Amendment to the Approved Social Welfare Facility (Residential Care Home for the Elderly) in "Residential (Group B)" Zone, at 349 Prince Edward Road West, Kowloon S16 Planning Application

# **Appendix 2**

**Traffic Impact Assessment** 

Amendment to the Approved Social Welfare Facility (Residential Care Home for the Elderly) in "Residential (Group B)" Zone at 349 Prince Edward Road West, Kowloon City

Traffic Impact Assessment

Final Report August 2024

Prepared by: CKM Asia Limited

Prepared for: Lead Engineering Limited

# Amendment to the Approved Social Welfare Facility (Residential Care Home for the Elderly) in "Residential (Group B)" Zone at 349 Prince Edward Road West, Kowloon City

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# **1.0 INTRODUCTION**

#### Background

- 1.1 The subject site is located at 349 Prince Edward Road West in Kowloon City. Figure 1.1 shows the location of the subject site.
- 1.2 On 3<sup>rd</sup> January 2020, the Town Planning Board (TPB) approved the s16 planning application (TPB No. A/K10/261) for construction of an elderly home (the "Proposed Elderly Home") with 91 beds at the subject site.
- 1.3 The Applicant has engaged CKM Asia Limited, a traffic and transportation planning consultancy firm, to prepare a traffic impact assessment (TIA) for the Proposed Elderly Home with 141 beds.

# **Scope of the Assessment**

- 1.4 The main objectives of this study are as follow:
  - To assess the existing traffic issues in the vicinity of the subject site; and
  - To ensure that adequate internal transport facilities are provided for the Proposed Elderly Home;
  - To quantify the amount of traffic generated by the Proposed Elderly Home; and
  - To examine the traffic impact of the Proposed Elderly Home on the local road network.

# **Contents of the Report**

- 1.5 After this introduction, the remaining chapters contain the following:
  - chapter two describes the existing situation;
    chapter three presents the Proposed Elderly Home;
    chapter four describes the traffic impact analysis; and
    chapter five gives the overall conclusion.

# 2.0 THE EXISTING SITUATION

# Subject Site and Road Network

- 2.1 The subject site is located on the southern side of Prince Edward Road West and to the west of Junction Road.
- 2.2 Prince Edward Road East is classified as a Primary Distributor. It connects with the Kowloon City to the east and Mong Kok to the west. The section of Prince Edward Road East fronting the subject site has 2 4 westbound traffic lanes (towards Mong Kok), and 3 4 eastbound traffic lanes (towards Wong Tai Sin).
- 2.3 Junction Road is a District Distributor in Kowloon City running in north-south direction. It is a single carriageway 3-lane road connecting Prince Edward Road West and Carpenter Road.

# Manual Classified Counts

- 2.4 Manual classified counts were conducted on 7<sup>th</sup> June 2024 (Friday) during the AM and PM peak periods at 4 junctions which are located in the vicinity of the subject site in order to establish the peak hour traffic flows. The surveyed junctions included the following:
  - Prince Edward Road West / Junction Road;
  - Prince Edward Road West / Forfar Road;
  - Prince Edward Road West / Lomond Road; and
  - Argyle Street / Lomond Street.
- 2.5 The traffic counts were classified by vehicle type to enable traffic flows in passenger car units (pcu) to be calculated. The locations and layouts of the surveyed junctions are shown in Figure 2.1 and Figures 2.2 2.5 respectively.
- 2.6 The AM and the PM peak hour traffic flows were found to occur at 0800 0900 and 1800 1900 hours respectively, and the peak hour traffic flows are illustrated in Figure 2.6.

# **Operational Performance of the Surveyed Junctions**

2.7 The existing operational performance of the surveyed junctions was calculated based on the observed traffic counts and the analysis method found in Volumes 2 and 4 of Transport Planning and Design Manual (TPDM). The analysis results are summarised in Table 2.1 and detailed calculations are found in Appendix A.

Ref.	Junction	Type of Junction	Performance Indicator <sup>(1)</sup>	AM Peak	PM Peak		
J1	Prince Edward Road West / Junction Road	Signal	RC	49%	44%		
J2	Prince Edward Road West / Forfar Road	Priority	RFC	0.294	0.350		
J3	Prince Edward Road West / Lomond Road	Signal	RC	68%	75%		
J4	Argyle Street / Lomond Street	Signal	RC	38%	47%		
Note:	<sup>(1)</sup> RC – Reserve Capacity	RFC – Ratio-of-Flow to Capacity					

 TABLE 2.1
 EXISTING JUNCTION OPERATIONAL PERFORMANCE

2.8 The above results indicate that the surveyed junctions currently operate with capacities during the AM and PM peak hours.

#### **Public Transport Facilities**

- 2.9 Access to road-based and rail-based public transport services from the subject site is convenient. The Exit B of MTR Sung Wong Toi Station is located around 300m or equivalent to around 5 minutes' walk from the subject site.
- 2.10 In addition, numerous franchised bus and green minibus routes operate along Prince Edward Road East, Prince Edward Road West and Junction Road, within 500 metres or about 10 minutes' walk away. Details of the road-based public transport services operating close to the subject site are presented in Figure 2.7 and Table 2.2.

# TABLE 2.2ROAD-BASEDPUBLICTRANSPORTSERVICESOPERATINGNEARTHESUBJECTSITE

Route No.	Routing	Frequency (min)
KMB 1	Star Ferry – Chuk Yuen Estate	8 - 20
KMB 1A	Star Ferry – Sau Mau Ping (Central)	7 – 15
KMB 2A	Mei Foo – Lok Wah	10 – 25
KMB 2D	Tung Tau Estate – Chak On Estate	20 - 30
KMB 2X	Choi Fook – Mei Foo	20 - 30
KMB 3B	Hung Hom Ferry – Tsz Wan Shan (Central)	20 - 30
KMB 5	Star Ferry – Fu Shan	9 – 25
KMB 5A	Kai Tak (Kai Ching Estate) – Star Ferry	25 - 30
KMB 5C	Star Ferry – Tsz Wan Shan (Central)	8 – 20
KMB 5P	Star Ferry – Tsz Wan Shan (Central)	AM & PM peak
KMB 6D	Mei Foo – Ngau Tau Kok	12 - 30
KMB 6P	So Uk – Lei Yue Mun Estate	AM & PM peak
KMB 6X	Shing Tak Street – Mei Foo	PM peak
KMB 7B	Hung Hom (Hung Luen Road) Bus Terminus – Lok Fu	20 - 35
KMB 9	Tsim Sha Tsui East (Mody Road) – Choi Fook	15 – 30
KMB 10	Choi Wan – Tai Kok Tsui (Circular)	15 – 30
KMB 11	Kowloon Station – Diamond Hill Station	12 - 30
KMB 11B	Kowloon City Ferry – Kwun Tong (Tsui Ping Road)	12 – 30
KMB 11D	Lok Fu – Kwun Tong Ferry	15 – 30
KMB 11K	Hung Hom Station – Chuk Yuen Estate	20 - 35
KMB 11X	Hung Hom Station – Sau Mau Ping (Upper)	9 – 25
KMB 12A	Whampoa Garden – Cheung Sha Wan (Hoi Tat Estate)	10 – 25
KMB 13D	Tai Kok Tsui (Island Harbourview) – Po Tat	15 – 30
KMB 14	China Ferry Terminal – Lei Yue Mun Estate	12 – 30
KMB 15	Hung Hom (Hung Luen Road) – Ping Tin	12 – 30
KMB 16	Mong Kok (Park Avenue) – Lam Tin (Kwong Tin Estate)	8 - 30
KMB 16P	Mong Kok (Park Avenue) – Kwun Tong Ferry	AM & PM peak
KMB 16X	Mong Kok (Park Avenue) – Lam Tin (Kwong Tin Estate)	AM & PM peak
KMB 17	Ho Man Tin (Oi Man Estate) – Kwun Tong (Yue Man	5 – 25
	Square)	
CTB 20	Kai Tak (Muk On Street) – Cheung Sha Wan (Hoi Tat)	12 – 30
CTB 20A	High Speed Rail West Kowloon Station – Kai Tak	25 – 30
		20.20
KMB 21	Hung Hom Station – Choi Wan	20 - 30
CTB 22	Kai Tak Cruise Terminal – Kowloon Tong	20 – 35
CTB 22M	Kai Tak Cruise Terminal – To Kwa Wan	20 – 30

# TABLE 2.1ROAD-BASED PUBLIC TRANSPORT SERVICES OPERATING<br/>NEAR THE SUBJECT SITE (CONT'D)

Route No.	Routing	Frequency (min)
KMB 24	Kai Yip – Mong Kok (Circular)	20 - 30
KMB 26	Tsim Sha Tsui East – Shun Tin	8 – 25
KMB 27	Shun Tin – Mong Kok (Circular)	6 – 20
KMB 27X	Shun Tin – Olympic Station	AM & PM peak
KMB 28	Star Ferry – Lok Wah	10 – 25
KMB 42	Cheung Hong Estate – Shun Lee	10 – 25
KMB 61X	Kowloon City Ferry – Tuen Mun Central	10 – 25
KMB 75X	Kowloon City Ferry – Tai Po (Fu Shin)	10 – 25
KMB 85	Kowloon City Ferry – Fo Tan Chun Yeung Estate	20 - 30
KMB 85A	Kowloon City Ferry – Kwong Yuen	20 - 30
KMB 85B	Kowloon City Ferry – Chun Shek	AM & PM peak
KMB 85X	Hung Luen Road – Man On Shan Town Centre	9 - 30
KMB 92R	Sai Kung – Star Ferry	weekend
KMB 93K	Mong Kok East Station – Po Lam	17 – 30
KMB 95	Kowloon Station – Tsui Lam	12 - 30
KMB 98C	Mei Foo – Hang Hau (North)	10 – 25
KMB 98E	Mei Foo – Hang Hau (North)	AM & PM peak
KMB 98S	Lohas Park Station – Mei Foo	AM & PM peak
KMB / CTB 101	Kennedy Town – Kwun Tong (Yue Man Square)	4 - 20
KMB / CTB 106	Siu Sai Wan (Island Resort) – Wong Tai Sin	6 – 22
KMB / CTB 106A	Wong Tai Sin – Taikoo (Kornhill Plaza)	AM peak
KMB / CTB 106P	Siu Sai Wan (Island Resort) – Wong Tai Sin	AM & PM peak
KMB / CTB 107	Wah Kwai – Kowloon Bay	5 – 20
KMB 108	Braemar Hill – Kai Yip	10 – 30
KMB / CTB 111	Central (Macau Ferry) – Ping Shek	4 - 30
KMB / CTB 111P	Choi Fook – Central (Macau Ferry)	AM & PM peak
KMB / CTB 113	Kennedy Town (Belcher Bay) – Choi Hung	10 – 29
KMB / CTB 116	Quarry Bay – Tsz Wan Shan (Central)	4 – 18
KMB 203E	Kowloon Station – Choi Hung	15 – 30
KMB 208	Broadcast Drive – Tsim Sha Tsui East	25 - 30
KMB 213D	Sau Mau Ping (Central) – Mong Kok (Circular)	10 – 20
KMB 275X	Tai Po (Fu Shin) – Hung Hom (Hung Luen Road)	AM & PM peak
KMB 293S	Hang Hau (Ngan O Road) – Mei Foo	overnight
KMB 296C	Cheung Sha Wan (Hoi Ying Estate) – Sheung Tak	15 – 30
KMB 296P	Sheung Tak – Lai Chi Kok Station	AM & PM peak
KMB 297	Hung Hom (Hung Luen Road) – Po Lam	15 - 30
KMB 298C	Lohas Park Station – Mei Foo	AM & PM peak
KMB 298X	Hang Hau (North) (Tseung Kwan O Hospital) –	AM & PM peak
	Cheung Sha Wan (Kom Tsun Street)	
CTB 608	Kowloon City (Shing Tak Street) – Shau Kei Wan	10 – 30
CTB 608P	Siu Sai Wan (Island Resort) – Kowloon City (Shing Tak	AM peak
	Street)	
CTB 793	Tseung Kwan O Industrial Estate – So Uk	15 – 20
CTB 796X	Tsim Sha Tsui East – Tseung Kwan O Industrial Estate /	12 – 30
	Tseung Kwan O Station	
CTB A22	Lam Tin Station – Airport	15 – 60
CTB E23	Airport – Tsz Wan Shan (South)	12 – 30
CTB E23A	Tsz Wan Shan (South) – Airport	20 – 30
CTB N20	Island Harbourview – Kai Tak (Muk On Street)	overnight
CTB N23	Tung Chung Station – Tsz Wan Shan (North)	overnight
KMB / CTB N121	Central (Macau Ferry) – Ngau Tau Kok	overnight
KMB N213	Tsim Sha Tsui East (Mody Road) – On Tai (West)	overnight

# TABLE 2.1ROAD-BASED PUBLIC TRANSPORT SERVICES OPERATING<br/>NEAR THE SUBJECT SITE (CONT'D)

Route No.	Routing	Frequency (min)
KMB N216	Hung Hom Station – Yau Tong	overnight
KMB N293	Mong Kok (Park Avenue) – Sheung Tak	20 - 30
CTB N796	Lohas Park – Mong Kok	20 - 30
GMB 2	Whampoa Garden – Festival Walk	10 – 25
GMB 2A	Whampoa Garden – Festival Walk	10 – 25
GMB 13	Kowloon Tong (Broadcast Drive) – Hung Hom Ferry	15 – 30
GMB 17M	Prince Edward Station – Kowloon Hospital	7 – 15
GMB 25A	Kowloon Tong Station – Tung Tau Estate	15 – 20
GMB 25B	The Latitude – Kowloon Tong Station	15 – 18
GMB 25M	Tung Tau Estate – Kowloon Tong Station	6 - 8
GMB 46	Island Harbourview – Richland Gardens	3 – 15
GMB 49	Shun Tin Estate – Kowloon City Ferry Pier	25
GMB 61	Mong Kok Station – Siu Sai Wan (Island Resort)	overnight
GMB 66S	Fu Shan Estate – Mong Kok	overnight
GMB 69	Kowloon City (Lion Rock Road) – Laguna City	20 – 30
GMB 69A	Prince Edward Station – Laguna City	15 – 20
GMB 70	Island Harbourview – Diamond Hill Station	4 – 12
GMB 70A	Olympic Station – Diamond Hill Station	30 – 60
GMB 88	Kai Ching Estate – Wong Tai Sin	12 – 30
GMB 105	To Kwa Wan – Hong Sing Garden	5 – 20
GMB 110	Tiu Keng Leng Station – Kowloon City (Circular)	15 – 30
Note: KMB – Kov	vloon Motor Bus CTB – Citybus	

Note: KMB – Kowloon Motor Bus GMB – Green Minibus

# Pedestrian Facilities

2.11 There are good pedestrian facilities provided in the vicinity of the subject site, including footpaths, at-grade pedestrian crossings at road junctions and subways across Prince Edward Road West.

# 3.0 THE PROPOSED ELDERLY HOME

#### Development Schedule

3.1 The Proposed Elderly Home consists of 1 block with 141 beds for elderly and is targeted for completion by 2027.

# **Internal Transport Facilities**

- 3.2 The Hong Kong Planning Standards and Guidelines (HKPSG) have no recommendations on the provision of internal transport facilities for elderly home. Taking into consideration the narrow site frontage along Prince Edward Road West, which is only around 10m, and to satisfy the operational needs, the following internal transport facilities, which is same as TPB No. A/K10/261, are recommended:
  - 1 lay-by with dimensions  $9m(L) \times 3.5m(W) \times 3.6m(H)$  for shared use by taxi, private car, ambulance, LGV and mini coach, and
  - 1 car parking space for persons with disabilities of dimensions  $5m(L) \times 3.5m(W) \times 2.4m(H)$ .
- 3.3 A 5m wide run-in / out is proposed, and the proposed ground floor plan is shown in Figure 3.1.
- 3.4 In order to understand the operation and to ascertain the parking and loading / unloading needs of the Proposed Elderly Home, traffic generation survey was conducted from 0800 2000 hours on 7<sup>th</sup> June 2024 (Friday) at an existing elderly home (the "adjoining elderly home") located at 351 Prince Edward Road West.
- 3.5 The adjoining elderly home has around 135 beds, and is similar to the Proposed Elderly Home in terms of: (i) location; (ii) scale; (iii) number of beds; (iv) availability of internal transport facilities; and (v) accessibility to public transport services. The survey results are presented in Table 3.1.

No.	Vehicle Type	Arrival Time (hours)	Departure Time (hours)	Duration (min)	Activity	Arrival in Peak Hour
1	LGV	08:46	08:48	2	Goods Delivery	AM peak
2	Private Car	10:22	10:30	8	Pick-up / Drop-off	
3	Goods Van	10:48	10:54	6	Goods Delivery	
4	Mini Coach	11:57	11:58	1	Pick-up / Drop-off	
5	Private Car	12:00	12:05	5	Pick-up / Drop-off	
6	Mini Coach	13:55	13:56	1	Pick-up / Drop-off	
7	Private Car	16:33	16:41	8	Pick-up / Drop-off	
8	Private Car	18:09	18:13	4	Pick-up / Drop-off	PM peak
Average				<u>4.4</u>		

TABLE 3.1TRAFFIC GENERATED BY ADJOINING ELDERLY HOME

- 3.6 Tables 3.1 show that 8 vehicle trips were generated during the survey period, and the vehicles observed were taxi, private car, goods van, LGV and mini coach. On average, these vehicles stay of only 4.4 minutes. In addition, it is noted that these vehicles did not arrive at the same time.
- 3.7 Based on the survey results, it can be concluded that the Proposed Elderly Home with 141 beds is expected to generate only a few vehicle trips daily. Hence, the internal transport facilities provided as shown in Figure 3.1 is considered adequate and acceptable from traffic engineering point of view.

# Swept Path Analysis

3.8 The CAD-based swept path analysis programme, *Autodesk Vehicle Tracking*, was used to check the ease of manoeuvring of vehicles, and are found to have no problems. The swept path analysis drawings are found in the Appendix B.

# 4.0 TRAFFIC IMPACT

#### Design Year

4.1 The completion of the Proposed Elderly Home in 2027 and the design year adopted for the capacity analysis is 2031.

#### Analysis on Traffic Generation

- 4.2 The subject site falls within the *"Residential (Group B)"* zone in the Approved Ma Tau Kok Outline Zoning Plan (OZP) No. S/K10/30, and according to the OZP, residential use is always permitted. An extract from OZP No. S/K10/30 is attached in Appendix C.
- 4.3 In order to assess the potential traffic impact of the Proposed Elderly Home, a traffic generation analysis is conducted to compare the Proposed Elderly Home and a hypothetical residential building (the "Hypothetical Residential Building") at the subject site.
- 4.4 The traffic generation for the Proposed Elderly Home and Hypothetical Residential Building is estimated below:

#### (i) Proposed Elderly Home

4.5 To quantify the traffic generated by the Proposed Elderly Home, reference is made to the adjoining elderly home. The survey results are presented in Table 4.1.

Adjoining Elderly Home	Unit	AM	Peak	PM Peak		
(with 135 beds)		IN	OUT	IN	OUT	
Traffic Generation	pcu/hr	1.5	1.5	1	1	
Trip Generation Rate	pcu/hr/bed	0.0111	0.0111	0.0074	0.0074	

TABLE 4.1TRIP GENERATION RATE FOR ELDERLY HOME

4.6 The trip generation rates presented in Table 4.1 are used to calculate the traffic generated associated with the Proposed Elderly Home, and the calculated traffic generation is presented in Table 4.2.

# TABLE 4.2PROPOSED ELDERLY HOME TRAFFIC GENERATION

Proposed Elderly Home	Unit	AM	Peak	PM Peak		
(with 141 beds)		IN	OUT	IN	OUT	
Traffic Generation	pcu/hr	2	2	2	2	

# (ii) Hypothetical Residential Building

4.7 According to the Authorised Person, the Hypothetical Residential Building has 60 flats with average flat size of around  $50m^2$ . Hence, trip generation rates for *"Private Housing: High-density / R(A)"* from Transport Planning and Design Manual (TPDM) are adopted and these are presented in Table 4.3.

TABLE 4.3

Private Housing:	Unit	AM	Peak	PM Peak		
High-density / R(A)		IN	OUT	IN	OUT	
Trip Generation Rate	pcu/hr/flat	0.0425	0.0718	0.0370	0.0286	

**RESIDENTIAL TRIP GENERATION RATES FROM TPDM** 

4.8 The trip generation rates presented in Table 4.3 are used to calculate the traffic generated associated with the Hypothetical Residential Building, and the calculated traffic generation is presented in Table 4.4.

TABLE 4.4	HYPOTHETICAL	RESIDENTIAL	BUILDING	TRAFFIC
	GENERATION			

Hypothetical Residential	Unit	AM	Peak	PM Peak	
Building (with 60 flats)		IN	OUT	IN	OUT
Traffic Generation	pcu/hr	3	5	3	2

4.9 The comparison of traffic generation for the Proposed Elderly Home (Table 4.2) and Hypothetical Residential Building (Table 4.4) is presented in Table 4.5.

Development		Traffic Generation (pcu/hour)					
			AM Peak		PM Peak		
		IN	OUT	2-way	IN	OUT	2-way
Hypothetical Residential Building	[a]	3	5	8	3	2	5
Proposed Elderly Home	[b]	2	2	4	2	2	4
Difference [b] – [a]		<u>-1</u>	-3	<u>-4</u>	<u>-1</u>	<u>0</u>	<u>-1</u>
		(-33%)	(-60%)	(-50%)	(-33%)	(0%)	(-20%)

#### TABLE 4.5COMPARISON OF TRAFFIC GENERATION

4.10 Table 4.5 shows that the Proposed Elderly Home is expected to generate <u>4 and 1</u> <u>pcu (2-way) less than</u> the Hypothetical Residential Building during the AM and PM peak hours respectively, or equivalent to <u>50% and 20% less traffic</u>. Hence, <u>the Proposed Elderly Home is a better-off scheme</u> compared to the Hypothetical Residential Building.

# **Planned Developments**

4.11 The major planned developments in the vicinity of the Proposed Development are summarised in Table 4.6.

Dof	Location	Lico	Development Perspector (Approx)
<u>kei.</u>	LOCATION	Use	Development Parameter (Approx.)
A	222 Argyle Street	Hospital	around 124 beds
В	URA Project at Sning Tak	Private Housing	around 640 flats, retail GFA of
	CPS 1.KC)		around 6,449m
	(CDS-T:NC)	Drivete Housing	around 110 flats ratail CEA of
C	3 – 13 Nga TSIN Long Koau	Private Housing	around 1 10 mais, retail GFA of
	4 24 Nam Kak Boad	Drivete Housing	around 1,190m
U	4 - 24 inam kok koau	Private Housing	around 1 926m <sup>2</sup>
	LIDA Droiget at Niga Tein Mai	Private Housing	around 4.252 flats rotail CEA of
E	DKA Project at INga TSHT wat Road / Carpontar Road (KC	Private nousing	around 25 30 $2m^2$ C/IC of around
			$470000^2$ and public vobicle park
	017)		of around 360 spaces
	LIPA Project at Kai Tak Poad /	Private Housing	around 810 flats, rotail CEA of
	$C_{A}$ Po Road (KC 015)	Private ribusing	around 8 028 $m^2$ and public
	3a FO Koau (KC-01 <i>3)</i>		vehicle park of around 300 spaces
G	Redevelopment of Kowloon	Private Housing	around 850 flats retail GFA of
G	City Plaza at New Kowloon	Thrace Flousing	around 8.88 $2m^2$ and public
	Inland Lot No. 6056		vehicle park of around 400 spaces
Н	26A – B Grampian Road and	Private Housing	around 72 flats
	13A – B Junction Road	Thrute Housing	
	84 – 98 Junction Road	Private Housing	around 140 flats, retail GEA of
		Thrute Fieldshig	around 1.373m <sup>2</sup>
	65. 73 and 75 Lion Rock Road	Private Housing	around 150 flats, retail GFA of
Í			around 640m <sup>2</sup>
К	93 – 95 Hau Wong Road	Private Housing	around 50 flats, retail GFA of
	Ŭ	Ŭ	around 450m <sup>2</sup>
L	452 – 464 Prince Edward	Private Housing	domestic GFA of around 5,793m <sup>2</sup>
	Road West	-	and retail GFA of around 1,159m <sup>2</sup>
М	20 – 20A Grampian Road	Private Housing	domestic GFA of around 2,168m <sup>2</sup>
Ν	57A Nga Tsin Wai Road	Private Housing	around 11 flats
0	55 Nga Tsin Wai Road	Private Housing	domestic GFA of around 1,106m <sup>2</sup>

#### TABLE 4.6DETAILS OF MAJOR PLANNED DEVELOPMENTS

4.12 The major planned developments listed in Table 4.6 have been included in the traffic forecast.

# Traffic Forecast

- 4.13 The 2031 design traffic flows for capacity analysis are derived with reference to the following:
  - i. 2031 peak hour traffic models from the BDTM;
  - ii. planned developments located in the vicinity; and
  - iii. traffic generation of the Proposed Elderly Home.
- 4.14 The 2031 peak hour traffic flows without and with the Proposed Elderly Home are shown in Figures 4.1 and 4.2 respectively.

#### **2031 Junction Capacity Analysis**

4.15 The 2031 junction capacity analysis for the cases without and with the Proposed Elderly Home is summarised in Table 4.7, and detailed calculations are found in Appendix A.

Ref.	Junction	Performance Indicator <sup>(1)</sup>	Without Elderly	Proposed Home	With Pi Elderly	roposed Home
			AM Peak	PM Peak	AM Peak	PM Peak
J1	Prince Edward Road West / Junction Road	RC	25%	22%	25%	22%
J2	Prince Edward Road West / Forfar Road	RFC	0.363	0.419	0.364	0.419
J3	Prince Edward Road West / Lomond Road	RC	47%	55%	47%	55%
J4	Argyle Street / Lomond Street	RC	23%	32%	23%	32%
Note:	<sup>(1)</sup> RC – Reserve Capacit	y RFC	C – Ratio-of-I	low to Capa	city	

TABLE 4.72031 JUNCTION OPERATIONAL PERFORMANCE

4.16 The above results indicate that the analysed junctions are expected to operate with sufficient capacity during the peak hours in 2031. The junctions analysed have sufficient capacity to accommodate the (i) expected traffic growth; and (ii) additional traffic generated by the Proposed Elderly Home.

4.17 The traffic generated by the Proposed Elderly Home is expected to have minimal impact to the capacity of the analysed junctions. It can be concluded that the Proposed Elderly Home is acceptable from traffic engineering terms.

# 5.0 CONCLUSION

- 5.1 The subject site is located at 349 Prince Edward Road West in Kowloon City. The Applicant intends to construct an elderly home with 141 beds at the subject site.
- 5.2 In view of the site constraints and to satisfy the operational needs, the following internal transport facilities are proposed for the Proposed Elderly Home:
  - 1 lay-by of dimensions  $9m(L) \times 3.5m(W) \times 3.6m(H)$  for shared use by taxi, private car, ambulance, LGV and mini coach, and
  - 1 car parking space for persons with disabilities of dimensions 5m(L)  $\times$  3.5m(W)  $\times$  2.4m(H)
- 5.3 The traffic generation of the Proposed Elderly Home is estimated to be <u>4 and 1</u> <u>pcu (2-way) less than</u> the Hypothetical Residential Building during the AM and PM peak hours respectively, or equivalent to <u>50% and 20% less traffic</u>. Compared to the Hypothetical Residential Development, the Proposed Elderly Home is a better-off scheme.
- 5.4 Manual classified counts were conducted at junctions, which are located in the vicinity in order to establish the existing traffic flows during the AM and PM peak hours. The 2031 design traffic flows are derived with reference to the latest BDTM and have taken into account the planned developments in the vicinity of the subject site.
- 5.5 The 2031 junction capacity analysis was undertaken for the cases without and with the Proposed Elderly Home. The junctions analysed have sufficient capacity to accommodate the expected traffic flows in 2031 and the traffic generated by the Proposed Elderly Home.
- 5.6 The TIA concluded that the Proposed Elderly Home will result in <u>no</u> adverse traffic impact to the surrounding road network. From traffic engineering grounds, the Proposed Elderly Home is acceptable.

# Figures





\JOB\J7350-J7399\J7350\FIG 2 1 RevA.dwg



Wb Av9A 2 2 - 2 2 617/0357L/9657L-0357L/80L/





Wb Av9A 2.2 - 2.2 pi7/0357L/9057L/80L/







TO STROND - ROAD ENST Panot Eon. KMB 1A, 2A, 6D, 9, 11D, 13D, 16, 17, 24, 26, 27, 42, 92R, 95, 98C, 108, 203E, 213D, 298X, 293S, N216, N293 CTB 20, 20A, 22, 22M, 793, A22, E23, E23A, N23 KMB/CTB 101, 106, 106A, 107, 106P, 111, 111P, 116, N121 GMB 46, 49, 69, 69A, 70, 70A, 88, 105, 110 KMB 1A, 6D, 11D, 11K, 12A, 24, 27, 42, 75X, 85, 85A, 85B, 95, 213D, 293S, N216, N293 GMB 69, 69A, 110 CTB 20A, 22 KMB 2A, 9, 13D, 16, 24, 27, 95, 98C, 203E 213D, 293S, 298X, N213, N216, N293 CTB 20, N20, N796 KMB 2A, 9, 13D, 16, 98C, 203E, 298X KMB 3B, 5, 5A, 5C, 5P, 11, 11B, 14, 15, 21, 61X, 85X, 93K, 275X GMB 2, 2A, 105 KMB 3B, 5, 5C, 11, 11B, 11K, 11X, 12A, 14, 15, 17, 21, 26, 28, 61X, 85, 85A, 85B, 85X, 93K, 108, 275X, 297 CTB 796X, E23, N23, A22, E23A KMB/CTB 101, 106, 107, 106P, 111, 116, N121 GMB 2, 2A, 69, 69A, 105 LEGEND : Ж MTR exit bus / GMB stop KMB 1 CKM Asia Limite 2.7 А Traffic and Transportation Planning Consultants Drawn by Checked by ССЬ 21st Floor, Methodist House, 36 Hennessy Road кс Wan Chai, Hong Kong Date Tel : (852) 2520 5990 Fax : (852) 2528 6343 12 AUG 2024 Email : mail@ckmasia.com.hk



399\J7350\Fig 3.1





Appendix A – Junction Capacity Analysis

Junction:	Prince Edwar	rd Road W	est / Ju	nction F	load									_	Job Nu	mber:	J7350
Scenario:	Existing Cond	dition														R1	1 / P.1-1
Design Year:	2024	Designe	ed By:				_	Checke	əd By:				_	Date:	12	August :	2024
								-									
	Approach	ļ	Phase	Stage	Width (m)	Radius (m)	% Up-hill	Turning %	Sat. Flow	AM Peak Flow	y value	Critical y	Turning %	Sat. Flow	PM Peak Flow	y value	Critical y
Dringo Edward			A1		2 30	10.0	Gradient	100	(pcu/hr)	(pcu/hr) 72	0.043		100	(pcu/hr)	(pcu/hr)	0.057	1
Prince Edward			A1		3.30	10.0	┝───┘	100	0005	13	0.045	'	100	1091	470	0.000	
		<u> </u>	A2	1,2	3.30	'	┝───┘	<b> </b>	2005	220	0.100	0.400	┟───┘	2005	470	0.000	0.000
		<u>SA</u>	AJ	1,2	3.30	'	┝───┘		2085	225	0.108	0.100	┟───┘	2085	1/9	0.000	0.080
		54	A4	1,∠	3.30	'	┝───┘		2085	224	0.107	'	┟───┘	2085	1/ŏ	0.085	
Deleter Edward	1 D M oot M				2.20	'	┝──┘		1045	452		'	┢───┘	1045	075	0.402	
Prince Euward	1 Road West w	B SA	B1	2,3	3.30	'	┝──┘		1940	407	0.200	'	┢───┘	1945	3/5	0.193	
			B2	2,3	3.30		┝───┘	100	2085	487	0.233	0.400	100	2085	401	0.192	0.400
		KI	B3	3	3.30	20.0	┝───┘	100	1940	365	0.188	0.188	100	1940	3/5	0.193	0.193
lunction Poor					2 20	10.0	├'	100	1693	208	0 177	0 177	100	1693	070	0.162	0.162
<b>ปนกิดแบก กบล</b> น	128			4	3.20	25.0	┝───╯	100	1000	290	0.177	0.177	100	1003	212	0.102	0.102
		N	62	4	3.20	20.0	┝───┘	100	1950	340	0.177		100	1920	317	0.102	+
			<sup> </sup>	├──		'	┝──┘		├───	'		'	┨───┘	'	├──		
		l	<sup>-</sup>	├──		'	┝───┘		<del> </del>	<u> </u> '		'	┢───┘	<u> </u> '	├──		+
				<u> </u>		'	┝───┘		├──	'		'	┢───┘	'	├──		
		ļ	<sup> </sup>	<u> </u>	┼───	<u> </u> '	┝───┘	<b> </b>		<b>├</b> ───'	├───	'	┣───┘	<b>├</b> ───'	├──		+
		ļ	<sup> </sup>	<u> </u>	┼───	<u> </u> '	┝───┘	<b> </b>		<b>├</b> ───'	├───	'	┣───┘	<b>├</b> ───'	├──		+
			<sup> </sup>	├───	┼───	'	───′		├───	<sup> </sup>		'	┟───┘	<sup> </sup>	├───		+
		ļ	<sup>-</sup>	├	──	'	───┘	┨────	──	<b> </b> '	──	'	┟───┘	<b> </b> '	──	──	
			<b>⊢</b> ′	├───	──	'	──′		──	<u> '</u>		'	──'	<u> '</u>	──		+
<b> </b>			<b>⊢</b> '	├───	──	'	<u> '</u>		──	'	──	'	<b> </b> '	'	──	──	$\vdash$
		I	<b>⊢</b> '	┝───	──	<b> </b> '	<u> </u>		──	<b> </b> '		<b> </b> '	<b> '</b>	<u> </u>	┝───	──	+
pedestrian pha	ase		P1	3, 4	──	min c	rossing	time =	7	sec (	GM +	13	sec F	GM =	20	sec	+
		l	P2	3	<b> </b>	min c	rossing f	time =	5	sec (	<u>GM +</u>	9	sec F	GM =	14	sec	
			P3	1,4	──	min c	rossing f	time =	5	sec (	GM +	9	sec F	GM =	14	sec	
		]	P4	1		min c	rossing	time =	7	sec (	GM +	5	sec F	GM =	12	sec	
		]	P5	1		min c	rossing	time =	7	sec (	GM +	7	sec F	GM =	14	sec	
		]	⊢'	──		<b> </b>						<b> </b>					
		]	ı'	──	<u> </u>	<b> </b>											<u> </u>
			<u>'</u> '		L												
AM Traffic Flow (pcu/h	ır)		N	PM Traffic I	Flow (pcu/hr)	)	$\neg$		N	S=1940+	+100(W–3	.25) S=	2080+100	)(W–3.25)	Note:		
	446 ◀—└	→ 198	7			421	←—	168	7	S <sub>M</sub> =S÷(1	+1.5f/r)	S <sub>M</sub> -	=(S–230)÷	` +(1+1.5f/r)			
			/ !						/			Check	<u> </u>	Check			
73			I	97					I		AM	Pedestrian	PM Peak	Pedestrian			
<sub>674</sub>			I	⊢ <b>Ì</b> →	· 536				I		0 473	0 408	0 1/1	0 112			
			365		<b>C</b>				375	Sum y	12	20	12	20			
		940	<u> </u>					776	Ļ	L (s)	120	120	115	115			
			I						I	C (S)	0.910	0.608	0.806	0.505			
			I						I	practical y	71%	10%	0.000	11%			
L				<u> </u>						R.C. (%)	1170	4970	0370	44 70			
1	<b>∢</b> · <u>-</u> ; <b>→</b>	2				3	¥		÷	4	<u>ب</u>			5			
→ A2	P4		A2				P1		P2		P1	C2 C1	→ I				
A3 A4			A3 A4				÷		, ↓		÷		I				
÷	*							5.0	B3	1			<b>▲</b>				
P5	P3			B2 B1		-		B2 B1	<b>←</b>	4			P3				
÷	÷												÷				
AM G =	I/G = 5	G =		I/G =	:	G =		I/G =	5	G =		I/G =	5	G =		I/G =	
G= 14	I/G = 2	G =		I/G =	5	G =		I/G =	5	G =		I/G =	16	G =		I/G =	:
PM G =	I/G = 5	G =		I/G =	:	G =		I/G =	5	G =		I/G =	5	G =		I/G =	:
G = 14	I/G = 2	G =		I/G =	5	G =		I/G =	5	G =		I/G =	16	G =		I/G =	:

Junction:	Prince Edwa	ard Road W	est / Ju	nction R	łoad									-	Job Nu	mber:	J7350
Scenario:	without the F	Proposed E	Iderly H	ome												<u>R1</u>	<u>1 / P.1-2</u>
Design Year:	2031	Designe	əd By:				-	Checke	d By:				-	Date:	12	August 2	2024
										AM Deek					DM Deek		
	Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill	Turning %	Sat. Flow	Flow	y value	Critical y	Turning %	Sat. Flow	Flow (pou/br)	y value	Critical y
Prince Edward	4 Road West F		B1	2	3 30	10.0	Gfaulent	100	(pcu/m)	(pcu/m) 87	0.051		100	(pcu/iii) 1601	(pcu/m)	0.065	+
	I NUAU WEST	<u>50 L.</u> SA		12	3.00	10.0	<u> </u>	100	2085	254	0.001		100	2085	222	0.000	+
		<u> </u>	D2 D2	1.2	2 30		├		2000	204	0.122	0 122	<b>├</b> ──'	2005	220	0.107	0 107
		<u> </u>		1,2	3.30		├		2000	204	0.122	0.122	<b>├</b> ──'	2005	223	0.107	0.107
		34	B4	`1,∠	3.30		├		2065	255	0.121		<b> </b> '	2085	222	0.107	+
Deline Educara	1 Deset Mont )				2.20		├		10.15	400	0.050		'	10.15	440	0.015	+
Prince Euwaru	1 Road West v	WB SA	B1	2,3	3.30		├──		1945	490	0.252		<b> </b> '	1945	410	0.215	
		54	B2	2,3	3.30		├──	400	2085	525	0.252	0.014	100	2085	448	0.215	- 040
		RI	B3	3	3.30	20.0	──	100	1940	410	0.211	0.211	100	1940	425	0.219	0.219
			<u> </u>	<u> </u>	<u> </u>	'	──			<u> </u>	<u> </u>	<u> </u>	<b> </b> '	<b>├</b> ──┘	<u> </u>	<u> </u>	
Junction Road	SB	LT+RT	C1	4	3.20	10.0	──	100	1683	377	0.224	0.224	100	1683	342	0.203	0.203
		RT	C2	4	3.20	25.0	—	100	1958	438	0.224	┣───	100	1958	398	0.203	──
			<b>└──</b> ′	──	──		──	<b> </b>			┣───	┣───	<b> </b> '	<u> '</u>		──	
			<b>└──</b> ′	──		'	<b> </b>	<u> </u>		<u> </u>	<u> </u>	<u> </u>	<b> </b> '	<u> </u> !	<u> </u>		──
			<b> </b> '	──		ļ'		ļ'	ļ	<b> </b>			<b> </b> '	ļ'			<b> </b>
			Ļ'	Ļ	<u> </u>		<u> </u>						<b> </b> '	<u> </u> '		<u> </u>	<u> </u>
			Ļ'	<b> </b>			$\vdash$		ļ				<b> </b> '	<u> </u>	ļ	<u> </u>	$\vdash$
			L'	<u> </u>					<u> </u>								
「 <u> </u>			ſ'	ſ	Γ	Γ'	<u> </u>		「 <u> </u>	Γ	Γ	Γ	ſ'	[ <u> </u> ]	Γ	Γ	Γ
				$\square$													
pedestrian pha	ase		P1	3, 4		min c	rossing	time =	7	sec	GM +	13	sec F	-GM =	20	sec	
r .			P2	3		min c	rossing	time =	5	sec	GM +	9	sec F	-GM =	14	sec	1
			P3	1,4		min c	rossing	time =	5	sec	GM +	9	sec F	-GM =	14	sec	1
			P4	1		min c	rossing	time =	7	sec	GM +	5	sec F	GM =	12	sec	1
			P5			min c	rossing	time =	. 7	sec	GM +	7	sec F	-GM =	14	sec	1
						time c.	00001.9							<u>UN</u>			
			'	<u> </u>								<u> </u>					+
	-		'														
·····																	
AM Traffic Flow (pcu/n	ır)	_	Ν	PM Traffic i	Flow (pcu/hr)	)			Ν	S=1940+	100(W–3	.25) S=	2080+100	(W–3.25)	Note:		
	598 🔶 🕂	<b>→</b> 217	1	1		557	<b>←</b> └→	183	7	S <sub>M</sub> =S÷(1	+1.5f/r)	S <sub>M</sub>	=(S–230)÷	(1+1.5f/r)			
			/						/		Γ	Check	<b>–</b> '	Check			
87 †			I	109 1					l		AM Peak	Pedestrian Phase	PM Peak	Pedestrian Phase			
→ 761			I	┝┶→	668				İ	Sum y	0.557	0.486	0.529	0.487	l		
			410						425	L (s)	12	39	12	39			
		1015	•———-	1				866	┥┻┻	C (s)	120	120	115	115	l		
			ļ	1					l	practical y	0.810	0.608	0.806	0.595			
			I	1					l	R.C. (%)	45%	25%	52%	22%	l		
1		2				3				4				5			
1	<→ □/	É 🛉 🗛				3	¥		ŧ	4	<u>ب</u>		<b>-</b>	5			
A2	F4		A2				P1		P2		P1	C2 C1					
A3			A3 A4				÷		t <sup>‡</sup>		÷		I				
₽	*			DC				DO	B3	1			*				
P5	P	'3		B2 B1	<b>←</b>	-		B2 B1	-	-			P3				
÷	÷												÷				
AM G =	 I/G = 5	5 G=	_	I/G =	:	G =	_	/G =	5	G =	_	I/G =	5	G =	_	I/G =	-
G = 14	I/G = 2	2 <u>G=</u>		I/G =	5	G =		I/G =	5	G =		I/G =	16	G =		I/G =	=
PM G =	I/G = 5	5 G=		I/G =		G =		I/G =	5	G =		I/G =	5	G =		I/G =	-
G = 14	I/G = 2	2 G =		I/G =	5	G =		I/G =	5	G =		I/G =	16	G =		I/G =	-

Junction:	Prince Edward	d Road W	est / Ju	nction R	≀oad									-	Job Nu	mber:	J7350
Scenario:	with the Prope	osed Elder	rly Hom	9												R1	l / P.1-3
Design Year:	2031	Designe	ed By:				-	Checke	ed By:				-	Date:	12	August 2	2024
						<del></del>				AM Peak			<del></del>		PM Peak		
	Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	Turning %	Sat. Flow	Flow (ncu/hr)	y value	Critical y	Turning %	Sat. Flow	Flow (pcu/br)	y value	Critical y
Prince Edward	d Road West FF	в іт	B1	2	3 30	10.0	Ordelont	100	1691	87	0 051		100	1691	109	0.065	
	111000 11001 22	SA	B2	12	3.30	10.0		100	2085	254	0.122		100	2085	223	0 107	
		5A	B2	1.2	3 30				2000	254	0.122	0 122		2000	220	0.107	0 107
		54	B/	1.2	3 30	1			2005	255	0.122	0.122	1	2005	223	0.107	0.107
		54	D4	1,2	5.50		<u> </u>	-	2005	200	0.122			2005	223	0.107	
Dringo Edward	d Road West W		<b>D1</b>	2.2	2 20		<u> </u>		1045	401	0.252			1045	410	0.215	-
				2,3	2.30				2005	500	0.252			2005	419	0.215	
			D2	2,3	3.30	20.0		100	2005	320	0.252	0.044	100	2005	449	0.210	0.040
		KI	B3	3	3.30	20.0		100	1940	410	0.211	0.211	100	1940	425	0.219	0.219
Junction Road		I T+RT	C1	4	3 20	10.0		100	1683	377	0 224	0 224	100	1683	342	0.203	0.203
JUIICION ROGA		RT	<u> </u>		3 20	25.0	<u> </u>	100	1058	138	0.227	0.227	100	1058	308	0.200	0.200
			02	4	0.20	20.0		100	1900	400	0.227		100	1900	000	0.200	
								1						+			
								1									
							<u> </u>			<u> </u>					<u> </u>		
							<u> </u>			<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>	<u> </u>	
										<u> </u>							
				<b> </b>			<u> </u>	┨────			<u> </u>		<b> </b>	<u> </u>	<u> </u>	<u> </u>	
							<u> </u>	┨────	<b> </b>	<u> </u>			<b> </b>	──			
						<u> </u>	<u> </u>	<u> </u>				<u> </u>	<u> </u>	<u> </u>		┣───	
pedestrian pha	ase		P1	3, 4		min c	rossing	time =	7	sec (	GM +	13	sec F	-GM =	20	sec	
			P2	3		min c	rossing	time =	5	sec (	GM +	9	sec F	GM =	14	sec	
			P3	1,4		min c	rossing	time =	5	sec (	GM +	9	sec F	GM =	14	sec	
			P4	1	<u> </u>	min c	rossing	time =	7	sec (	GM +	5	sec F	-GM =	12	sec	
			P5	1	<u> </u>	min c	rossing	time =	7	sec (	GM +	7	sec F	GM =	14	sec	<b> </b>
				<b> </b>	<u> </u>	<u> </u>			ļ	<b> </b>			<b> </b>		<b> </b>	<b> </b>	<b> </b>
				ļ					<b> </b>	<u> </u>		<u> </u>	<u> </u>		ļ	<u> </u>	
				Ĺ					Ĺ						<u> </u>		
AM Traffic Flow (pcu/h	nr)		N	PM Traffic	Flow (pcu/hr	)			N	S=1940+	-100(W–3	.25) S=	2080+100	)(W–3.25)	Note:		
	598 ←	<b>→</b> 217	7			557	←——	183	7	S <sub>M</sub> =S÷(1	+1.5f/r)	, S <sup>M</sup> :	=(S–230)÷	` +(1+1.5f/r)			
			/						/			Chock	T T	Chock			
87				109					ļ		AM	Pedestrian	PM	Pedestrian			
<b>1</b> → 763					669						0 557	Phase	0 520	0 497			
			410		000				425	Sum y	10.001	0.400	10	0.407			
		1017	Ļ					868		L (s)	12	39		39			
		1017						000		C (s)	120	120	115	115	1		
									l	practical y	0.810	0.608	0.806	0.595	1		
				<u> </u>						R.C. (%)	45%	25%	52%	22%	l		
1	4	2 •				3				4	•			5			
→ A2	P4	A1	A2				P1		P2		₽1 ◆	 C2 C1	<b>→</b>				
A3 A4			A3 A4				÷		,∔		÷						
									вз [	ł							
- i : P5	↓ ↓ P3			B2 B1	. <b>←</b>	-		B2 B1	$\leftarrow$				₽ ₽				
↓ ↓	ļ, ° ↓			DI				ы					¦.° ↓				
AM G=	VG = 5			//G =		 G =		I/G =	5	G =		I/G =	5	G =		//G =	
G= 14	uc - 2	6-		1/G -	- 5	6-		1/G -	5	G-		1/G -	16	6-		1/G -	
PM G=		G_=				G-		//G =	5	G-		1/G -	5	G-			
G= 14	VG = 2	G =		1/G =	5	G =		1/G =	5	G =		1/G =	16	G =		1/G =	
	1/6 = <b>Z</b>	0-		1/0 -	•	0-		1/0 -	0	0 -		1/0 -	10	0-		1/0 -	

#### **Priority Junction Analysis**



#### **Priority Junction Analysis**



#### **Priority Junction Analysis**



Junction:	Prince Edward	1 Road W	est / Lo	mond R	load									-	Job Nu	mber:	J7350
Scenario:	Existing Cond	ition														R1	I / P.3-1
Design Year:	2024	Designe	əd By:				_	Checke	d By:				-	Date:	12 /	August 2	2024
	Approach		Phase	Stage	Width (m)	Radius (m)	) % Up-hill	Turning %	Sat. Flow	AM Peak Flow	y value	Critical y	Turning %	Sat. Flow	PM Peak Flow	y value	Critical y
Lomond Road			41	2	3 10	10.0	Gradieni	100	(pcu/nr)	(pcu/nr)	0.208	0 208	100	(pcu/nr)	(pcu/nr) 320	0 197	0 197
		1 T+RT	Δ2	2	3 10	15.0		100	1977	201	0.200	0.200	100	1977	368	0.107	0.157
		LITIN	<u> 72</u>		3.10	10.0		100	1077	381	0.200		100	1077	300	0.130	
Drince Edward	- Pood West EF	۵۵ (S	<b>P</b> 1	3	2 30	<u> </u>			1045	32	0.016			10/5	25	0.013	
		RT	B1 B2	3	1 00	25.0		100	2022	156	0.010	0.077	100	2022	106	0.013	0.052
		111	DZ	5	4.00	20.0		100	2000	100	0.077	0.077	100	2000	100	0.052	0.052
Drince Edward	- Pood West W/		C1	1	3 10	15.0		100	1750	266	0 152		100	1750	105	0 112	
PIIIICE Luward	I NUdu West Wi			1	2 10	10.0		100	2065	200	0.102		100	2065	336	0.163	
		54	02		2 10				2005	341	0.100	0.460	┢───┘	2005	330	0.103	
		5A 6A			3.10				2005	341	0.100	0.100	'	2005	330	0.103	0.462
		5A	C4	1	3.10			┨───┤	2065	340	0.167		'	2065	337	0.163	0.163
			i	──	┼──			┨───┤				───	'	<b> </b> '	──	──	
			├───	──	──	──		┨───┤		──		───	<b> </b> '	<b>├</b> ───'	──	──	
			┝───	──				<b> </b>		┣───		$\vdash$	<b> </b> '	'	──	──	
			⊢	──	──	──	───			──	───	───	<b> </b> '	<b> </b> '	──	──	<u> </u>
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			<b>└──</b>	<u> </u>	$\vdash$								<b> </b> '	ļ'	<u> </u>	<u> </u>	<u> </u>
			Ļ	Ļ											Ļ		
pedestrian pha	ase		P1	1,3	$\vdash$	min c	rossing	time =	6	sec	GM +	6	sec F	GM =	12	sec	<u> </u>
			P2	1,2		min c	rossing	time =	5	sec	GM +	7	sec F	GM =	12	sec	
			P3	1		min c	rossing	time =	5	sec	GM +	7	sec F	GM =	12	sec	
			P4	3		min c	rossing	time =	8	sec	GM +	11	sec F	GM =	19	sec	
			P5	2,3		min c	rossing	time =	8	sec	GM +	11	sec F	GM =	19	sec	
			P6	2		min c	rossing	time =	5	sec	GM +	7	sec F	GM =	12	sec	
			I										$\square$		$\square$		<u> </u>
			I														
AM Traffic Flow (pcu/h	ır)			PM Traffic	Flow (pcu/hr	)				S-10404	400/04/ 3	25) 8-	2020+100	V/M 3 25)	Note:		
			N 7						N 7	S=1940+	100(vv-J	.20) 3-1 S. 1	-(6 230)-	(VV-3.23)	1		
	÷ 00		/			05			/	S <sub>M</sub> =S⊤( i	+1.51/1)	З <sub>М</sub> -	·(S-230)·	('1+'1.5i/i)	4		
$\neg$	▶ 32				$\overline{}$	25					AM	Check Pedestrian	PM	Check Pedestrian	1		
156	10.1				106						Peak	Phase	Peak	Phase	1		
	1040	<sup>3</sup> ←					1009	$\frown$		Sum y	0.453	0.376	0.412	0.359	1		
		266						195		L (s)	16	33	16	33	4		
										C (s)	110	110	110	110	1		
439	9 ← → 299				479	←→	218			practical y	0.769	0.630	0.769	0.630	1		
										R.C. (%)	70%	68%	87%	75%			
1 <u>*</u>		2	<u>.</u>			3				4				5			
P2	P3		P2				D4						I				
•	C4	-	•		<b>≜</b> i P5				<b>≜</b> i P5				I				
	$C_3 \leftarrow C_2 $	1		P6									I				
	C1		A2	<b>∢</b> ·-·→	ŧ	i P4			ŧ				I				
<b>∢</b>	··>	A1 🔶	] 🕇	<b>→</b>		•	<b>∢</b> P1	→									
г 														L			
AM G =	I/G = 6	G =		I/G =	5	G =		I/G =	8	G =		I/G =		G =		I/G =	
G =	I/G = 6	G =		I/G =	8	G =	19	I/G =	2	G =		I/G =		G =		I/G =	
PM G =	I/G = 6	G =		I/G =	5	G =		I/G =	8	G =		I/G =		G =		I/G =	
G =	I/G = 6	G =		I/G =	- 8	G =	19	I/G =	2	G =		I/G =		G =		I/G =	6

Junction:	Prince Edw	/ard Road W	est / Lo	mond R	toad									-	Job Nu	mber:	J7350
Scenario:	without the	Proposed E	Iderly H	ome												R1	l / P.3-2
Design Year:	2031	Designe	əd By:				-	Checke	⊭d By:				-	Date:	12	August 2	2024
					<del></del>					AM Deale					DM De ele		
	Approach	ļ	Phase	Stage	Width (m)	Radius (m)	) % Up-hill Gradient	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Lomond Road	NB	LT	A1	2	3.10	10.0	0.22	100	1674	378	0.226	0.226	100	1674	360	0.215	0.215
		LT+RT	A2	2	3.10	15.0		100	1877	424	0.226		100	1877	404	0.215	
Prince Edward	Road West	EB SA	B1	3	3.30				1945	35	0.018			1945	25	0.013	
		RT	B2	3	4.00	25.0		100	2033	168	0.083	0.083	100	2033	115	0.057	0.057
													<b>[</b> '				<u> </u>
Prince Edward	Road West	WB LT	C1	1	3.10	15.0		100	1750	286	0.163		100	1750	210	0.120	
		SA	C2	1	3.10				2065	416	0.201		<b>[</b> '	2065	396	0.192	<u> </u>
		SA	C3	1	3.10				2065	416	0.201			2065	396	0.192	0.192
		SA	C4	1	3.10				2065	416	0.202	0.202		2065	395	0.191	
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			[				+		[								
			[		+	+	+		<u> </u>	<u> </u>		<b>├</b> ───┦			<u> </u>		
			[		<u> </u>		+		<u> </u>	<u> </u>					<u> </u>		
			<u> </u>			<u> </u>	+						'				
			<u> </u>		+	+	+		<u> </u>			<b>├</b> ───┦	'				
			<u> </u>		<u> </u>		+		<u> </u>				<b> </b> '	<u> </u>	├──		
			├───	┼───	┼───	┼───	+	<b> </b> '	┝───	-	──	───′	<b> </b> '	├───	┣───	├───	
			├───	──	┼──	┼──	┼──	<b> </b> '	├		──	──′	<b> </b> '	──	──	──	
		ļ	<u>├</u>	<u> </u>	──	<u> </u>	<u>ــــــــــــــــــــــــــــــــــــ</u>		<u> </u>	<u> </u>	<u> </u>	ليسيا	<u> </u> '		<u> </u>		
pedestrian pha	ase		P1	1,3		min c	rossing	time =	6	sec	GM +	6	sec F	GM =	12	sec	
			P2	1,2	┼──	min c	rossing	time =	5	sec	GM +	7	sec F	GM =	12	sec	
			P3	1	──	min c	rossing	time =	5	sec	GM +	7	sec F	:GM =	12	sec	
		]	P4	3	<u> </u>	min c	rossing	time =	8	sec	GM +	11	sec F	GM =	19	sec	
			P5	2,3	──	min c	rossing	time =	8	sec	GM +	11	sec F	GM =	19	sec	
		]	P6	2	<b>_</b>	min c	rossing	time =	5	sec	GM +	7	sec F	GM =	12	sec	
			<b> </b>	<u> </u>	<u> </u>	<u> </u>			<u> </u>			ļ'	<b> </b>		<b> </b>	<b> </b>	<u> </u>
			L						L								
AM Traffic Flow (pcu/h	ır)		N	PM Traffic	Flow (pcu/hr	·)			N	S=1940+	+100(W-3	25) S=	2080+100	)(W-3.25)	Note:		
			7						7	S <sub>M</sub> =S÷(1	+1.5f/r)	20, - S <sub>M</sub> :	=(S-230)+	+(1+1.5f/r)	1		
	• 25		/		<b>→</b>	• 25			/ '	C M ~ (	T,	- 101	(0	( ···,	1		
169					115	20			I		AM	Check Pedestrian	PM	Check Pedestrian	1		
108	1	248 -			115		1187	· •				Phase	Peak	Phase			
		240 ↓					110.	↓ ↓	I	Sum y	0.510	0.427	0.463	0.407	1		
		286						210	I	L (s)	10	33	10	33	1		
47/	- 00-	_			505				I	C (s)	110	110	110	110	1		
470	<sup>3</sup> ← → <sup>32</sup>	1			525		239		I	practical y	0.769	0.630	0.769	0.630	1		
										R.C. (%)	51%	47%	66%	55%			
1	A	2	<b>A</b>			3				4				5			
↓ P2	↓ F	23	₽2				. B1						I				
	C4 ←				₽5	В2	<u>&gt;</u>		<b>↑</b> P5				I				
	C2 ←	—		₽6	· 1	P4	1		i L				I				
	C1 ,	▲1 ▲	- <del>^ A2</del>	<b>→</b>	•	↓			•				I				
<b>∢</b> P	·· <b>→</b> 1						<b>▲</b> . <u>–</u> . P1	<b>→</b>					I				
AM G =	I/G =	6 <sub>G=</sub>	<u> </u>	I/G =	= 5	G =		/G =	8	G =		/G =	i	G =		/G =	
G =		6 G=		 I/G :	- 8	- G =	19	 I/G =	2	- G =		 I/G =		- G =		 I/G =	-
PM G =		<u> </u>			5	G =			8	 G =				 			
G =	NG = 1	6 G=		1/G :	- 8	G =	19	//G =	2	G =		I/G =		6=		" I/G =	-
0 -	1/6 -	J G-		1/6 -	0	6 -	13	1/G =	2	G =		1/6 -		6 -		1/G =	

Junction:	Prince Edward	d Road W	est / Lo	mond R	oad									-	Job Nu	mber:	J7350
Scenario:	with the Propo	osed Elder	rly Hom	е												R1	i / P.3-3
Design Year:	2031	Designe	əd By:				-	Checke	d By:				-	Date:	12	August 2	2024
	Approach		Phase	Stage	Width (m)	Radius (m)	/ % Up-hill Gradient	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Lomond Road	NB	LT	A1	2	3.10	10.0		100	1674	378	0.226	0.226	100	1674	360	0.215	0.215
		LT+RT	A2	2	3.10	15.0	<u> </u>	100	1877	424	0.226		100	1877	404	0.215	
			ļ'				'		ļ					<u> </u>	<u> </u>	<u> </u>	<u> </u>
Prince Edward	I Road West EE	3 SA	B1	3	3.30		'		1945	35	0.018		<u> </u>	1945	25	0.013	
		RT	B2	3	4.00	25.0	'	100	2033	168	0.083	0.083	100	2033	115	0.057	0.057
			ļ'				<u> </u>				<u> </u>	<u> </u>	<b> </b>	<u> </u>	<u> </u>	<u> </u>	<b></b>
Prince Edward	Road West W	B LT	C1	1	3.10	15.0	'	100	1750	286	0.163		100	1750	210	0.120	<u> </u>
		SA	C2	1	3.10		'		2065	416	0.201		<u> </u>	2065	396	0.192	<u> </u>
		SA	C3	1	3.10	<u> </u>	ļ'		2065	416	0.201			2065	396	0.192	0.192
		SA	C4	1	3.10		ļ'		2065	417	0.202	0.202		2065	396	0.192	<u> </u>
			<b> </b> '				ļ'									<u> </u>	<u> </u>
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		]	<b> </b> '	<u> </u>	<u> </u>	<u> </u>			<b> </b>							<u> </u>	<u> </u>
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			ļ'														
			<u> </u> '														
			<u> </u>														
pedestrian pha	ase	]	P1	1,3		min c	rossing	time =	6	sec (	GM +	6	sec F	GM =	12	sec	<u> </u>
		]	P2	1,2		min c	rossing	time =	5	sec	GM +	7	sec F	GM =	12	sec	
		]	P3	1		min c	rossing	time =	5	sec (	GM +	7	sec F	GM =	12	sec	
		]	P4	3		min c	rossing	time =	8	sec (	GM +	11	sec F	GM =	19	sec	
			P5	2,3		min c	rossing	time =	8	sec	GM +	11	sec F	GM =	19	sec	
		]	P6	2		min c	rossing	time =	5	sec (	GM +	7	sec F	GM =	12	sec	
			<u> </u>														
	_		'					_	Ē		_			_			
AM Traffic Flow (pcu/h	ır)		N	PM Traffic I	Flow (pcu/hr)	)			N	S=1940+	-100(W–3	25) S=	2080+100	(W–3.25)	Note:		
			7						7	S <sub>M</sub> =S÷(1	+1.5f/r)	S <sub>M</sub> =	=(S-230)÷	(1+1.5f/r)			
<b>→</b>	▶ 35	,	/		<b></b> →	25			/			Check		Check			
↓ 168			I		↓ 115						AM Peak	Pedestrian Phase	PM Peak	Pedestrian Phase			
	124	9▲	I				1188	•		Sum y	0.511	0.428	0.463	0.407			
		↓ 286	I					↓ 210		1 (s)	16	33	16	33			
			I					<b>L</b>		C (s)	110	110	110	110			
476	ñ <b>← - →</b> 327		I		525	• <b>• •</b>	- 239			practical v	0.769	0.630	0.769	0.630			
			I				202			R.C. (%)	51%	47%	66%	55%			
1		2				13				4				5			
'▲ ! 	₽3	Ĩ	▲ ! ! ₽?			5				·				Ĵ			
<b>↓</b> ' <sup>∠</sup>	↓'` C4 ←		♦ -2		<b>+</b>	<b></b>	B1		<b></b>								
	C3 ←	-		P6	P5	↓ B2			P5								
	C2	_	Δ2	<b>∢</b> · <b>-</b> · <b>→</b>	÷	P4			÷								
- ∙ •	<b>→</b> C1 ↓	A1 ←	ר_ר	<b>→</b>		+	<b>∢</b> ₽1	→									
P	1																
AM G =	I/G = 6	G =		I/G =	5	G =		I/G =	8	G =		I/G =		G =		I/G =	ł
G =	I/G = 6	G =		I/G =	8	G =	19	I/G =	2	G =		I/G =		G =		I/G =	<u>.</u>
PM G =	I/G = 6	G =		I/G =	5	G =		I/G =	8	G =		I/G =		G =		I/G =	4
G =	I/G = 6	G =		I/G =	8	G =	19	I/G =	2	G =		I/G =		G =		I/G =	:

Junction:	Argyle St	reet / Lomond	Road											-	Job Nu	mber:	J7350
Scenario:	Existing C	Condition														R1	l / P.4-1
Design Year:	2024	Designe	ed By:				-	Checke	ed By:				-	Date:	12	August 2	2024
				1			1			AM Peak					PM Peak		
	Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	Turning %	Sat. Flow	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Argyle Street	EB	LT	A1	1	3.30	15.0		100	1768	358	0.202		100	1768	315	0.178	
		SA	A2	1	3.50				2105	663	0.315			2105	508	0.241	
		SA	A3	1	3.50				2105	664	0.315	0.315		2105	507	0.241	
Lomond Road	SB	LT+RT	B1	3	3.00	10.0		100	1665	202	0.121		100	1665	189	0.113	
		RT	B2	3	3.00	15.0		100	1868	227	0.122	0.122	100	1868	212	0.113	0.113
Argyle Street	WB	SA	C1	1	3.30				1945	539	0.277			1945	562	0.289	0.289
		SA	C2	1	3.30				2085	577	0.277			2085	602	0.289	
		SA	C3	1	3.30				2085	578	0.277			2085	602	0.289	
		RT	C4	2	3.30	15.0		100	1895	276	0.146	0.146	100	1895	276	0.146	0.146
nedestrian ph	260		D1	23		mino	rossing	time -	5	600		0	500 F	GM -	14	600	
pedesthan pha	456			2,3		min c	rossing	time =	5	Sec	GM +	9	sec F	GM =	14	Sec	
			P3	2		min c	rossing	time =	8	Sec	GM +	11	sec F	GM =	14	Sec	
			P4	2		min c	rossing	time =	8	sec	GM +	9	sec F	GM =	17	sec	
			P5	12		min c	rossing	time =	5	sec	GM +	7	sec F	GM =	12	sec	
			P6	3		min c	rossina	time =	5	sec	GM +	5	sec F	GM =	10	sec	
							<u>J</u>				-	-		-			
AM Traffic Flow (pcu/r	nr)			PM Traffic	Flow (pcu/hr	)				0-1040	100/00/ 2	25) 0-1	2000 - 400	(INL 2 2E)	Note:		
	268 🗲	161	N 7			203	$ \longrightarrow $	198	N 7	5=1940+ S=S÷(1	+1 5f/r)	.20) S=. Su=	2080+100 =(S_230)÷	(VV-3.20)			
	200		/			200			/	3 <sub>M</sub> =3.(1	+1.5//)	- О <sub>М</sub> -	-(3-230)	(1+1.5//1)			
358					315						AM	Check Pedestrian	PM	Check Pedestrian			
	▶ 1327					1015					Peak	Phase	Peak	Phase			
	1027	276				1010		276		Sum y	0.583		0.548				
		1694					1766	ĻĹ		L (s)	130		14				
										C (S)	0.803		0.803				
										Practical y	38%		47%				
1		2				3				4	0070		11 /0	5			
	<b>∢</b> · – · →			<b>∢</b> · -	• →	° † ∢	P6		<b>→</b>	4				5			
	P5	P1		P5	; ▲ ! <sub>P2</sub>	P1		B2 B1									
→ A3		+				*											
	C3 ←	ŧ			04 <u> </u>				<b>A</b>								
	C2 ←		P4						P3								
	61	*							+								
AM G =	I/G =	5 G =		I/G =	5	G =		I/G =	7	G =		I/G =		G =		I/G =	
G =	I/G =	G =		I/G =	: 	G =		I/G =	7	G =		I/G =		G =		I/G =	
РМ G =	I/G =	<b>D</b> G =		I/G =	- 5	G =		I/G =	1	G =		I/G =		G =		I/G =	
G =	I/G =	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	

Junction:	Argyle Street	t / Lomond	Road											-	Job Nu	mber:	J7350
Scenario:	without the F	Proposed E	Iderly H	ome												R1	/ P.4-2
Design Year:	2031	Designe	ed By:					Checke	d By:					Date:	12 /	August 2	2024
				•	1			•									
	Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill	Turning %	Sat. Flow	AM Peak Flow	y value	Critical y	Turning %	Sat. Flow	PM Peak Flow	y value	Critical y
					0.00	45.0	Gradient	400	(pcu/hr)	(pcu/hr)	0.005		400	(pcu/hr)	(pcu/hr)	0.404	
Argyle Street E	В		A1	1	3.30	15.0		100	1768	362	0.205		100	1/68	320	0.181	
		SA	A2	1	3.50				2105	722	0.343	0.040		2105	551	0.262	
		SA	A3	1	3.50				2105	122	0.343	0.343		2105	551	0.262	
Lomand Dood	CD.		D1	2	2.00	10.0		100	1665	210	0 1 2 1		100	1665	204	0 100	
	30		D1	2	3.00	10.0		100	1000	210	0.131	0 121	100	1000	204	0.123	0 100
			DZ	5	3.00	13.0		100	1000	243	0.131	0.131	100	1000	223	0.123	0.125
Arayla Street V	NB	54	C1	1	3 30				10/5	574	0 205			1045	601	0 300	0 300
Algyle Sileel v	VD	SA	C2	1	2.30				2095	615	0.295			2095	644	0.309	0.309
		SA	02	1	3.30				2005	615	0.295			2005	642	0.309	
			C4	2	2.30	15.0		100	1905	220	0.295	0 170	100	1905	225	0.309	0 177
		RI	64	2	3.30	15.0		100	1895	339	0.179	0.179	100	1895	335	0.177	0.177
				ļ											ļ		
									_								
pedestrian pha	ISE		P1	2,3		min c	rossing	time =	5	sec	GM +	9	sec F	GM =	14	sec	
			P2	2		min c	rossing	time =	5	sec	GM +	9	sec F	GM =	14	sec	
			P3	3		min c	rossing	time =	8	sec	GM +	11	sec F	GM =	19	sec	
			P4	2		min c	rossing	time =	8	sec	GM +	9	sec F	GM =	17	sec	
			P5	1,2		min c	rossing	time =	5	sec	GM +	7	sec F	GM =	12	sec	
			P6	3		min c	rossing	time =	5	sec	GM +	5	sec F	GM =	10	sec	
AM Traffic Flow (pcu/hr	.)		Ν	PM Traffic I	Flow (pcu/hr)	1			Ν	S=1940+	100(W-3	.25) S=2	2080+100	(W–3.25)	Note:		
	289 🛶	→ 174	1			218	<b>←</b> └->	215	1	S <sub>M</sub> =S÷(1	+1.5f/r)	S <sub>M</sub> =	=(S–230)÷	(1+1.5f/r)			
			/						/			Check		Check			
362					320						AM Peak	Pedestrian Phase	PM Peak	Pedestrian Phase			
	• 1444				→	1102				Sum v	0.653		0.608				
		339						335		L (s)	14		14				
	18	04 ◀—					1888	$\leftarrow$		C (s)	130		130				
										practical v	0.803		0.803				
										R.C. (%)	23%		32%				
1										4				5			
<b>1</b> Δ1														-			
→ A2	A1 P5 P1 P5 P1 B2 P1 P1 B2 P1																
→ A3	$ \begin{array}{c} A2 \\ \hline \\ A3 \end{array} \qquad \qquad \begin{array}{c} \downarrow \\ \downarrow \\ C4 \end{array} \qquad \qquad \begin{array}{c} \downarrow \\ \downarrow \\ C4 \end{array} \qquad \qquad \begin{array}{c} \downarrow \\ \downarrow $																
									<b>+</b>								
									P3								
									¥								
AM G =	G = 1/G = 5 G = 1/G = 5 G =								7	G =		I/G =		G =		I/G =	
G =	G = 1/G = G = 1/G = G = 1									G =		I/G =		G =		I/G =	
PM G =	I/G = 5	G =		I/G =	5	G =		I/G =	7	G =		I/G =		G =		I/G =	
G =	I/G =	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	

Junction:	Argyle Stree	et / Lomond	Road											-	Job Nu	mber:	J7350
Scenario:	with the Pro	posed Elder	rly Hom	е												R1	/ P.4-3
Design Year:	2031	Designe	ed By:					Checke	d By:					Date:	12 /	August 2	2024
							-						-				
	Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill	Turning %	Sat. Flow	AM Peak Flow	v value	Critical v	Turning %	Sat. Flow	PM Peak Flow	v value	Critical v
				5	. ,		Gradient		(pcu/hr)	(pcu/hr)	,	. ,	,	(pcu/hr)	(pcu/hr)		. ,
Argyle Street E	B	LT	A1	1	3.30	15.0		100	1768	362	0.205		100	1768	320	0.181	
		SA	A2	1	3.50				2105	722	0.343			2105	551	0.262	
		SA	A3	1	3.50				2105	722	0.343	0.343		2105	551	0.262	
Lomond Road	SB	LT+RT	B1	3	3.00	10.0		100	1665	218	0.131		100	1665	204	0.123	
		RT	B2	3	3.00	15.0		100	1868	245	0.131	0.131	100	1868	229	0.123	0.123
Argyle Street V	VB	SA	C1	1	3.30				1945	574	0.295			1945	601	0.309	0.309
		SA	C2	1	3.30				2085	615	0.295			2085	644	0.309	
		SA	C3	1	3.30				2085	615	0.295			2085	643	0.309	
		RT	C4	2	3.30	15.0		100	1895	339	0.179	0.179	100	1895	335	0.177	0.177
					0.00						00	00				•••••	0
															L		
pedestrian pha	ise		P1	2,3		min c	rossing	time =	5	sec	GM +	9	sec F	GM =	14	sec	
			P2	2		min c	rossing	time =	5	sec	GM +	9	sec F	GM =	14	sec	
			P3	3		min c	rossing	time =	8	sec	GM +	11	sec F	GM =	19	sec	
			P4	2		min c	rossing	time =	8	sec	GM +	9	sec F	GM =	17	sec	
			P5	1,2		min c	rossing	time =	5	sec	GM +	7	sec F	GM =	12	sec	
			P6	3		min c	rossing	time =	5	sec	GM +	5	sec F	GM =	10	sec	
							0										
AM Troffic Flow (pou/br	-)			DM Troffic	Flow (pou/br		1								Noto:		
Aw traine now (pearin	′		N	i w manie	now (pourn			0.45	N	S=1940+	100(W–3	.25) S=2	2080+100	(W–3.25)	NOIG.		
	289 -	→ 174	7			218	<b>←</b> →	215	7	S <sub>M</sub> =S÷(1	+1.5f/r)	S <sub>M</sub> =	=(S–230)÷	(1+1.5f/r)			
			/						/			Check		Check			
362					320 1						AM Peak	Pedestrian Phase	PM Peak	Pedestrian Phase			
	1444				→	1102				Sum y	0.653		0.608				
		339 †						335 1		L (s)	14		14				
	18	304 ◀					1888	ℯ└─		C (s)	130		130				
										practical y	0.803		0.803				
										R.C. (%)	23%		32%				
1 2 3 1										4				5			
$ \begin{array}{c} 1 \\ \uparrow \\ \bullet \\ 1 \end{array} \qquad \begin{array}{c} 2 \\ \downarrow \\ \bullet									<b>→</b>					-			
→ A3	$ \xrightarrow{A2} A3 \qquad \qquad \downarrow \qquad																
	C3 ←																
	C2 + P4								P3								
	C1 +								÷								
AM G =	G = 1/G = 5 G = 1/G = 5 G =								7	G =		I/G =		G =		I/G =	
G =	G = 1/G = G = 1/G = G =									G =		<u>I</u> /G =		G =		<u> </u> /G =	
PM G =	I/G = 5	G =		I/G =	5	G =		I/G =	7	G =		I/G =		G =		I/G =	
G =	I/G =	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =	
		-												-			

Appendix B – Swept Path Analysis











Appendix C – Extract from OZP No. S/K10/30



Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
<ul> <li>Flat</li> <li>Government Use (Police Reporting Centre, Post Office only)</li> <li>House</li> <li>Library</li> <li>Residential Institution</li> <li>School (in free-standing purpose-designed building only)</li> <li>Social Welfare Facility (on land designated "R(B)1" only)</li> <li>Utility Installation for Private Project</li> </ul>	Ambulance Depot Eating Place Educational Institution Government Refuse Collection Point Government Use (not elsewhere specified) Hospital Hotel Institutional Use (not elsewhere specified) Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances Off-course Betting Centre Office Petrol Filling Station Place of Entertainment Place of Recreation, Sports or Culture Private Club Public Clinic Public Convenience Public Transport Terminus or Station Public Vehicle Park (excluding container vehicle) Recyclable Collection Centre Religious Institution School (not elsewhere specified) Shop and Services Social Welfare Facility (not applicable to land designated "R(B)1") Training Centre

# **RESIDENTIAL (GROUP B)**

# Planning Intention

This zone is intended primarily for medium-density residential developments where commercial uses serving the residential neighbourhood may be permitted on application to the Town Planning Board.

(Please see next page)