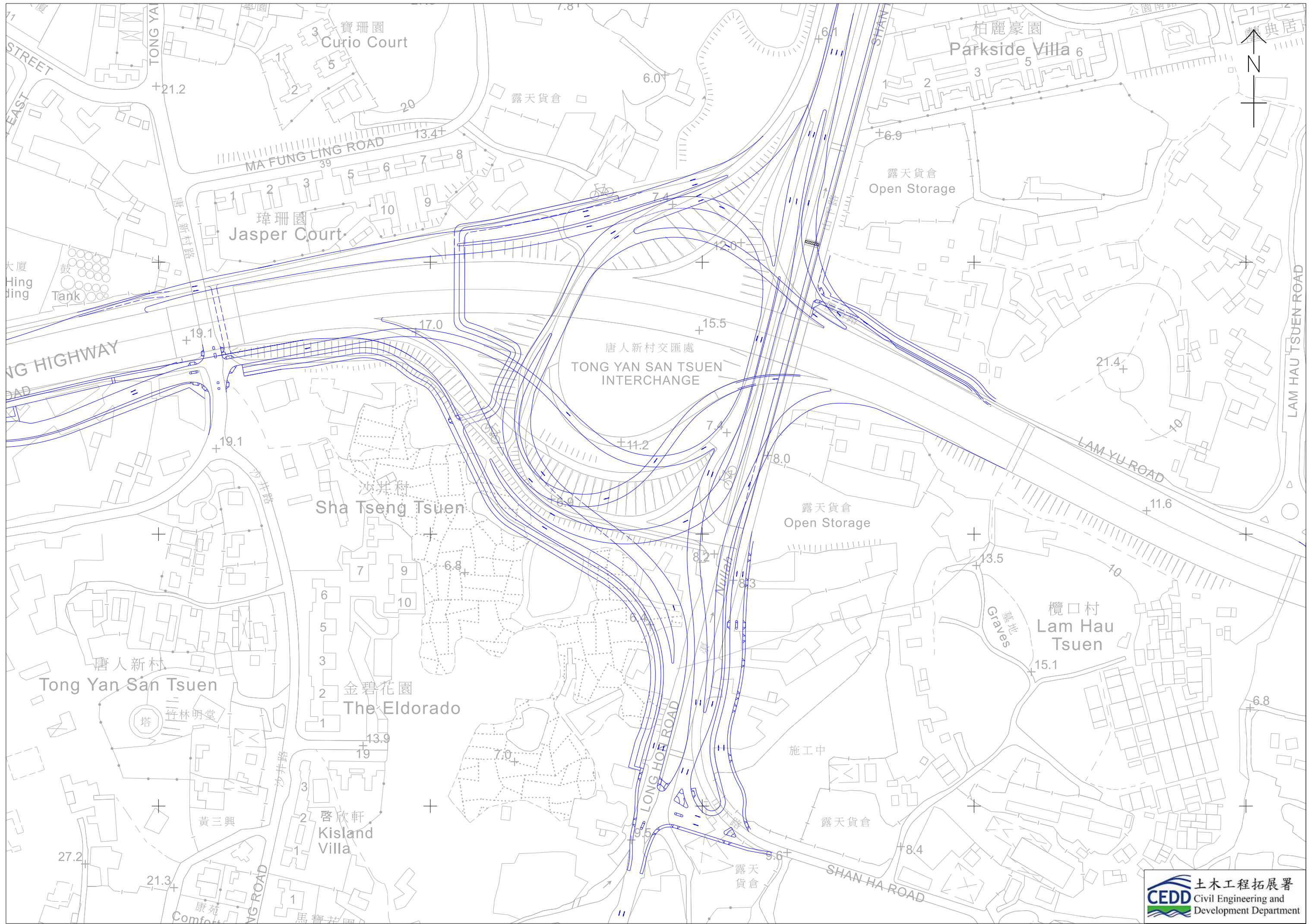


代行)

2025 年 10 月 27 日

Appendix D

Improvement Scheme by CEDD



Appendix E

Junction Calculation Sheets

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2026 OBS Weekday Half Cap AM 11:30-12:30		Reviewed By:	AW	8/8/2026

(ARM A)
Town Park Road South

[2] 375 [1] 23

Town Park Road South (ARM C)

[3] 168 [4] 76

(ARM B)
Town Park Road North

14 [6] 54 [5]

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 23 (pcu/hr) q a-c = 375 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693 F for (Qb-ac) = 0.794	Q b-a = 489 (pcu/hr) Q b-c = 744 (pcu/hr) Q c-b = 567 (pcu/hr) Q b-ac = 672 (pcu/hr) Q c-a = 1559 (pcu/hr) TOTAL FLOW = 710 (pcu/hr)	DFC b-a = 0.0286 DFC b-c = 0.0726 DFC c-b = 0.1340 DFC b-ac = 0.1012 (Share Lane) DFC c-a = 0.1078 CRITICAL DFC = 0.13
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 168 (pcu/hr) q c-b = 76 (pcu/hr)			
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 14 (pcu/hr) q b-c = 54 (pcu/hr)			

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

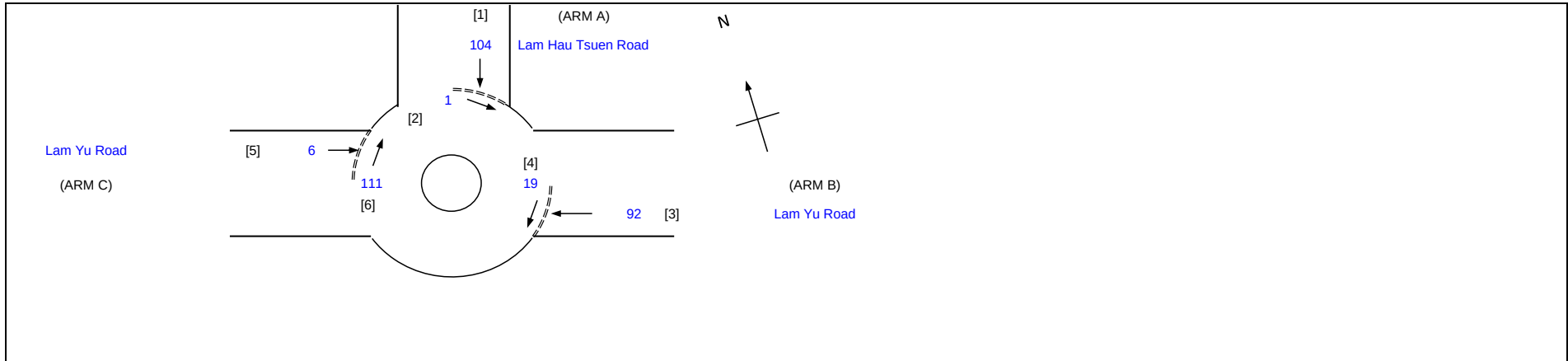
JnB - Lam Hau Tsuen Road / Lam Yu Road

2026 OBS Weekday Half Cap AM 11:30-12:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	104	92	6
Qc	=	Circulating flow across entry (pcu/h)	1	19	111

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1456	1351	1844
DFC	=	Design flow/Capacity = Q/Qe	0.07	0.07	0.00

TOTAL FLOW = 333 (pcu/hr)
CRITICAL DFC = 0.07

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

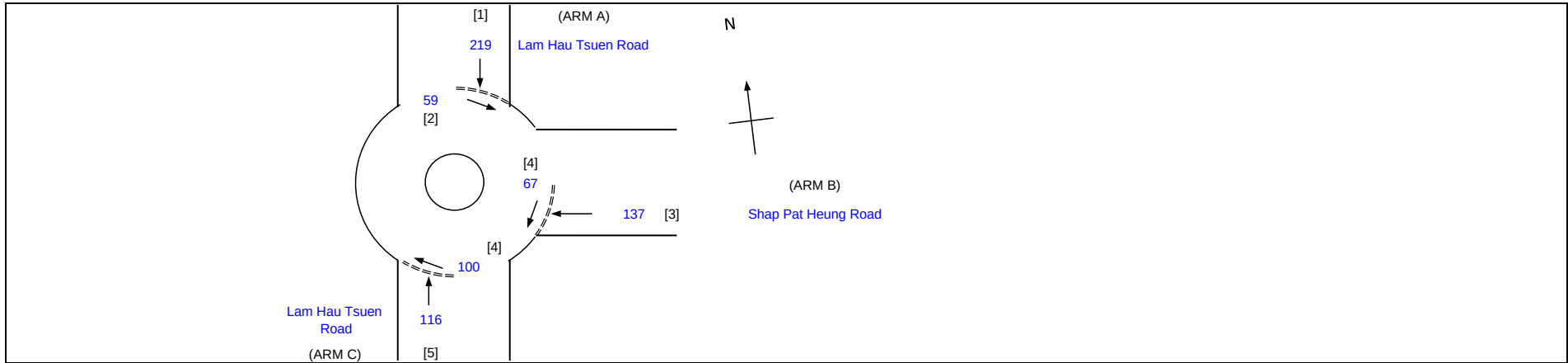
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2026 OBS Weekday Half Cap AM 11:30-12:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

GEOMETRIC DETAILS:			ARM	A	B	C
V	=	Approach half width (m)		5.3	4.5	3.6
E	=	Entry width (m)		7.0	7.0	7.0
L	=	Effective length of flare (m)		14.2	15.0	14.0
R	=	Entry radius (m)		48.0	56.0	33.0
D	=	Inscribed circle diameter (m)		35.0	35.0	35.0
A	=	Entry angle (degree)		23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	219	137	116	
Qc	=	Circulating flow across entry (pcu/h)	59	67	100	

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2039	1969	1776
DFC	=	Design flow/Capacity = Q/Qe	0.11	0.07	0.07

TOTAL FLOW = 698 (pcu/hr)
CRITICAL DFC = 0.11

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

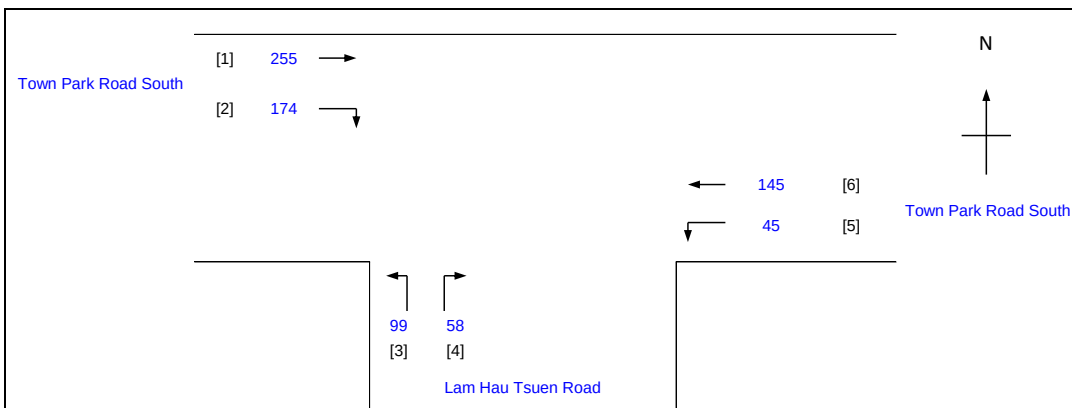
JnD - Town Park Road South / Lam Hau Tsuen Road

2026 OBS Weekday Half Cap AM 11:30-12:30

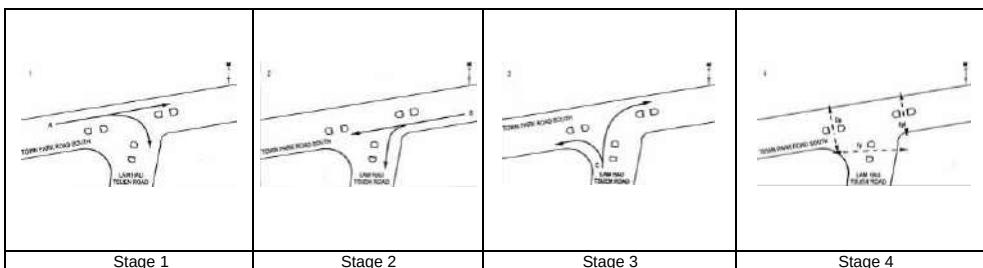
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N =	3
Intergreen Period	Stage 1 - 2	I = 5 sec
	Stage 2 - 3	I = 8 sec
	Stage 3 - 4	I = 11 sec
	Stage 4 - 1	I = 2 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.381
Loss time	L =	32 sec
Total Flow		= 776 pcu
Co	= (1.5*L+5)/(1-Y)	= 85.6 sec
Cm	= L/(1-Y)	= 51.7 sec
Yult	= 0.9-0.0075L	= 0.660
R.C.ult	= (Yult-Y)/Y*100%	= 73.3 %
Cp	= 0.9*L/(0.9-Y)	= 55.5 sec
Ymax	= 1-L/C	= 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 73.3 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Dp	10.5	4	5	4	OK
Ep	10.5	4	5	4	OK
Fp	19.3	4	5	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		255	174	429	0.41	2053			2053	0.209	0.209		48	48	0.523	43	29
5,6	2	4.80	B	1	15		N	2095	45	145		190	0.24	2047			2047	0.093	0.093		21	21	0.531	26	47
5,6	2	5.20	C	1	20		N	2135	99		58	157	1.00	1986			1986	0.079	0.079		18	18	0.527	22	49

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_01_OBS_WEEKDAY_HALF_AM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2026 OBS Weekday Half Cap AM 11:30-12:30		Reviewed By:	AW 8/8/2026

(ARM B)
Town Park Road North

[6] 14 [5] 85

Town Park Road South (ARM A)

[1] 45 [2] 268

Ma Tin Road (ARM C)

23 [4] 176 [3]

N

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

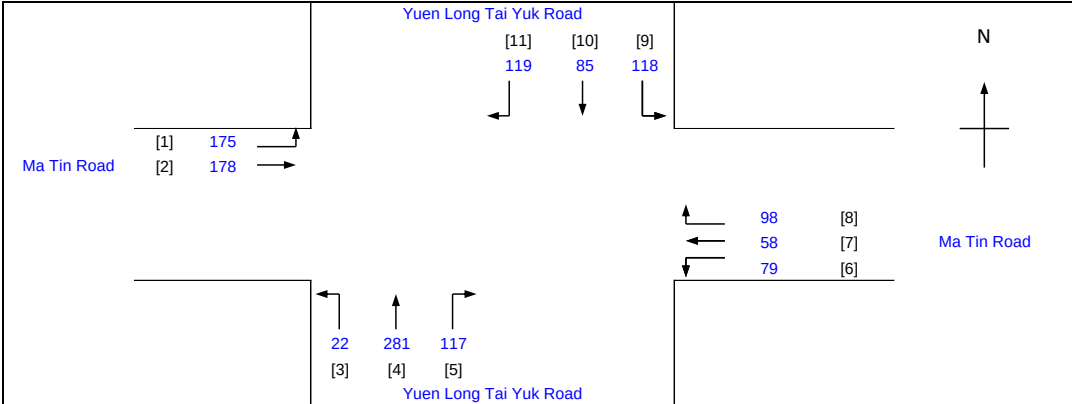
E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 45 (pcu/hr) q a-c = 268 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.859	Q b-a = 494 (pcu/hr) Q b-c = 687 (pcu/hr) Q c-b = 544 (pcu/hr) Q b-ac = 651 (pcu/hr) Q c-a = 1724 (pcu/hr) TOTAL FLOW = 611 (pcu/hr)	DFC b-a = 0.0283 DFC b-c = 0.1237 DFC c-b = 0.0423 DFC b-ac = 0.1521 (Share Lane) DFC c-a = 0.1021 CRITICAL DFC = 0.15
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 176 (pcu/hr) q c-b = 23 (pcu/hr)			
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 14 (pcu/hr) q b-c = 85 (pcu/hr)			

AXON CONSULTANCY LIMITED														TRAFFIC SIGNAL CALCULATION										INITIALS		DATE	
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,														Project No.:				31073		Prepared By:		JK		8/8/2026			
Shan Ha Road, Yuen Long, New Territories																				Checked By:		SY		8/8/2026			
JnF - Ma Tin Road / Yuen Long Tai Yuk Road														2026 OBS Weekday Half Cap AM 11:30-12:30						Reviewed By:		AW		8/8/2026			



No. of critical vehicular phase per cycle: N = 4

Intergreen Period Stage 1 - 2 I = 5 sec

Stage 2 - 3 I = 10 sec

Stage 3 - 4 I = 11 sec

Stage 4 - 1 I = 10 sec

Cycle time C = 120 sec

Sum(y) Y = 0.355

Loss time L = 32 sec

Total Flow = 1330 pcu

Co = (1.5*L+5)/(1-Y) = 82.2 sec

Cm = L/(1-Y) = 49.6 sec

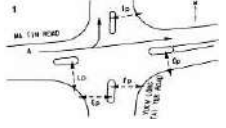
Yult = 0.9-0.0075L = 0.660

R.C.ult = (Yult-Y)/Y*100% = 85.9 %

Cp = 0.9*L/(0.9-Y) = 52.8 sec

Ymax = 1-L/C = 0.733

R.C.(C) = (0.9*Ymax-Y)/Y*100% = 85.9 %

Stage 1				Stage 2				Stage 3				Stage 4													
																									

Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Ep	7.9	3,4,1	5	8	48	8	OK
Fp	7.6	1,2	5	7	54	7	OK
Gp	7.3	4,1,2	5	7	88	7	OK
Hp	8.3	3	5	8	14	8	OK
Ip	7.6	1,2,3	5	8	84	8	OK
Jp	7.4	4	5	7	20	7	OK
Kp	7.3	2,3,4	5	7	82	7	OK
Lp	9.7	1	5	11	14	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	175			175	1.00	1795			1795	0.097	0.097		24	24	0.487	23	45
2	1	3.60	A	1				2115		178		178	0.00	2115			2115	0.084			21	24	0.421	24	43
3,4	2	3.60	B	1	15		N	1975	22	184		206	0.11	1954			1954	0.105	0.105		26	26	0.486	27	43
4,5	2	3.60	B	1	20			2115		97	117	214	0.55	2032			2032	0.105			26	26	0.486	28	43
3,4	2	3.50	C	1	15		N	1965			98	98	1.00	1786			1786	0.055			14	17	0.387	14	49
4,5	2	3.50	C	1	20			2105	79	58		137	0.58	2018			2018	0.068	0.068		17	17	0.479	20	49
10,11	2	3.50	D	1	20			2105		49	119	168	0.71	1999			1999	0.084	0.084		21	21	0.481	23	46
9,10	2	3.50	D	1	15		N	1965	118	36		154	0.77	1825			1825	0.084			21	21	0.481	21	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction_01 OBS_WEEKDAY_HALF_AM.xls!F

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_01_OBS_WEEKDAY_HALF_AM.xls

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2026 OBS Weekday Half Cap AM 11:30-12:30		Reviewed By:	AW 8/8/2026

Diagram details: Shap Pat Heung Road (ARM A) has two lanes with flows [1] 127 and [2] 147. Yuen Long Tai Yuk Road (ARM B) has two lanes with flows [6] 64 and [5] 100. Shap Pat Heung Road (ARM C) has two lanes with flows [4] 293 and [3] 88. A north arrow is located in the upper right quadrant of the diagram.

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 127 (pcu/hr) q a-c = 147 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 527 (pcu/hr) Q b-c = 758 (pcu/hr) Q c-b = 687 (pcu/hr) Q b-ac = 647 (pcu/hr)	DFC b-a = 0.1214 DFC b-c = 0.1319 DFC c-b = 0.4265 DFC b-ac = 0.2534 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 88 (pcu/hr) q c-b = 293 (pcu/hr)	F for (Qb-ac) = 0.61	TOTAL FLOW = 819 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 64 (pcu/hr) q b-c = 100 (pcu/hr)			CRITICAL DFC = 0.43

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2026 OBS Weekday Half Cap PM 19:30-20:30		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 27 (pcu/hr) q a-c = 376 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693 F for (Qb-ac) = 0.826	Q b-a = 503 (pcu/hr) Q b-c = 743 (pcu/hr) Q c-b = 566 (pcu/hr) Q b-ac = 686 (pcu/hr) Q c-a = 1692 (pcu/hr) TOTAL FLOW = 658 (pcu/hr)	DFC b-a = 0.0159 DFC b-c = 0.0511 DFC c-b = 0.0601 DFC b-ac = 0.0670 (Share Lane) DFC c-a = 0.1034 CRITICAL DFC = 0.10
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 175 (pcu/hr) q c-b = 34 (pcu/hr)			
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 8 (pcu/hr) q b-c = 38 (pcu/hr)			

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

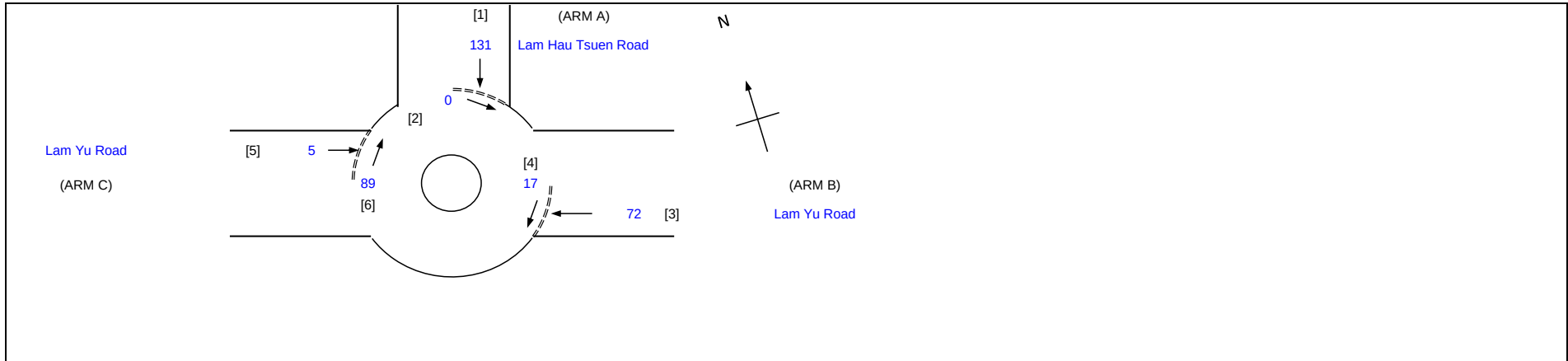
JnB - Lam Hau Tsuen Road / Lam Yu Road

2026 OBS Weekday Half Cap PM 19:30-20:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	131	72	5
Qc	=	Circulating flow across entry (pcu/h)	0	17	89

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1457	1352	1859
DFC	=	Design flow/Capacity = Q/Qe	0.09	0.05	0.00

TOTAL FLOW = **314 (pcu/hr)**
CRITICAL DFC = **0.09**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

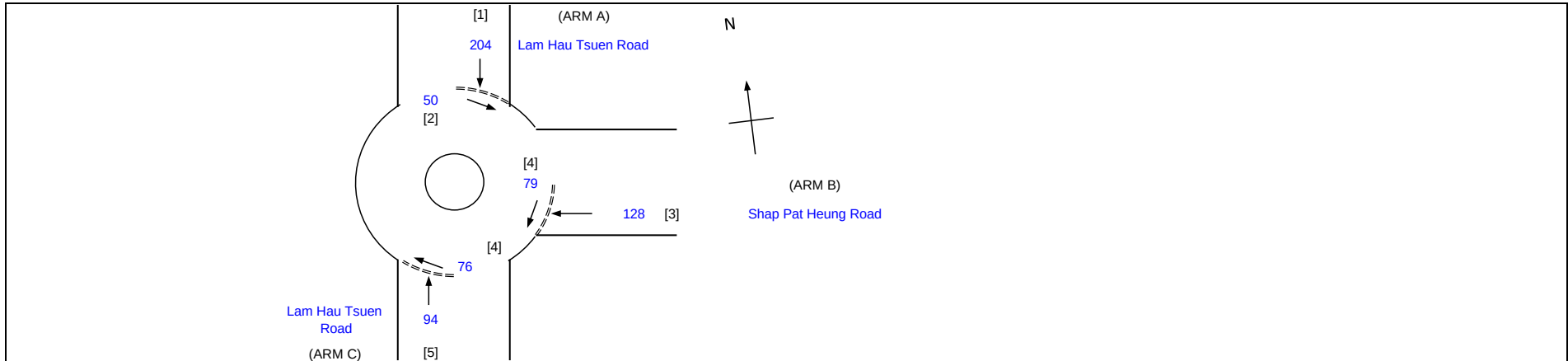
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2026 OBS Weekday Half Cap PM 19:30-20:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

GEOMETRIC DETAILS:			ARM	A	B	C
V	=	Approach half width (m)		5.3	4.5	3.6
E	=	Entry width (m)		7.0	7.0	7.0
L	=	Effective length of flare (m)		14.2	15.0	14.0
R	=	Entry radius (m)		48.0	56.0	33.0
D	=	Inscribed circle diameter (m)		35.0	35.0	35.0
A	=	Entry angle (degree)		23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	204	128	94	
Qc	=	Circulating flow across entry (pcu/h)	50	79	76	

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2046	1960	1793
DFC	=	Design flow/Capacity = Q/Qe	0.10	0.07	0.05

TOTAL FLOW = 631 (pcu/hr)
CRITICAL DFC = 0.10

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

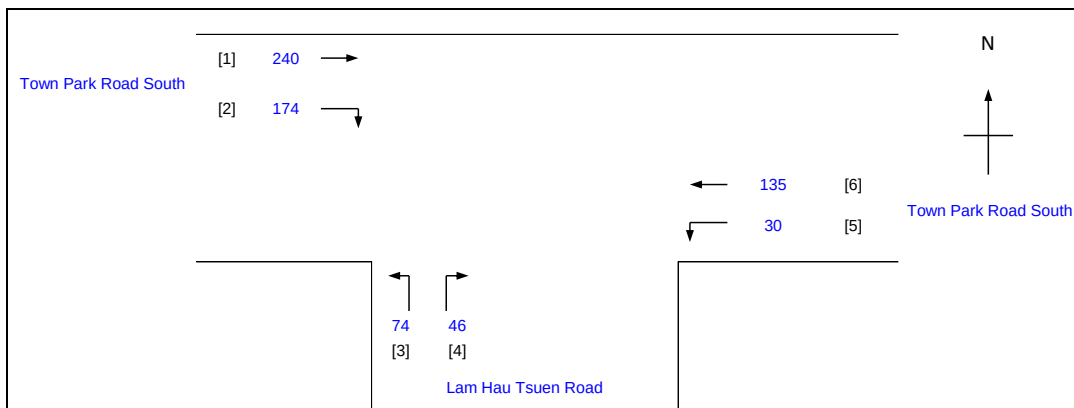
JnD - Town Park Road South / Lam Hau Tsuen Road

2026 OBS Weekday Half Cap PM 19:30-20:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

I = 5 sec

Stage 1 - 2

I = 8 sec

Stage 2 - 3

I = 11 sec

Stage 3 - 4

I = 2 sec

Stage 4 - 1

C = 120 sec

Cycle time

Y = 0.343

Sum(y)

L = 32 sec

Loss time

= 699 pcu

Total Flow

= 80.6 sec

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 48.7 sec

 $Cm = L / (1 - Y)$

= 0.660

 $Yult = 0.9 - 0.0075L$

= 92.7 %

 $R.C.ult = (Yult - Y) / Y \cdot 100\%$

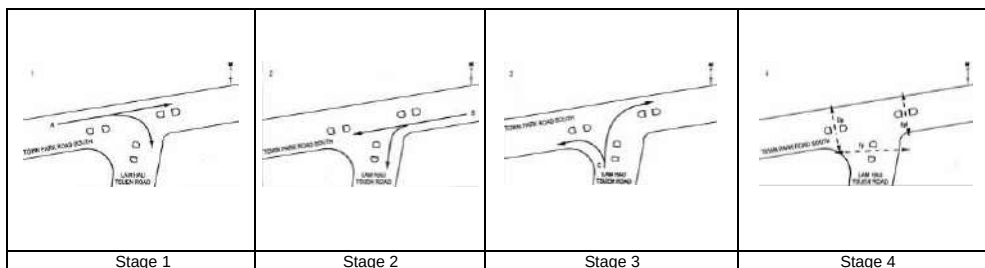
= 51.7 sec

 $Cp = 0.9 \cdot L / (0.9 - Y)$

= 0.733

 $Ymax = 1 - L / C$

= 92.7 %

 $R.C.(C) = (0.9 \cdot Ymax - Y) / Y \cdot 100\%$


Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		240	174	414	0.42	2050			2050	0.202	0.202		52	52	0.466	39	25
5,6	2	4.80	B	1	15		N	2095	30	135		165	0.18	2058			2058	0.080	0.080		21	21	0.458	23	46
5,6	2	5.20	C	1	20		N	2135	74		46	120	1.00	1986			1986	0.060	0.060		16	16	0.453	17	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_02_OBS_WEEKDAY_HALF_PM.xls]D

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2026 OBS Weekday Half Cap PM 19:30-20:30		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 22 (pcu/hr) q a-c = 264 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.656	Q b-a = 501 (pcu/hr) Q b-c = 691 (pcu/hr) Q c-b = 550 (pcu/hr) Q b-ac = 611 (pcu/hr) Q c-a = 1721 (pcu/hr) TOTAL FLOW = 515 (pcu/hr)	DFC b-a = 0.0419 DFC b-c = 0.0579 DFC c-b = 0.0436 DFC b-ac = 0.0998 (Share Lane) DFC c-a = 0.0837 CRITICAL DFC = 0.10
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 144 (pcu/hr) q c-b = 24 (pcu/hr)			
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 21 (pcu/hr) q b-c = 40 (pcu/hr)			

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

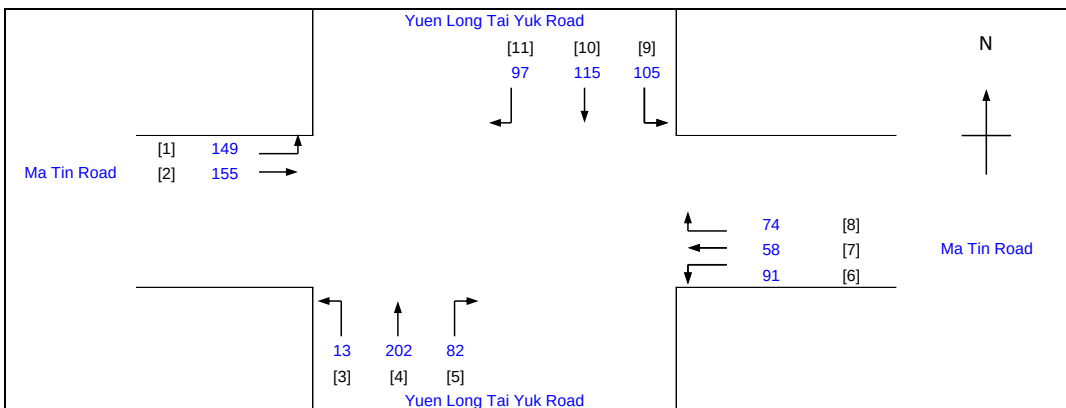
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2026 OBS Weekday Half Cap PM 19:30-20:30

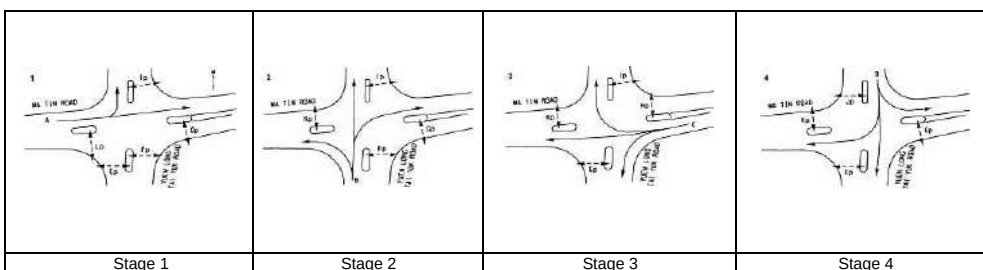
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.314
Loss time	L = 32 sec
Total Flow	= 1141 pcu
Co = (1.5*L+5)/(1-Y)	= 77.2 sec
Cm = L/(1-Y)	= 46.6 sec
Yult = 0.9-0.0075L	= 0.660
R.C.ult = (Yult-Y)/Y*100%	= 110.4 %
Cp = 0.9*L/(0.9-Y)	= 49.1 sec
Ymax = 1-L/C	= 0.733
R.C.(C) = (0.9*Ymax-Y)/Y*100%	= 110.4 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	149			149	1.00	1795			1795	0.083	0.083		23	23	0.433	20	44
2	1	3.60	A	1				2115		155		155	0.00	2115			2115	0.073			21	23	0.382	21	44
3,4	2	3.60	B	1	15		N	1975	13	133		146	0.09	1958			1958	0.074	0.074		21	21	0.425	20	46
4,5	2	3.60	B	1	20			2115		69	82	151	0.54	2032			2032	0.074			21	21	0.425	21	46
3,4	2	3.50	C	1	15		N	1965			74	74	1.00	1786			1786	0.041			12	21	0.237	10	44
4,5	2	3.50	C	1	20			2105	91	58		149	0.61	2013			2013	0.074	0.074		21	21	0.423	20	46
10,11	2	3.50	D	1	20			2105		69	97	166	0.58	2017			2017	0.082	0.082		23	23	0.429	22	44
9,10	2	3.50	D	1	15		N	1965	105	46		151	0.69	1837			1837	0.082			23	23	0.429	20	44

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_02_OBS_WEEKDAY_HALF_PM.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2026 OBS Weekday Half Cap PM 19:30-20:30		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

(ARM A)
Shap Pat Heung Road

(ARM C)
Shap Pat Heung Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 68 (pcu/hr) q a-c = 113 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 568 (pcu/hr) Q b-c = 774 (pcu/hr) Q c-b = 712 (pcu/hr) Q b-ac = 641 (pcu/hr)	DFC b-a = 0.2077 DFC b-c = 0.1137 DFC c-b = 0.3216 DFC b-ac = 0.3214 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 75 (pcu/hr) q c-b = 229 (pcu/hr)	F for (Qb-ac) = 0.427	TOTAL FLOW = 691 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 118 (pcu/hr) q b-c = 88 (pcu/hr)			CRITICAL DFC = 0.32

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2026 OBS Weekday Full Cap AM 10:30-11:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 24 (pcu/hr) q a-c = 388 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 485 (pcu/hr) Q b-c = 740 (pcu/hr) Q c-b = 564 (pcu/hr) Q b-ac = 670 (pcu/hr) Q c-a = 1554 (pcu/hr) TOTAL FLOW = 734 (pcu/hr)	DFC b-a = 0.0289 DFC b-c = 0.0757 DFC c-b = 0.1365 DFC b-ac = 0.1045 (Share Lane) DFC c-a = 0.1126
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 175 (pcu/hr) q c-b = 77 (pcu/hr)	F for (Qb-ac) = 0.8		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 14 (pcu/hr) q b-c = 56 (pcu/hr)			CRITICAL DFC = 0.14

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

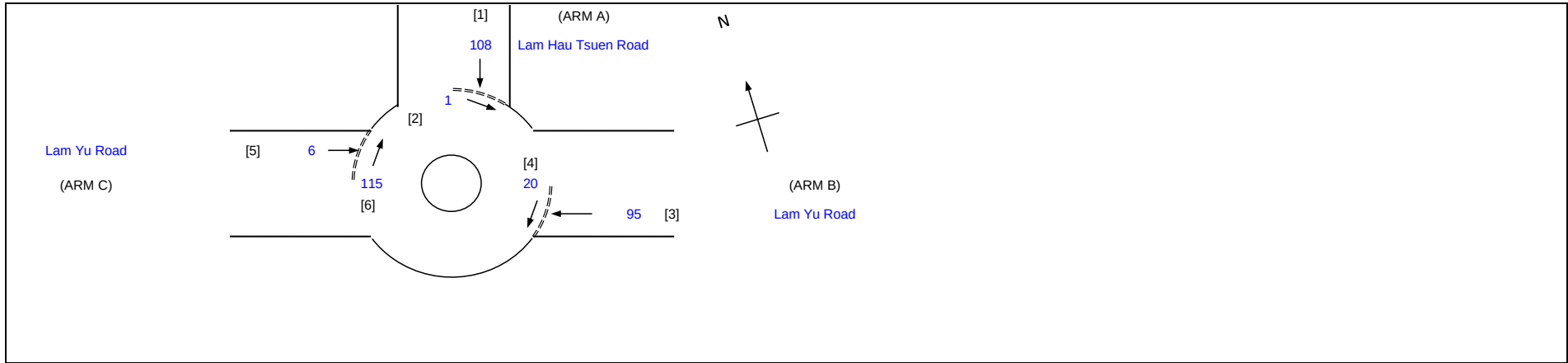
JnB - Lam Hau Tsuen Road / Lam Yu Road

2026 OBS Weekday Full Cap AM 10:30-11:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	108	95	6
Qc	=	Circulating flow across entry (pcu/h)	1	20	115

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1456	1350	1841
DFC	=	Design flow/Capacity = Q/Qe	0.07	0.07	0.00

TOTAL FLOW = 345 (pcu/hr)
CRITICAL DFC = 0.07

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

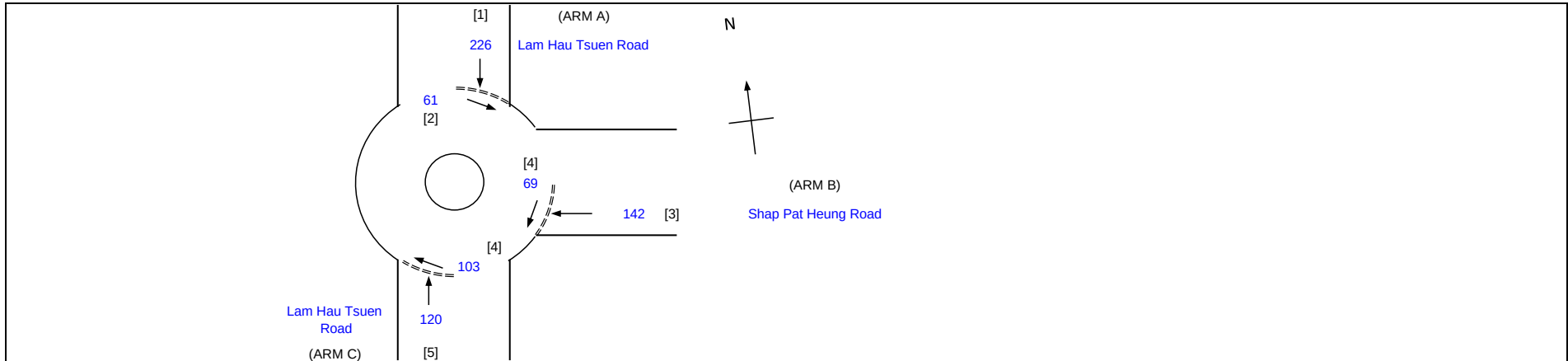
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2026 OBS Weekday Full Cap AM 10:30-11:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	226	142	120
Qc	=	Circulating flow across entry (pcu/h)	61	69	103

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2037	1968	1774
DFC	=	Design flow/Capacity = Q/Qe	0.11	0.07	0.07

TOTAL FLOW = **721 (pcu/hr)**
CRITICAL DFC = **0.11**

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

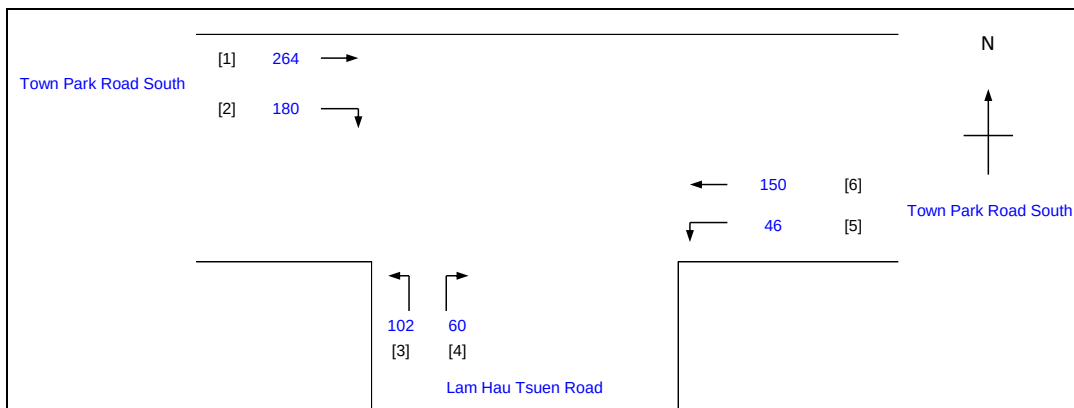
JnD - Town Park Road South / Lam Hau Tsuen Road

2026 OBS Weekday Full Cap AM 10:30-11:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.394

Loss time

L = 32 sec

Total Flow

= 802 pcu

Co = (1.5*L+5)/(1-Y)

= 87.4 sec

Cm = L/(1-Y)

= 52.8 sec

Yult = 0.9-0.0075L

= 0.660

R.C.ult = (Yult-Y)/Y*100%

= 67.7 %

Cp = 0.9*L/(0.9-Y)

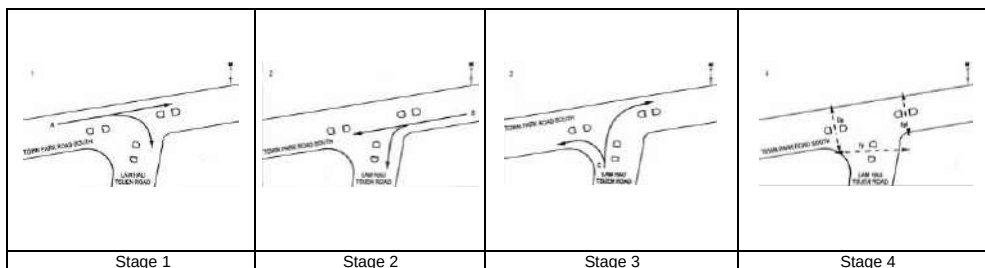
= 56.9 sec

Ymax = 1-L/C

= 0.733

R.C.(C) = (0.9*Ymax-Y)/Y*100%

= 67.7 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Required (s) FG	Green Time Provided (s) SG	Green Time Provided (s) FG	Check
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		264	180	444	0.41	2053			2053	0.216	0.216		48	48	0.541	44	29
5,6	2	4.80	B	1	15		N	2095	46	150		196	0.23	2047			2047	0.096	0.096		21	21	0.547	27	47
5,6	2	5.20	C	1	20		N	2135	102		60	162	1.00	1986			1986	0.082	0.082		18	18	0.544	23	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_03_OBS_WEEKDAY_FULL_AM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2026 OBS Weekday Full Cap AM 10:30-11:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 46 (pcu/hr) q a-c = 278 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662	Q b-a = 490 (pcu/hr) Q b-c = 685 (pcu/hr) Q c-b = 542 (pcu/hr) Q b-ac = 649 (pcu/hr) Q c-a = 1720 (pcu/hr) TOTAL FLOW = 631 (pcu/hr)	DFC b-a = 0.0286 DFC b-c = 0.1270 DFC c-b = 0.0443 DFC b-ac = 0.1556 (Share Lane) DFC c-a = 0.1058
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 182 (pcu/hr) q c-b = 24 (pcu/hr)	F for (Qb-ac) = 0.861		
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 14 (pcu/hr) q b-c = 87 (pcu/hr)			CRITICAL DFC = 0.16

AXON CONSULTANCY LIMITED										TRAFFIC SIGNAL CALCULATION										INITIALS		DATE								
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,															Project No.:		31073		Prepared By:		JK		8/8/2026							
Shan Ha Road, Yuen Long, New Territories																			Checked By:		SY		8/8/2026							
JnF - Ma Tin Road / Yuen Long Tai Yuk Road															2026 OBS Weekday Full Cap AM 10:30-11:30										Reviewed By:		AW		8/8/2026	

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2026 OBS Weekday Full Cap AM 10:30-11:30		Reviewed By:	AW 8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

(ARM A)
Shap Pat Heung Road

(ARM C)
Shap Pat Heung Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 132 (pcu/hr) q a-c = 152 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 91 (pcu/hr) q c-b = 303 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 66 (pcu/hr) q b-c = 104 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.612	THE CAPACITY OF MOVEMENT : Q b-a = 521 (pcu/hr) Q b-c = 756 (pcu/hr) Q c-b = 685 (pcu/hr) Q b-ac = 643 (pcu/hr) TOTAL FLOW = 848 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.1267 DFC b-c = 0.1376 DFC c-b = 0.4423 DFC b-ac = 0.2642 (Share Lane) CRITICAL DFC = 0.44
---	--	--	--

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2026 OBS Weekday Full Cap PM 20:30-21:30		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 22 (pcu/hr) q a-c = 307 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 528 (pcu/hr) Q b-c = 763 (pcu/hr) Q c-b = 582 (pcu/hr) Q b-ac = 705 (pcu/hr) Q c-a = 1716 (pcu/hr) TOTAL FLOW = 538 (pcu/hr)	DFC b-a = 0.0133 DFC b-c = 0.0406 DFC c-b = 0.0464 DFC b-ac = 0.0539 (Share Lane) DFC c-a = 0.0839
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 144 (pcu/hr) q c-b = 27 (pcu/hr)	F for (Qb-ac) = 0.816		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 7 (pcu/hr) q b-c = 31 (pcu/hr)			CRITICAL DFC = 0.08

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

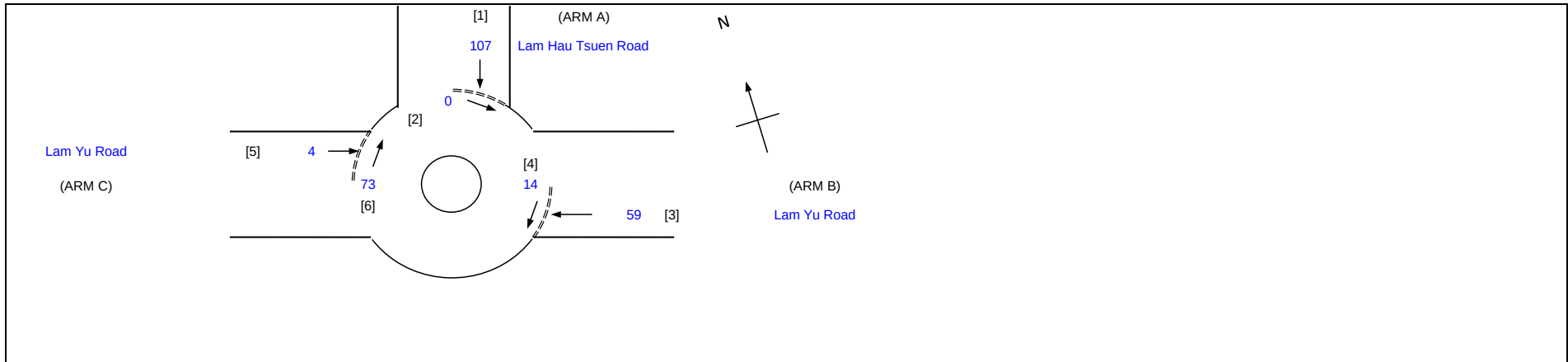
JnB - Lam Hau Tsuen Road / Lam Yu Road

2026 OBS Weekday Full Cap PM 20:30-21:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	107	59	4
Qc	=	Circulating flow across entry (pcu/h)	0	14	73

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1457	1354	1871
DFC	=	Design flow/Capacity = Q/Qe	0.07	0.04	0.00

TOTAL FLOW = 257 (pcu/hr)
CRITICAL DFC = 0.07

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

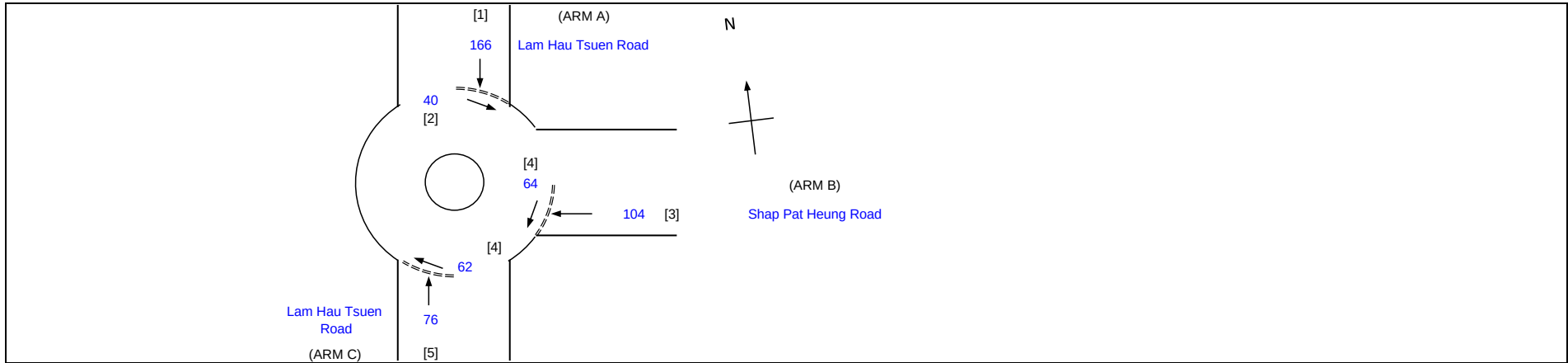
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2026 OBS Weekday Full Cap PM 20:30-21:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	166	104	76
Qc	=	Circulating flow across entry (pcu/h)	40	64	62

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2053	1971	1803
DFC	=	Design flow/Capacity = Q/Qe	0.08	0.05	0.04

TOTAL FLOW = **512 (pcu/hr)**
CRITICAL DFC = **0.08**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

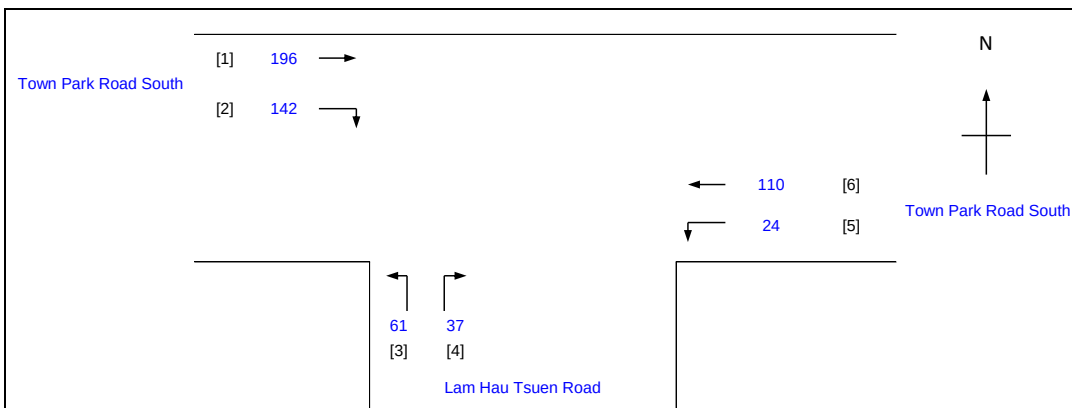
JnD - Town Park Road South / Lam Hau Tsuen Road

2026 OBS Weekday Full Cap PM 20:30-21:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

I = 5 sec

Stage 1 - 2

I = 8 sec

Stage 2 - 3

I = 11 sec

Stage 3 - 4

I = 2 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.279

Loss time

L = 32 sec

Total Flow

= 570 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 73.5 sec

 $Cm = L / (1 - Y)$

= 44.4 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C._{ult} = (Y_{ult} - Y) / Y \cdot 100\%$

= 136.3 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

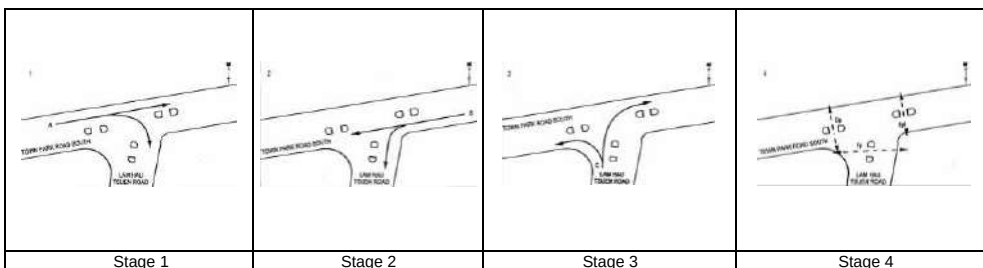
= 46.4 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 136.3 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		196	142	338	0.42	2050			2050	0.165	0.165		52	52	0.380	32	24
5,6	2	4.80	B	1	15		N	2095	24	110		134	0.18	2058			2058	0.065	0.065		21	21	0.372	18	45
5,6	2	5.20	C	1	20		N	2135	61		37	98	1.00	1986			1986	0.049	0.049		16	16	0.370	14	49

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_04_OBS_WEEKDAY_FULL_PM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2026 OBS Weekday Full Cap PM 20:30-21:30		Reviewed By:	AW	8/8/2026

(ARM B)
Town Park Road North

[6] 17 [5] 32

Town Park Road South (ARM A)

[1] 18 [2] 215

(ARM C)
Ma Tin Road

[4] 20 [3] 117

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 18 (pcu/hr) q a-c = 215 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 117 (pcu/hr) q c-b = 20 (pcu/hr) MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 17 (pcu/hr) q b-c = 32 (pcu/hr)	GEOMETRIC FACTORS : D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.653	THE CAPACITY OF MOVEMENT : Q b-a = 518 (pcu/hr) Q b-c = 703 (pcu/hr) Q c-b = 560 (pcu/hr) Q b-ac = 625 (pcu/hr) Q c-a = 1736 (pcu/hr) TOTAL FLOW = 419 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0328 DFC b-c = 0.0455 DFC c-b = 0.0357 DFC b-ac = 0.0783 (Share Lane) DFC c-a = 0.0674 CRITICAL DFC = 0.08
--	---	--	--

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE _____

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120.

Project No.:	31073
--------------	-------

Prepared By:

	JK
--	----

8/8/2026

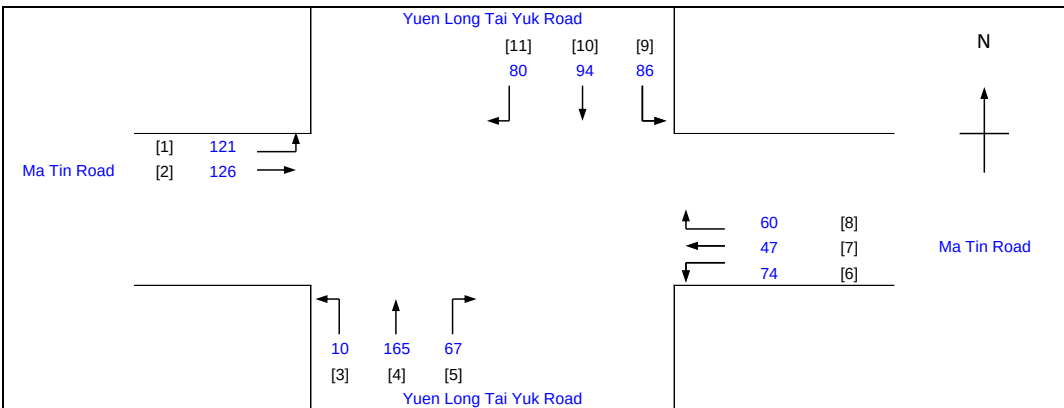
Shan Ha Road, Yuen Long, New Territories

2026 OBS Weekday Full Cap PM 20:30-21:30

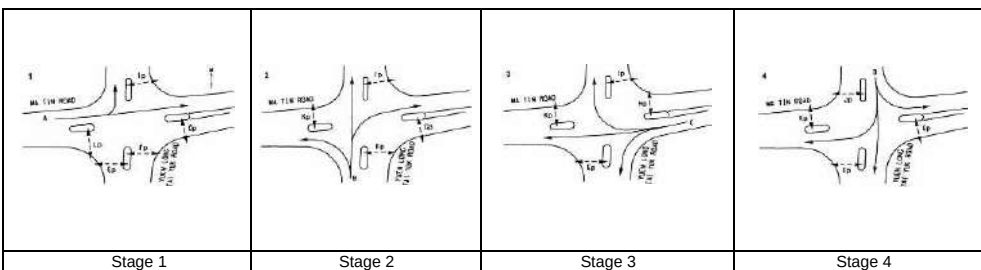
Checked By:	
-------------	--

SY

8/8/2026



No. of critical vehicular phase per cycle:	N =	4
Intergreen Period	I =	5 sec
Stage 1 - 2	I =	10 sec
Stage 2 - 3	I =	11 sec
Stage 3 - 4	I =	10 sec
Stage 4 - 1	C =	120 sec
Cycle time	Y =	0.256
Sum(y)	L =	32 sec
Loss time		
Total Flow	=	930 pcu
Co = $(1.5L+5)/(1-Y)$	=	71.2 sec
Cm = $L/(1-Y)$	=	43.0 sec
Yult = $0.9-0.0075L$	=	0.660
R.C.ult = $(Yult-Y)/Y*100\%$	=	158.2 %
Cp = $0.9*L/(0.9-Y)$	=	44.7 sec
Ymax = $1-L/C$	=	0.733
R.C.(C) = $(0.9*Ymax-Y)/Y*100\%$	=	158.2 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Ep	7.9	3,4,1	5	8	51	8	OK
Fp	7.6	1,2	5	7	48	7	OK
Gp	7.3	4,1,2	5	7	84	7	OK
Hp	8.3	3	5	8	18	8	OK
Ip	7.6	1,2,3	5	8	82	8	OK
Jp	7.4	4	5	7	22	7	OK
Kp	7.3	2,3,4	5	7	83	7	OK
Lp	9.7	1	5	11	13	11	OK

	Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
	1	1	3.60	A	1	15		N	1975	121			121	1.00	1795			1795	0.067	0.067		23	23	0.352	16	43
	2	1	3.60	A	1				2115		126		126	0.00	2115			2115	0.060			21	23	0.311	17	43
	3,4	2	3.60	B	1	15		N	1975	10	109		119	0.08	1959			1959	0.061	0.061		21	21	0.347	16	45
	4,5	2	3.60	B	1	20			2115		56	67	123	0.54	2032			2032	0.061			21	21	0.347	17	45
	3,4	2	3.50	C	1	15		N	1965			60	60	1.00	1786			1786	0.034			12	21	0.192	8	43
	4,5	2	3.50	C	1	20			2105	74	47		121	0.61	2013			2013	0.060	0.060		21	21	0.344	17	45
	10,11	2	3.50	D	1	20			2105		56	80	136	0.59	2016			2016	0.067	0.067		23	23	0.352	18	43
	9,10	2	3.50	D	1	15		N	1965	86	38		124	0.69	1838			1838	0.067			23	23	0.352	17	43

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction 04 OBS WEEKDAY FULL PM.xls|F

NOTE: O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2026 OBS Weekday Full Cap PM 20:30-21:30		Reviewed By:	AW 8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

(ARM A)
Shap Pat Heung Road

(ARM C)
Shap Pat Heung Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 55 (pcu/hr) q a-c = 92 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 593 (pcu/hr) Q b-c = 781 (pcu/hr) Q c-b = 721 (pcu/hr) Q b-ac = 661 (pcu/hr)	DFC b-a = 0.1619 DFC b-c = 0.0922 DFC c-b = 0.2594 DFC b-ac = 0.2541 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 61 (pcu/hr) q c-b = 187 (pcu/hr)	F for (Qb-ac) = 0.429	TOTAL FLOW = 563 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 96 (pcu/hr) q b-c = 72 (pcu/hr)			CRITICAL DFC = 0.26

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2026 OBS Saturday AM 10:30-11:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 30 (pcu/hr) q a-c = 445 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 489 (pcu/hr) Q b-c = 722 (pcu/hr) Q c-b = 550 (pcu/hr) Q b-ac = 655 (pcu/hr) Q c-a = 1702 (pcu/hr) TOTAL FLOW = 723 (pcu/hr)	DFC b-a = 0.0245 DFC b-c = 0.0609 DFC c-b = 0.0545 DFC b-ac = 0.0855 (Share Lane) DFC c-a = 0.0952
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 162 (pcu/hr) q c-b = 30 (pcu/hr)	F for (Qb-ac) = 0.786		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 12 (pcu/hr) q b-c = 44 (pcu/hr)			CRITICAL DFC = 0.10

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

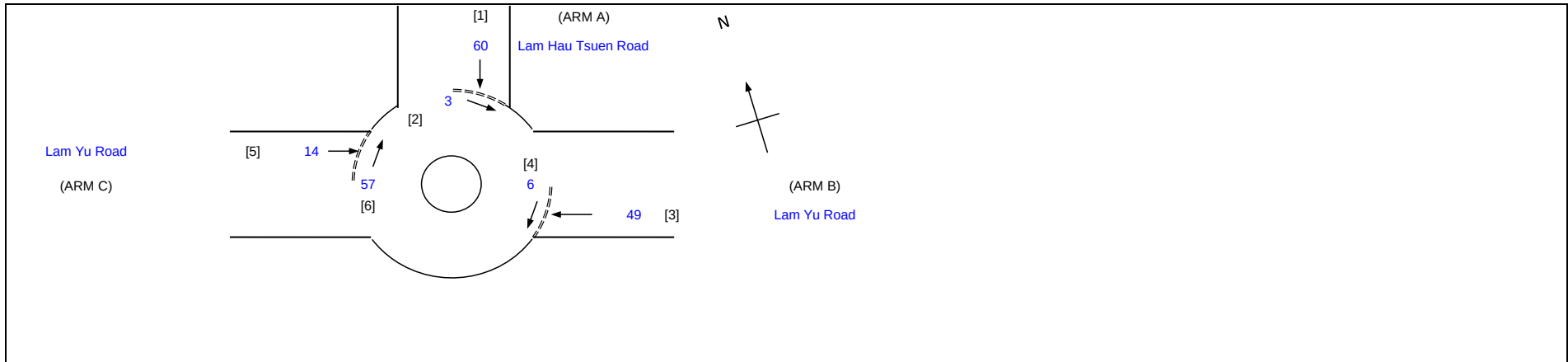
JnB - Lam Hau Tsuen Road / Lam Yu Road

2026 OBS Saturday AM 10:30-11:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

	ARM	A	B	C
V =	Approach half width (m)	3.6	2.2	5.1
E =	Entry width (m)	5.0	5.0	6.5
L =	Effective length of flare (m)	5.3	14.8	14.3
R =	Entry radius (m)	30.0	77.0	15.0
D =	Inscribed circle diameter (m)	35.0	35.0	35.0
A =	Entry angle (degree)	5.0	0.0	17.0
Q =	Entry flow (pcu/h)	60	49	14
Qc =	Circulating flow across entry (pcu/h)	3	6	57

OUTPUT PARAMETERS:

S =	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K =	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2 =	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M =	$EXP((D-60)/10)$	0.08	0.08	0.08
F =	$303 \times X2$	1321	1195	1868
Td =	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc =	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe =	$K(F-Fc \times Qc)$	1455	1359	1882
DFC =	Design flow/Capacity = Q/Qe	0.04	0.04	0.01

TOTAL FLOW = **189 (pcu/hr)**
CRITICAL DFC = **0.04**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

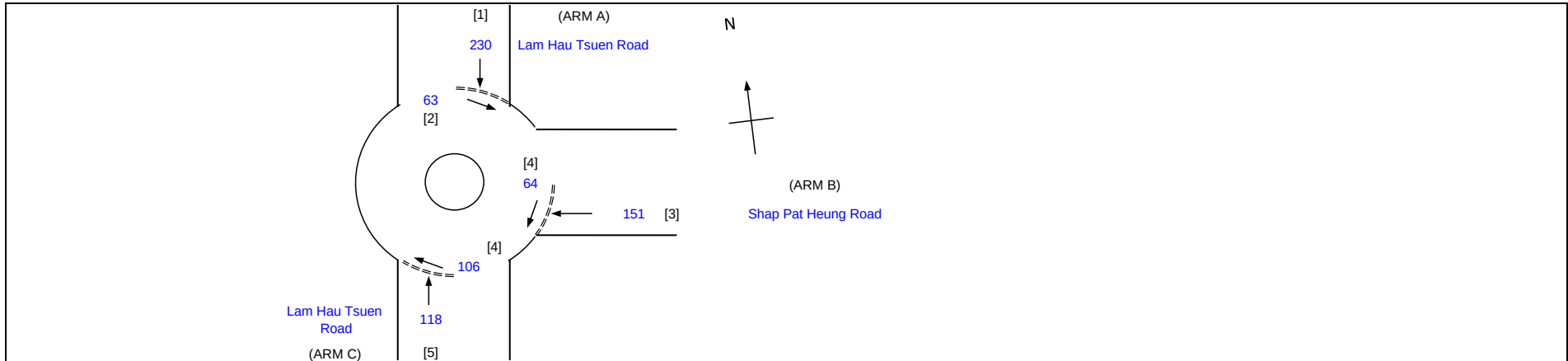
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2026 OBS Saturday AM 10:30-11:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	230	151	118
Qc	=	Circulating flow across entry (pcu/h)	63	64	106

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2036	1971	1772
DFC	=	Design flow/Capacity = Q/Qe	0.11	0.08	0.07

TOTAL FLOW = 732 (pcu/hr)
CRITICAL DFC = 0.11

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

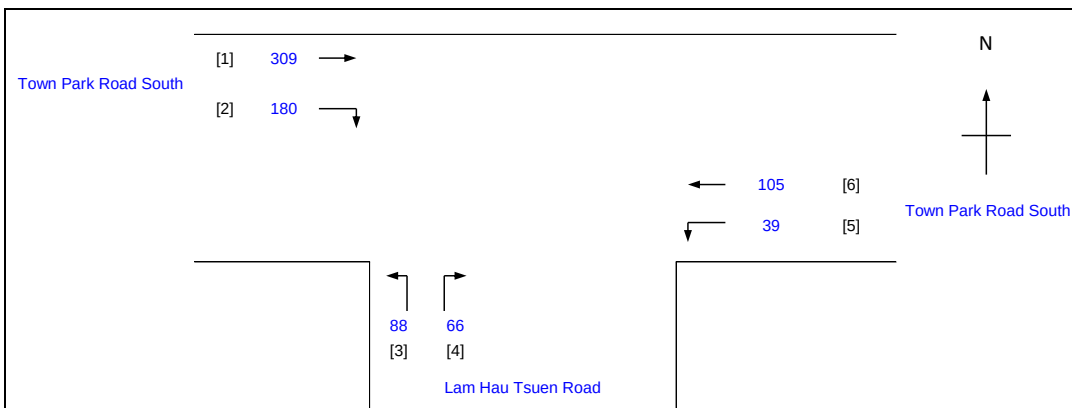
JnD - Town Park Road South / Lam Hau Tsuen Road

2026 OBS Saturday AM 10:30-11:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

I = 5 sec

Stage 1 - 2

I = 8 sec

Stage 2 - 3

I = 11 sec

Stage 3 - 4

I = 2 sec

Stage 4 - 1

Cycle time

C = 120 sec

Sum(y)

Y = 0.386

Loss time

L = 32 sec

Total Flow

= 787 pcu

Co = (1.5*L+5)/(1-Y)

= 86.3 sec

Cm = L/(1-Y)

= 52.1 sec

Yult = 0.9-0.0075L

= 0.660

R.C.ult = (Yult-Y)/Y*100%

= 71.1 %

Cp = 0.9*L/(0.9-Y)

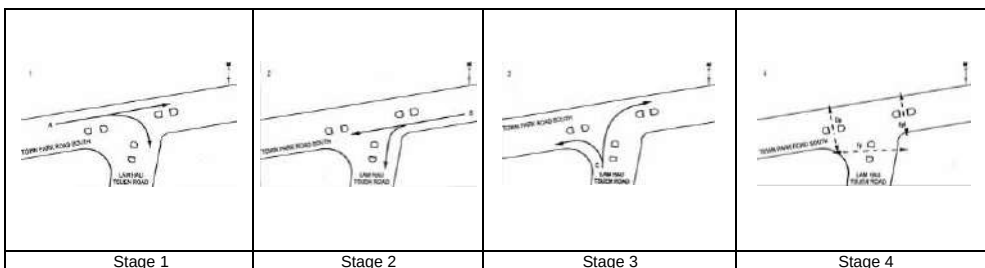
= 56.0 sec

Ymax = 1-L/C

= 0.733

R.C.(C) = (0.9*Ymax-Y)/Y*100%

= 71.1 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Dp	10.5	4	5	4	OK
Ep	10.5	4	5	4	OK
Fp	19.3	4	5	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		309	180	489	0.37	2058			2058	0.238	0.238		54	54	0.528	45	25
5,6	2	4.80	B	1	15		N	2095	39	105		144	0.27	2040			2040	0.071	0.071		16	16	0.529	21	51
5,6	2	5.20	C	1	20		N	2135	88		66	154	1.00	1986			1986	0.078	0.078		18	18	0.517	22	49

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_05_OBS_SAT_AM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2026 OBS Saturday AM 10:30-11:30		Reviewed By:	AW	8/8/2026

(ARM B)
Town Park Road North

[6] 11 [5] 50

Town Park Road South (ARM A)

[1] 25 [2] 350

Ma Tin Road (ARM C)

31 [4] 132 [3]

N

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 25 (pcu/hr) q a-c = 350 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662	Q b-a = 481 (pcu/hr) Q b-c = 669 (pcu/hr) Q c-b = 532 (pcu/hr) Q b-ac = 625 (pcu/hr) Q c-a = 1695 (pcu/hr) TOTAL FLOW = 599 (pcu/hr)	DFC b-a = 0.0229 DFC b-c = 0.0747 DFC c-b = 0.0583 DFC b-ac = 0.0976 (Share Lane) DFC c-a = 0.0779
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 132 (pcu/hr) q c-b = 31 (pcu/hr)	F for (Qb-ac) = 0.82		
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 11 (pcu/hr) q b-c = 50 (pcu/hr)			CRITICAL DFC = 0.10

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

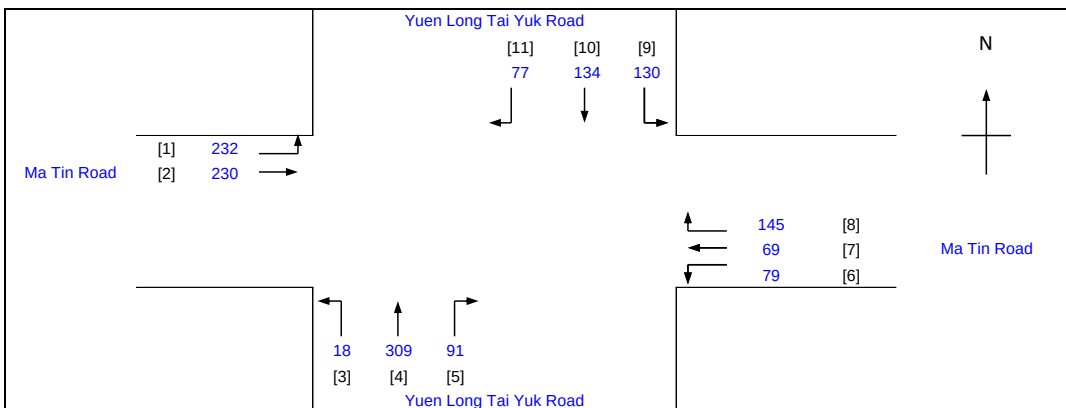
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2026 OBS Saturday AM 10:30-11:30

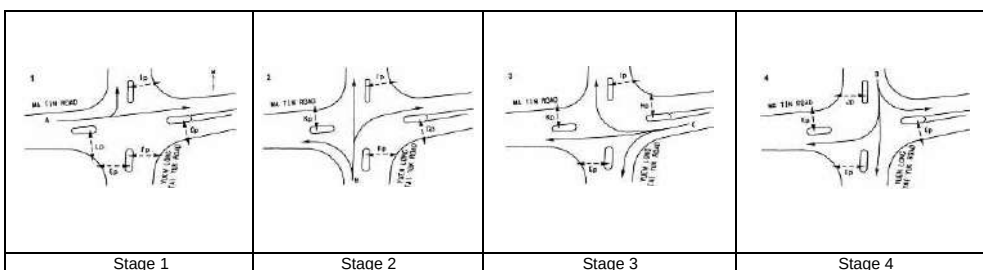
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.403
Loss time	L = 32 sec
Total Flow	= 1514 pcu
Co	= (1.5*L+5)/(1-Y) = 88.8 sec
Cm	= L/(1-Y) = 53.6 sec
Yult	= 0.9-0.0075L = 0.660
R.C.ult	= (Yult-Y)/Y*100% = 63.7 %
Cp	= 0.9*L/(0.9-Y) = 58.0 sec
Ymax	= 1-L/C = 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100% = 63.7 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Ep	7.9	3,4,1	5	53	OK
Fp	7.6	1,2	5	55	OK
Gp	7.3	4,1,2	5	87	OK
Hp	8.3	3	5	15	OK
Ip	7.6	1,2,3	5	86	OK
Jp	7.4	4	5	18	OK
Kp	7.3	2,3,4	5	78	OK
Lp	9.7	1	5	18	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	232			232	1.00	1795			1795	0.129	0.129		28	28	0.554	30	43
2	1	3.60	A	1				2115		230		230	0.00	2115			2115	0.109			24	28	0.466	29	41
3,4	2	3.60	B	1	15		N	1975	18	186		204	0.09	1958			1958	0.104	0.104		23	23	0.544	28	46
4,5	2	3.60	B	1	20			2115		123	91	214	0.43	2050			2050	0.104			23	23	0.544	29	46
3,4	2	3.50	C	1	15		N	1965			145	145	1.00	1786			1786	0.081			18	18	0.541	21	50
4,5	2	3.50	C	1	20			2105	79	69		148	0.53	2024			2024	0.073	0.081		16	18	0.487	21	49
10,11	2	3.50	D	1	20			2105		103	77	180	0.43	2040			2040	0.088	0.088		19	19	0.558	25	49
9,10	2	3.50	D	1	15		N	1965	130	31		161	0.81	1818			1818	0.088			19	19	0.558	23	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_05_OBS_SAT_AM.xls\F

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2026 OBS Saturday AM 10:30-11:30		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 150 (pcu/hr) q a-c = 197 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 511 (pcu/hr) Q b-c = 741 (pcu/hr) Q c-b = 668 (pcu/hr) Q b-ac = 585 (pcu/hr)	DFC b-a = 0.2485 DFC b-c = 0.1174 DFC c-b = 0.4027 DFC b-ac = 0.3659 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 142 (pcu/hr) q c-b = 269 (pcu/hr)	F for (Qb-ac) = 0.407	TOTAL FLOW = 972 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 127 (pcu/hr) q b-c = 87 (pcu/hr)			CRITICAL DFC = 0.40

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2026 OBS Saturday Noon 12:30-13:30		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 28 (pcu/hr) q a-c = 402 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 503 (pcu/hr) Q b-c = 735 (pcu/hr) Q c-b = 560 (pcu/hr) Q b-ac = 668 (pcu/hr) Q c-a = 1710 (pcu/hr) TOTAL FLOW = 656 (pcu/hr)	DFC b-a = 0.0219 DFC b-c = 0.0544 DFC c-b = 0.0500 DFC b-ac = 0.0763 (Share Lane) DFC c-a = 0.0860
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 147 (pcu/hr) q c-b = 28 (pcu/hr)	F for (Qb-ac) = 0.784		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 11 (pcu/hr) q b-c = 40 (pcu/hr)			CRITICAL DFC = 0.09

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

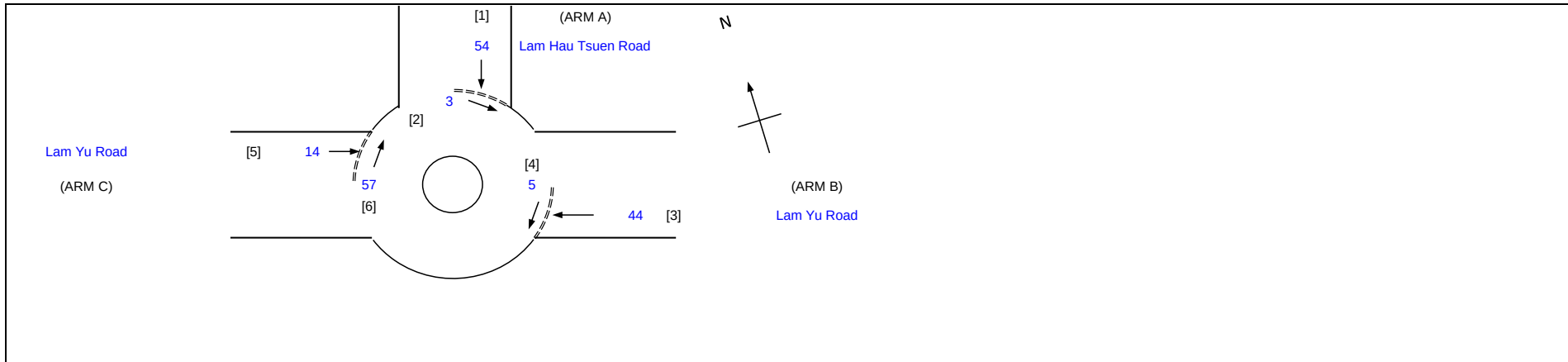
JnB - Lam Hau Tsuen Road / Lam Yu Road

2026 OBS Saturday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	54	44	14
Qc	=	Circulating flow across entry (pcu/h)	3	5	57

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1455	1360	1882
DFC	=	Design flow/Capacity = Q/Qe	0.04	0.03	0.01

TOTAL FLOW = 177 (pcu/hr)
CRITICAL DFC = 0.04

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

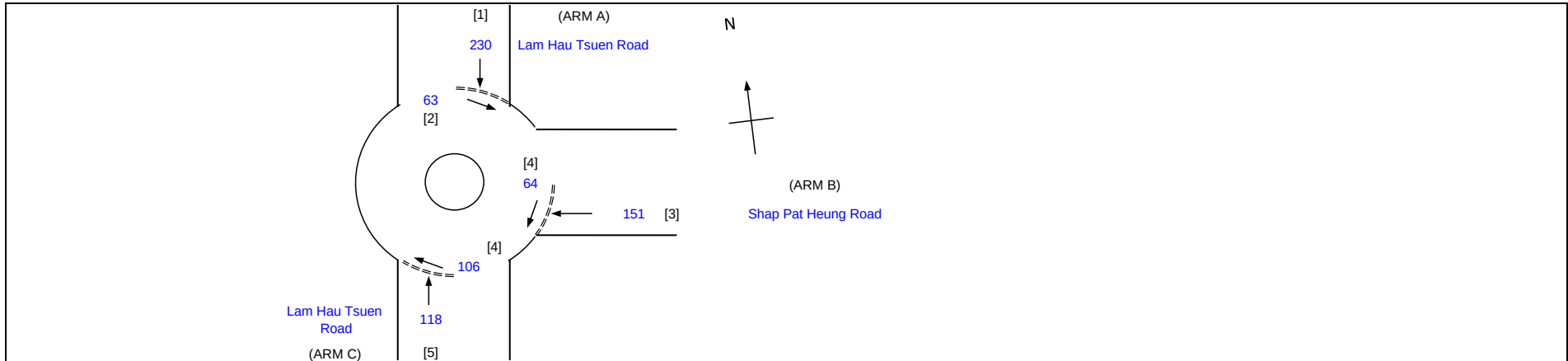
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2026 OBS Saturday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	230	151	118
Qc	=	Circulating flow across entry (pcu/h)	63	64	106

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2036	1971	1772
DFC	=	Design flow/Capacity = Q/Qe	0.11	0.08	0.07

TOTAL FLOW = **732 (pcu/hr)**
CRITICAL DFC = **0.11**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

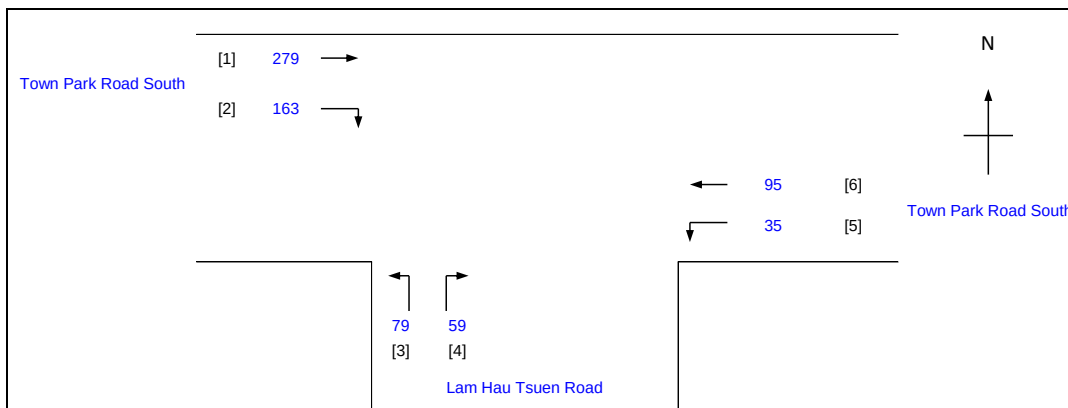
JnD - Town Park Road South / Lam Hau Tsuen Road

2026 OBS Saturday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

I = 5 sec

Stage 1 - 2

I = 8 sec

Stage 2 - 3

I = 11 sec

Stage 3 - 4

I = 2 sec

Stage 4 - 1

C = 120 sec

Cycle time

Y = 0.348

Sum(y)

L = 32 sec

Loss time

= 710 pcu

Total Flow

= 81.3 sec

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 49.1 sec

 $Cm = L / (1 - Y)$

= 0.660

 $Y_{ult} = 0.9 - 0.0075L$

= 89.7 %

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

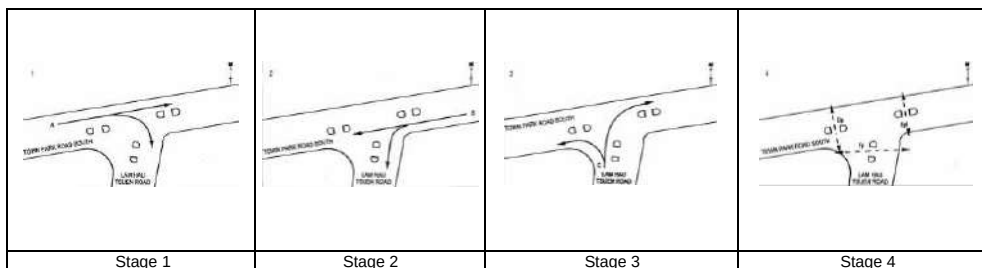
= 52.2 sec

 $Cp = 0.9 \cdot L / (0.9 - Y)$

= 0.733

 $Y_{max} = 1 - L / C$

= 89.7 %

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$


Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		279	163	442	0.37	2058			2058	0.215	0.215		54	54	0.477	41	24
5,6	2	4.80	B	1	15		N	2095	35	95		130	0.27	2040			2040	0.064	0.064		16	16	0.478	19	50
5,6	2	5.20	C	1	20		N	2135	79		59	138	1.00	1986			1986	0.069	0.069		18	18	0.463	20	48

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_06_OBS_SAT_NOON.xls]D

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2026 OBS Saturday Noon 12:30-13:30		Reviewed By:	AW	8/8/2026

(ARM B)
Town Park Road North

[6] 10 [5] 45

Town Park Road South (ARM A)

[1] 22 [2] 316

Ma Tin Road (ARM C)

28 [4] 120 [3]

N

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 22 (pcu/hr) q a-c = 316 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662	Q b-a = 492 (pcu/hr) Q b-c = 678 (pcu/hr) Q c-b = 540 (pcu/hr) Q b-ac = 634 (pcu/hr) Q c-a = 1707 (pcu/hr) TOTAL FLOW = 541 (pcu/hr)	DFC b-a = 0.0203 DFC b-c = 0.0664 DFC c-b = 0.0519 DFC b-ac = 0.0867 (Share Lane) DFC c-a = 0.0703
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 120 (pcu/hr) q c-b = 28 (pcu/hr)	F for (Qb-ac) = 0.818		
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 10 (pcu/hr) q b-c = 45 (pcu/hr)			CRITICAL DFC = 0.09

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

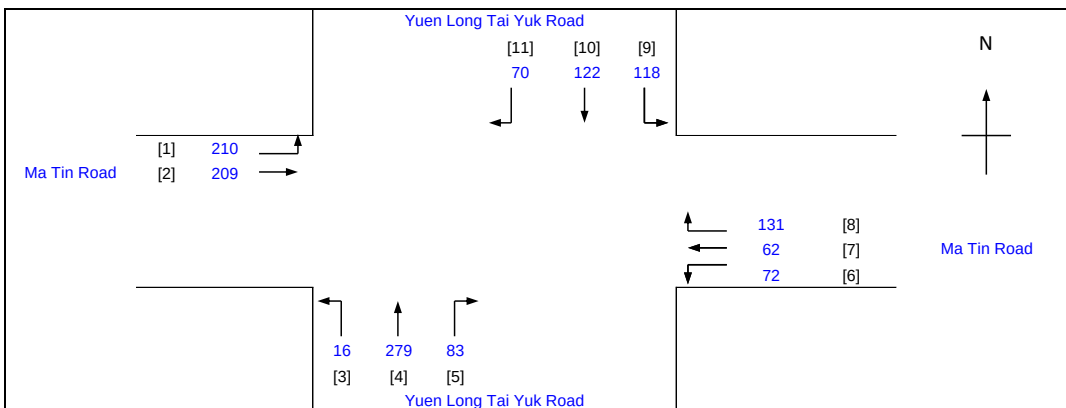
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2026 OBS Saturday Noon 12:30-13:30

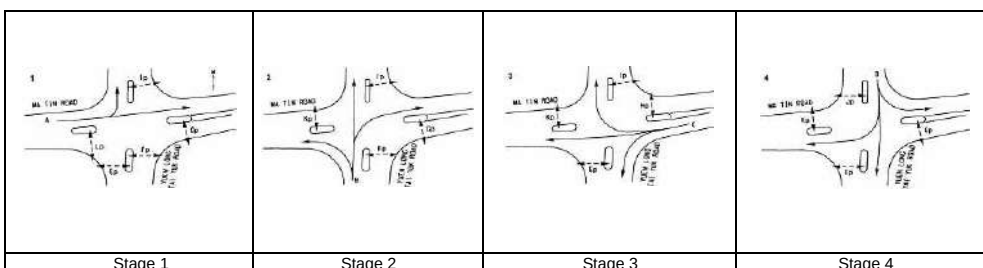
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:		N =	4
Intergreen Period	Stage 1 - 2	I =	5 sec
	Stage 2 - 3	I =	10 sec
	Stage 3 - 4	I =	11 sec
	Stage 4 - 1	I =	10 sec
Cycle time		C =	120 sec
Sum(y)		Y =	0.365
Loss time		L =	32 sec
Total Flow			= 1372 pcu
Co	= (1.5*L+5)/(1-Y)		= 83.5 sec
Cm	= L/(1-Y)		= 50.4 sec
Yult	= 0.9-0.0075L		= 0.660
R.C.ult	= (Yult-Y)/Y*100%		= 80.8 %
Cp	= 0.9*L/(0.9-Y)		= 53.8 sec
Ymax	= 1-L/C		= 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100%		= 80.8 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	210			210	1.00	1795			1795	0.117	0.117		28	28	0.501	27	42
2	1	3.60	A	1				2115		209		209	0.00	2115			2115	0.099			24	28	0.424	27	40
3,4	2	3.60	B	1	15		N	1975	16	169		185	0.09	1958			1958	0.094	0.094		23	23	0.492	25	45
4,5	2	3.60	B	1	20			2115		110	83	193	0.43	2049			2049	0.094			23	23	0.492	26	45
3,4	2	3.50	C	1	15		N	1965			131	131	1.00	1786			1786	0.073			18	18	0.489	19	49
4,5	2	3.50	C	1	20			2105	72	62		134	0.54	2023			2023	0.066	0.073		16	18	0.441	19	48
10,11	2	3.50	D	1	20			2105		94	70	164	0.43	2040			2040	0.080	0.080		19	19	0.508	23	48
9,10	2	3.50	D	1	15		N	1965	118	28		146	0.81	1818			1818	0.080			19	19	0.508	20	49

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_06_OBS_SAT_NOON.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2026 OBS Saturday Noon 12:30-13:30		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 115 [5] 78

(ARM A)
Shap Pat Heung Road

[1] 135 [2] 178

(ARM C)
Shap Pat Heung Road

[4] 243 [3] 128

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 135 (pcu/hr) q a-c = 178 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 128 (pcu/hr) q c-b = 243 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 115 (pcu/hr) q b-c = 78 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.404	THE CAPACITY OF MOVEMENT : Q b-a = 530 (pcu/hr) Q b-c = 748 (pcu/hr) Q c-b = 677 (pcu/hr) Q b-ac = 601 (pcu/hr) TOTAL FLOW = 877 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.2170 DFC b-c = 0.1043 DFC c-b = 0.3589 DFC b-ac = 0.3213 (Share Lane) CRITICAL DFC = 0.36
--	---	--	---

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2026 OBS Saturday PM 17:30-18:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 32 (pcu/hr) q a-c = 467 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 481 (pcu/hr) Q b-c = 716 (pcu/hr) Q c-b = 544 (pcu/hr) Q b-ac = 646 (pcu/hr) Q c-a = 1694 (pcu/hr) TOTAL FLOW = 760 (pcu/hr)	DFC b-a = 0.0270 DFC b-c = 0.0642 DFC c-b = 0.0588 DFC b-ac = 0.0913 (Share Lane) DFC c-a = 0.1003
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 170 (pcu/hr) q c-b = 32 (pcu/hr)	F for (Qb-ac) = 0.78		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 13 (pcu/hr) q b-c = 46 (pcu/hr)			CRITICAL DFC = 0.10

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

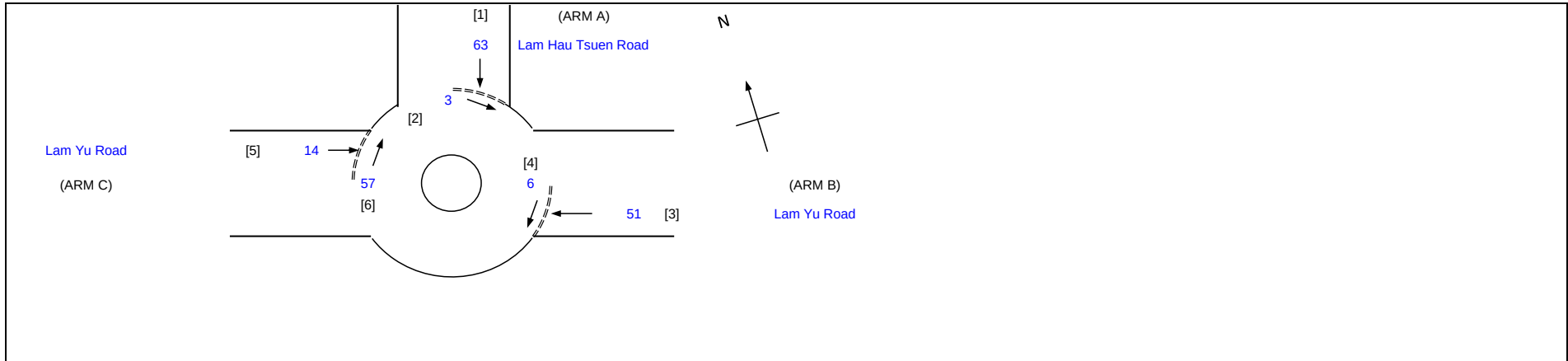
JnB - Lam Hau Tsuen Road / Lam Yu Road

2026 OBS Saturday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

	ARM	A	B	C
V =	Approach half width (m)	3.6	2.2	5.1
E =	Entry width (m)	5.0	5.0	6.5
L =	Effective length of flare (m)	5.3	14.8	14.3
R =	Entry radius (m)	30.0	77.0	15.0
D =	Inscribed circle diameter (m)	35.0	35.0	35.0
A =	Entry angle (degree)	5.0	0.0	17.0
Q =	Entry flow (pcu/h)	63	51	14
Qc =	Circulating flow across entry (pcu/h)	3	6	57

OUTPUT PARAMETERS:

S =	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K =	$1 - 0.00347(A-30) - 0.978(1/R - 0.05)$	1.10	1.14	1.03
X2 =	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M =	$EXP((D-60)/10)$	0.08	0.08	0.08
F =	$303 \times X2$	1321	1195	1868
Td =	$1 + (0.5/(1+M))$	1.46	1.46	1.46
Fc =	$0.21 \times Td(1 + 0.2 \times X2)$	0.57	0.55	0.69
Qe =	$K(F - Fc \times Qc)$	1455	1359	1882
DFC =	Design flow/Capacity = Q/Qe	0.04	0.04	0.01

TOTAL FLOW = **194 (pcu/hr)**
CRITICAL DFC = **0.04**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

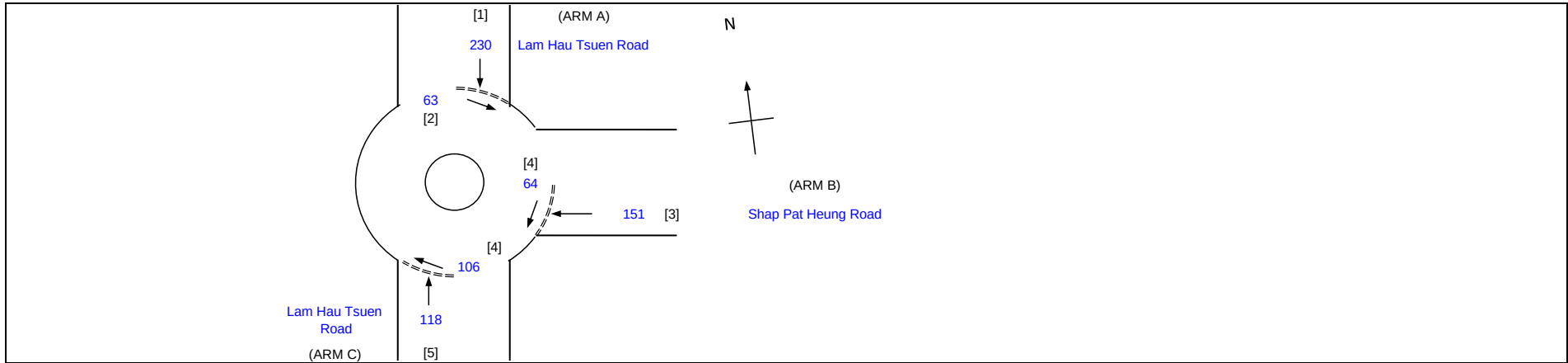
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2026 OBS Saturday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	230	151	118
Qc	=	Circulating flow across entry (pcu/h)	63	64	106

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2036	1971	1772
DFC	=	Design flow/Capacity = Q/Qe	0.11	0.08	0.07

TOTAL FLOW = **732 (pcu/hr)**
CRITICAL DFC = **0.11**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

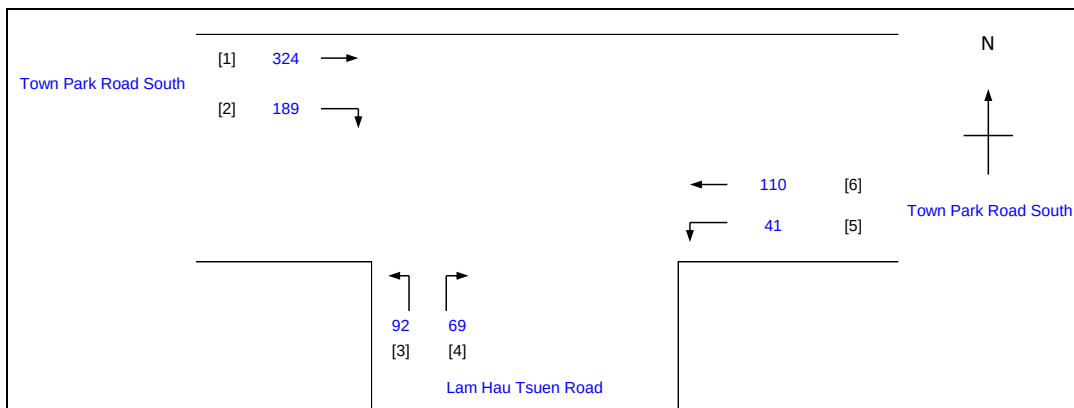
JnD - Town Park Road South / Lam Hau Tsuen Road

2026 OBS Saturday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.404

Loss time

L = 32 sec

Total Flow

= 825 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 89.0 sec

 $Cm = L / (1 - Y)$

= 53.7 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 63.2 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

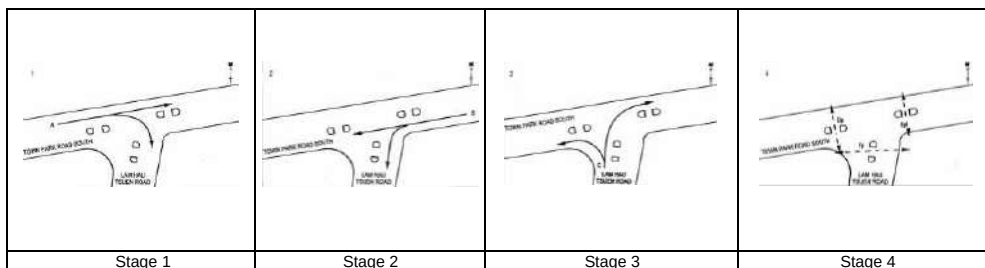
= 58.1 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 63.2 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		324	189	513	0.37	2058			2058	0.249	0.249		54	54	0.554	47	26
5,6	2	4.80	B	1	15		N	2095	41	110		151	0.27	2040			2040	0.074	0.074		16	16	0.555	22	51
5,6	2	5.20	C	1	20		N	2135	92		69	161	1.00	1986			1986	0.081	0.081		18	18	0.540	23	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_07_OBS_SAT_PM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2026 OBS Saturday PM 17:30-18:30		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 26 (pcu/hr) q a-c = 367 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662	Q b-a = 475 (pcu/hr) Q b-c = 665 (pcu/hr) Q c-b = 529 (pcu/hr) Q b-ac = 619 (pcu/hr) Q c-a = 1688 (pcu/hr) TOTAL FLOW = 629 (pcu/hr)	DFC b-a = 0.0253 DFC b-c = 0.0782 DFC c-b = 0.0624 DFC b-ac = 0.1035 (Share Lane) DFC c-a = 0.0824
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 139 (pcu/hr) q c-b = 33 (pcu/hr)	F for (Qb-ac) = 0.813		
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 12 (pcu/hr) q b-c = 52 (pcu/hr)			CRITICAL DFC = 0.10

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

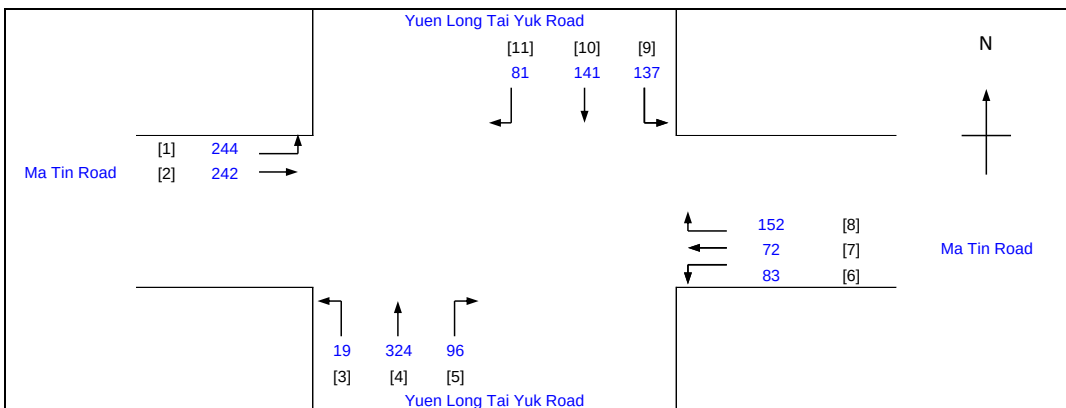
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2026 OBS Saturday PM 17:30-18:30

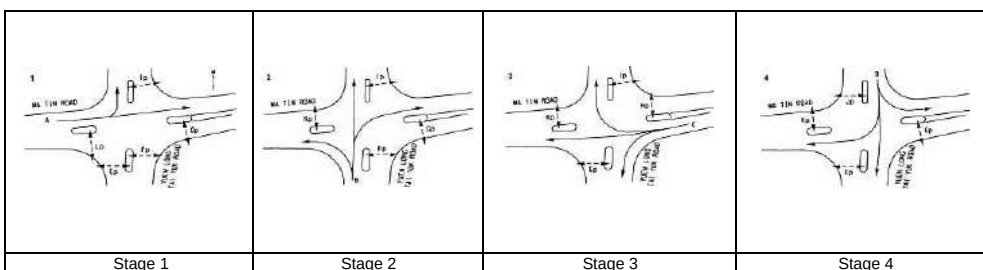
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.424
Loss time	L = 32 sec
Total Flow	= 1591 pcu
Co	= (1.5*L+5)/(1-Y) = 92.0 sec
Cm	= L/(1-Y) = 55.5 sec
Yult	= 0.9-0.0075L = 0.660
R.C.ult	= (Yult-Y)/Y*100% = 55.8 %
Cp	= 0.9*L/(0.9-Y) = 60.5 sec
Ymax	= 1-L/C = 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100% = 55.8 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Ep	7.9	3,4,1	5	53	OK
Fp	7.6	1,2	5	55	OK
Gp	7.3	4,1,2	5	87	OK
Hp	8.3	3	5	15	OK
Ip	7.6	1,2,3	5	86	OK
Jp	7.4	4	5	18	OK
Kp	7.3	2,3,4	5	78	OK
Lp	9.7	1	5	18	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	244			244	1.00	1795			1795	0.136	0.136		28	28	0.582	31	43
2	1	3.60	A	1				2115		242		242	0.00	2115			2115	0.114			24	28	0.490	31	41
3,4	2	3.60	B	1	15		N	1975	19	195		214	0.09	1958			1958	0.110	0.110		23	23	0.572	29	46
4,5	2	3.60	B	1	20			2115		129	96	225	0.43	2049			2049	0.110			23	23	0.572	30	46
3,4	2	3.50	C	1	15		N	1965			152	152	1.00	1786			1786	0.085			18	18	0.567	22	51
4,5	2	3.50	C	1	20			2105	83	72		155	0.54	2024			2024	0.077	0.085		16	18	0.511	22	49
10,11	2	3.50	D	1	20			2105		109	81	190	0.43	2040			2040	0.093	0.093		19	19	0.588	27	50
9,10	2	3.50	D	1	15		N	1965	137	32		169	0.81	1818			1818	0.093			19	19	0.588	24	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_07_OBS_SAT_PM.xls\F

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2026 OBS Saturday PM 17:30-18:30		Reviewed By:	AW 8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 133 [5] 91

(ARM A)
Shap Pat Heung Road

[1] 157 [2] 207

(ARM C)
Shap Pat Heung Road

282 [4] 149 [3]

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 157 (pcu/hr) q a-c = 207 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 149 (pcu/hr) q c-b = 282 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 133 (pcu/hr) q b-c = 91 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.406	THE CAPACITY OF MOVEMENT : Q b-a = 502 (pcu/hr) Q b-c = 738 (pcu/hr) Q c-b = 664 (pcu/hr) Q b-ac = 577 (pcu/hr) TOTAL FLOW = 1019 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.2649 DFC b-c = 0.1233 DFC c-b = 0.4247 DFC b-ac = 0.3882 (Share Lane) CRITICAL DFC = 0.42
--	---	---	---

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2026 OBS Saturday Late 21:30-22:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 20 (pcu/hr) q a-c = 298 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 538 (pcu/hr) Q b-c = 766 (pcu/hr) Q c-b = 585 (pcu/hr) Q b-ac = 702 (pcu/hr) Q c-a = 1738 (pcu/hr) TOTAL FLOW = 484 (pcu/hr)	DFC b-a = 0.0149 DFC b-c = 0.0379 DFC c-b = 0.0342 DFC b-ac = 0.0527 (Share Lane) DFC c-a = 0.0627
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 109 (pcu/hr) q c-b = 20 (pcu/hr)	F for (Qb-ac) = 0.784		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 8 (pcu/hr) q b-c = 29 (pcu/hr)			CRITICAL DFC = 0.06

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

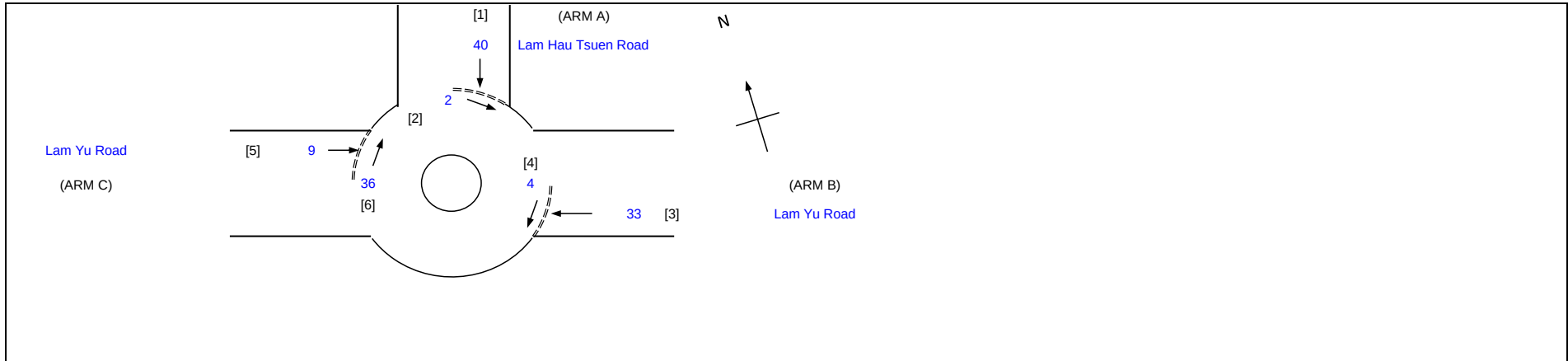
JnB - Lam Hau Tsuen Road / Lam Yu Road

2026 OBS Saturday Late 21:30-22:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

GEOMETRIC DETAILS:			ARM	A	B	C
V	=	Approach half width (m)		3.6	2.2	5.1
E	=	Entry width (m)		5.0	5.0	6.5
L	=	Effective length of flare (m)		5.3	14.8	14.3
R	=	Entry radius (m)		30.0	77.0	15.0
D	=	Inscribed circle diameter (m)		35.0	35.0	35.0
A	=	Entry angle (degree)		5.0	0.0	17.0
Q	=	Entry flow (pcu/h)		40	33	9
Qc	=	Circulating flow across entry (pcu/h)		2	4	36

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1456	1360	1897
DFC	=	Design flow/Capacity = Q/Qe	0.03	0.02	0.00

TOTAL FLOW = **124 (pcu/hr)**
CRITICAL DFC = **0.03**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

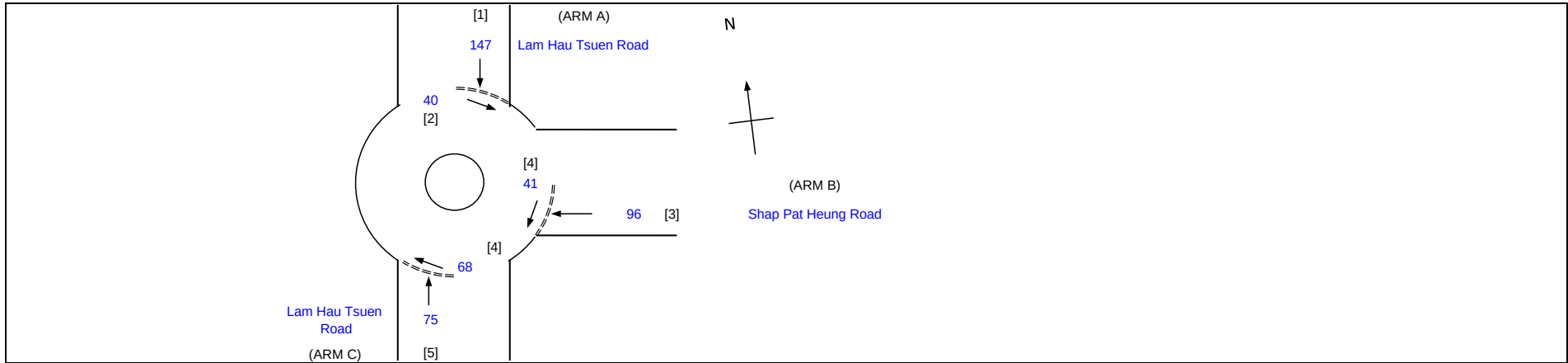
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2026 OBS Saturday Late 21:30-22:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	147	96	75
Qc	=	Circulating flow across entry (pcu/h)	40	41	68

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2053	1989	1799
DFC	=	Design flow/Capacity = Q/Qe	0.07	0.05	0.04

TOTAL FLOW = 467 (pcu/hr)
CRITICAL DFC = 0.07

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

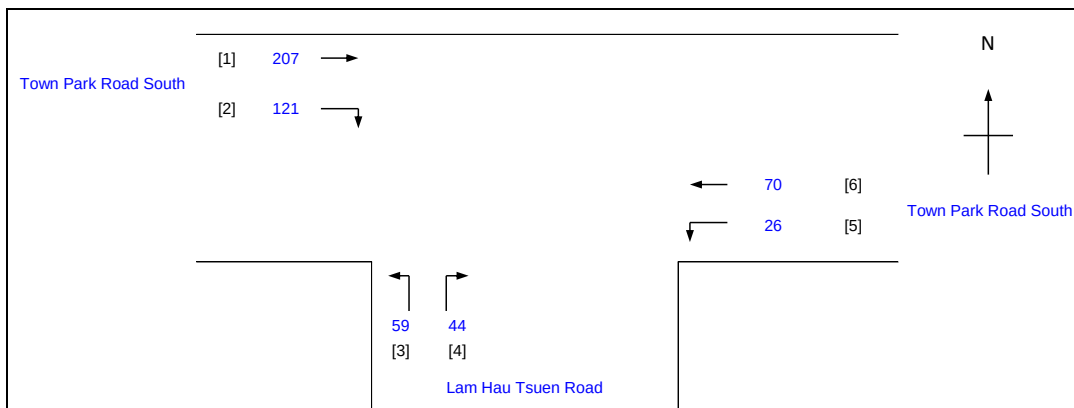
JnD - Town Park Road South / Lam Hau Tsuen Road

2026 OBS Saturday Late 21:30-22:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.258

Loss time

L = 32 sec

Total Flow

= 527 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 71.5 sec

 $Cm = L / (1 - Y)$

= 43.1 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 155.5 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

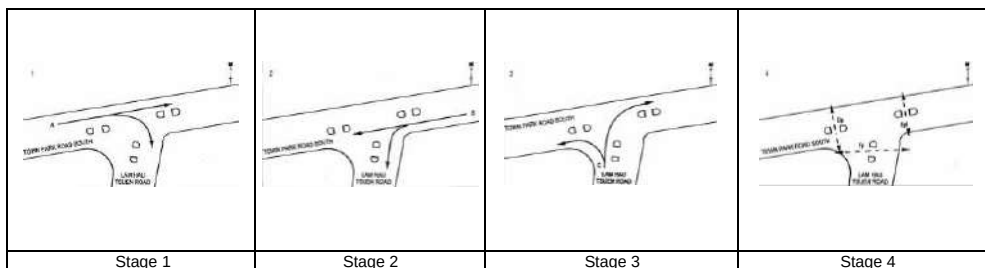
= 44.9 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 155.5 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		207	121	328	0.37	2058			2058	0.159	0.159		54	54	0.354	30	22
5,6	2	4.80	B	1	15		N	2095	26	70		96	0.27	2040			2040	0.047	0.047		16	16	0.353	14	49
5,6	2	5.20	C	1	20		N	2135	59		44	103	1.00	1986			1986	0.052	0.052		18	18	0.346	15	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction_08_OBS_SAT_LATE.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2026 OBS Saturday Late 21:30-22:30		Reviewed By:	AW	8/8/2026

(ARM B)
Town Park Road North

[6] 8 [5] 33

Town Park Road South (ARM A)

[1] 17 [2] 234

Ma Tin Road (ARM C)

21 [4] 89 [3]

N

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

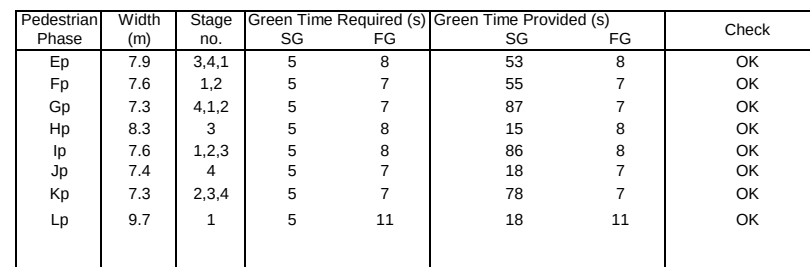
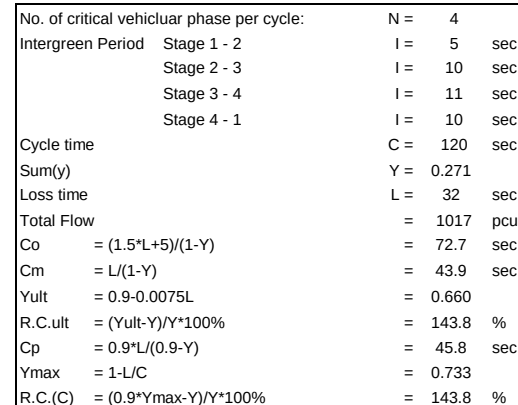
D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 17 (pcu/hr) q a-c = 234 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662	Q b-a = 517 (pcu/hr) Q b-c = 698 (pcu/hr) Q c-b = 557 (pcu/hr) Q b-ac = 653 (pcu/hr) Q c-a = 1732 (pcu/hr) TOTAL FLOW = 402 (pcu/hr)	DFC b-a = 0.0155 DFC b-c = 0.0473 DFC c-b = 0.0377 DFC b-ac = 0.0628 (Share Lane) DFC c-a = 0.0514
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 89 (pcu/hr) q c-b = 21 (pcu/hr)	F for (Qb-ac) = 0.805		
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 8 (pcu/hr) q b-c = 33 (pcu/hr)			CRITICAL DFC = 0.06



d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction 08 OBS SAT LATE.xls|F

$$\text{QUEUING LENGTH} = \text{AVERAGE QUEUE} * 6\text{m}$$

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2026 OBS Saturday Late 21:30-22:30		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 100 (pcu/hr) q a-c = 132 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 575 (pcu/hr) Q b-c = 765 (pcu/hr) Q c-b = 698 (pcu/hr) Q b-ac = 639 (pcu/hr)	DFC b-a = 0.1478 DFC b-c = 0.0758 DFC c-b = 0.2579 DFC b-ac = 0.2236 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 95 (pcu/hr) q c-b = 180 (pcu/hr)	F for (Qb-ac) = 0.406	TOTAL FLOW = 650 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 85 (pcu/hr) q b-c = 58 (pcu/hr)			CRITICAL DFC = 0.26

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2026 OBS Sunday AM 11:30-12:30		Reviewed By:	AW 8/8/2026

(ARM A)
Town Park Road South

[2] 306 [1] 21

Town Park Road South [3] 130 [4] 20

(ARM C)

Town Park Road North [6] 10 [5] 79

(ARM B)

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 21 (pcu/hr) q a-c = 306 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693 F for (Qb-ac) = 0.888	Q b-a = 533 (pcu/hr) Q b-c = 764 (pcu/hr) Q c-b = 583 (pcu/hr) Q b-ac = 729 (pcu/hr) Q c-a = 1738 (pcu/hr) TOTAL FLOW = 566 (pcu/hr)	DFC b-a = 0.0188 DFC b-c = 0.1034 DFC c-b = 0.0343 DFC b-ac = 0.1222 (Share Lane) DFC c-a = 0.0748 CRITICAL DFC = 0.12
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 130 (pcu/hr) q c-b = 20 (pcu/hr)			
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 10 (pcu/hr) q b-c = 79 (pcu/hr)			

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

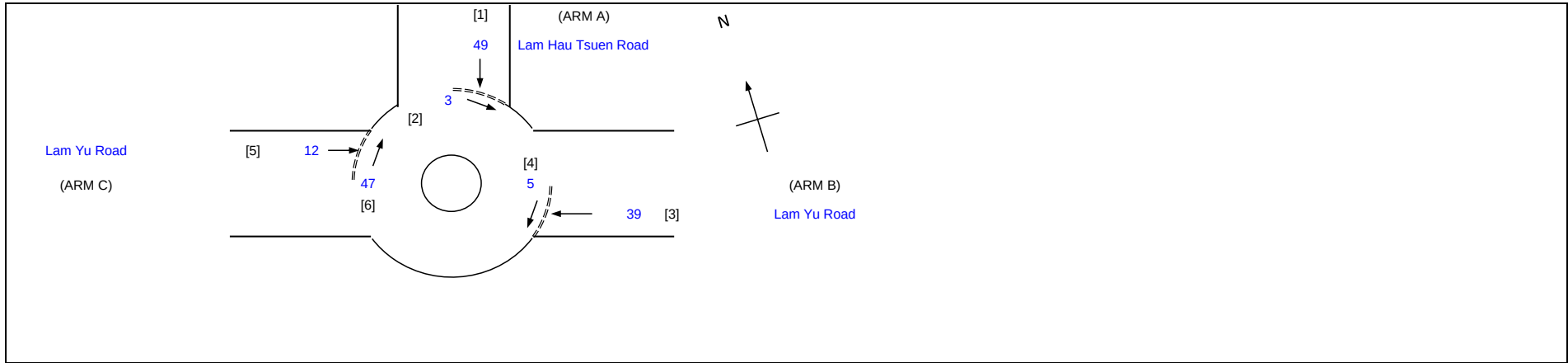
JnB - Lam Hau Tsuen Road / Lam Yu Road

2026 OBS Sunday AM 11:30-12:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

	ARM	A	B	C
V =	Approach half width (m)	3.6	2.2	5.1
E =	Entry width (m)	5.0	5.0	6.5
L =	Effective length of flare (m)	5.3	14.8	14.3
R =	Entry radius (m)	30.0	77.0	15.0
D =	Inscribed circle diameter (m)	35.0	35.0	35.0
A =	Entry angle (degree)	5.0	0.0	17.0
Q =	Entry flow (pcu/h)	49	39	12
Qc =	Circulating flow across entry (pcu/h)	3	5	47

OUTPUT PARAMETERS:

S =	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K =	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2 =	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M =	$EXP((D-60)/10)$	0.08	0.08	0.08
F =	$303 \times X2$	1321	1195	1868
Td =	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc =	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe =	$K(F-Fc \times Qc)$	1455	1360	1889
DFC =	Design flow/Capacity = Q/Qe	0.03	0.03	0.01

TOTAL FLOW = 155 (pcu/hr)
CRITICAL DFC = 0.03

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

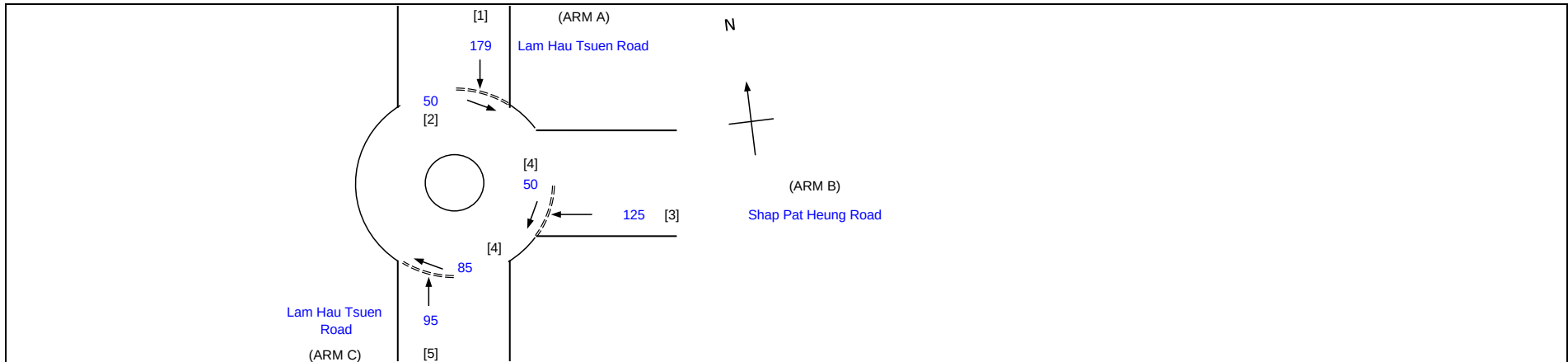
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2026 OBS Sunday AM 11:30-12:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	179	125	95
Qc	=	Circulating flow across entry (pcu/h)	50	50	85

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1 - 0.00347(A-30) - 0.978(1/R - 0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1 + (0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1 + 0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F - Fc \times Qc)$	2046	1982	1787
DFC	=	Design flow/Capacity = Q/Qe	0.09	0.06	0.05

TOTAL FLOW = **584 (pcu/hr)**
CRITICAL DFC = **0.09**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

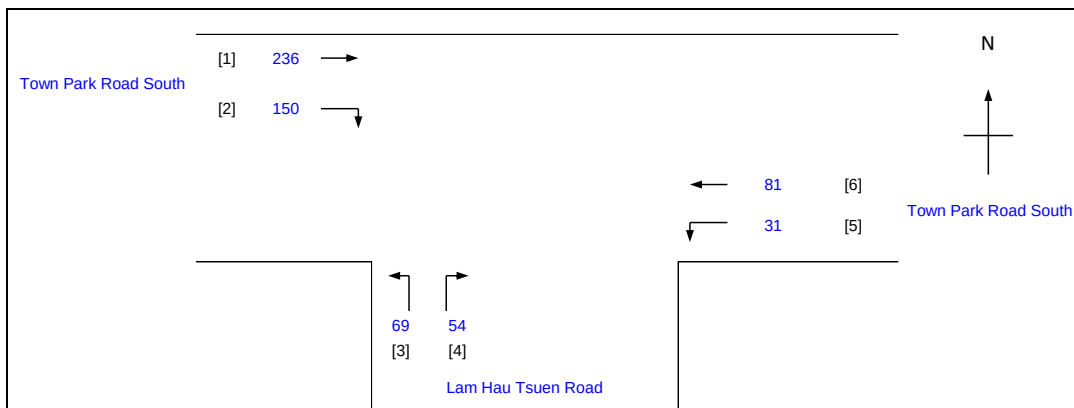
JnD - Town Park Road South / Lam Hau Tsuen Road

2026 OBS Sunday AM 11:30-12:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.305

Loss time

L = 32 sec

Total Flow

= 621 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 76.2 sec

 $Cm = L / (1 - Y)$

= 46.0 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 116.6 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

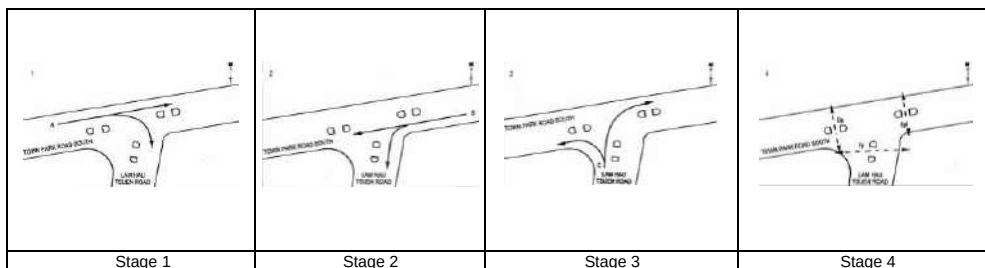
= 48.4 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 116.6 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		236	150	386	0.39	2055			2055	0.188	0.188		54	54	0.417	35	23
5,6	2	4.80	B	1	15		N	2095	31	81		112	0.28	2039			2039	0.055	0.055		16	16	0.412	16	49
5,6	2	5.20	C	1	20		N	2135	69		54	123	1.00	1986			1986	0.062	0.062		18	18	0.413	17	48

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Calculation\20260807\31073_Junction_09_OBS_SUN_AM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2026 OBS Sunday AM 11:30-12:30		Reviewed By:	AW 8/8/2026

(ARM B)
Town Park Road North

[6] 10 [5] 44

Town Park Road South (ARM A)

[1] 19 [2] 270

Ma Tin Road (ARM C)

29 [4] 115 [3]

N

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 19 (pcu/hr) q a-c = 270 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 115 (pcu/hr) q c-b = 29 (pcu/hr) MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 10 (pcu/hr) q b-c = 44 (pcu/hr)	GEOMETRIC FACTORS : D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.815	THE CAPACITY OF MOVEMENT : Q b-a = 503 (pcu/hr) Q b-c = 689 (pcu/hr) Q c-b = 549 (pcu/hr) Q b-ac = 645 (pcu/hr) Q c-a = 1705 (pcu/hr) TOTAL FLOW = 487 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0199 DFC b-c = 0.0639 DFC c-b = 0.0528 DFC b-ac = 0.0837 (Share Lane) DFC c-a = 0.0675 CRITICAL DFC = 0.08
--	---	--	---

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

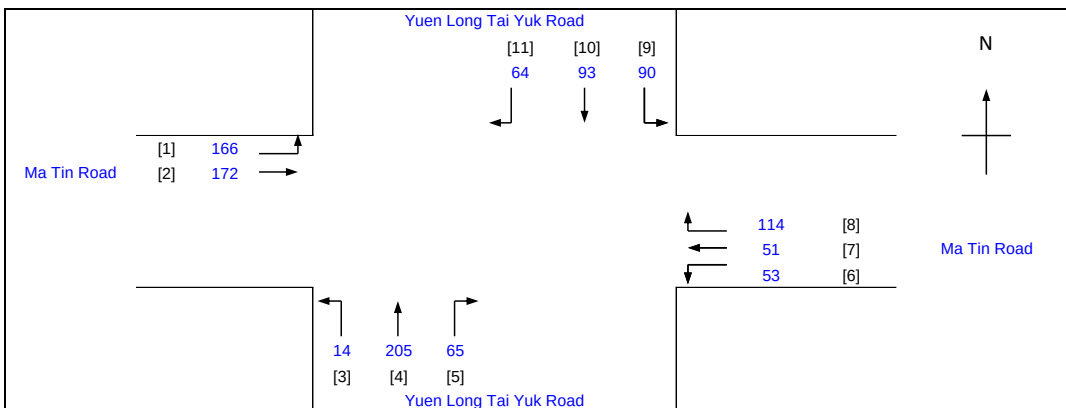
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2026 OBS Sunday AM 11:30-12:30

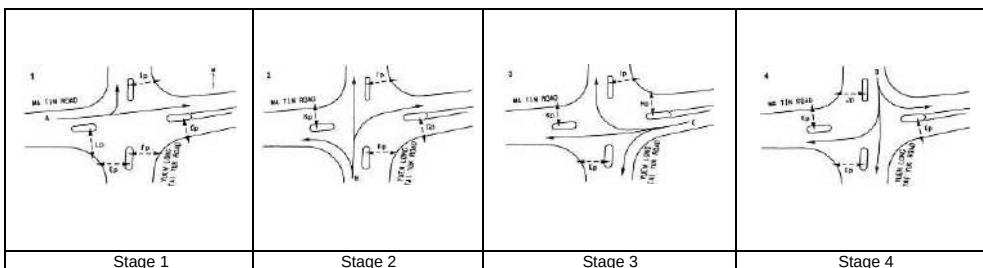
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N =	4
Intergreen Period	Stage 1 - 2	I = 5 sec
	Stage 2 - 3	I = 10 sec
	Stage 3 - 4	I = 11 sec
	Stage 4 - 1	I = 10 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.291
Loss time	L =	32 sec
Total Flow		= 1087 pcu
Co	= (1.5*L+5)/(1-Y)	= 74.8 sec
Cm	= L/(1-Y)	= 45.2 sec
Yult	= 0.9-0.0075L	= 0.660
R.C.ult	= (Yult-Y)/Y*100%	= 126.6 %
Cp	= 0.9*L/(0.9-Y)	= 47.3 sec
Ymax	= 1-L/C	= 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 126.6 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	166			166	1.00	1795			1795	0.092	0.092		28	28	0.396	21	40
2	1	3.60	A	1				2115		172		172	0.00	2115			2115	0.081			25	28	0.349	22	39
3,4	2	3.60	B	1	15		N	1975	14	125		139	0.10	1955			1955	0.071	0.071		21	21	0.406	19	45
4,5	2	3.60	B	1	20			2115		80	65	145	0.45	2046			2046	0.071			21	21	0.406	20	45
3,4	2	3.50	C	1	15		N	1965			114	114	1.00	1786			1786	0.064			19	19	0.403	16	47
4,5	2	3.50	C	1	20			2105	53	51		104	0.51	2028			2028	0.051	0.064		15	19	0.324	15	46
10,11	2	3.50	D	1	20			2105		66	64	130	0.49	2030			2030	0.064	0.064		19	19	0.405	18	47
9,10	2	3.50	D	1	15		N	1965	90	27		117	0.77	1825			1825	0.064			19	19	0.405	16	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_09_OBS_SUN_AM.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2026 OBS Sunday AM 11:30-12:30		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 102 [5] 54

(ARM A)
Shap Pat Heung Road

[1] 118 [2] 153

(ARM C)
Shap Pat Heung Road

[4] 216 [3] 109

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 118 (pcu/hr) q a-c = 153 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 551 (pcu/hr) Q b-c = 757 (pcu/hr) Q c-b = 688 (pcu/hr) Q b-ac = 608 (pcu/hr)	DFC b-a = 0.1851 DFC b-c = 0.0713 DFC c-b = 0.3140 DFC b-ac = 0.2565 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 109 (pcu/hr) q c-b = 216 (pcu/hr)	F for (Qb-ac) = 0.346	TOTAL FLOW = 752 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 102 (pcu/hr) q b-c = 54 (pcu/hr)			CRITICAL DFC = 0.31

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2026 OBS Sunday Noon 12:30-13:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 20 (pcu/hr) q a-c = 290 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 538 (pcu/hr) Q b-c = 768 (pcu/hr) Q c-b = 586 (pcu/hr) Q b-ac = 731 (pcu/hr) Q c-a = 1742 (pcu/hr) TOTAL FLOW = 538 (pcu/hr)	DFC b-a = 0.0186 DFC b-c = 0.0977 DFC c-b = 0.0324 DFC b-ac = 0.1162 (Share Lane) DFC c-a = 0.0712
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 124 (pcu/hr) q c-b = 19 (pcu/hr)	F for (Qb-ac) = 0.882		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 10 (pcu/hr) q b-c = 75 (pcu/hr)			CRITICAL DFC = 0.12

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

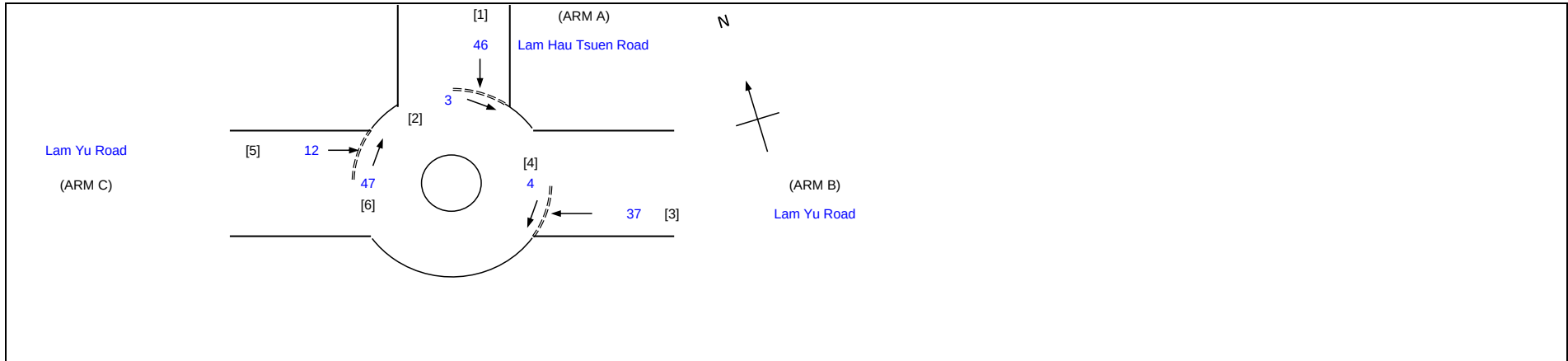
JnB - Lam Hau Tsuen Road / Lam Yu Road

2026 OBS Sunday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	46	37	12
Qc	=	Circulating flow across entry (pcu/h)	3	4	47

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1455	1360	1889
DFC	=	Design flow/Capacity = Q/Qe	0.03	0.03	0.01

TOTAL FLOW = 149 (pcu/hr)
CRITICAL DFC = 0.03

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

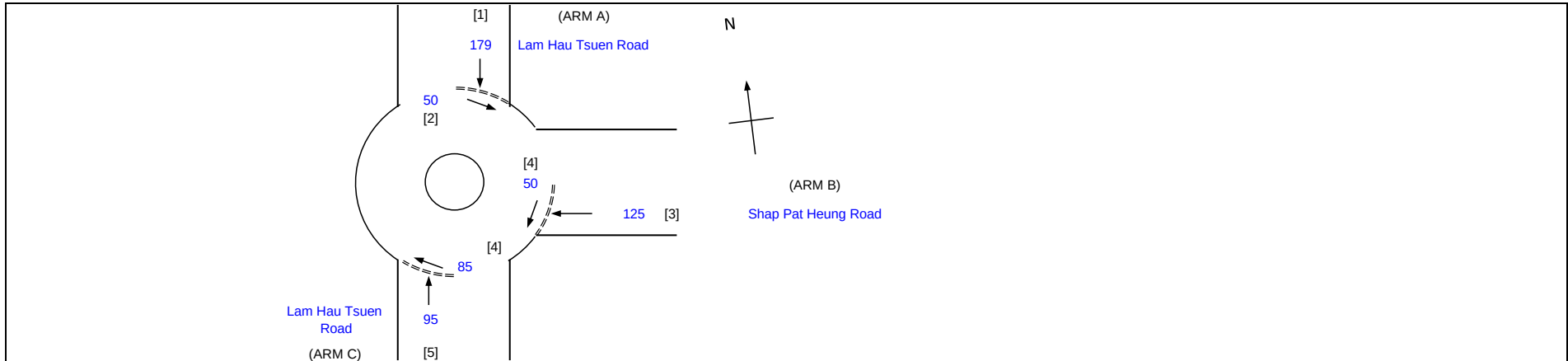
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2026 OBS Sunday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	179	125	95
Qc	=	Circulating flow across entry (pcu/h)	50	50	85

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2046	1982	1787
DFC	=	Design flow/Capacity = Q/Qe	0.09	0.06	0.05

TOTAL FLOW = **584 (pcu/hr)**
CRITICAL DFC = **0.09**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

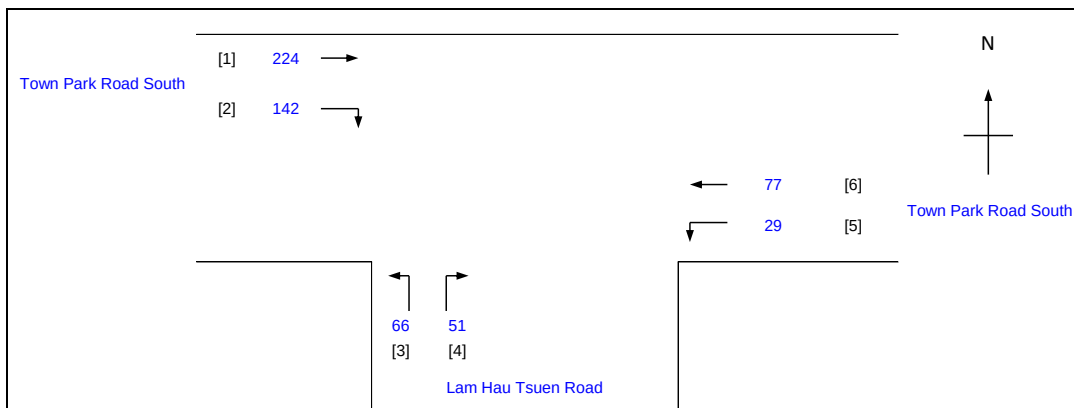
JnD - Town Park Road South / Lam Hau Tsuen Road

2026 OBS Sunday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.289

Loss time

L = 32 sec

Total Flow

= 589 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 74.5 sec

 $Cm = L / (1 - Y)$

= 45.0 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C._{ult} = (Y_{ult} - Y) / Y \cdot 100\%$

= 128.4 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

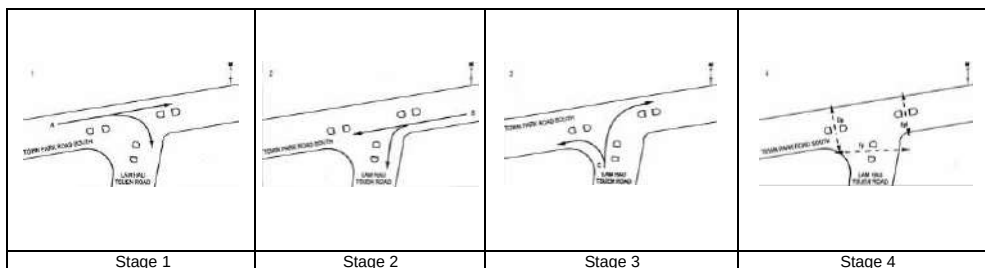
= 47.1 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 128.4 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		224	142	366	0.39	2055			2055	0.178	0.178		54	54	0.396	34	23
5,6	2	4.80	B	1	15		N	2095	29	77		106	0.27	2039			2039	0.052	0.052		16	16	0.390	15	49
5,6	2	5.20	C	1	20		N	2135	66		51	117	1.00	1986			1986	0.059	0.059		18	18	0.393	17	48

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_10_OBS_SUN_NOON.xls|D

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2026 OBS Sunday Noon 12:30-13:30		Reviewed By:	AW	8/8/2026

(ARM B)
Town Park Road North

[6] 10 [5] 42

Town Park Road South (ARM A)

[1] 18 [2] 256

Ma Tin Road (ARM C)

27 [4] 109 [3]

N

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 18 (pcu/hr) q a-c = 256 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 109 (pcu/hr) q c-b = 27 (pcu/hr) MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 10 (pcu/hr) q b-c = 42 (pcu/hr)	GEOMETRIC FACTORS : D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.808	THE CAPACITY OF MOVEMENT : Q b-a = 507 (pcu/hr) Q b-c = 693 (pcu/hr) Q c-b = 552 (pcu/hr) Q b-ac = 647 (pcu/hr) Q c-a = 1712 (pcu/hr) TOTAL FLOW = 462 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0197 DFC b-c = 0.0606 DFC c-b = 0.0489 DFC b-ac = 0.0803 (Share Lane) DFC c-a = 0.0637 CRITICAL DFC = 0.08
---	---	--	---

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

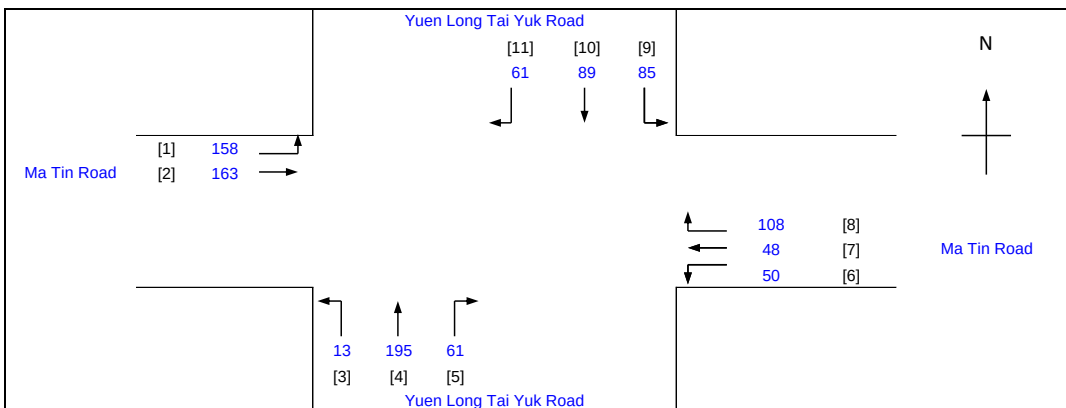
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2026 OBS Sunday Noon 12:30-13:30

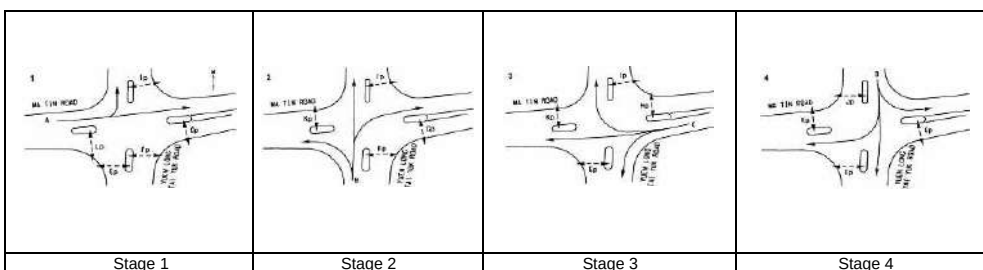
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N =	4
Intergreen Period	I =	5 sec
Stage 1 - 2	I =	10 sec
Stage 2 - 3	I =	11 sec
Stage 3 - 4	I =	10 sec
Stage 4 - 1	I =	10 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.277
Loss time	L =	32 sec
Total Flow	=	1031 pcu
Co = (1.5*L+5)/(1-Y)	=	73.3 sec
Cm = L/(1-Y)	=	44.2 sec
Yult = 0.9-0.0075L	=	0.660
R.C.ult = (Yult-Y)/Y*100%	=	138.6 %
Cp = 0.9*L/(0.9-Y)	=	46.2 sec
Ymax = 1-L/C	=	0.733
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	138.6 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	158			158	1.00	1795			1795	0.088	0.088		28	28	0.377	20	40
2	1	3.60	A	1				2115		163		163	0.00	2115			2115	0.077			25	28	0.330	21	39
3,4	2	3.60	B	1	15		N	1975	13	118		131	0.10	1956			1956	0.067	0.067		21	21	0.384	18	45
4,5	2	3.60	B	1	20			2115		77	61	138	0.44	2047			2047	0.067			21	21	0.384	19	45
3,4	2	3.50	C	1	15		N	1965			108	108	1.00	1786			1786	0.060			19	19	0.382	15	47
4,5	2	3.50	C	1	20			2105	50	48		98	0.51	2027			2027	0.048	0.060		15	19	0.305	14	46
10,11	2	3.50	D	1	20			2105		63	61	124	0.49	2030			2030	0.061	0.061		19	19	0.385	17	47
9,10	2	3.50	D	1	15		N	1965	85	26		111	0.76	1826			1826	0.061			19	19	0.385	16	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_10_OBS_SUN_NOON.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2026 OBS Sunday Noon 12:30-13:30		Reviewed By:	AW 8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

(ARM A)
Shap Pat Heung Road

(ARM C)
Shap Pat Heung Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 112 (pcu/hr) q a-c = 146 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 559 (pcu/hr) Q b-c = 760 (pcu/hr) Q c-b = 692 (pcu/hr) Q b-ac = 615 (pcu/hr)	DFC b-a = 0.1717 DFC b-c = 0.0671 DFC c-b = 0.2962 DFC b-ac = 0.2388 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 104 (pcu/hr) q c-b = 205 (pcu/hr)	F for (Qb-ac) = 0.347	TOTAL FLOW = 714 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 96 (pcu/hr) q b-c = 51 (pcu/hr)			CRITICAL DFC = 0.30

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2026 OBS Sunday PM 17:30-18:30		Reviewed By:	AW 8/8/2026

(ARM A)
Town Park Road South

(ARM B)
Town Park Road North

(ARM C)
Town Park Road South

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 23 (pcu/hr) q a-c = 331 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 524 (pcu/hr) Q b-c = 756 (pcu/hr) Q c-b = 577 (pcu/hr) Q b-ac = 720 (pcu/hr) Q c-a = 1731 (pcu/hr) TOTAL FLOW = 614 (pcu/hr)	DFC b-a = 0.0210 DFC b-c = 0.1138 DFC c-b = 0.0381 DFC b-ac = 0.1347 (Share Lane) DFC c-a = 0.0814
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 141 (pcu/hr) q c-b = 22 (pcu/hr)	F for (Qb-ac) = 0.887		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 11 (pcu/hr) q b-c = 86 (pcu/hr)			CRITICAL DFC = 0.13

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

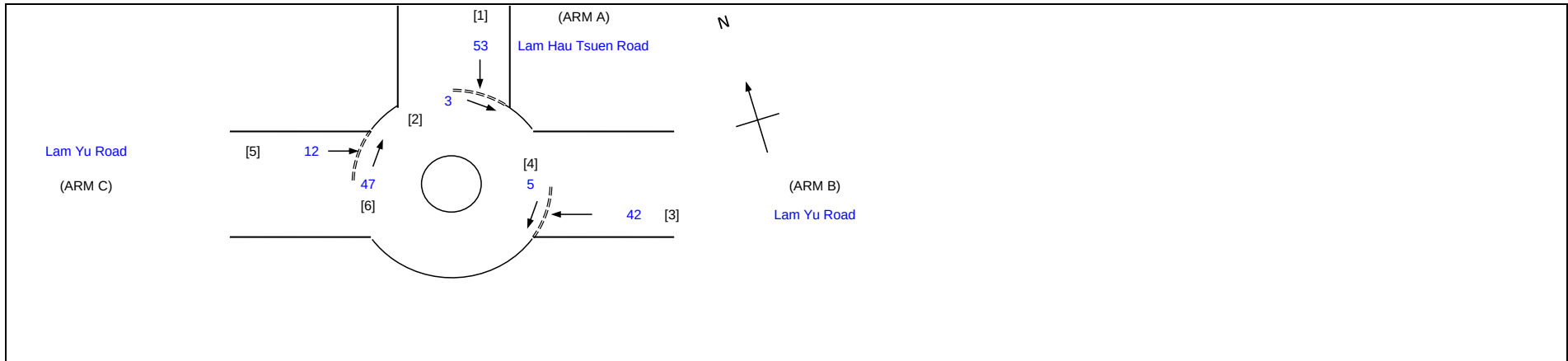
JnB - Lam Hau Tsuen Road / Lam Yu Road

2026 OBS Sunday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

	ARM	A	B	C
V =	Approach half width (m)	3.6	2.2	5.1
E =	Entry width (m)	5.0	5.0	6.5
L =	Effective length of flare (m)	5.3	14.8	14.3
R =	Entry radius (m)	30.0	77.0	15.0
D =	Inscribed circle diameter (m)	35.0	35.0	35.0
A =	Entry angle (degree)	5.0	0.0	17.0
Q =	Entry flow (pcu/h)	53	42	12
Qc =	Circulating flow across entry (pcu/h)	3	5	47

OUTPUT PARAMETERS:

S =	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K =	$1 - 0.00347(A-30) - 0.978(1/R - 0.05)$	1.10	1.14	1.03
X2 =	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M =	$EXP((D-60)/10)$	0.08	0.08	0.08
F =	$303 \times X2$	1321	1195	1868
Td =	$1 + (0.5/(1+M))$	1.46	1.46	1.46
Fc =	$0.21 \times Td(1 + 0.2 \times X2)$	0.57	0.55	0.69
Qe =	$K(F - Fc \times Qc)$	1455	1360	1889
DFC =	Design flow/Capacity = Q/Qe	0.04	0.03	0.01

TOTAL FLOW = **162 (pcu/hr)**
CRITICAL DFC = **0.04**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

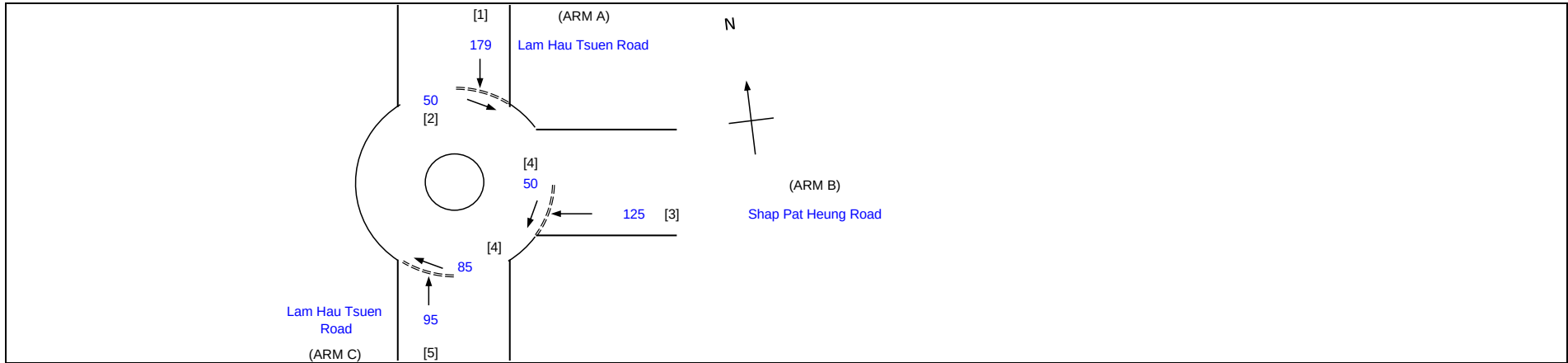
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2026 OBS Sunday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	179	125	95
Qc	=	Circulating flow across entry (pcu/h)	50	50	85

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2046	1982	1787
DFC	=	Design flow/Capacity = Q/Qe	0.09	0.06	0.05

TOTAL FLOW = **584 (pcu/hr)**
CRITICAL DFC = **0.09**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

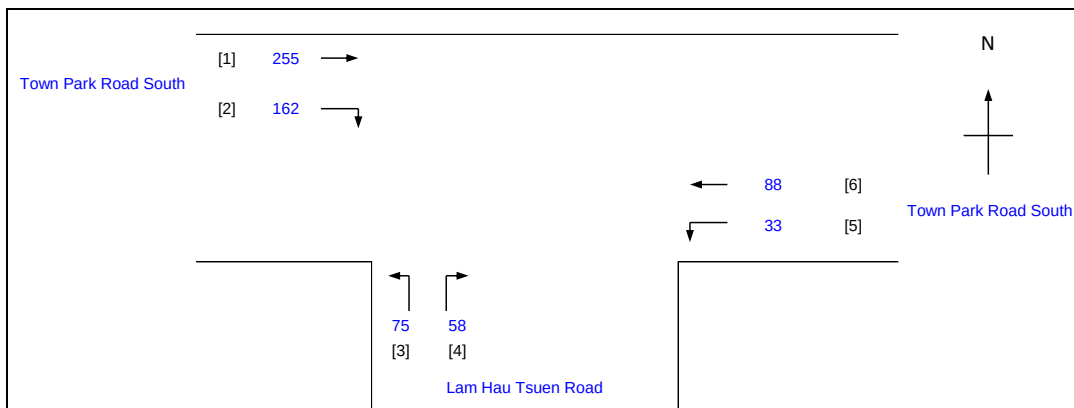
JnD - Town Park Road South / Lam Hau Tsuen Road

2026 OBS Sunday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

I = 5 sec

Stage 1 - 2

I = 8 sec

Stage 2 - 3

I = 11 sec

Stage 3 - 4

I = 2 sec

Stage 4 - 1

C = 120 sec

Cycle time

Y = 0.329

Sum(y)

L = 32 sec

Loss time

= 671 pcu

Total Flow

= 79.0 sec

Co = (1.5*L+5)/(1-Y)

= 47.7 sec

Cm = L/(1-Y)

= 0.660

Yult = 0.9-0.0075L

= 100.5 %

R.C.ult = (Yult-Y)/Y*100%

= 50.5 sec

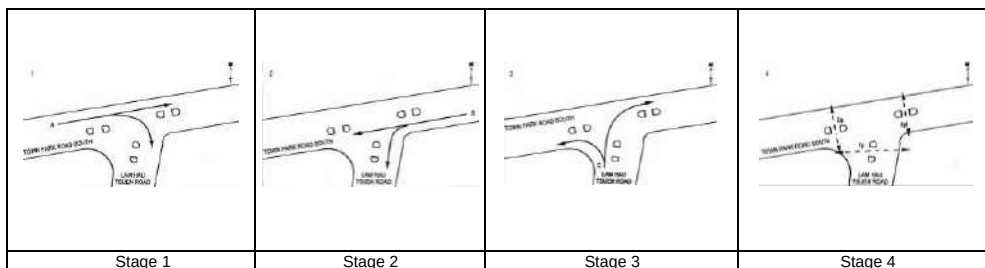
Cp = 0.9*L/(0.9-Y)

= 0.733

Ymax = 1-L/C

= 100.5 %

R.C.(C) = (0.9*Ymax-Y)/Y*100%



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Dp	10.5	4	5	4	OK
Ep	10.5	4	5	4	OK
Fp	19.3	4	5	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		255	162	417	0.39	2055			2055	0.203	0.203		54	54	0.451	38	24
5,6	2	4.80	B	1	15		N	2095	33	88		121	0.27	2039			2039	0.059	0.059		16	16	0.445	17	50
5,6	2	5.20	C	1	20		N	2135	75		58	133	1.00	1986			1986	0.067	0.067		18	18	0.446	19	48

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Calculation\20260807\31073 Junction_11_OBS_SUN_PM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2026 OBS Sunday PM 17:30-18:30		Reviewed By:	AW 8/8/2026

(ARM B)
Town Park Road North

[6] 11 [5] 48

Town Park Road South (ARM A)

[1] 21 [2] 292

(ARM C)
Ma Tin Road

31 [4] 124 [3]

N

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 21 (pcu/hr) q a-c = 292 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 124 (pcu/hr) q c-b = 31 (pcu/hr) MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 11 (pcu/hr) q b-c = 48 (pcu/hr)	GEOMETRIC FACTORS : D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.814	THE CAPACITY OF MOVEMENT : Q b-a = 496 (pcu/hr) Q b-c = 684 (pcu/hr) Q c-b = 544 (pcu/hr) Q b-ac = 639 (pcu/hr) Q c-a = 1697 (pcu/hr) TOTAL FLOW = 527 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0222 DFC b-c = 0.0702 DFC c-b = 0.0570 DFC b-ac = 0.0924 (Share Lane) DFC c-a = 0.0731 CRITICAL DFC = 0.09
---	---	--	--

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

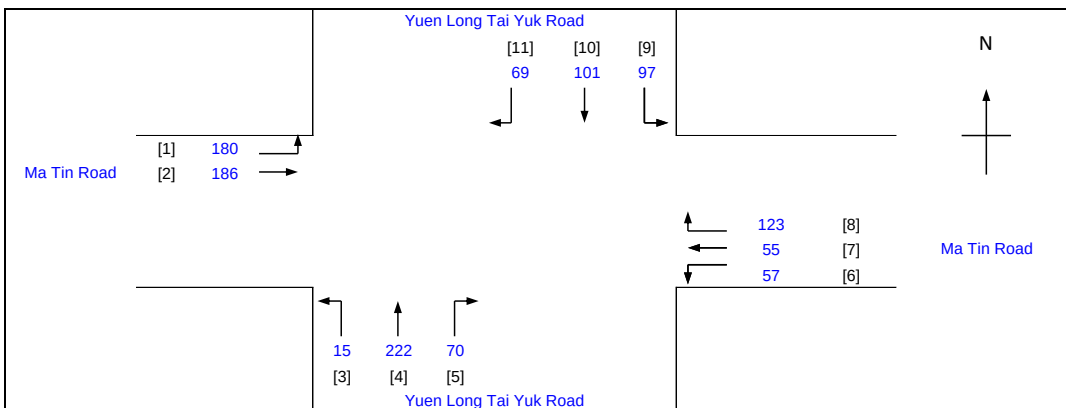
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2026 OBS Sunday PM 17:30-18:30

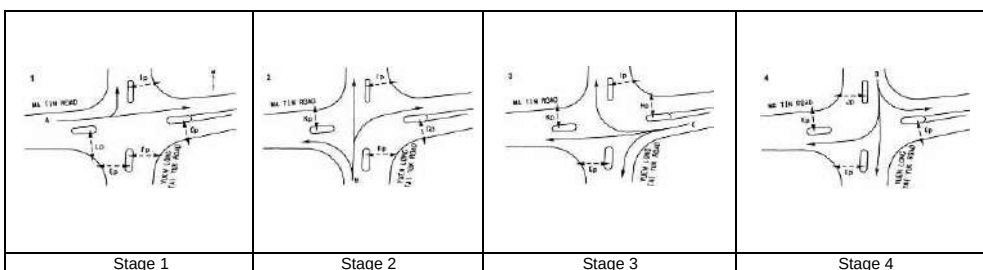
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.315
Loss time	L = 32 sec
Total Flow	= 1175 pcu
Co	= (1.5*L+5)/(1-Y) = 77.4 sec
Cm	= L/(1-Y) = 46.7 sec
Yult	= 0.9-0.0075L = 0.660
R.C.ult	= (Yult-Y)/Y*100% = 109.5 %
Cp	= 0.9*L/(0.9-Y) = 49.2 sec
Ymax	= 1-L/C = 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100% = 109.5 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	180			180	1.00	1795			1795	0.100	0.100		28	28	0.430	23	41
2	1	3.60	A	1				2115		186		186	0.00	2115			2115	0.088			25	28	0.377	24	40
3,4	2	3.60	B	1	15		N	1975	15	135		150	0.10	1955			1955	0.077	0.077		21	21	0.438	21	46
4,5	2	3.60	B	1	20			2115		87	70	157	0.45	2047			2047	0.077			21	21	0.438	22	46
3,4	2	3.50	C	1	15		N	1965			123	123	1.00	1786			1786	0.069			19	19	0.435	17	48
4,5	2	3.50	C	1	20			2105	57	55		112	0.51	2028			2028	0.055	0.069		15	19	0.349	16	46
10,11	2	3.50	D	1	20			2105		72	69	141	0.49	2030			2030	0.069	0.069		19	19	0.437	20	47
9,10	2	3.50	D	1	15		N	1965	97	29		126	0.77	1825			1825	0.069			19	19	0.437	18	48

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction_11_OBS_SUN_PM.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2026 OBS Sunday PM 17:30-18:30		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

(ARM A)
Shap Pat Heung Road

(ARM C)
Shap Pat Heung Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 128 (pcu/hr) q a-c = 166 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 539 (pcu/hr) Q b-c = 753 (pcu/hr) Q c-b = 682 (pcu/hr) Q b-ac = 598 (pcu/hr)	DFC b-a = 0.2041 DFC b-c = 0.0770 DFC c-b = 0.3431 DFC b-ac = 0.2811 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 118 (pcu/hr) q c-b = 234 (pcu/hr)	F for (Qb-ac) = 0.345	TOTAL FLOW = 814 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 110 (pcu/hr) q b-c = 58 (pcu/hr)			CRITICAL DFC = 0.34

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2026 OBS Sunday Late 21:00-22:00		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 20 (pcu/hr) q a-c = 284 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 540 (pcu/hr) Q b-c = 770 (pcu/hr) Q c-b = 588 (pcu/hr) Q b-ac = 736 (pcu/hr) Q c-a = 1742 (pcu/hr) TOTAL FLOW = 527 (pcu/hr)	DFC b-a = 0.0167 DFC b-c = 0.0961 DFC c-b = 0.0323 DFC b-ac = 0.1128 (Share Lane) DFC c-a = 0.0695
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 121 (pcu/hr) q c-b = 19 (pcu/hr)	F for (Qb-ac) = 0.892		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 9 (pcu/hr) q b-c = 74 (pcu/hr)			CRITICAL DFC = 0.11

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

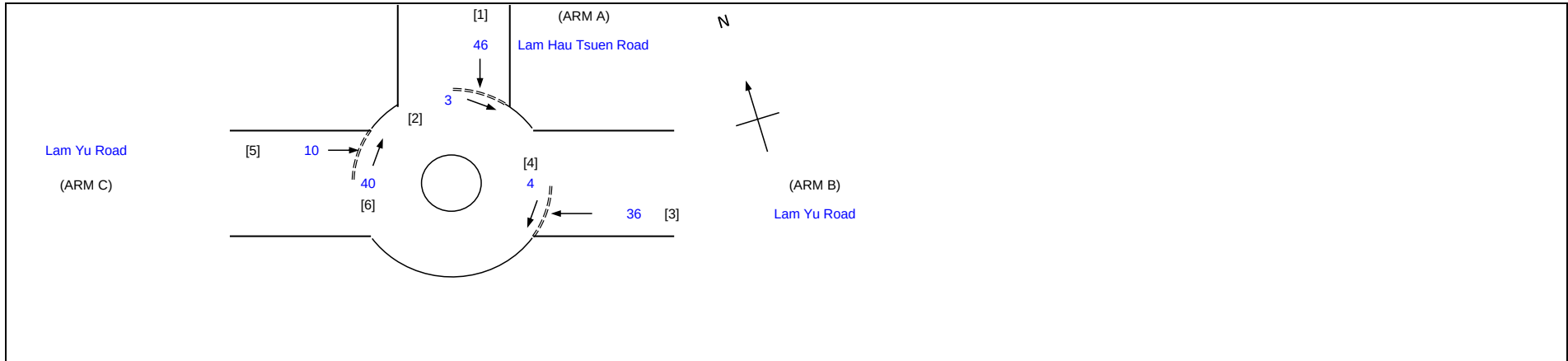
JnB - Lam Hau Tsuen Road / Lam Yu Road

2026 OBS Sunday Late 21:00-22:00

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

	ARM	A	B	C
V =	Approach half width (m)	3.6	2.2	5.1
E =	Entry width (m)	5.0	5.0	6.5
L =	Effective length of flare (m)	5.3	14.8	14.3
R =	Entry radius (m)	30.0	77.0	15.0
D =	Inscribed circle diameter (m)	35.0	35.0	35.0
A =	Entry angle (degree)	5.0	0.0	17.0
Q =	Entry flow (pcu/h)	46	36	10
Qc =	Circulating flow across entry (pcu/h)	3	4	40

OUTPUT PARAMETERS:

S =	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K =	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2 =	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M =	$EXP((D-60)/10)$	0.08	0.08	0.08
F =	$303 \times X2$	1321	1195	1868
Td =	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc =	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe =	$K(F-Fc \times Qc)$	1455	1360	1894
DFC =	Design flow/Capacity = Q/Qe	0.03	0.03	0.01

TOTAL FLOW = **139 (pcu/hr)**
CRITICAL DFC = **0.03**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

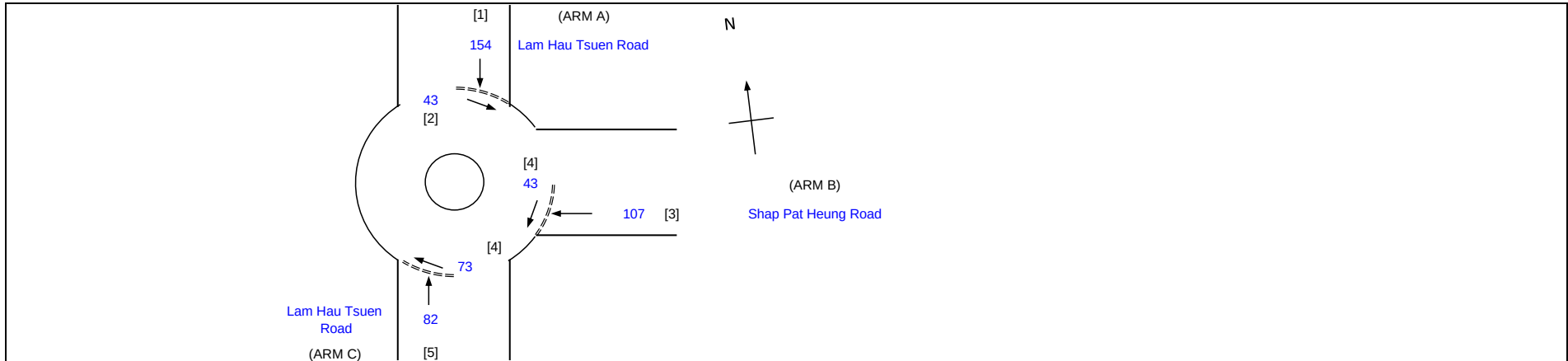
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2026 OBS Sunday Late 21:00-22:00

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

GEOMETRIC DETAILS:			ARM	A	B	C
V	=	Approach half width (m)		5.3	4.5	3.6
E	=	Entry width (m)		7.0	7.0	7.0
L	=	Effective length of flare (m)		14.2	15.0	14.0
R	=	Entry radius (m)		48.0	56.0	33.0
D	=	Inscribed circle diameter (m)		35.0	35.0	35.0
A	=	Entry angle (degree)		23.0	14.0	5.0
Q	=	Entry flow (pcu/h)		154	107	82
Qc	=	Circulating flow across entry (pcu/h)		43	43	73

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2051	1987	1795
DFC	=	Design flow/Capacity = Q/Qe	0.08	0.05	0.05

TOTAL FLOW = 502 (pcu/hr)
CRITICAL DFC = 0.08

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

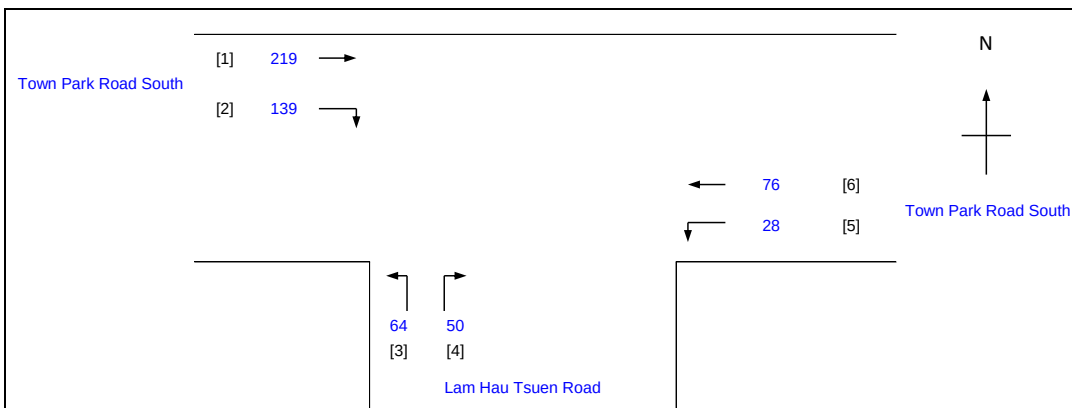
JnD - Town Park Road South / Lam Hau Tsuen Road

2026 OBS Sunday Late 21:00-22:00

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.283

Loss time

L = 32 sec

Total Flow

= 576 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 73.9 sec

 $Cm = L / (1 - Y)$

= 44.6 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 133.6 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

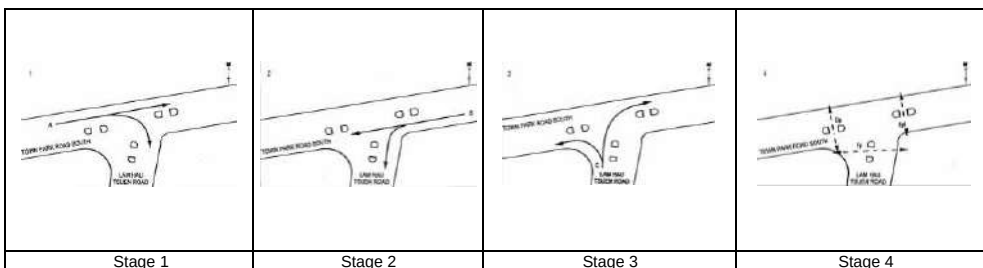
= 46.6 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 133.6 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		219	139	358	0.39	2055			2055	0.174	0.174		54	54	0.387	33	23
5,6	2	4.80	B	1	15		N	2095	28	76		104	0.27	2040			2040	0.051	0.051		16	16	0.382	15	49
5,6	2	5.20	C	1	20		N	2135	64		50	114	1.00	1986			1986	0.057	0.057		18	18	0.383	16	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Calculation\20260807\31073_Junction_12_OBS_SUN_LATE.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED			PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,			Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories					Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North			2026 OBS Sunday Late 21:00-22:00		Reviewed By:	AW 8/8/2026
			NOTES : (GEOMETRIC INPUT DATA) W = MAJOR ROAD WIDTH W cr = CENTRAL RESERVE WIDTH W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b Vl b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b D = STREAM-SPECIFIC B-A E = STREAM-SPECIFIC B-C F = STREAM-SPECIFIC C-B Y = (1-0.0345W)			
GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 18 (pcu/hr) q a-c = 251 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 106 (pcu/hr) q c-b = 27 (pcu/hr) MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) Vl b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 9 (pcu/hr) q b-c = 41 (pcu/hr)	GEOMETRIC FACTORS : D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.82		THE CAPACITY OF MOVEMENT : Q b-a = 509 (pcu/hr) Q b-c = 694 (pcu/hr) Q c-b = 553 (pcu/hr) Q b-ac = 651 (pcu/hr) Q c-a = 1712 (pcu/hr) TOTAL FLOW = 452 (pcu/hr)		COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0177 DFC b-c = 0.0591 DFC c-b = 0.0488 DFC b-ac = 0.0768 (Share Lane) DFC c-a = 0.0619 CRITICAL DFC = 0.08	

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

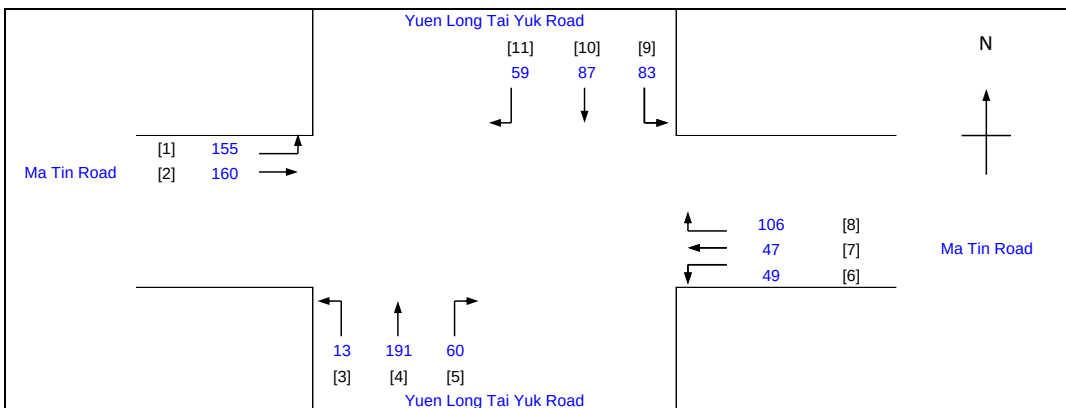
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2026 OBS Sunday Late 21:00-22:00

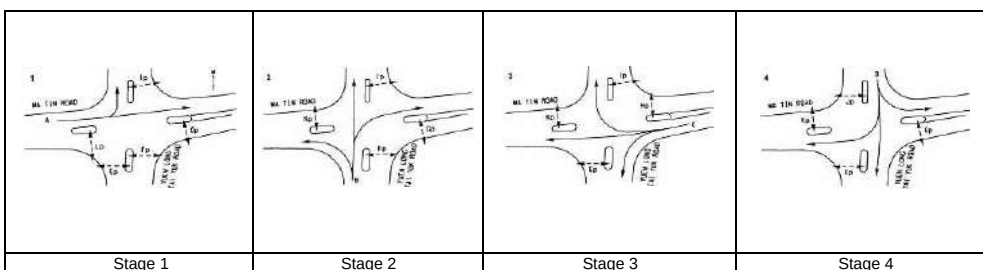
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	I = 5 sec
Stage 1 - 2	I = 10 sec
Stage 2 - 3	I = 11 sec
Stage 3 - 4	I = 10 sec
Stage 4 - 1	I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.271
Loss time	L = 32 sec
Total Flow	= 1010 pcu
Co = (1.5*L+5)/(1-Y)	= 72.7 sec
Cm = L/(1-Y)	= 43.9 sec
Yult = 0.9-0.0075L	= 0.660
R.C.ult = (Yult-Y)/Y*100%	= 143.5 %
Cp = 0.9*L/(0.9-Y)	= 45.8 sec
Ymax = 1-L/C	= 0.733
R.C.(C) = (0.9*Ymax-Y)/Y*100%	= 143.5 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	155			155	1.00	1795			1795	0.086	0.086		28	28	0.370	20	40
2	1	3.60	A	1				2115		160		160	0.00	2115			2115	0.076			25	28	0.324	20	39
3,4	2	3.60	B	1	15		N	1975	13	116		129	0.10	1955			1955	0.066	0.066		21	21	0.377	18	45
4,5	2	3.60	B	1	20			2115		75	60	135	0.44	2047			2047	0.066			21	21	0.377	19	45
3,4	2	3.50	C	1	15		N	1965			106	106	1.00	1786			1786	0.059			19	19	0.375	15	47
4,5	2	3.50	C	1	20			2105	49	47		96	0.51	2027			2027	0.047	0.059		15	19	0.299	13	46
10,11	2	3.50	D	1	20			2105		62	59	121	0.49	2030			2030	0.059	0.059		19	19	0.375	17	47
9,10	2	3.50	D	1	15		N	1965	83	25		108	0.77	1825			1825	0.059			19	19	0.375	15	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction_12_OBS_SUN_LATE.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2026 OBS Sunday Late 21:00-22:00		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

(ARM A)
Shap Pat Heung Road

(ARM C)
Shap Pat Heung Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 110 (pcu/hr) q a-c = 143 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 562 (pcu/hr) Q b-c = 761 (pcu/hr) Q c-b = 693 (pcu/hr) Q b-ac = 618 (pcu/hr)	DFC b-a = 0.1673 DFC b-c = 0.0657 DFC c-b = 0.2900 DFC b-ac = 0.2330 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 101 (pcu/hr) q c-b = 201 (pcu/hr)	F for (Qb-ac) = 0.347	TOTAL FLOW = 699 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 94 (pcu/hr) q b-c = 50 (pcu/hr)			CRITICAL DFC = 0.29

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 REF Weekday Half Cap AM 11:30-12:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 25 (pcu/hr) q a-c = 400 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 480 (pcu/hr) Q b-c = 736 (pcu/hr) Q c-b = 561 (pcu/hr) Q b-ac = 663 (pcu/hr) Q c-a = 1540 (pcu/hr) TOTAL FLOW = 758 (pcu/hr)	DFC b-a = 0.0313 DFC b-c = 0.0788 DFC c-b = 0.1444 DFC b-ac = 0.1101 (Share Lane) DFC c-a = 0.1162
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 179 (pcu/hr) q c-b = 81 (pcu/hr)	F for (Qb-ac) = 0.795		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 15 (pcu/hr) q b-c = 58 (pcu/hr)			CRITICAL DFC = 0.14

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

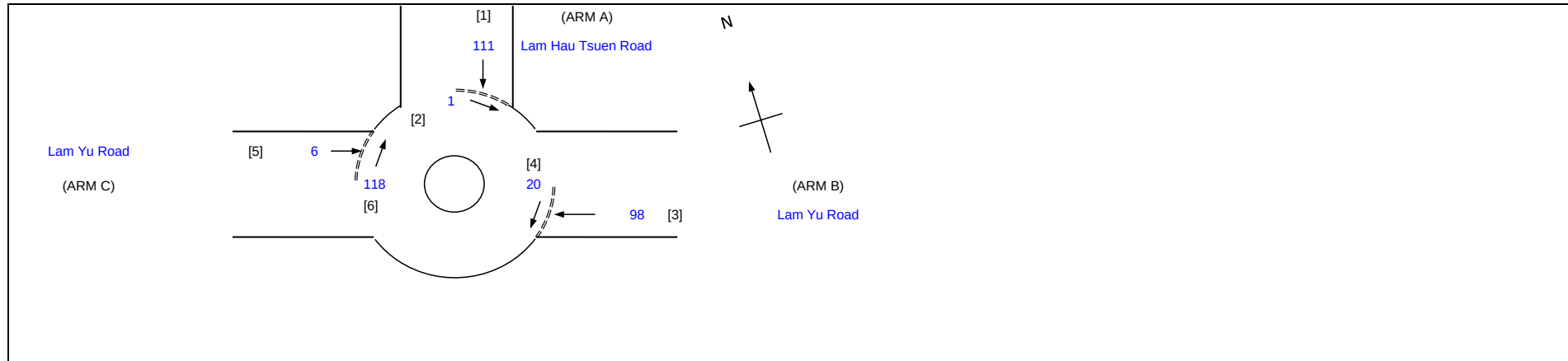
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 REF Weekday Half Cap AM 11:30-12:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	111	98	6
Qc	=	Circulating flow across entry (pcu/h)	1	20	118

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1456	1350	1839
DFC	=	Design flow/Capacity = Q/Qe	0.08	0.07	0.00

 TOTAL FLOW = 354 (pcu/hr)
 CRITICAL DFC = 0.08

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

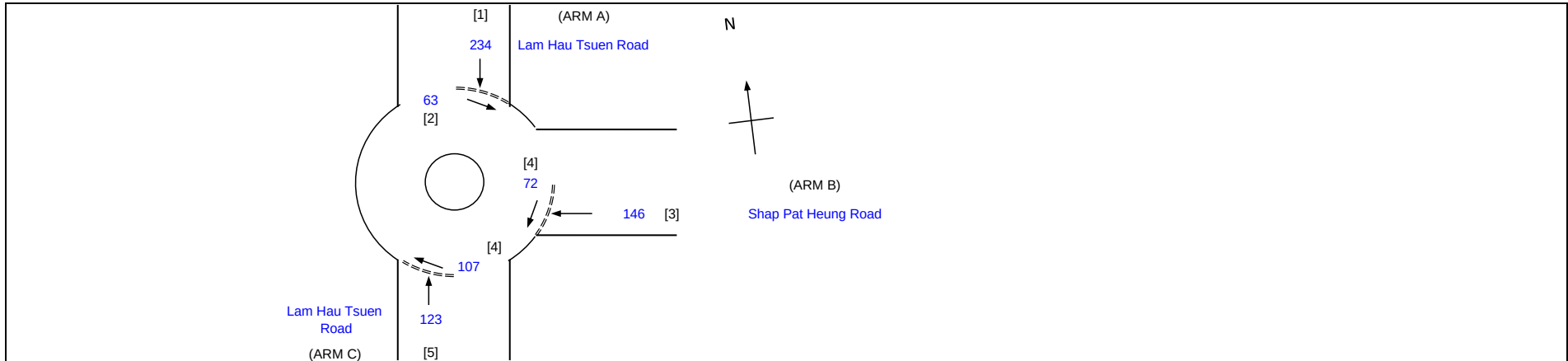
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 REF Weekday Half Cap AM 11:30-12:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	234	146	123
Qc	=	Circulating flow across entry (pcu/h)	63	72	107

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2036	1966	1771
DFC	=	Design flow/Capacity = Q/Qe	0.11	0.07	0.07

TOTAL FLOW = 745 (pcu/hr)
CRITICAL DFC = 0.11

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

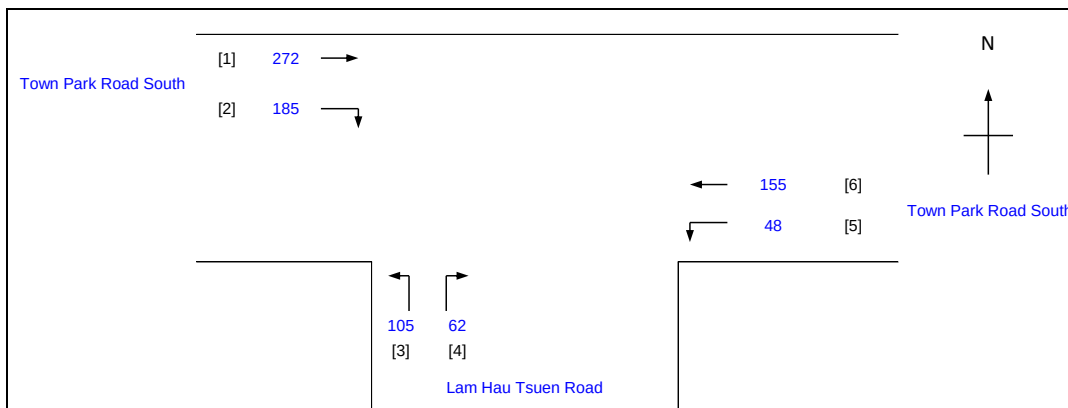
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 REF Weekday Half Cap AM 11:30-12:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.406

Loss time

L = 32 sec

Total Flow

= 827 pcu

Co = (1.5*L+5)/(1-Y)

= 89.2 sec

Cm = L/(1-Y)

= 53.9 sec

Yult = 0.9-0.0075L

= 0.660

R.C.ult = (Yult-Y)/Y*100%

= 62.6 %

Cp = 0.9*L/(0.9-Y)

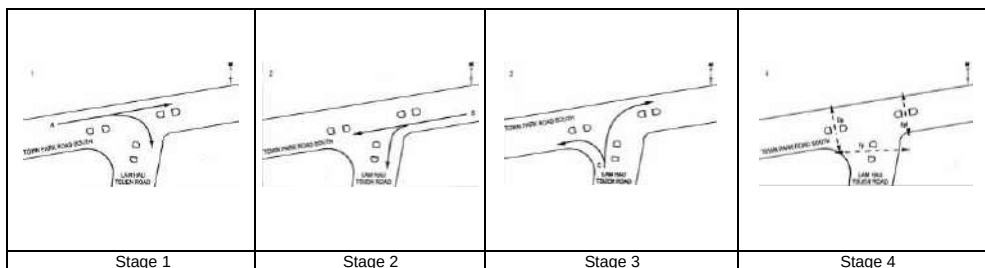
= 58.3 sec

Ymax = 1-L/C

= 0.733

R.C.(C) = (0.9*Ymax-Y)/Y*100%

= 62.6 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Required (s) FG	Green Time Provided (s) SG	Green Time Provided (s) FG	Check
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		272	185	457	0.40	2053			2053	0.223	0.223		48	48	0.557	46	29
5,6	2	4.80	B	1	15		N	2095	48	155		203	0.24	2047			2047	0.099	0.099		22	22	0.541	28	46
5,6	2	5.20	C	1	20		N	2135	105		62	167	1.00	1986			1986	0.084	0.084		18	18	0.561	24	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_13_REF_WEEKDAY_HALF_AM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 REF Weekday Half Cap AM 11:30-12:30		Reviewed By:	AW 8/8/2026

(ARM B)
Town Park Road North

(ARM A)
Town Park Road South

(ARM C)
Ma Tin Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 48 (pcu/hr) q a-c = 286 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662	Q b-a = 487 (pcu/hr) Q b-c = 683 (pcu/hr) Q c-b = 540 (pcu/hr) Q b-ac = 646 (pcu/hr) Q c-a = 1717 (pcu/hr) TOTAL FLOW = 653 (pcu/hr)	DFC b-a = 0.0308 DFC b-c = 0.1332 DFC c-b = 0.0463 DFC b-ac = 0.1640 (Share Lane) DFC c-a = 0.1095
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 188 (pcu/hr) q c-b = 25 (pcu/hr)	F for (Qb-ac) = 0.858		
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 15 (pcu/hr) q b-c = 91 (pcu/hr)			CRITICAL DFC = 0.16

JnF - Ma Tin Road / Yuen Long Tai Yuk Road

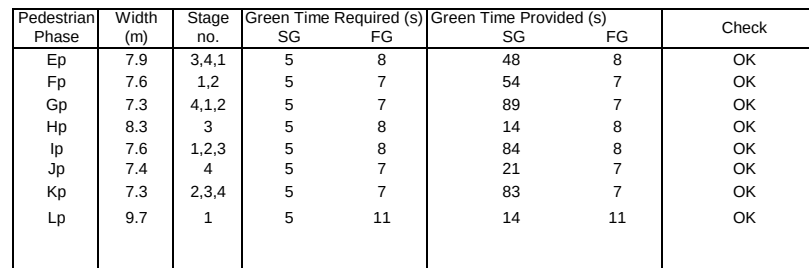
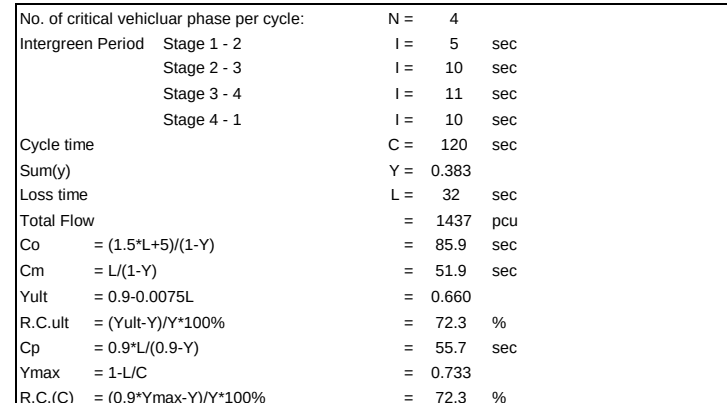
2029 REF Weekday Half Cap AM 11:30-12:30

DATE _____

8/8/2026

8/8/2026

8/8/2026



d:\Axeon\Project\31073 Ankor Driving School, Shan Ha Road\Data Calculation\20260807\31073 Junction 13 REF WEEKDAY HALF AM.xls

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 REF Weekday Half Cap AM 11:30-12:30		Reviewed By:	AW 8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

(ARM A)
Shap Pat Heung Road

(ARM C)
Shap Pat Heung Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 135 (pcu/hr) q a-c = 157 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 515 (pcu/hr) Q b-c = 754 (pcu/hr) Q c-b = 683 (pcu/hr) Q b-ac = 649 (pcu/hr)	DFC b-a = 0.1320 DFC b-c = 0.1684 DFC c-b = 0.4568 DFC b-ac = 0.3005 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 94 (pcu/hr) q c-b = 312 (pcu/hr)	F for (Qb-ac) = 0.651	TOTAL FLOW = 893 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 68 (pcu/hr) q b-c = 127 (pcu/hr)			CRITICAL DFC = 0.46

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 REF Weekday Half Cap PM 19:30-20:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 29 (pcu/hr) q a-c = 401 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 494 (pcu/hr) Q b-c = 735 (pcu/hr) Q c-b = 560 (pcu/hr) Q b-ac = 675 (pcu/hr) Q c-a = 1684 (pcu/hr) TOTAL FLOW = 701 (pcu/hr)	DFC b-a = 0.0182 DFC b-c = 0.0544 DFC c-b = 0.0643 DFC b-ac = 0.0726 (Share Lane) DFC c-a = 0.1104
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 186 (pcu/hr) q c-b = 36 (pcu/hr)	F for (Qb-ac) = 0.816		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 9 (pcu/hr) q b-c = 40 (pcu/hr)			CRITICAL DFC = 0.11

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

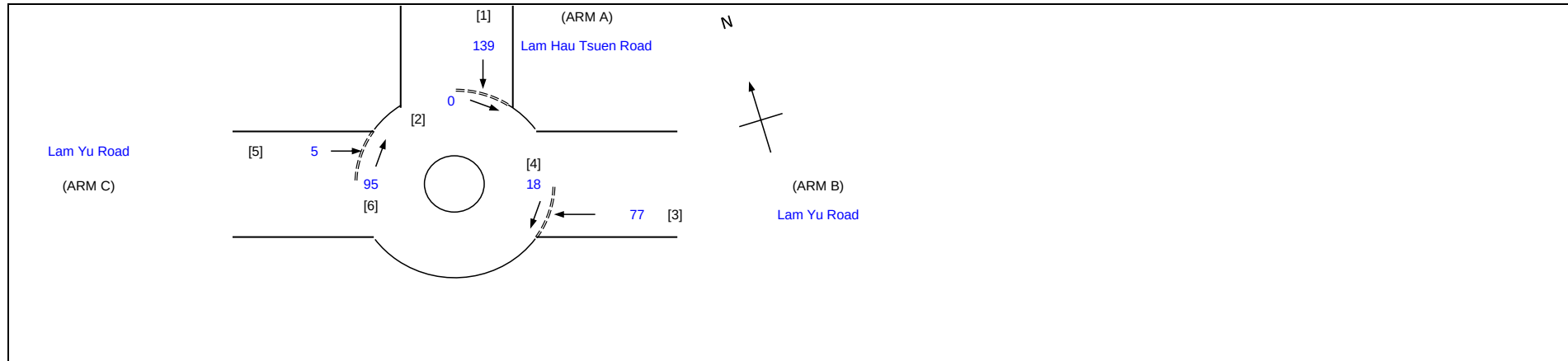
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 REF Weekday Half Cap PM 19:30-20:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	139	77	5
Qc	=	Circulating flow across entry (pcu/h)	0	18	95

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1 - 0.00347(A-30) - 0.978(1/R - 0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1 + (0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1 + 0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F - Fc \times Qc)$	1457	1351	1855
DFC	=	Design flow/Capacity = Q/Qe	0.10	0.06	0.00

TOTAL FLOW = 334 (pcu/hr)
CRITICAL DFC = 0.10

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

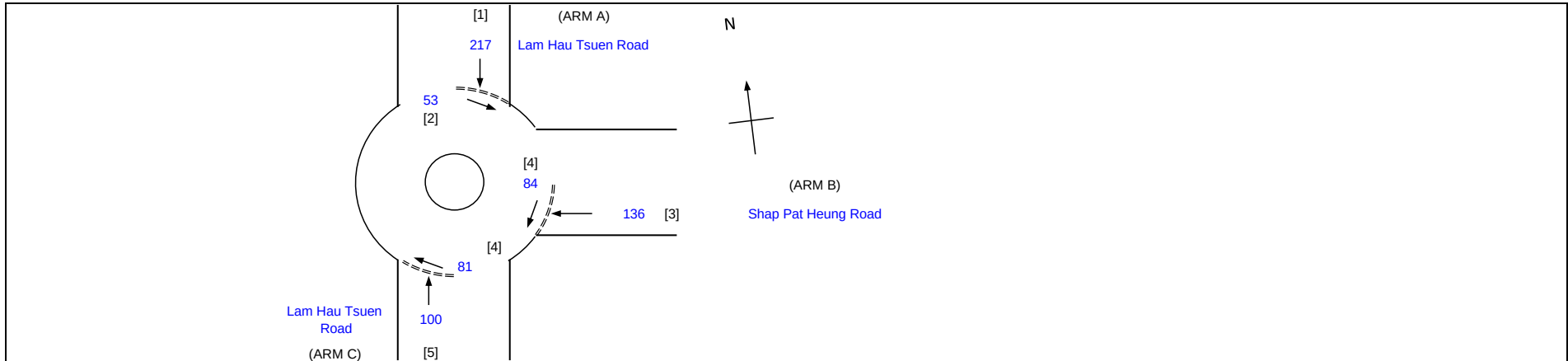
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 REF Weekday Half Cap PM 19:30-20:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

	ARM	A	B	C
V =	Approach half width (m)	5.3	4.5	3.6
E =	Entry width (m)	7.0	7.0	7.0
L =	Effective length of flare (m)	14.2	15.0	14.0
R =	Entry radius (m)	48.0	56.0	33.0
D =	Inscribed circle diameter (m)	35.0	35.0	35.0
A =	Entry angle (degree)	23.0	14.0	5.0
Q =	Entry flow (pcu/h)	217	136	100
Qc =	Circulating flow across entry (pcu/h)	53	84	81

OUTPUT PARAMETERS:

S =	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K =	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2 =	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M =	$EXP((D-60)/10)$	0.08	0.08	0.08
F =	$303 \times X2$	1978	1858	1670
Td =	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc =	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe =	$K(F-Fc \times Qc)$	2043	1957	1790
DFC =	Design flow/Capacity = Q/Qe	0.11	0.07	0.06

TOTAL FLOW = 671 (pcu/hr)
CRITICAL DFC = 0.11

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

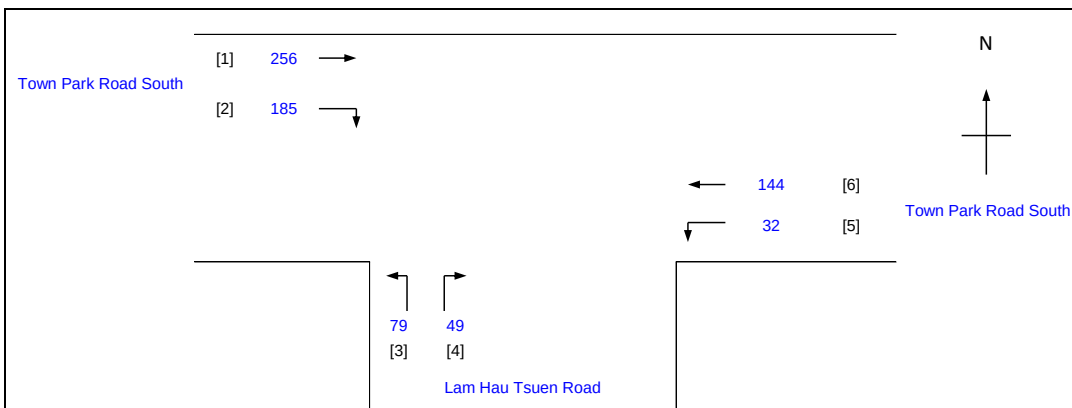
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 REF Weekday Half Cap PM 19:30-20:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

I = 5 sec

Stage 1 - 2

I = 8 sec

Stage 2 - 3

I = 11 sec

Stage 3 - 4

I = 2 sec

Stage 4 - 1

C = 120 sec

Cycle time

Y = 0.365

Sum(y)

L = 32 sec

Loss time

= 745 pcu

Total Flow

= 83.5 sec

Co = (1.5*L+5)/(1-Y)

= 50.4 sec

Cm = L/(1-Y)

= 0.660

Yult = 0.9-0.0075L

= 80.8 %

R.C.ult = (Yult-Y)/Y*100%

= 53.8 sec

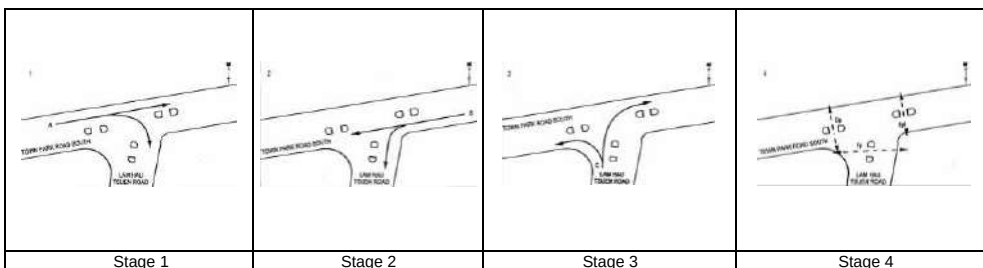
Cp = 0.9*L/(0.9-Y)

= 0.733

Ymax = 1-L/C

= 80.8 %

R.C.(C) = (0.9*Ymax-Y)/Y*100%



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Dp	10.5	4	5	4	OK
Ep	10.5	4	5	4	OK
Fp	19.3	4	5	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		256	185	441	0.42	2050			2050	0.215	0.215		52	52	0.496	42	26
5,6	2	4.80	B	1	15		N	2095	32	144		176	0.18	2058			2058	0.086	0.086		21	21	0.489	24	46
5,6	2	5.20	C	1	20		N	2135	79		49	128	1.00	1986			1986	0.064	0.064		16	16	0.483	18	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction_14_REF_WEEKDAY_HALF_PM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 REF Weekday Half Cap PM 19:30-20:30		Reviewed By:	AW	8/8/2026

(ARM B)
Town Park Road North

(ARM A)
Town Park Road South

(ARM C)
Ma Tin Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 23 (pcu/hr) q a-c = 281 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662	Q b-a = 495 (pcu/hr) Q b-c = 686 (pcu/hr) Q c-b = 546 (pcu/hr) Q b-ac = 607 (pcu/hr) Q c-a = 1714 (pcu/hr) TOTAL FLOW = 548 (pcu/hr)	DFC b-a = 0.0444 DFC b-c = 0.0627 DFC c-b = 0.0476 DFC b-ac = 0.1071 (Share Lane) DFC c-a = 0.0893
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 153 (pcu/hr) q c-b = 26 (pcu/hr)	F for (Qb-ac) = 0.662		
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 22 (pcu/hr) q b-c = 43 (pcu/hr)			CRITICAL DFC = 0.11

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

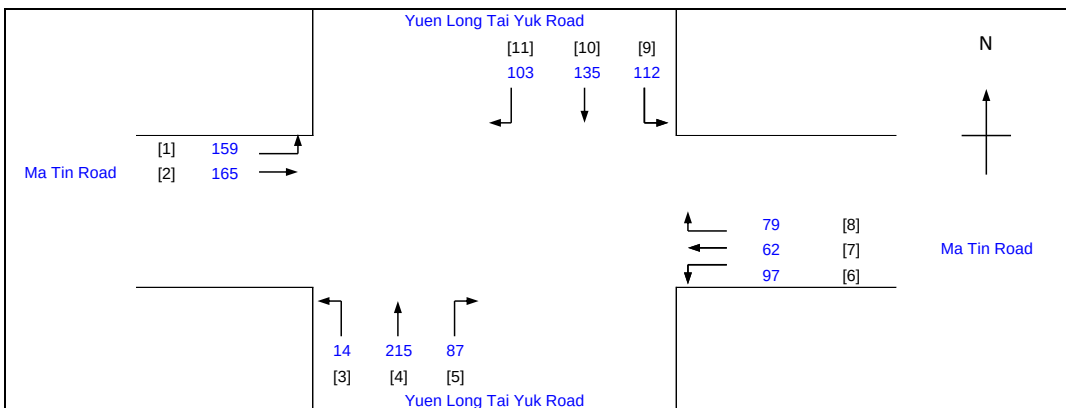
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 REF Weekday Half Cap PM 19:30-20:30

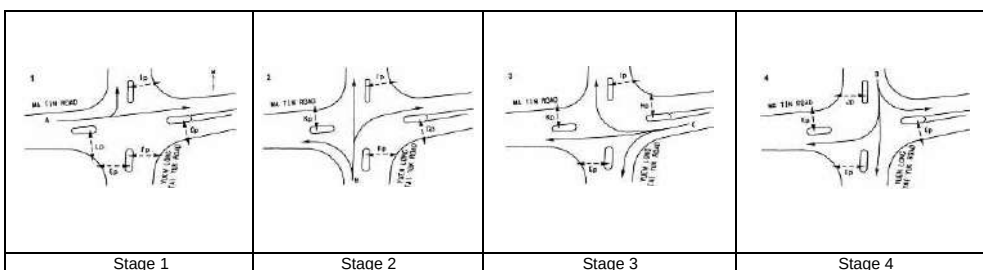
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N =	4
Intergreen Period	I =	5 sec
Stage 1 - 2	I =	10 sec
Stage 2 - 3	I =	11 sec
Stage 3 - 4	I =	10 sec
Stage 4 - 1	I =	10 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.337
Loss time	L =	32 sec
Total Flow	=	1228 pcu
Co = (1.5*L+5)/(1-Y)	=	80.0 sec
Cm = L/(1-Y)	=	48.3 sec
Yult = 0.9-0.0075L	=	0.660
R.C.ult = (Yult-Y)/Y*100%	=	95.6 %
Cp = 0.9*L/(0.9-Y)	=	51.2 sec
Ymax = 1-L/C	=	0.733
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	95.6 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Ep	7.9	3,4,1	5	51	OK
Fp	7.6	1,2	5	48	OK
Gp	7.3	4,1,2	5	85	OK
Hp	8.3	3	5	18	OK
Ip	7.6	1,2,3	5	82	OK
Jp	7.4	4	5	23	OK
Kp	7.3	2,3,4	5	84	OK
Lp	9.7	1	5	13	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	159			159	1.00	1795			1795	0.089	0.089		23	23	0.462	21	45
2	1	3.60	A	1				2115		165		165	0.00	2115			2115	0.078			20	23	0.407	22	44
3,4	2	3.60	B	1	15		N	1975	14	141		155	0.09	1957			1957	0.079	0.079		21	21	0.453	21	46
4,5	2	3.60	B	1	20			2115		74	87	161	0.54	2033			2033	0.079			21	21	0.453	22	46
3,4	2	3.50	C	1	15		N	1965			79	79	1.00	1786			1786	0.044			12	21	0.253	11	44
4,5	2	3.50	C	1	20			2105	97	62		159	0.61	2013			2013	0.079	0.079		21	21	0.451	22	46
10,11	2	3.50	D	1	20			2105		80	103	183	0.56	2020			2020	0.091	0.091		24	24	0.453	24	44
9,10	2	3.50	D	1	15		N	1965	112	55		167	0.67	1841			1841	0.091			24	24	0.453	22	44

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_14_REF_WEEKDAY_HALF_PM.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 REF Weekday Half Cap PM 19:30-20:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 72 (pcu/hr) q a-c = 120 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 559 (pcu/hr) Q b-c = 772 (pcu/hr) Q c-b = 709 (pcu/hr) Q b-ac = 640 (pcu/hr)	DFC b-a = 0.2254 DFC b-c = 0.1373 DFC c-b = 0.3441 DFC b-ac = 0.3627 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 80 (pcu/hr) q c-b = 244 (pcu/hr)	F for (Qb-ac) = 0.457	TOTAL FLOW = 748 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 126 (pcu/hr) q b-c = 106 (pcu/hr)			CRITICAL DFC = 0.36

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 REF Weekday Full Cap AM 10:30-11:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 26 (pcu/hr) q a-c = 413 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 475 (pcu/hr) Q b-c = 732 (pcu/hr) Q c-b = 558 (pcu/hr) Q b-ac = 661 (pcu/hr) Q c-a = 1535 (pcu/hr) TOTAL FLOW = 782 (pcu/hr)	DFC b-a = 0.0316 DFC b-c = 0.0820 DFC c-b = 0.1470 DFC b-ac = 0.1135 (Share Lane) DFC c-a = 0.1211
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 186 (pcu/hr) q c-b = 82 (pcu/hr)	F for (Qb-ac) = 0.8		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 15 (pcu/hr) q b-c = 60 (pcu/hr)			CRITICAL DFC = 0.15

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

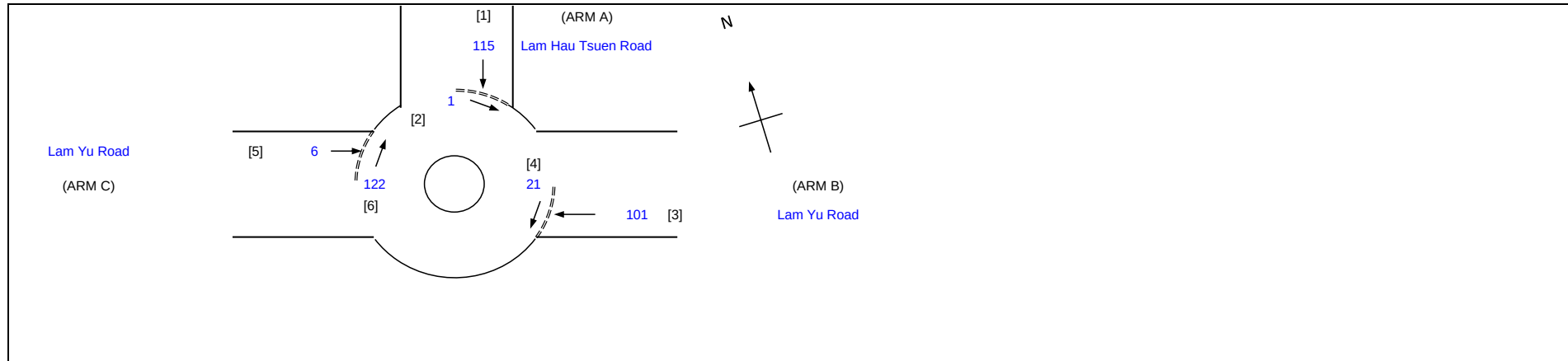
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 REF Weekday Full Cap AM 10:30-11:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	115	101	6
Qc	=	Circulating flow across entry (pcu/h)	1	21	122

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1456	1350	1836
DFC	=	Design flow/Capacity = Q/Qe	0.08	0.07	0.00

 TOTAL FLOW = 366 (pcu/hr)
 CRITICAL DFC = 0.08

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

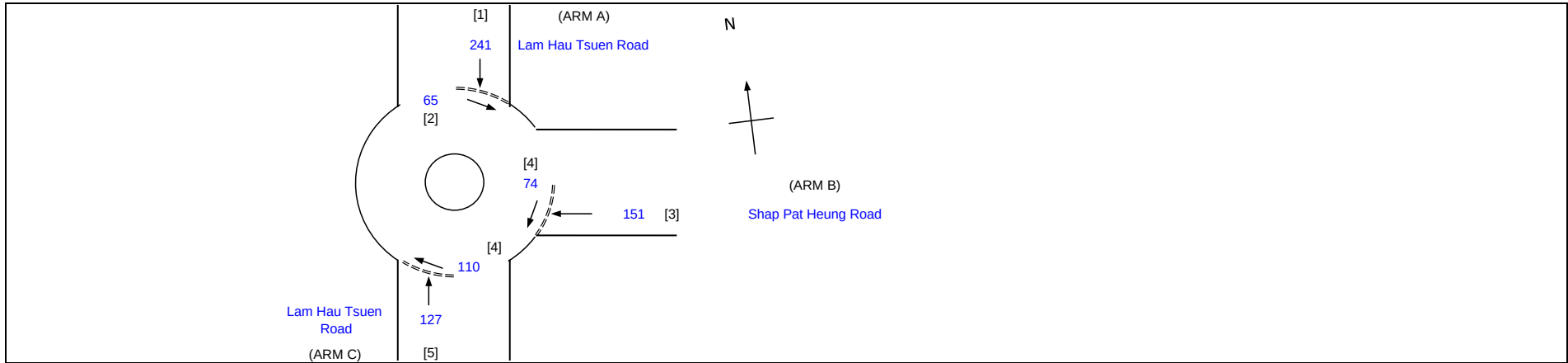
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 REF Weekday Full Cap AM 10:30-11:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	241	151	127
Qc	=	Circulating flow across entry (pcu/h)	65	74	110

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2034	1964	1769
DFC	=	Design flow/Capacity = Q/Qe	0.12	0.08	0.07

TOTAL FLOW = **768 (pcu/hr)**
CRITICAL DFC = **0.12**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

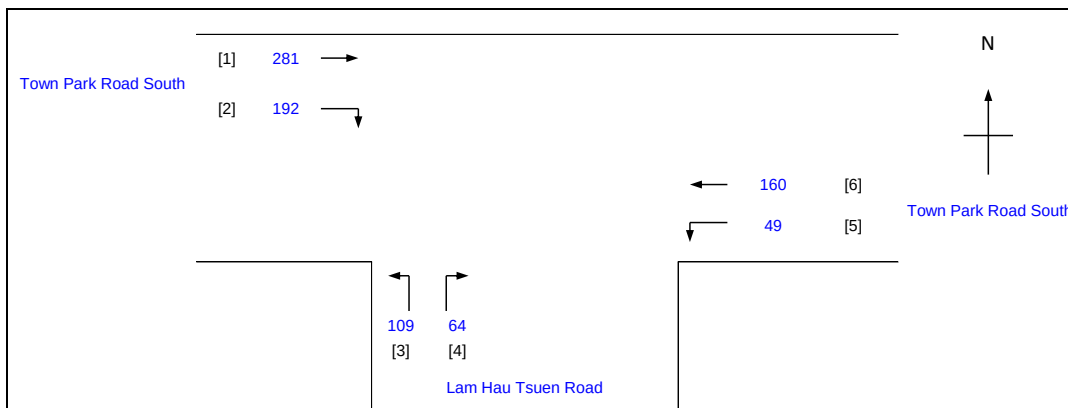
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 REF Weekday Full Cap AM 10:30-11:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.420

Loss time

L = 32 sec

Total Flow

= 855 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 91.3 sec

 $Cm = L / (1 - Y)$

= 55.1 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 57.3 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

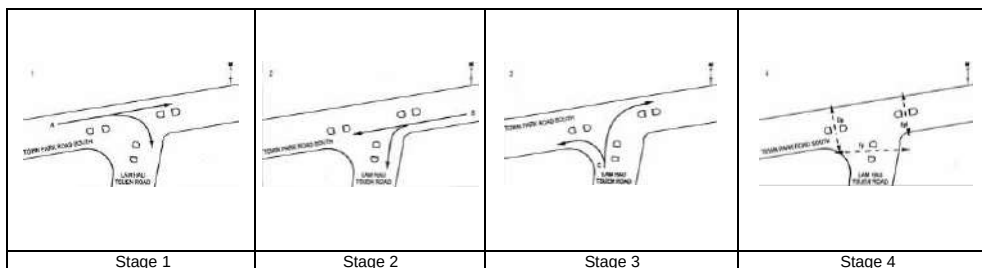
= 60.0 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 57.3 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		281	192	473	0.41	2053			2053	0.230	0.230		48	48	0.576	47	30
5,6	2	4.80	B	1	15		N	2095	49	160		209	0.23	2047			2047	0.102	0.102		21	21	0.583	29	48
5,6	2	5.20	C	1	20		N	2135	109		64	173	1.00	1986			1986	0.087	0.087		18	18	0.581	25	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_15_REF_WEEKDAY_FULL_AM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 REF Weekday Full Cap AM 10:30-11:30		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 49 (pcu/hr) q a-c = 296 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.861	Q b-a = 484 (pcu/hr) Q b-c = 680 (pcu/hr) Q c-b = 538 (pcu/hr) Q b-ac = 644 (pcu/hr) Q c-a = 1713 (pcu/hr) TOTAL FLOW = 673 (pcu/hr)	DFC b-a = 0.0310 DFC b-c = 0.1368 DFC c-b = 0.0483 DFC b-ac = 0.1678 (Share Lane) DFC c-a = 0.1133 CRITICAL DFC = 0.17
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 194 (pcu/hr) q c-b = 26 (pcu/hr)			
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 15 (pcu/hr) q b-c = 93 (pcu/hr)			

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

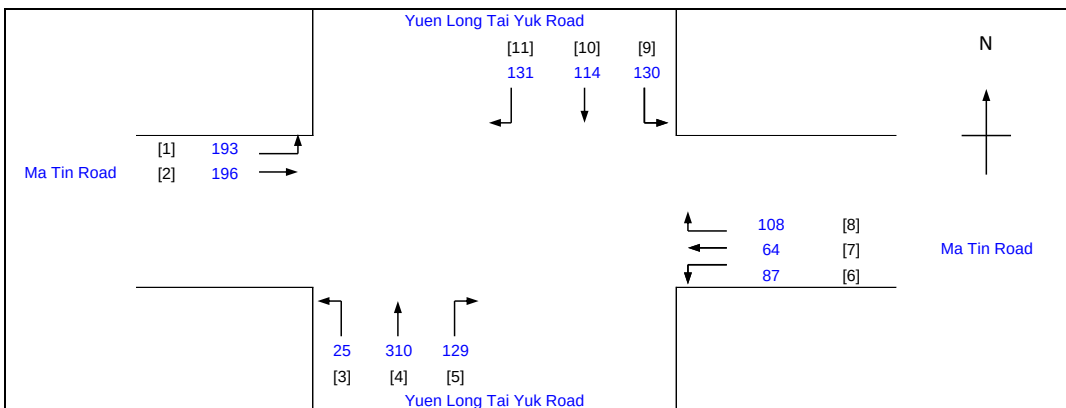
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 REF Weekday Full Cap AM 10:30-11:30

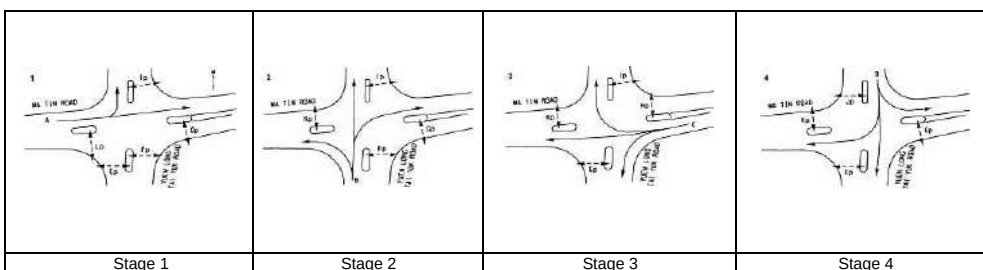
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.396
Loss time	L = 32 sec
Total Flow	= 1487 pcu
Co = (1.5*L+5)/(1-Y)	= 87.8 sec
Cm = L/(1-Y)	= 53.0 sec
Yult = 0.9-0.0075L	= 0.660
R.C.ult = (Yult-Y)/Y*100%	= 66.5 %
Cp = 0.9*L/(0.9-Y)	= 57.2 sec
Ymax = 1-L/C	= 0.733
R.C.(C) = (0.9*Ymax-Y)/Y*100%	= 66.5 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	193			193	1.00	1795			1795	0.107	0.107		24	24	0.537	26	45
2	1	3.60	A	1				2115		196		196	0.00	2115			2115	0.093			21	24	0.463	26	44
3,4	2	3.60	B	1	15		N	1975	25	202		227	0.11	1954			1954	0.116	0.116		26	26	0.537	30	44
4,5	2	3.60	B	1	20			2115		108	129	237	0.55	2032			2032	0.116			26	26	0.537	31	44
3,4	2	3.50	C	1	15		N	1965			108	108	1.00	1786			1786	0.060			13	17	0.427	15	49
4,5	2	3.50	C	1	20			2105	87	64		151	0.58	2018			2018	0.075	0.075		17	17	0.528	22	50
10,11	2	3.50	D	1	20			2105		65	131	196	0.67	2004			2004	0.098	0.098		22	22	0.533	27	46
9,10	2	3.50	D	1	15		N	1965	130	49		179	0.73	1832			1832	0.098			22	22	0.533	24	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_15_REF_WEEKDAY_FULL_AM.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 REF Weekday Full Cap AM 10:30-11:30		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

(ARM A)
Shap Pat Heung Road

(ARM C)
Shap Pat Heung Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 141 (pcu/hr) q a-c = 162 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 97 (pcu/hr) q c-b = 323 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 70 (pcu/hr) q b-c = 131 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.652	THE CAPACITY OF MOVEMENT : Q b-a = 508 (pcu/hr) Q b-c = 752 (pcu/hr) Q c-b = 680 (pcu/hr) Q b-ac = 644 (pcu/hr) TOTAL FLOW = 924 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.1378 DFC b-c = 0.1742 DFC c-b = 0.4750 DFC b-ac = 0.3120 (Share Lane) CRITICAL DFC = 0.48
---	--	--	--

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 REF Weekday Full Cap PM 20:30-21:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 23 (pcu/hr) q a-c = 327 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 520 (pcu/hr) Q b-c = 757 (pcu/hr) Q c-b = 577 (pcu/hr) Q b-ac = 701 (pcu/hr) Q c-a = 1710 (pcu/hr) TOTAL FLOW = 572 (pcu/hr)	DFC b-a = 0.0135 DFC b-c = 0.0436 DFC c-b = 0.0503 DFC b-ac = 0.0571 (Share Lane) DFC c-a = 0.0895
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 153 (pcu/hr) q c-b = 29 (pcu/hr)	F for (Qb-ac) = 0.825		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 7 (pcu/hr) q b-c = 33 (pcu/hr)			CRITICAL DFC = 0.09

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

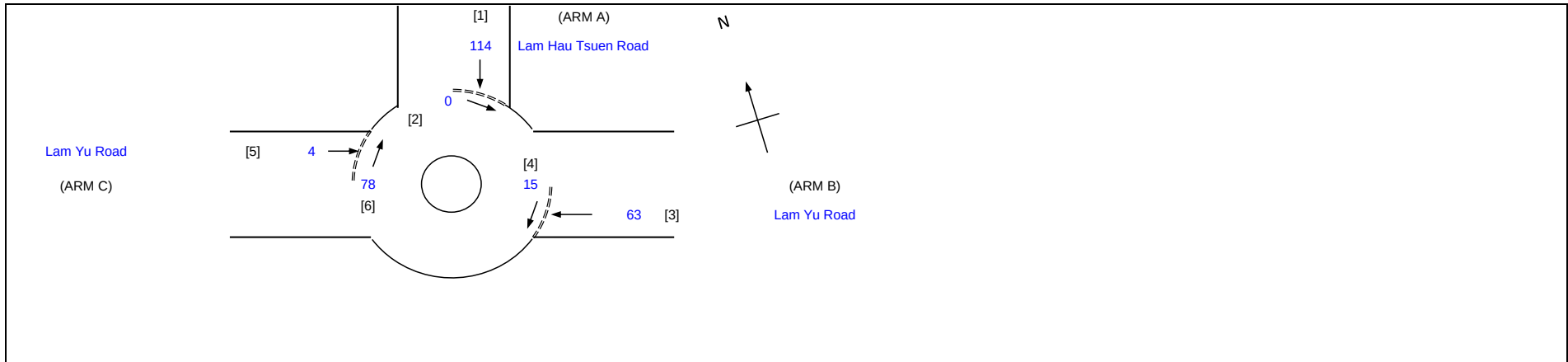
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 REF Weekday Full Cap PM 20:30-21:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	114	63	4
Qc	=	Circulating flow across entry (pcu/h)	0	15	78

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1457	1353	1867
DFC	=	Design flow/Capacity = Q/Qe	0.08	0.05	0.00

TOTAL FLOW = 274 (pcu/hr)
CRITICAL DFC = 0.08

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

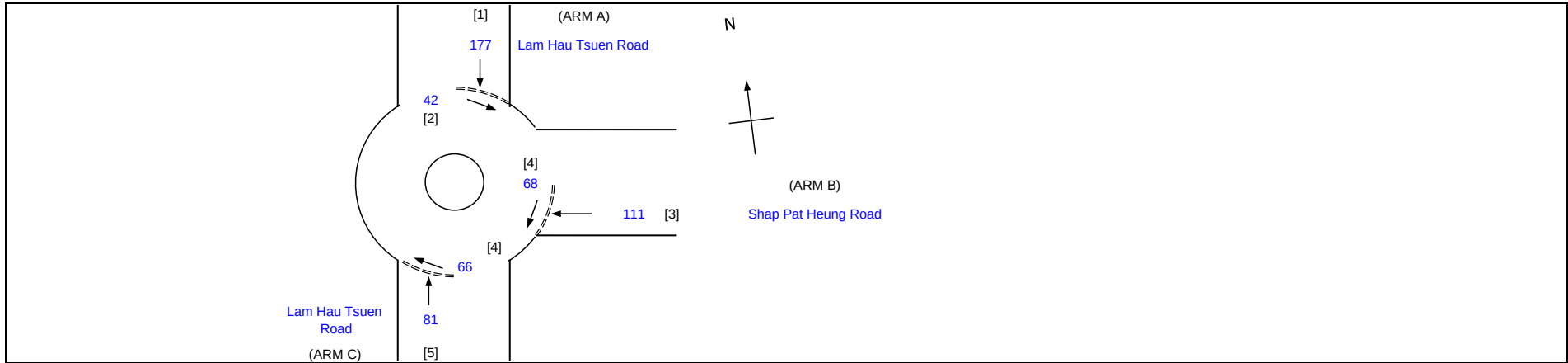
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 REF Weekday Full Cap PM 20:30-21:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	177	111	81
Qc	=	Circulating flow across entry (pcu/h)	42	68	66

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2052	1969	1800
DFC	=	Design flow/Capacity = Q/Qe	0.09	0.06	0.04

TOTAL FLOW = 545 (pcu/hr)
CRITICAL DFC = 0.09

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

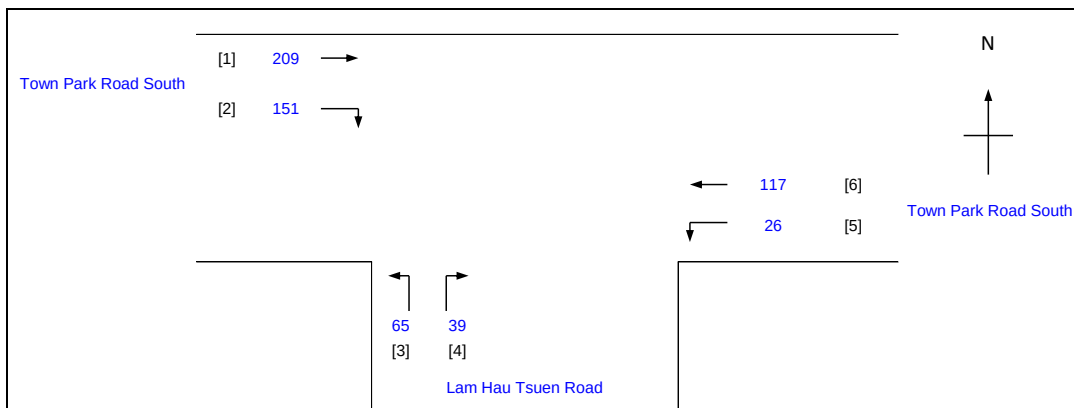
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 REF Weekday Full Cap PM 20:30-21:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.297

Loss time

L = 32 sec

Total Flow

= 607 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 75.4 sec

 $Cm = L / (1 - Y)$

= 45.5 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C._{ult} = (Y_{ult} - Y) / Y \cdot 100\%$

= 121.9 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

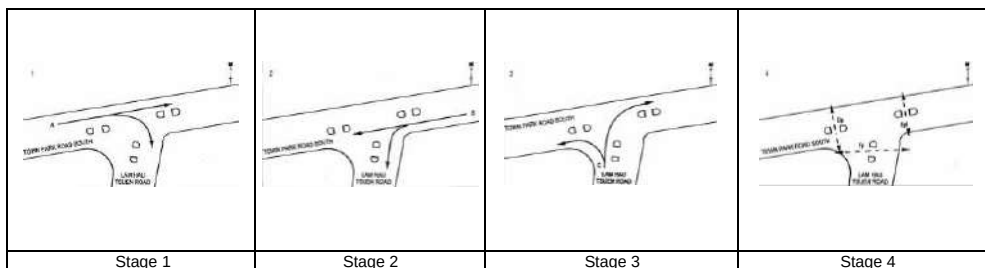
= 47.8 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 121.9 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		209	151	360	0.42	2050			2050	0.176	0.176		52	52	0.405	34	24
5,6	2	4.80	B	1	15		N	2095	26	117		143	0.18	2058			2058	0.069	0.069		21	21	0.397	20	45
5,6	2	5.20	C	1	20		N	2135	65		39	104	1.00	1986			1986	0.052	0.052		15	15	0.419	15	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_16_REF_WEEKDAY_FULL_PM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 REF Weekday Full Cap PM 20:30-21:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 19 (pcu/hr) q a-c = 229 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662	Q b-a = 513 (pcu/hr) Q b-c = 700 (pcu/hr) Q c-b = 557 (pcu/hr) Q b-ac = 622 (pcu/hr) Q c-a = 1732 (pcu/hr) TOTAL FLOW = 446 (pcu/hr)	DFC b-a = 0.0351 DFC b-c = 0.0486 DFC c-b = 0.0377 DFC b-ac = 0.0837 (Share Lane) DFC c-a = 0.0722
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 125 (pcu/hr) q c-b = 21 (pcu/hr)	F for (Qb-ac) = 0.654		
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 18 (pcu/hr) q b-c = 34 (pcu/hr)			CRITICAL DFC = 0.08

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 REF Weekday Full Cap PM 20:30-21:30		Reviewed By:	AW 8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 102 [5] 89

(ARM A)
Shap Pat Heung Road

[1] 59 [2] 98

(ARM C)
Shap Pat Heung Road

199 [4] 65 [3]

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 59 (pcu/hr) q a-c = 98 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 65 (pcu/hr) q c-b = 199 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 102 (pcu/hr) q b-c = 89 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.466	THE CAPACITY OF MOVEMENT : Q b-a = 586 (pcu/hr) Q b-c = 779 (pcu/hr) Q c-b = 718 (pcu/hr) Q b-ac = 662 (pcu/hr) TOTAL FLOW = 612 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.1741 DFC b-c = 0.1142 DFC c-b = 0.2772 DFC b-ac = 0.2883 (Share Lane) CRITICAL DFC = 0.29
---	--	--	--

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 REF Saturday AM 10:30-11:30		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 32 (pcu/hr) q a-c = 474 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 479 (pcu/hr) Q b-c = 714 (pcu/hr) Q c-b = 543 (pcu/hr) Q b-ac = 645 (pcu/hr) Q c-a = 1694 (pcu/hr) TOTAL FLOW = 771 (pcu/hr)	DFC b-a = 0.0271 DFC b-c = 0.0658 DFC c-b = 0.0589 DFC b-ac = 0.0930 (Share Lane) DFC c-a = 0.1021
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 173 (pcu/hr) q c-b = 32 (pcu/hr)	F for (Qb-ac) = 0.783		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 13 (pcu/hr) q b-c = 47 (pcu/hr)			CRITICAL DFC = 0.10

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

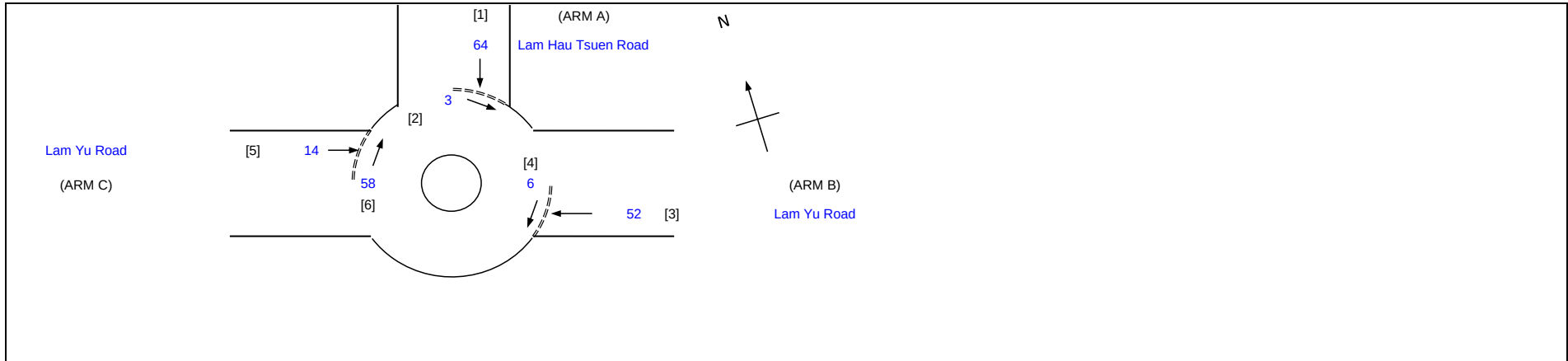
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 REF Saturday AM 10:30-11:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	64	52	14
Qc	=	Circulating flow across entry (pcu/h)	3	6	58

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1455	1359	1881
DFC	=	Design flow/Capacity = Q/Qe	0.04	0.04	0.01

TOTAL FLOW = **197 (pcu/hr)**
CRITICAL DFC = **0.04**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

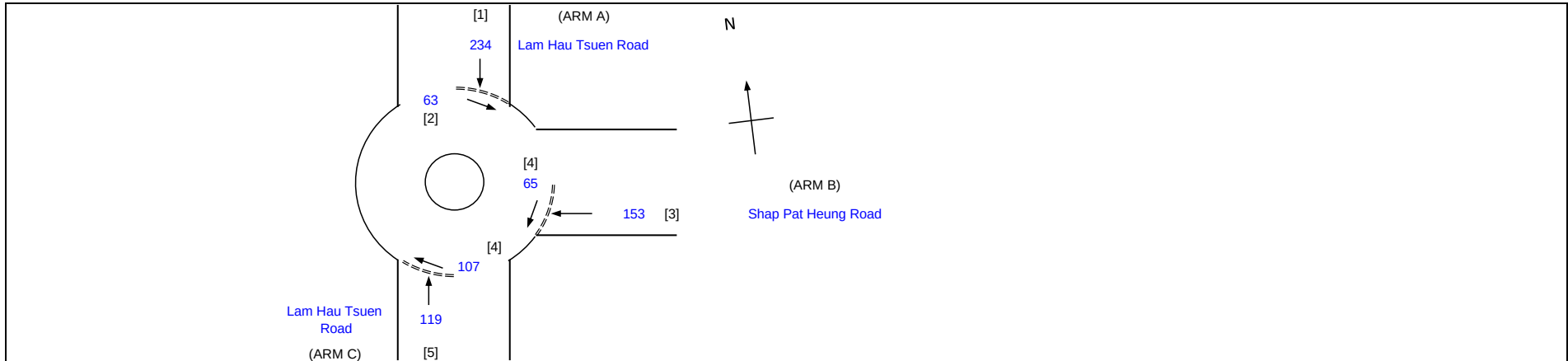
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 REF Saturday AM 10:30-11:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	234	153	119
Qc	=	Circulating flow across entry (pcu/h)	63	65	107

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2036	1971	1771
DFC	=	Design flow/Capacity = Q/Qe	0.11	0.08	0.07

TOTAL FLOW = **741 (pcu/hr)**
CRITICAL DFC = **0.11**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

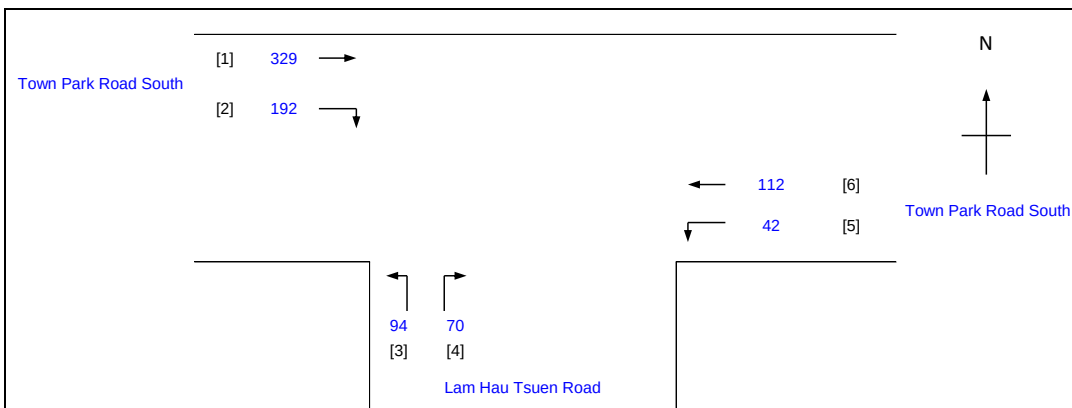
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 REF Saturday AM 10:30-11:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.411

Loss time

L = 32 sec

Total Flow

= 839 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 90.0 sec

 $Cm = L / (1 - Y)$

= 54.4 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 60.5 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

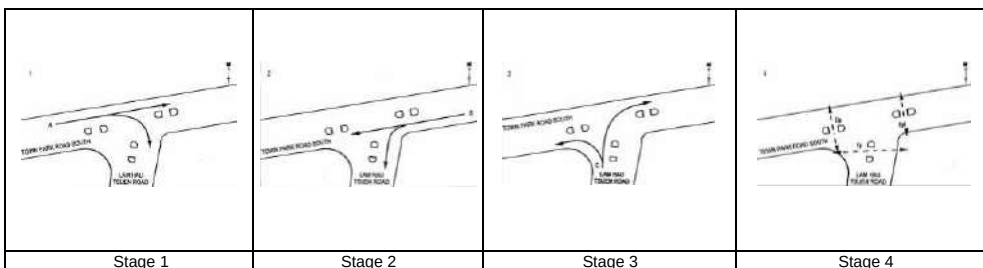
= 58.9 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 60.5 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		329	192	521	0.37	2058			2058	0.253	0.253		54	54	0.563	48	26
5,6	2	4.80	B	1	15		N	2095	42	112		154	0.27	2039			2039	0.076	0.076		16	16	0.566	22	52
5,6	2	5.20	C	1	20		N	2135	94		70	164	1.00	1986			1986	0.083	0.083		18	18	0.551	23	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_17_REF_SAT_AM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 REF Saturday AM 10:30-11:30		Reviewed By:	AW 8/8/2026

(ARM B)
Town Park Road North

[6] 12 [5] 53

Town Park Road South (ARM A)

[1] 27 [2] 373

Ma Tin Road (ARM C)

33 [4] 141 [3]

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 27 (pcu/hr) q a-c = 373 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 141 (pcu/hr) q c-b = 33 (pcu/hr) MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 12 (pcu/hr) q b-c = 53 (pcu/hr)	GEOMETRIC FACTORS : D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.815	THE CAPACITY OF MOVEMENT : Q b-a = 474 (pcu/hr) Q b-c = 663 (pcu/hr) Q c-b = 527 (pcu/hr) Q b-ac = 618 (pcu/hr) Q c-a = 1687 (pcu/hr) TOTAL FLOW = 639 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0253 DFC b-c = 0.0799 DFC c-b = 0.0626 DFC b-ac = 0.1053 (Share Lane) DFC c-a = 0.0836 CRITICAL DFC = 0.11
--	---	--	---

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

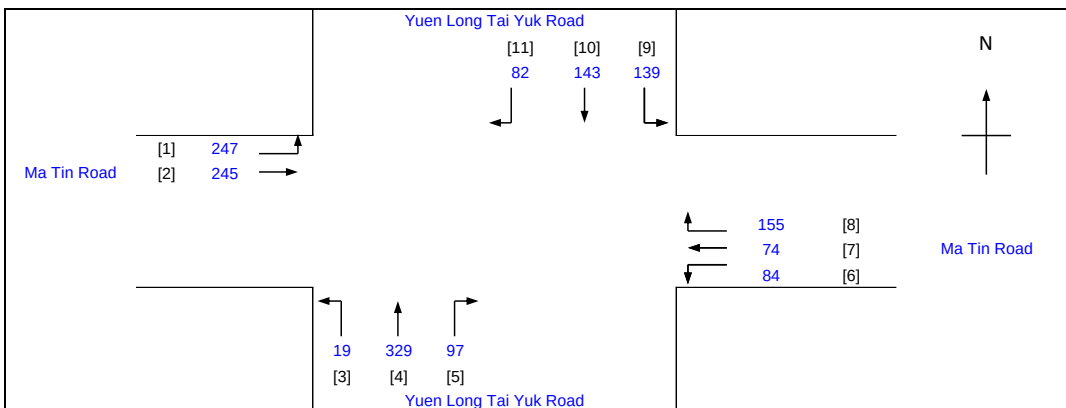
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 REF Saturday AM 10:30-11:30

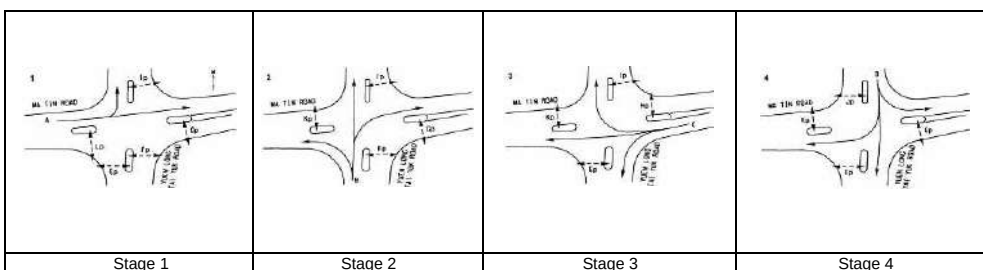
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.430
Loss time	L = 32 sec
Total Flow	= 1614 pcu
Co	= (1.5*L+5)/(1-Y) = 92.9 sec
Cm	= L/(1-Y) = 56.1 sec
Yult	= 0.9-0.0075L = 0.660
R.C.ult	= (Yult-Y)/Y*100% = 53.6 %
Cp	= 0.9*L/(0.9-Y) = 61.2 sec
Ymax	= 1-L/C = 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100% = 53.6 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	247			247	1.00	1795			1795	0.138	0.138		28	28	0.590	32	43
2	1	3.60	A	1				2115		245		245	0.00	2115			2115	0.116			24	28	0.496	31	41
3,4	2	3.60	B	1	15		N	1975	19	198		217	0.09	1958			1958	0.111	0.111		23	23	0.579	29	47
4,5	2	3.60	B	1	20			2115		131	97	228	0.43	2049			2049	0.111			23	23	0.579	31	46
3,4	2	3.50	C	1	15		N	1965			155	155	1.00	1786			1786	0.087			18	18	0.578	22	51
4,5	2	3.50	C	1	20			2105	84	74		158	0.53	2024			2024	0.078	0.087		16	18	0.520	22	49
10,11	2	3.50	D	1	20			2105		110	82	192	0.43	2040			2040	0.094	0.094		19	19	0.596	27	50
9,10	2	3.50	D	1	15		N	1965	139	33		172	0.81	1818			1818	0.094			19	19	0.596	24	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_17_REF_SAT_AM.xls[F

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 REF Saturday AM 10:30-11:30		Reviewed By:	AW 8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

(ARM A)
Shap Pat Heung Road

(ARM C)
Shap Pat Heung Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 160 (pcu/hr) q a-c = 210 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 498 (pcu/hr) Q b-c = 737 (pcu/hr) Q c-b = 662 (pcu/hr) Q b-ac = 574 (pcu/hr)	DFC b-a = 0.2711 DFC b-c = 0.1262 DFC c-b = 0.4335 DFC b-ac = 0.3973 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 151 (pcu/hr) q c-b = 287 (pcu/hr)	F for (Qb-ac) = 0.408	TOTAL FLOW = 1036 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 135 (pcu/hr) q b-c = 93 (pcu/hr)			CRITICAL DFC = 0.43

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 REF Saturday Noon 12:30-13:30		Reviewed By:	AW	8/8/2026

(ARM A)
Town Park Road South

[2] 428 [1] 30

Town Park Road South (ARM C)

[3] 157 [4] 30

Town Park Road North (ARM B)

12 [6] 43 [5]

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 30 (pcu/hr) q a-c = 428 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693 F for (Qb-ac) = 0.782	Q b-a = 494 (pcu/hr) Q b-c = 727 (pcu/hr) Q c-b = 553 (pcu/hr) Q b-ac = 659 (pcu/hr) Q c-a = 1702 (pcu/hr) TOTAL FLOW = 700 (pcu/hr)	DFC b-a = 0.0243 DFC b-c = 0.0591 DFC c-b = 0.0542 DFC b-ac = 0.0834 (Share Lane) DFC c-a = 0.0922 CRITICAL DFC = 0.09
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 157 (pcu/hr) q c-b = 30 (pcu/hr)			
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 12 (pcu/hr) q b-c = 43 (pcu/hr)			

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

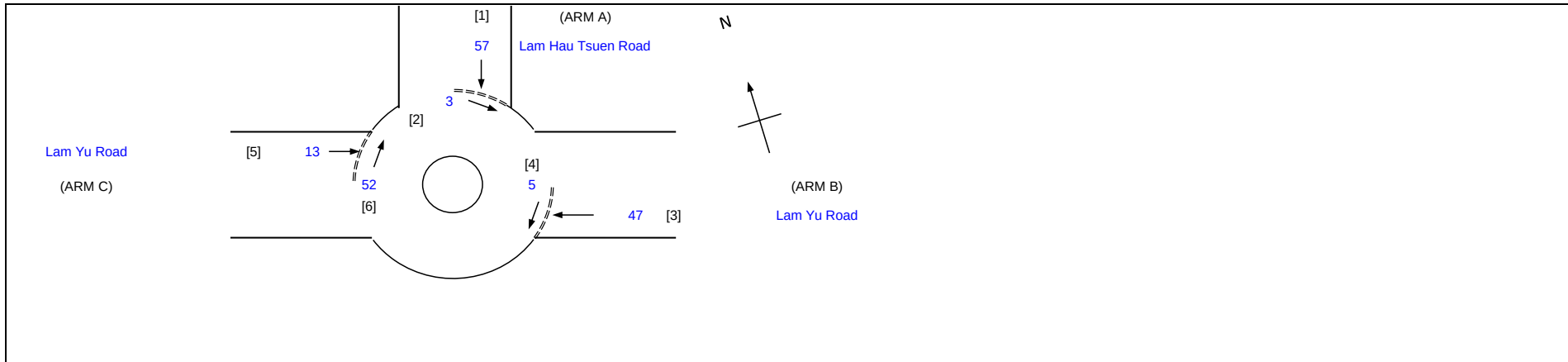
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 REF Saturday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	57	47	13
Qc	=	Circulating flow across entry (pcu/h)	3	5	52

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1455	1360	1885
DFC	=	Design flow/Capacity = Q/Qe	0.04	0.03	0.01

 TOTAL FLOW = 177 (pcu/hr)
 CRITICAL DFC = 0.04

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

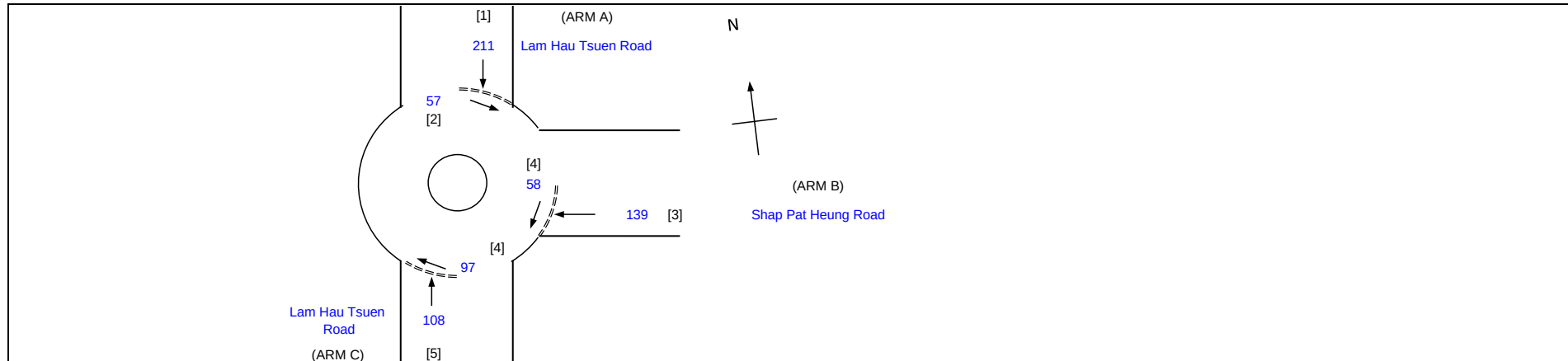
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 REF Saturday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

	ARM	A	B	C
V =	Approach half width (m)	5.3	4.5	3.6
E =	Entry width (m)	7.0	7.0	7.0
L =	Effective length of flare (m)	14.2	15.0	14.0
R =	Entry radius (m)	48.0	56.0	33.0
D =	Inscribed circle diameter (m)	35.0	35.0	35.0
A =	Entry angle (degree)	23.0	14.0	5.0
Q =	Entry flow (pcu/h)	211	139	108
Qc =	Circulating flow across entry (pcu/h)	57	58	97

OUTPUT PARAMETERS:

S =	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K =	$1 - 0.00347(A-30) - 0.978(1/R - 0.05)$	1.05	1.09	1.11
X2 =	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M =	$EXP((D-60)/10)$	0.08	0.08	0.08
F =	$303 \times X2$	1978	1858	1670
Td =	$1 + (0.5/(1+M))$	1.46	1.46	1.46
Fc =	$0.21 \times Td(1 + 0.2 \times X2)$	0.71	0.68	0.65
Qe =	$K(F - Fc \times Qc)$	2040	1976	1778
DFC =	Design flow/Capacity = Q/Qe	0.10	0.07	0.06

TOTAL FLOW = **670 (pcu/hr)**
CRITICAL DFC = **0.10**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

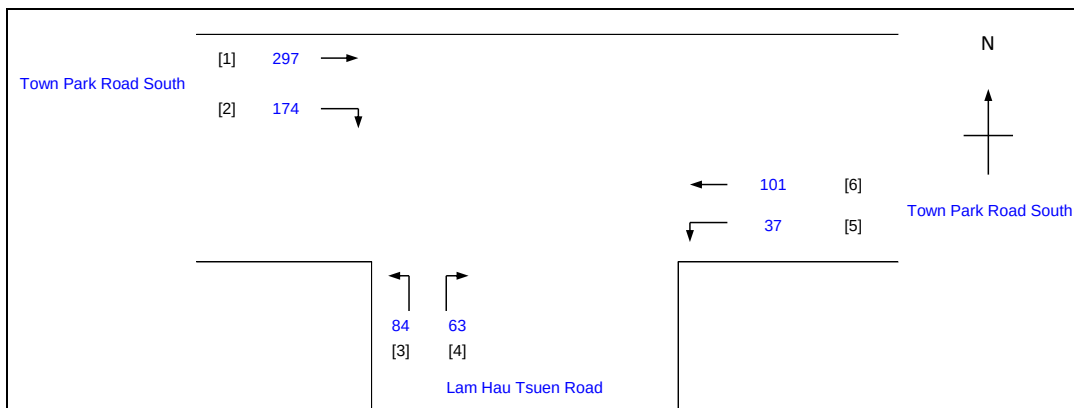
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 REF Saturday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.371

Loss time

L = 32 sec

Total Flow

= 756 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 84.2 sec

 $Cm = L / (1 - Y)$

= 50.8 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 78.1 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

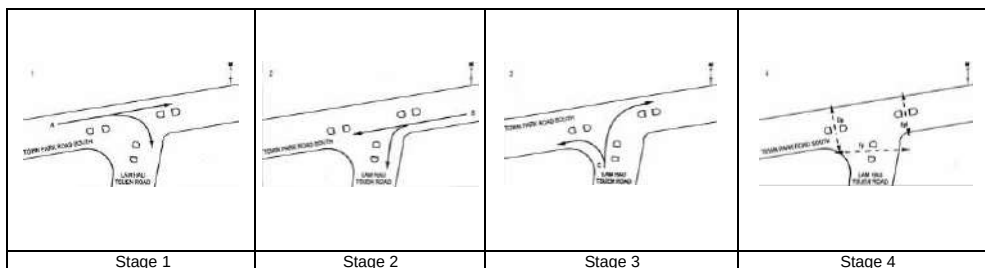
= 54.4 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 78.1 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		297	174	471	0.37	2058			2058	0.229	0.229		54	54	0.509	43	25
5,6	2	4.80	B	1	15		N	2095	37	101		138	0.27	2040			2040	0.068	0.068		16	16	0.507	20	51
5,6	2	5.20	C	1	20		N	2135	84		63	147	1.00	1986			1986	0.074	0.074		18	18	0.493	21	49

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_18_REF_SAT_NOON.xls|D

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 REF Saturday Noon 12:30-13:30		Reviewed By:	AW 8/8/2026

(ARM B)
Town Park Road North

[6] 11 [5] 48

Town Park Road South (ARM A)

[1] 23 [2] 337

(ARM C)
Ma Tin Road

30 [4] 128 [3]

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 23 (pcu/hr) q a-c = 337 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 128 (pcu/hr) q c-b = 30 (pcu/hr) MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 11 (pcu/hr) q b-c = 48 (pcu/hr)	GEOMETRIC FACTORS : D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.814	THE CAPACITY OF MOVEMENT : Q b-a = 485 (pcu/hr) Q b-c = 673 (pcu/hr) Q c-b = 535 (pcu/hr) Q b-ac = 628 (pcu/hr) Q c-a = 1699 (pcu/hr) TOTAL FLOW = 577 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0227 DFC b-c = 0.0713 DFC c-b = 0.0561 DFC b-ac = 0.0940 (Share Lane) DFC c-a = 0.0753 CRITICAL DFC = 0.09
--	---	--	---

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 REF Saturday Noon 12:30-13:30		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 123 [5] 83

(ARM A)
Shap Pat Heung Road

[1] 144 [2] 190

(ARM C)
Shap Pat Heung Road

[4] 259 [3] 136

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 144 (pcu/hr) q a-c = 190 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 136 (pcu/hr) q c-b = 259 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 123 (pcu/hr) q b-c = 83 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.403	THE CAPACITY OF MOVEMENT : Q b-a = 518 (pcu/hr) Q b-c = 744 (pcu/hr) Q c-b = 672 (pcu/hr) Q b-ac = 590 (pcu/hr) TOTAL FLOW = 935 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.2375 DFC b-c = 0.1116 DFC c-b = 0.3854 DFC b-ac = 0.3490 (Share Lane) CRITICAL DFC = 0.39
--	---	--	---

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 REF Saturday PM 17:30-18:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 34 (pcu/hr) q a-c = 498 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 471 (pcu/hr) Q b-c = 707 (pcu/hr) Q c-b = 537 (pcu/hr) Q b-ac = 636 (pcu/hr) Q c-a = 1686 (pcu/hr) TOTAL FLOW = 810 (pcu/hr)	DFC b-a = 0.0297 DFC b-c = 0.0693 DFC c-b = 0.0633 DFC b-ac = 0.0990 (Share Lane) DFC c-a = 0.1074
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 181 (pcu/hr) q c-b = 34 (pcu/hr)	F for (Qb-ac) = 0.778		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 14 (pcu/hr) q b-c = 49 (pcu/hr)			CRITICAL DFC = 0.11

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

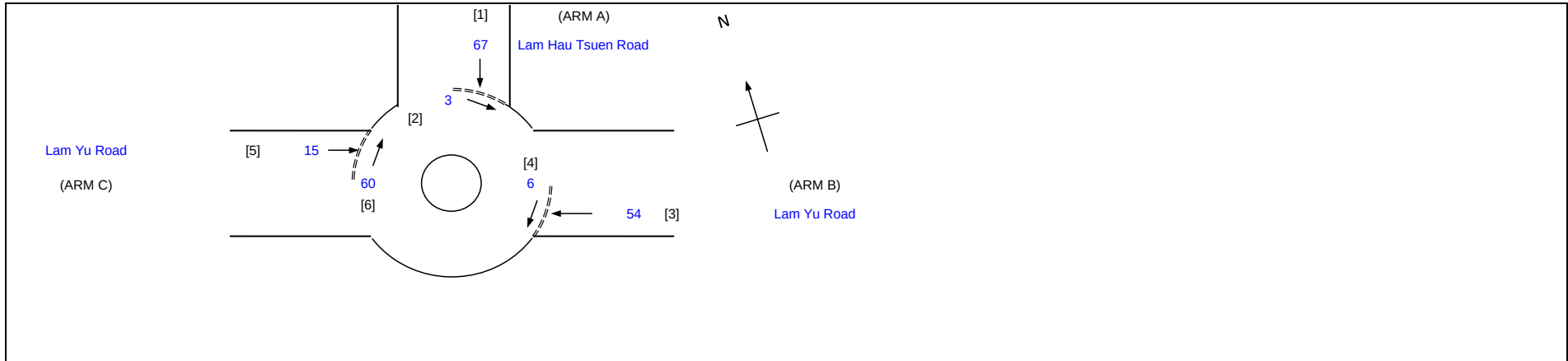
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 REF Saturday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	67	54	15
Qc	=	Circulating flow across entry (pcu/h)	3	6	60

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1455	1359	1880
DFC	=	Design flow/Capacity = Q/Qe	0.05	0.04	0.01

TOTAL FLOW = 205 (pcu/hr)
CRITICAL DFC = 0.05

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

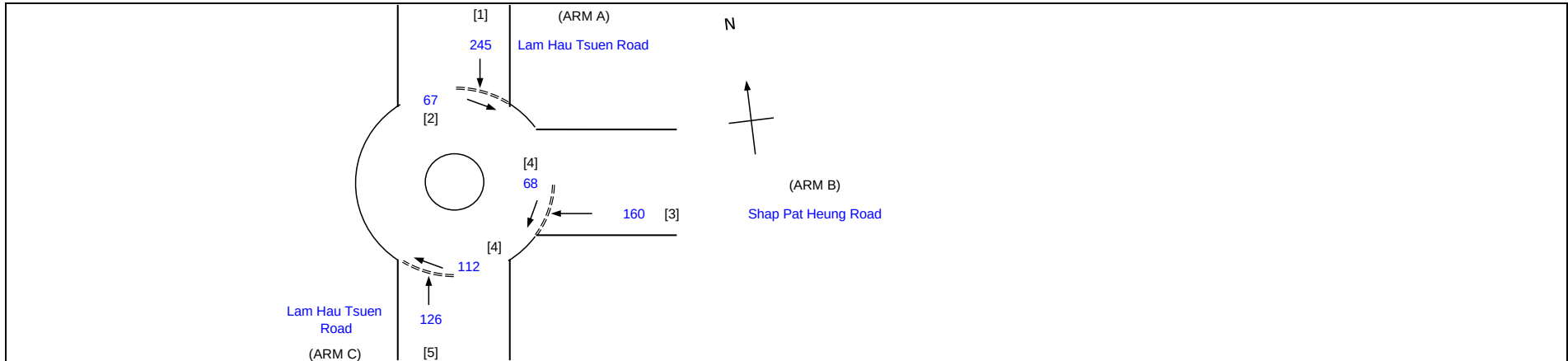
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 REF Saturday PM 17:30-18:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	245	160	126
Qc	=	Circulating flow across entry (pcu/h)	67	68	112

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2033	1969	1768
DFC	=	Design flow/Capacity = Q/Qe	0.12	0.08	0.07

 TOTAL FLOW = 778 (pcu/hr)
 CRITICAL DFC = 0.12

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

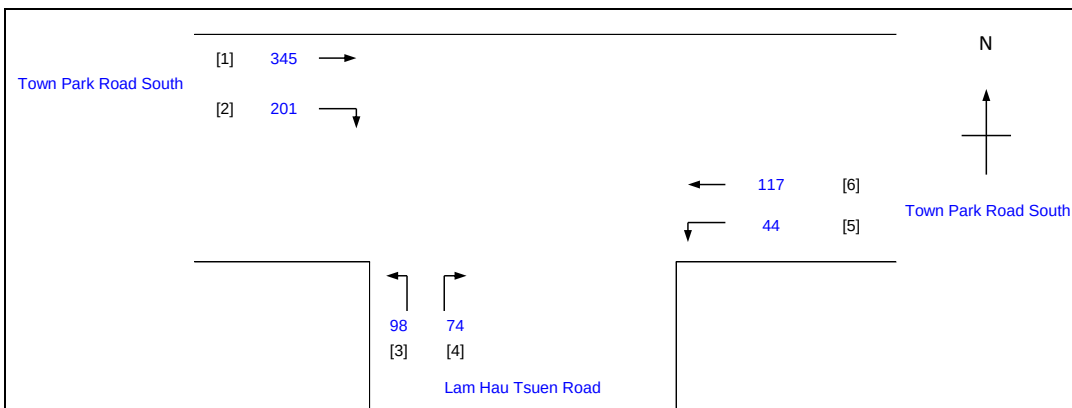
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 REF Saturday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.431

Loss time

L = 32 sec

Total Flow

= 879 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 93.1 sec

 $Cm = L / (1 - Y)$

= 56.2 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 53.2 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

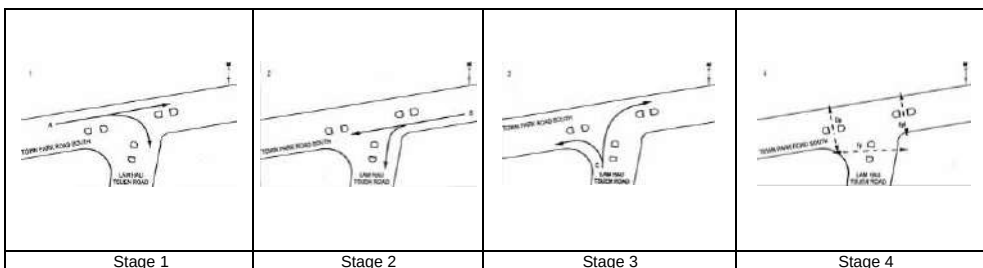
= 61.4 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 53.2 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		345	201	546	0.37	2058			2058	0.265	0.265		54	54	0.590	50	26
5,6	2	4.80	B	1	15		N	2095	44	117		161	0.27	2039			2039	0.079	0.079		16	16	0.592	23	52
5,6	2	5.20	C	1	20		N	2135	98		74	172	1.00	1986			1986	0.087	0.087		18	18	0.577	24	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_19_REF_SAT_PM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 REF Saturday PM 17:30-18:30		Reviewed By:	AW 8/8/2026

(ARM B)
Town Park Road North

[6] 13 [5] 55

Town Park Road South (ARM A)

[1] 28 [2] 391

Ma Tin Road (ARM C)

35 [4] 148 [3]

N

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 28 (pcu/hr) q a-c = 391 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 148 (pcu/hr) q c-b = 35 (pcu/hr) MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 13 (pcu/hr) q b-c = 55 (pcu/hr)	GEOMETRIC FACTORS : D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.809	THE CAPACITY OF MOVEMENT : Q b-a = 468 (pcu/hr) Q b-c = 659 (pcu/hr) Q c-b = 524 (pcu/hr) Q b-ac = 611 (pcu/hr) Q c-a = 1680 (pcu/hr) TOTAL FLOW = 670 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0278 DFC b-c = 0.0835 DFC c-b = 0.0668 DFC b-ac = 0.1112 (Share Lane) DFC c-a = 0.0881 CRITICAL DFC = 0.11
---	---	--	---

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

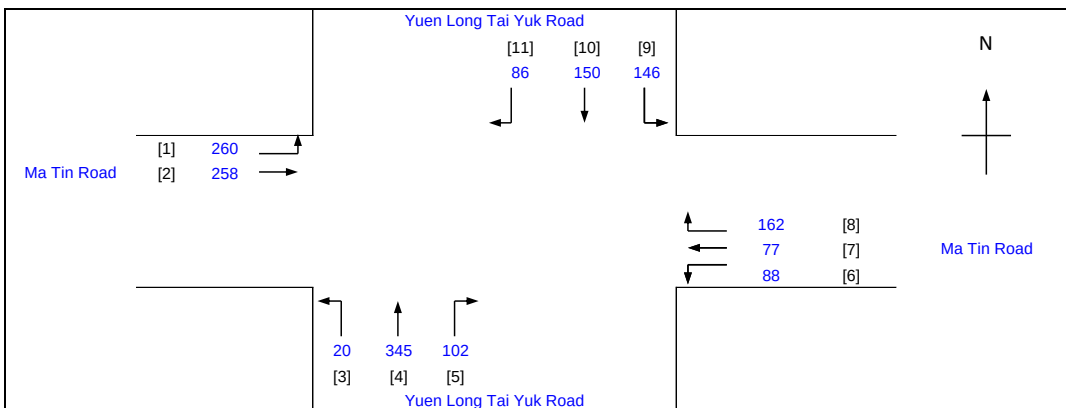
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 REF Saturday PM 17:30-18:30

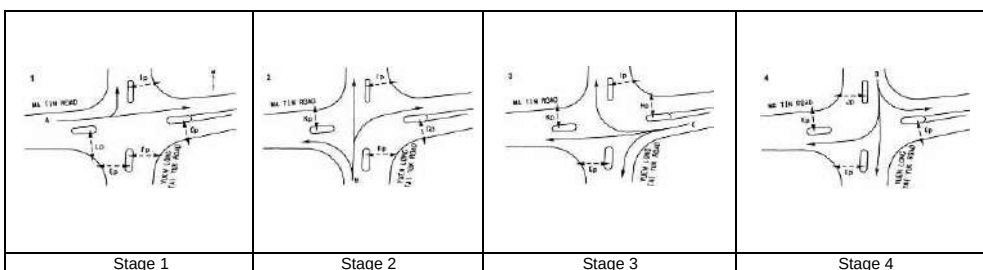
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.451
Loss time	L = 32 sec
Total Flow	= 1694 pcu
Co = (1.5*L+5)/(1-Y)	= 96.6 sec
Cm = L/(1-Y)	= 58.3 sec
Yult = 0.9-0.0075L	= 0.660
R.C.ult = (Yult-Y)/Y*100%	= 46.3 %
Cp = 0.9*L/(0.9-Y)	= 64.2 sec
Ymax = 1-L/C	= 0.733
R.C.(C) = (0.9*Ymax-Y)/Y*100%	= 46.3 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	260			260	1.00	1795			1795	0.145	0.145		28	28	0.621	33	44
2	1	3.60	A	1				2115		258		258	0.00	2115			2115	0.122			24	28	0.523	33	42
3,4	2	3.60	B	1	15		N	1975	20	208		228	0.09	1958			1958	0.117	0.117		23	23	0.608	31	47
4,5	2	3.60	B	1	20			2115		137	102	239	0.43	2049			2049	0.117			23	23	0.608	32	47
3,4	2	3.50	C	1	15		N	1965			162	162	1.00	1786			1786	0.091			18	18	0.605	23	52
4,5	2	3.50	C	1	20			2105	88	77		165	0.53	2024			2024	0.082	0.091		16	18	0.543	23	50
10,11	2	3.50	D	1	20			2105		116	86	202	0.43	2040			2040	0.099	0.099		19	19	0.625	28	51
9,10	2	3.50	D	1	15		N	1965	146	34		180	0.81	1818			1818	0.099			19	19	0.625	25	51

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_19_REF_SAT_PM.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 REF Saturday PM 17:30-18:30		Reviewed By:	AW 8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 142 [5] 97

Shap Pat Heung Road (ARM A)

[1] 167 [2] 221

(ARM C)
Shap Pat Heung Road

[4] 300 [3] 159

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 167 (pcu/hr) q a-c = 221 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 159 (pcu/hr) q c-b = 300 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 142 (pcu/hr) q b-c = 97 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.406	THE CAPACITY OF MOVEMENT : Q b-a = 489 (pcu/hr) Q b-c = 733 (pcu/hr) Q c-b = 658 (pcu/hr) Q b-ac = 565 (pcu/hr) TOTAL FLOW = 1086 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.2904 DFC b-c = 0.1323 DFC c-b = 0.4559 DFC b-ac = 0.4227 (Share Lane) CRITICAL DFC = 0.46
--	--	---	--

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 REF Saturday Late 21:30-22:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 21 (pcu/hr) q a-c = 318 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 531 (pcu/hr) Q b-c = 760 (pcu/hr) Q c-b = 580 (pcu/hr) Q b-ac = 693 (pcu/hr) Q c-a = 1735 (pcu/hr) TOTAL FLOW = 516 (pcu/hr)	DFC b-a = 0.0169 DFC b-c = 0.0408 DFC c-b = 0.0362 DFC b-ac = 0.0577 (Share Lane) DFC c-a = 0.0669
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 116 (pcu/hr) q c-b = 21 (pcu/hr)	F for (Qb-ac) = 0.775		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 9 (pcu/hr) q b-c = 31 (pcu/hr)			CRITICAL DFC = 0.07

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

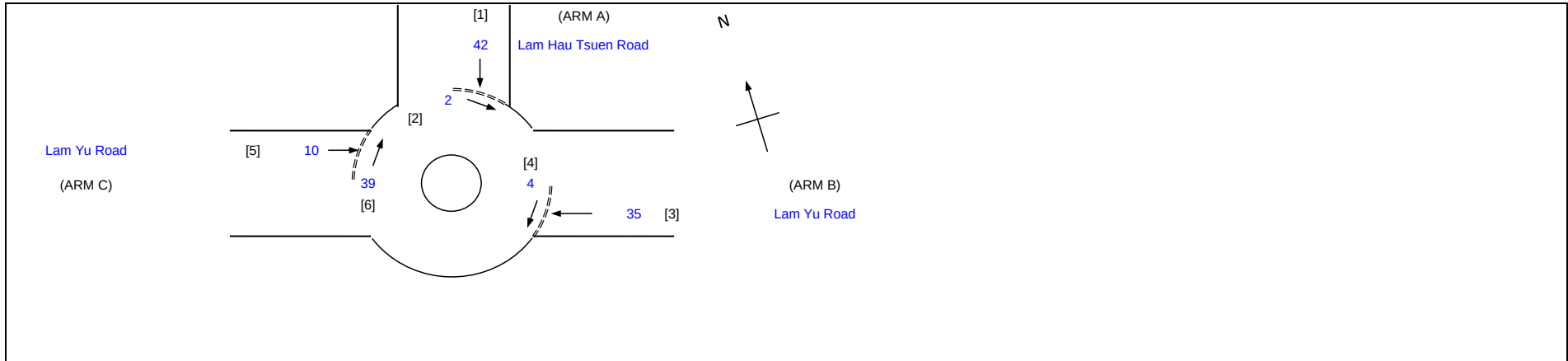
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 REF Saturday Late 21:30-22:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	42	35	10
Qc	=	Circulating flow across entry (pcu/h)	2	4	39

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1456	1360	1895
DFC	=	Design flow/Capacity = Q/Qe	0.03	0.03	0.01

 TOTAL FLOW = 132 (pcu/hr)
 CRITICAL DFC = 0.03

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

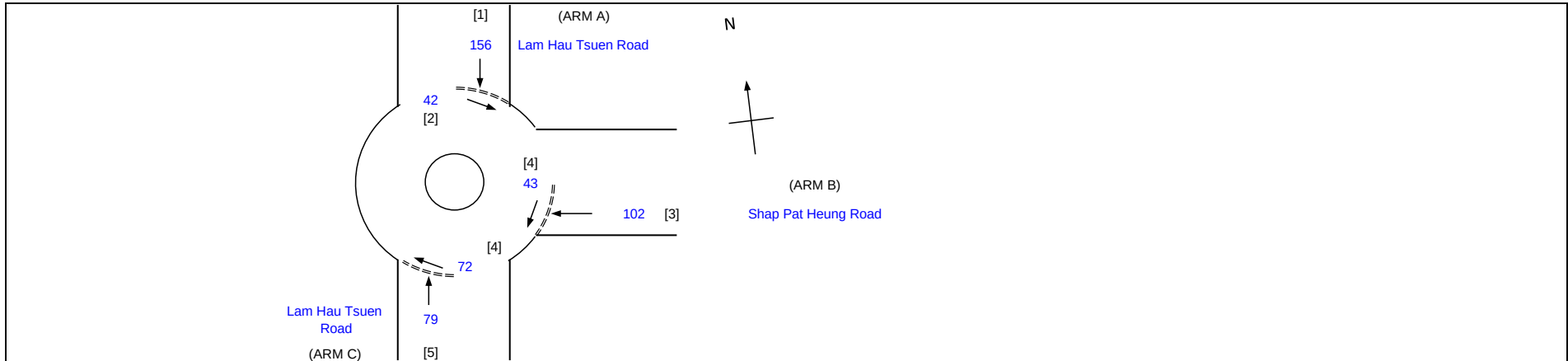
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 REF Saturday Late 21:30-22:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	156	102	79
Qc	=	Circulating flow across entry (pcu/h)	42	43	72

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2052	1987	1796
DFC	=	Design flow/Capacity = Q/Qe	0.08	0.05	0.04

TOTAL FLOW = 494 (pcu/hr)
CRITICAL DFC = 0.08

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

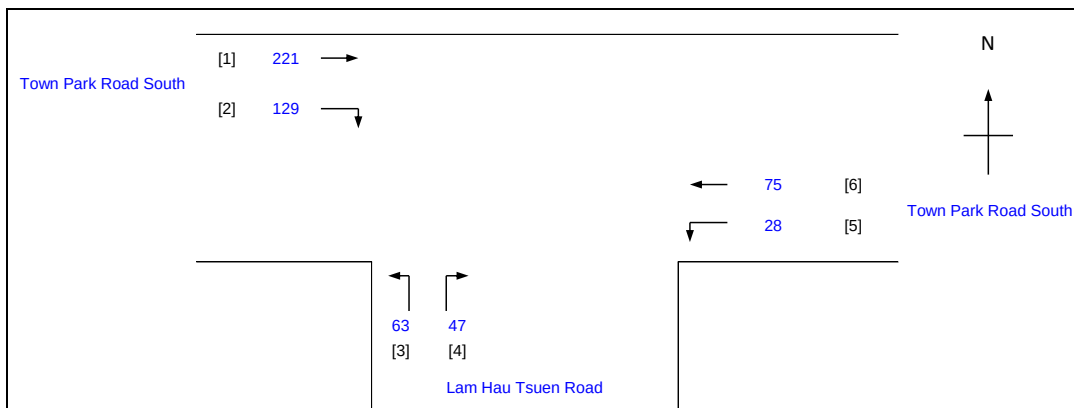
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 REF Saturday Late 21:30-22:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

I = 5 sec

Stage 1 - 2

I = 8 sec

Stage 2 - 3

I = 11 sec

Stage 3 - 4

I = 2 sec

Stage 4 - 1

C = 120 sec

Cycle time

Y = 0.276

Sum(y)

L = 32 sec

Loss time

= 563 pcu

Total Flow

= 73.2 sec

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 44.2 sec

 $Cm = L / (1 - Y)$

= 0.660

 $Yult = 0.9 - 0.0075L$

= 139.2 %

 $R.C.ult = (Yult - Y) / Y \cdot 100\%$

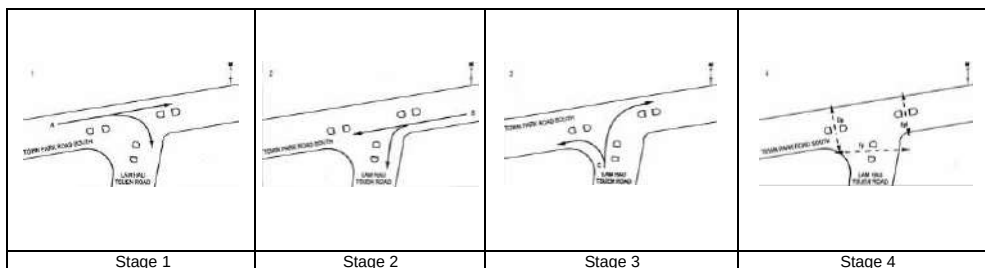
= 46.1 sec

 $Cp = 0.9 \cdot L / (0.9 - Y)$

= 0.733

 $Ymax = 1 - L / C$

= 139.2 %

 $R.C.(C) = (0.9 \cdot Ymax - Y) / Y \cdot 100\%$


Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		221	129	350	0.37	2058			2058	0.170	0.170		54	54	0.378	32	23
5,6	2	4.80	B	1	15		N	2095	28	75		103	0.27	2040			2040	0.051	0.051		16	16	0.379	15	49
5,6	2	5.20	C	1	20		N	2135	63		47	110	1.00	1986			1986	0.055	0.055		18	18	0.369	16	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_20_REF_SAT_LATE.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 REF Saturday Late 21:30-22:30		Reviewed By:	AW	8/8/2026

(ARM B)
Town Park Road North

[6] 9 [5] 35

Town Park Road South (ARM A)

[1] 18 [2] 249

(ARM C)
Ma Tin Road

22 [4] 95 [3]

N

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 18 (pcu/hr) q a-c = 249 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 95 (pcu/hr) q c-b = 22 (pcu/hr) MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 9 (pcu/hr) q b-c = 35 (pcu/hr)	GEOMETRIC FACTORS : D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.795	THE CAPACITY OF MOVEMENT : Q b-a = 513 (pcu/hr) Q b-c = 695 (pcu/hr) Q c-b = 554 (pcu/hr) Q b-ac = 648 (pcu/hr) Q c-a = 1729 (pcu/hr) TOTAL FLOW = 428 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0175 DFC b-c = 0.0504 DFC c-b = 0.0397 DFC b-ac = 0.0679 (Share Lane) DFC c-a = 0.0550 CRITICAL DFC = 0.07
--	---	---	--

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

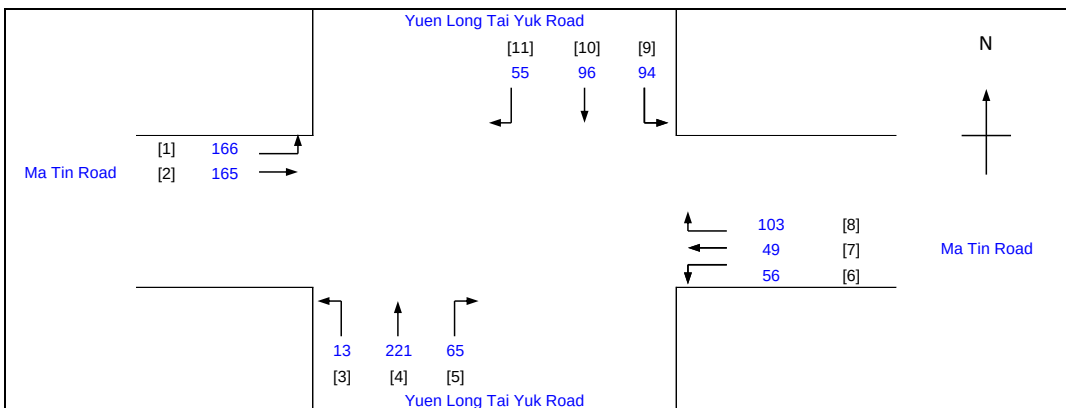
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 REF Saturday Late 21:30-22:30

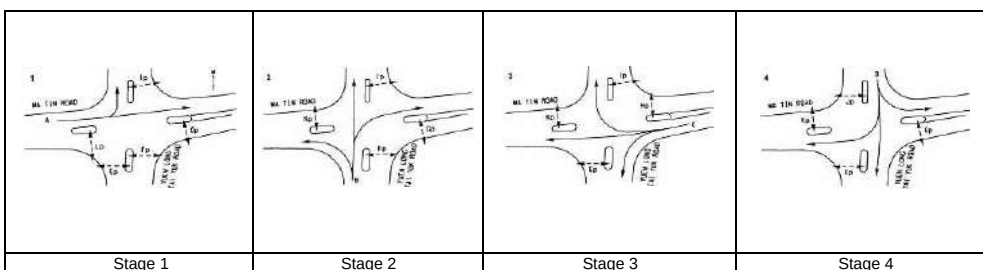
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.288
Loss time	L = 32 sec
Total Flow	= 1083 pcu
Co	= (1.5*L+5)/(1-Y) = 74.5 sec
Cm	= L/(1-Y) = 45.0 sec
Yult	= 0.9-0.0075L = 0.660
R.C.ult	= (Yult-Y)/Y*100% = 129.0 %
Cp	= 0.9*L/(0.9-Y) = 47.1 sec
Ymax	= 1-L/C = 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100% = 129.0 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	166			166	1.00	1795			1795	0.092	0.092		28	28	0.396	21	40
2	1	3.60	A	1				2115		165		165	0.00	2115			2115	0.078			24	28	0.334	21	39
3,4	2	3.60	B	1	15		N	1975	13	133		146	0.09	1958			1958	0.075	0.075		23	23	0.389	20	44
4,5	2	3.60	B	1	20			2115		88	65	153	0.43	2050			2050	0.075			23	23	0.389	21	44
3,4	2	3.50	C	1	15		N	1965			103	103	1.00	1786			1786	0.058			18	18	0.384	15	48
4,5	2	3.50	C	1	20			2105	56	49		105	0.53	2024			2024	0.052	0.058		16	18	0.346	15	47
10,11	2	3.50	D	1	20			2105		75	55	130	0.42	2040			2040	0.064	0.064		19	19	0.401	18	47
9,10	2	3.50	D	1	15		N	1965	94	21		115	0.81	1817			1817	0.064			19	19	0.401	16	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_20_REF_SAT_LATE.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 REF Saturday Late 21:30-22:30		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

(ARM A)
Shap Pat Heung Road

(ARM C)
Shap Pat Heung Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 107 (pcu/hr) q a-c = 141 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 566 (pcu/hr) Q b-c = 762 (pcu/hr) Q c-b = 694 (pcu/hr) Q b-ac = 632 (pcu/hr)	DFC b-a = 0.1608 DFC b-c = 0.0814 DFC c-b = 0.2767 DFC b-ac = 0.2421 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 101 (pcu/hr) q c-b = 192 (pcu/hr)	F for (Qb-ac) = 0.405	TOTAL FLOW = 694 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 91 (pcu/hr) q b-c = 62 (pcu/hr)			CRITICAL DFC = 0.28

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 REF Sunday AM 11:30-12:30		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 22 (pcu/hr) q a-c = 326 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 526 (pcu/hr) Q b-c = 758 (pcu/hr) Q c-b = 578 (pcu/hr) Q b-ac = 721 (pcu/hr) Q c-a = 1735 (pcu/hr) TOTAL FLOW = 603 (pcu/hr)	DFC b-a = 0.0209 DFC b-c = 0.1108 DFC c-b = 0.0363 DFC b-ac = 0.1317 (Share Lane) DFC c-a = 0.0801
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 139 (pcu/hr) q c-b = 21 (pcu/hr)	F for (Qb-ac) = 0.884		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 11 (pcu/hr) q b-c = 84 (pcu/hr)			CRITICAL DFC = 0.13

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

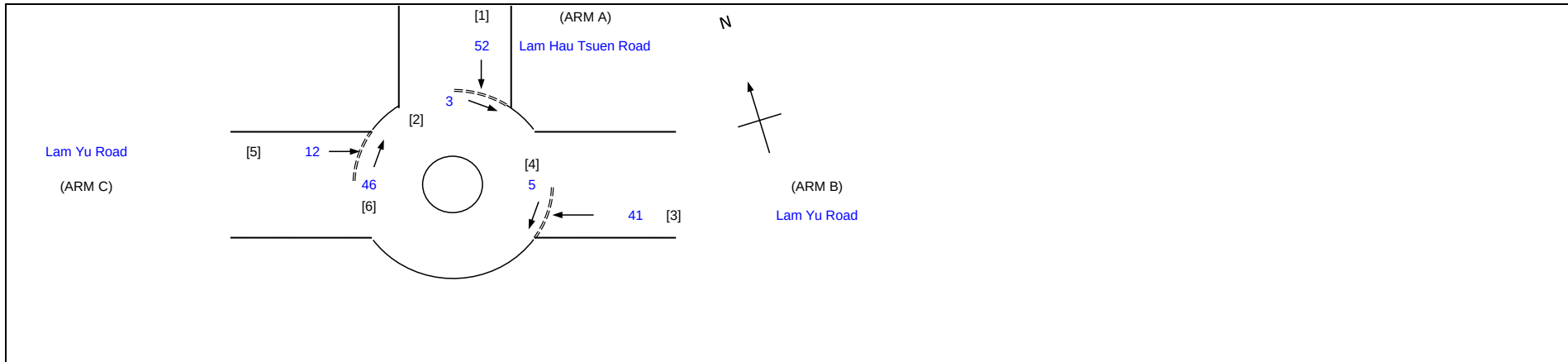
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 REF Sunday AM 11:30-12:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	52	41	12
Qc	=	Circulating flow across entry (pcu/h)	3	5	46

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1455	1360	1890
DFC	=	Design flow/Capacity = Q/Qe	0.04	0.03	0.01

 TOTAL FLOW = 159 (pcu/hr)
 CRITICAL DFC = 0.04

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

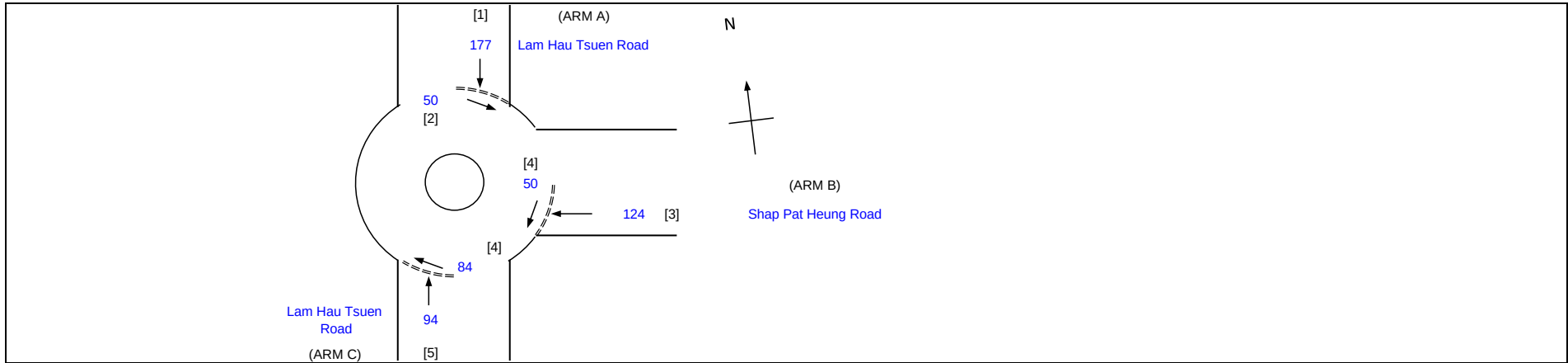
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 REF Sunday AM 11:30-12:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	177	124	94
Qc	=	Circulating flow across entry (pcu/h)	50	50	84

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2046	1982	1788
DFC	=	Design flow/Capacity = Q/Qe	0.09	0.06	0.05

TOTAL FLOW = 579 (pcu/hr)
CRITICAL DFC = 0.09

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

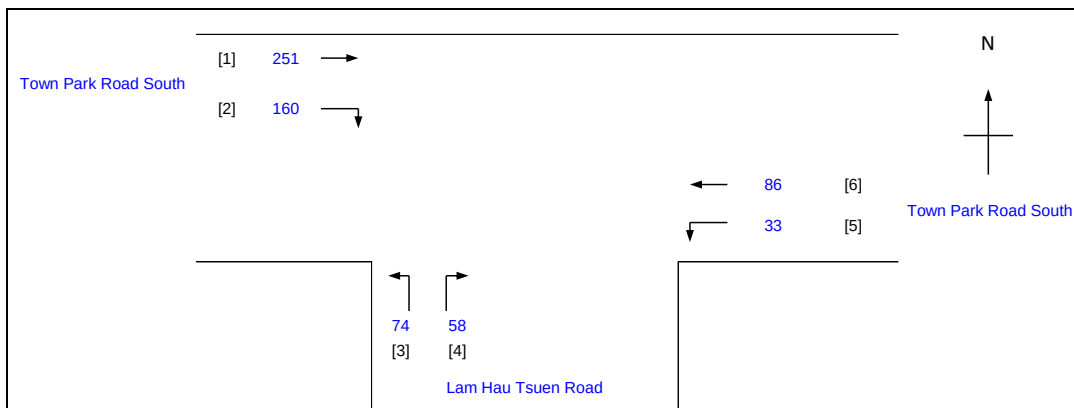
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 REF Sunday AM 11:30-12:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.325

Loss time

L = 32 sec

Total Flow

= 662 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 78.5 sec

 $Cm = L / (1 - Y)$

= 47.4 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C._{ult} = (Y_{ult} - Y) / Y \cdot 100\%$

= 103.2 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

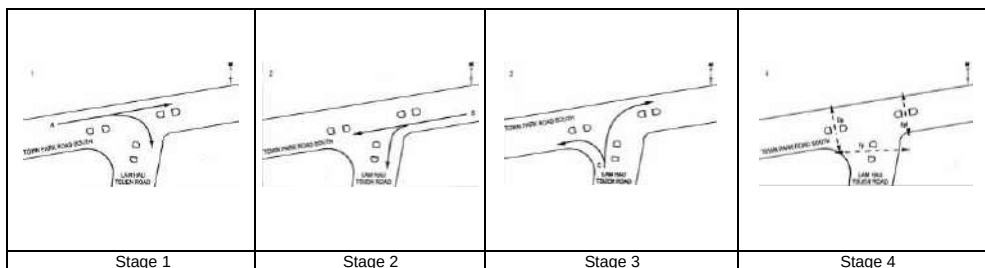
= 50.1 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 103.2 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		251	160	411	0.39	2055			2055	0.200	0.200		54	54	0.444	38	24
5,6	2	4.80	B	1	15		N	2095	33	86		119	0.28	2038			2038	0.058	0.058		16	16	0.438	17	50
5,6	2	5.20	C	1	20		N	2135	74		58	132	1.00	1986			1986	0.066	0.066		18	18	0.443	19	48

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction_21_REF_SUN_AM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 REF Sunday AM 11:30-12:30		Reviewed By:	AW	8/8/2026

(ARM B)
Town Park Road North

[6] 11 [5] 47

Town Park Road South (ARM A)

[1] 20 [2] 288

Ma Tin Road (ARM C)

31 [4] 123 [3]

N

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 20 (pcu/hr) q a-c = 288 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 123 (pcu/hr) q c-b = 31 (pcu/hr) MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 11 (pcu/hr) q b-c = 47 (pcu/hr)	GEOMETRIC FACTORS : D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.81	THE CAPACITY OF MOVEMENT : Q b-a = 497 (pcu/hr) Q b-c = 685 (pcu/hr) Q c-b = 545 (pcu/hr) Q b-ac = 639 (pcu/hr) Q c-a = 1698 (pcu/hr) TOTAL FLOW = 520 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0221 DFC b-c = 0.0686 DFC c-b = 0.0569 DFC b-ac = 0.0907 (Share Lane) DFC c-a = 0.0725 CRITICAL DFC = 0.09
---	--	--	---

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

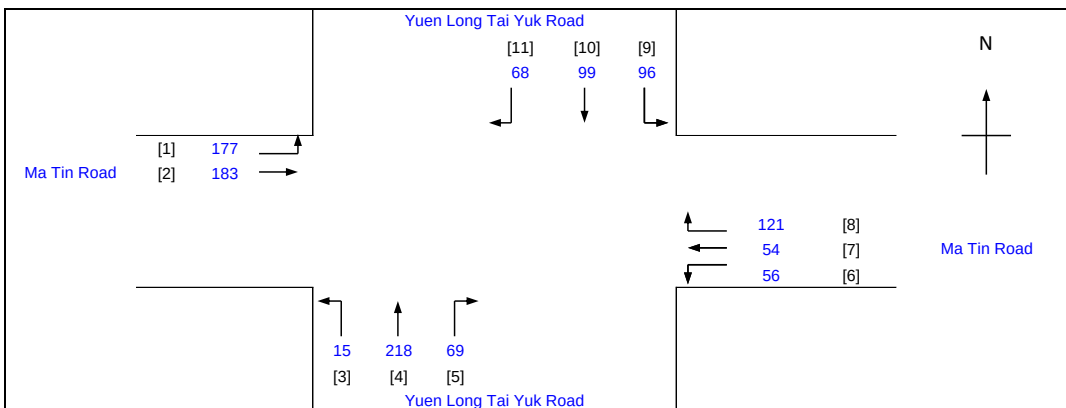
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 REF Sunday AM 11:30-12:30

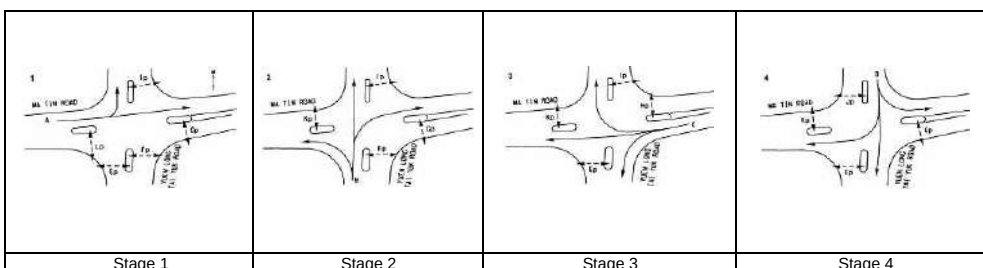
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.310
Loss time	L = 32 sec
Total Flow	= 1156 pcu
Co = (1.5*L+5)/(1-Y)	= 76.8 sec
Cm = L/(1-Y)	= 46.4 sec
Yult = 0.9-0.0075L	= 0.660
R.C.ult = (Yult-Y)/Y*100%	= 112.9 %
Cp = 0.9*L/(0.9-Y)	= 48.8 sec
Ymax = 1-L/C	= 0.733
R.C.(C) = (0.9*Ymax-Y)/Y*100%	= 112.9 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	177			177	1.00	1795			1795	0.099	0.099		28	28	0.422	23	41
2	1	3.60	A	1				2115		183		183	0.00	2115			2115	0.087			25	28	0.371	23	40
3,4	2	3.60	B	1	15		N	1975	15	133		148	0.10	1955			1955	0.075	0.075		21	21	0.431	20	46
4,5	2	3.60	B	1	20			2115		85	69	154	0.45	2046			2046	0.075			21	21	0.431	21	46
3,4	2	3.50	C	1	15		N	1965			121	121	1.00	1786			1786	0.068			19	19	0.428	17	47
4,5	2	3.50	C	1	20			2105	56	54		110	0.51	2028			2028	0.054	0.068		15	19	0.343	15	46
10,11	2	3.50	D	1	20			2105		71	68	139	0.49	2030			2030	0.068	0.068		19	19	0.431	19	47
9,10	2	3.50	D	1	15		N	1965	96	28		124	0.77	1824			1824	0.068			19	19	0.431	17	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_21_REF_SUN_AM.xls\F

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 REF Sunday AM 11:30-12:30		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 109 [5] 58

(ARM A)
Shap Pat Heung Road

[1] 126 [2] 163

(ARM C)
Shap Pat Heung Road

[4] 230 [3] 116

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 126 (pcu/hr) q a-c = 163 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 116 (pcu/hr) q c-b = 230 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 109 (pcu/hr) q b-c = 58 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.347	THE CAPACITY OF MOVEMENT : Q b-a = 541 (pcu/hr) Q b-c = 754 (pcu/hr) Q c-b = 683 (pcu/hr) Q b-ac = 600 (pcu/hr) TOTAL FLOW = 802 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.2015 DFC b-c = 0.0769 DFC c-b = 0.3367 DFC b-ac = 0.2784 (Share Lane) CRITICAL DFC = 0.34
--	---	--	---

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 REF Sunday Noon 12:30-13:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 21 (pcu/hr) q a-c = 309 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 532 (pcu/hr) Q b-c = 763 (pcu/hr) Q c-b = 582 (pcu/hr) Q b-ac = 725 (pcu/hr) Q c-a = 1738 (pcu/hr) TOTAL FLOW = 573 (pcu/hr)	DFC b-a = 0.0207 DFC b-c = 0.1048 DFC c-b = 0.0344 DFC b-ac = 0.1255 (Share Lane) DFC c-a = 0.0759
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 132 (pcu/hr) q c-b = 20 (pcu/hr)	F for (Qb-ac) = 0.879		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 11 (pcu/hr) q b-c = 80 (pcu/hr)			CRITICAL DFC = 0.13

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

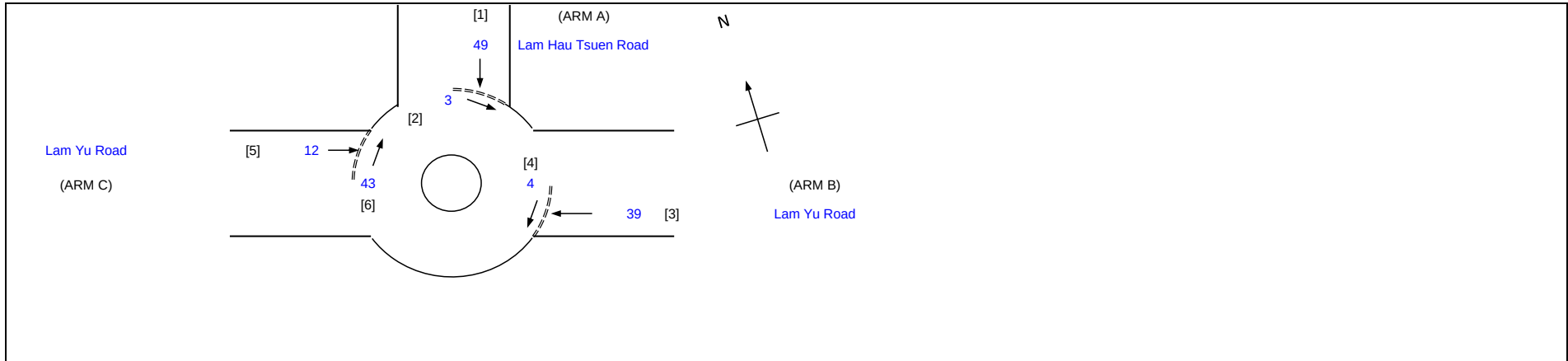
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 REF Sunday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	49	39	12
Qc	=	Circulating flow across entry (pcu/h)	3	4	43

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1455	1360	1892
DFC	=	Design flow/Capacity = Q/Qe	0.03	0.03	0.01

 TOTAL FLOW = 150 (pcu/hr)
 CRITICAL DFC = 0.03

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

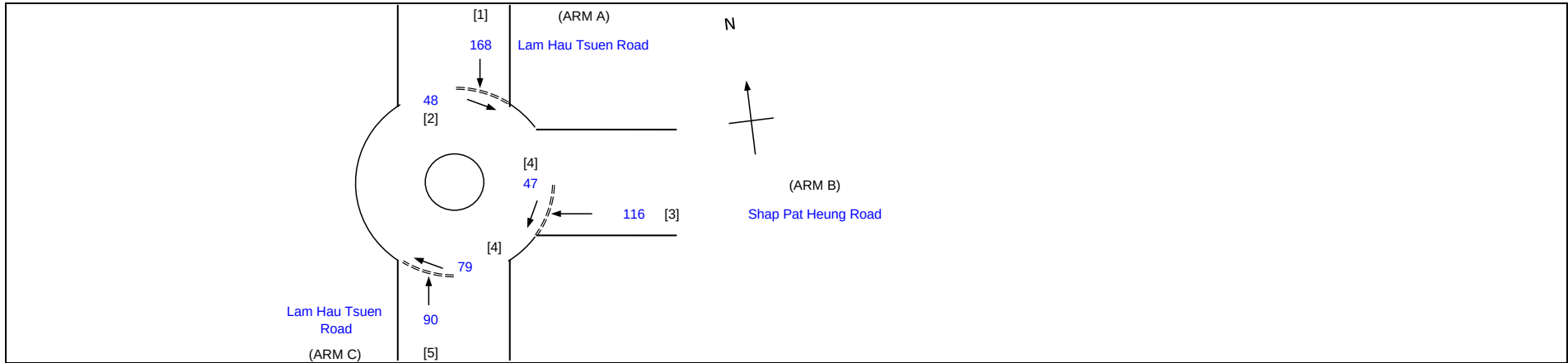
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 REF Sunday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	168	116	90
Qc	=	Circulating flow across entry (pcu/h)	48	47	79

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2047	1984	1791
DFC	=	Design flow/Capacity = Q/Qe	0.08	0.06	0.05

TOTAL FLOW = 548 (pcu/hr)
CRITICAL DFC = 0.08

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

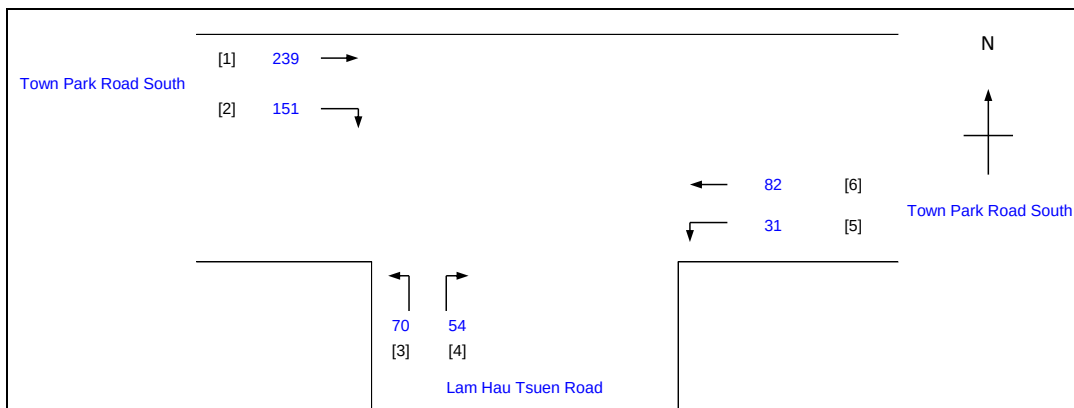
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 REF Sunday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.308

Loss time

L = 32 sec

Total Flow

= 627 pcu

Co = (1.5*L+5)/(1-Y)

= 76.5 sec

Cm = L/(1-Y)

= 46.2 sec

Yult = 0.9-0.0075L

= 0.660

R.C.ult = (Yult-Y)/Y*100%

= 114.6 %

Cp = 0.9*L/(0.9-Y)

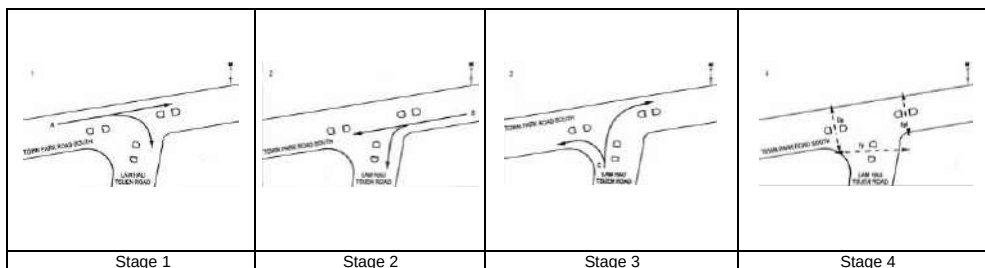
= 48.6 sec

Ymax = 1-L/C

= 0.733

R.C.(C) = (0.9*Ymax-Y)/Y*100%

= 114.6 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Required (s) FG	Green Time Provided (s) SG	Green Time Provided (s) FG	Check
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		239	151	390	0.39	2055			2055	0.190	0.190		54	54	0.422	36	23
5,6	2	4.80	B	1	15		N	2095	31	82		113	0.27	2039			2039	0.055	0.055		16	16	0.416	16	49
5,6	2	5.20	C	1	20		N	2135	70		54	124	1.00	1986			1986	0.062	0.062		18	18	0.416	18	48

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_22_REF_SUN_NOON.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 REF Sunday Noon 12:30-13:30		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 19 (pcu/hr) q a-c = 273 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.804	Q b-a = 502 (pcu/hr) Q b-c = 689 (pcu/hr) Q c-b = 549 (pcu/hr) Q b-ac = 642 (pcu/hr) Q c-a = 1705 (pcu/hr) TOTAL FLOW = 493 (pcu/hr)	DFC b-a = 0.0219 DFC b-c = 0.0653 DFC c-b = 0.0528 DFC b-ac = 0.0872 (Share Lane) DFC c-a = 0.0680 CRITICAL DFC = 0.09
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 116 (pcu/hr) q c-b = 29 (pcu/hr)			
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 11 (pcu/hr) q b-c = 45 (pcu/hr)			

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

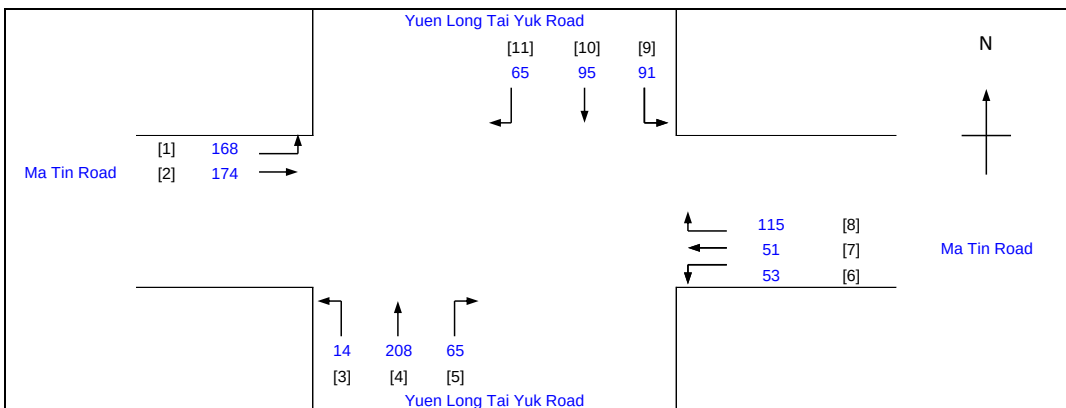
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 REF Sunday Noon 12:30-13:30

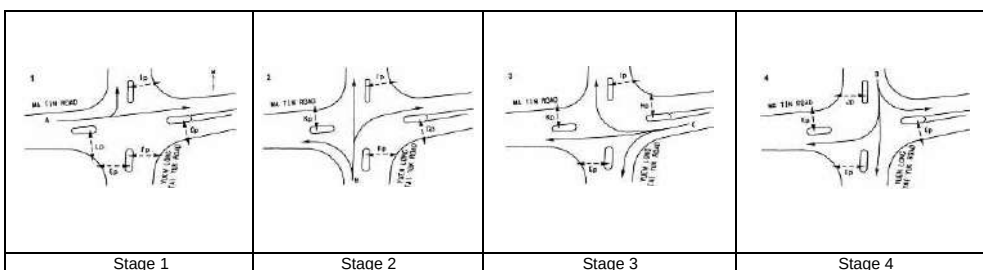
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N =	4
Intergreen Period	Stage 1 - 2	I = 5 sec
	Stage 2 - 3	I = 10 sec
	Stage 3 - 4	I = 11 sec
	Stage 4 - 1	I = 10 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.295
Loss time	L =	32 sec
Total Flow		= 1099 pcu
Co	= (1.5*L+5)/(1-Y)	= 75.2 sec
Cm	= L/(1-Y)	= 45.4 sec
Yult	= 0.9-0.0075L	= 0.660
R.C.ult	= (Yult-Y)/Y*100%	= 123.9 %
Cp	= 0.9*L/(0.9-Y)	= 47.6 sec
Ymax	= 1-L/C	= 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 123.9 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	168			168	1.00	1795			1795	0.094	0.094		28	28	0.401	21	40
2	1	3.60	A	1				2115		174		174	0.00	2115			2115	0.082			25	28	0.353	22	40
3,4	2	3.60	B	1	15		N	1975	14	126		140	0.10	1955			1955	0.072	0.072		21	21	0.410	19	45
4,5	2	3.60	B	1	20			2115		82	65	147	0.44	2047			2047	0.072			21	21	0.410	20	45
3,4	2	3.50	C	1	15		N	1965			115	115	1.00	1786			1786	0.064			19	19	0.407	16	47
4,5	2	3.50	C	1	20			2105	53	51		104	0.51	2028			2028	0.051	0.064		15	19	0.324	15	46
10,11	2	3.50	D	1	20			2105		67	65	132	0.49	2030			2030	0.065	0.065		19	19	0.411	19	47
9,10	2	3.50	D	1	15		N	1965	91	28		119	0.77	1825			1825	0.065			19	19	0.411	17	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_22_REF_SUN_NOON.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 REF Sunday Noon 12:30-13:30		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 102 [5] 54

(ARM A)
Shap Pat Heung Road

[1] 119 [2] 156

(ARM C)
Shap Pat Heung Road

218 [4] 111 [3]

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 119 (pcu/hr) q a-c = 156 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 111 (pcu/hr) q c-b = 218 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 102 (pcu/hr) q b-c = 54 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.346	THE CAPACITY OF MOVEMENT : Q b-a = 549 (pcu/hr) Q b-c = 756 (pcu/hr) Q c-b = 687 (pcu/hr) Q b-ac = 606 (pcu/hr) TOTAL FLOW = 760 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.1858 DFC b-c = 0.0714 DFC c-b = 0.3173 DFC b-ac = 0.2572 (Share Lane) CRITICAL DFC = 0.32
--	---	--	---

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 REF Sunday PM 17:30-18:30		Reviewed By:	AW	8/8/2026

(ARM A)
Town Park Road South

[2] 353 [1] 25

Town Park Road South

[3] 150 [4] 23

(ARM C)

Town Park Road North

(ARM B)

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 25 (pcu/hr) q a-c = 353 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 516 (pcu/hr) Q b-c = 750 (pcu/hr) Q c-b = 571 (pcu/hr) Q b-ac = 713 (pcu/hr) Q c-a = 1727 (pcu/hr) TOTAL FLOW = 655 (pcu/hr)	DFC b-a = 0.0233 DFC b-c = 0.1227 DFC c-b = 0.0403 DFC b-ac = 0.1459 (Share Lane) DFC c-a = 0.0868
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 150 (pcu/hr) q c-b = 23 (pcu/hr)	F for (Qb-ac) = 0.885		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 12 (pcu/hr) q b-c = 92 (pcu/hr)			CRITICAL DFC = 0.15

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

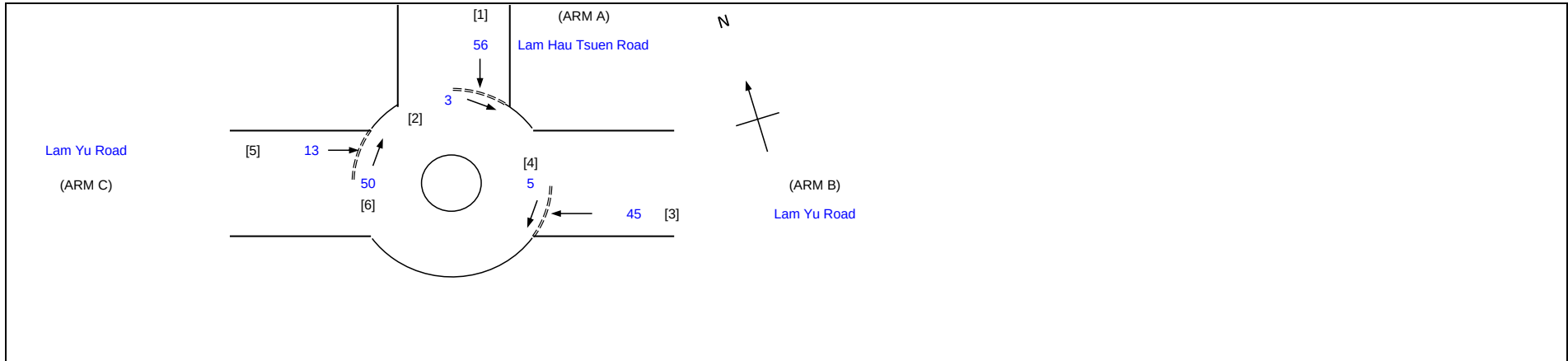
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 REF Sunday PM 17:30-18:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:
ARM
A
B
C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	56	45	13
Qc	=	Circulating flow across entry (pcu/h)	3	5	50

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1455	1360	1887
DFC	=	Design flow/Capacity = Q/Qe	0.04	0.03	0.01

TOTAL FLOW = 172 (pcu/hr)
CRITICAL DFC = 0.04

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

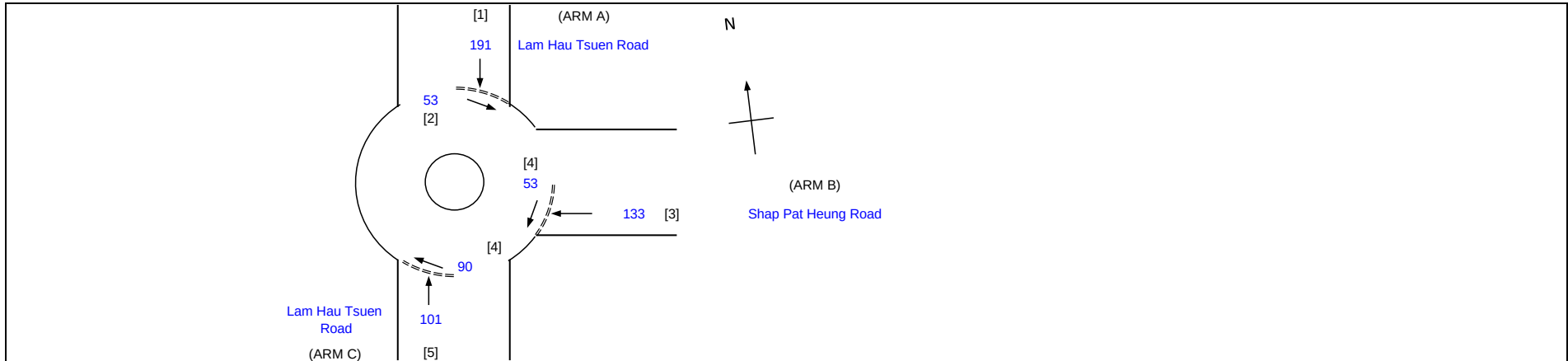
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 REF Sunday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	191	133	101
Qc	=	Circulating flow across entry (pcu/h)	53	53	90

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2043	1980	1783
DFC	=	Design flow/Capacity = Q/Qe	0.09	0.07	0.06

TOTAL FLOW = 621 (pcu/hr)
CRITICAL DFC = 0.09

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

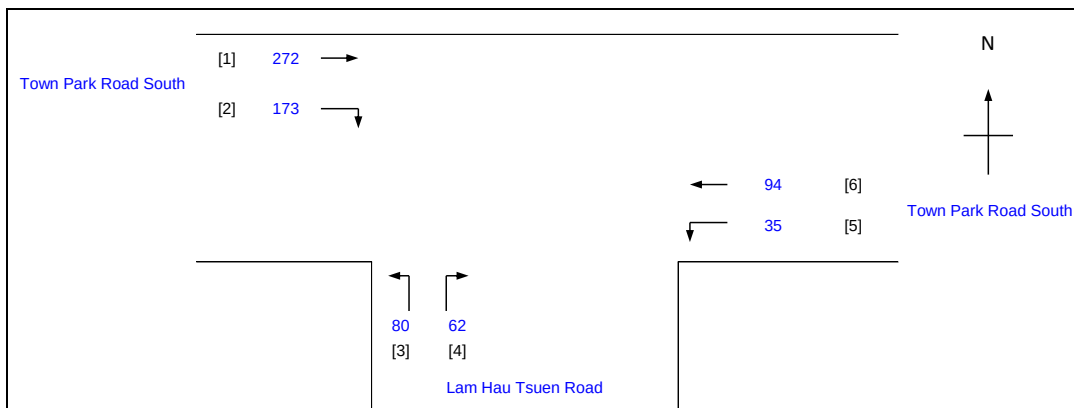
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 REF Sunday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.351

Loss time

L = 32 sec

Total Flow

= 716 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 81.7 sec

 $Cm = L / (1 - Y)$

= 49.3 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 87.9 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

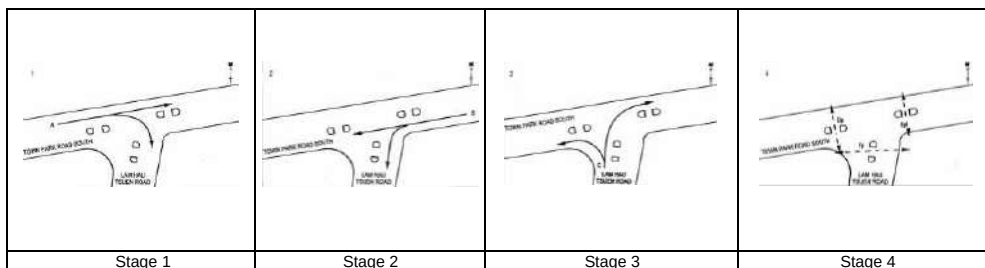
= 52.5 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 87.9 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		272	173	445	0.39	2055			2055	0.217	0.217		54	54	0.481	41	24
5,6	2	4.80	B	1	15		N	2095	35	94		129	0.27	2040			2040	0.063	0.063		16	16	0.474	19	50
5,6	2	5.20	C	1	20		N	2135	80		62	142	1.00	1986			1986	0.071	0.071		18	18	0.477	20	49

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction_23_REF_SUN_PM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 REF Sunday PM 17:30-18:30		Reviewed By:	AW 8/8/2026

(ARM B)
Town Park Road North

[6] 12 [5] 51

Town Park Road South (ARM A)

[1] 22 [2] 311

Ma Tin Road (ARM C)

33 [4] 132 [3]

N

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 22 (pcu/hr) q a-c = 311 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662	Q b-a = 489 (pcu/hr) Q b-c = 679 (pcu/hr) Q c-b = 541 (pcu/hr) Q b-ac = 632 (pcu/hr) Q c-a = 1690 (pcu/hr) TOTAL FLOW = 561 (pcu/hr)	DFC b-a = 0.0245 DFC b-c = 0.0751 DFC c-b = 0.0610 DFC b-ac = 0.0997 (Share Lane) DFC c-a = 0.0781
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 132 (pcu/hr) q c-b = 33 (pcu/hr)	F for (Qb-ac) = 0.81		
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 12 (pcu/hr) q b-c = 51 (pcu/hr)			CRITICAL DFC = 0.10

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By: JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By: SY

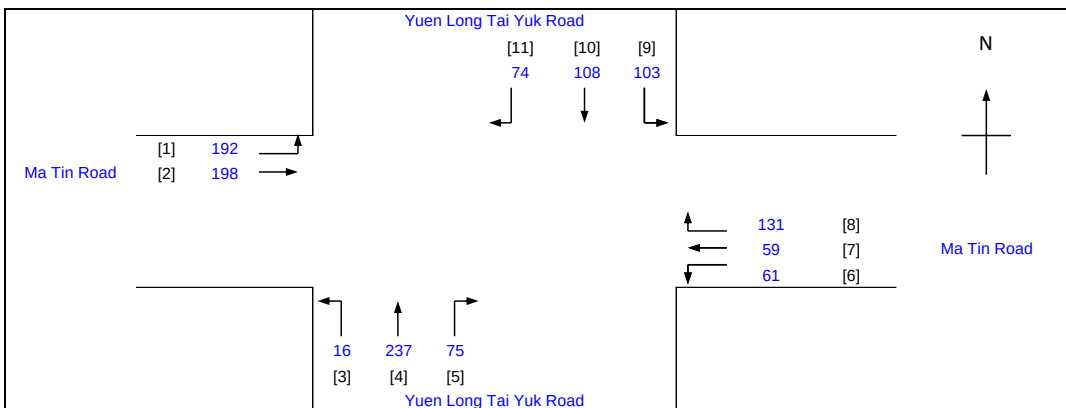
8/8/2026

JnF - Ma Tin Road / Yuen Long Tai Yuk Road

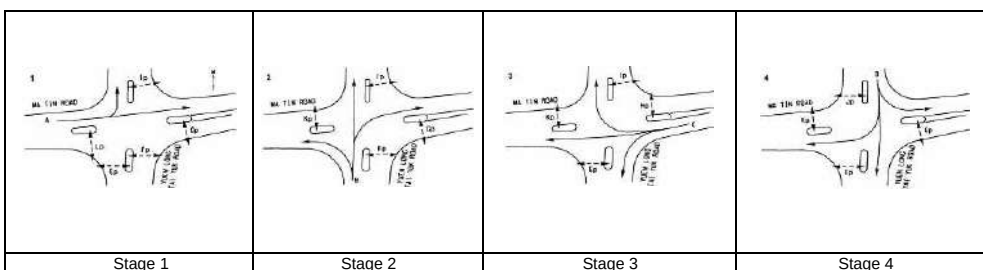
2029 REF Sunday PM 17:30-18:30

Reviewed By: AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.336
Loss time	L = 32 sec
Total Flow	= 1254 pcu
Co	= (1.5*L+5)/(1-Y) = 79.8 sec
Cm	= L/(1-Y) = 48.2 sec
Yult	= 0.9-0.0075L = 0.660
R.C.ult	= (Yult-Y)/Y*100% = 96.3 %
Cp	= 0.9*L/(0.9-Y) = 51.1 sec
Ymax	= 1-L/C = 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100% = 96.3 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	192			192	1.00	1795			1795	0.107	0.107		28	28	0.458	25	41
2	1	3.60	A	1				2115		198		198	0.00	2115			2115	0.094			25	28	0.401	25	40
3,4	2	3.60	B	1	15		N	1975	16	144		160	0.10	1955			1955	0.082	0.082		21	21	0.468	22	46
4,5	2	3.60	B	1	20			2115		93	75	168	0.45	2046			2046	0.082			21	21	0.468	23	46
3,4	2	3.50	C	1	15		N	1965			131	131	1.00	1786			1786	0.073			19	19	0.463	18	48
4,5	2	3.50	C	1	20			2105	61	59		120	0.51	2028			2028	0.059	0.073		15	19	0.374	17	47
10,11	2	3.50	D	1	20			2105		76	74	150	0.49	2030			2030	0.074	0.074		19	19	0.467	21	48
9,10	2	3.50	D	1	15		N	1965	103	32		135	0.76	1826			1826	0.074			19	19	0.467	19	48

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_23_REF_SUN_PM.xls\F

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 REF Sunday PM 17:30-18:30		Reviewed By:	AW 8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 117 [5] 62

(ARM A)
Shap Pat Heung Road

[1] 136 [2] 177

(ARM C)
Shap Pat Heung Road

[4] 249 [3] 126

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 136 (pcu/hr) q a-c = 177 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 126 (pcu/hr) q c-b = 249 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 117 (pcu/hr) q b-c = 62 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.346	THE CAPACITY OF MOVEMENT : Q b-a = 528 (pcu/hr) Q b-c = 749 (pcu/hr) Q c-b = 677 (pcu/hr) Q b-ac = 588 (pcu/hr) TOTAL FLOW = 867 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.2216 DFC b-c = 0.0828 DFC c-b = 0.3678 DFC b-ac = 0.3044 (Share Lane) CRITICAL DFC = 0.37
--	---	---	--

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 REF Sunday Late 21:00-22:00		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 21 (pcu/hr) q a-c = 303 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 533 (pcu/hr) Q b-c = 765 (pcu/hr) Q c-b = 583 (pcu/hr) Q b-ac = 729 (pcu/hr) Q c-a = 1738 (pcu/hr) TOTAL FLOW = 562 (pcu/hr)	DFC b-a = 0.0188 DFC b-c = 0.1033 DFC c-b = 0.0343 DFC b-ac = 0.1220 (Share Lane) DFC c-a = 0.0742
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 129 (pcu/hr) q c-b = 20 (pcu/hr)	F for (Qb-ac) = 0.888		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 10 (pcu/hr) q b-c = 79 (pcu/hr)			CRITICAL DFC = 0.12

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

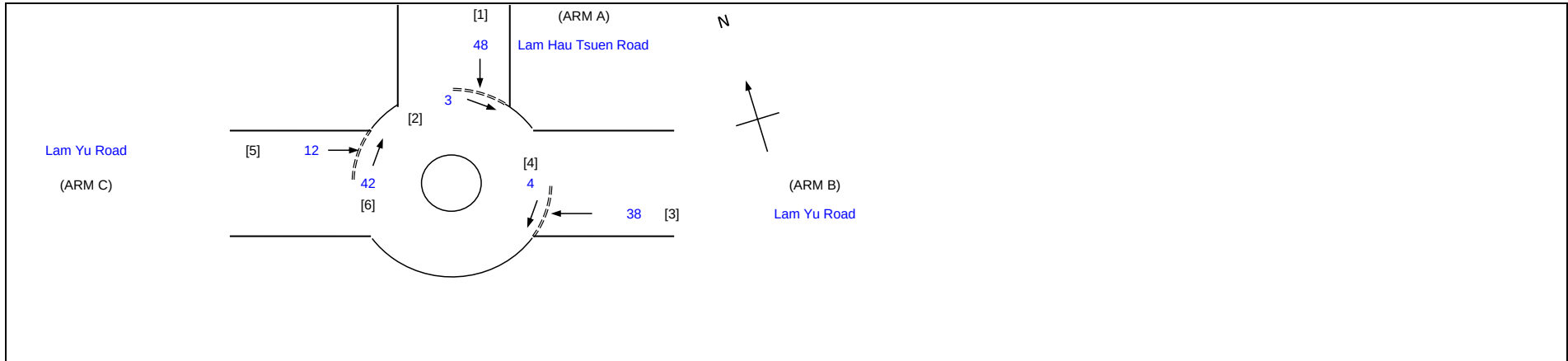
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 REF Sunday Late 21:00-22:00

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

	ARM	A	B	C
V =	Approach half width (m)	3.6	2.2	5.1
E =	Entry width (m)	5.0	5.0	6.5
L =	Effective length of flare (m)	5.3	14.8	14.3
R =	Entry radius (m)	30.0	77.0	15.0
D =	Inscribed circle diameter (m)	35.0	35.0	35.0
A =	Entry angle (degree)	5.0	0.0	17.0
Q =	Entry flow (pcu/h)	48	38	12
Qc =	Circulating flow across entry (pcu/h)	3	4	42

OUTPUT PARAMETERS:

S =	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K =	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2 =	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M =	$EXP((D-60)/10)$	0.08	0.08	0.08
F =	$303 \times X2$	1321	1195	1868
Td =	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc =	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe =	$K(F-Fc \times Qc)$	1455	1360	1893
DFC =	Design flow/Capacity = Q/Qe	0.03	0.03	0.01

TOTAL FLOW = **147 (pcu/hr)**
CRITICAL DFC = **0.03**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

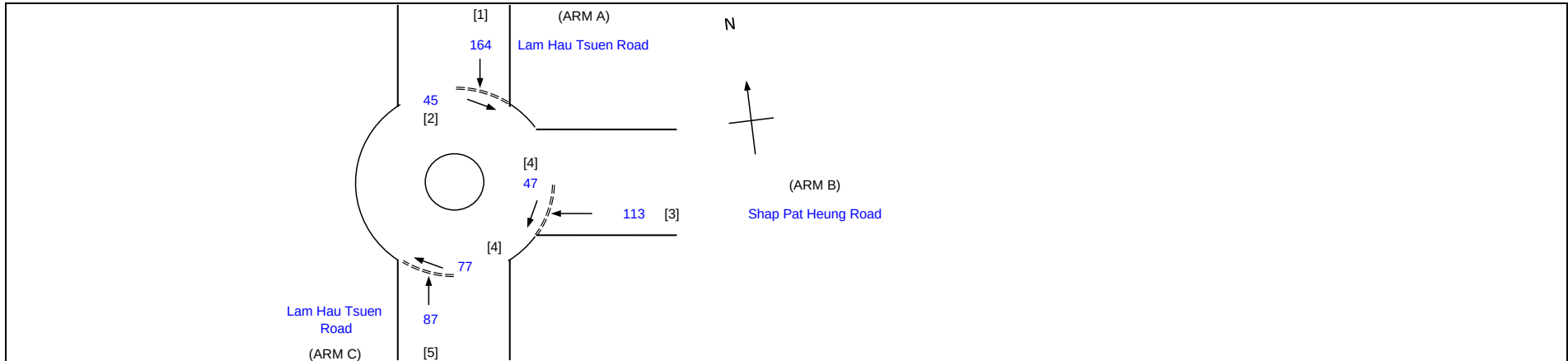
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 REF Sunday Late 21:00-22:00

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

GEOMETRIC DETAILS:			ARM	A	B	C
V	=	Approach half width (m)		5.3	4.5	3.6
E	=	Entry width (m)		7.0	7.0	7.0
L	=	Effective length of flare (m)		14.2	15.0	14.0
R	=	Entry radius (m)		48.0	56.0	33.0
D	=	Inscribed circle diameter (m)		35.0	35.0	35.0
A	=	Entry angle (degree)		23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	164	113	87	
Qc	=	Circulating flow across entry (pcu/h)		45	47	77

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2049	1984	1793
DFC	=	Design flow/Capacity = Q/Qe	0.08	0.06	0.05

TOTAL FLOW = 533 (pcu/hr)
CRITICAL DFC = 0.08

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

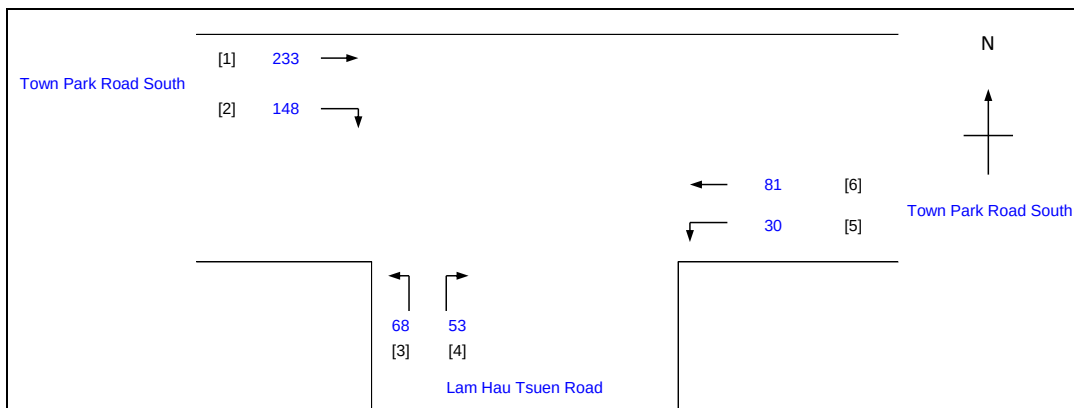
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 REF Sunday Late 21:00-22:00

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

I = 5 sec

Stage 1 - 2

I = 8 sec

Stage 2 - 3

I = 11 sec

Stage 3 - 4

I = 2 sec

Stage 4 - 1

C = 120 sec

Cycle time

Y = 0.301

Sum(y)

Loss time

L = 32 sec

Total Flow

= 613 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 75.8 sec

 $Cm = L / (1 - Y)$

= 45.8 sec

 $Yult = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Yult - Y) / Y \cdot 100\%$

= 119.5 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

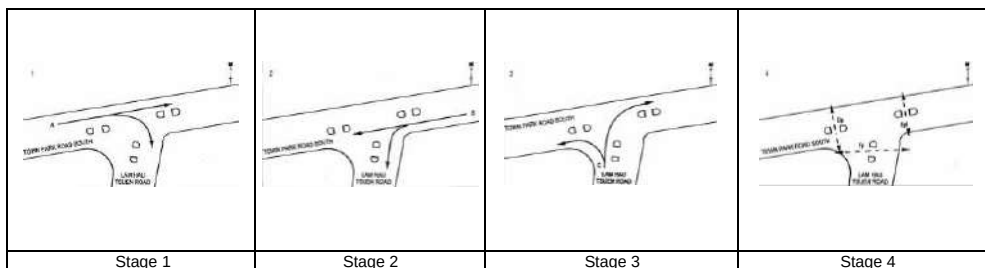
= 48.1 sec

 $Ymax = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Ymax - Y) / Y \cdot 100\%$

= 119.5 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Required (s) FG	Green Time Provided (s) SG	Green Time Provided (s) FG	Check
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		233	148	381	0.39	2055			2055	0.185	0.185		54	54	0.412	35	23
5,6	2	4.80	B	1	15		N	2095	30	81		111	0.27	2040			2040	0.054	0.054		16	16	0.408	16	49
5,6	2	5.20	C	1	20		N	2135	68		53	121	1.00	1986			1986	0.061	0.061		18	18	0.406	17	48

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction_24_REF_SUN_LATE.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 REF Sunday Late 21:00-22:00		Reviewed By:	AW 8/8/2026

(ARM B)
Town Park Road North

[6] 10 [5] 44

Town Park Road South (ARM A)

[1] 19 [2] 267

Ma Tin Road (ARM C)

29 [4] 113 [3]

N

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 19 (pcu/hr) q a-c = 267 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 113 (pcu/hr) q c-b = 29 (pcu/hr) MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 10 (pcu/hr) q b-c = 44 (pcu/hr)	GEOMETRIC FACTORS : D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.815	THE CAPACITY OF MOVEMENT : Q b-a = 504 (pcu/hr) Q b-c = 690 (pcu/hr) Q c-b = 550 (pcu/hr) Q b-ac = 646 (pcu/hr) Q c-a = 1705 (pcu/hr) TOTAL FLOW = 482 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0198 DFC b-c = 0.0638 DFC c-b = 0.0527 DFC b-ac = 0.0836 (Share Lane) DFC c-a = 0.0663 CRITICAL DFC = 0.08
--	---	--	--

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

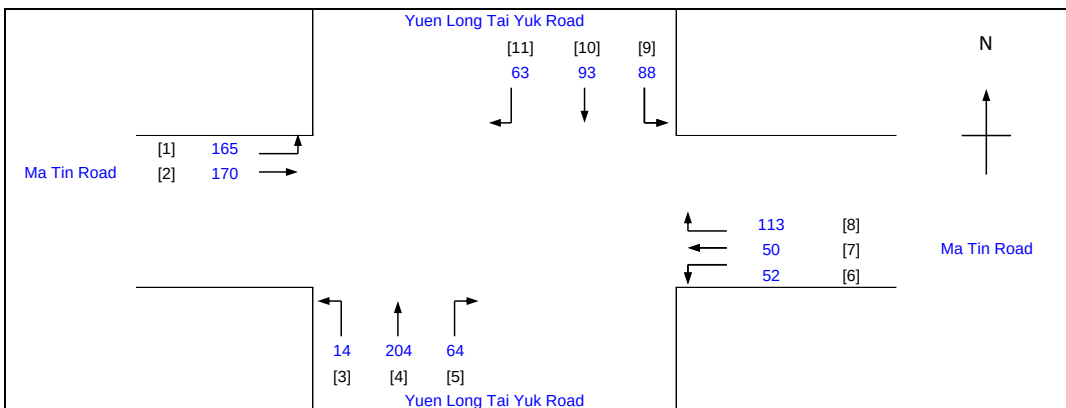
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 REF Sunday Late 21:00-22:00

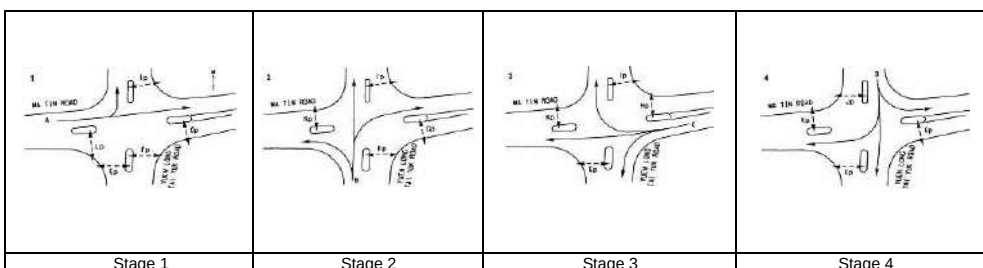
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N =	4
Intergreen Period	Stage 1 - 2	I = 5 sec
	Stage 2 - 3	I = 10 sec
	Stage 3 - 4	I = 11 sec
	Stage 4 - 1	I = 10 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.289
Loss time	L =	32 sec
Total Flow		= 1076 pcu
Co	= (1.5*L+5)/(1-Y)	= 74.5 sec
Cm	= L/(1-Y)	= 45.0 sec
Yult	= 0.9-0.0075L	= 0.660
R.C.ult	= (Yult-Y)/Y*100%	= 128.5 %
Cp	= 0.9*L/(0.9-Y)	= 47.1 sec
Ymax	= 1-L/C	= 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 128.5 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	165			165	1.00	1795			1795	0.092	0.092		28	28	0.394	21	40
2	1	3.60	A	1				2115		170		170	0.00	2115			2115	0.080			24	28	0.344	22	39
3,4	2	3.60	B	1	15		N	1975	14	124		138	0.10	1955			1955	0.070	0.070		21	21	0.403	19	45
4,5	2	3.60	B	1	20			2115		80	64	144	0.44	2047			2047	0.070			21	21	0.403	20	45
3,4	2	3.50	C	1	15		N	1965			113	113	1.00	1786			1786	0.063			19	19	0.400	16	47
4,5	2	3.50	C	1	20			2105	52	50		102	0.51	2027			2027	0.050	0.063		15	19	0.318	14	46
10,11	2	3.50	D	1	20			2105		65	63	128	0.49	2030			2030	0.063	0.063		19	19	0.400	18	47
9,10	2	3.50	D	1	15		N	1965	88	28		116	0.76	1826			1826	0.063			19	19	0.400	16	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_24_REF_SUN_LATE.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED			PRIORITY JUNCTION CALCULATION			INITIALS	DATE	
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,				Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories						Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road				2029 REF Sunday Late 21:00-22:00		Reviewed By:	AW	8/8/2026

Diagram details: Shap Pat Heung Road (ARM A) has flows [1] 117 and [2] 152. Yuen Long Tai Yuk Road (ARM B) has flows [6] 100 and [5] 53. Shap Pat Heung Road (ARM C) has flows [4] 214 and [3] 108. A north arrow points towards the top right.

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:		GEOMETRIC FACTORS :		THE CAPACITY OF MOVEMENT :		COMPARISON OF DESIGN FLOW TO CAPACITY:	
MAJOR ROAD (ARM A)							
W	= 8.6 (metres)	D	= 1.025	Q b-a	= 553 (pcu/hr)	DFC b-a	= 0.1808
W cr	= 4.2 (metres)	E	= 1.091	Q b-c	= 758 (pcu/hr)	DFC b-c	= 0.0699
q a-b	= 117 (pcu/hr)	F	= 1.019	Q c-b	= 689 (pcu/hr)	DFC c-b	= 0.3106
q a-c	= 152 (pcu/hr)	Y	= 0.703	Q b-ac	= 610 (pcu/hr)	DFC b-ac	= 0.2508
						(Share Lane)	
MAJOR ROAD (ARM C)		F for (Qb-ac) = 0.346		TOTAL FLOW = 744 (pcu/hr)			
W c-b	= 4.2 (metres)						
Vr c-b	= 85 (metres)						
q c-a	= 108 (pcu/hr)						
q c-b	= 214 (pcu/hr)						
MINOR ROAD (ARM B)							
W b-a	= 5.0 (metres)						
W b-c	= 5.0 (metres)						
VI b-a	= 70 (metres)						
Vr b-a	= 70 (metres)						
Vr b-c	= 85 (metres)						
q b-a	= 100 (pcu/hr)						
q b-c	= 53 (pcu/hr)						
						CRITICAL DFC	= 0.31

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 DES Weekday Half Cap AM 11:30-12:30		Reviewed By:	AW 8/8/2026

(ARM A)
Town Park Road South

(ARM B)
Town Park Road North

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 47 (pcu/hr) q a-c = 400 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 470 (pcu/hr) Q b-c = 734 (pcu/hr) Q c-b = 556 (pcu/hr) Q b-ac = 623 (pcu/hr) Q c-a = 1467 (pcu/hr) TOTAL FLOW = 846 (pcu/hr)	DFC b-a = 0.0787 DFC b-c = 0.1090 DFC c-b = 0.1853 DFC b-ac = 0.1877 (Share Lane) DFC c-a = 0.1221
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 179 (pcu/hr) q c-b = 103 (pcu/hr)	F for (Qb-ac) = 0.684		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 37 (pcu/hr) q b-c = 80 (pcu/hr)			CRITICAL DFC = 0.19

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

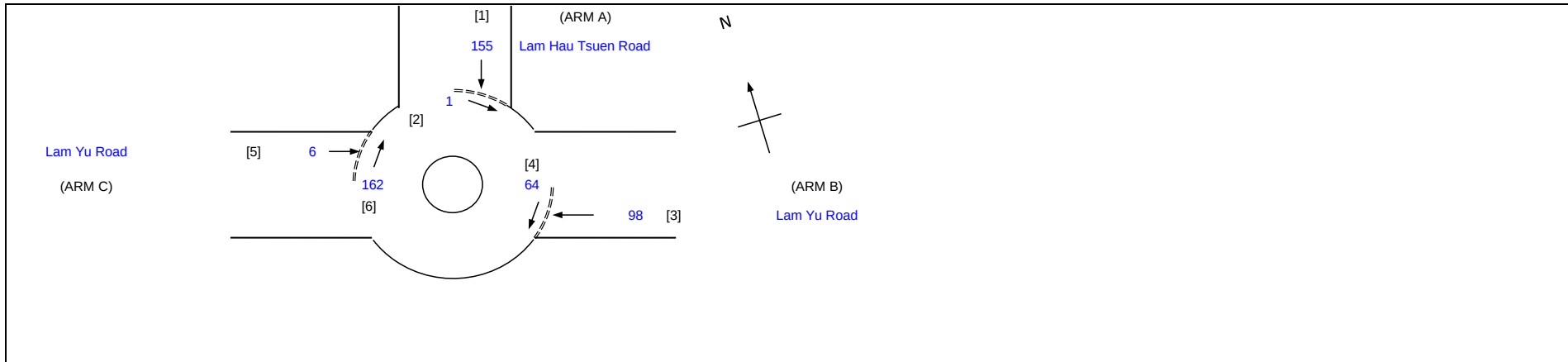
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 DES Weekday Half Cap AM 11:30-12:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	155	98	6
Qc	=	Circulating flow across entry (pcu/h)	1	64	162

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1456	1323	1808
DFC	=	Design flow/Capacity = Q/Qe	0.11	0.07	0.00

 TOTAL FLOW = 486 (pcu/hr)
 CRITICAL DFC = 0.11

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

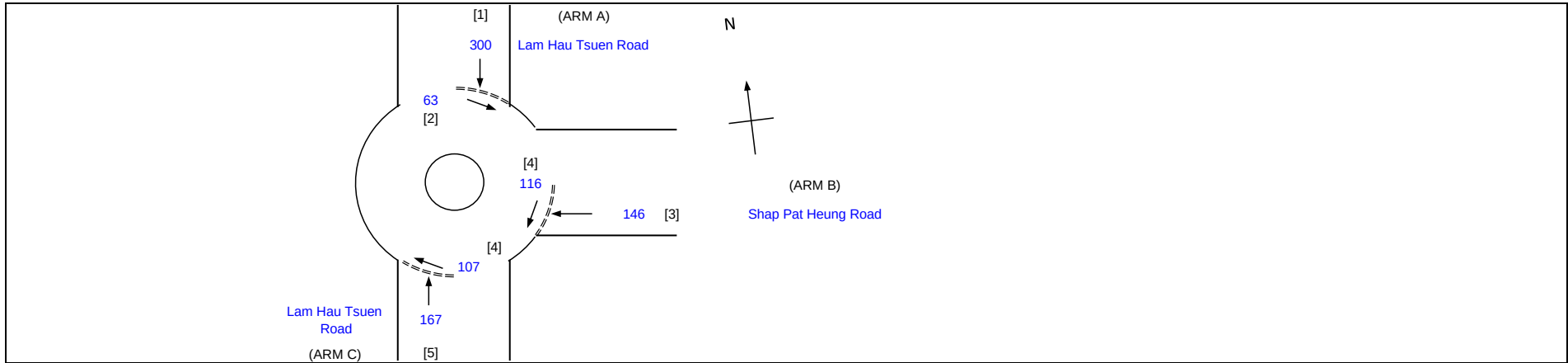
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 DES Weekday Half Cap AM 11:30-12:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	300	146	167
Qc	=	Circulating flow across entry (pcu/h)	63	116	107

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2036	1933	1771
DFC	=	Design flow/Capacity = Q/Qe	0.15	0.08	0.09

TOTAL FLOW = 899 (pcu/hr)
CRITICAL DFC = 0.15

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

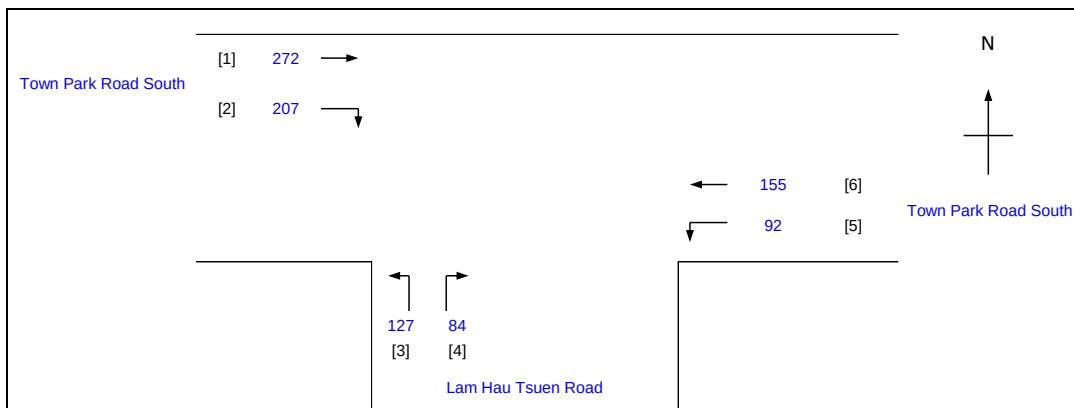
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 DES Weekday Half Cap AM 11:30-12:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.462

Loss time

L = 32 sec

Total Flow

= 937 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 98.6 sec

 $Cm = L / (1 - Y)$

= 59.5 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 42.7 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

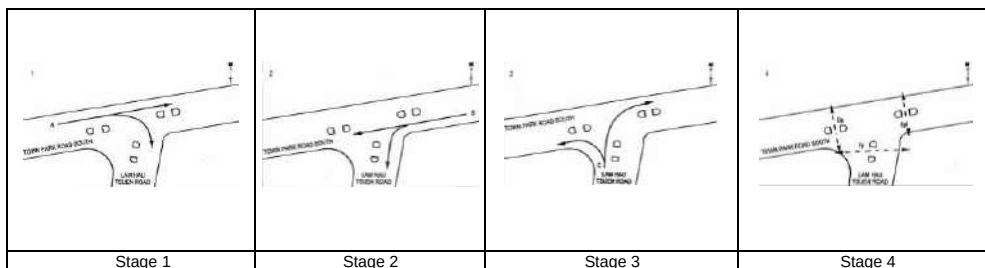
= 65.8 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 42.7 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		272	207	479	0.43	2049			2049	0.234	0.234		45	45	0.624	50	32
5,6	2	4.80	B	1	15		N	2095	92	155		247	0.37	2020			2020	0.122	0.122		23	23	0.638	33	48
5,6	2	5.20	C	1	20		N	2135	127		84	211	1.00	1986			1986	0.106	0.106		20	20	0.637	29	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_25_DES_WEEKDAY_HALF_AM.xls]D

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 DES Weekday Half Cap AM 11:30-12:30		Reviewed By:	AW	8/8/2026

(ARM B)
Town Park Road North

[6] 59 [5] 91

Town Park Road South (ARM A)

[1] 70 [2] 286

Ma Tin Road (ARM C)

47 [4] 188 [3]

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 70 (pcu/hr) q a-c = 286 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 188 (pcu/hr) q c-b = 47 (pcu/hr) MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 59 (pcu/hr) q b-c = 91 (pcu/hr)	GEOMETRIC FACTORS : D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.607	THE CAPACITY OF MOVEMENT : Q b-a = 478 (pcu/hr) Q b-c = 681 (pcu/hr) Q c-b = 536 (pcu/hr) Q b-ac = 584 (pcu/hr) Q c-a = 1642 (pcu/hr) TOTAL FLOW = 741 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.1234 DFC b-c = 0.1336 DFC c-b = 0.0877 DFC b-ac = 0.2571 (Share Lane) DFC c-a = 0.1145 CRITICAL DFC = 0.26
---	---	--	---

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

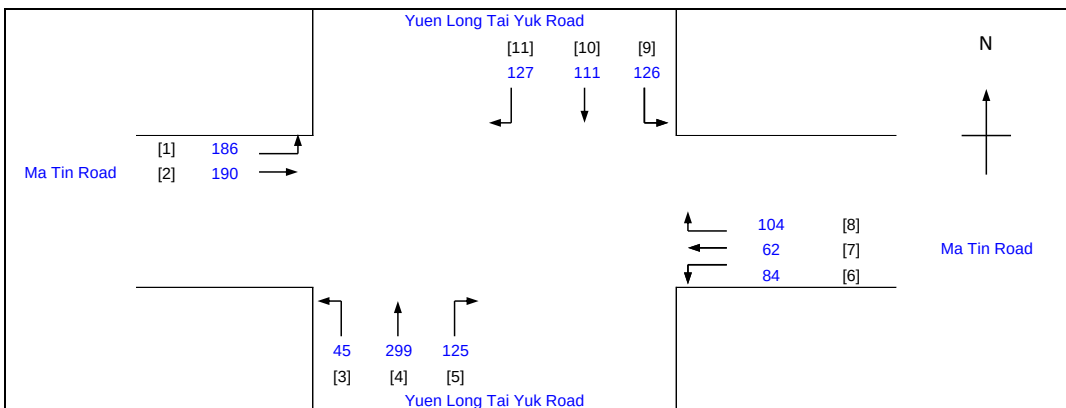
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 DES Weekday Half Cap AM 11:30-12:30

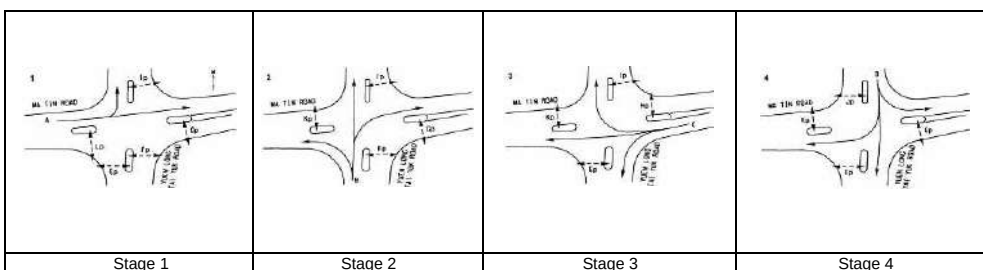
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.389
Loss time	L = 32 sec
Total Flow	= 1459 pcu
Co	= (1.5*L+5)/(1-Y) = 86.7 sec
Cm	= L/(1-Y) = 52.4 sec
Yult	= 0.9-0.0075L = 0.660
R.C.ult	= (Yult-Y)/Y*100% = 69.7 %
Cp	= 0.9*L/(0.9-Y) = 56.3 sec
Ymax	= 1-L/C = 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100% = 69.7 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	186			186	1.00	1795			1795	0.104	0.104		23	23	0.540	25	46
2	1	3.60	A	1				2115		190		190	0.00	2115			2115	0.090			20	23	0.469	26	45
3,4	2	3.60	B	1	15		N	1975	45	184		229	0.20	1937			1937	0.118	0.118		27	27	0.525	30	43
4,5	2	3.60	B	1	20			2115		115	125	240	0.52	2036			2036	0.118			27	27	0.525	31	43
3,4	2	3.50	C	1	15		N	1965			104	104	1.00	1786			1786	0.058			13	16	0.437	15	50
4,5	2	3.50	C	1	20			2105	84	62		146	0.58	2018			2018	0.072	0.072		16	16	0.543	21	51
10,11	2	3.50	D	1	20			2105		63	127	190	0.67	2005			2005	0.095	0.095		21	21	0.542	26	47
9,10	2	3.50	D	1	15		N	1965	126	48		174	0.72	1832			1832	0.095			21	21	0.542	24	48

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_25_DES_WEEKDAY_HALF_AM.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 DES Weekday Half Cap AM 11:30-12:30		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 68 [5] 127

(ARM A)
Shap Pat Heung Road

[1] 157 [2] 157

(ARM C)
Shap Pat Heung Road

312 [4] 94 [3]

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 157 (pcu/hr) q a-c = 157 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 94 (pcu/hr) q c-b = 312 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 68 (pcu/hr) q b-c = 127 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.651	THE CAPACITY OF MOVEMENT : Q b-a = 513 (pcu/hr) Q b-c = 752 (pcu/hr) Q c-b = 677 (pcu/hr) Q b-ac = 647 (pcu/hr) TOTAL FLOW = 915 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.1326 DFC b-c = 0.1689 DFC c-b = 0.4609 DFC b-ac = 0.3014 (Share Lane) CRITICAL DFC = 0.46
---	---	--	---

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 DES Weekday Half Cap PM 19:30-20:30		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 51 (pcu/hr) q a-c = 401 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 484 (pcu/hr) Q b-c = 733 (pcu/hr) Q c-b = 555 (pcu/hr) Q b-ac = 626 (pcu/hr) Q c-a = 1612 (pcu/hr) TOTAL FLOW = 789 (pcu/hr)	DFC b-a = 0.0640 DFC b-c = 0.0846 DFC c-b = 0.1045 DFC b-ac = 0.1486 (Share Lane) DFC c-a = 0.1154
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 186 (pcu/hr) q c-b = 58 (pcu/hr)	F for (Qb-ac) = 0.667		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 31 (pcu/hr) q b-c = 62 (pcu/hr)			CRITICAL DFC = 0.15

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

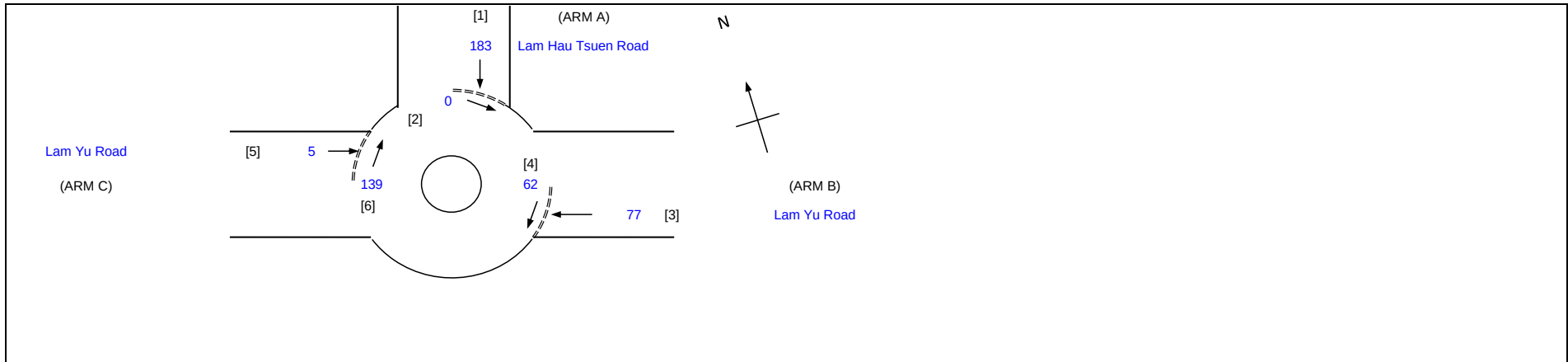
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 DES Weekday Half Cap PM 19:30-20:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:
ARM
A
B
C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	183	77	5
Qc	=	Circulating flow across entry (pcu/h)	0	62	139

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1457	1324	1824
DFC	=	Design flow/Capacity = Q/Qe	0.13	0.06	0.00

TOTAL FLOW = 466 (pcu/hr)
CRITICAL DFC = 0.13

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

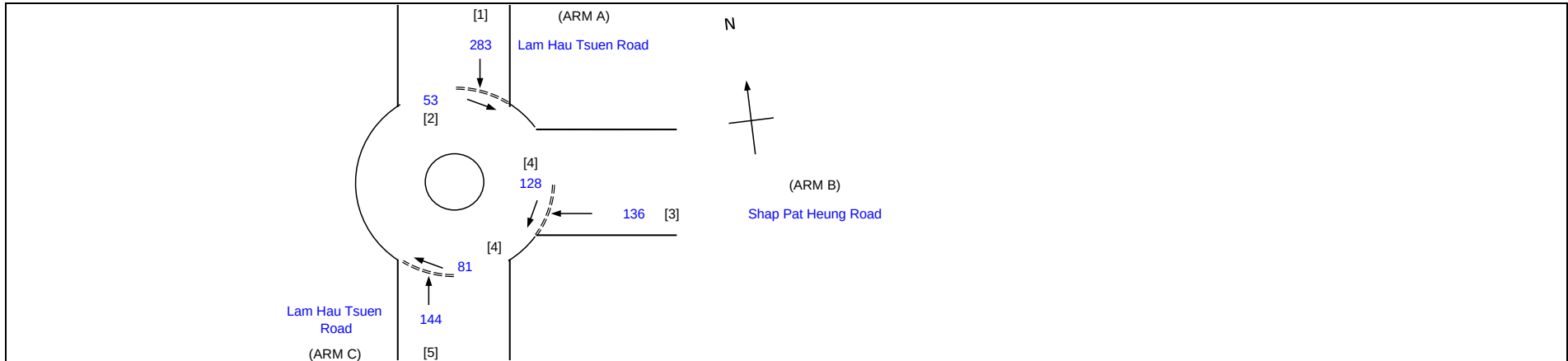
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 DES Weekday Half Cap PM 19:30-20:30

Reviewed By:

AW

8/8/2026



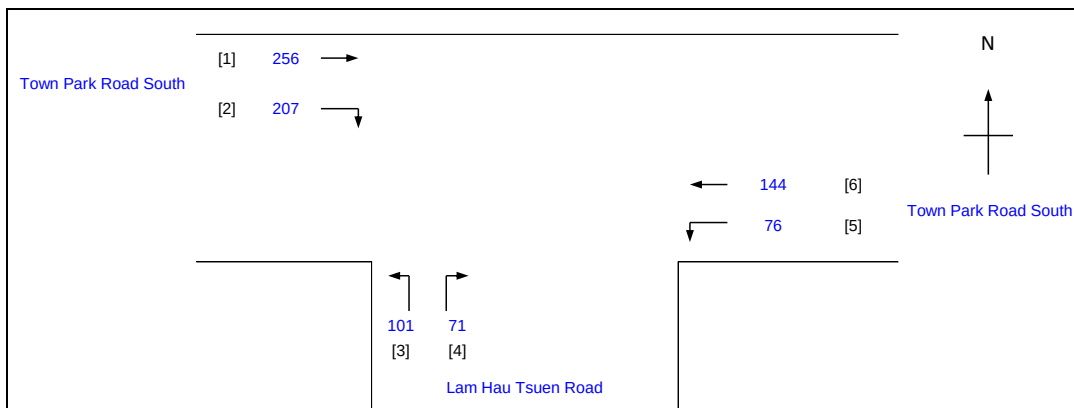
GEOMETRIC DETAILS:

GEOMETRIC DETAILS:			ARM	A	B	C
V	=	Approach half width (m)		5.3	4.5	3.6
E	=	Entry width (m)		7.0	7.0	7.0
L	=	Effective length of flare (m)		14.2	15.0	14.0
R	=	Entry radius (m)		48.0	56.0	33.0
D	=	Inscribed circle diameter (m)		35.0	35.0	35.0
A	=	Entry angle (degree)		23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	283	136		144
Qc	=	Circulating flow across entry (pcu/h)	53	128		81

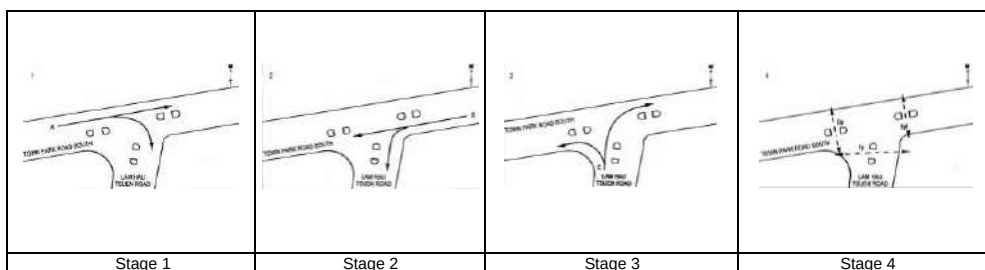
OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2043	1924	1790
DFC	=	Design flow/Capacity = Q/Qe	0.14	0.07	0.08

TOTAL FLOW = 825 (pcu/hr)
CRITICAL DFC = 0.14



No. of critical vehicular phase per cycle:	N =	3
Intergreen Period	I =	5 sec
Stage 1 - 2	I =	8 sec
Stage 2 - 3	I =	11 sec
Stage 3 - 4	I =	2 sec
Stage 4 - 1	C =	120 sec
Cycle time	Y =	0.421
Sum(y)	L =	32 sec
Loss time		855 pcu
Total Flow	Co = $(1.5 \cdot L + 5) / (1 - Y)$	= 91.6 sec
	Cm = $L / (1 - Y)$	= 55.3 sec
	Yult = $0.9 - 0.0075L$	= 0.660
	R.C.ult = $(Yult - Y) / Y \cdot 100\%$	= 56.6 %
	Cp = $0.9 \cdot L / (0.9 - Y)$	= 60.2 sec
	Ymax = $1 - L/C$	= 0.733
	R.C.(C) = $(0.9 \cdot Ymax - Y) / Y \cdot 100\%$	= 56.6 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		256	207	463	0.45	2046			2046	0.226	0.226		47	47	0.578	47	30
5,6	2	4.80	B	1	15		N	2095	76	144		220	0.35	2025			2025	0.109	0.109		23	23	0.567	30	46
5,6	2	5.20	C	1	20		N	2135	101		71	172	1.00	1986			1986	0.087	0.087		18	18	0.577	24	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction 26 DES WEEKDAY HALF PM.xls|D

NOTE: O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 DES Weekday Half Cap PM 19:30-20:30		Reviewed By:	AW 8/8/2026

(ARM B)
Town Park Road North

[6] 66 [5] 43

Town Park Road South (ARM A)

[1] 45 [2] 281

Ma Tin Road (ARM C)

48 [4] 153 [3]

N

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 45 (pcu/hr) q a-c = 281 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 153 (pcu/hr) q c-b = 48 (pcu/hr) MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 66 (pcu/hr) q b-c = 43 (pcu/hr)	GEOMETRIC FACTORS : D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.394	THE CAPACITY OF MOVEMENT : Q b-a = 486 (pcu/hr) Q b-c = 684 (pcu/hr) Q c-b = 542 (pcu/hr) Q b-ac = 549 (pcu/hr) Q c-a = 1641 (pcu/hr) TOTAL FLOW = 636 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.1358 DFC b-c = 0.0629 DFC c-b = 0.0886 DFC b-ac = 0.1987 (Share Lane) DFC c-a = 0.0933 CRITICAL DFC = 0.20
---	---	--	---

JnF - Ma Tin Road / Yuen Long Tai Yuk Road

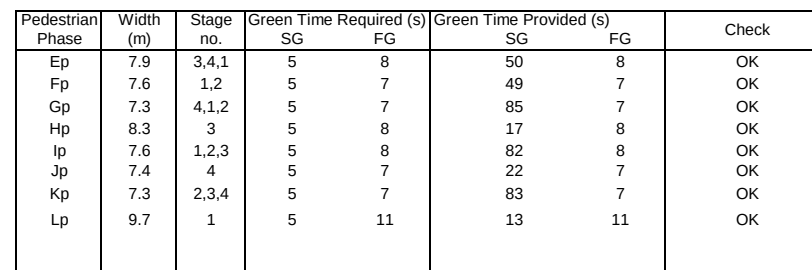
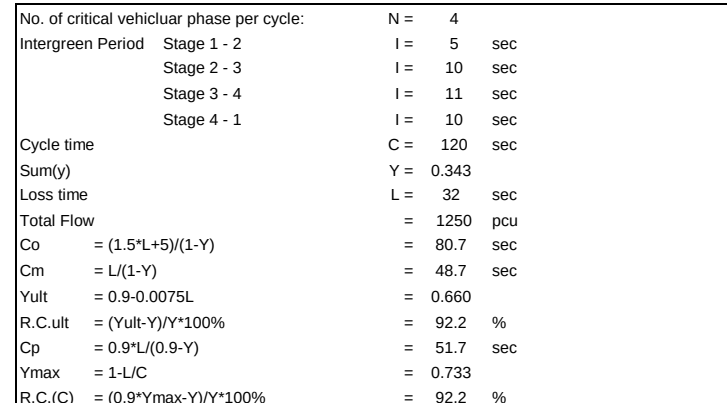
2029 DES Weekday Half Cap PM 19:30-20:30

DATE _____

8/8/2026

8/8/2026

8/8/2026



1	1	3.60	A	1	15	N	1975	159	165	159	1.00	1795	1795	0.089	0.089	23	23	0.462	21	45
2	1	3.60	A	1			2115			165	165	0.00		2115	2115		0.078		20	23
3,4 4,5	2	3.60	B	1	15	N	1975	36	129	165	0.22	1933	1933	0.085	0.085	22	22	0.464	22	45
	2	3.60	B	1	20				86	87	173	0.50		2038			2038	0.085		22
3,4 4,5	2	3.50	C	1	15	N	1965	97	62	79	79	1.00	1786	1786	0.044	11	20	0.265	11	45
	2	3.50	C	1	20							159	0.61	2013	2013		0.079	0.079	20	20
10,11 9,10	2	3.50	D	1	20	N	2105	112	80	103	183	0.56	2020	2020	0.091	23	23	0.473	25	45
	2	3.50	D	1	15		1965		55	167	0.67	1841	1841	0.091			23	23	0.473	22

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction 26 DES WEEKDAY HALF PM.xls|F

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 DES Weekday Half Cap PM 19:30-20:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 94 (pcu/hr) q a-c = 120 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 557 (pcu/hr) Q b-c = 769 (pcu/hr) Q c-b = 703 (pcu/hr) Q b-ac = 637 (pcu/hr)	DFC b-a = 0.2262 DFC b-c = 0.1378 DFC c-b = 0.3471 DFC b-ac = 0.3641 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 80 (pcu/hr) q c-b = 244 (pcu/hr)	F for (Qb-ac) = 0.457	TOTAL FLOW = 770 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 126 (pcu/hr) q b-c = 106 (pcu/hr)			CRITICAL DFC = 0.36

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 DES Weekday Full Cap AM 10:30-11:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 70 (pcu/hr) q a-c = 413 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 455 (pcu/hr) Q b-c = 727 (pcu/hr) Q c-b = 548 (pcu/hr) Q b-ac = 598 (pcu/hr) Q c-a = 1386 (pcu/hr) TOTAL FLOW = 958 (pcu/hr)	DFC b-a = 0.1297 DFC b-c = 0.1431 DFC c-b = 0.2299 DFC b-ac = 0.2727 (Share Lane) DFC c-a = 0.1342
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 186 (pcu/hr) q c-b = 126 (pcu/hr)	F for (Qb-ac) = 0.638		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 59 (pcu/hr) q b-c = 104 (pcu/hr)			CRITICAL DFC = 0.27

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

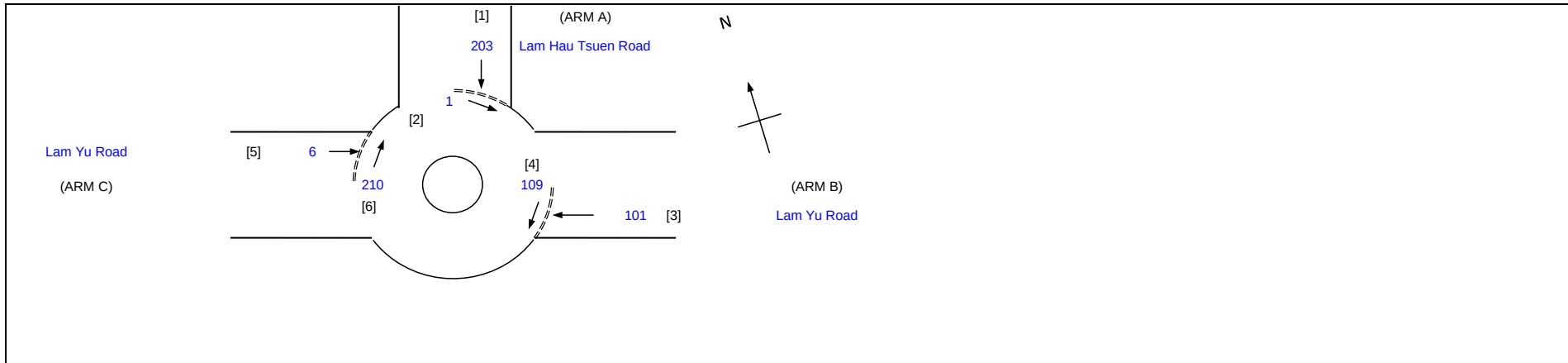
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 DES Weekday Full Cap AM 10:30-11:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	203	101	6
Qc	=	Circulating flow across entry (pcu/h)	1	109	210

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1456	1294	1774
DFC	=	Design flow/Capacity = Q/Qe	0.14	0.08	0.00

 TOTAL FLOW = 630 (pcu/hr)
 CRITICAL DFC = 0.14

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

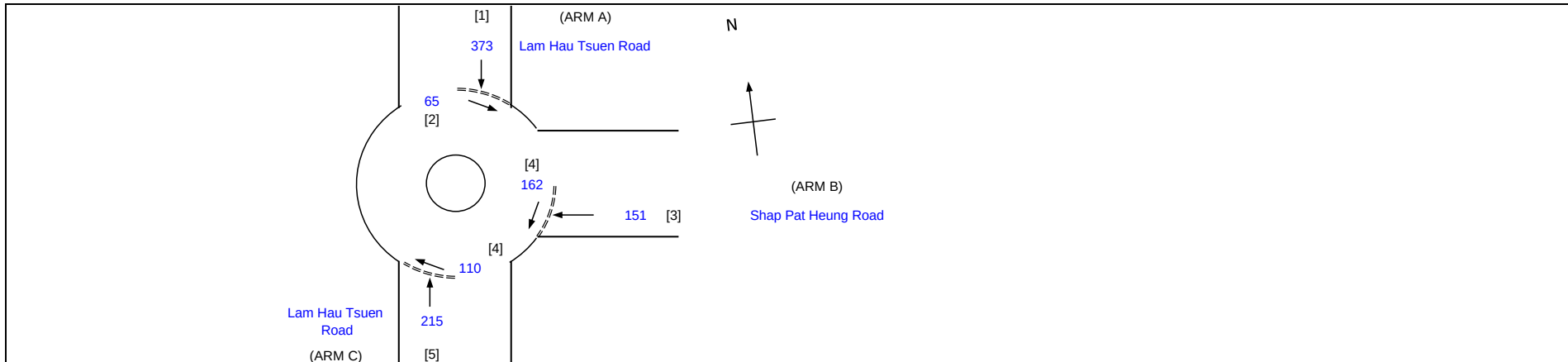
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 DES Weekday Full Cap AM 10:30-11:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

	ARM	A	B	C
V =	Approach half width (m)	5.3	4.5	3.6
E =	Entry width (m)	7.0	7.0	7.0
L =	Effective length of flare (m)	14.2	15.0	14.0
R =	Entry radius (m)	48.0	56.0	33.0
D =	Inscribed circle diameter (m)	35.0	35.0	35.0
A =	Entry angle (degree)	23.0	14.0	5.0
Q =	Entry flow (pcu/h)	373	151	215
Qc =	Circulating flow across entry (pcu/h)	65	162	110

OUTPUT PARAMETERS:

S =	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K =	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2 =	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M =	$EXP((D-60)/10)$	0.08	0.08	0.08
F =	$303 \times X2$	1978	1858	1670
Td =	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc =	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe =	$K(F-Fc \times Qc)$	2034	1899	1769
DFC =	Design flow/Capacity = Q/Qe	0.18	0.08	0.12

TOTAL FLOW = **1076 (pcu/hr)**
CRITICAL DFC = **0.18**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

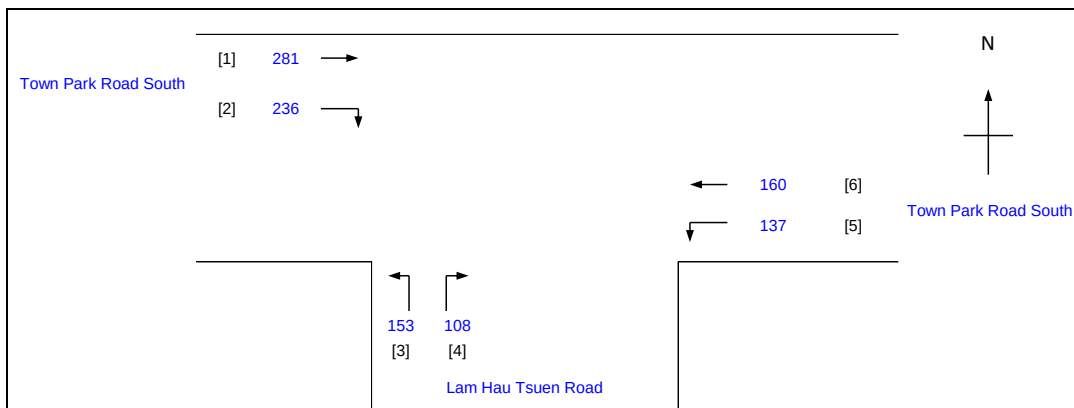
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 DES Weekday Full Cap AM 10:30-11:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.533

Loss time

L = 32 sec

Total Flow

= 1075 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 113.4 sec

 $Cm = L / (1 - Y)$

= 68.5 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 23.9 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

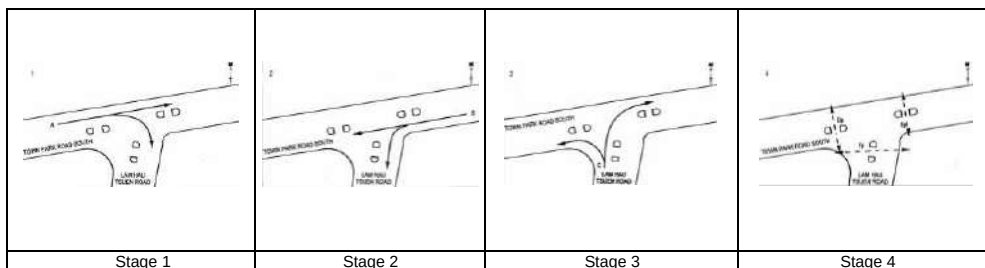
= 78.4 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 23.9 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		281	236	517	0.46	2045			2045	0.253	0.253		42	42	0.722	56	37
5,6	2	4.80	B	1	15		N	2095	137	160		297	0.46	2003			2003	0.148	0.148		25	25	0.712	40	49
5,6	2	5.20	C	1	20		N	2135	153		108	261	1.00	1986			1986	0.131	0.131		22	22	0.717	36	52

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_27_DES_WEEKDAY_FULL_AM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 DES Weekday Full Cap AM 10:30-11:30		Reviewed By:	AW 8/8/2026

(ARM B)
Town Park Road North

[6] 103 [5] 93

Town Park Road South (ARM A)

[1] 93 [2] 296

Ma Tin Road (ARM C)

70 [4] 194 [3]

N

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 93 (pcu/hr) q a-c = 296 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.474	Q b-a = 465 (pcu/hr) Q b-c = 676 (pcu/hr) Q c-b = 530 (pcu/hr) Q b-ac = 546 (pcu/hr) Q c-a = 1562 (pcu/hr) TOTAL FLOW = 849 (pcu/hr)	DFC b-a = 0.2215 DFC b-c = 0.1376 DFC c-b = 0.1321 DFC b-ac = 0.3591 (Share Lane) DFC c-a = 0.1242 CRITICAL DFC = 0.36
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 194 (pcu/hr) q c-b = 70 (pcu/hr)			
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 103 (pcu/hr) q b-c = 93 (pcu/hr)			

AXON CONSULTANCY LIMITED										TRAFFIC SIGNAL CALCULATION										INITIALS		DATE	
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,										Project No.: 31073				Prepared By:		JK		8/8/2026					
Shan Ha Road, Yuen Long, New Territories														Checked By:		SY		8/8/2026					
JnF - Ma Tin Road / Yuen Long Tai Yuk Road										2029 DES Weekday Full Cap AM 10:30-11:30				Reviewed By:		AW		8/8/2026					

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 DES Weekday Full Cap AM 10:30-11:30		Reviewed By:	AW 8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 70 [5] 131

(ARM A)
Shap Pat Heung Road

[1] 185 [2] 162

(ARM C)
Shap Pat Heung Road

323 [4] 97 [3]

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 185 (pcu/hr) q a-c = 162 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 97 (pcu/hr) q c-b = 323 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 70 (pcu/hr) q b-c = 131 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.652	THE CAPACITY OF MOVEMENT : Q b-a = 504 (pcu/hr) Q b-c = 747 (pcu/hr) Q c-b = 668 (pcu/hr) Q b-ac = 640 (pcu/hr) TOTAL FLOW = 968 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.1389 DFC b-c = 0.1754 DFC c-b = 0.4835 DFC b-ac = 0.3143 (Share Lane) CRITICAL DFC = 0.48
---	---	--	---

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 DES Weekday Full Cap PM 20:30-21:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 67 (pcu/hr) q a-c = 327 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 500 (pcu/hr) Q b-c = 752 (pcu/hr) Q c-b = 568 (pcu/hr) Q b-ac = 626 (pcu/hr) Q c-a = 1569 (pcu/hr) TOTAL FLOW = 748 (pcu/hr)	DFC b-a = 0.1020 DFC b-c = 0.1024 DFC c-b = 0.1285 DFC b-ac = 0.2044 (Share Lane) DFC c-a = 0.0975
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 153 (pcu/hr) q c-b = 73 (pcu/hr)	F for (Qb-ac) = 0.602		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 51 (pcu/hr) q b-c = 77 (pcu/hr)			CRITICAL DFC = 0.20

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

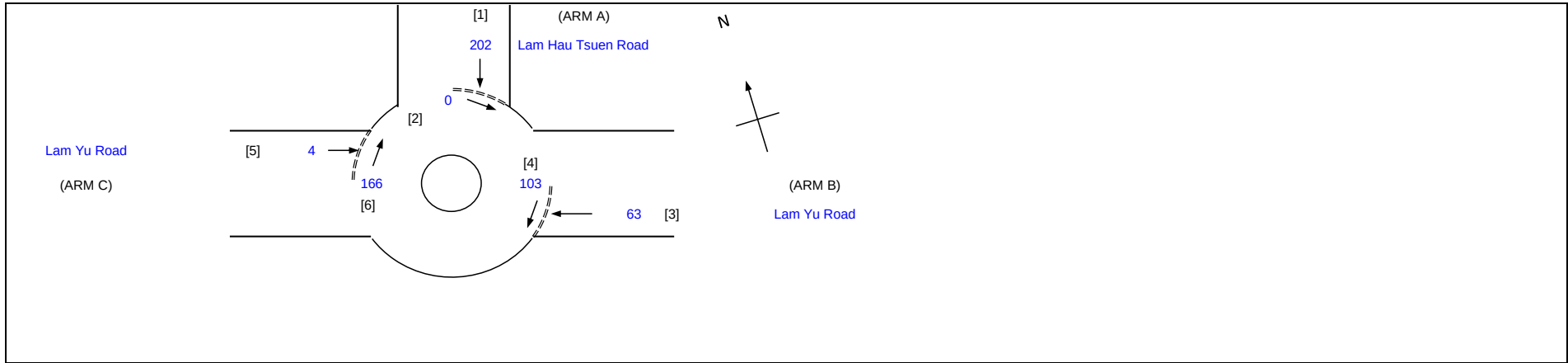
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 DES Weekday Full Cap PM 20:30-21:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:
ARM
A
B
C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	202	63	4
Qc	=	Circulating flow across entry (pcu/h)	0	103	166

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1457	1298	1805
DFC	=	Design flow/Capacity = Q/Qe	0.14	0.05	0.00

TOTAL FLOW = **538 (pcu/hr)**
CRITICAL DFC = **0.14**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

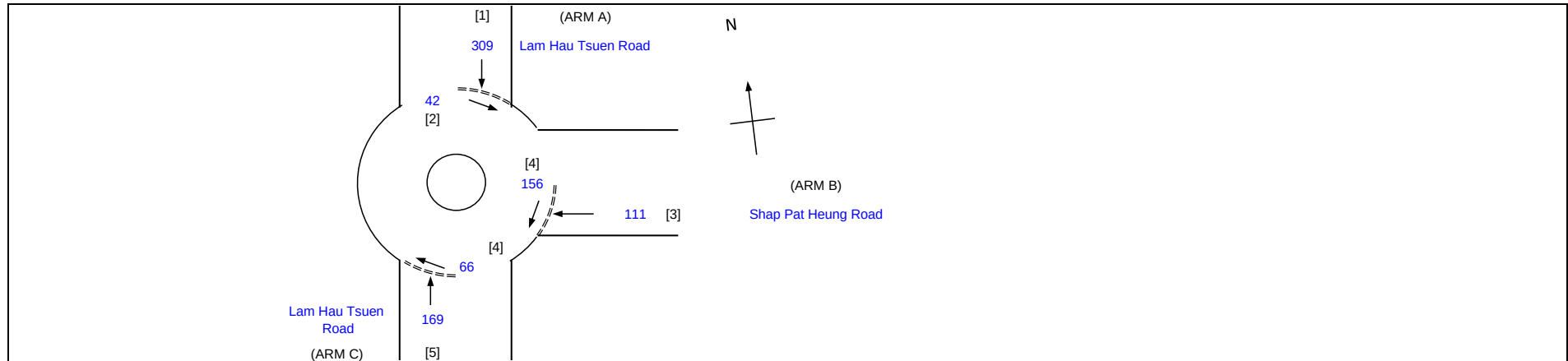
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 DES Weekday Full Cap PM 20:30-21:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

	ARM	A	B	C
V =	Approach half width (m)	5.3	4.5	3.6
E =	Entry width (m)	7.0	7.0	7.0
L =	Effective length of flare (m)	14.2	15.0	14.0
R =	Entry radius (m)	48.0	56.0	33.0
D =	Inscribed circle diameter (m)	35.0	35.0	35.0
A =	Entry angle (degree)	23.0	14.0	5.0
Q =	Entry flow (pcu/h)	309	111	169
Qc =	Circulating flow across entry (pcu/h)	42	156	66

OUTPUT PARAMETERS:

S =	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K =	$1 - 0.00347(A-30) - 0.978(1/R - 0.05)$	1.05	1.09	1.11
X2 =	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M =	$EXP((D-60)/10)$	0.08	0.08	0.08
F =	$303 \times X2$	1978	1858	1670
Td =	$1 + (0.5/(1+M))$	1.46	1.46	1.46
Fc =	$0.21 \times Td(1 + 0.2 \times X2)$	0.71	0.68	0.65
Qe =	$K(F - Fc \times Qc)$	2052	1903	1800
DFC =	Design flow/Capacity = Q/Qe	0.15	0.06	0.09

TOTAL FLOW = **853 (pcu/hr)**
CRITICAL DFC = **0.15**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

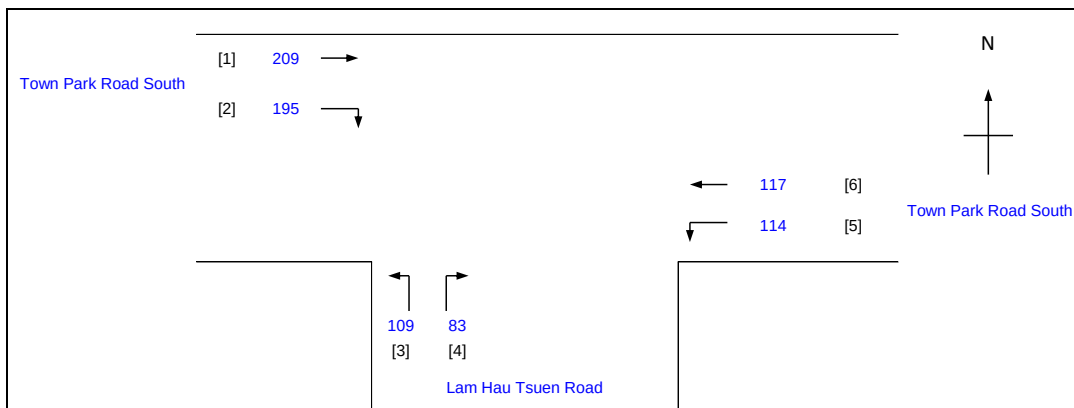
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 DES Weekday Full Cap PM 20:30-21:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.410

Loss time

L = 32 sec

Total Flow

= 827 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 89.9 sec

 $Cm = L / (1 - Y)$

= 54.3 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 60.9 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

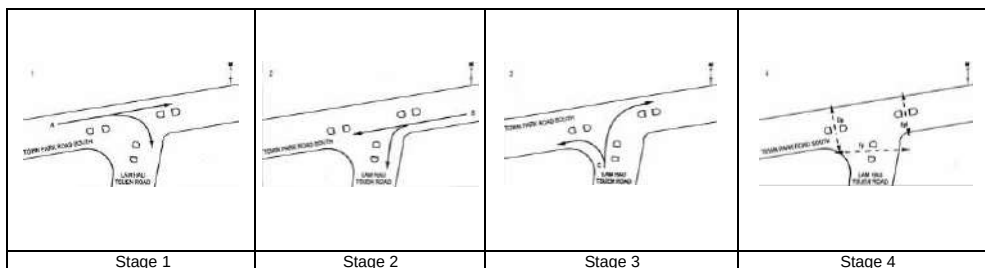
= 58.8 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 60.9 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		209	195	404	0.48	2041			2041	0.198	0.198		42	42	0.566	44	33
5,6	2	4.80	B	1	15		N	2095	114	117		231	0.49	1996			1996	0.116	0.116		25	25	0.555	30	45
5,6	2	5.20	C	1	20		N	2135	109		83	192	1.00	1986			1986	0.097	0.097		21	21	0.552	26	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_28_DES_WEEKDAY_FULL_PM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 DES Weekday Full Cap PM 20:30-21:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 63 (pcu/hr) q a-c = 229 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662	Q b-a = 495 (pcu/hr) Q b-c = 695 (pcu/hr) Q c-b = 549 (pcu/hr) Q b-ac = 532 (pcu/hr) Q c-a = 1587 (pcu/hr) TOTAL FLOW = 622 (pcu/hr)	DFC b-a = 0.2141 DFC b-c = 0.0489 DFC c-b = 0.1184 DFC b-ac = 0.2631 (Share Lane) DFC c-a = 0.0788
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 125 (pcu/hr) q c-b = 65 (pcu/hr)	F for (Qb-ac) = 0.243		
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 106 (pcu/hr) q b-c = 34 (pcu/hr)			CRITICAL DFC = 0.26

JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 DES Weekday Full Cap PM 20:30-21:30

INITIALS

DATE _____

Project No.:	31073
--------------	-------

Prepared By:	
--------------	--

	JK
--	----

8/8/2026

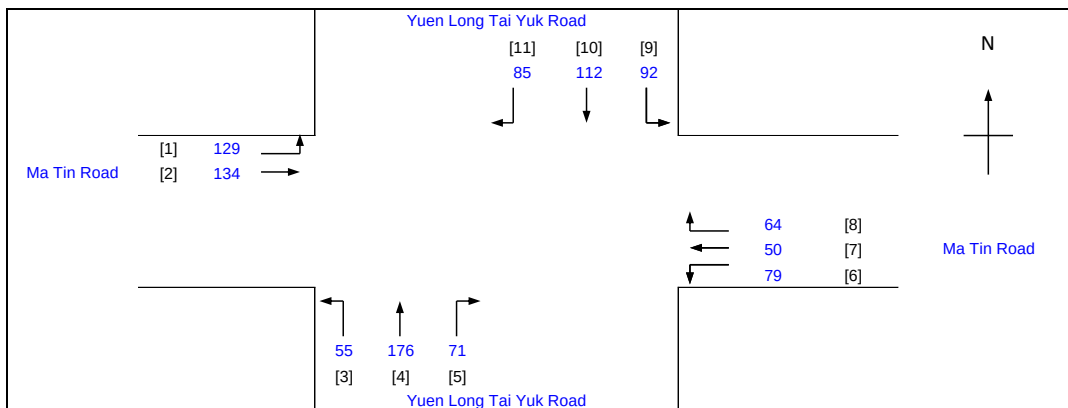
Checked By:	
-------------	--

SY

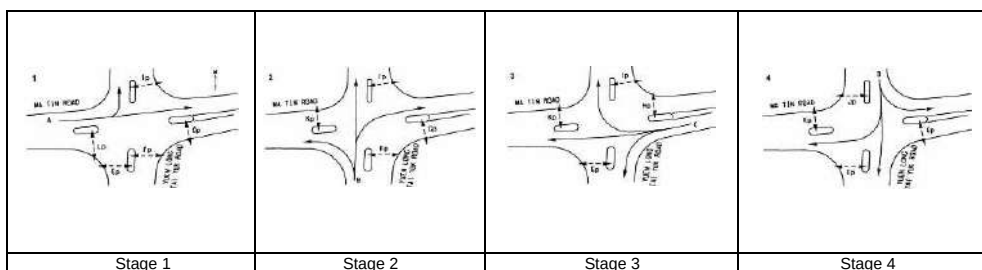
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N =	4	
Intergreen Period	I =	5	sec
Stage 1 - 2	I =	10	sec
Stage 2 - 3	I =	11	sec
Stage 3 - 4	I =	10	sec
Stage 4 - 1	C =	120	sec
Cycle time	Y =	0.287	
Sum(y)	L =	32	sec
Loss time			
Total Flow		1047	pcu
Co = $(1.5 \cdot L + 5) / (1 - Y)$		74.4	sec
Cm = $L / (1 - Y)$		44.9	sec
Yult = $0.9 - 0.0075L$		0.660	
R.C.ult = $(Yult - Y) / Y \cdot 100\%$		129.8	%
Cp = $0.9 \cdot L / (0.9 - Y)$		47.0	sec
Ymax = $1 - L/C$		0.733	
R.C.(C) = $(0.9 \cdot Ymax - Y) / Y \cdot 100\%$		129.8	%



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Ep	7.9	3,4,1	5	8	49	8	OK
Fp	7.6	1,2	5	7	49	7	OK
Gp	7.3	4,1,2	5	7	85	7	OK
Hp	8.3	3	5	8	17	8	OK
Ip	7.6	1,2,3	5	8	82	8	OK
Jp	7.4	4	5	7	22	7	OK
Kp	7.3	2,3,4	5	7	84	7	OK
Lp	9.7	1	5	11	12	11	OK

Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1775	129			129	1.00	1795			1795	0.072	0.072		22	22	0.392	18	45
2	1	3.60	A	1				2115		134		134	0.00	2115			2115	0.063			19	22	0.346	18	44
3,4	2	3.60	B	1	15		N	1775	55	91		146	0.38	1903			1903	0.076	0.076		23	23	0.399	20	44
4,5	2	3.60	B	1	20			2115		85	71	156	0.45	2045			2045	0.076			23	23	0.399	21	44
3,4	2	3.50	C	1	15		N	1965			64	64	1.00	1786			1786	0.036			11	20	0.215	9	44
4,5	2	3.50	C	1	20			2105	79	50		129	0.61	2013			2013	0.064	0.064		20	20	0.385	18	46
10,11	2	3.50	D	1	20			2105		66	85	151	0.56	2020			2020	0.075	0.075		23	23	0.390	20	44
9,10	2	3.50	D	1	15		N	1965	92	46		138	0.67	1842			1842	0.075			23	23	0.390	19	44

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction 28 DES WEEKDAY FULL PM.xls|F

NOTE: O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

$$\text{QUEUING LENGTH} = \text{AVERAGE QUEUE} * 6\text{m}$$

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 DES Weekday Full Cap PM 20:30-21:30		Reviewed By:	AW 8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 102 [5] 89

(ARM A)
Shap Pat Heung Road

[1] 103 [2] 98

(ARM C)
Shap Pat Heung Road

[4] 199 [3] 65

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 103 (pcu/hr) q a-c = 98 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 65 (pcu/hr) q c-b = 199 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 102 (pcu/hr) q b-c = 89 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.466	THE CAPACITY OF MOVEMENT : Q b-a = 581 (pcu/hr) Q b-c = 774 (pcu/hr) Q c-b = 706 (pcu/hr) Q b-ac = 657 (pcu/hr) TOTAL FLOW = 656 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.1756 DFC b-c = 0.1150 DFC c-b = 0.2819 DFC b-ac = 0.2905 (Share Lane) CRITICAL DFC = 0.29
--	---	--	---

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 DES Saturday AM 10:30-11:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 54 (pcu/hr) q a-c = 474 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 469 (pcu/hr) Q b-c = 711 (pcu/hr) Q c-b = 538 (pcu/hr) Q b-ac = 606 (pcu/hr) Q c-a = 1619 (pcu/hr) TOTAL FLOW = 859 (pcu/hr)	DFC b-a = 0.0746 DFC b-c = 0.0970 DFC c-b = 0.1004 DFC b-ac = 0.1717 (Share Lane) DFC c-a = 0.1068
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 173 (pcu/hr) q c-b = 54 (pcu/hr)	F for (Qb-ac) = 0.663		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 35 (pcu/hr) q b-c = 69 (pcu/hr)			CRITICAL DFC = 0.17

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

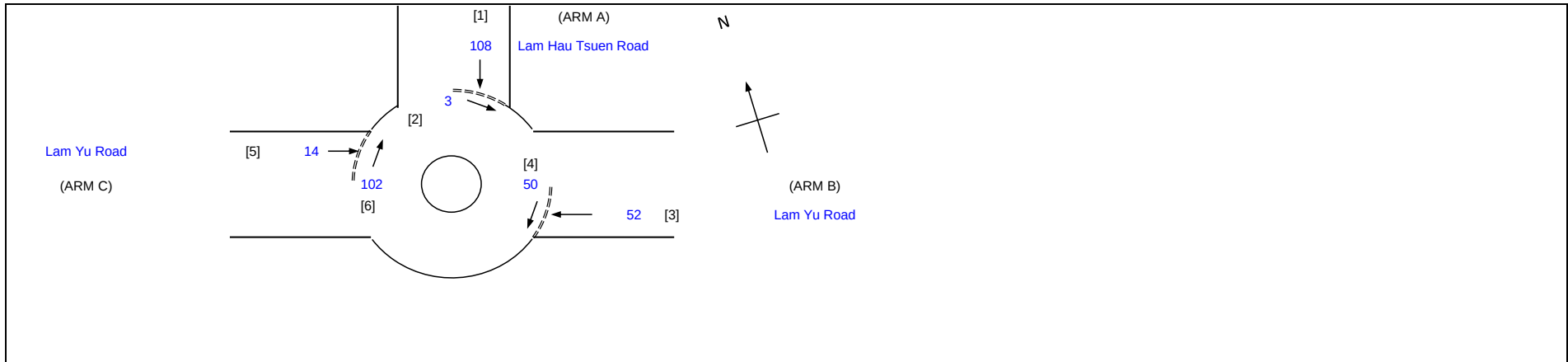
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 DES Saturday AM 10:30-11:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:
ARM
A
B
C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	108	52	14
Qc	=	Circulating flow across entry (pcu/h)	3	50	102

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1455	1331	1850
DFC	=	Design flow/Capacity = Q/Qe	0.07	0.04	0.01

TOTAL FLOW = **329 (pcu/hr)**
CRITICAL DFC = **0.07**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

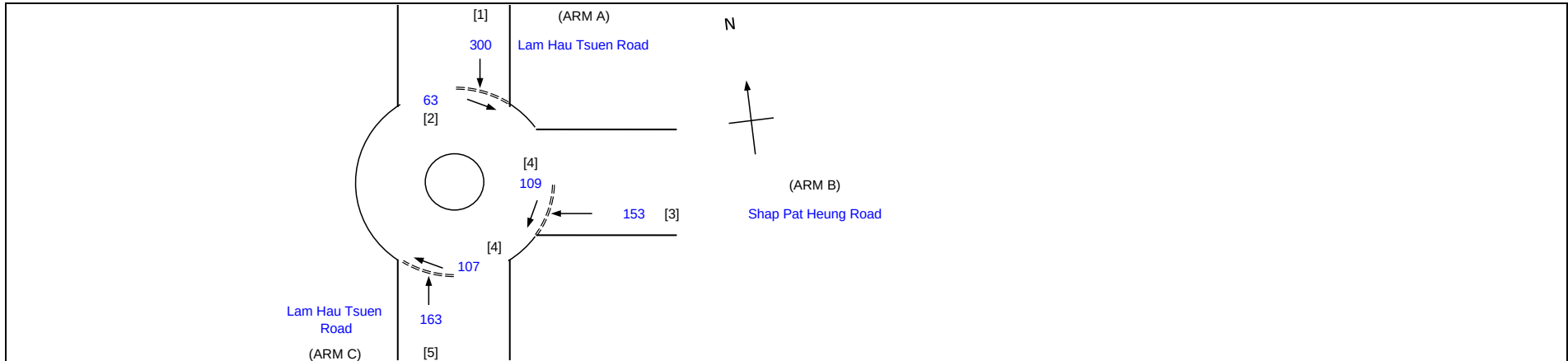
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 DES Saturday AM 10:30-11:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

GEOMETRIC DETAILS:			ARM	A	B	C
V	=	Approach half width (m)		5.3	4.5	3.6
E	=	Entry width (m)		7.0	7.0	7.0
L	=	Effective length of flare (m)		14.2	15.0	14.0
R	=	Entry radius (m)		48.0	56.0	33.0
D	=	Inscribed circle diameter (m)		35.0	35.0	35.0
A	=	Entry angle (degree)		23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	300	153	163	
Qc	=	Circulating flow across entry (pcu/h)	63	109	107	

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2036	1938	1771
DFC	=	Design flow/Capacity = Q/Qe	0.15	0.08	0.09

TOTAL FLOW = 895 (pcu/hr)
CRITICAL DFC = 0.15

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

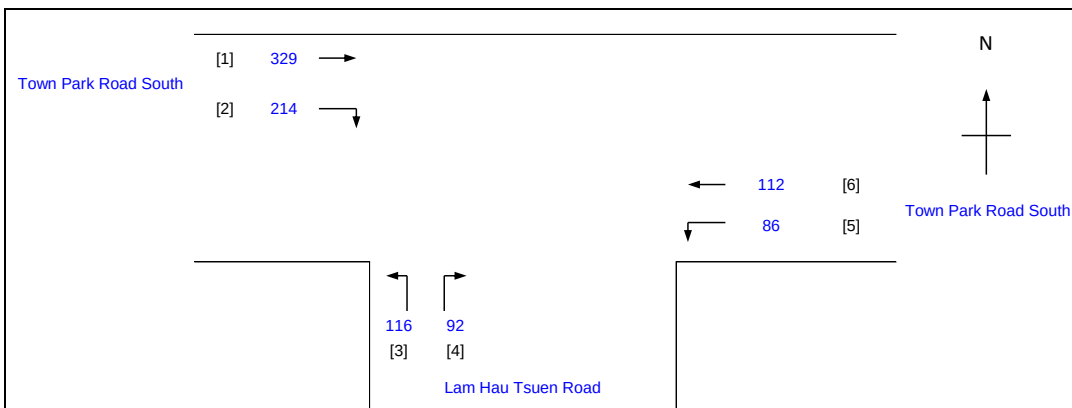
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 DES Saturday AM 10:30-11:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.468

Loss time

L = 32 sec

Total Flow

= 949 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 99.6 sec

 $Cm = L / (1 - Y)$

= 60.1 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 41.1 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

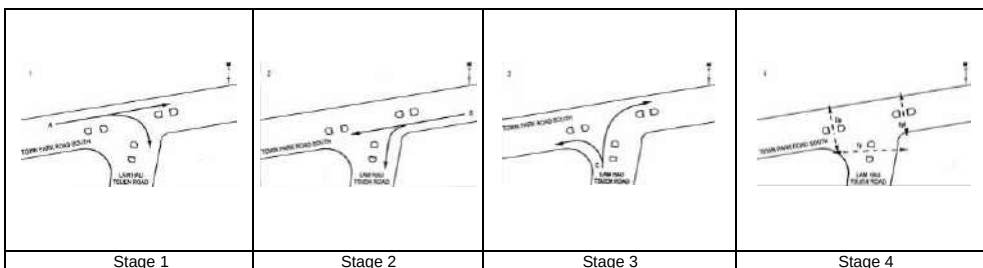
= 66.6 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 41.1 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		329	214	543	0.39	2054			2054	0.264	0.264		50	50	0.634	53	30
5,6	2	4.80	B	1	15		N	2095	86	112		198	0.43	2008			2008	0.099	0.099		19	19	0.623	28	51
5,6	2	5.20	C	1	20		N	2135	116		92	208	1.00	1986			1986	0.105	0.105		20	20	0.628	29	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_29_DES_SAT_AM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 DES Saturday AM 10:30-11:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 49 (pcu/hr) q a-c = 373 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662	Q b-a = 464 (pcu/hr) Q b-c = 661 (pcu/hr) Q c-b = 523 (pcu/hr) Q b-ac = 543 (pcu/hr) Q c-a = 1611 (pcu/hr) TOTAL FLOW = 727 (pcu/hr)	DFC b-a = 0.1207 DFC b-c = 0.0802 DFC c-b = 0.1052 DFC b-ac = 0.2009 (Share Lane) DFC c-a = 0.0875
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 141 (pcu/hr) q c-b = 55 (pcu/hr)	F for (Qb-ac) = 0.486		
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 56 (pcu/hr) q b-c = 53 (pcu/hr)			CRITICAL DFC = 0.20

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

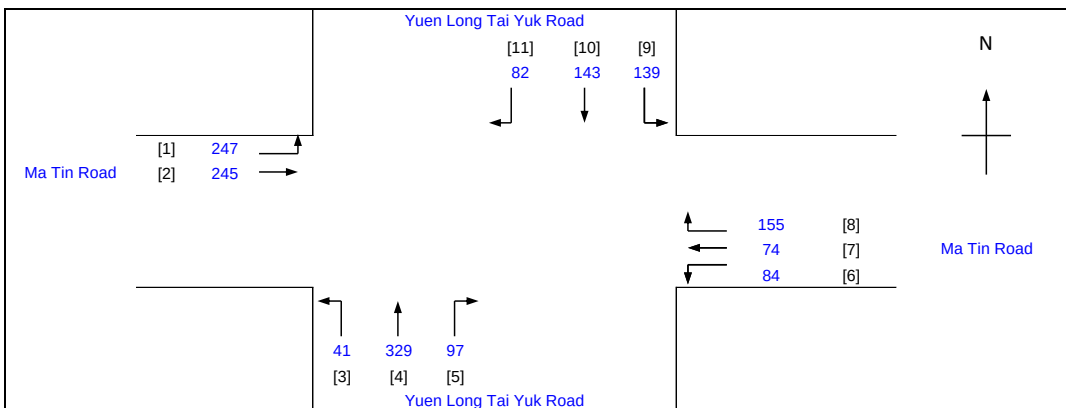
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 DES Saturday AM 10:30-11:30

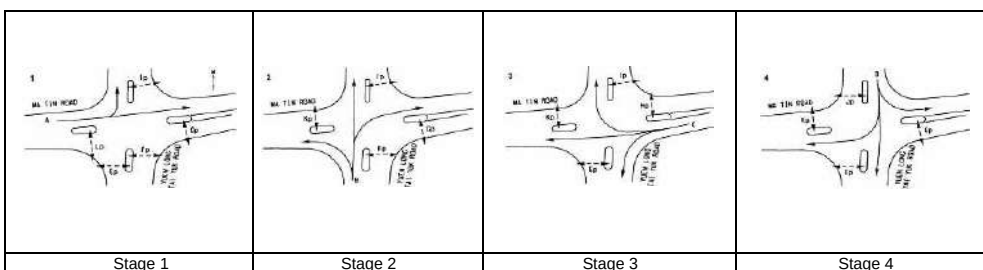
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.436
Loss time	L = 32 sec
Total Flow	= 1636 pcu
Co	= (1.5*L+5)/(1-Y) = 93.9 sec
Cm	= L/(1-Y) = 56.7 sec
Yult	= 0.9-0.0075L = 0.660
R.C.ult	= (Yult-Y)/Y*100% = 51.5 %
Cp	= 0.9*L/(0.9-Y) = 62.0 sec
Ymax	= 1-L/C = 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100% = 51.5 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	247			247	1.00	1795			1795	0.138	0.138		28	28	0.590	32	43
2	1	3.60	A	1				2115		245		245	0.00	2115			2115	0.116			23	28	0.496	31	41
3,4	2	3.60	B	1	15		N	1975	41	186		227	0.18	1940			1940	0.117	0.117		24	24	0.585	30	46
4,5	2	3.60	B	1	20			2115		143	97	240	0.40	2053			2053	0.117			24	24	0.585	32	46
3,4	2	3.50	C	1	15		N	1965			155	155	1.00	1786			1786	0.087			18	18	0.578	22	51
4,5	2	3.50	C	1	20			2105	84	74		158	0.53	2024			2024	0.078	0.087		16	18	0.520	22	49
10,11	2	3.50	D	1	20			2105		110	82	192	0.43	2040			2040	0.094	0.094		19	19	0.596	27	50
9,10	2	3.50	D	1	15		N	1965	139	33		172	0.81	1818			1818	0.094			19	19	0.596	24	50

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_29_DES_SAT_AM.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 DES Saturday AM 10:30-11:30		Reviewed By:	AW 8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

(ARM A)
Shap Pat Heung Road

(ARM C)
Shap Pat Heung Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 182 (pcu/hr) q a-c = 210 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 496 (pcu/hr) Q b-c = 734 (pcu/hr) Q c-b = 657 (pcu/hr) Q b-ac = 572 (pcu/hr)	DFC b-a = 0.2722 DFC b-c = 0.1267 DFC c-b = 0.4368 DFC b-ac = 0.3989 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 151 (pcu/hr) q c-b = 287 (pcu/hr)	F for (Qb-ac) = 0.408	TOTAL FLOW = 1058 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 135 (pcu/hr) q b-c = 93 (pcu/hr)			CRITICAL DFC = 0.44

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 DES Saturday Noon 12:30-13:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 74 (pcu/hr) q a-c = 428 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 474 (pcu/hr) Q b-c = 722 (pcu/hr) Q c-b = 544 (pcu/hr) Q b-ac = 599 (pcu/hr) Q c-a = 1555 (pcu/hr) TOTAL FLOW = 876 (pcu/hr)	DFC b-a = 0.1181 DFC b-c = 0.1205 DFC c-b = 0.1360 DFC b-ac = 0.2386 (Share Lane) DFC c-a = 0.1010
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 157 (pcu/hr) q c-b = 74 (pcu/hr)	F for (Qb-ac) = 0.608		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 56 (pcu/hr) q b-c = 87 (pcu/hr)			CRITICAL DFC = 0.24

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

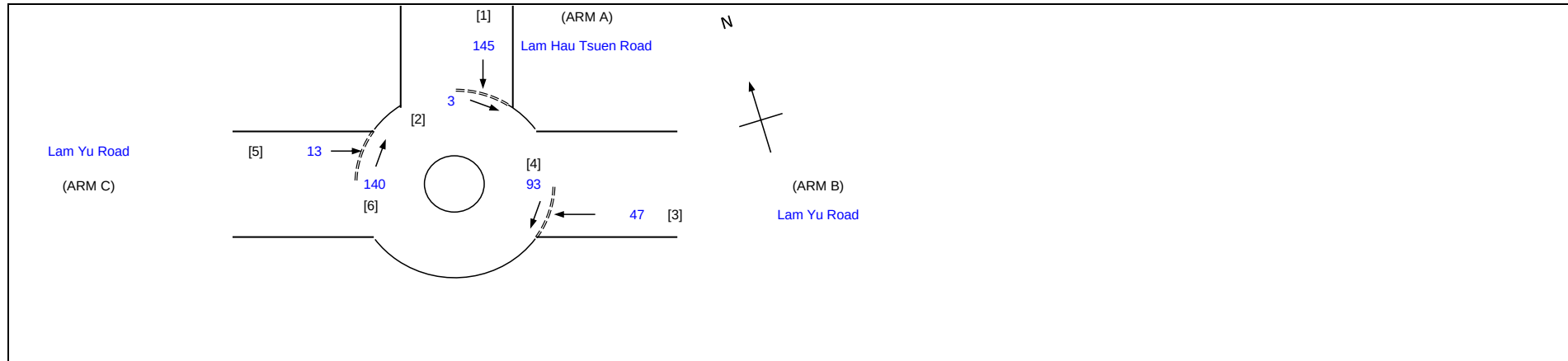
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 DES Saturday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:
ARM
A
B
C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	145	47	13
Qc	=	Circulating flow across entry (pcu/h)	3	93	140

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1455	1304	1823
DFC	=	Design flow/Capacity = Q/Qe	0.10	0.04	0.01

TOTAL FLOW = **441 (pcu/hr)**
CRITICAL DFC = **0.10**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

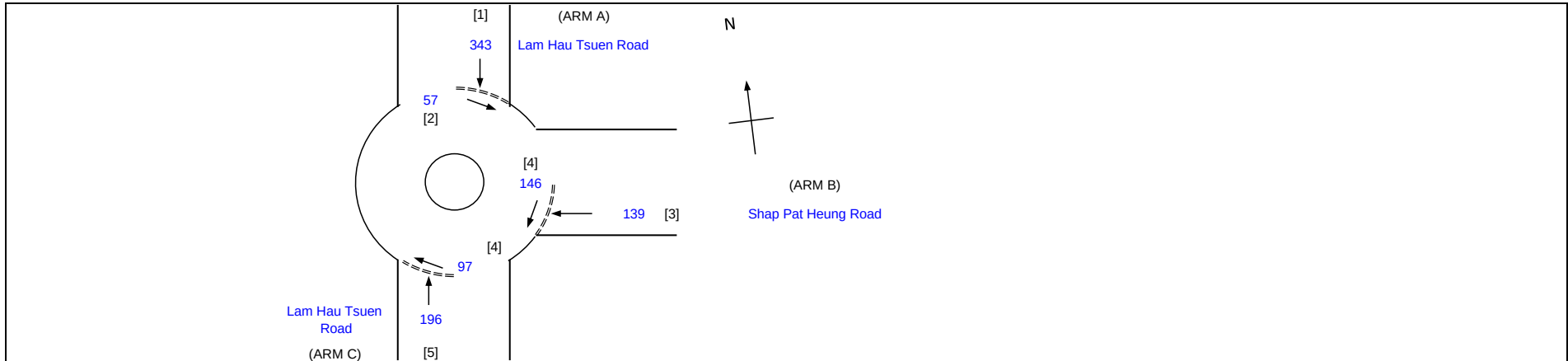
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 DES Saturday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	343	139	196
Qc	=	Circulating flow across entry (pcu/h)	57	146	97

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2040	1911	1778
DFC	=	Design flow/Capacity = Q/Qe	0.17	0.07	0.11

 TOTAL FLOW = 978 (pcu/hr)
 CRITICAL DFC = 0.17

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

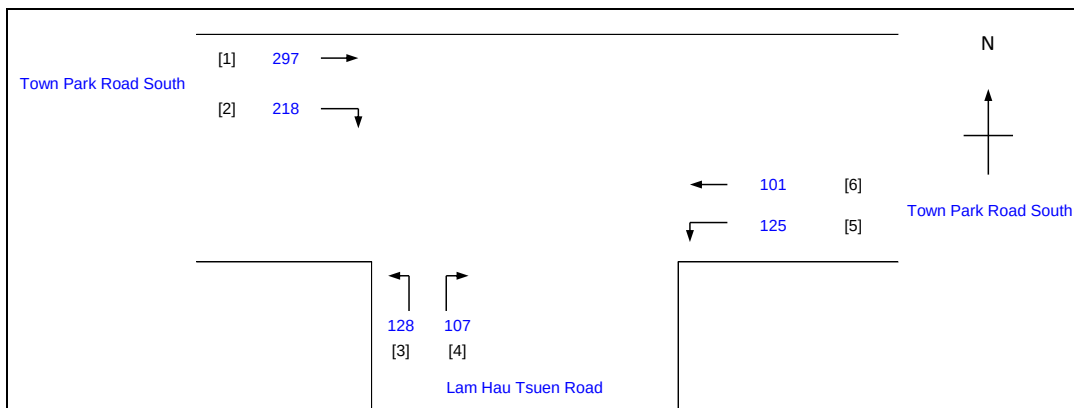
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 DES Saturday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.483

Loss time

L = 32 sec

Total Flow

= 976 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 102.6 sec

 $Cm = L / (1 - Y)$

= 61.9 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 36.5 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

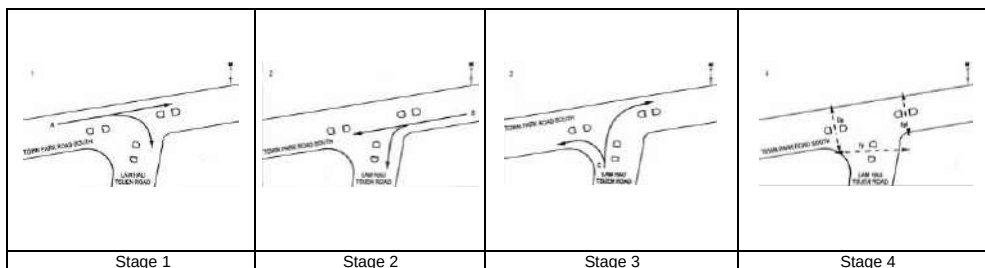
= 69.1 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 36.5 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		297	218	515	0.42	2050			2050	0.251	0.251		46	46	0.655	53	33
5,6	2	4.80	B	1	15		N	2095	125	101		226	0.55	1985			1985	0.114	0.114		21	21	0.651	31	50
5,6	2	5.20	C	1	20		N	2135	128		107	235	1.00	1986			1986	0.118	0.118		22	22	0.645	32	49

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_30_DES_SAT_NOON.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 DES Saturday Noon 12:30-13:30		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 67 (pcu/hr) q a-c = 337 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.327	Q b-a = 467 (pcu/hr) Q b-c = 668 (pcu/hr) Q c-b = 527 (pcu/hr) Q b-ac = 518 (pcu/hr) Q c-a = 1547 (pcu/hr) TOTAL FLOW = 753 (pcu/hr)	DFC b-a = 0.2120 DFC b-c = 0.0719 DFC c-b = 0.1404 DFC b-ac = 0.2838 (Share Lane) DFC c-a = 0.0827 CRITICAL DFC = 0.28
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 128 (pcu/hr) q c-b = 74 (pcu/hr)			
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 99 (pcu/hr) q b-c = 48 (pcu/hr)			

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

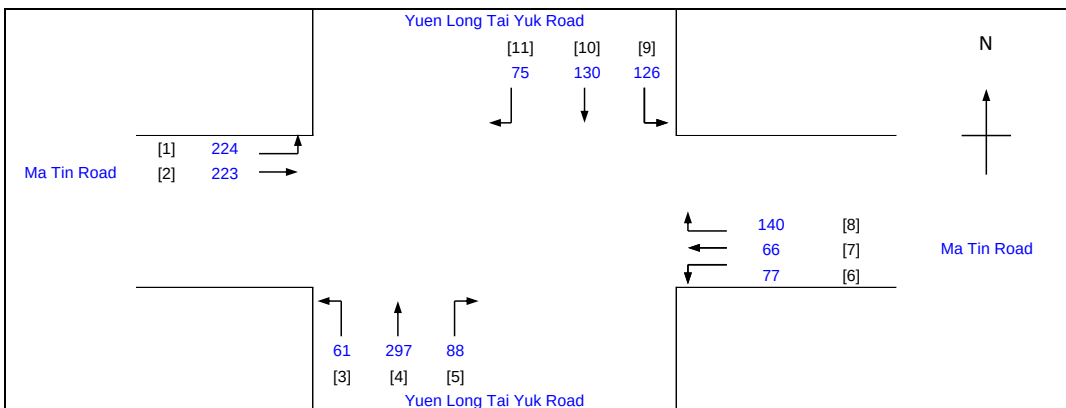
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 DES Saturday Noon 12:30-13:30

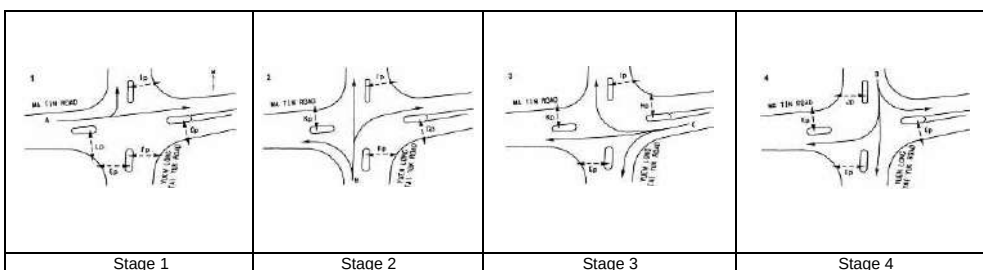
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N =	4
Intergreen Period	Stage 1 - 2	I = 5 sec
	Stage 2 - 3	I = 10 sec
	Stage 3 - 4	I = 11 sec
	Stage 4 - 1	I = 10 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.401
Loss time	L =	32 sec
Total Flow		= 1507 pcu
Co	= (1.5*L+5)/(1-Y)	= 88.5 sec
Cm	= L/(1-Y)	= 53.4 sec
Yult	= 0.9-0.0075L	= 0.660
R.C.ult	= (Yult-Y)/Y*100%	= 64.6 %
Cp	= 0.9*L/(0.9-Y)	= 57.7 sec
Ymax	= 1-L/C	= 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 64.6 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	224			224	1.00	1795			1795	0.125	0.125		27	27	0.554	29	43
2	1	3.60	A	1				2115		223		223	0.00	2115			2115	0.105			23	27	0.469	29	42
3,4	2	3.60	B	1	15		N	1975	61	154		215	0.28	1921			1921	0.112	0.112		25	25	0.538	28	44
4,5	2	3.60	B	1	20			2115		143	88	231	0.38	2056			2056	0.112			25	25	0.538	30	44
3,4	2	3.50	C	1	15		N	1965			140	140	1.00	1786			1786	0.078			17	17	0.553	20	51
4,5	2	3.50	C	1	20			2105	77	66		143	0.54	2023			2023	0.071	0.078		16	17	0.499	20	50
10,11	2	3.50	D	1	20			2105		100	75	175	0.43	2039			2039	0.086	0.086		19	19	0.542	25	49
9,10	2	3.50	D	1	15		N	1965	126	30		156	0.81	1818			1818	0.086			19	19	0.542	22	49

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_30_DES_SAT_NOON.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 DES Saturday Noon 12:30-13:30		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 123 [5] 83

(ARM A)
Shap Pat Heung Road

[1] 188 [2] 190

(ARM C)
Shap Pat Heung Road

[4] 259 [3] 136

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 188 (pcu/hr) q a-c = 190 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 136 (pcu/hr) q c-b = 259 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 123 (pcu/hr) q b-c = 83 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.403	THE CAPACITY OF MOVEMENT : Q b-a = 514 (pcu/hr) Q b-c = 739 (pcu/hr) Q c-b = 660 (pcu/hr) Q b-ac = 586 (pcu/hr) TOTAL FLOW = 979 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.2393 DFC b-c = 0.1123 DFC c-b = 0.3924 DFC b-ac = 0.3516 (Share Lane) CRITICAL DFC = 0.39
--	---	--	---

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 DES Saturday PM 17:30-18:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 56 (pcu/hr) q a-c = 498 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693 F for (Qb-ac) = 0.664	Q b-a = 461 (pcu/hr) Q b-c = 704 (pcu/hr) Q c-b = 532 (pcu/hr) Q b-ac = 598 (pcu/hr) Q c-a = 1611 (pcu/hr) TOTAL FLOW = 898 (pcu/hr)	DFC b-a = 0.0781 DFC b-c = 0.1009 DFC c-b = 0.1053 DFC b-ac = 0.1789 (Share Lane) DFC c-a = 0.1124 CRITICAL DFC = 0.18
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 181 (pcu/hr) q c-b = 56 (pcu/hr)			
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 36 (pcu/hr) q b-c = 71 (pcu/hr)			

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

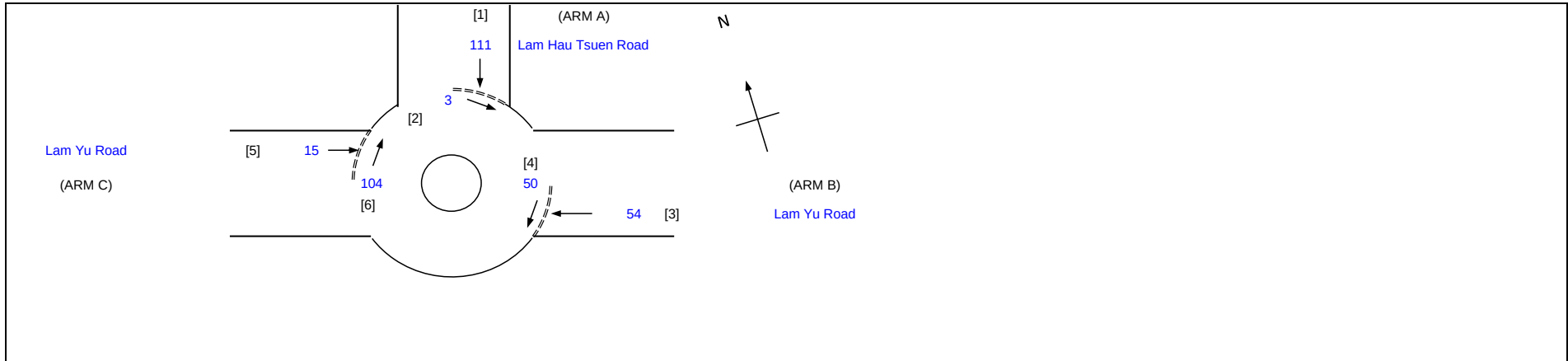
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 DES Saturday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	111	54	15
Qc	=	Circulating flow across entry (pcu/h)	3	50	104

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1455	1331	1849
DFC	=	Design flow/Capacity = Q/Qe	0.08	0.04	0.01

TOTAL FLOW = 337 (pcu/hr)
CRITICAL DFC = 0.08

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

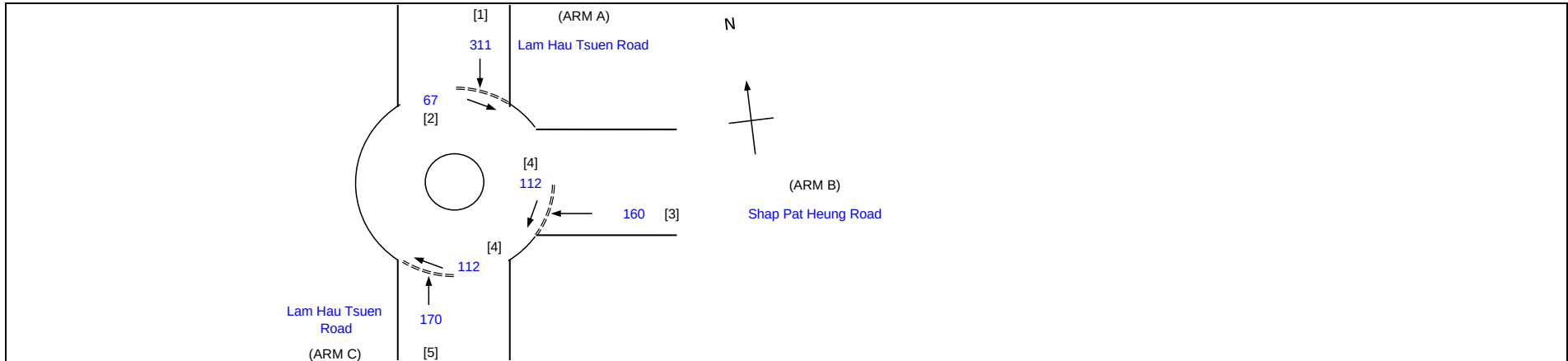
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 DES Saturday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

GEOMETRIC DETAILS:			ARM	A	B	C
V	=	Approach half width (m)		5.3	4.5	3.6
E	=	Entry width (m)		7.0	7.0	7.0
L	=	Effective length of flare (m)		14.2	15.0	14.0
R	=	Entry radius (m)		48.0	56.0	33.0
D	=	Inscribed circle diameter (m)		35.0	35.0	35.0
A	=	Entry angle (degree)		23.0	14.0	5.0
Q	=	Entry flow (pcu/h)		311	160	170
Qc	=	Circulating flow across entry (pcu/h)		67	112	112

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2033	1936	1768
DFC	=	Design flow/Capacity = Q/Qe	0.15	0.08	0.10

TOTAL FLOW = 932 (pcu/hr)
CRITICAL DFC = 0.15

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

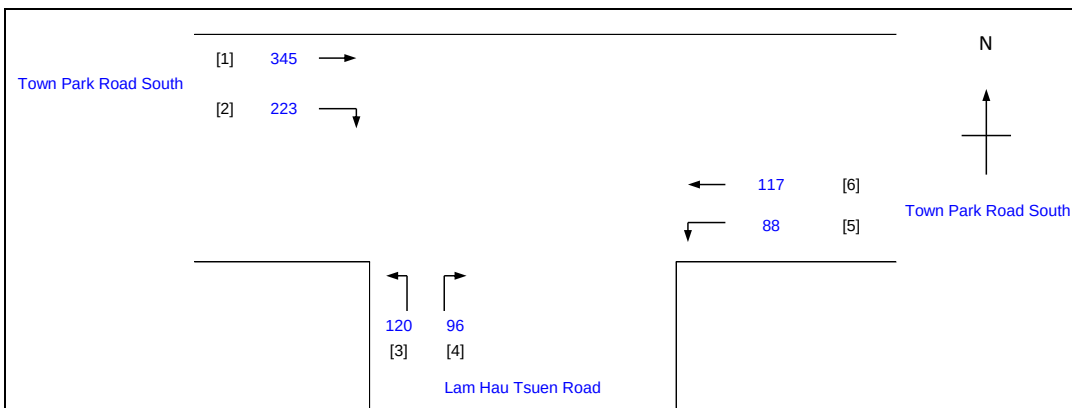
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 DES Saturday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.487

Loss time

L = 32 sec

Total Flow

= 989 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 103.4 sec

 $Cm = L / (1 - Y)$

= 62.4 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 35.4 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

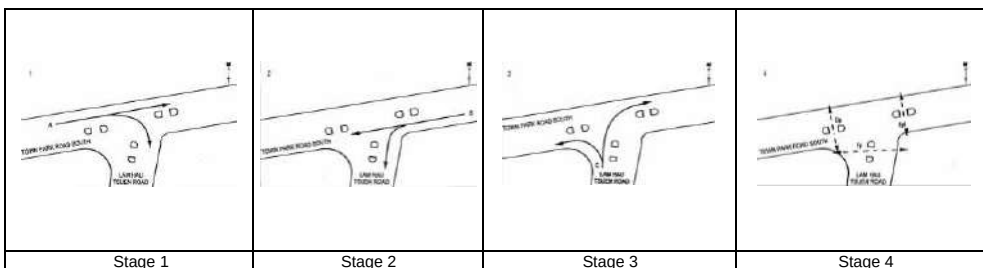
= 69.8 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 35.4 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Dp	10.5	4	5	4	OK
Ep	10.5	4	5	4	OK
Fp	19.3	4	5	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		345	223	568	0.39	2055			2055	0.276	0.276		50	50	0.664	55	30
5,6	2	4.80	B	1	15		N	2095	88	117		205	0.43	2009			2009	0.102	0.102		18	18	0.680	30	53
5,6	2	5.20	C	1	20		N	2135	120		96	216	1.00	1986			1986	0.109	0.109		20	20	0.653	30	51

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_31_DES_SAT_PM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 DES Saturday PM 17:30-18:30		Reviewed By:	AW	8/8/2026

(ARM B)
Town Park Road North

[6] 57 [5] 55

Town Park Road South (ARM A)

[1] 50 [2] 391

(ARM C)
Ma Tin Road

57 [4] 148 [3]

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 50 (pcu/hr) q a-c = 391 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662	Q b-a = 459 (pcu/hr) Q b-c = 657 (pcu/hr) Q c-b = 519 (pcu/hr) Q b-ac = 539 (pcu/hr) Q c-a = 1602 (pcu/hr) TOTAL FLOW = 758 (pcu/hr)	DFC b-a = 0.1242 DFC b-c = 0.0837 DFC c-b = 0.1098 DFC b-ac = 0.2079 (Share Lane) DFC c-a = 0.0924
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 148 (pcu/hr) q c-b = 57 (pcu/hr)	F for (Qb-ac) = 0.491		
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 57 (pcu/hr) q b-c = 55 (pcu/hr)			CRITICAL DFC = 0.21

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

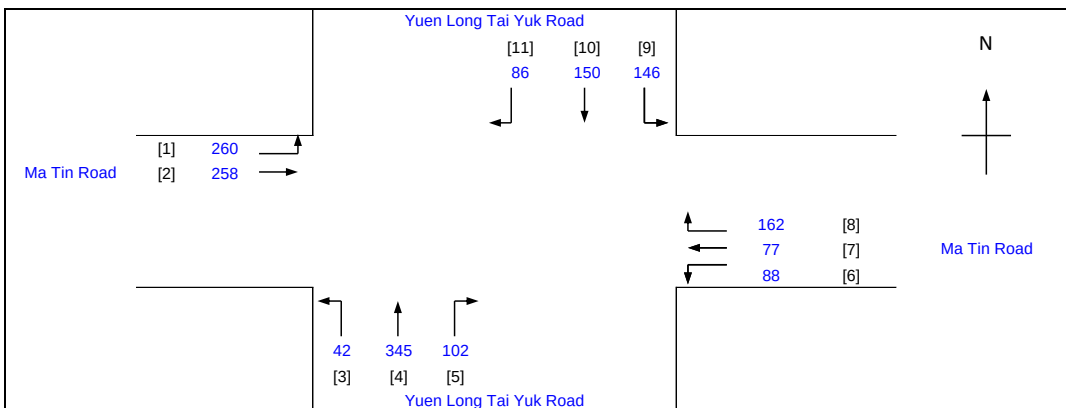
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 DES Saturday PM 17:30-18:30

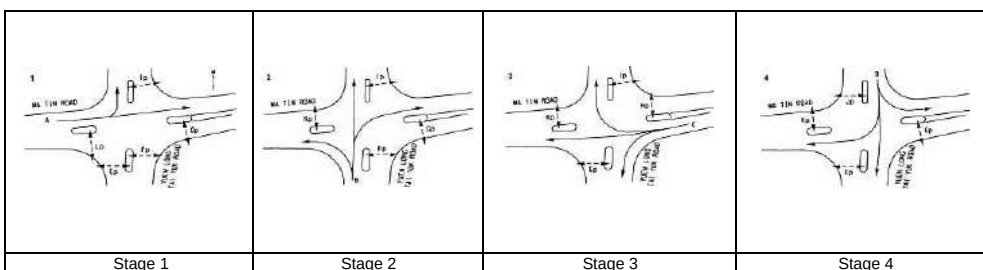
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.457
Loss time	L = 32 sec
Total Flow	= 1716 pcu
Co = (1.5*L+5)/(1-Y)	= 97.6 sec
Cm = L/(1-Y)	= 58.9 sec
Yult = 0.9-0.0075L	= 0.660
R.C.ult = (Yult-Y)/Y*100%	= 44.4 %
Cp = 0.9*L/(0.9-Y)	= 65.0 sec
Ymax = 1-L/C	= 0.733
R.C.(C) = (0.9*Ymax-Y)/Y*100%	= 44.4 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	260			260	1.00	1795			1795	0.145	0.145		28	28	0.621	33	44
2	1	3.60	A	1				2115		258		258	0.00	2115			2115	0.122			23	28	0.523	33	42
3,4	2	3.60	B	1	15		N	1975	42	196		238	0.18	1941			1941	0.122	0.122		24	24	0.612	32	47
4,5	2	3.60	B	1	20			2115		149	102	251	0.41	2053			2053	0.122			24	24	0.612	34	46
3,4	2	3.50	C	1	15		N	1965			162	162	1.00	1786			1786	0.091			17	17	0.640	24	54
4,5	2	3.50	C	1	20			2105	88	77		165	0.53	2024			2024	0.082	0.091		16	17	0.575	24	51
10,11	2	3.50	D	1	20			2105		116	86	202	0.43	2040			2040	0.099	0.099		19	19	0.625	28	51
9,10	2	3.50	D	1	15		N	1965	146	34		180	0.81	1818			1818	0.099			19	19	0.625	25	51

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_31_DES_SAT_PM.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 DES Saturday PM 17:30-18:30		Reviewed By:	AW 8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 142 [5] 97

Shap Pat Heung Road (ARM A)

[1] 189 [2] 221

(ARM C)
Shap Pat Heung Road

300 [4] 159 [3]

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 189 (pcu/hr) q a-c = 221 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 159 (pcu/hr) q c-b = 300 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 142 (pcu/hr) q b-c = 97 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.406	THE CAPACITY OF MOVEMENT : Q b-a = 486 (pcu/hr) Q b-c = 730 (pcu/hr) Q c-b = 652 (pcu/hr) Q b-ac = 562 (pcu/hr) TOTAL FLOW = 1108 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.2922 DFC b-c = 0.1329 DFC c-b = 0.4601 DFC b-ac = 0.4251 (Share Lane) CRITICAL DFC = 0.46
--	--	---	--

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 DES Saturday Late 21:30-22:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 65 (pcu/hr) q a-c = 318 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 511 (pcu/hr) Q b-c = 755 (pcu/hr) Q c-b = 570 (pcu/hr) Q b-ac = 630 (pcu/hr) Q c-a = 1595 (pcu/hr) TOTAL FLOW = 692 (pcu/hr)	DFC b-a = 0.1037 DFC b-c = 0.0993 DFC c-b = 0.1140 DFC b-ac = 0.2031 (Share Lane) DFC c-a = 0.0727
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 116 (pcu/hr) q c-b = 65 (pcu/hr)	F for (Qb-ac) = 0.586		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 53 (pcu/hr) q b-c = 75 (pcu/hr)			CRITICAL DFC = 0.20

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

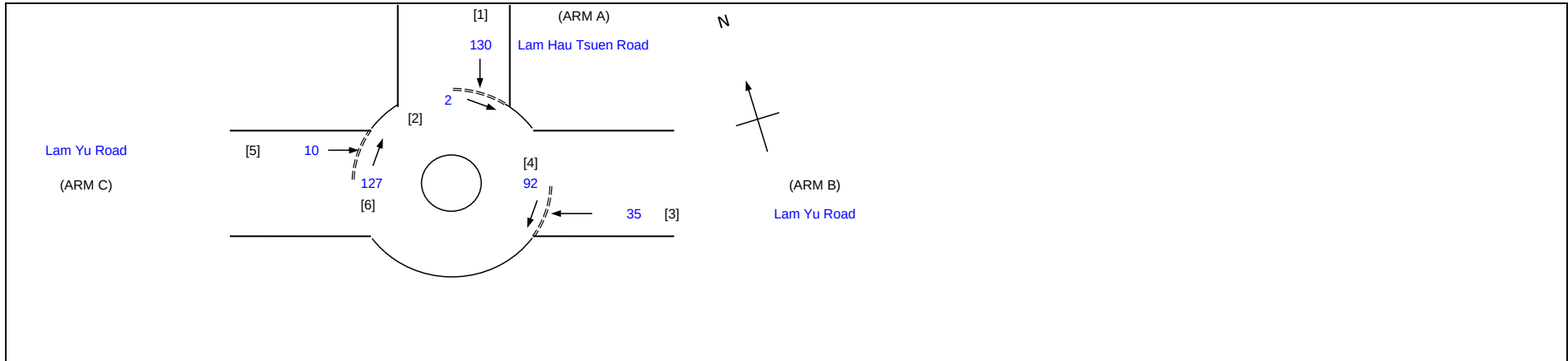
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 DES Saturday Late 21:30-22:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

	ARM	A	B	C
V =	Approach half width (m)	3.6	2.2	5.1
E =	Entry width (m)	5.0	5.0	6.5
L =	Effective length of flare (m)	5.3	14.8	14.3
R =	Entry radius (m)	30.0	77.0	15.0
D =	Inscribed circle diameter (m)	35.0	35.0	35.0
A =	Entry angle (degree)	5.0	0.0	17.0
Q =	Entry flow (pcu/h)	130	35	10
Qc =	Circulating flow across entry (pcu/h)	2	92	127

OUTPUT PARAMETERS:

S =	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K =	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2 =	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M =	$EXP((D-60)/10)$	0.08	0.08	0.08
F =	$303 \times X2$	1321	1195	1868
Td =	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc =	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe =	$K(F-Fc \times Qc)$	1456	1305	1833
DFC =	Design flow/Capacity = Q/Qe	0.09	0.03	0.01

TOTAL FLOW = **396 (pcu/hr)**
CRITICAL DFC = **0.09**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

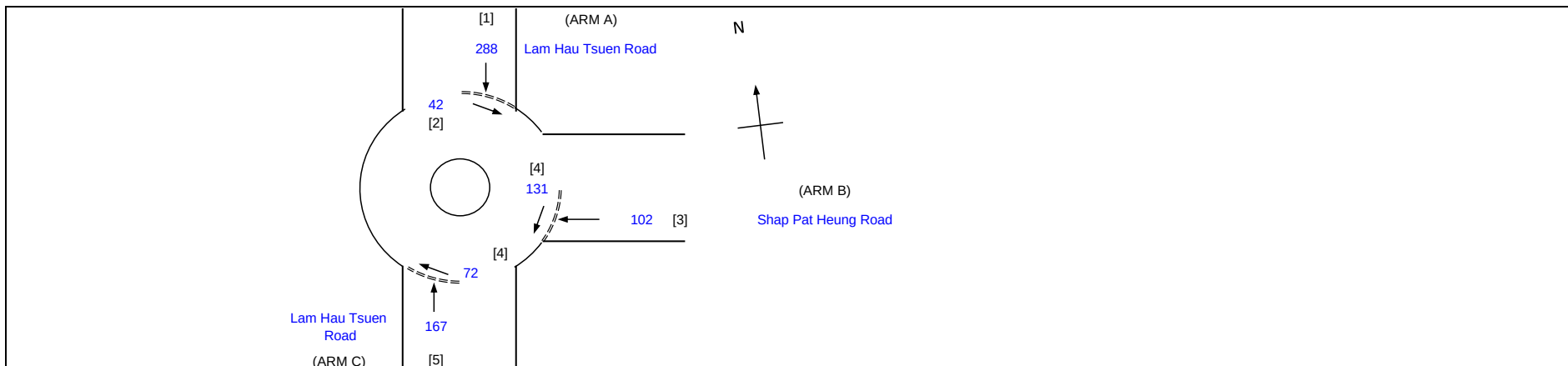
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 DES Saturday Late 21:30-22:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	288	102	167
Qc	=	Circulating flow across entry (pcu/h)	42	131	72

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2052	1922	1796
DFC	=	Design flow/Capacity = Q/Qe	0.14	0.05	0.09

 TOTAL FLOW = 802 (pcu/hr)
 CRITICAL DFC = 0.14

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

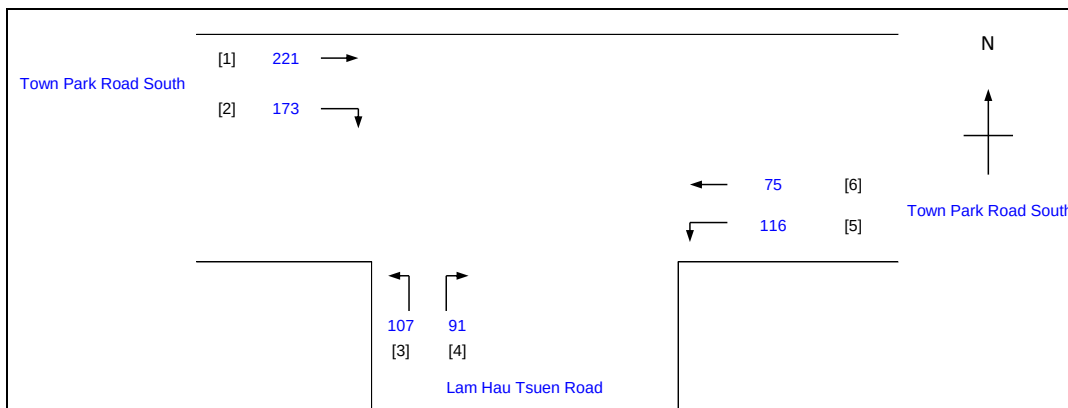
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 DES Saturday Late 21:30-22:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

I = 5 sec

Stage 1 - 2

I = 8 sec

Stage 2 - 3

I = 11 sec

Stage 3 - 4

I = 2 sec

Stage 4 - 1

C = 120 sec

Cycle time

Y = 0.389

Sum(y)

L = 32 sec

Loss time

= 783 pcu

Total Flow

= 86.7 sec

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 52.4 sec

 $Cm = L / (1 - Y)$

= 0.660

 $Y_{ult} = 0.9 - 0.0075L$

= 69.7 %

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

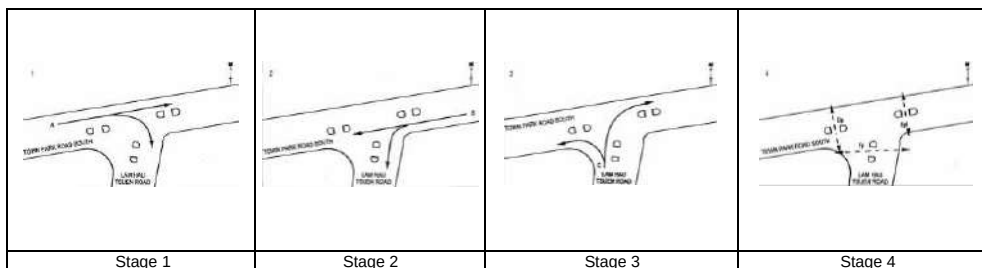
= 56.3 sec

 $Cp = 0.9 \cdot L / (0.9 - Y)$

= 0.733

 $Y_{max} = 1 - L / C$

= 69.7 %

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$


Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Dp	10.5	4	5	4	OK
Ep	10.5	4	5	4	OK
Fp	19.3	4	5	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		221	173	394	0.44	2048			2048	0.192	0.192		44	44	0.525	42	31
5,6	2	4.80	B	1	15		N	2095	116	75		191	0.61	1975			1975	0.097	0.097		22	22	0.527	26	46
5,6	2	5.20	C	1	20		N	2135	107		91	198	1.00	1986			1986	0.100	0.100		23	23	0.520	27	45

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_32_DES_SAT_LATE.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 DES Saturday Late 21:30-22:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 62 (pcu/hr) q a-c = 249 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662 F for (Qb-ac) = 0.265	Q b-a = 494 (pcu/hr) Q b-c = 690 (pcu/hr) Q c-b = 545 (pcu/hr) Q b-ac = 534 (pcu/hr) Q c-a = 1582 (pcu/hr) TOTAL FLOW = 604 (pcu/hr)	DFC b-a = 0.1964 DFC b-c = 0.0507 DFC c-b = 0.1211 DFC b-ac = 0.2471 (Share Lane) DFC c-a = 0.0600 CRITICAL DFC = 0.25
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 95 (pcu/hr) q c-b = 66 (pcu/hr)			
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 97 (pcu/hr) q b-c = 35 (pcu/hr)			

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

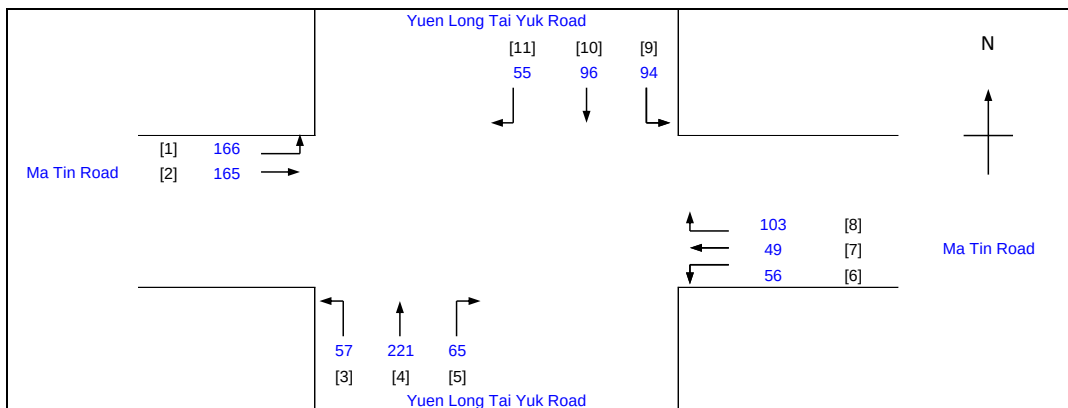
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 DES Saturday Late 21:30-22:30

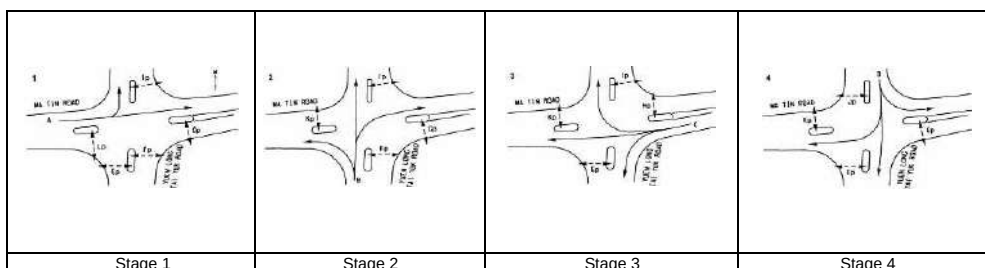
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.300
Loss time	L = 32 sec
Total Flow	= 1127 pcu
Co = (1.5*L+5)/(1-Y)	= 75.7 sec
Cm = L/(1-Y)	= 45.7 sec
Yult = 0.9-0.0075L	= 0.660
R.C.ult = (Yult-Y)/Y*100%	= 119.9 %
Cp = 0.9*L/(0.9-Y)	= 48.0 sec
Ymax = 1-L/C	= 0.733
R.C.(C) = (0.9*Ymax-Y)/Y*100%	= 119.9 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	166			166	1.00	1795			1795	0.092	0.092		27	27	0.411	21	41
2	1	3.60	A	1				2115		165		165	0.00	2115			2115	0.078			23	27	0.347	21	40
3,4	2	3.60	B	1	15		N	1975	57	108		165	0.35	1909			1909	0.086	0.086		25	25	0.415	22	43
4,5	2	3.60	B	1	20			2115		113	65	178	0.37	2059			2059	0.086			25	25	0.415	23	42
3,4	2	3.50	C	1	15		N	1965			103	103	1.00	1786			1786	0.058			17	17	0.407	15	49
4,5	2	3.50	C	1	20			2105	56	49		105	0.53	2024			2024	0.052	0.058		15	17	0.366	15	48
10,11	2	3.50	D	1	20			2105		75	55	130	0.42	2040			2040	0.064	0.064		19	19	0.401	18	47
9,10	2	3.50	D	1	15		N	1965	94	21		115	0.81	1817			1817	0.064			19	19	0.401	16	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_32_DES_SAT_LATE.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 DES Saturday Late 21:30-22:30		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

(ARM A)
Shap Pat Heung Road

(ARM C)
Shap Pat Heung Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 151 (pcu/hr) q a-c = 141 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 561 (pcu/hr) Q b-c = 757 (pcu/hr) Q c-b = 683 (pcu/hr) Q b-ac = 627 (pcu/hr)	DFC b-a = 0.1622 DFC b-c = 0.0819 DFC c-b = 0.2811 DFC b-ac = 0.2441 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 101 (pcu/hr) q c-b = 192 (pcu/hr)	F for (Qb-ac) = 0.405	TOTAL FLOW = 738 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 91 (pcu/hr) q b-c = 62 (pcu/hr)			CRITICAL DFC = 0.28

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 DES Sunday AM 11:30-12:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 44 (pcu/hr) q a-c = 326 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 516 (pcu/hr) Q b-c = 755 (pcu/hr) Q c-b = 573 (pcu/hr) Q b-ac = 680 (pcu/hr) Q c-a = 1665 (pcu/hr) TOTAL FLOW = 691 (pcu/hr)	DFC b-a = 0.0640 DFC b-c = 0.1404 DFC c-b = 0.0750 DFC b-ac = 0.2044 (Share Lane) DFC c-a = 0.0835
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 139 (pcu/hr) q c-b = 43 (pcu/hr)	F for (Qb-ac) = 0.763		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 33 (pcu/hr) q b-c = 106 (pcu/hr)			CRITICAL DFC = 0.20

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

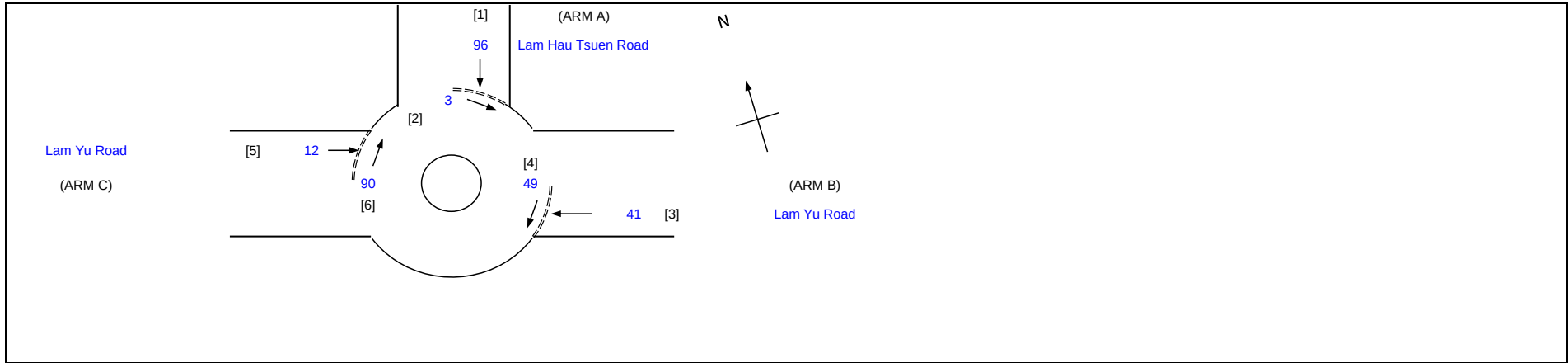
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 DES Sunday AM 11:30-12:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

	ARM	A	B	C
V =	Approach half width (m)	3.6	2.2	5.1
E =	Entry width (m)	5.0	5.0	6.5
L =	Effective length of flare (m)	5.3	14.8	14.3
R =	Entry radius (m)	30.0	77.0	15.0
D =	Inscribed circle diameter (m)	35.0	35.0	35.0
A =	Entry angle (degree)	5.0	0.0	17.0
Q =	Entry flow (pcu/h)	96	41	12
Qc =	Circulating flow across entry (pcu/h)	3	49	90

OUTPUT PARAMETERS:

S =	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K =	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2 =	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M =	$EXP((D-60)/10)$	0.08	0.08	0.08
F =	$303 \times X2$	1321	1195	1868
Td =	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc =	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe =	$K(F-Fc \times Qc)$	1455	1332	1859
DFC =	Design flow/Capacity = Q/Qe	0.07	0.03	0.01

TOTAL FLOW = **291 (pcu/hr)**
CRITICAL DFC = **0.07**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

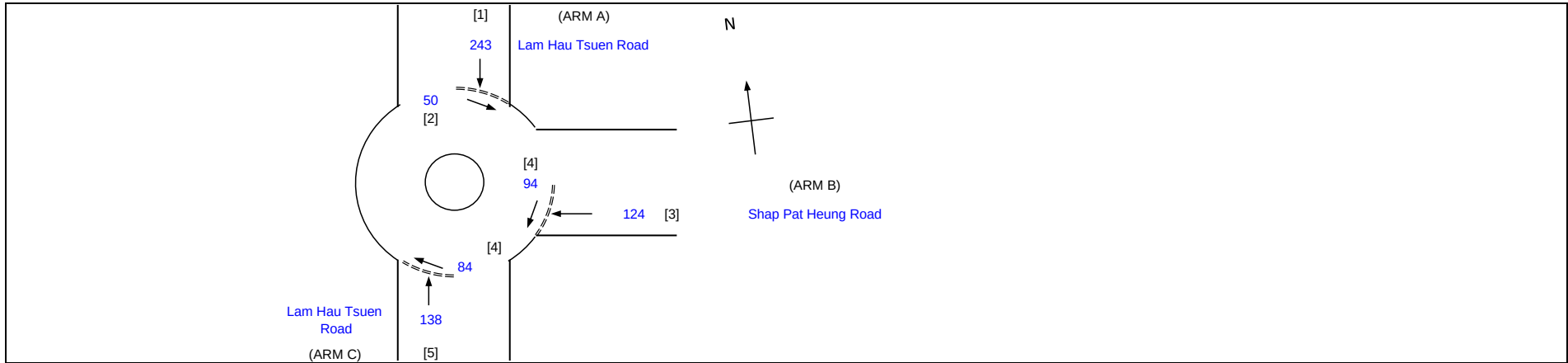
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 DES Sunday AM 11:30-12:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	243	124	138
Qc	=	Circulating flow across entry (pcu/h)	50	94	84

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2046	1949	1788
DFC	=	Design flow/Capacity = Q/Qe	0.12	0.06	0.08

TOTAL FLOW = **733 (pcu/hr)**
CRITICAL DFC = **0.12**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

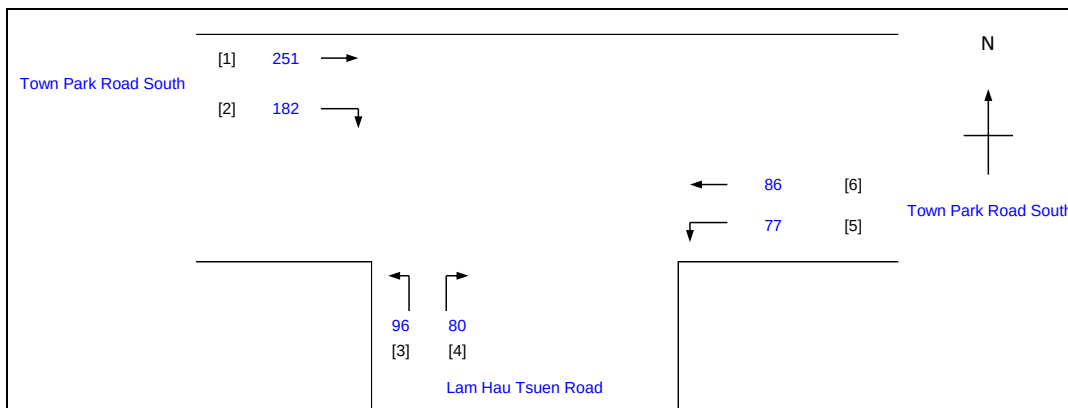
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 DES Sunday AM 11:30-12:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.381

Loss time

L = 32 sec

Total Flow

= 772 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 85.7 sec

 $Cm = L / (1 - Y)$

= 51.7 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 73.1 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

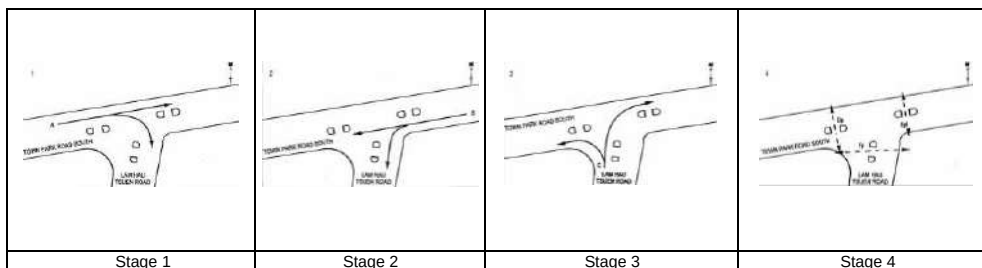
= 55.5 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 73.1 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		251	182	433	0.42	2050			2050	0.211	0.211		49	49	0.517	43	28
5,6	2	4.80	B	1	15		N	2095	77	86		163	0.47	2000			2000	0.081	0.081		19	19	0.515	23	48
5,6	2	5.20	C	1	20		N	2135	96		80	176	1.00	1986			1986	0.089	0.089		20	20	0.532	24	48

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction_33 DES_SUN_AM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 DES Sunday AM 11:30-12:30		Reviewed By:	AW 8/8/2026

(ARM B)
Town Park Road North

[6] 55 [5] 47

Town Park Road South (ARM A)

[1] 42 [2] 288

Ma Tin Road (ARM C)

53 [4] 123 [3]

N

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 42 (pcu/hr) q a-c = 288 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662	Q b-a = 488 (pcu/hr) Q b-c = 683 (pcu/hr) Q c-b = 541 (pcu/hr) Q b-ac = 562 (pcu/hr) Q c-a = 1624 (pcu/hr) TOTAL FLOW = 608 (pcu/hr)	DFC b-a = 0.1127 DFC b-c = 0.0688 DFC c-b = 0.0980 DFC b-ac = 0.1815 (Share Lane) DFC c-a = 0.0758
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 123 (pcu/hr) q c-b = 53 (pcu/hr)	F for (Qb-ac) = 0.461		
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 55 (pcu/hr) q b-c = 47 (pcu/hr)			CRITICAL DFC = 0.18

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

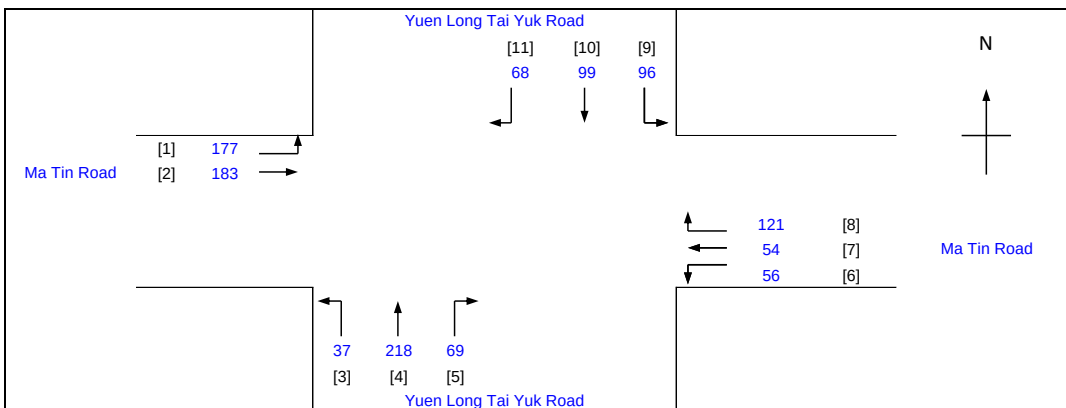
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 DES Sunday AM 11:30-12:30

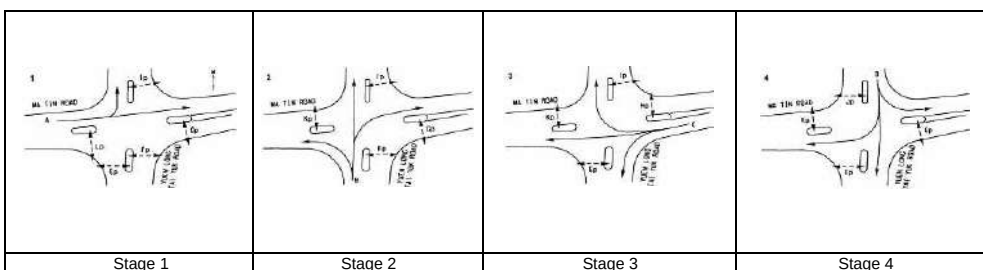
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.316
Loss time	L = 32 sec
Total Flow	= 1178 pcu
Co = (1.5*L+5)/(1-Y)	= 77.5 sec
Cm = L/(1-Y)	= 46.8 sec
Yult = 0.9-0.0075L	= 0.660
R.C.ult = (Yult-Y)/Y*100%	= 108.9 %
Cp = 0.9*L/(0.9-Y)	= 49.3 sec
Ymax = 1-L/C	= 0.733
R.C.(C) = (0.9*Ymax-Y)/Y*100%	= 108.9 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	177			177	1.00	1795			1795	0.099	0.099		27	27	0.438	23	42
2	1	3.60	A	1				2115		183		183	0.00	2115			2115	0.087			24	27	0.385	24	41
3,4	2	3.60	B	1	15		N	1975	37	120		157	0.24	1930			1930	0.081	0.081		23	23	0.425	21	44
4,5	2	3.60	B	1	20			2115		98	69	167	0.41	2051			2051	0.081			23	23	0.425	22	44
3,4	2	3.50	C	1	15		N	1965			121	121	1.00	1786			1786	0.068			19	19	0.428	17	47
4,5	2	3.50	C	1	20			2105	56	54		110	0.51	2028			2028	0.054	0.068		15	19	0.343	15	46
10,11	2	3.50	D	1	20			2105		71	68	139	0.49	2030			2030	0.068	0.068		19	19	0.431	19	47
9,10	2	3.50	D	1	15		N	1965	96	28		124	0.77	1824			1824	0.068			19	19	0.431	17	47

d:\Axon\Project31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_33_DES_SUN_AM.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 DES Sunday AM 11:30-12:30		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

(ARM A)
Shap Pat Heung Road

(ARM C)
Shap Pat Heung Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 148 (pcu/hr) q a-c = 163 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 539 (pcu/hr) Q b-c = 751 (pcu/hr) Q c-b = 678 (pcu/hr) Q b-ac = 598 (pcu/hr)	DFC b-a = 0.2022 DFC b-c = 0.0772 DFC c-b = 0.3392 DFC b-ac = 0.2795 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 116 (pcu/hr) q c-b = 230 (pcu/hr)	F for (Qb-ac) = 0.347	TOTAL FLOW = 824 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 109 (pcu/hr) q b-c = 58 (pcu/hr)			CRITICAL DFC = 0.34

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 DES Sunday Noon 12:30-13:30		Reviewed By:	AW 8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 65 (pcu/hr) q a-c = 309 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693 F for (Qb-ac) = 0.693	Q b-a = 512 (pcu/hr) Q b-c = 758 (pcu/hr) Q c-b = 572 (pcu/hr) Q b-ac = 660 (pcu/hr) Q c-a = 1599 (pcu/hr) TOTAL FLOW = 749 (pcu/hr)	DFC b-a = 0.1074 DFC b-c = 0.1636 DFC c-b = 0.1119 DFC b-ac = 0.2710 (Share Lane) DFC c-a = 0.0826 CRITICAL DFC = 0.27
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 132 (pcu/hr) q c-b = 64 (pcu/hr)			
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 55 (pcu/hr) q b-c = 124 (pcu/hr)			

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

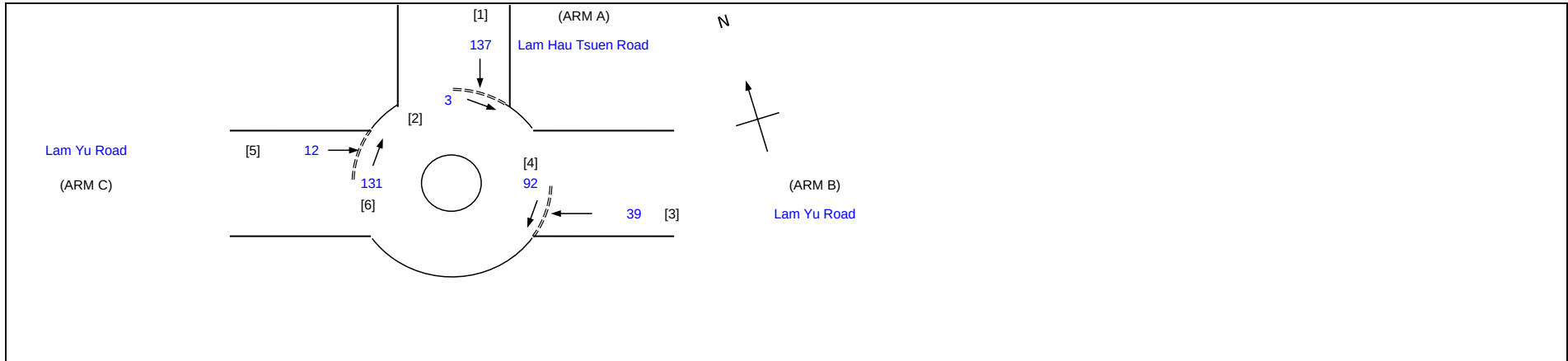
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 DES Sunday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:
ARM
A
B
C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	137	39	12
Qc	=	Circulating flow across entry (pcu/h)	3	92	131

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1455	1305	1830
DFC	=	Design flow/Capacity = Q/Qe	0.09	0.03	0.01

TOTAL FLOW = **414 (pcu/hr)**
CRITICAL DFC = **0.09**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

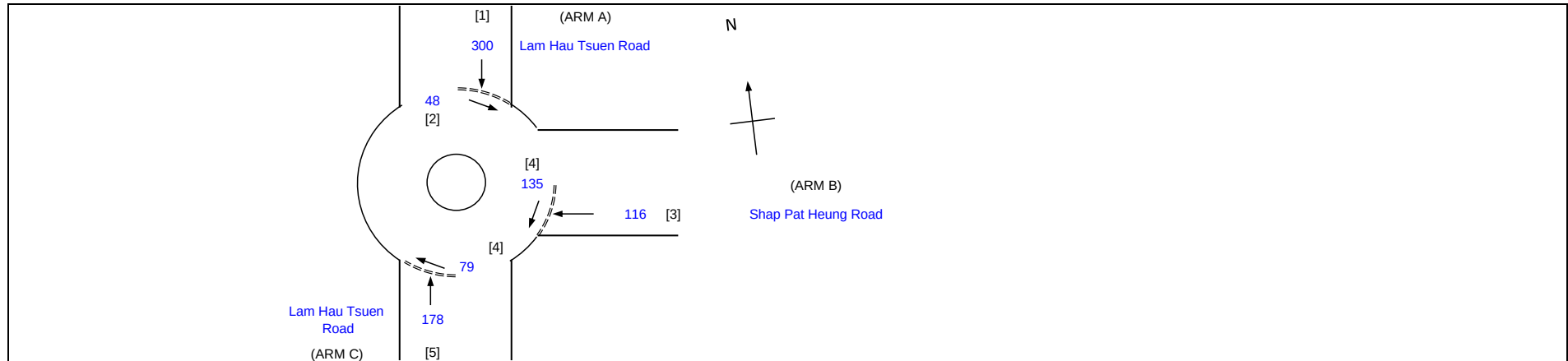
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 DES Sunday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	300	116	178
Qc	=	Circulating flow across entry (pcu/h)	48	135	79

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2047	1919	1791
DFC	=	Design flow/Capacity = Q/Qe	0.15	0.06	0.10

TOTAL FLOW = 856 (pcu/hr)
CRITICAL DFC = 0.15

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

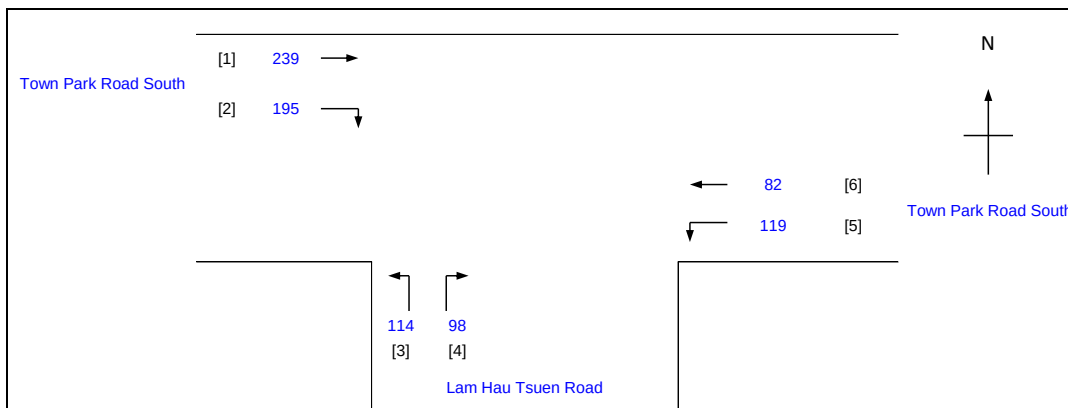
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 DES Sunday Noon 12:30-13:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.420

Loss time

L = 32 sec

Total Flow

= 847 pcu

 $C_o = (1.5 \cdot L + 5) / (1 - Y)$

= 91.5 sec

 $C_m = L / (1 - Y)$

= 55.2 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 57.0 %

 $C_p = 0.9 \cdot L / (0.9 - Y)$

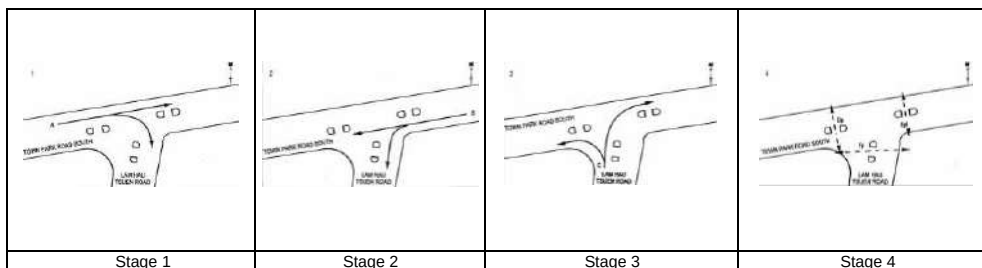
= 60.1 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 57.0 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		239	195	434	0.45	2046			2046	0.212	0.212		44	44	0.578	46	32
5,6	2	4.80	B	1	15		N	2095	119	82		201	0.59	1978			1978	0.102	0.102		21	21	0.581	28	48
5,6	2	5.20	C	1	20		N	2135	114		98	212	1.00	1986			1986	0.107	0.107		22	22	0.582	29	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_34_DES_SUN_NOON.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 DES Sunday Noon 12:30-13:30		Reviewed By:	AW	8/8/2026

(ARM B)
Town Park Road North

(ARM A)
Town Park Road South

(ARM C)
Ma Tin Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 63 (pcu/hr) q a-c = 273 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662	Q b-a = 484 (pcu/hr) Q b-c = 684 (pcu/hr) Q c-b = 540 (pcu/hr) Q b-ac = 533 (pcu/hr) Q c-a = 1557 (pcu/hr) TOTAL FLOW = 669 (pcu/hr)	DFC b-a = 0.2045 DFC b-c = 0.0658 DFC c-b = 0.1352 DFC b-ac = 0.2703 (Share Lane) DFC c-a = 0.0745
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 116 (pcu/hr) q c-b = 73 (pcu/hr)	F for (Qb-ac) = 0.313		
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 99 (pcu/hr) q b-c = 45 (pcu/hr)			CRITICAL DFC = 0.27

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

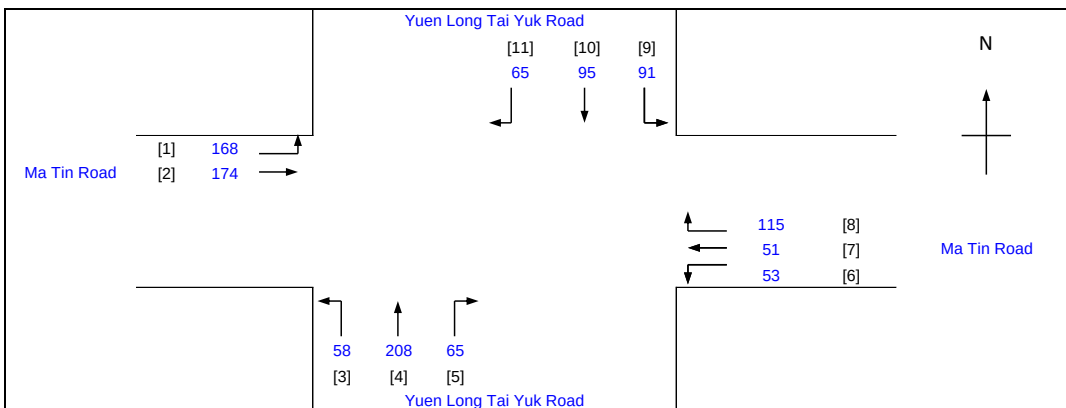
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 DES Sunday Noon 12:30-13:30

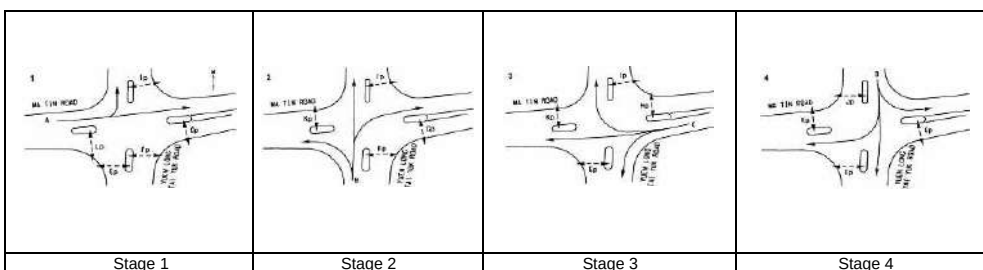
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N = 4
Intergreen Period	Stage 1 - 2 I = 5 sec
	Stage 2 - 3 I = 10 sec
	Stage 3 - 4 I = 11 sec
	Stage 4 - 1 I = 10 sec
Cycle time	C = 120 sec
Sum(y)	Y = 0.307
Loss time	L = 32 sec
Total Flow	= 1143 pcu
Co	= (1.5*L+5)/(1-Y) = 76.4 sec
Cm	= L/(1-Y) = 46.1 sec
Yult	= 0.9-0.0075L = 0.660
R.C.ult	= (Yult-Y)/Y*100% = 115.3 %
Cp	= 0.9*L/(0.9-Y) = 48.5 sec
Ymax	= 1-L/C = 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100% = 115.3 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	168			168	1.00	1795			1795	0.094	0.094		27	27	0.416	22	41
2	1	3.60	A	1				2115		174		174	0.00	2115			2115	0.082			24	27	0.366	22	40
3,4	2	3.60	B	1	15		N	1975	58	101		159	0.36	1906			1906	0.084	0.084		24	24	0.418	21	43
4,5	2	3.60	B	1	20			2115		107	65	172	0.38	2057			2057	0.084			24	24	0.418	23	43
3,4	2	3.50	C	1	15		N	1965			115	115	1.00	1786			1786	0.064			18	18	0.429	16	48
4,5	2	3.50	C	1	20			2105	53	51		104	0.51	2028			2028	0.051	0.064		15	18	0.342	15	47
10,11	2	3.50	D	1	20			2105		67	65	132	0.49	2030			2030	0.065	0.065		19	19	0.411	19	47
9,10	2	3.50	D	1	15		N	1965	91	28		119	0.77	1825			1825	0.065			19	19	0.411	17	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_34_DES_SUN_NOON.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 DES Sunday Noon 12:30-13:30		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 102 [5] 54

(ARM A)
Shap Pat Heung Road

[1] 163 [2] 156

(ARM C)
Shap Pat Heung Road

[4] 218 [3] 111

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 163 (pcu/hr) q a-c = 156 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 111 (pcu/hr) q c-b = 218 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 102 (pcu/hr) q b-c = 54 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.346	THE CAPACITY OF MOVEMENT : Q b-a = 545 (pcu/hr) Q b-c = 751 (pcu/hr) Q c-b = 676 (pcu/hr) Q b-ac = 602 (pcu/hr) TOTAL FLOW = 804 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.1872 DFC b-c = 0.0719 DFC c-b = 0.3225 DFC b-ac = 0.2591 (Share Lane) CRITICAL DFC = 0.32
--	---	--	---

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 DES Sunday PM 17:30-18:30		Reviewed By:	AW 8/8/2026

(ARM A)
Town Park Road South

(ARM B)
Town Park Road North

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 47 (pcu/hr) q a-c = 353 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 506 (pcu/hr) Q b-c = 747 (pcu/hr) Q c-b = 566 (pcu/hr) Q b-ac = 673 (pcu/hr) Q c-a = 1657 (pcu/hr) TOTAL FLOW = 743 (pcu/hr)	DFC b-a = 0.0672 DFC b-c = 0.1526 DFC c-b = 0.0795 DFC b-ac = 0.2198 (Share Lane) DFC c-a = 0.0905
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 150 (pcu/hr) q c-b = 45 (pcu/hr)	F for (Qb-ac) = 0.77		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 34 (pcu/hr) q b-c = 114 (pcu/hr)			CRITICAL DFC = 0.22

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

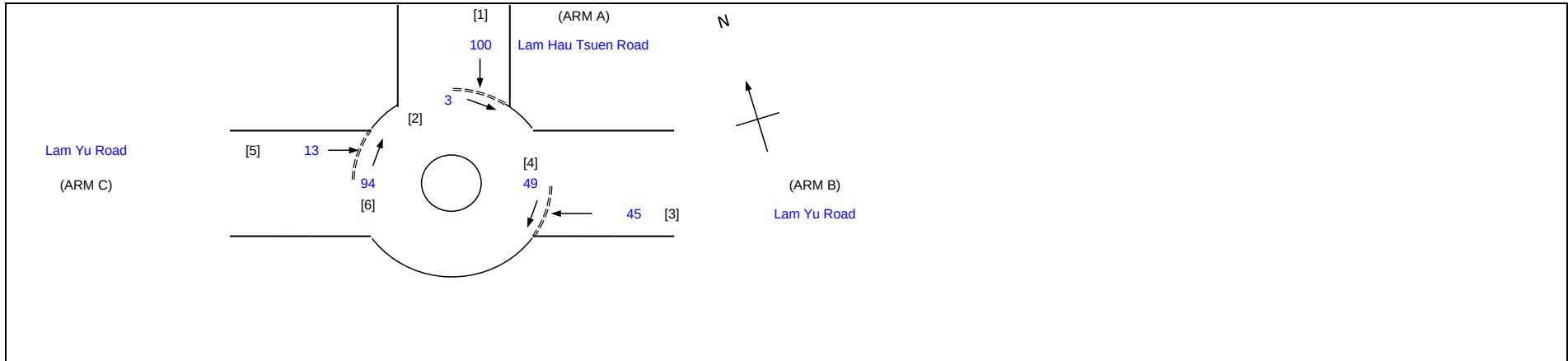
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 DES Sunday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	100	45	13
Qc	=	Circulating flow across entry (pcu/h)	3	49	94

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1455	1332	1856
DFC	=	Design flow/Capacity = Q/Qe	0.07	0.03	0.01

TOTAL FLOW = **304 (pcu/hr)**
CRITICAL DFC = **0.07**

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

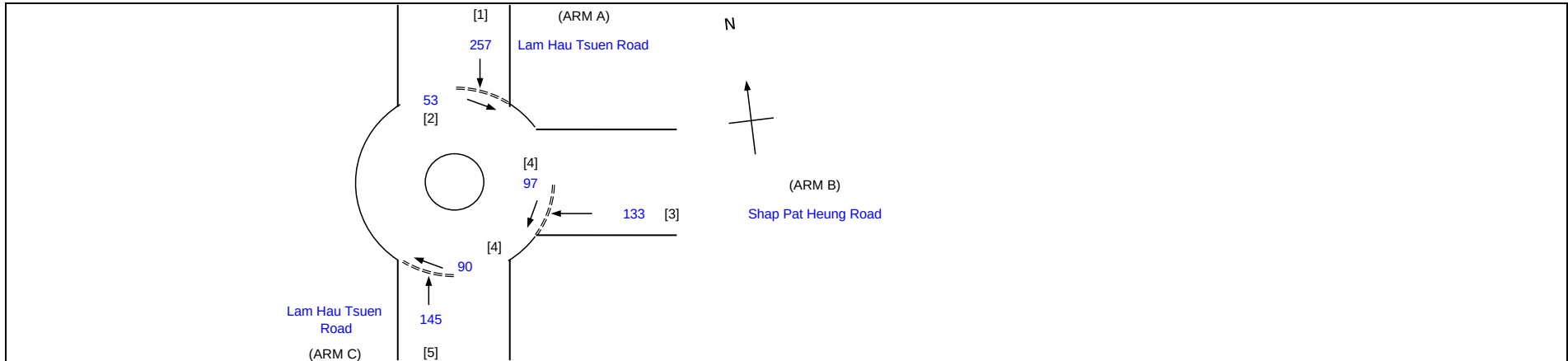
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 DES Sunday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



GEOMETRIC DETAILS:

	ARM	A	B	C
V =	Approach half width (m)	5.3	4.5	3.6
E =	Entry width (m)	7.0	7.0	7.0
L =	Effective length of flare (m)	14.2	15.0	14.0
R =	Entry radius (m)	48.0	56.0	33.0
D =	Inscribed circle diameter (m)	35.0	35.0	35.0
A =	Entry angle (degree)	23.0	14.0	5.0
Q =	Entry flow (pcu/h)	257	133	145
Qc =	Circulating flow across entry (pcu/h)	53	97	90

OUTPUT PARAMETERS:

S =	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K =	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2 =	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M =	$EXP((D-60)/10)$	0.08	0.08	0.08
F =	$303 \times X2$	1978	1858	1670
Td =	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc =	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe =	$K(F-Fc \times Qc)$	2043	1947	1783
DFC =	Design flow/Capacity = Q/Qe	0.13	0.07	0.08

TOTAL FLOW = 775 (pcu/hr)
CRITICAL DFC = 0.13

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

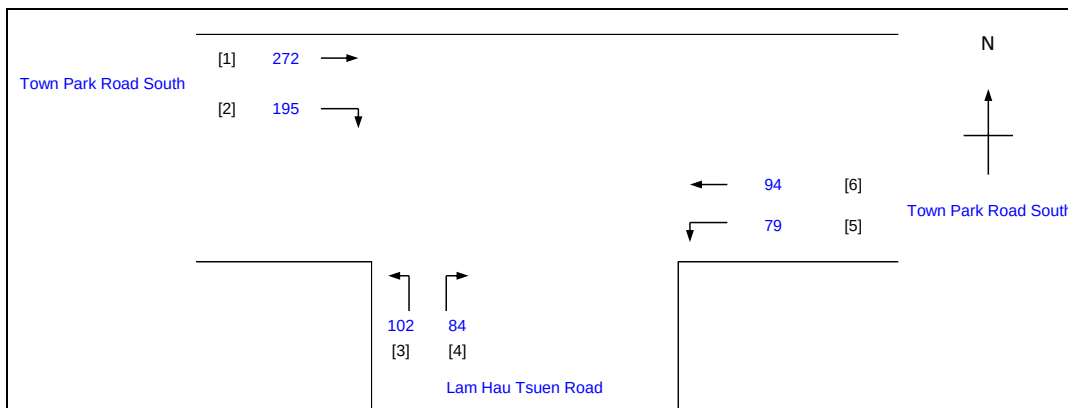
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 DES Sunday PM 17:30-18:30

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

Stage 1 - 2

I = 5 sec

Stage 2 - 3

I = 8 sec

Stage 3 - 4

I = 11 sec

Stage 4 - 1

I = 2 sec

Cycle time

C = 120 sec

Sum(y)

Y = 0.408

Loss time

L = 32 sec

Total Flow

= 826 pcu

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 89.5 sec

 $Cm = L / (1 - Y)$

= 54.0 sec

 $Y_{ult} = 0.9 - 0.0075L$

= 0.660

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

= 61.9 %

 $Cp = 0.9 \cdot L / (0.9 - Y)$

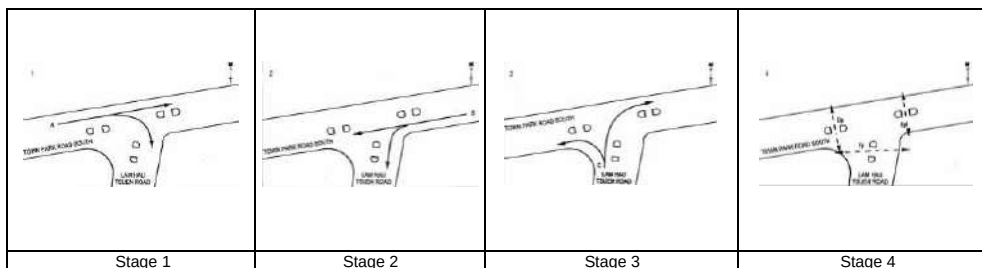
= 58.5 sec

 $Y_{max} = 1 - L / C$

= 0.733

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$

= 61.9 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)		Green Time Provided (s)		Check
			SG	FG	SG	FG	
Dp	10.5	4	5	4	9	4	OK
Ep	10.5	4	5	4	5	4	OK
Fp	19.3	4	5	8	8	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		272	195	467	0.42	2051			2051	0.228	0.228		49	49	0.558	46	29
5,6	2	4.80	B	1	15		N	2095	79	94		173	0.46	2004			2004	0.086	0.086		19	19	0.545	24	49
5,6	2	5.20	C	1	20		N	2135	102		84	186	1.00	1986			1986	0.094	0.094		20	20	0.562	26	48

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction_35_DES_SUN_PM.xls\J

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

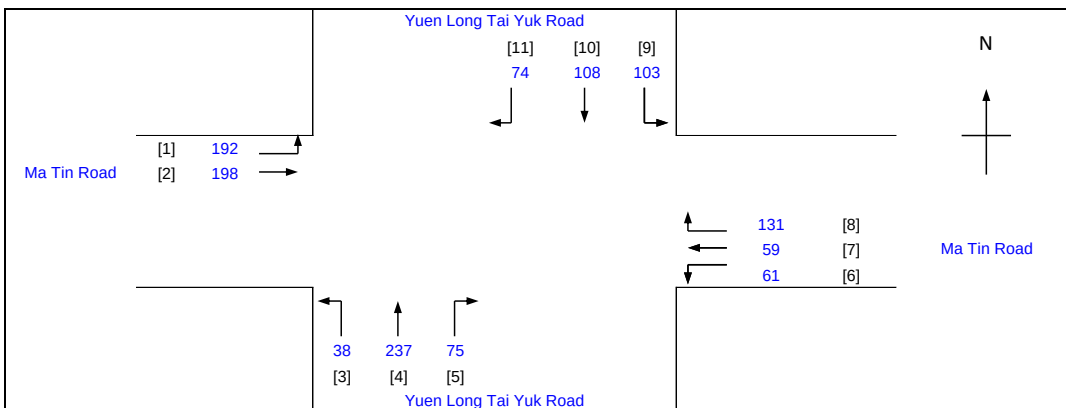
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 DES Sunday PM 17:30-18:30

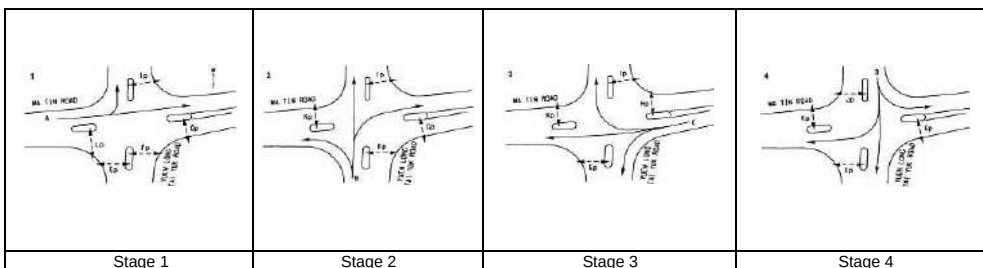
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N =	4
Intergreen Period	Stage 1 - 2	I = 5 sec
	Stage 2 - 3	I = 10 sec
	Stage 3 - 4	I = 11 sec
	Stage 4 - 1	I = 10 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.342
Loss time	L =	32 sec
Total Flow		= 1276 pcu
Co	= (1.5*L+5)/(1-Y)	= 80.6 sec
Cm	= L/(1-Y)	= 48.6 sec
Yult	= 0.9-0.0075L	= 0.660
R.C.ult	= (Yult-Y)/Y*100%	= 92.9 %
Cp	= 0.9*L/(0.9-Y)	= 51.6 sec
Ymax	= 1-L/C	= 0.733
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 92.9 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	192			192	1.00	1795			1795	0.107	0.107		28	28	0.458	25	41
2	1	3.60	A	1				2115		198		198	0.00	2115			2115	0.094			24	28	0.401	25	40
3,4	2	3.60	B	1	15		N	1975	38	132		170	0.22	1932			1932	0.088	0.088		23	23	0.458	23	45
4,5	2	3.60	B	1	20			2115		105	75	180	0.42	2051			2051	0.088			23	23	0.458	24	45
3,4	2	3.50	C	1	15		N	1965			131	131	1.00	1786			1786	0.073			19	19	0.463	18	48
4,5	2	3.50	C	1	20			2105	61	59		120	0.51	2028			2028	0.059	0.073		15	19	0.374	17	47
10,11	2	3.50	D	1	20			2105		76	74	150	0.49	2030			2030	0.074	0.074		19	19	0.467	21	48
9,10	2	3.50	D	1	15		N	1965	103	32		135	0.76	1826			1826	0.074			19	19	0.467	19	48

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_35_DES_SUN_PM.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION		INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK 8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY 8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 DES Sunday PM 17:30-18:30		Reviewed By:	AW 8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

[6] 117 [5] 62

(ARM A)
Shap Pat Heung Road

[1] 158 [2] 177

(ARM C)
Shap Pat Heung Road

[4] 249 [3] 126

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 158 (pcu/hr) q a-c = 177 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 126 (pcu/hr) q c-b = 249 (pcu/hr) MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 117 (pcu/hr) q b-c = 62 (pcu/hr)	GEOMETRIC FACTORS : D = 1.025 E = 1.091 F = 1.019 Y = 0.703 F for (Qb-ac) = 0.346	THE CAPACITY OF MOVEMENT : Q b-a = 526 (pcu/hr) Q b-c = 746 (pcu/hr) Q c-b = 671 (pcu/hr) Q b-ac = 586 (pcu/hr) TOTAL FLOW = 889 (pcu/hr)	COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.2224 DFC b-c = 0.0831 DFC c-b = 0.3711 DFC b-ac = 0.3055 (Share Lane) CRITICAL DFC = 0.37
--	---	--	---

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnA - Town Park Road South/ Town Park Road North (TPRN - Minor Arm)		2029 DES Sunday Late 21:00-22:00		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.9 (metres) W cr = 1.5 (metres) q a-b = 65 (pcu/hr) q a-c = 303 (pcu/hr)	D = 0.985 E = 1.147 F = 0.879 Y = 0.693	Q b-a = 514 (pcu/hr) Q b-c = 760 (pcu/hr) Q c-b = 573 (pcu/hr) Q b-ac = 663 (pcu/hr) Q c-a = 1599 (pcu/hr) TOTAL FLOW = 738 (pcu/hr)	DFC b-a = 0.1051 DFC b-c = 0.1618 DFC c-b = 0.1117 DFC b-ac = 0.2669 (Share Lane) DFC c-a = 0.0807
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 140 (metres) q c-a = 129 (pcu/hr) q c-b = 64 (pcu/hr)	F for (Qb-ac) = 0.695		
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 140 (metres) q b-a = 54 (pcu/hr) q b-c = 123 (pcu/hr)			CRITICAL DFC = 0.27

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

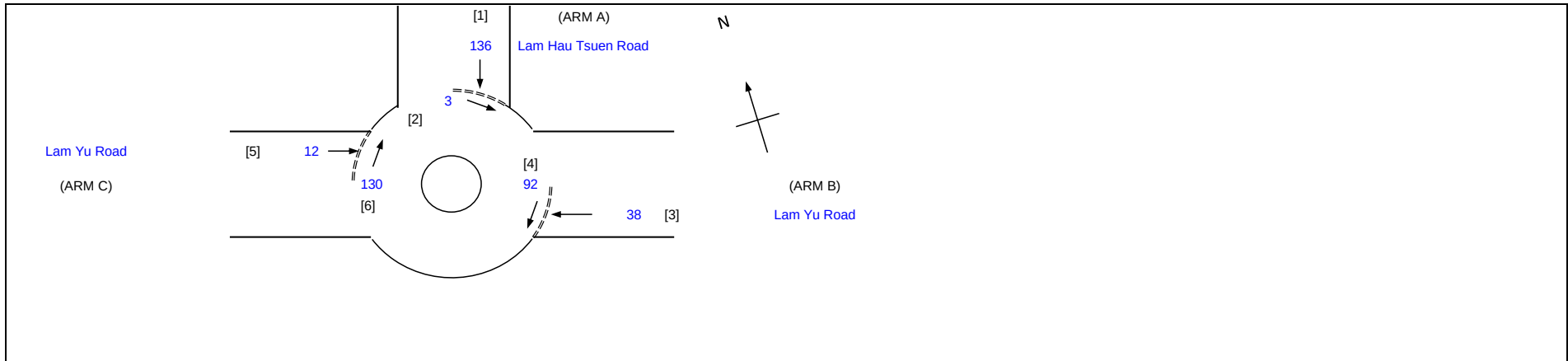
JnB - Lam Hau Tsuen Road / Lam Yu Road

2029 DES Sunday Late 21:00-22:00

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	3.6	2.2	5.1
E	=	Entry width (m)	5.0	5.0	6.5
L	=	Effective length of flare (m)	5.3	14.8	14.3
R	=	Entry radius (m)	30.0	77.0	15.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	5.0	0.0	17.0
Q	=	Entry flow (pcu/h)	136	38	12
Qc	=	Circulating flow across entry (pcu/h)	3	92	130

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.42	0.30	0.16
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.10	1.14	1.03
X2	=	$V + ((E-V)/(1+2S))$	4.36	3.94	6.17
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1321	1195	1868
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.57	0.55	0.69
Qe	=	$K(F-Fc \times Qc)$	1455	1305	1830
DFC	=	Design flow/Capacity = Q/Qe	0.09	0.03	0.01

 TOTAL FLOW = 411 (pcu/hr)
 CRITICAL DFC = 0.09

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

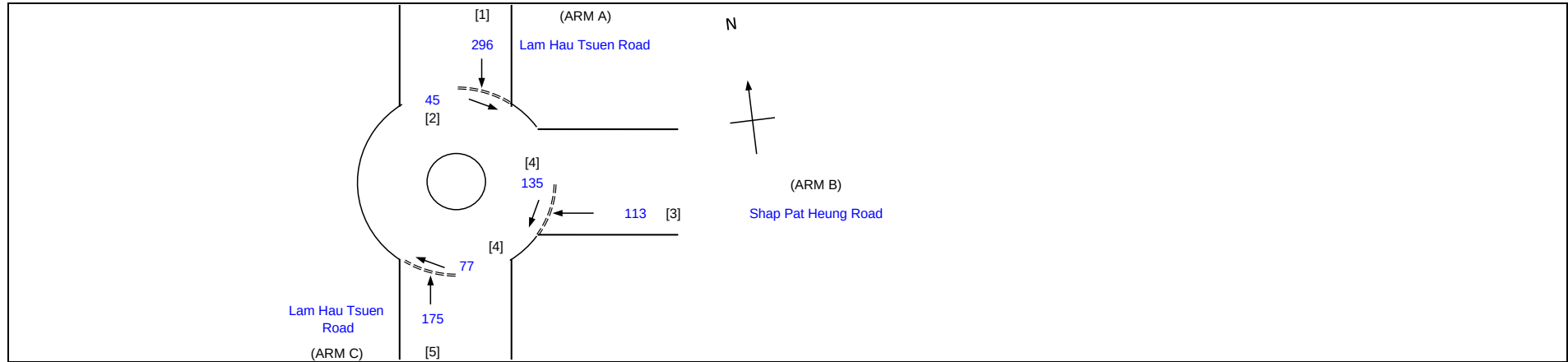
JnC - Lam Hau Tsuen Road / Shap Pat Heung Road

2029 DES Sunday Late 21:00-22:00

Reviewed By:

AW

8/8/2026


GEOMETRIC DETAILS:

ARM A B C

V	=	Approach half width (m)	5.3	4.5	3.6
E	=	Entry width (m)	7.0	7.0	7.0
L	=	Effective length of flare (m)	14.2	15.0	14.0
R	=	Entry radius (m)	48.0	56.0	33.0
D	=	Inscribed circle diameter (m)	35.0	35.0	35.0
A	=	Entry angle (degree)	23.0	14.0	5.0
Q	=	Entry flow (pcu/h)	296	113	175
Qc	=	Circulating flow across entry (pcu/h)	45	135	77

OUTPUT PARAMETERS:

S	=	Sharpness of flare = $1.6(E-V)/L$	0.19	0.27	0.39
K	=	$1-0.00347(A-30)-0.978(1/R-0.05)$	1.05	1.09	1.11
X2	=	$V + ((E-V)/(1+2S))$	6.53	6.13	5.51
M	=	$EXP((D-60)/10)$	0.08	0.08	0.08
F	=	$303 \times X2$	1978	1858	1670
Td	=	$1+(0.5/(1+M))$	1.46	1.46	1.46
Fc	=	$0.21 \times Td(1+0.2 \times X2)$	0.71	0.68	0.65
Qe	=	$K(F-Fc \times Qc)$	2049	1919	1793
DFC	=	Design flow/Capacity = Q/Qe	0.14	0.06	0.10

 TOTAL FLOW = 841 (pcu/hr)
 CRITICAL DFC = 0.14

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

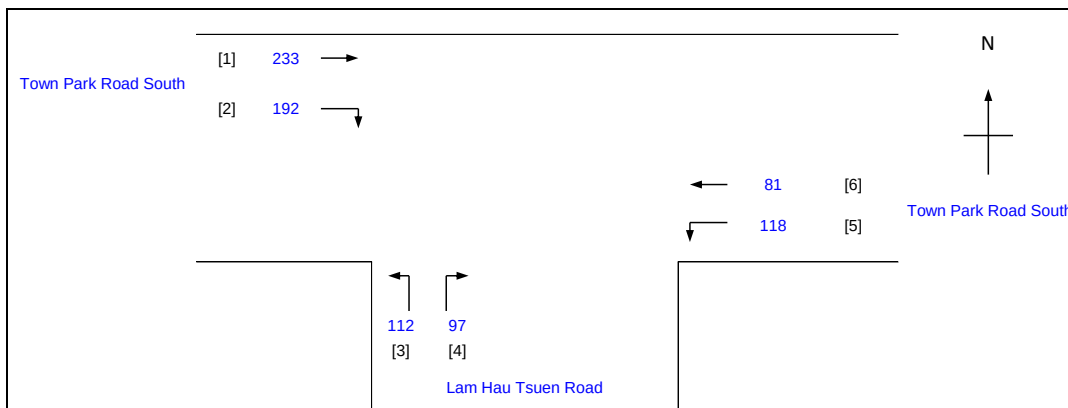
JnD - Town Park Road South / Lam Hau Tsuen Road

2029 DES Sunday Late 21:00-22:00

Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:

N = 3

Intergreen Period

I = 5 sec

Stage 1 - 2

I = 8 sec

Stage 2 - 3

I = 11 sec

Stage 3 - 4

I = 2 sec

Stage 4 - 1

C = 120 sec

Cycle time

Y = 0.414

Sum(y)

L = 32 sec

Loss time

= 833 pcu

Total Flow

= 90.4 sec

 $Co = (1.5 \cdot L + 5) / (1 - Y)$

= 54.6 sec

 $Cm = L / (1 - Y)$

= 0.660

 $Y_{ult} = 0.9 - 0.0075L$

= 59.6 %

 $R.C.ult = (Y_{ult} - Y) / Y \cdot 100\%$

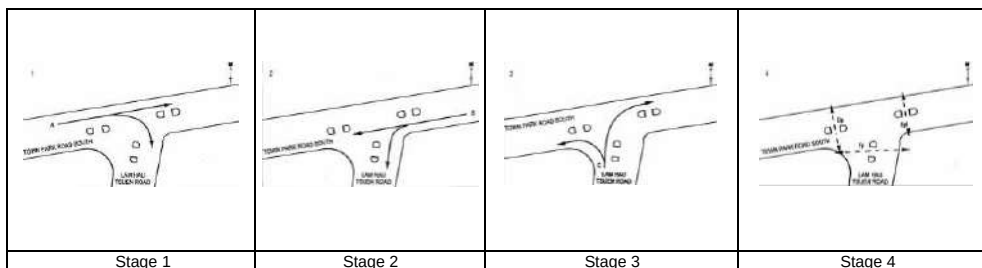
= 59.2 sec

 $Cp = 0.9 \cdot L / (0.9 - Y)$

= 0.733

 $Y_{max} = 1 - L / C$

= 59.6 %

 $R.C.(C) = (0.9 \cdot Y_{max} - Y) / Y \cdot 100\%$


Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s)	Green Time Provided (s)	Check
Dp	10.5	4	5	4	OK
Ep	10.5	4	5	4	OK
Fp	19.3	4	5	8	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1,2	1	3.60	A	1	20			2115		233	192	425	0.45	2046			2046	0.208	0.208		44	44	0.567	45	32
5,6	2	4.80	B	1	15		N	2095	118	81		199	0.59	1978			1978	0.101	0.101		21	21	0.575	27	48
5,6	2	5.20	C	1	20		N	2135	112		97	209	1.00	1986			1986	0.105	0.105		22	22	0.574	28	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073 Junction_36_DES_SUN_LATE.xls|D

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnE - Town Park Road South / Ma Tin Road / Town Park Road North		2029 DES Sunday Late 21:00-22:00		Reviewed By:	AW	8/8/2026

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 9.8 (metres) W cr = 0 (metres) q a-b = 63 (pcu/hr) q a-c = 267 (pcu/hr)	D = 0.944 E = 1.017 F = 0.813 Y = 0.662	Q b-a = 485 (pcu/hr) Q b-c = 686 (pcu/hr) Q c-b = 541 (pcu/hr) Q b-ac = 533 (pcu/hr) Q c-a = 1557 (pcu/hr) TOTAL FLOW = 658 (pcu/hr)	DFC b-a = 0.2021 DFC b-c = 0.0641 DFC c-b = 0.1349 DFC b-ac = 0.2662 (Share Lane) DFC c-a = 0.0726
MAJOR ROAD (ARM C) W c-b = 2.2 (metres) Vr c-b = 55 (metres) q c-a = 113 (pcu/hr) q c-b = 73 (pcu/hr)	F for (Qb-ac) = 0.31		
MINOR ROAD (ARM B) W b-a = 4.5 (metres) W b-c = 4.5 (metres) VI b-a = 45 (metres) Vr b-a = 45 (metres) Vr b-c = 55 (metres) q b-a = 98 (pcu/hr) q b-c = 44 (pcu/hr)			CRITICAL DFC = 0.27

AXON CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,

Project No.: 31073

Prepared By:

JK

8/8/2026

Shan Ha Road, Yuen Long, New Territories

Checked By:

SY

8/8/2026

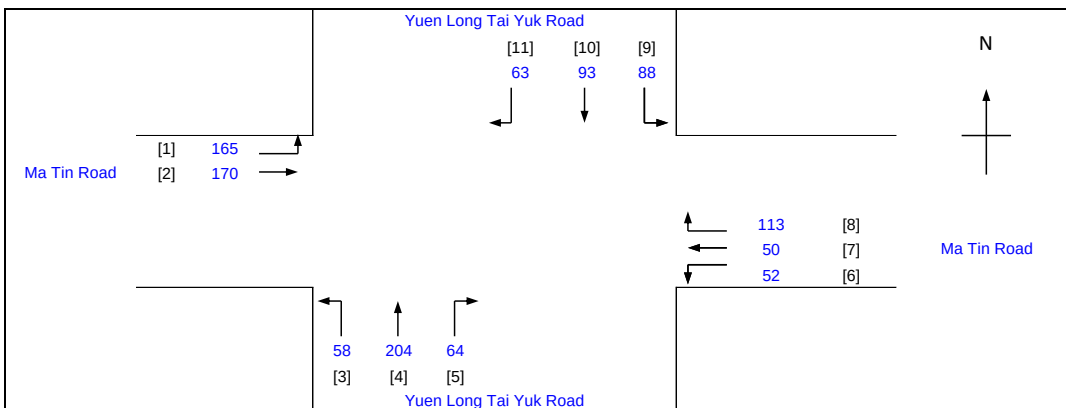
JnF - Ma Tin Road / Yuen Long Tai Yuk Road

2029 DES Sunday Late 21:00-22:00

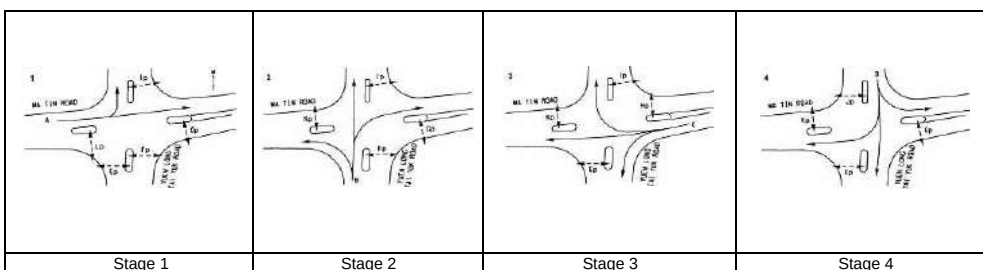
Reviewed By:

AW

8/8/2026



No. of critical vehicular phase per cycle:	N =	4
Intergreen Period	I =	5 sec
Stage 1 - 2	I =	10 sec
Stage 2 - 3	I =	11 sec
Stage 3 - 4	I =	10 sec
Stage 4 - 1	I =	10 sec
Cycle time	C =	120 sec
Sum(y)	Y =	0.301
Loss time	L =	32 sec
Total Flow		= 1120 pcu
Co = (1.5*L+5)/(1-Y)		= 75.8 sec
Cm = L/(1-Y)		= 45.8 sec
Yult = 0.9-0.0075L		= 0.660
R.C.ult = (Yult-Y)/Y*100%		= 119.5 %
Cp = 0.9*L/(0.9-Y)		= 48.1 sec
Ymax = 1-L/C		= 0.733
R.C.(C) = (0.9*Ymax-Y)/Y*100%		= 119.5 %



Pedestrian Phase	Width (m)	Stage no.	Green Time Required (s) SG	Green Time Provided (s) FG	Check
Ep	7.9	3,4,1	5	8	OK
Fp	7.6	1,2	5	7	OK
Gp	7.3	4,1,2	5	7	OK
Hp	8.3	3	5	8	OK
Ip	7.6	1,2,3	5	8	OK
Jp	7.4	4	5	7	OK
Kp	7.3	2,3,4	5	7	OK
Lp	9.7	1	5	11	OK

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Left Flow pcu/h	Straight Flow pcu/h	Right Flow pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Flare lane Effect	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m/lane)	Average Delay (sec)
1	1	3.60	A	1	15		N	1975	165			165	1.00	1795			1795	0.092	0.092		27	27	0.408	21	41
2	1	3.60	A	1				2115		170		170	0.00	2115			2115	0.080			24	27	0.357	22	40
3,4	2	3.60	B	1	15		N	1975	58	99		157	0.37	1905			1905	0.082	0.082		24	24	0.411	21	43
4,5	2	3.60	B	1	20			2115		105	64	169	0.38	2057			2057	0.082			24	24	0.411	23	43
3,4	2	3.50	C	1	15		N	1965			113	113	1.00	1786			1786	0.063			19	19	0.400	16	47
4,5	2	3.50	C	1	20			2105	52	50		102	0.51	2027			2027	0.050	0.063		15	19	0.318	14	46
10,11	2	3.50	D	1	20			2105		65	63	128	0.49	2030			2030	0.063	0.063		19	19	0.400	18	47
9,10	2	3.50	D	1	15		N	1965	88	28		116	0.76	1826			1826	0.063			19	19	0.400	16	47

d:\Axon\Project\31073 Ankor Driving School, Shan Ha Road\Data\Calculation\20260807\31073_Junction_36_DES_SUN_LATE.xls

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

AXON CONSULTANCY LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Traffic Impact Assessment for Section 16 Planning Application for Proposed Temporary Driving School for a Period of 3 Years at Lot 2620 RP (Part) in D.D. 120,		Project No.:	31073	Prepared By:	JK	8/8/2026
Shan Ha Road, Yuen Long, New Territories				Checked By:	SY	8/8/2026
JnG - Shap Pat Heung Road / Yuen Long Tai Yuk Road		2029 DES Sunday Late 21:00-22:00		Reviewed By:	AW	8/8/2026

(ARM B)
Yuen Long Tai Yuk Road

(ARM A)
Shap Pat Heung Road

(ARM C)
Shap Pat Heung Road

NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

F = STREAM-SPECIFIC C-B

Y = (1-0.0345W)

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISON OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A) W = 8.6 (metres) W cr = 4.2 (metres) q a-b = 161 (pcu/hr) q a-c = 152 (pcu/hr)	D = 1.025 E = 1.091 F = 1.019 Y = 0.703	Q b-a = 548 (pcu/hr) Q b-c = 753 (pcu/hr) Q c-b = 677 (pcu/hr) Q b-ac = 605 (pcu/hr)	DFC b-a = 0.1825 DFC b-c = 0.0704 DFC c-b = 0.3161 DFC b-ac = 0.2529 (Share Lane)
MAJOR ROAD (ARM C) W c-b = 4.2 (metres) Vr c-b = 85 (metres) q c-a = 108 (pcu/hr) q c-b = 214 (pcu/hr)	F for (Qb-ac) = 0.346	TOTAL FLOW = 788 (pcu/hr)	
MINOR ROAD (ARM B) W b-a = 5.0 (metres) W b-c = 5.0 (metres) VI b-a = 70 (metres) Vr b-a = 70 (metres) Vr b-c = 85 (metres) q b-a = 100 (pcu/hr) q b-c = 53 (pcu/hr)			CRITICAL DFC = 0.32