Revised Traffic Impact Assessment

S.12A Planning Application on the Approved Mai Po & Fairview Park OZP No. S/YL-MP/6 Rezoning from "Residential (Group D)" to Residential (Group C)1" Zone for a Proposed Residential Development at Various Lots in DD 104 and Adjacent G.L. in Yuen Long, N.T.

Traffic Impact Assessment

June 2025

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1 INTRODUCTION

1.1 Background

1.1.1 The subject site covers various lots and adjacent Government Land in DD 104, Yuen Long, N.T. The site is sandwiched by Kam Pok Road and San Tin Highway near Chuk Yuen Tsuen. Further to the west of the site across Kam Pok Road, Ngau Tam Mei Drainage Channel and Yau Pok Road are a previously approved residential site zoned "Recreation" ("REC") and an existing large-scale suburban estate called Fairview Park. The location of the subject site is shown in **Figure 1.1**.

1.1.2 The subject site has been previously approved for a low-rise residential development. Under the Approved Scheme (A/YL-MP/205), the residential development comprises 71 nos. of low-rise houses with a domestic plot ratio of 0.2 and an average unit size of about 186m^2. Under the Current Scheme, the proposed residential development changes from house development to the flat development. It comprises 2,322 residential units with a domestic plot ratio of 1.5 and an average flat size of about 42.4 m^2. In addition, a transport layby, some local retail facilities and GIC uses [including a 6-classroom kindergarten and a neighbourhood elderly centre (NEC)] are also proposed to serve the future residents.

1.1.3 AECOM Asia Co. Ltd has been commissioned by the site owner (the Applicant) to carry out a Traffic Impact Assessment (TIA) to assess the traffic impacts of increasing the plot ratio for the Subject Site in the subject planning application.

1.2 Objectives

1.2.1 The main objectives of this report are as follows-

- Outline the proposed development parameters and internal transport facilities;
- Review the current traffic condition in the vicinity;
- Estimate the future public transport demand of the proposed development;
- Estimate the potential traffic generations and attractions of the proposed development;
- Produce traffic forecasts on the surrounding road network at the adopted design year;
- Assess traffic impact on the surrounding road network induced from the proposed development; and
- Develop traffic improvement proposal(s) if necessary.

1.3 Structure of TIA Report

1.3.1 Following this introductory chapter, the TIA is structured as follows:

- **Chapter 2**: Proposed Development, describes the development schedule of the proposed development and its internal traffic facilities provisions, access arrangement, etc.; The future public transport demand together with the required transport facilities would be discussed;
- **Chapter 3**: Existing Traffic Condition, reviews the current traffic conditions;
- **Chapter 4**: Traffic Impact Assessment, presents the traffic forecast arise from the proposed development, the approach and results of traffic forecast and the results of capacity assessments of the identified critical junctions with the proposed development;
- **Chapter 5**: Summary and Conclusion, summarizes the findings of the study and presents the conclusion of this TIA.

2 PROPOSED DEVELOPMENT

2.1 Development Schedule

2.1.1 The Subject Site has an area of about 6.57 ha. The domestic plot ratio of the site is proposed to be increased from 0.2 to 1.5 with an increase in housing production from the previously approved 71 houses to the currently proposed 2,322 flats. In planning terms, the proposed development remains as in low-medium density in nature. The indicative development schedule of the Proposed Development is summarized in **Table 2.1** for technical assessment purpose and the current Master Layout Plan is illustrated in **Figure 2.1** for reference.

Table 2.1 Indicative Development Schedule of Development

Development Parameters	Approved Scheme (A/YL-MP/205 & 205-1)	Proposed Scheme
Site Area	About 65,915 m^2	About 65,690 m^2
Domestic GFA	About 13,183 m^2	About 98,535 m^2
Commercial GFA	-	About 3,292 m^2 **(1)**
Domestic Plot Ratio	0.2	1.5
No. of Units	71 houses	2,322 units
Average Flat Size	About 186 m^2	About 42.4 m^2

Note:
(1) including the floor space of Retail/ Eating Place use (abt. 2,363m^2) and a 6-classroom kindergarten (abt. 929m^2), but excluding the floor space of Transport Layby (abt. 2,400m^2) and a Neighborhood Elderly Centre (NEC) (abt. 722m^2 GFA)

2.2 Accessibility Arrangement

2.2.1 The Subject Site is sandwiched by Kam Pok Road and San Tin Highway. Kam Pok Road is the existing road running along the Ngau Tam Mei Main Drainage Channel near the Subject Site. The Subject Site is accessible to/from Castle Peak Road – Tam Mi via Kam Pok Road.

2.2.2 The concerned section of Kam Pok Road is a single two-lane carriageway linking Fairview Park Boulevard from its south and Castle Peak Road to its north. It serves as the major access road to the proposed development. The development traffic would access the Subject Site via San Tin Highway through the Fairview Park Roundabout, Castle Peak Road and Kam Pok Road.

2.2.3 Two vehicular accesses (namely Access 1 and Access 2) are proposed along the frontage of Kam Pok Road. Access 1 will serve as the main access to/ from the proposed development as well as ingress point for the proposed transport layby. Access 2 will serve as the egress point for the proposed transport layby and the vehicular access for the proposed GIC and retail facilities. By taken into consideration the latest development from the Light Public Housing at REC site, the design of vehicular access of R(D) site at Kam Pok Road would be further discussed in Section 4.5 and subject to revise under the subsequent Land Grant Application.

2.2.4 **Figure 2.2** presents the proposed site accesses and the access route. Directional signs will be provided near the vehicular access within the lot to guide the drivers to route via Kam Pok Road Northbound and Castle Peak Road – Tam Mi Southbound to access to Fairview Park Roundabout.

2.3 Internal Transport Facilities

2.3.1 The parking and loading/unloading facilities of the Proposed Development will be provided in accordance with the requirements as stipulated in the latest Hong Kong Planning Standards and Guidelines (HKPSG) to cater for the transport demand. The respective requirements and proposed provision according to the development schedule are summarized in **Table 2.2.**

Table 2.2 HKPSG Parking and Servicing Facilities Provisions Requirement

<table>
<tr><th colspan="2">HKPSG Requirements</th></tr>
<tr><td colspan="2">Private Car Parking Spaces</td></tr>
<tr><td>Residential –
Private Car Parking Spaces</td><td>GPS (1 space per 4-7) x R1 x R2 x R3
• Demand Adjustment Rate R1:
<table><tr><th>Flat size (FS)</th><th>R1</th></tr><tr><td>FS≤40</td><td>0.5</td></tr><tr><td>40<FS≤70</td><td>1.2</td></tr><tr><td>70<FS≤100</td><td>2.4</td></tr><tr><td>100<FS≤130</td><td>4.1</td></tr></table>• Accessibility Adjustment Ratio R2 = 1.0
• Development Intensity Adjustment Ratio R3 = 1.1

For flat size 40≤FSm^2,
= 1 space per 4-7 flats x 0.5 x 1.00 x 1.10
= 0.55 spaces per 4-7 flats
For flat size 40<FS≤70 m^2,
= 1 space per 4-7 flats x 1.2 x 1.00 x 1.10
= 1.32 spaces per 4-7 flats
For flat size 70<FS≤100 m^2,
= 1 space per 4-7 flats x 2.4 x 1.00 x 1.10
= 2.64 spaces per 4-7 flats
For flat size 100<FS≤130 m^2,
= 1 space per 4-7 flats x 4.1 x 1.00 x 1.10
= 4.51 spaces per 4-7 flats</td></tr>
</table>

HKPSG Requirements	
Residential – Visitor Private Car Parking Spaces	5 spaces per block of more than 75 residential units
Retail – Private Car Parking spaces	1 car space per 150 – 300m^2 GFA
Kindergarten – Private Car Parking Spaces	0 to 1 car parking space per 4 to 6 classrooms
Motorcycle Parking Spaces	
Residential – Motorcycle Parking Spaces	1 space per 100-150 flats
Retail – Motorcycle Parking Spaces	5% - 10% total provision for private cars
Loading/ Unloading Bay	
Residential – Loading and Unloading Bay	1 space for every 800 flats subject to min. 1 bay per block or as determined by the Authority.
Retail – Loading and Unloading Bay	1 loading/ unloading bay for goods vehicles for every 800 to 1200m^2 or part thereof, GFA
Lay-bys	
Kindergarten – Taxi/ Private Cars lay-by	1 lay-by for taxis and private cars for every 5 to 8 classrooms
Kindergarten – Small Coaches Layby	5 lay-bys for mini-bus / nanny van (each 3m x 7m)
Bicycle Parking Spaces	
Residential – Bicycle Parking Spaces	1 space per 30 flats with flat size smaller than 70m^2

2.3.2 Regarding the provision of taxi/ private cars/ school bus layby for kindergarten, reference has been made to planning application no. A/YL-NSW/274 and the provision rates are shown in **Table 2.3**.

Table 2.3 Required and Proposed Parking and Servicing Facilities Provisions

	Private Car/ Taxi Layby	**School Bus Layby**
Adopted Rates	5.63 spaces / 100 students	Minimum 5 laybys for small coaches

2.3.3 In light of the HKPSG requirements given in **Table 2.2** and **Table 2.3**, the proposed provision according to the development schedule is given in **Table 2.4.** Taken into consideration the proximity to public transport services, availability of public car parking space, traffic conditions and the illegal parking condition in the vicinity, a total of 568 nos. of residential car parking spaces would be provided in 1 level of basement carpark

based on the proposed flat supply (2,322 units) and domestic plot ratio (DPR 1.5). For other facilities, the higher end of provision requirements has been adopted.

2.3.4 Also, the adjacent REC Northern (i.e. 1,249 Flats) and Southern sites (i.e. 1,228 Flats) will provide 364 and 345 private car spaces respectively. In case there is change in plot ratio/development flat mix in the subject site, a minimum GPS value of 5 would be achieved altogether with the adjacent REC northern and southern sites (planning application Y/YL-MP/7 and 8).

Table 2.4 Required and Proposed Parking and Servicing Facilities Provisions

	Parameters	Required Provision		Proposed Provision
Private Car Parking Spaces				
Residential – Private Car Parking Spaces	768 units	40 m^2≤FS	61 - 106	**496 spaces(1)**
	1,554 units	40<FS≤70 m^2	294 - 513	
	Total: 2,322 units	**355 - 619 spaces**		
Residential – Visitor Private Car Parking Spaces	10 blocks	50 spaces		50 spaces
Retail – Private Car Parking Spaces	2,363m^2	8 – 16		16 spaces
Kindergarten – Private Car Parking Spaces	6 Classrooms	0 – 1 space		1 space
		Private Car Parking Spaces(2)		**568 spaces**
Motorcycle Parking Spaces				
Residential – Motorcycle Parking Spaces	2,322 units	16 - 24 spaces		24 spaces
Retail – Motorcycle Parking Spaces	16 spaces	1 – 2 spaces		2 spaces
		Motorcycle Parking Spaces		**26 spaces**
Loading/ Unloading (L/UL) Bay				
Residential – L/UL Bay	10 blocks	10 spaces		10 spaces
Retail – Loading and Unloading Bay	2,363m^2	2 – 3 spaces		3 spaces

Lay-bys			
Kindergarten – Taxi/ Private Cars lay-by	6 Classrooms	1 lay-by	10 layby(3)
Kindergarten – Small Coaches Layby	6 Classrooms	5 lay-bys	5 lay-bys(5) (each 3m x 7m)
Bicycle Parking Space			
Residential -- Bicycle Parking Space	2,322 units	78 spaces	78 spaces(6)

Notes: Round up figures adopted.

(1) The number is proposed based on 1 level of basement carpark.

(2) Minimum 6 accessible car parking spaces will be reserved for persons with disabilities in accordance with the HKPSG (at least 1 space for visitor parking)

(3) The kindergarten could accommodate up to 180 pupils. Adopted provision rates with reference to planning application no. A/YL-NSW/274.

(4) With reference to the TIA report under planning application no. A/NE-SSH/120-1, nil provision is proposed for Neighbourhood Elderly Centre.

(5) It is preliminarily proposed to place 3 nos. of kindergarten layby at G/F and 2 nos. at the basement level. Management staff would be deployed to guide traffic down to basement when the kindergarten layby at G/F is full to ensure no traffic queue back to public road. Nevertheless, the above details can be further reviewed in the subsequent detailed design stage.

(6) Cycle parking is provided at basement under each residential tower. Lifts would be provided for cyclists between basement and G/F and have no need to travel via the carpark. The details would be provided in the subsequent detailed design stage.

2.4 Proposed Public Transport Facilities

2.4.1 MTRCL Tuen Ma Line is one of the most important mass public transport services in the Yuen Long and Kam Tin areas. Currently, the closest MTRCL Tuen Ma Line stations are Yuen Long Station and Kam Sheung Road Station which are located approximately 5.5 km and 6.5km away from the subject site respectively. Also, Lok Ma Chau Station of East Rail is located at approximately 7.0km away from the subject site.

2.4.2 In the future, by completion of the Northern Link (NOL), Ngau Tam Mei Station will be approximately 1.0km away which would also as an important mass public transport services at the subject site.

2.4.3 Currently, there are 2 nos. of Franchised Bus route and 1 GMB route serving the light public housing residents. **Table 2.5** summarized the public transport route serving the Light Public Housing.

Table 2.5 Existing Public Transport Services

Type of Public Transport Services	Route No.	Origin and Destination
Franchised Bus	76	Yau Pok Road Public Housing (south) Terminus to Sheung Shui Station (Choi Yuen Road) – Circular Route
Franchised Bus	268	Yau Pok Road Public Housing (south) Terminus to Pat Heung Road
Green Minibus	36A	Yau Pok Road Public Housing (south) Terminus to Yuen Long

2.4.4 Under the proposed scheme, there will be 2,322 units. By assumption of 2.7 persons / flat, the anticipated population in proposed development is about 6,270. In addition, there are two other sites under the S12A Planning Application No. Y/YL-MP/7 and Y/YL-MP/8 with a total population of 6,688 persons. Hence, taking into consideration of the three sites, a total population of 12,958 persons would be served. Reference has been made to the published "Travel Characteristics Survey (TCS) 2011 Final Report". According to the TCS Final Report, the daily mechanised trip rate per population is 1.83 trips and the morning peak hour accounted for about 12% of the daily trips. The percentage of using public transport is about 73% of the total trips. The estimated additional public transport demand in AM peak hour is about 2,077 pax/hr (i.e. 12,958 x 1.83 x 0.12 x 0.73) as shown in **Table 2.6**.

Table 2.6 Public Transport Demand for R(D) Site and Adjacent Northern, Southern Site in AM Peak Hour

Development	No. of Units	Population	Public Transport Demand (pax/hr)
R(D) Site (Subject Site)	2,322	6,270	1,005 (i.e. 6,270 x 1.83 x 0.12 x 0.73)
Southern Site (Under Application No. Y/YL-MP-7)	1,228	3,315	531 (i.e. 3,315 x 1.83 x 0.12 x 0.73)
Northern Site (Under Application No. Y/YL-MP-8)	1,249	3,373	541 (i.e. 3,373 x 1.83 x 0.12 x 0.73)
Total	**4,799**	**12,958**	**2,077**

2.4.5 As stated in **Para 2.4.1**, MTRCL is the key mode of public transport in the area. It is therefore proposed to provide the future bus services to serve the Subject Site to Yuen Long Station or NT North or the nearby future Ngau Tam Mei Station of Northern Link (NOL) Project via Kam Po Road, Castle Peak Road (Tam Mi) and San Tin Highway.

2.4.6 A passenger count survey was conducted at existing Park YOHO, which is considered a comparable reference as the Subject Site. Based on the surveyed results, about 45% are destined to Tuen Ma Line Station, 35% via Long-haul bus service (via 268M) and 20% to Yuen Long Town Centre are identified.

2.4.7 As the major public transport demand would be likely to be destined to Tuen Ma Line Station / Yuen Long Town. A circular bus service is proposed between Yuen Long Station PTI and the development site. The proposed new bus service would be a circular route with terminating point at the development site with bus stops at the other two sites (i.e. routing via REC northern and southern sites) and a bus stop at Yuen Long Station PTI for passenger boarding / alighting. The location of the proposed bus stop at Yuen Long Station PTI is shown in **Figure 2.3.** Currently, there are 6 bus bays provided in the Yuen Long Station PTI as shown in **Figure 2.3** serving only bus routes B1, B2, K65 and N30. In view of that, one bus bay is proposed to serve for the proposed circular bus service. The proposed bus stop at Yuen Long Station would serve only for passenger boarding / alighting with no bus stacking required, as a result, there should still be capacity to accommodate the said bus stop within Yuen Long Station PTI.

Nevertheless, the boarding / alighting point for this proposed circular bus service can be further reviewed / discussed with TD in the subsequent detail design stage.

2.4.8 Based on the demand of 1,350 pax/hr (i.e. 2,077 x 65%) and a capacity of 90 persons/bus, the proposed headway is about 4 minutes. Subject to the future planning, the conceptual routing is diagrammatically shown in **Figure 2.3**. The estimated round trip journey distance and journey time are about 12 km and 24 minutes respectively. For the proposed circular bus service between Yuen Long Station PTI and the development site, the round trip time is about 30 minutes (12km / 30kph + 6 minutes boarding/ alighting time). For proposed headway of 4 minutes, a total of 8 buses would be required (i.e. 30/4) during peak hour. For non-peak period, it is assumed that the proposed circular bus service would be operated in headway of 12 minutes, a total of 5 buses would be required (i.e. 60/12) during non-peak hour. As shown in **Appendix A**, three 42m parallel bays would be reserved for public transport services (i.e. a minimum of 2 x 42m bays for franchised bus with another 1 x 42m bay with flexibility for by-passing franchised bus / GMB / Taxi).

2.4.9 For the demand of the long-haul bus services, the overall demand for the 3 development sites is about 727 pax/hr (i.e. 2,077 x 35%). Based on a capacity of 90 persons/bus, this would be equivalent to about 8 bus trips/hour. Hence 8 bus trips of long-haul bus routes to/from urban areas (such as Hong Kong Island, Kowloon East and Kowloon) are proposed during the AM / PM peak hours. Passengers taking these bus services can also interchange with other bus routes to various districts via Tai Lam Bus Interchange.

2.4.10 To cater for the proposed services, Transport Laybys are proposed within the development site. The indicative layout of proposed Transport Laybys are shown in **Appendix A** (subject to further review under subsequent detailed design stage). As shown in the indicative layout, 3 transport laybys are provided including one double-width bay of about 42m, two single-width bays of about 42m. All the 3 laybys have been designed to allow the manoeuvring of 12.8m bus. One of these 3 laybys would be designated to serve the proposed bus service to/from Yuen Long Station PTI. One of these 3 laybys would be reserved for the provision of GMB services if required in future. For the remaining layby, it could serve the long-haul bus routes during the AM / PM peak hours.

2.4.11 The proposed circular bus services to / from Yuen Long Station PTI and peak hour long-haul services to / from urban areas serve the public transport demand for R(D) site as well as the two REC sites. As PTI has been proposed within both REC sites, a portion of the terminating routes can be located at these two sites. Within the two REC sites, a total of 8 bus bays are planned which could be used as loading/unloading bays or bus stacking bays for the proposed public transport service. The provisions in the two REC sites can be further reviewed under the relevant planning applications (Y/YL-MP7 and 8). Subject to the future detailed design, taxi would be allowed to route via the internal driveway within the development site to provide point-to-point service for the residents, hence taxi stand would not be provided in the transport layby.

2.4.12 The transport laybys proposed within the two REC sites development is shown in **Appendix A**. For the REC northern site, a total of 3 buses can be accommodated. For the REC southern site, a total of 5 buses can be accommodated. By deducting one bus bay used for passenger boarding/alighting for the circular bus service to/from Yuen Long Station, the remaining (i.e. 2 bus bays in northern site and 4 bus bays in southern

site) could also be used to serve the long-haul bus routes during the AM / PM peak hours.

2.4.13 The swept path analysis of the 3 transport laybys is shown in **Appendix A**.

Passenger Queue Area

2.4.14 As indicated in **Section 2.4.7**, the proposed circular bus services to Yuen Long Station PTI and Yuen Long Town account for 65% of the passenger demand, the passenger queue condition is therefore considered the most critical.

2.4.15 Based on the patronage demand described in **Table 2.6**, the hourly demand during AM peak hour for the proposed circular bus route at the Subject Site would be 654 pax/hr (i.e. 1,005 x 0.65). Given a proposed headway of 4 minutes as suggested in **Section 2.4.7**, the maximum queue would be around 44 persons for the Application Site. Based on the above, the Level-of-Service (LOS) for passenger queueing area for the proposed circular bus route has been assessed and summarised in **Table 2.7**.

Table 2.7 LOS Of Passenger Queueing Area For Proposed Circular Bus Route at Proposed Transport Laybys

Transport Layby	Estimated Passenger Demand (pax/hr)	Maximum Queue (pax)	Waiting Area (m^2)	Waiting Space (m^2/person)	LOS(1)
Subject Site	654	44 (i.e. 654/60x4)	63	>1.4	A

Notes:
(1) Level-of-service (LOS) assessment criteria from Highway Capacity Manual 2000 is adopted.

2.4.16 As shown in **Table 2.7**, the passenger queuing area at the subject site would operate with acceptable LOS A, which is better than the preferred LOS C and is therefore considered acceptable. The description of LOS from Exhibit 11-9 of Highway Capacity Manual 2000 is extracted and shown in **Table 2.8** for reference.

Table 2.8 Description of Level-of-Service (LOS) For Queuing Area

LOS	Average Pedestrian Space (m^2/person)	Description
A	>1.2	Standing and free circulation through the queueing area is possible without disturbing others within the queue.
B	0.9 - 1.2	Standing and partially restricted circulation to avoid disturbing others in the queue is possible.
C	0.6 - 0.9	Standing and restricted circulation through the queueing area by disturbing others in the queue is possible; the density is within the range of personal comfort.
D	0.3 - 0.6	Standing without touching is possible circulation is severely restricted within the queue and forward movement is only possible as a group; long term waiting at this density is uncomfortable.

E	0.2 - 0.3	Standing in physical contact with others in unavoidable; circulation in the queue is not possible; queueing can only be sustained for a short period without serious discomfort.
F	≤ 0.2	Virtually all persons within the queue are standing in direct physical contact with others; this density is extremely uncomfortable; no movement is possible in the queue; there is potential for panic in large crowds at this density.

Impact on Tuen Ma Line

2.4.17 Referring to Section 2.4.14, the public transport demand for Tuen Ma Line (formerly named as West Rail Line) induced by three development sites would be around 935 pax/hr (i.e. 2,077 x 45%) in AM peak.

2.4.18 Referring to Press Releases (2019). LCQ7: Loading of trains of West Rail Line, The patronage per direction of the West Rail Link in its critical link (i.e. from Kam Sheung Road to Tsuen Wan West) in year 2018 AM peak hour is 40,400 pax/hr

2.4.19 To forecast the patronage flow in year 2034, annual growth rate was estimated with reference to 2019-based Territorial Population and Employment Data Matrix (TPEDM) data which is available in Planning Department website. **Table 2.9** below shows the planning data of Tuen Mun, Yuen Long, Tin Shui Wai, and northwest New Territories

Table 2.9 2019-based TPEDM Planning Data

Planning Data District	**Year 2019**	**Year 2026**	**Year 2031**
	Population	**Population**	**Population**
Tuen Mun	476,500	538,900	606,850
Yuen Long	175,150	172,350	159,850
Tin Shui Wai	279,950	283,250	276,050
Northwest New Territories	222,800	239,250	353,900
Total	**1,154,400**	**1,233,750**	**1,396,650**
Annual growth rate from year 2019 to 2026 = 0.95%			
Annual growth rate from year 2026 to 2031 = 2.51%			

2.4.20 By adopting the annual growth rate of 0.95% (from year 2018 to 2026) and annual growth rate of 2.51% (from year 2026 to year 2034), the forecasted patronage flow in the critical link (i.e. from Kam Sheung Road to Tsuen Wan West) in year 2034 AM peak hour is 53,133 pax/hr (i.e. 40,400 x $(1.0095)^8$ x $(1.0251)^8$). By adopting the demand generated from the development, the overall patronage flow is 54,068 pax/hr (i.e. 53,133 + 935) in year 2034 AM peak.

2.4.21 The maximum capacity of West Rail Link in year 2015 is 49,200 pax/hr. After the commissioning of the Tuen Ma Line, the MTRCL can provide services at a maximum frequency of 24 trains trips per hour by procuring more trains and enhancing signaling system, thus increasing the carrying capacity of WRL by approximately 37%[Note 1] as compared with that in year 2015 (i.e. maximum capacity = 49,200 x 1.37 = 67,404 pax/hr).

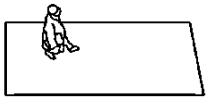
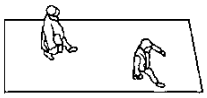
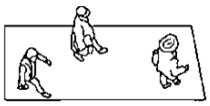
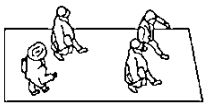
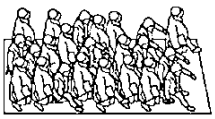
2.4.22 Hence, even with the development, the Tuen Ma Line is anticipated to be operated within capacity in year 2034.

2.5 Pedestrian LOS Assessment

2.5.1 Pedestrian LOS was used to assess the performance of footpaths. The LOS of footpaths are assessed based on flow rate, a ratio between pedestrian flows and width of the pedestrian corridor.

2.5.2 LOS defines the walking environment in six levels by measuring the pedestrian flow rate in terms of the effective width of footpath. LOS A and B are both very good service levels and LOS F is the worst condition, while LOS C is desirable for most design with dominant 'living' pedestrian activities. **Table 2.10** describes different levels of LOS related to different ranges of pedestrian flow rate.

Table 2.10 Description of Pedestrian Level-of-Service (LOS) on Footpath

LOS	Flow Rate (ped/min/m)	Description
A	≤ 16 	Pedestrians basically move in desired paths without altering their movements in response to other pedestrians. Walking speeds are freely selected, and conflicts between pedestrians are unlikely.
B	16 – 23 	Sufficient space is provided for pedestrians to freely select their walking speeds, to bypass other pedestrians and to avoid crossing conflicts with others. At this level, pedestrians begin to be aware of other pedestrians and to respond to their presence in the selection of walking paths.
C	23 – 33 	Sufficient space is available to select normal walking speeds and to bypass other pedestrians primarily in a unidirectional stream. Where reverse direction or crossing movement exists, minor conflicts will occur, and speed and volume will be somewhat lower.
D	33 – 49 	Freedom to select individual walking speeds and bypass other pedestrians is restricted. Where crossing or reverse-flow movements exist, the probability of conflicts is high and its avoidance requires changes of speed and position. The LOS provides reasonable fluid flow; however considerable friction and interactions between pedestrians are likely to occur.
E	49 – 75 	Virtually all pedestrians would have their normal walking speeds restricted. At the lower range of this LOS, forward movement is possible only by shuffling. Space is insufficient to pass by slower pedestrians. Cross- and reverse-movement are possible only with extreme difficulty. Design volumes approach the limit of walking capacity, with resulting stoppages and interruptions to flow.
F	> 75 	Walking speeds are severely restricted. Forward progress is made only by shuffling. There are frequent and unavoidable conflicts with other pedestrians. Cross- and reverse-movements are virtually impossible. Flow is sporadic and unstable. Space is more characteristic of queued pedestrians than of moving pedestrian streams.

Sources: Transport Planning and Design Manual (TPDM) Volume 6 Chapter 10 and Highway Capacity Manual (HCM-version 2000) Chapter 11 Exhibit 11-8.

2.5.3 As no rail service is provided within 500m of the subject site, it is expected that mechanical trips would be the major mode choice. With the provision of commercial and transport layby within the site, it is expected that pedestrian trips would be minimal travelling out of the site area.

2.5.4 As shown in **Figure 2.1**, arrows indicate potential pedestrian travel direction to/from the proposed site. The footpath along Kam Pok Road would be the main route used the pedestrian trips generated/attracted by the R(D) Site.

2.5.5 The footpath provision along Kam Pok Road has a minimum width of 3.5m at the proposed R(D) site, providing a two-way pedestrian throughput of 4,830ppl/hr to 6,930ppl/hr while maintain LOS C. The proposed development scheme included 2,322 units with 6,270 population. In case 30% of the population (1,881ppl) contributes to the 2-way trips along the 3.5m footpath section, the flow rate would be 9ped/min/m, which provide a LOS A for pedestrian corridor.

2.5.6 Other than the pedestrian trips contributed to Kam Pok Road, it is noted that there are two other sites (Y/YL-MP/7 Southern Site and Y/YL-MP/8 Northern Site) located at the opposite to the subject site with a total population of 6,688 persons. Pedestrian visiting to the nearby site should also be considered. Those pedestrians would via the existing footpath along the vehicular bridge with a minimum width of 2m, providing a two-way pedestrian throughput of 2760ppl/hr to 3960ppl/hr while maintain LOS C. Assuming 20% of residents would visit the subject site (i.e. 6,688 x 0.2 = 1,338 ppl) and 20% of the subject site residents would visit the Northern and Southern Site (i.e. 6,270 x 0.2 = 1254 ppl). The total contribution to the 2-way trips along the existing 2m footpath is 2,592 ppl, the flow rate would be 22 ped/min/m, which provide a LOS B for pedestrian corridor.

3 EXISTING TRAFFIC CONDITION

3.1 Traffic Survey

3.1.1 A total of 11 critical junctions were identified for assessment in this TIA as listed in **Table 3.1**. The locations of critical junctions and affected road links are shown in **Figure 3.1**. The existing junction layouts are presented in **Figures 3.2** to **3.12** respectively.

Table 3.1 Critical Junctions

Ref.	Junction	Type	Fig. No.
J1	Fairview Park Roundabout	Roundabout	**3.2**
J2	Castle Peak Road / Kam Pok Road	Priority	**3.3**
J3	Fairview Park Boulevard / Kam Pok Road	Signalized	**3.4**
J4	Kam Pok Road / Ha Chuk Yuen Road	Priority	**3.5**
J5	Kam Pok Road / Kam Pok Road East	Priority	**3.6**
J6	Castle Peak Road / Kam Pok Road East	Signalized	**3.7**
J7	Castle Peak Road / Yau Pok Road	Priority	**3.8**
J8	Kam Pok Road / Vehicular Bridge (North)	Priority	**3.9**
J9	Kam Pok Road / Vehicular Bridge (South)	Priority	**3.10**
J10	Yau Pok Road / Vehicular Bridge (South)	Priority	**3.11**
J11	Yau Pok Road / Vehicular Bridge (North)	Priority	**3.12**

3.1.2 Manual classified traffic counts surveys were carried out on a typical weekday in May 2021 to establish the current traffic condition in the vicinity. The surveys were undertaken during 7:30am – 9:30am and 5:00pm – 7:00pm at the critical junctions as listed in **Table 3.1**.

3.1.3 The identified morning (AM) and evening (PM) peak hour are from 7:45am to 8:45am and from 5:45pm to 6:45pm respectively. The 2021 observed AM and PM peak hour traffic flows are shown in **Figure 3.13**.

3.1.4 In order to justify Year 2021 traffic data reflects the prevailing traffic condition, supplementary traffic survey is conducted on a normal weekday in April 2025. The 2025 observed AM and PM peak hour traffic flows are shown in **Figure 3.14**. The traffic flow in Year 2025 is comparatively smaller, for conservative assessment, it is proposed to remain adopting the existing survey as a base for the design year traffic forecast.

3.2 Road Link / Junction Assessment

3.2.1 Junction capacity analysis was carried out for the above surveyed junctions which are located in the vicinity of the Application Site to appraise the existing traffic condition based on the 2021 observed peak hour traffic flows.

3.2.2 Based on the turning flows at the above junctions, capacity assessments were carried out in accordance with the methodology documented in the appendices of Transport Planning and Design Manual (TPDM) Volume 2 Chapter 4 for priority junction / roundabout and Volume 4 for signal junction.

3.2.3 The existing junction performances of the critical junctions are summarized in **Table 3.2**. Capacity calculation sheets are attached in **Appendix D**.

Table 3.2 Existing Junction Performance

Ref.	Junction	Indicator*	2021 Existing	
			AM Peak	PM Peak
J1	Fairview Park Roundabout	DFC	0.66	0.68
J2	Castle Peak Road / Kam Pok Road	DFC	0.10	0.10
J3	Fairview Park Boulevard / Kam Pok Road	RC	73%	56%
J4	Kam Pok Road / Ha Chuk Yuen Road	DFC	0.04	0.04
J5	Kam Pok Road / Kam Pok Road East	DFC	0.25	0.16
J6	Castle Peak Road / Kam Pok Road East	RC	84%	>100%
J7	Castle Peak Road / Yau Pok Road	DFC	0.03	0.04
J8	Kam Pok Road / Vehicular Bridge (North)	DFC	0.02	0.02
J9	Kam Pok Road / Vehicular Bridge (South)	DFC	0.02	0.02
J10	Yau Pok Road / Vehicular Bridge (South)	DFC	0.02	0.02
J11	Yau Pok Road / Vehicular Bridge (North)	DFC	0.02	0.02

* DFC = Design Flow / Capacity ratio for priority junction or roundabout; RC= Reserved Capacity for signalized junction

3.2.4 At present, all critical junctions are operating within capacity.

3.2.5 Based on the observed traffic flows, the affected road links have been assessed and the results are summarized in **Table 3.3.**

Table 3.3 Existing Road Link Performance

Ref	Road Section	Dir	Link Capacity (pcu/hr)	2021 Traffic Flows (pcu/hr)		2021 V/C Ratio	
				AM Peak	PM Peak	AM Peak	PM Peak
L1	San Tin Highway	NB	6100(1)	4290	3460	0.70	0.57
		SB	6100(1)	3830	3820	0.63	0.63
L2	Castle Peak Road – Tam Mi	2-way	2125(2)	1000	750	0.47	0.35
L3	Fairview Park Boulevard	EB	2600(3)	920	720	0.35	0.28
		WB	2600(3)	660	810	0.25	0.31

L4	Kam Pok Road	2-way	1800(4)	130	130	0.07	0.07

Note:
(1) Road capacity for Dual 3 - Trunk Road
(2) Road capacity for Single 2 - Rural Road, with consideration of roadside activities
(3) Road capacity for Dual 2- Local Distributor
(4) Road capacity for Single 2 - Local Distributor

3.3 Existing Public Transport Services

3.3.1 As mentioned in **Section 2.4.3** and **Table 2.4**, currently, there are 2 nos. of franchised bus route and 1 no. of GMB route serving the light public housing development.

4 TRAFFIC IMPACT ASSESSMENT

4.1 Trip Generation of Proposed Development

4.1.1 In order to evaluate the traffic impact under both Reference (Approved Scheme) and Design (Proposed Scheme) scenarios, traffic trip generation and attraction volumes of the subject site are estimated with reference to the trip generation and attraction rates as stipulated in Annex D of Transport Planning and Design Manual (TPDM) Volume 1 Chapter 3 published by Transport Department. The adopted trip rates and the estimated trip generation of the Development under both Reference and Design Scenarios are presented in **Tables 4.1** and **4.2** respectively.

Table 4.1 Adopted Trip Rates

Scheme	Type	Unit	Trip Rates			
			AM Peak		PM Peak	
			Gen.	Att.	Gen.	Att.
Approved Scheme	**Private Residential** (Average Flat Size =180 m^2 Mean)	(pcu/hr/flat)	0.2772	0.1769	0.1635	0.2394
Proposed Scheme	**Private Residential** (Average Flat Size =60m^2 Mean)	(pcu/hr/flat)	0.0718	0.0425	0.0286	0.037
	Retail (GFA=2,363m^2)	(pcu/hr/100 sqm)	0.2296	0.2434	0.3100	0.3563
	Kindergarten	(pcu/hr/100 student)	26(1)	26(1)	1(1)	1(1)

Note: (1) Adopted trip rates for kindergarten with reference to the Traffic Impact Assessment Report under Planning Application (A/YL-NSW/274)

Table 4.2 Trip Generation and Attraction

Scheme	Development Parameter	Trip Generation/ Attractions (pcu/hr)			
		AM Peak		PM Peak	
		Gen.	Att.	Gen.	Att.
Approved Scheme	71 houses (Average Flat Size =186 m^2)	20	13	12	17
Proposed Scheme	2,322 units (Average Flat Size =42.4m^2)	167	99	67	86
	Public Transport(3)	28	28	28	28
	Retail (abt. 2,363m^2)	6	6	8	9
	Kindergarten (6 Classrooms)	47(1)	47(1)	2(1)	2(1)
	NEC	10(2)	10(2)	10(2)	10(2)
	Total	**258**	**190**	**115**	**135**
Difference (Proposed Scheme – Approved Scheme)		**+238**	**+177**	**+103**	**+118**

Note: (1) The proposed kindergarten could accommodate up to 180 pupils.
(2) Nominal figure adopted with reference to in-house survey at Yan Oi Tong Tin Ka Ping Neighbourhood

Elderly Centre for NEC.
(3) As given in Section 2.4, for the subject R(D) site, a total of about 1,006 persons (6,270 x 1.83 x 0.12 x 0.73) would take bus in the AM peak outbound direction. By assuming the bus capacity of 90 pax/hr and a pcu factor of 2.5 for bus, a total of 28 pcu/hr would be generated and attracted. Additional bus trips for the adjacent REC sites have been included in the Sensitivity Test under **Section 4.6**.

4.1.2 The comparison on trip generation/ attractions of the proposed development under Approved Scheme and Proposed Scheme as shown in **Table 4.2** reveals that the Proposed Scheme will induce additional 415 pcu/hr (two-way) during AM peak hour and 221 pcu/hr (two-way) during the PM peak.

4.2 Design Year

4.2.1 The proposed development is tentatively scheduled for population intake in 2031. According to Guidelines and Requirements of Traffic Impact Assessment (TIA) Studies, the TIA should assess at least 3 years after the planned completion of the Proposed Development. Hence, 2034 is adopted as the design year for this TIA.

4.3 Traffic Forecast

Other Planned Major Developments

4.3.1 Apart from the proposed development, the other major newly completed and committed/planned developments in the vicinity of the proposed development has also been taken into account in the traffic forecast. The future developments are listed in **Table 4.3.**

Table 4.3 Key Newly Completed and Planned Developments

Ref.	Development	Key Development Parameters	Estimated 2-way Trip Generation (pcu/hr)	
			AM Peak	PM Peak
1	Tung Shing Lei Development (A/YL-NSW/274)	• 1518 private residential units (average flat size = about 46m^2)	174	101
2	Sha Po North Phase 2 Residential Development (A/YL-KTN/663)	• 1,154 private residential units (average flat size = about 42.57m^2)	58	32
3	Nam Sang Wai Commercial Development (Y/YL-NSW/3) #	• 38,300m^2 retail GFA • 700 hotel rooms	378	456
4	Kam Tin South Priority Sites Development	• 9,060 units of public housing (average flat size = about 50m^2) • 2,200 units of private housing (average flat size = about 70m^2)	1,260	816
5	Kam Tin West Outlet Mall (A/YL-NSW/241) #	• 37,171m^2 retail GFA	177	249
6	Tung Shing Lei Land Sharing Pilot Scheme Development	• 1,261 units of private housing (average flat size = about 40m^2) • 1,868 units of public housing (average flat size = about 50m^2)	342	215

Ref.	Development	Key Development Parameters	Estimated 2-way Trip Generation (pcu/hr)	
			AM Peak	PM Peak
7	Sha Po North Comprehensive residential development (A/YL-KTN/604)	• 3,891 private residential units (average flat size = about 49m^2) • 5,500 m^2 retail GFA	558	334
8	Sha Po Public Housing Development	• 16,300 Flats • 1 Primary School • 20,668 m^2 retail GFA • 5 Kindergarten • 38,384 m^2 Welfare Facilities • 19,267 m^2 GIC	2,183	1,628
9	Kam Tin North Residential Development (A/YL-KTN/791)	• 330 flats (average flat size = about 31m^2) • 87 houses	62	40
10	Sha Po South Residential Development (A/YL-KTN/964)	• 615 private residential units (average flat size = about 38m^2)	70	41
11	Wing Kei Tsuen Development (Y/YL-NSW/7)	• 1,997 private residential units • (average flat size = 48.9 m^2)	230	130
12	Private Housing in Tung Shing Lei (A/YL-NSW/293)	• 3,566 Flats • 9 Houses • 5,358 Non Domestic GFA	215	183
13	Kam Pok Road East Private House (A/YL-NSW/314)	• 90 units	49	52
14	Ngau Tam Mei Area *	• Population: 9,600 – 10,800 • No. of Flats: 3,600 – 3,900	550	330
15	Siu Sheung Road (A/YL-NSW/303)	• Social Welfare Facilities (5,400 m^2)	31	27
16	Siu Sheung Road (A/YL-NSW/292)	• Social Welfare Facilities (9,180 m^2)	50	48
17	San Tam Road (Y/YL-NTM/9)	• GIC Facilities (5,400 m^2)	20	20

(Source: *http://www.tpb.gov.hk* and *https://www.nm-ntm.hk*)

* The new population and flats of Ngau Tam Mei Area is about 32,000 - 36,000 and 12,000 – 13,000 respectively. According to LegCo Paper No. CB(1)1487/2024(04), the first population intake of Ngau Tam Mei Area is expected to take place from 2034. It is therefore assumed that 30% of the Comprehensive Residential Neighbourhood, in close vicinity of the planned Ngau Tam Mei Station, will be in place in Year 2034. Meanwhile, the remaining Residential Neighbourhood, Research Hospital and University Town will be in place in later years.
Latest planning application Y/YL-NSW/8 and Y/YL-NSW/9 have been considered under sensitivity test II.

Other Future Adjacent Developments

4.3.2 There are some future residential sites located in the close vicinity of the Site. The traffic forecast has been developed to include these residential sites to cater for the worst scenario. These sites are all designated for low-density residential use. As the

worst-case testing, it is assumed that these adjacent planned residential sites will be fully developed by year 2031 (i.e. the completion year of the subject development).

4.3.3 Locations of these planned residential development sites near the Subject Site are presented in **Figure 4.1**. Their development parameters and their corresponding traffic generations are presented in **Table 4.4**, have been incorporated in this assessment as follows:

Table 4.4 Development Parameters of Future Adjacent Developments

Site	Key Development Parameters				Estimated 2-way Trip Generation (pcu/hr)	
	Zone	Site Area	Plot Ratio	No. of Houses	AM Peak	PM Peak
A	OU	207,408 m^2	0.4	789 houses	243	179
B	OU	81,000 m^2	0.2	105 houses	49	44
C	REC	89,774 m^2	0.63	2,150 flats	135	164
D	R(D)	37,702 m^2	0.2	65 houses	26	20
E	R(D)	2,716 m^2	0.2	3 houses	2	2
F	R(D)	898 m^2	0.2	1 house	2	2

*Remarks: Development parameters of Site A, B, C and D were obtained from their respective approved planning applications, while assumptions have been made for Site E and F which comply with the permissible PR under the OZP.

Future Traffic Flows

4.3.4 For projection of background traffic flows in Area of Influence, an in-house 2-tier modelling approach (Strategic Transport Model (STM) and Local Area Traffic Model (LATM)) have been adopted. Based on the planning data published on the website of Planning Department (i.e. 2019-based TPEDM Planning Data), together with other information (such as population distribution and employment type from Census) available in public domain, a simplified Strategic Transport Model (STM) was developed for cordoning board vehicle trip matrices for local area traffic modelling.

4.3.5 For the Local Area Traffic Model (LATM), the Base District Traffic Model (BDTM) "NTW1" covering Tuen Mun and Yuen Long Area has been adopted as the base traffic model for this study.

4.3.6 The LATM has been validated against the 2021 traffic data in the area of influence to ensure that the base year LATM could satisfactorily replicate the base year traffic patterns and volumes before the model is used to produce future years traffic forecasts.

4.3.7 The STM cordoned matrices were fed into the LATM for projecting the traffic flows from year 2021 to year 2034. In addition, the trip ends of traffic zones were adjusted and controlled to the estimated trips generated by the future developments in the vicinity as listed in **Table 4.2 (Approved Scheme), Table 4.3 and Table 4.4** to produce the 2034 reference traffic flows as shown in **Figure 4.2.**

4.3.8 The additional trip ends due to proposed development with proposed scheme as estimated in **Table 4.2** are then added to 2034 reference traffic flows to produce 2034 design traffic flows. **Figure 4.3** presents the net increase development traffic flow of

the proposed development with proposed scheme. **Figure 4.4** presents 2034 design traffic flow (with Proposed Scheme).

4.3.9 With the consultation of PlanD, additional planned developments have been included as Site 15 to 17 and tabulated in Table 4.3. Also, Considered the remoteness from the subject site the. The contribution to the road network in vicinity of the subject site is considered to be negligible, therefore, . The additional trip ends due to proposed development with proposed scheme as estimated in **Table 4.2** are then added to 2034 reference traffic flows to produce 2034 design traffic flows. **Figure 4.3** presents the net increase development traffic flow of the proposed development with proposed scheme. **Figure 4.4** presents 2034 design traffic flow (with Proposed Scheme).

4.4 Planned Junction Improvement Works

J1 – Fairview Park Roundabout

4.4.1 As extracted from the feasibility study (CEDD Agreement No. CE10/2020(CE)) for Sha Po Public Housing Development enclosed in RNTPC Paper No. 9/22 for consideration by RNTPC on 9 December 2022, improvement measures were proposed at Fairview Park Roundabout (J1). The approach arms of Castle Peak Road – Tam Mi (northbound), San Tin Highway Slip Road (southbound) and San Tam Road (northbound) would be widened. An additional exclusive left-turn lane is also proposed at the approach arm of San Tin Highway Slip Road (northbound) for traffic routing to Castle Peak Road – Tam Mi (southbound). The planned layout is as shown in **Figure 4.5**.

4.5 Road Link / Junction Assessment

4.5.1 The main criteria for assessing the traffic impact of critical junctions are whether the addition of generated traffic would significantly affect the capacity of junctions in the vicinity of the subject site.

4.5.2 The operational performances of the 11 critical junctions as identified in **Section 3** were assessed based on the 2034 Reference (Approved Scheme) and Design (Proposed Scheme) traffic flows as derived in **Section 4.3**. The results are summarized in **Table 4.5.** The junction calculation sheets are shown in **Appendix D.**

Table 4.5 2034 Junction Performance

Ref.	Junction	Year 2034 RC/DFC*			
		Reference Case (Approved Scheme)		Design Case (Proposed Scheme)	
		AM Peak	PM Peak	AM Peak	PM Peak
J1	Fairview Park Roundabout	1.19	1.13	1.34	1.18
J2	Castle Peak Road / Kam Pok Road	0.30	0.35	0.86	0.58
J3	Fairview Park Boulevard / Kam Pok Road	58%	41%	48%	36%
J4	Kam Pok Road / Ha Chuk Yuen Road	0.04	0.04	0.05	0.05

Ref.	Junction	Year 2034 RC/DFC*			
		Reference Case (Approved Scheme)		Design Case (Proposed Scheme)	
		AM Peak	PM Peak	AM Peak	PM Peak
J5	Kam Pok Road / Kam Pok Road East	0.39	0.25	0.44	0.30
J6	Castle Peak Road / Kam Pok Road East	35%	46%	35%	46%
J7	Castle Peak Road / Yau Pok Road	0.07	0.07	0.07	0.07
J8	Kam Pok Road / Vehicular Bridge (North)	0.08	0.07	0.10	0.12
J9	Kam Pok Road / Vehicular Bridge (South)	0.08	0.08	0.08	0.08
J10	Yau Pok Road / Vehicular Bridge (South)	>100%	>100%	>100%	>100%
J11	Yau Pok Road / Vehicular Bridge (North)	>100%	>100%	N/A	N/A

*RC in % denotes "Reserve Capacity" for signalized junction; DFC decimal number denotes "Design Flow / Capacity" ratio for priority junction or roundabout

4.5.3 As shown in **Table 4.5**, except Junction 1 and Junction 2, all junctions would be able to handle the future traffic demand with ample capacity in both reference case and design case.

4.5.4 As mentioned in Section 4.4, planned improvement measures were proposed to Fairview Park Roundabout (J1) under the feasibility study (CEDD Agreement No. CE10/2020(CE)) for Sha Po Public Housing Development. Additional junction improvement proposal to Fairview Park Roundabout (J1) is recommended to enhance the junction capacity. The proposed improvement measures implemented by subject application is shown in red and presented in **Figure 4.6**.

4.5.5 In case, there is programme mismatch between the subject site and Sha Po Public Housing Development, the proposed improvement measures, arising from the traffic generation associated with the subject application (as highlighted in red and presented in **Figure. 4.7**), will be implemented by the Proposed Development.

4.5.6 In order to enhance the junction performance of J2, improvement schemes were formulated for allowing separated turning in Yau Pok Road. The proposed improvement measures, arising from the traffic generation associated with the subject application (as highlighted in red and presented in **Figure. 4.8**), will be implemented by the Proposed Development.

4.5.7 As mentioned in Section 4.4, signalization were proposed and implemented to Kam Pok Road / Vehicular Bridge - North (J11) by the Light Public Housing. Additional junction modification works is recommended for provision of vehicular access to the subject planning application. Additional left turn lane is introduced along Kam Pok Road WB for the new traffic attraction heading to the subject site. Also, signalized crossing is proposed for pedestrian across the site. The junction modification works (as highlighted in red and presented in **Figure. 4.9**) will be implemented by the Proposed Development.

4.5.8 The junction performance is reassessed taken into consideration the proposed improvements and the assessment results are shown in **Table 4.6.**

Table 4.6 2034 Junction Performance with Proposed Improvement Scheme

Ref.	Junction	Year 2034 RC/DFC* Design Case	
		AM Peak	PM Peak
J1	Fairview Park Roundabout **(Figure 4.6)**	0.81	0.81
J2	Castle Peak Road / Kam Pok Road **(Figure 4.8)**	0.68	0.46
J11	Kam Pok Road / Vehicular Bridge / R(D) Site Access **(Figure 4.9)**	80%	>100%

4.5.9 Based on the future traffic flows, the affected road link has been assessed and the results are summarized in **Table 4.7**. The assessment result indicated that all the above road links are expected to operate within capacity except San Tin Highway (L1). Between the year 2031 (completion year of the development) and year 2034 (the assessment year), the V/C ratio of San Tin Highway would reach 1.07, meaning that the traffic speed would be reduced, but would still be manageable with V/C ratio under 1.2. Along with the developments of NDAs within Northern Metropolis, a Northern Metropolis Highway has been proposed under the "Strategic Studies on Railways and Major Roads Beyond 2030". It is expected that traffic condition of San Tin Highway could be improved with the completion of Northern Metropolis Highway.

Table 4.7 Future Road Link Performance

Ref	Road Section	Dir	Link Capacity (pcu/hr)	Reference Case (Approved Scheme)				Design Case (Proposed Scheme)			
				2034 Traffic Flows (pcu/hr)		2034 V/C Ratio		2034 Traffic Flows (pcu/hr)		2034 V/C Ratio	
				AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
L1	San Tin Highway	NB	6100(1)	6450	5880	1.06	0.96	6550	5960	1.07	0.98
		SB	6100(1)	5430	4910	0.89	0.80	5570	4990	0.91	0.82
L2	Castle Peak Road – Tam Mi	2-way	2125(2)	1270	1030	0.60	0.48	1560	1200	0.73	0.56
L3	Fairview Park Boulevard	EB	2600(3)	790	760	0.30	0.29	790	760	0.30	0.29
		WB	2600(3)	610	790	0.23	0.30	610	790	0.23	0.30
L4	Kam Pok Road	2-way	1800(4)	340	380	0.19	0.21	720	590	0.40	0.33

Note:
(1) Road capacity for Dual 3-Trunk Road
(2) Road capacity for Single 2-Rural Road, with consideration of roadside activities
(3) Road capacity for Dual 2- Local Distributor
(4) Road Capacity for Single 2 – Local Distributor

4.6 Sensitivity Test (I)

4.6.1 It is noted that another application is submitted for the adjacent Site C (REC) at the opposite of the Application Site across the drainage channel for increasing its development density. As such, a sensitivity test was carried out assuming the REC site is completed according to the current proposed scheme.

4.6.2 In this sensitivity test, it is also assumed that the adjacent R(D) sites in the close vicinity of the site will increase their flat supply with domestic plot ratio increased from 0.2 to 1.5, same as the plot ratio in the Application. The traffic to be induced are summarised in **Table 4.8**. The cumulative net increase development traffic flow and design traffic flow (Sensitivity test I) are illustrated in **Figure 4.10** and **Figure 4.11** respectively.

Table 4.8 Development Parameters of Future R(D) Adjacent Developments assumed in Sensitivity Test

Site	Key Development Parameters			Estimated 2-way Trip Generation (pcu/hr)	
	Site Area (abt.)	Domestic Plot Ratio	No. of Houses	AM Peak	PM Peak
C (REC)	89,090 m^2	1.2	2,477 units(2)	286	165
D	37,702 m^2	1.5	1,333 flats(1)	153	89
E	2,716 m^2	1.5	97 flats(1)	12	7
F	898 m^2	1.5	32 flats(1)	5	3

(1) Based on average flat size of 42.4m^2 according to the proposed scheme
(2) A total of 2,477 units private residential units is assumed for the REC site. As compared with the Light Public Housing development (2,100 units), the traffic generation of private residential development would be much higher which represent a more conservative approach.

4.6.3 Junction assessments are also carried for the three key junctions for the sensitivity test and the results are summarised in **Table 4.9.**

Table 4.9 2034 Junction Performance (Sensitivity test I)

Ref.	Junction	Year 2034 RC/DFC*	
		Design Case (Sensitivity Test I)	
		AM Peak	PM Peak
J1	Fairview Park Roundabout **(Figure 4.6)**	0.85	0.83
J2	Castle Peak Road / Kam Pok Road **(Figure 4.8)**	0.88	0.56
J3	Fairview Park Boulevard / Kam Pok Road	21%	28%
J4	Kam Pok Road / Ha Chuk Yuen Road	0.05	0.05
J5	Kam Pok Road / Kam Pok Road East	0.59	0.37
J6	Castle Peak Road / Kam Pok Road East	35%	46%
J7	Castle Peak Road / Yau Pok Road	0.08	0.07
J8	Kam Pok Road / Vehicular Bridge (North)	0.22	0.16
J9	Kam Pok Road / Vehicular Bridge (South)	0.29	0.12
J10	Yau Pok Road / Vehicular Bridge (South)	34%	>100%
J11	Yau Pok Road / Vehicular Bridge (North) **(Figure 4.9)**	24%	81%

*RC in % denotes "Reserve Capacity" for signalized junction; DFC decimal number denotes "Design Flow / Capacity" ratio for priority junction or roundabout

4.6.4 As shown in **Table 4.9**, all the assessed junctions would be able to handle the future traffic demand in the sensitivity test without exceeding its capacity.

4.6.5 Road Link Assessment for the four key road links under sensitivity test scenario are tabulated in **Table 4.10**.

Table 4.10 Future Road Link Performance (Sensitivity Test (I))

Ref	Road Section	Dir	Link Capacity (pcu/hr)	Design Case (Sensitivity Test)			
				2034 Traffic Flows (pcu/hr)		2034 V/C Ratio	
				AM Peak	PM Peak	AM Peak	PM Peak
L1	San Tin Highway	NB	6100(1)	6650	6030	1.09	0.99
		SB	6100(1)	5700	5060	0.93	0.83
L2	Castle Peak Road – Tam Mi	2-way	2125(2)	1660	1230	0.78	0.58
L3	Fairview Park Boulevard	EB	2600(3)	900	790	0.35	0.30
		WB	2600(3)	610	790	0.23	0.30
L4	Kam Pok Road	2-way	1800(4)	1000	690	0.56	0.38

Note:
(1) Road capacity for Dual 3-Trunk Road
(1) Road capacity for Single 2-Rural Road, with consideration of roadside activities
(2) Road capacity for Dual 2- Local Distributor
(3) Road Capacity for Single 2 – Local Distributor

4.7 Sensitivity Test (II)

4.7.1 As mentioned in Section 4.6, the adjacent REC sites have submitted two planning applications (i.e. Y/YL-MP/7 and Y/YL-MP/8) for increasing the development density to PR 1.2. It is also noted that two private residential development have been proposed under planning application no. Y/YL-NSW/8 and Y/YL-NSW/9. A sensitivity was carried out to assess the cumulative traffic impact induced by the three planning applications.

4.7.2 For planning application Y/YL-NSW/8, 6,825 flats with an average flat size of 37.5m^2 along with 4,950m^2 of retail facilities and kindergarten site are being proposed. The same site was planned as an outlet mall with 37,171m^2 retail GFA under previously approved planning application A/YL-NSW/241. As the approved planning application A/YL-NSW/241 has already been considered in the traffic forecast, only the difference in trip generation and attraction between these two development proposals would be added to the road network for assessment as shown in **Table 4.11**. The cumulative net increase development traffic flow and design traffic flow (Sensitivity test II) are illustrated in **Figure 4.12** and **Figure 4.13** respectively.

Table 4.11 Trip Generation and Attraction – Planning Application No. Y/YL-NSW/8

Land Use	Trip Generation/ Attractions (pcu/hr)				
	Parameters	AM Peak		PM Peak	
		Gen.	Att.	Gen.	Att.
Latest Planning Application No. Y/YL-NSW/8					
Private Housing	6,825 Flats	491	291	196	253
Retail	3,950m^2	10	10	13	15
GIC facilities	2 nos.	10	10	10	10
Kindergarten	1 Kindergarten (8 classrooms)	25	25	1	1
Total (A)	**-**	**536**	**336**	**220**	**279**
Approved Planning Application No. A/YL-NSW/241					
Retail (B)	37,171m^2	86	91	116	133
Difference (A) – (B)	-	**+450**	**+245**	**+104**	**+146**

4.7.3 For planning application Y/YL-NSW/9, 3,115 flats with an average flat size of 37.2m^2 along with 3,900m^2 of retail facilities, a primary school site, kindergarten sites and a relocated soy sauce factory are being proposed. The same site was planned as a retail facility with 38,300m^2 GFA and a hotel with 700 guest rooms under previously approved planning application Y/YL-NSW/3. The difference in trip generation and attraction between these two development proposals are as shown in **Table 4.12**.

Table 4.12 Trip Generation and Attraction – Planning Application No. Y/YL-NSW/9

Land Use	Trip Generation/ Attractions (pcu/hr)				
	Parameters	AM Peak		PM Peak	
		Gen.	Att.	Gen.	Att.
Latest Planning Application No. Y/YL-NSW/9					
Private Housing	3,115 Flats	224	133	90	116
Retail	2,900 m^2	7	8	9	11
Reserved School Site (Primary School)	1 school	7	30	1	1
Kindergarten	1 kindergarten (8 classrooms)	25	25	1	1
Relocated Soy Sauce Factory	13,700m^2	0	4	10	2
Total (A)	**-**	**263**	**200**	**111**	**131**
Approved Planning Application No. Y/YL-NSW/3					
Retail	38,300m^2	88	94	119	137
Hotel	700 guest rooms	94	102	91	109
Total (B)	**-**	**182**	**196**	**210**	**246**
Difference (A) – (B)	**-**	**+81**	**+4**	**-99**	**-115**

4.7.4 The additional traffic generated from the three potential developments has been added into the 2034 design flow. Operational performances of the critical junctions are reassessed according to the revised traffic forecast. The results are summarized in **Table 4.13**.

Table 4.13 2034 Junction Performance (Sensitivity test (II))

Ref.	Junction	Year 2034 RC/DFC	
		Design Case (Sensitivity Test II)	
		AM Peak	PM Peak
J1	Fairview Park Roundabout **(Figure 4.6)**	0.92	0.83
J2	Castle Peak Road / Kam Pok Road **(Figure 4.8)**	0.88	0.56
J3	Fairview Park Boulevard / Kam Pok Road	21%	28%
J4	Kam Pok Road / Ha Chuk Yuen Road	0.05	0.05
J5	Kam Pok Road / Kam Pok Road East	0.59	0.37
J6	Castle Peak Road / Kam Pok Road East	**-7%**	31%
J7	Castle Peak Road / Yau Pok Road	0.08	0.07
J8	Kam Pok Road / Vehicular Bridge (North)	0.22	0.16
J9	Kam Pok Road / Vehicular Bridge (South)	0.29	0.12
J10	Yau Pok Road / Vehicular Bridge (South)	34%	>100%
J11	Yau Pok Road / Vehicular Bridge (North) **(Figure 4.9)**	24%	81%

4.7.5 As shown in **Table 4.13**, all the assessed junctions except J6, would be operating within capacity under sensitivity test (II) scenario.

4.7.6 In view of the above, improvement schemes were formulated to Castle Peak Road – Tam Mi / Kam Pok Road East to enhance the junction capacity. Split phases control is proposed at Castle Peak Road – Tam Mi (southbound) and Kam Pok Road East. The proposed improvement measures, arising from the traffic generation associated with the subject application (as highlighted in red and presented in **Figure. 4.14**), will be implemented by the Proposed Development. The junction performance is reassessed taking into consideration the proposed improvements and the assessment result is shown in **Table 4.14.**

Table 4.14 2034 Junction Performance with Proposed Improvement Scheme (Sensitivity Test (II))

Ref.	Junction	Year 2034 RC/DFC*	
		Design Case (Sensitivity Test)	
		AM Peak	PM Peak
J6	Castle Peak Road / Kam Pok Road East (**Figure 4.14**)	31% #	>100% #

*RC in % denotes "Reserve Capacity" for signalized junction; DFC decimal number denotes "Design Flow / Capacity" ratio for priority junction or roundabout

Additional pedestrian survey has been conducted on 27th May 2025 on the pedestrian demand using the crossing across Kam Pok Road East. Two pedestrians have used the mentioned crossing during morning peak hours. To avoid over-conservative assessment, the pedestrian crossing is assumed to be demand dependent and not considered into calculation. Nevertheless, the R.C. with consideration of the pedestrian crossing could still be operating without exceed its capacity at 5% and 71% during morning and evening peak hours.

5 SUMMARY AND CONCLUSION8

5.1 Summary

5.1.1 The Subject Site is sandwiched by Kam Pok Road and Castle Peak Road – Tam Mi near Chuk Yuen Tsuen, Yuen Long. The location of the subject site is shown in **Figure 1.1**.

5.1.2 AECOM was commissioned by the Applicant to prepare a TIA in support of this S.12A planning application for rezoning of the site for an increase in domestic plot ratio from 0.2 to 1.5. There are also transport layby, some GIC uses (including a NEC) and local retail facilities provided on the site. The proposed residential development will comprise 2,322 residential units with an average flat size of about 42.4 m^2.

5.1.3 For residential components, the proposed development will provide 496 car parking spaces, 50 visitor private car parking spaces, 24 motorcycle parking spaces, 10 loading/unloading bays for goods vehicles and 78 bicycle parking spaces according to the latest HKPSG. For the retail component, 16 private car parking spaces, 2 motorcycle parking spaces and 3 loading/ unloading bays for goods vehicles will be provided. For the kindergarten, 1 private car parking space, 10 taxi/ private car laybys and 5 small coach laybys will be provided. For NEC, nil car parking provision is proposed.

5.1.4 Franchised bus services are proposed to serve the subject site by circular route to Yuen Long Station PTI. Transport Layby is proposed within the development site. The indicative layout of proposed Transport Layby is shown in **Appendix A**. As shown in the indicative layout, 3 transport laybys are provided including one double-width bay of about 42m, two single-width bay of about 42m. All the 3 laybys have been designed to allow the manoeuvring of 12.8m bus. One of these 3 laybys would be designated to serve for the proposed bus service (to/from Yuen Long Station PTI). One of these 3 laybys would be reserved for the provision of GMB services if required in future. For the remaining one layby, it could serve the long-haul bus services during AM/PM peak hours and can supplement for further expansion future public transport services if required in the future.

5.1.5 In order to review the existing traffic condition, traffic count surveys were conducted at the following 11 identified critical junctions to investigate the traffic condition during commuting peak hours. At present, all the critical junctions are operating within capacity.

- Fairview Park Roundabout (J1)
- Castle Peak Road / Kam Pok Road (J2)
- Fairview Park Boulevard / Kam Pok Road (J3)
- Kam Pok Road / Ha Chuk Yuen Road (J4)
- Kam Pok Road / Kam Pok Road East (J5)
- Castle Peak Road / Kam Pok Road East (J6)
- Castle Peak Road / Yau Pok Road (J7)
- Yau Pok Road / Vehicular Bridge (North) (J8)

- Yau Pok Road / Vehicular Bridge (South) (J9)
- Kam Pok Road / Vehicular Bridge (South) (J10)
- Kam Pok Road / Vehicular Bridge (North) (J11)

5.1.6 By comparing the trip generation/ attractions of the proposed development under Approved Scheme and Proposed Scheme, the Proposed Scheme will induce additional 415 pcu/hr (two-way) during AM peak hour and 221 pcu/hr (two-way) during PM peak hour.

5.1.7 The proposed development is tentatively scheduled for population intake in 2031. According to Guidelines and Requirements of Traffic Impact Assessment (TIA) Studies, the TIA should assess at least 3 years after the planned completion of the Proposed Development. Hence, 2034 is adopted as the design year for this TIA.

5.1.8 For projection of background traffic flows in Area of Influence, an in-house 2-tier modelling approach (Strategic Transport Model (STM) and Local Area Traffic Model (LATM)) have been adopted. Based on the planning data published on the website of Planning Department (i.e. 2019-based TPEDM Planning Data), together with other information (such as population distribution and employment type from Census) available in public domain, a simplified Strategic Transport Model (STM) was developed for cordoning board vehicle trip matrices for local area traffic modelling. For the Local Area Traffic Model (LATM), the Base District Traffic Model (BDTM) "NTW1" covering Tuen Mun and Yuen Long Area has been adopted as the base traffic model for this study.

5.1.9 The LATM has been validated against the 2021 traffic data in the area of influence to ensure that the base year LATM could satisfactorily replicate the base year traffic patterns and volumes before the model is used to produce future years traffic forecasts.

5.1.10 The STM cordoned matrices were fed into the LATM for projecting the traffic flows from year 2021 to year 2034. In addition, the trip ends of traffic zones were adjusted and controlled to the estimated trips generated by the future developments in the vicinity as listed in **Table 4.2 (Approved Scheme), Table 4.3 and Table 4.4** to produce the 2034 reference traffic flows as shown in **Figure 4.2.**

5.1.11 The additional trip ends due to the proposed development as estimated in **Table 4.2** are then added to 2034 reference traffic flows to produce 2034 design traffic flows. **Figure 4.4** presents 2034 design traffic flow (with Proposed Scheme).

5.1.12 The results of junction capacity assessments revealed that except Junction 1 and 2, all junctions would be able to handle the future traffic demand with ample capacity in both reference case and design case. As such, an improvement scheme is formulated for enhancing the junction performance of Junction 1 and 2 as illustrated in **Figure 4.6** and **Figure 4.8**, the junction performance as listed in **Table 4.6**. The applicant would be responsible for carrying out the proposed improvement works, which would be completed before the occupation of the subject R(D) site. Meanwhile, the results of road link assessments revealed that, except L1 San Tin Highway NB, all road links would be able to handle the future traffic demand with ample capacity in both reference case and design case. The traffic speed of San Tin Highway would be reduced, but still be manageable with V/C ratio under 1.2. It is anticipated the traffic condition of San Tin Highway could be improved with the completion of Northern Metropolis Highway.

5.1.13 A sensitivity test was also carried out by assuming a domestic PR 1.2 residential scheme for the adjacent “REC” site (now under another S.12A rezoning application) and a domestic PR 1.5 for the adjacent “R(D)” sites to have been completed. The junction assessment results reveal that all the assessment junctions would be able to handle the future traffic demand in the sensitivity test with sufficient capacity.

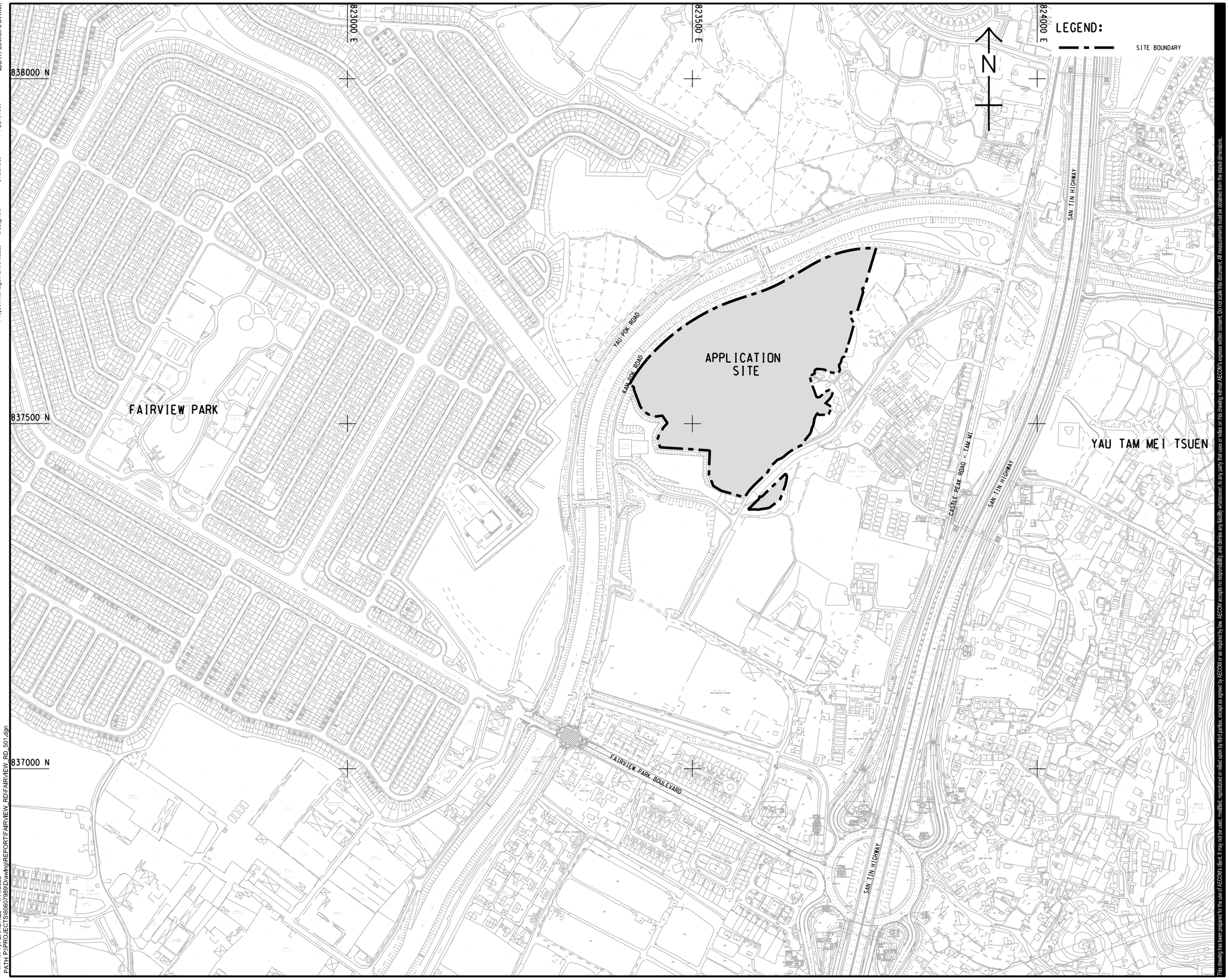
5.1.14 An additional sensitivity test has been carried out to assess the traffic impact induced by the potential private residential developments proposed under planning application no. Y/YL-NSW/8, Y/YL-NSW/9, Y/YL-MP/7 and Y/YL-MP/8. The junction assessment results reveal that junction improvement at Junction 6 would be required, as illustrated in **Figure 4.14**. With the proposed junction improvement scheme implemented, all the assessed junctions would be operating within capacity under the sensitivity test scenario.

5.1.15 Concurrent construction activities are anticipated with the planned Northern Link and the developments in close vicinity. Construction traffic impact assessment will be conducted prior to the commencement of the works, once the implementation programme of the subject site is available, as well as the construction programme of other projects is certain.

5.2 Conclusion

5.2.1 In light of the findings of this TIA, it is concluded that there is no insurmountable traffic impact imposed onto the local road network due to the Proposed Development. With the proposed mitigation measures in place, the Proposed Development is technically feasible in traffic terms.

Figure



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S.12A PLANNING APPLICATION FOR REZONING VARIOUS LOTS & ADJACENT G.L. IN DD 104, "R(D)" SITE, KAM TIN, YUEN LONG

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SCALE 比例
A3 1 : 5000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60607989

CONTRACT NO. 合約編號

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SITE LOCATION PLAN

SHEET NUMBER
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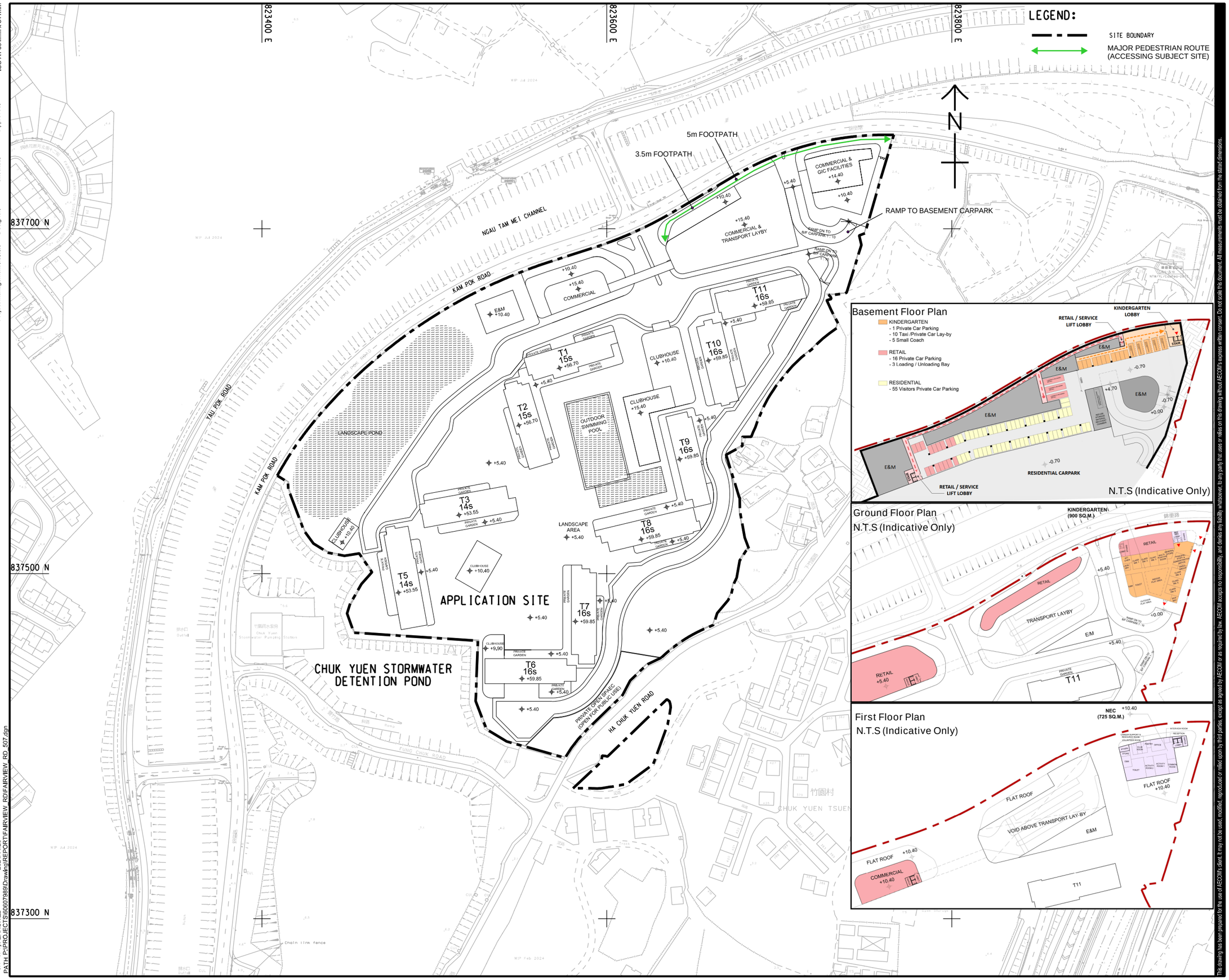
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Basement Floor Plan

N.T.S (Indicative Only)

Ground Floor Plan

N.T.S (Indicative Only)

First Floor Plan

N.T.S (Indicative Only)

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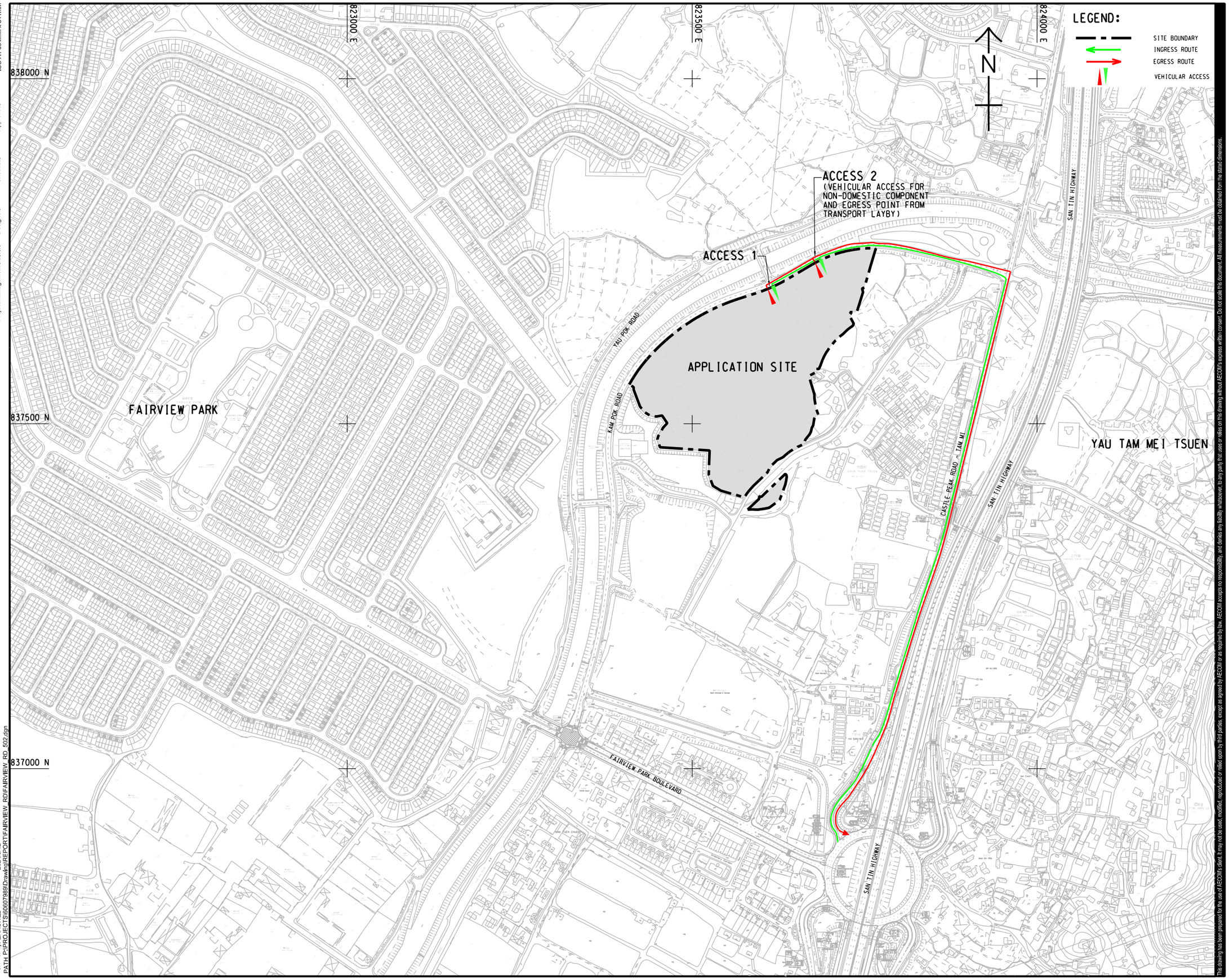
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SHEET NUMBER
圖紙編號
FIGURE 2.1



ISO A1 594mm x 841mm

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SCALE 比例
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60607989

CONTRACT NO. 合約編號

SHEET TITLE
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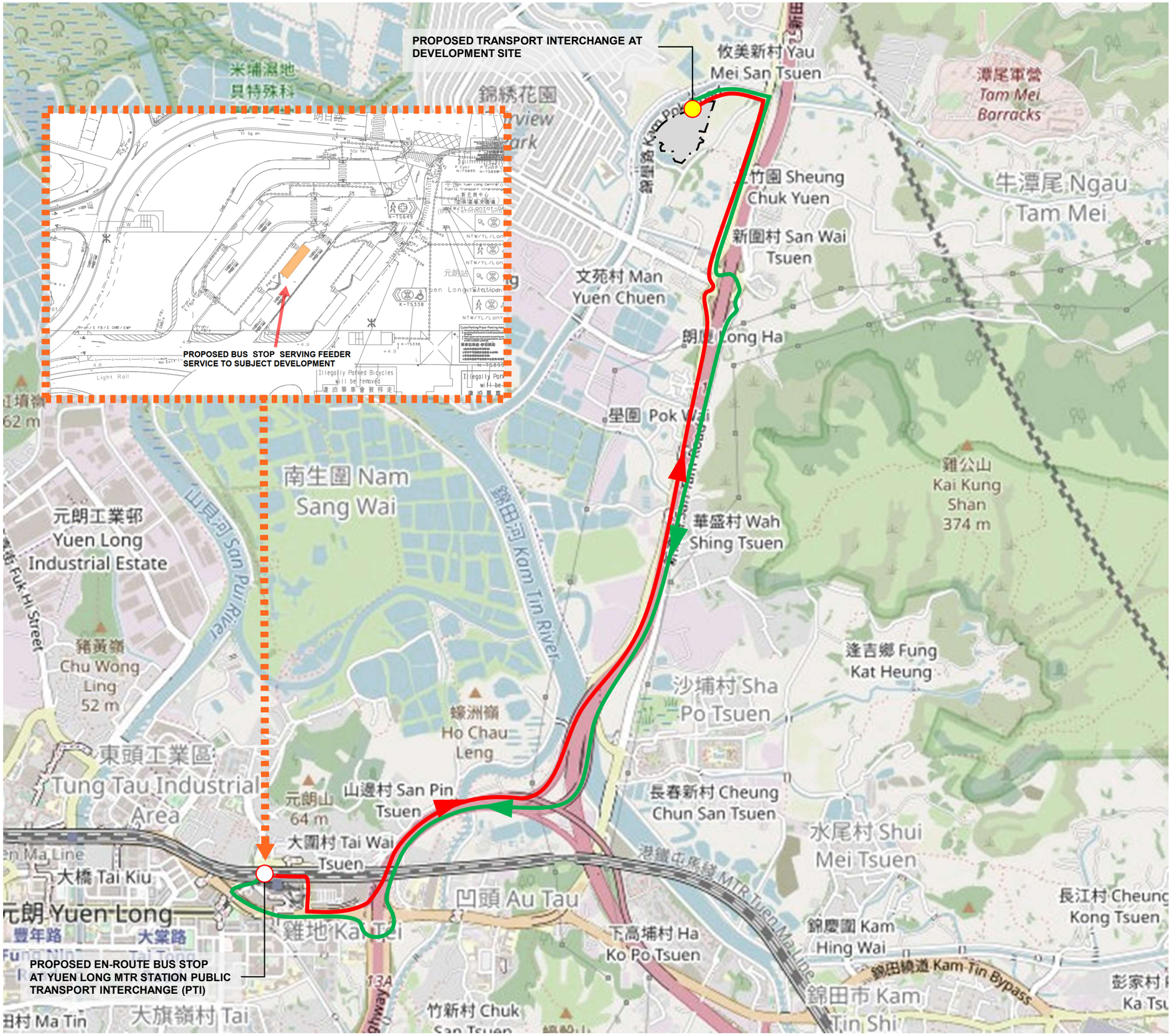
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FIGURE 2.2

PROPOSED TRANSPORT INTERCHANGE AT DEVELOPMENT SITE

PROPOSED BUS STOP SERVING FEEDER SERVICE TO SUBJECT DEVELOPMENT

PROPOSED EN-ROUTE BUS STOP AT YUEN LONG MTR STATION PUBLIC TRANSPORT INTERCHANGE (PTI)



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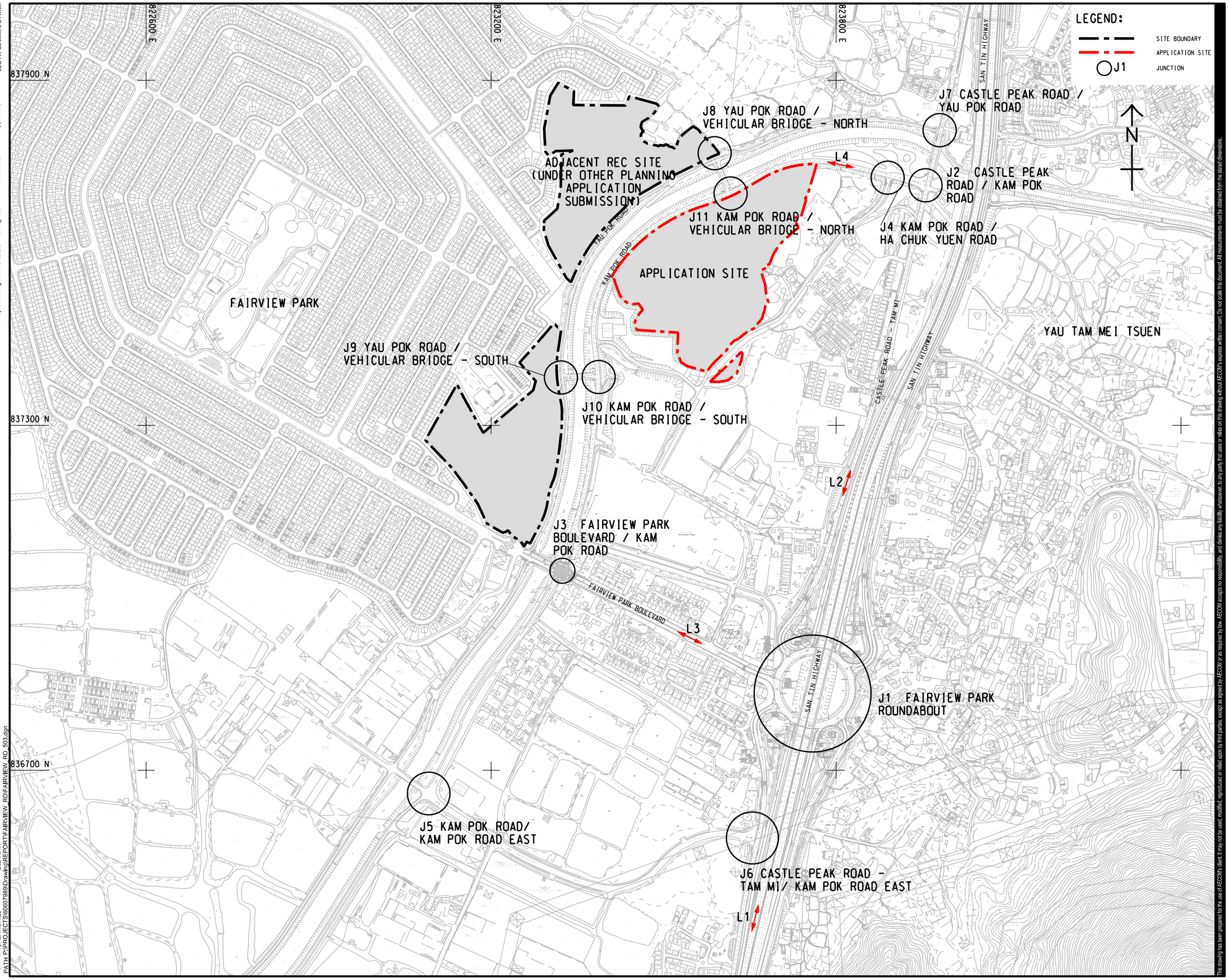
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CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱
PROPOSED ROUTING OF BUS SERVICE BETWEEN DEVELOPMENT SITE AND YUEN LONG MTR STATION PTI

SHEET NUMBER
圖紙編號
FIGURE 2.3 2.3

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Project Management Initials:

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S.12A PLANNING APPLICATION FOR REZONING VARIOUS LOTS & ADJACENT G.L. IN DD 104, "R(D)" SITE, KAM TIN, YUEN LONG

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SCALE 比例 A3 1 : 6000

DIMENSION UNIT 尺寸單位 METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號 60607989

CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱

CRITICAL JUNCTION LOCATION

SHEET NUMBER
圖紙編號

FIGURE 3.1

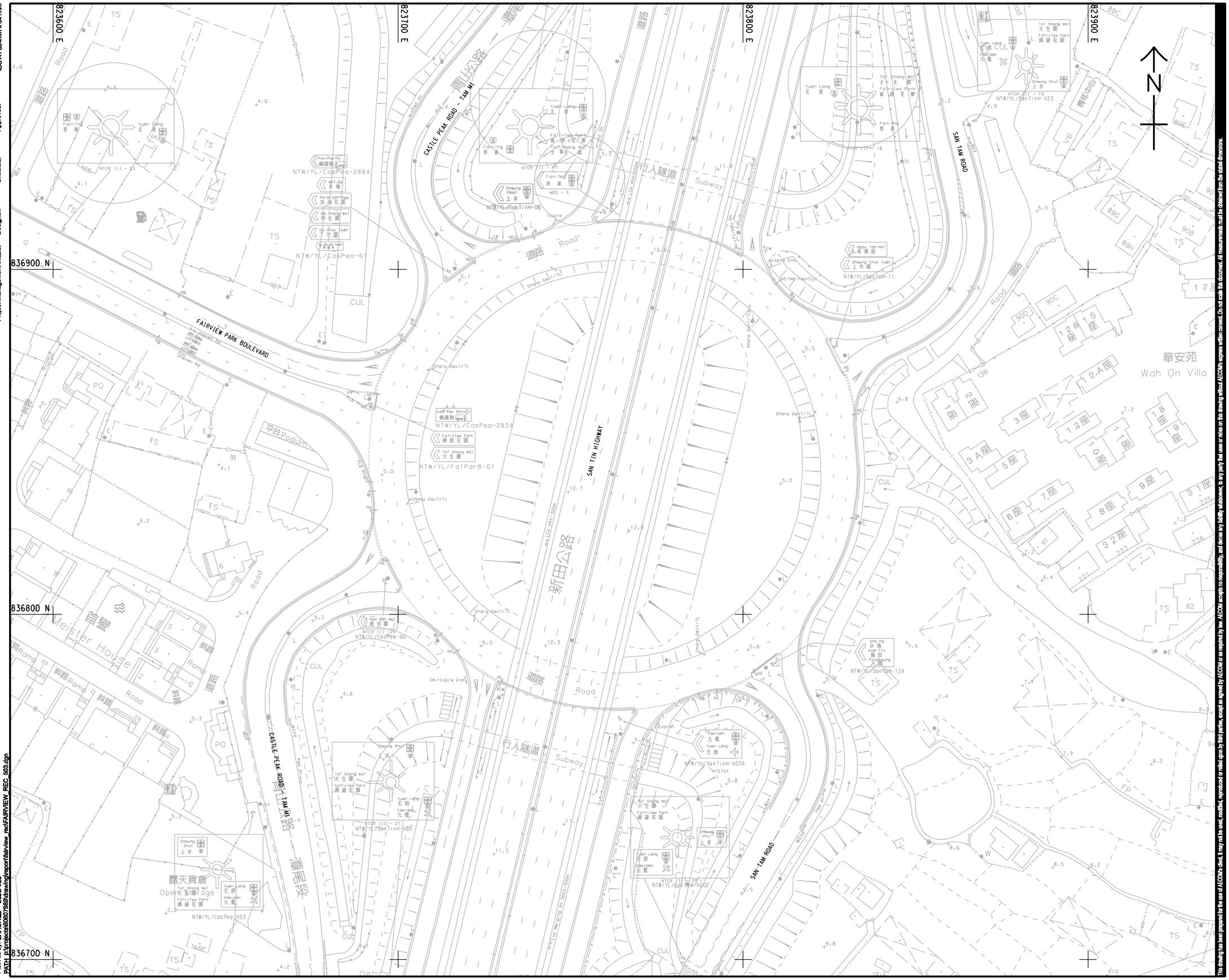
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:



Plot File by: ZHAOHQ2 2020/4/23
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狀態

SCALE 比例
A3 1 : 1000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60607989

CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱
EXISTING LAYOUT FOR FAIRVIEW PARK ROUNDABOUT **(J1)**

SHEET NUMBER
圖紙編號
FIGURE 3.2

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

823900 E

823650 E

824000 E

837750 N

837700 N

837650 N

KAM POK ROAD

CASTLE PEAK ROAD - TAM MI

HA CHUK YUEN ROAD

新田公路

Kam Pok Rd
錦星路
KAM POK-02

新田區
居民協會
康樂中心

電話機房
Telephone
Exchange

390

388

CUL

FP

TS

PLB Prop

S-Rd L

TWT Ah

TWT/Passing pl over 7m

Prop / over 7m

5.5

5.7

5.3

5.8

4.0

3.8

N

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階段

SCALE 比例
A3 1 : 500

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

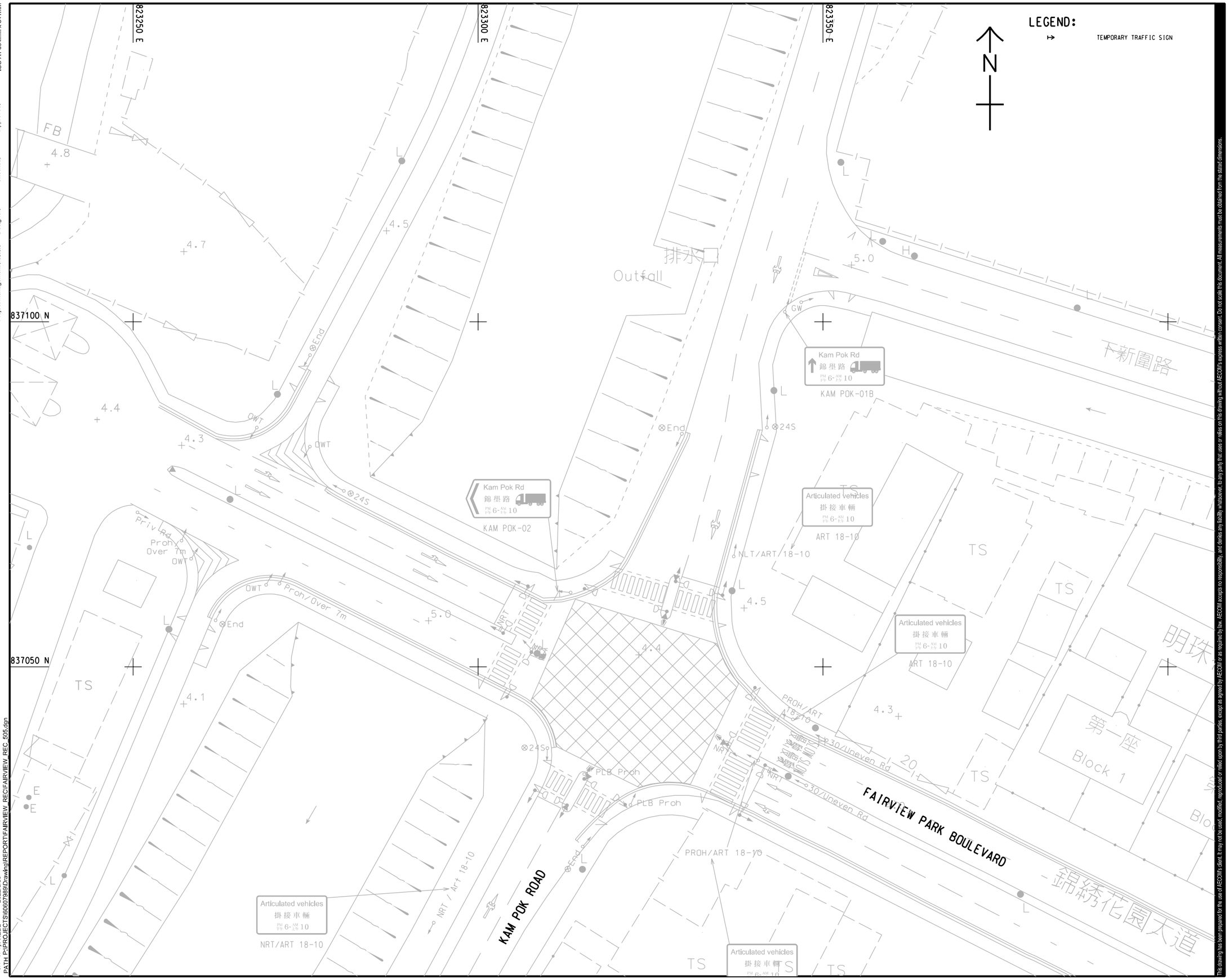
PROJECT NO. 項目編號
60607989

CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱
EXISTING LAYOUT FOR CASTLE PEAK ROAD / KAM POK ROAD (J2)

SHEET NUMBER
圖紙編號
FIGURE 3.3

Plot File by: ZHAOHQ2 2020/4/23
PATH: p:\projects\60607989\drawing\report\fairview_rev\FAIRVIEW_REC_504.dgn



Project Management Initials: Designer: Checked: Approved: ISO A1 594mm x 841mm

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STATUS 階段

SCALE 比例
A3 1 : 500

DIMENSION UNIT 尺寸單位
METRES

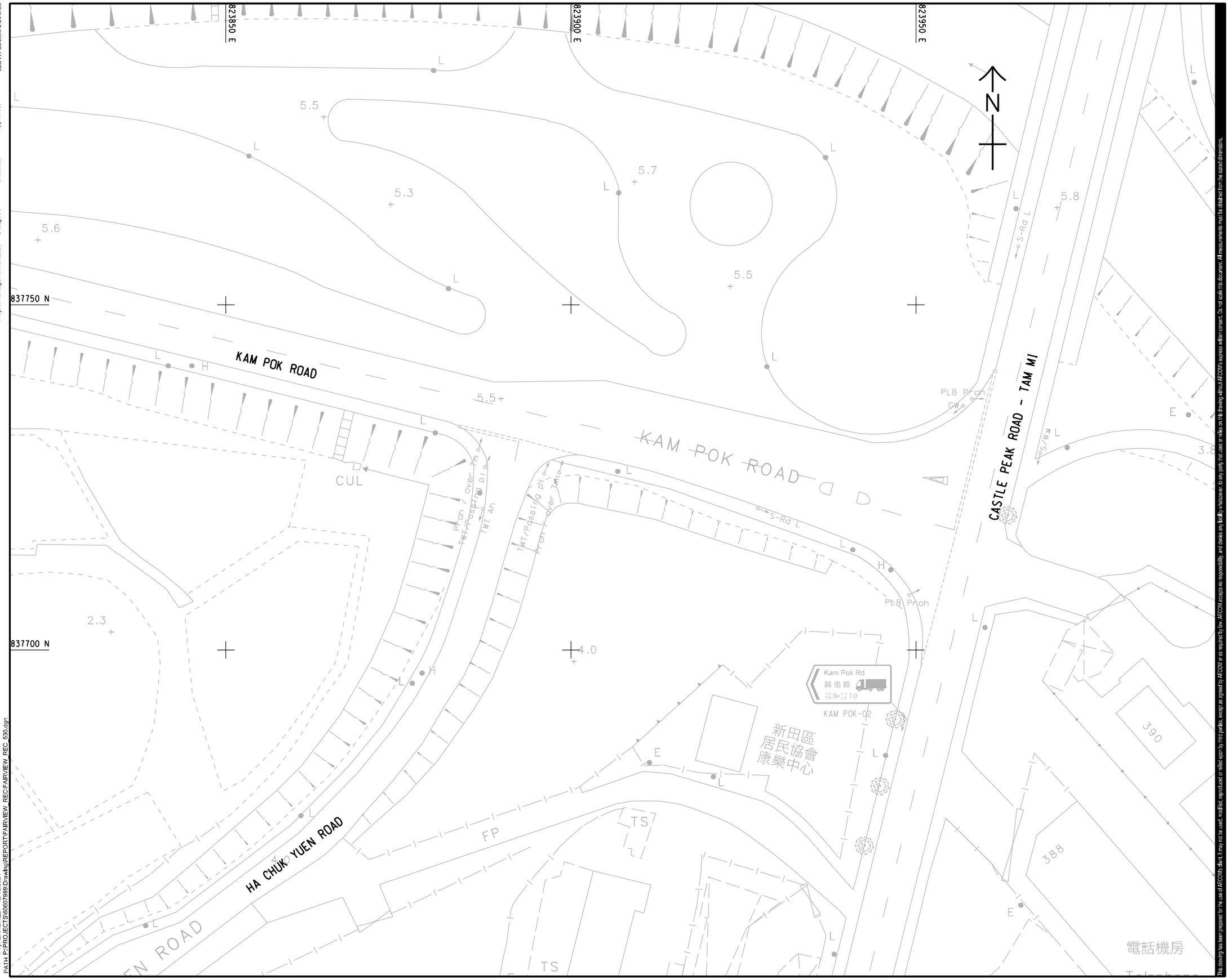
KEY PLAN 索引圖

PROJECT NO. 項目編號
60607989

CONTRACT NO. 合約編號

SHEET TITLE 圖紙名稱
EXISTING LAYOUT FOR FAIRVIEW PARK BOULEVARD / KAM POK ROAD (J3)

SHEET NUMBER 圖紙編號
FIGURE 3.4



Project Management Initials: Designer: Checked: Approved: ISO A1 594mm x 841mm

Plot File by: ZHAOHQ2 12/16/2021
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階段

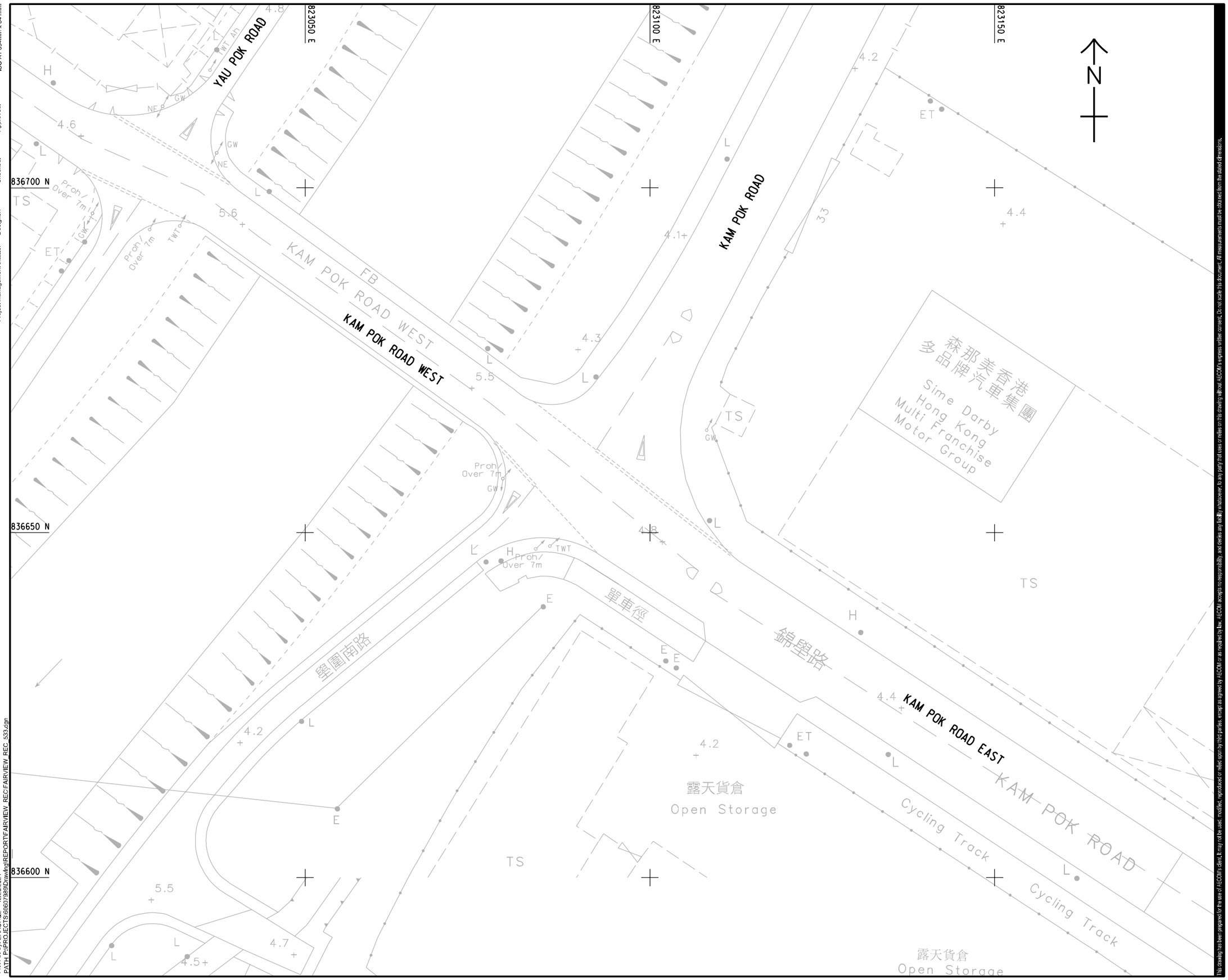
SCALE 比例: A3 1 : 500
DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60607989
CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱
EXISTING LAYOUT FOR KAM POK ROAD / HA CHUK YUEN ROAD (J4)

SHEET NUMBER
圖紙號碼
FIGURE 3.5



Plot File by: ZHAOH-O2 12/28/2021
PATH P:\PROJECTS\60607989\Drwing\REPORT\FAIRVIEW_REC\FAIRVIEW_REC_533.dgn

ISO A1 594mm x 841mm
Approved:
Checked:
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SCALE 比例: A3 1 : 500

DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60607989

CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱

EXISTING LAYOUT FOR
KAM POK ROAD EAST /
POK WAI SOUTH ROAD (J5)

SHEET NUMBER
圖紙號碼

FIGURE 3.6

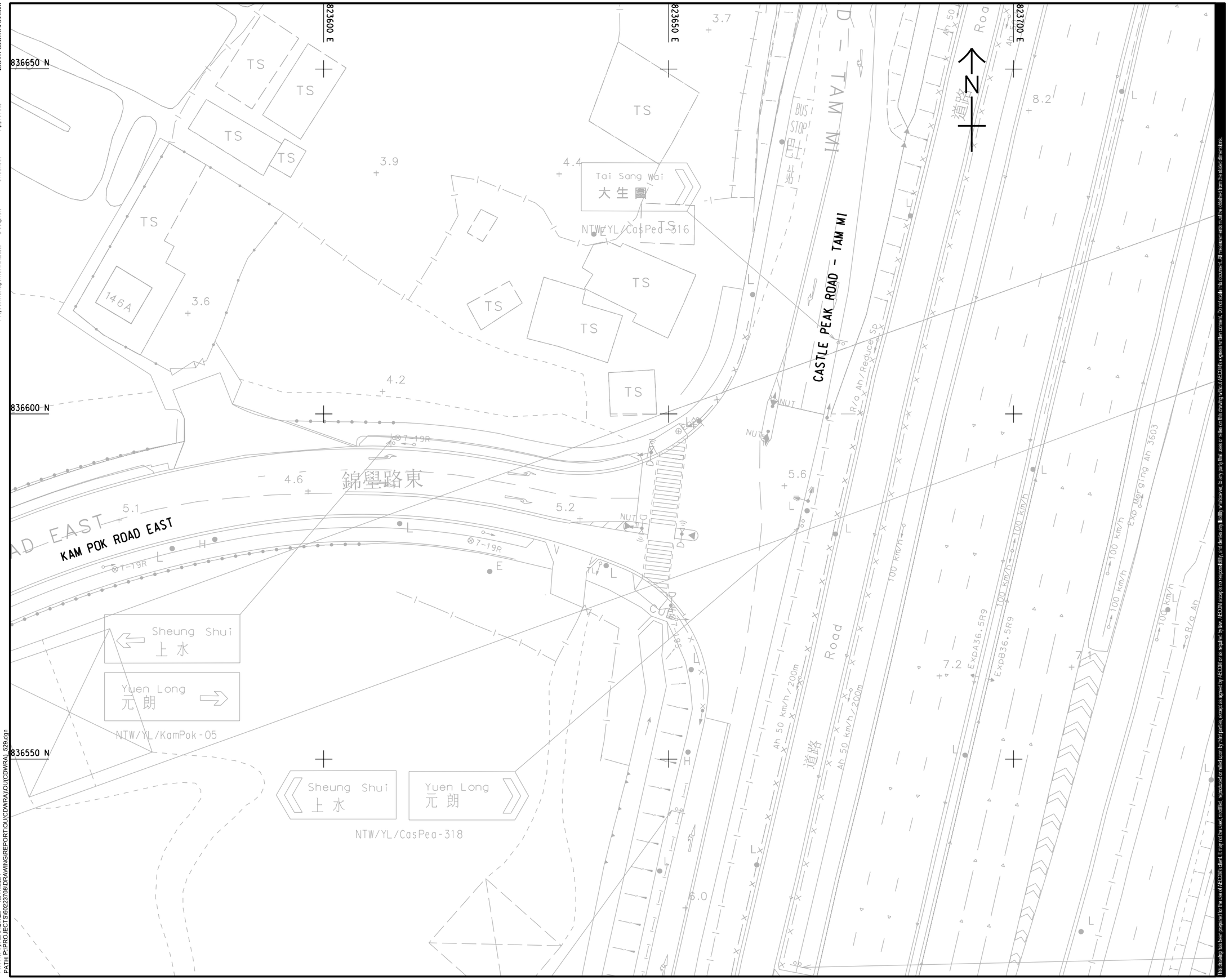
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

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Plot File by: ZHAOHQ2 12/17/2021
PATH: P:\PROJECTS\60223708\DRAWING\REPORT\OU(CDWRA)\OU(CDWRA)_529.dgn

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SCALE

A3 1 : 500

DIMENSION UNIT

METRES

KEY PLAN

PROJECT NO.

60223708

CONTRACT NO.

SHEET TITLE

EXISTING LAYOUT FOR JUNCTION OF CASTLE PEAK ROAD - TAM MI / KAM POK ROAD EAST (J6)

SHEET NUMBER

FIGURE 3.7

ISO A1 594mm x 841mm

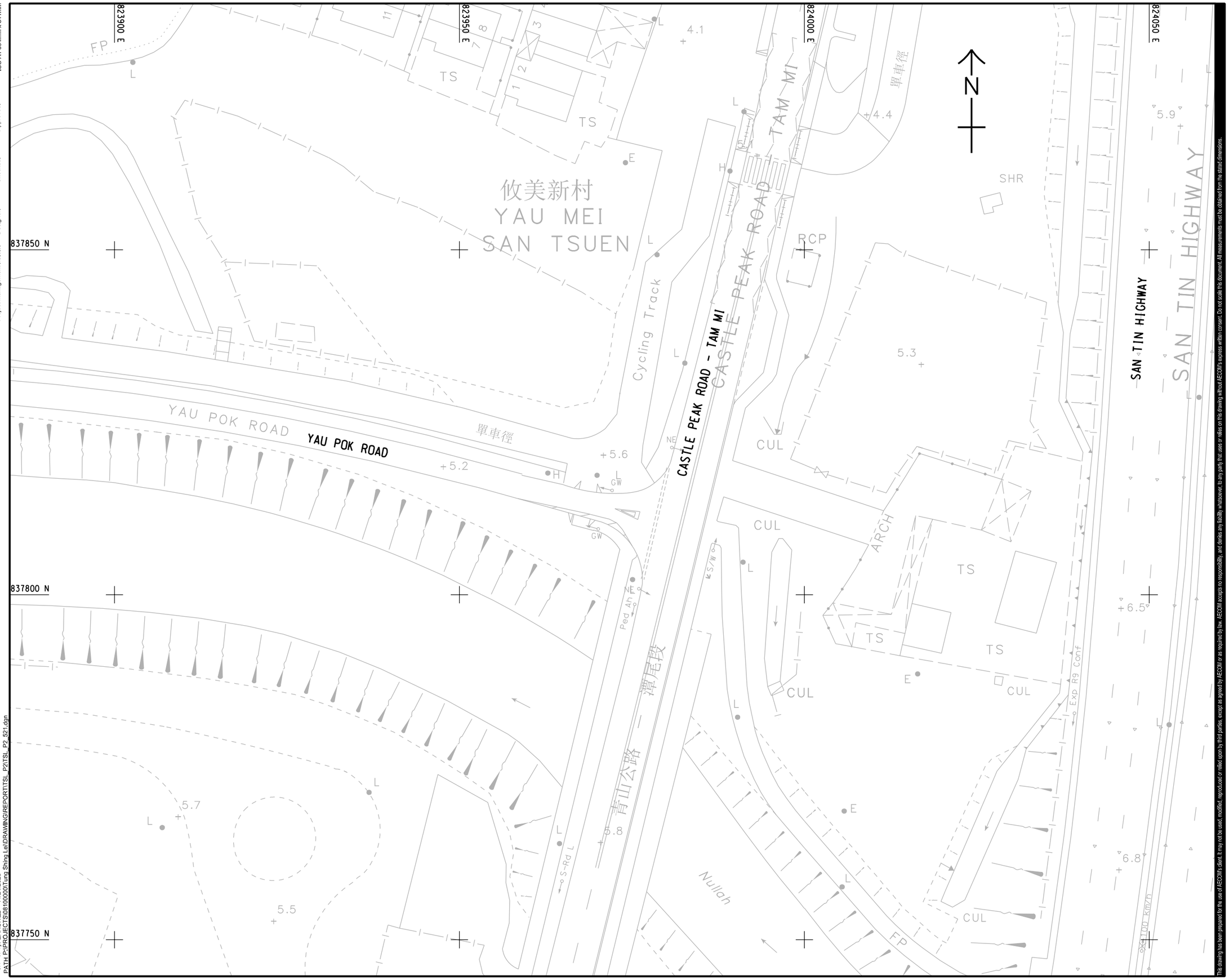
Approved:

Checked:

Designer:

Project Management Initials:

Remarks:



Plot File by: ZHAOHQ2 11/21/2023
PATH P:\PROJECTS\60700001\Tung Shing Lei\DRAWING\REPORT\TSL_P2\TSL_P2_521.dgn

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階段

PRELIMINARY

SCALE 比例
A3 1 : 500

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號

CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱

EXISTING JUNCTION OF CASTLE PEAK ROAD / YAU POK ROAD (J7)

SHEET NUMBER
圖紙編號

FIGURE 3.8

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

823550 E

823600 E

817800 N

817750 N

817700 N

J8 - Yau Pok Road / Vehicular Bridge - North

WIP Jul 2024

N

YAU POK ROAD

KAM POK ROAD

STOP

Cycling

Beware of vehicles
小心車輛

TS116
TS831

V:\BAK\US95-BAK\CSWP\plotdrv\Create Pit file\new\CSWP-75(color).pltPlot File by: ZHAOHQ2
2024/9/13
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階段

SCALE 比例
A3 1 : 500

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60607989

CONTRACT NO. 合約編號

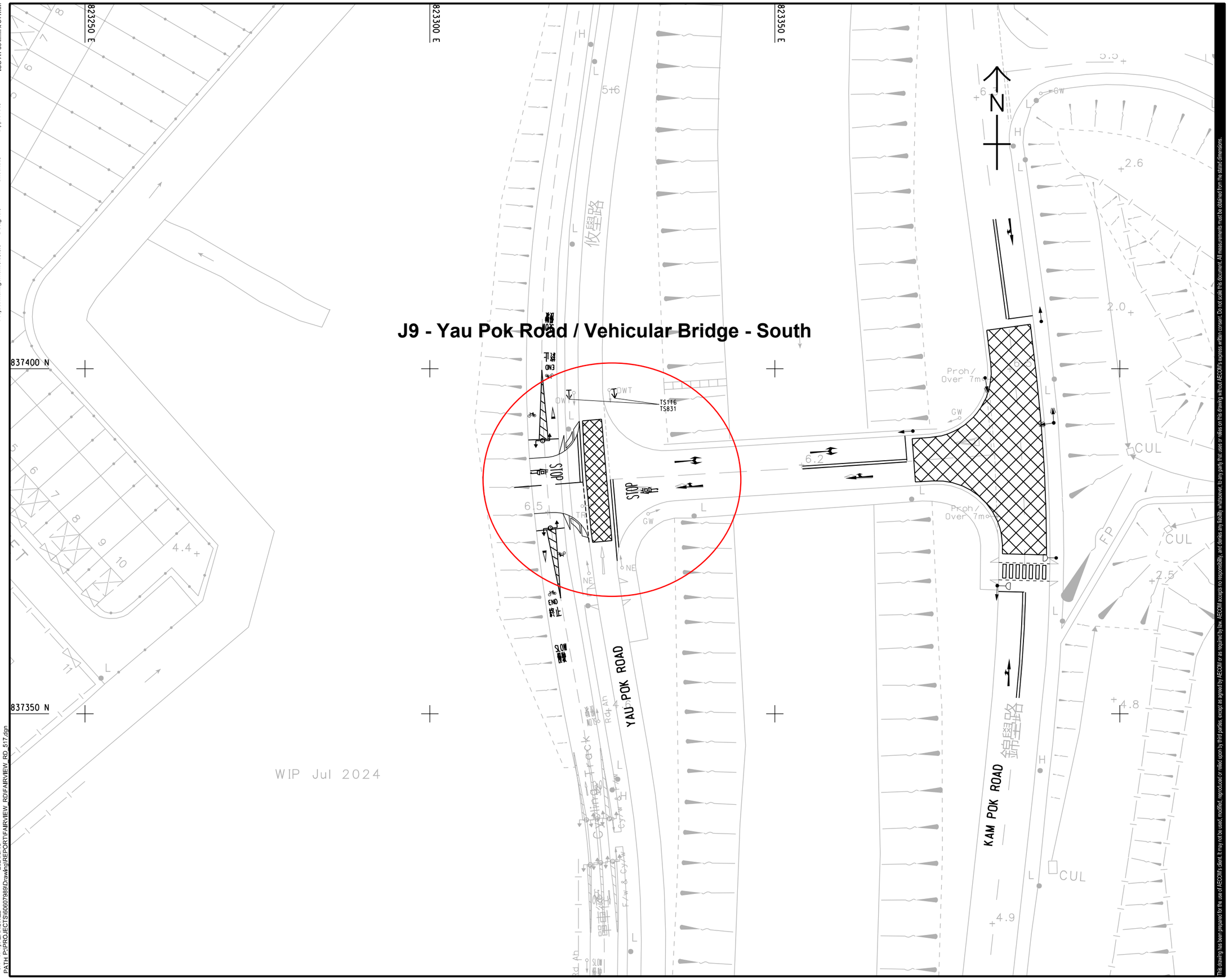
SHEET TITLE
圖紙名稱

EXISTING JUNCTION LAYOUT OF YAU POK ROAD / VEHICULAR BRIDGE - NORTH (J8)

SHEET NUMBER
圖紙編號

FIGURE 3.9

J9 - Yau Pok Road / Vehicular Bridge - South



ISO A1 594mm x 841mm

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Checked:

Designer:

Project Management Initials:

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SCALE 比例
A3 1 : 500

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60607989

CONTRACT NO. 合約編號

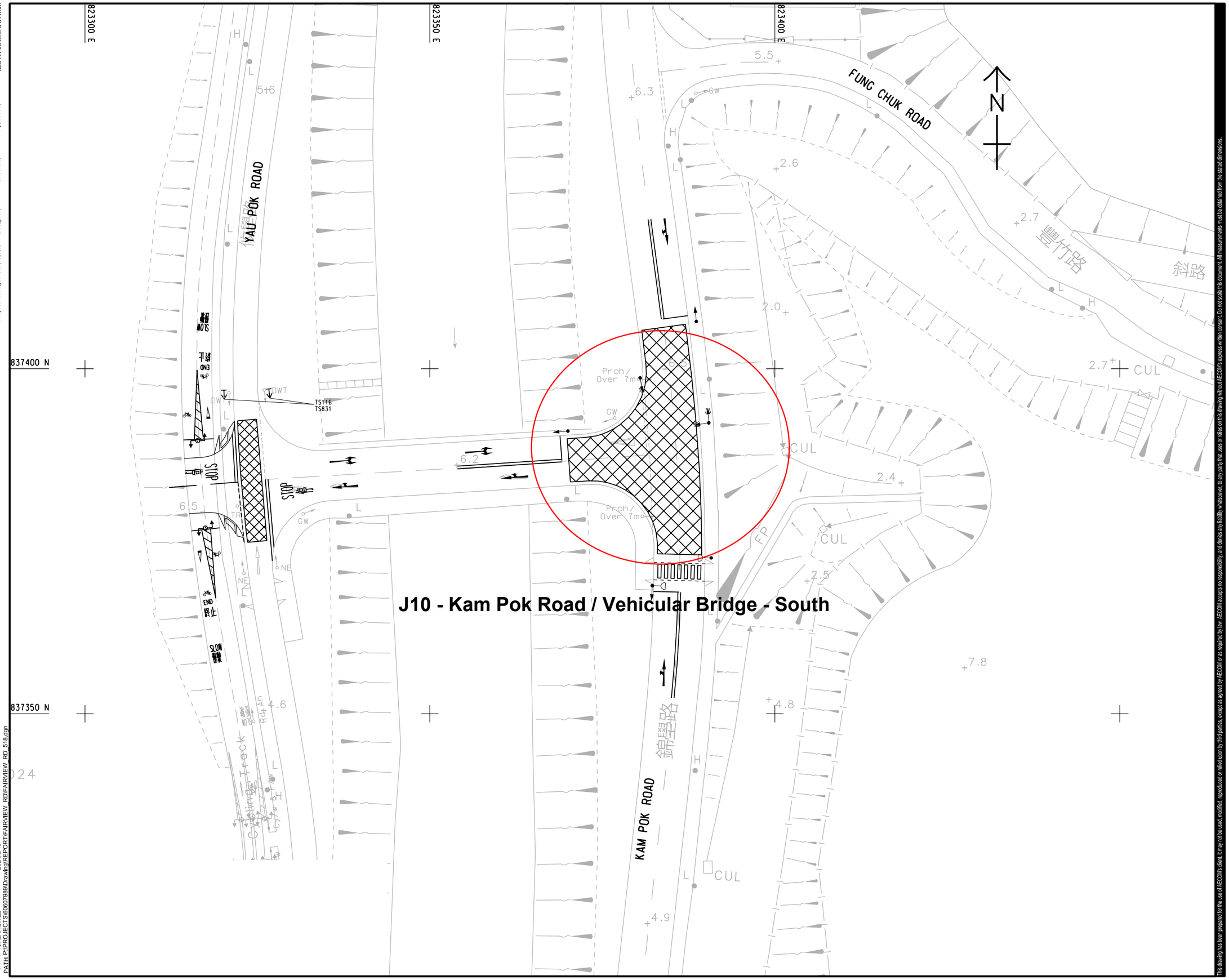
SHEET TITLE
圖紙名稱

EXISTING JUNCTION LAYOUT OF YAU POK ROAD / VEHICULAR BRIDGE - SOUTH (J9)

SHEET NUMBER
圖紙編號

FIGURE 3.10

V:\BAK\US95-BAK\CSWP\plotdrv\Create Plt file\new\CSWP-75(color).plt
Plot File by: ZHAOHQ2
2024/9/13
PATH P:\PROJECTS\60607989\Drawing\REPORT\FAIRVIEW_RDF\FAIRVIEW_RDF_517.dgn



J10 - Kam Pok Road / Vehicular Bridge - South

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SCALE 比例: A3 1 : 500
DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60607989
CONTRACT NO. 合約編號:

SHEET TITLE
圖紙名稱

EXISTING JUNCTION LAYOUT OF KAM POK ROAD / VEHICULAR BRIDGE - SOUTH (J10)

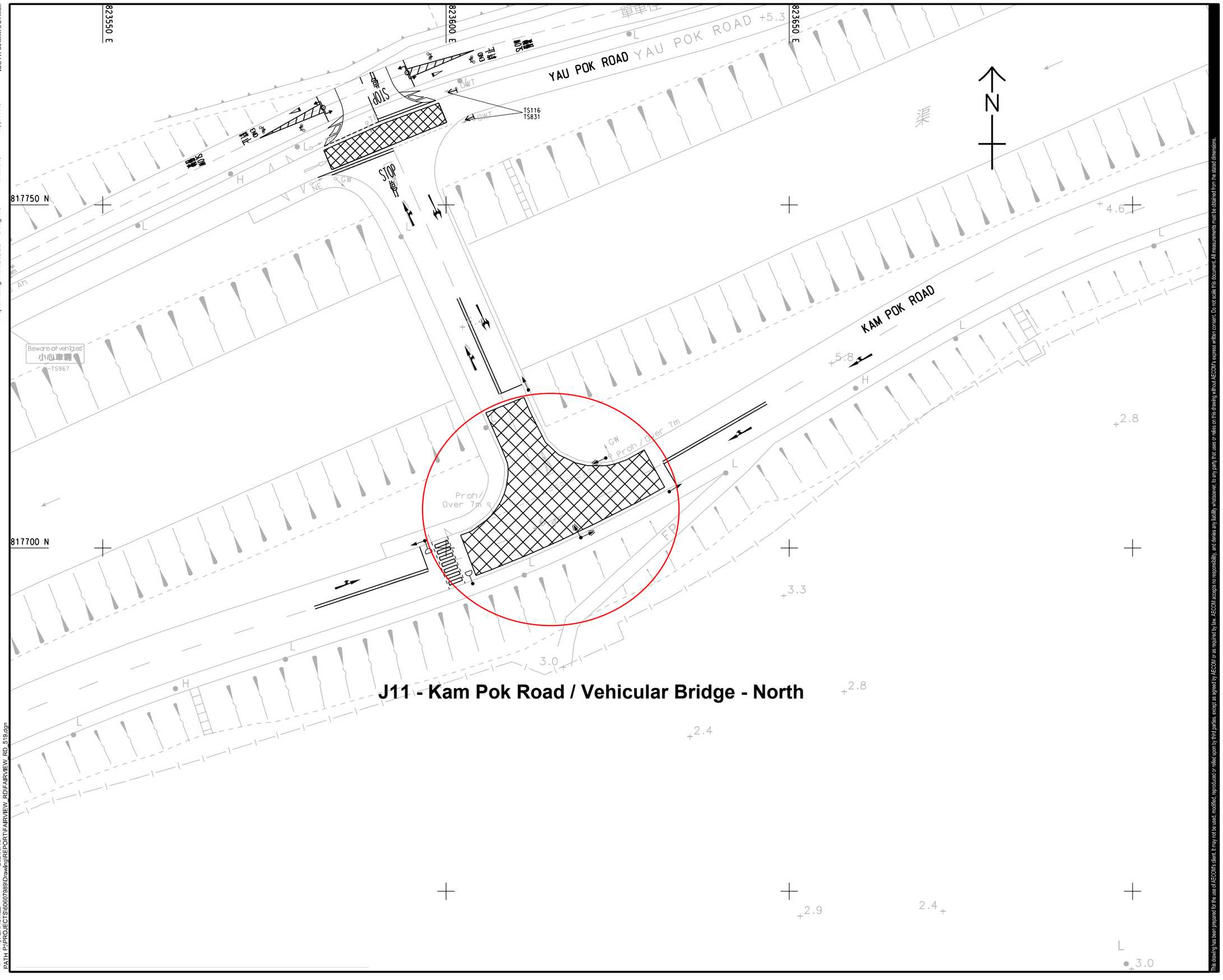
SHEET NUMBER
圖紙編號

FIGURE 3.11

ISO A1 594mm x 841mm
Approved:
Checked:
Designer:
Project Management Initials:

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Plot File by: ZHAOHG2
2024/9/13
PATH: P:\PROJECTS\60607989\Drawing\REPORT\FAIRVIEW_RD\FAIRVIEW_RD_518.dgn

Project Management Initials: Designer: Checked: Approved: ISO A1 594mm x 841mm



J11 - Kam Pok Road / Vehicular Bridge - North

V:\BAK\US95-BAK\CSWP\plotdrv\Create Plt file\new\CSWP-75(color).plt
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階段

SCALE 比例
A3 1 : 500

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

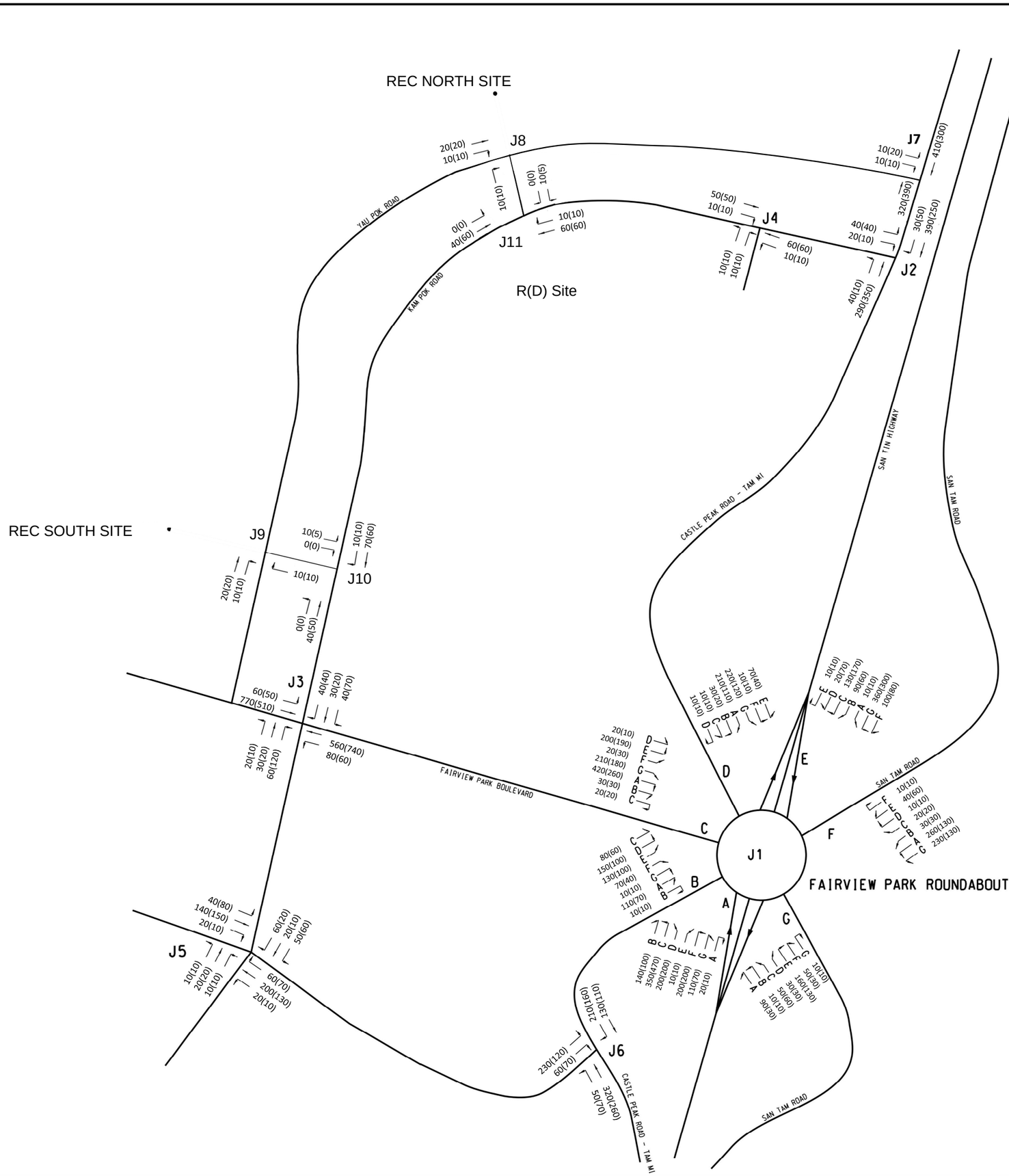
PROJECT NO. 項目編號
60607989

CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱
EXISTING JUNCTION LAYOUT OF KAM POK ROAD / VEHICULAR BRIDGE - NORTH (J11)

SHEET NUMBER
圖紙編號
FIGURE 3.12

ISC A1 594mm x 841mm
Project Management Initials: Designer: Checked: Approved:
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SCALE 比例
N.T.S.

DIMENSION UNIT 尺寸單位
METRES

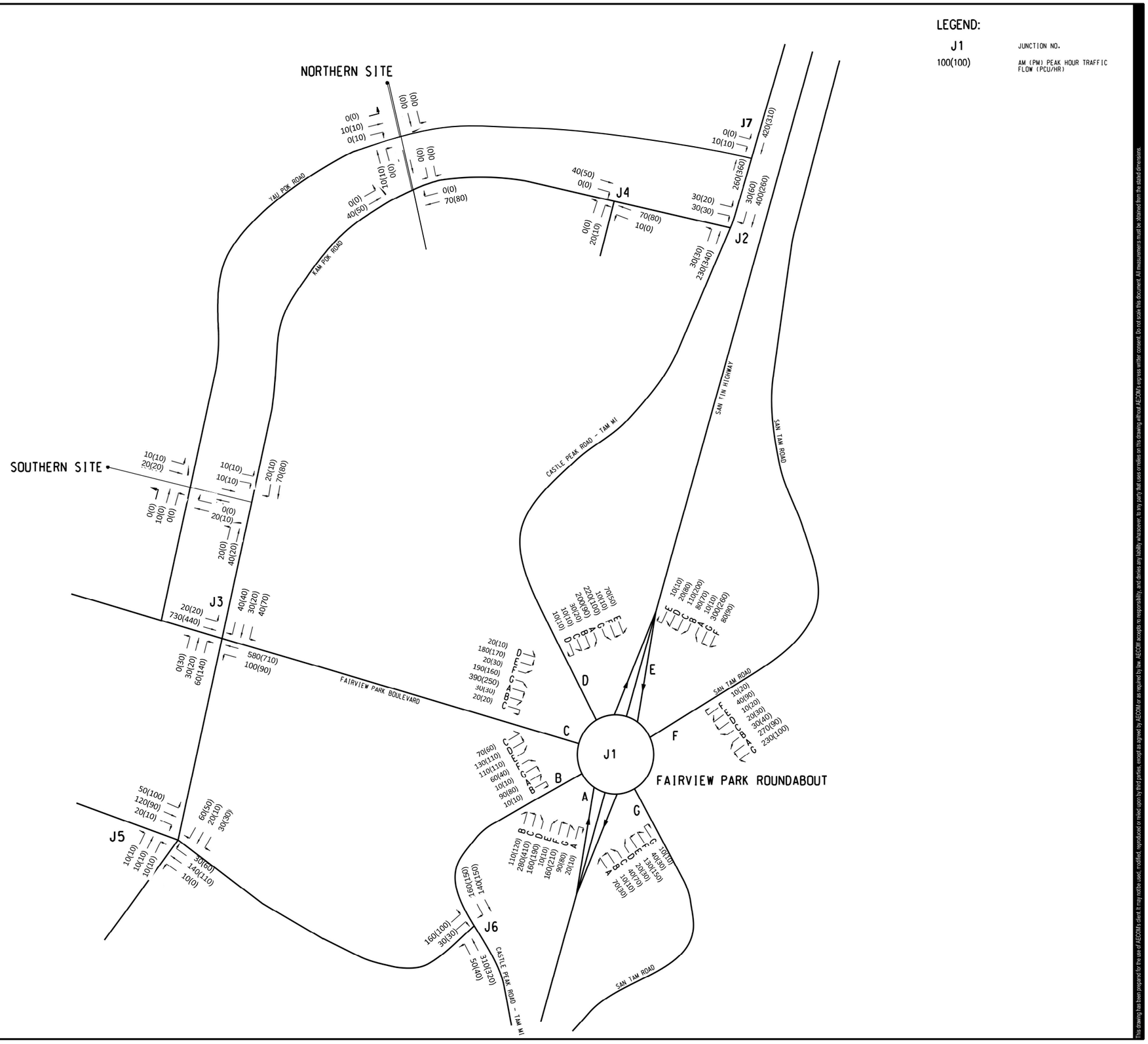
KEY PLAN
索引圖

PROJECT NO. 項目編號
60607989

CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱
2021 OBSERVED TRAFFIC FLOWS

SHEET NUMBER
圖紙編號
FIGURE 3.13



Plot File by: ZHAOHO2 12/28/2021
PATH: P:\PROJECTS\60607989\Drawing\REPORT\FAIRVIEW_REC\FAIRVIEW_REC_515.dgn

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項目
S.12A PLANNING APPLICATION FOR REZONING VARIOUS LOTS & ADJACENT G.L. IN DD 104, "R(D)" SITE, KAM TIN, YUEN LONG

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STATUS

SCALE N.T.S.
DIMENSION UNIT METRES

LOCATION PLAN

PROJECT NO. 60607989
CONTRACT NO.

SHEET TITLE
2025 OBSERVED TRAFFIC FLOWS

SHEET NUMBER
FIGURE 3.14

Project Management Initials: Designer: Checked: Approved: ISO A1 594mm x 841mm

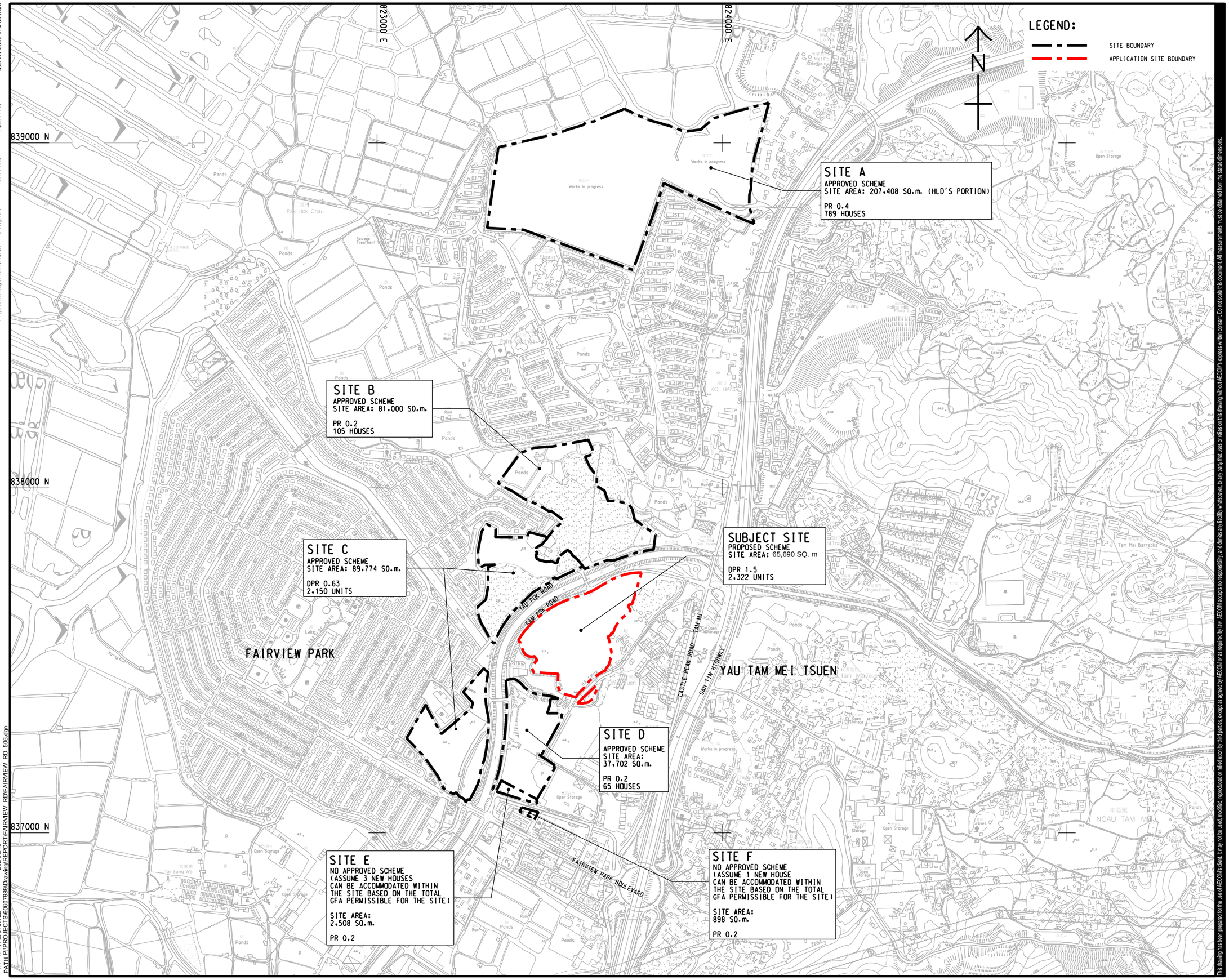
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:



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2024/9/18
Plot File by: ZHAOHQ2
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STATUS
階段

SCALE 比例
A3 1 : 10000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

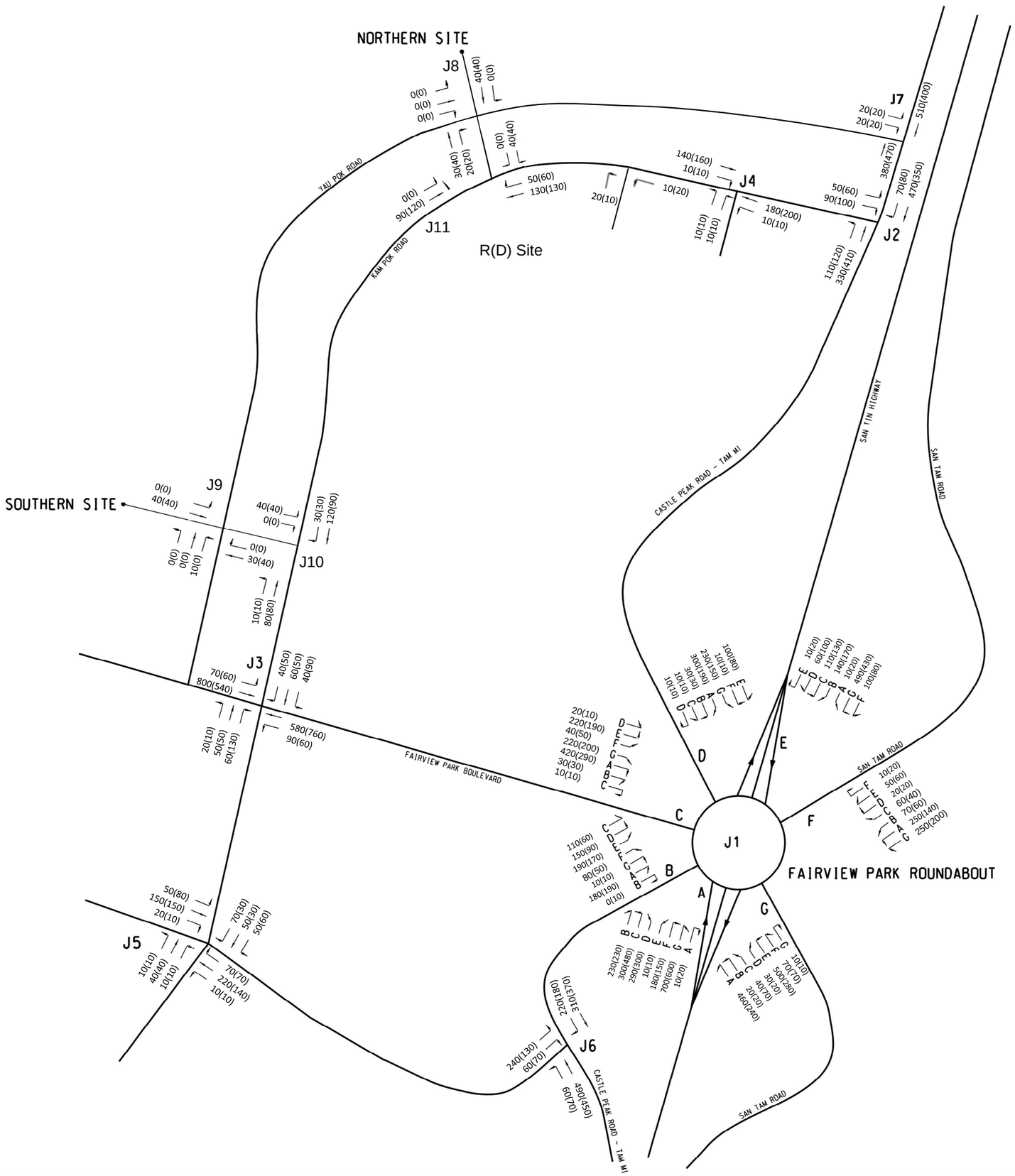
PROJECT NO. 項目編號
60607989

CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱
FUTURE ADJACENT DEVELOPMENTS

SHEET NUMBER
圖紙編號
FIGURE 4.1

Project Management Initials: Designer: Checked: Approved: ISC A1 594mm x 841mm



LEGEND:

J1	JUNCTION NO.
100(100)	AM (PM) PEAK HOUR TRAFFIC FLOW (PCU/HR)

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形況

SCALE 比例: N.T.S.

DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
位置圖

PROJECT NO. 項目編號: 60607989

CONTRACT NO. 合約編號

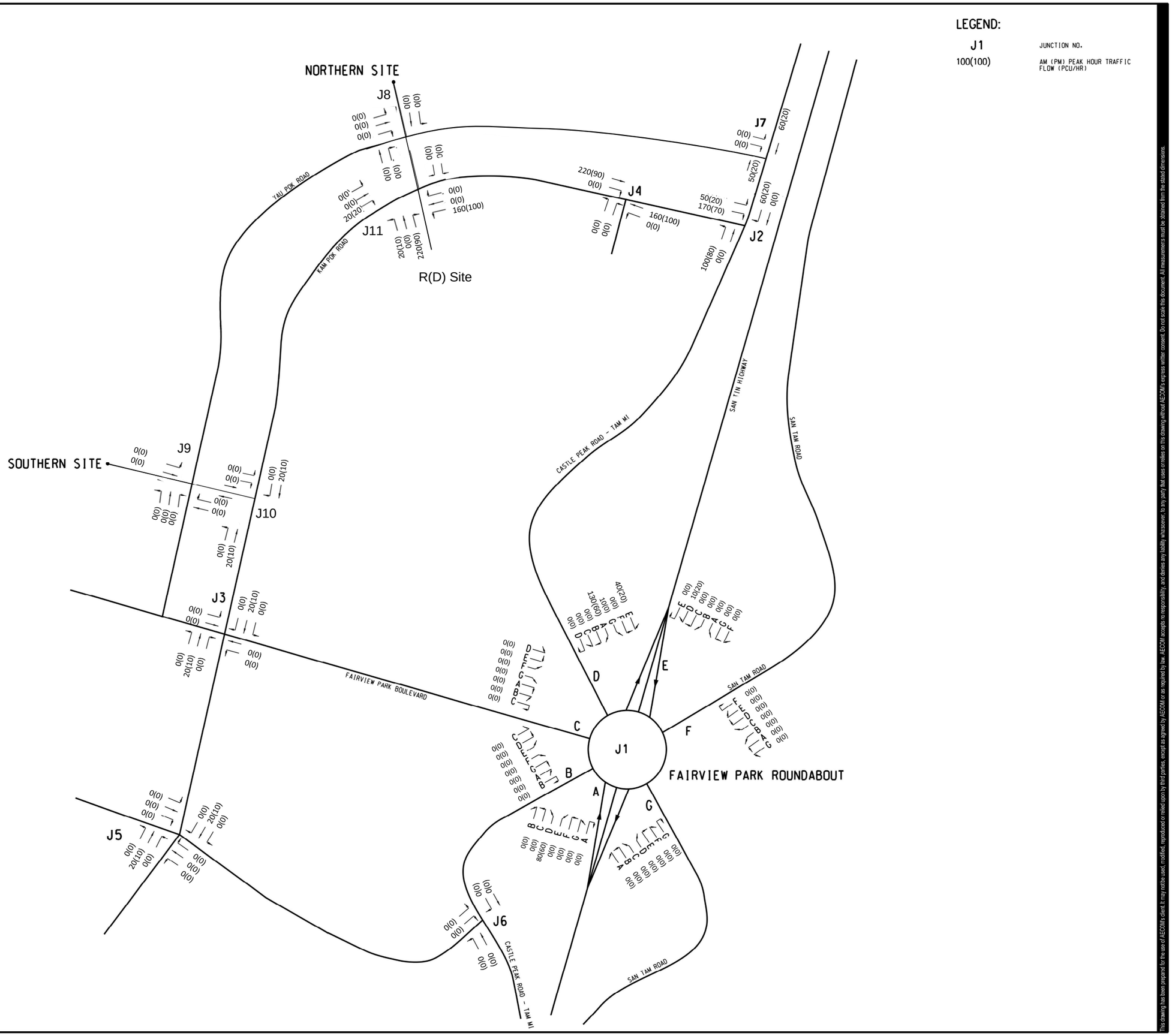
SHEET TITLE
圖紙名稱

2034 REFERENCE TRAFFIC FLOWS

SHEET NUMBER
圖紙編號

FIGURE 4.2

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STATUS
階段

SCALE 比例: N.T.S.
DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
位置圖

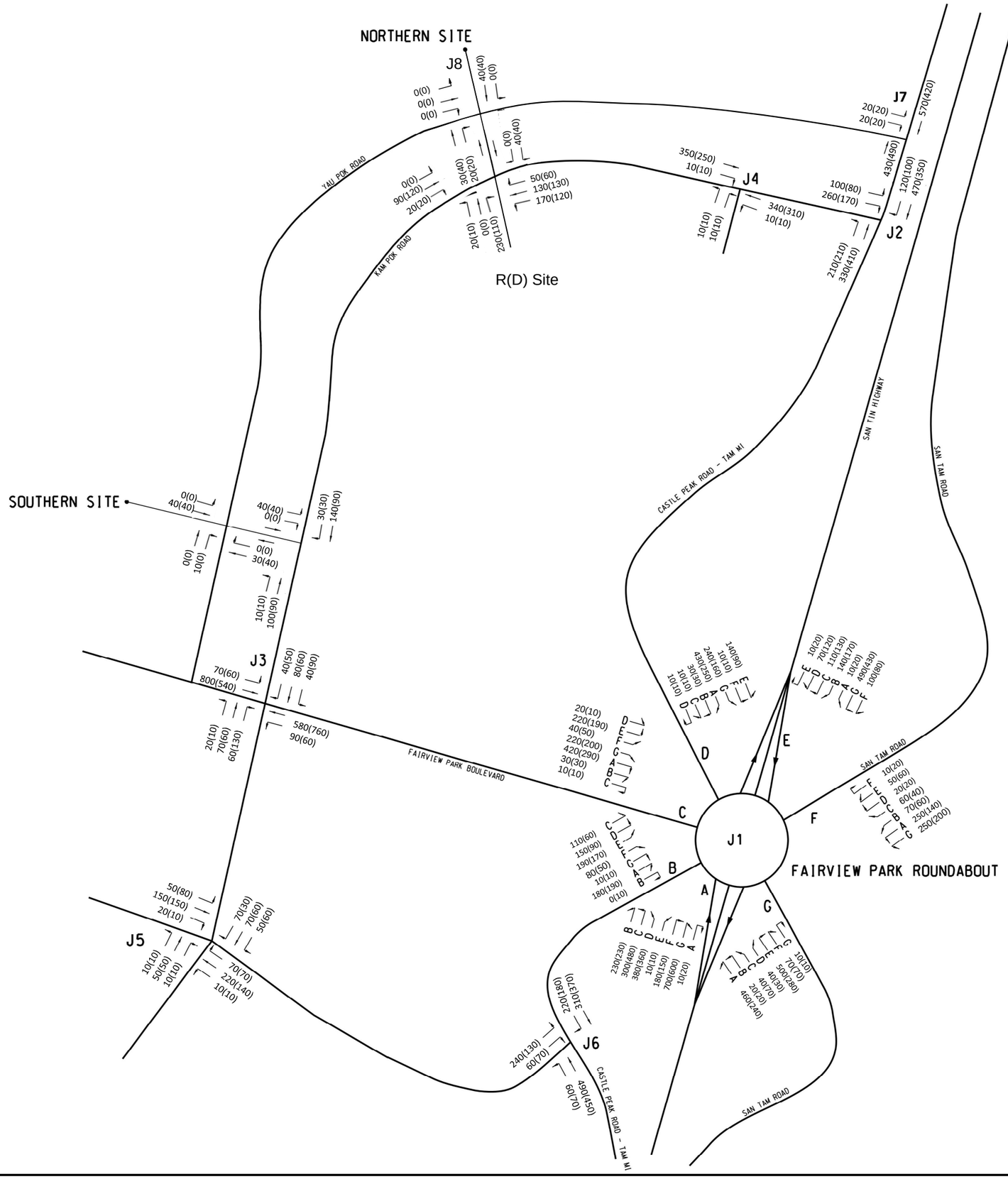
PROJECT NO. 項目編號: 60607989
CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱

R(D) SITE DEVELOPMENT
TRAFFIC FLOWS
(NET INCREASE)

SHEET NUMBER
圖紙編號

FIGURE 4.3



LEGEND:

J1 — JUNCTION NO.

100(100) — AM (PM) PEAK HOUR TRAFFIC FLOW (PCU/HR)

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STATUS
形況

SCALE 比例	DIMENSION UNIT 尺寸單位
N.T.S.	METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號

60607989

CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱

2034 DESIGN TRAFFIC FLOWS

SHEET NUMBER
圖紙編號

FIGURE 4.4

Project Management Initials: Designer: Checked: Approved: ISO A1 594mm x 841mm

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PATH: P:\PROJECTS\60607989\Drawing\REPORT\FAIRVIEW_REC\FAIRVIEW_REC_515.dgn

Project Management Initials: Designer: Checked: Approved: ISO A1 594mm x 841mm

823700 E

823800 E

836900 N

836800 N

LEGEND:

PLANNED JUNCTION IMPROVEMENT UNDER SHA PO PUBLIC HOUSING DEVELOPMENT

PLANNED IMPROVEMENT WORKS UNDER FEASIBILTY STUDY (CEDD AGREEMENT NO. CE10/2020(CE)) FOR SHA PO PUBLIC HOUSING DEVELOPMENT

PLANNED IMPROVEMENT WORKS UNDER FEASIBILTY STUDY (CEDD AGREEMENT NO. CE10/2020(CE)) FOR SHA PO PUBLIC HOUSING DEVELOPMENT

FAIRVIEW PARK BOULEVARD

SAN TIN HIGHWAY

SAN TAM ROAD

CASTLE PEAK ROAD – TAM MI

N

AECOM

PROJECT
項目

S.12A PLANNING APPLICATION FOR REZONING VARIOUS LOTS & ADJACENT G.L. IN DD 104, "R(D)" SITE, KAM TIN, YUEN LONG

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STATUS
狀況

SCALE 比例: A3 1 : 1000

DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60607989

CONTRACT NO. 合約編號:

SHEET TITLE
圖紙名稱

PLANNED IMPROVEMENT LAYOUT FOR FAIRVIEW PARK INTERCHANGE (J1)

SHEET NUMBER
圖紙編號

FIGURE 4.5

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Project Management Initials:
Designer:
Checked:
Approved:
ISO A1 594mm x 841mm

823600 E
823700 E
823800 E
836900 N
836800 N

LEGEND:
PLANNED JUNCTION IMPROVEMENT UNDER SHA PO PUBLIC HOUSING DEVELOPMENT
PROPOSED JUNCTION IMPROVEMENT

N

FAIRVIEW PARK BOULEVARD
SAN TIN HIGHWAY
SAN TAM ROAD
CASTLE PEAK ROAD – TAM MI
Nullah
Subway
Ramp
斜路
露天貨倉
Open Storage
PO
CUL
FP
FB
Sharp Devl/TL
Exp/w Stop
Ngr/Ped/Cys
Pedestrian Subway
Sha Po Kom Tin Pat Heung 沙埔錦田八鄉

NTW/YL/FaiParB-X02A
NTW/YL/CasPea-61C
NTW/YL/CasPea-288C
NTW/YL/CasPea-X205A
NTW/YL/SanTinH-06A
NTW/YL/SanTam-X18C
NTW/YL/SanTam-11
NTW/YL/SanTinH-X23B
NTW/YL/FaiParB-06A
NTW/YL/CasPea-283C
NTW/YL/FaiParB-01A
NTW/YL/CasPea-306
NTW/YL/CasPea-X
NTW/YL/SanTinH-X05B
NTW/YL/SanTinH-X07B
NTW/YL/SanTam-X02A
NTW/YL/SanTam-12A

Sheung Shui 上水
Yuen Long 元朗
Kowloon 九龍
Tai Shang Wai 大生圍
Fairview Park 錦繡花園
Kam Pok Rd 錦樂路
Wai Po 禾輋
Palm Springs 棕洲花園
Ho Chuk Yuen 下竹園
Ha Sap Wai Tsuen 下鄭圍村
Ngau Tam Mei 牛潭尾
Sheung Chuk Yuen 上竹園

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STATUS
階段

SCALE 比例
A3 1 : 1000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60223708

CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱
PROPOSED IMPROVEMENT LAYOUT FOR FAIRVIEW PARK INTERCHANGE (J1)

SHEET NUMBER
圖紙編號
FIGURE 4.6

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Project Management Initials:
Designer:
Checked:
Approved:
ISO A1 594mm x 841mm

LEGEND:

PROPOSED JUNCTION IMPROVEMENT

N

823600 E
823700 E
823800 E
836900 N
836800 N

FAIRVIEW PARK BOULEVARD
CASTLE PEAK ROAD – TAM MI
SAN TIN HIGHWAY
SAN TAM ROAD
SAN TAM ROAD
Subway
行人隧道
露天貨倉
Open Storage

NTW/YL/FaiParB-X02A
NTW/YL/CasPea-288C
NTW/YL/CasPea-61C
NTW/YL/FaiParB-06A
NTW/YL/CasPea-283C
NTW/YL/FaiParB-01A
NTW/YL/CasPea-306C
NTW/YL/CasPea-X205A
NTW/YL/SanTinH-06A
NTW/YL/SanTinH-X23B
NTW/YL/SanTam-X18C
NTW/YL/SanTam-11
NTW/YL/SanTam-12A
NTW/YL/SanTinH-X07B
NTW/YL/SanTinH-X05B
NTW/YL/SanTam-X02B

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STATUS
阶段

SCALE 比例
A3 1 : 1000

DIMENSION UNIT 尺寸单位
METRES

KEY PLAN
索引图

PROJECT NO. 项目编号
60223708

CONTRACT NO. 合约编号

SHEET TITLE
图纸名称
PROPOSED IMPROVEMENT LAYOUT FOR FAIRVIEW PARK INTERCHANGE (J1)

SHEET NUMBER
图纸编号
FIGURE 4.7

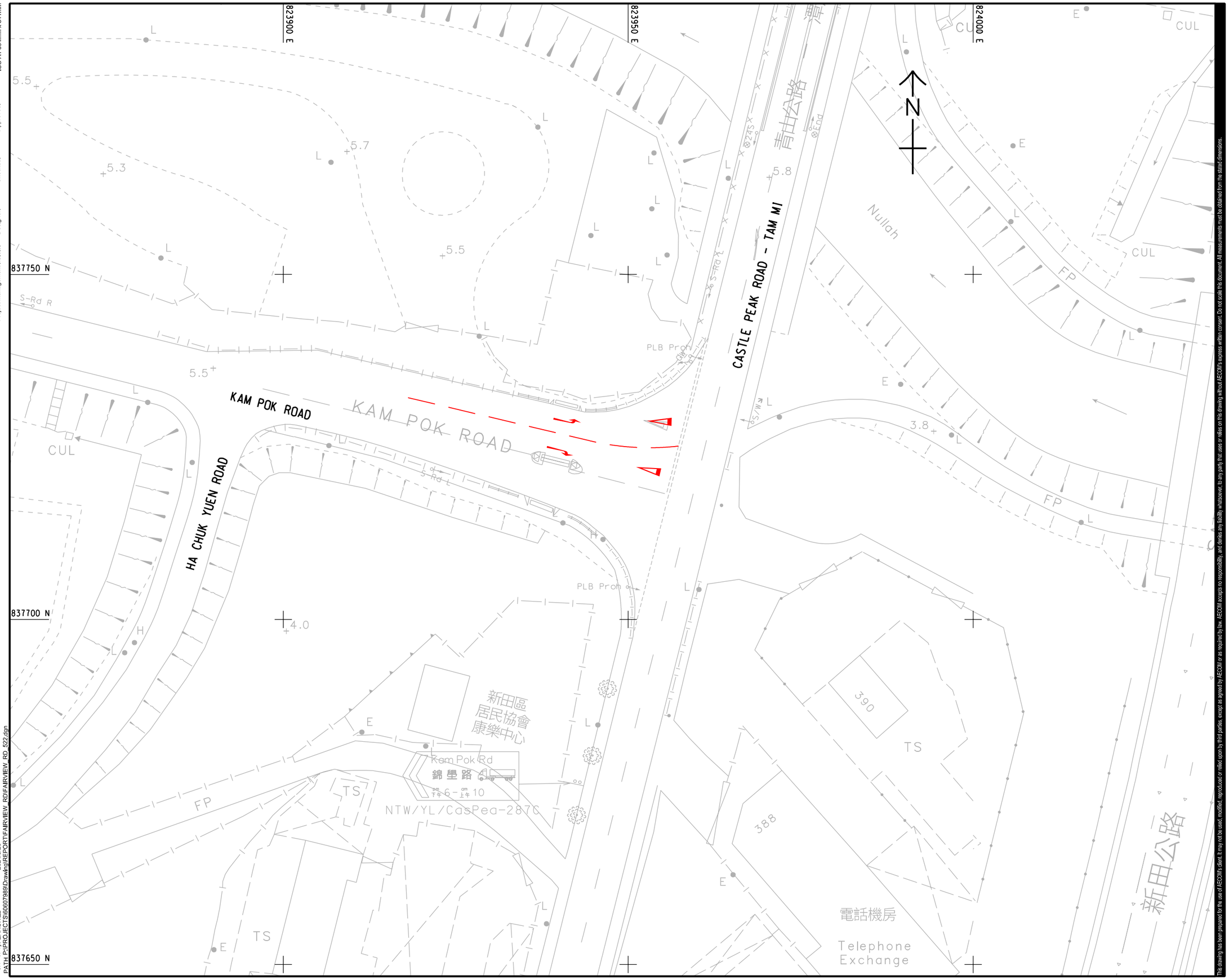
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:



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SCALE 比例
A3 1 : 500

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60607989

CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱

PROPOSED IMPROVEMENT LAYOUT FOR CASTLE PEAK ROAD - TAM MI/ KAM POK ROAD (J2)

- UNDER SENSITIVITY TEST (I)

SHEET NUMBER
圖紙編號

FIGURE 4.8

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Plot File by: ZHAOHQ2
PATH: P:\PROJECTS\60607989\Drawing\REPORT\F-AIR\VIEW_RD\F-AIRVIEW_RD_522.dgn

ISO A1 594mm x 841mm

Project Management Initials: Designer: Checked: Approved:

835300 E
835350 E
835400 E
835450 E
817750 N
817700 N

KAM POK ROAD

Beware of vehicles 小心車輛 TS967

Rd An

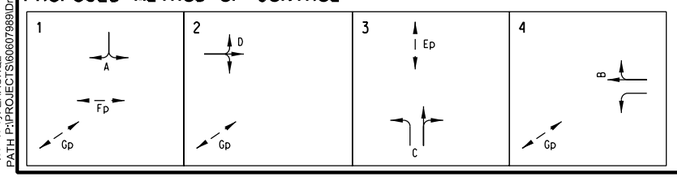
Proh/ Over 7m

GW

APPLICATION SITE

N

PROPOSED METHOD OF CONTROL



LEGEND:

- SITE BOUNDARY
- APPLICATION SITE BOUNDARY
- PLANNED IMPROVEMENT WORKS (BY OTHERS)
- PROPOSED IMPROVEMENT WORKS (BY R(D) SITE)

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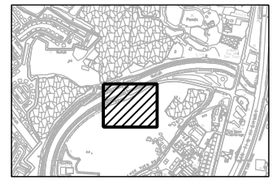
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STATUS 狀況

SCALE 比例 — A3 1 : 500

DIMENSION UNIT 尺寸單位 — METRES

KEY PLAN 索引圖 — A3 1 : 20000



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CONTRACT NO. 合約編號

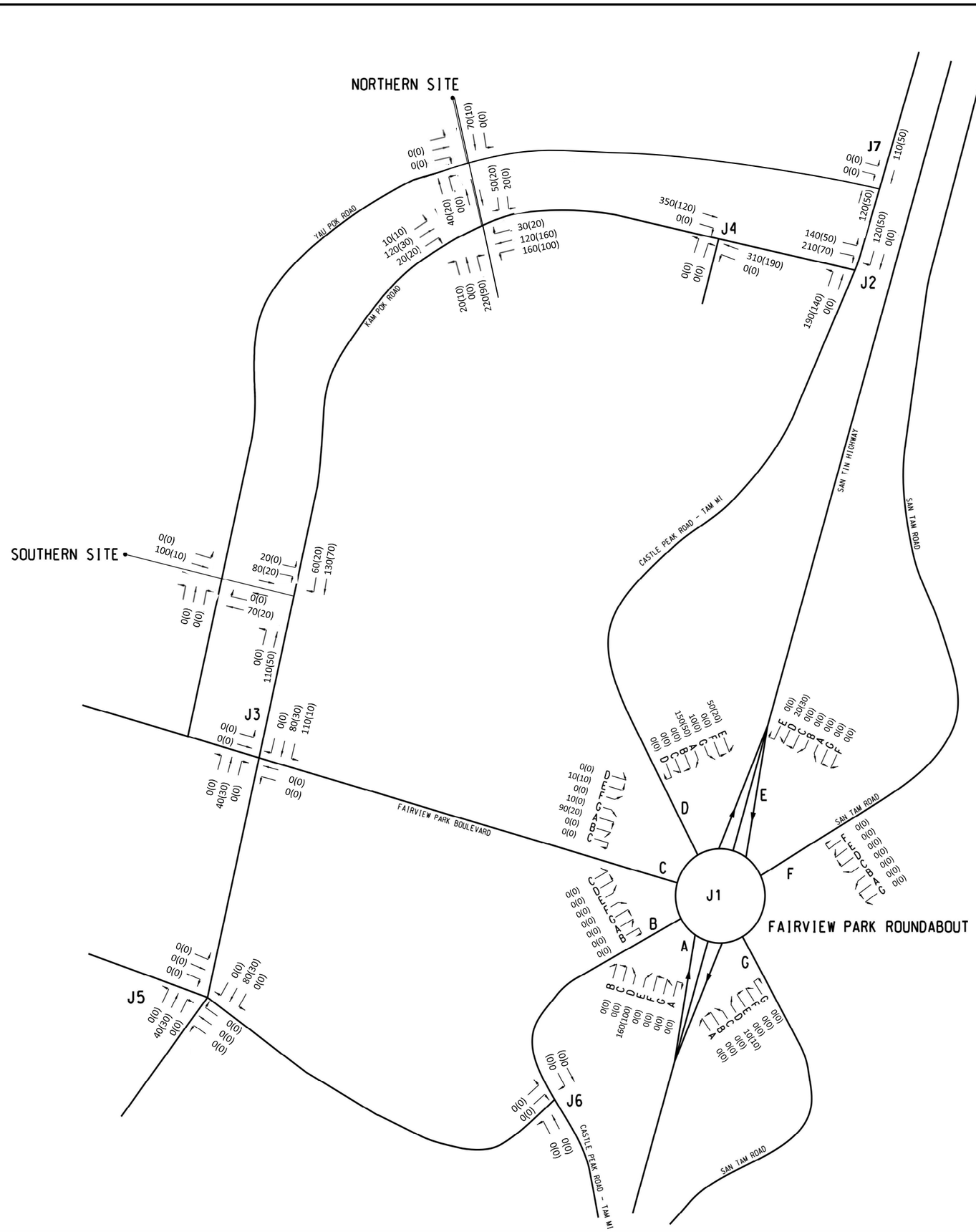
SHEET TITLE 圖紙名稱

PROPOSED JUNCTION MODIFICATION OF J11 - YAU POK ROAD / VEHICULAR BRIDGE - NORTH R(D) SITE ACCESS

SHEET NUMBER 圖紙編號

FIGURE 4.9

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Project Management Initials: Designer: Checked: Approved: ISO A1 594mm x 841mm

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STATUS
形段

SCALE 比例: N.T.S.

DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60607989

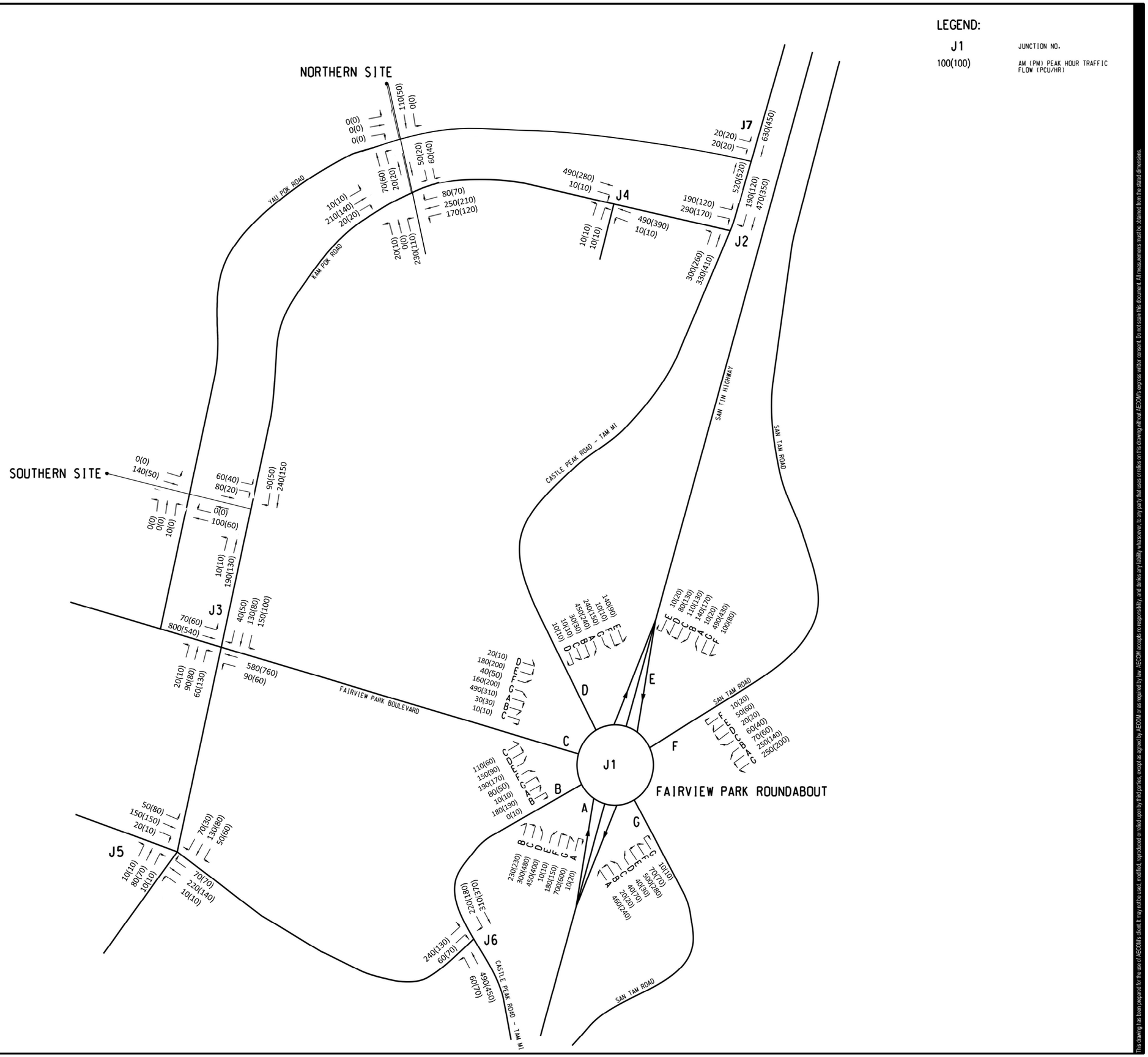
CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱

SITE DEVELOPMENT TRAFFIC FLOWS (NET INCREASE) - SENSITIVITY TEST (I)

SHEET NUMBER
圖紙編號

FIGURE 4.10



Project Management Initials: Designer: Checked: Approved: ISC A1 594mm x 841mm

Plot File by: ZHAOHQ2 12/28/2021
PATH P:\PROJECTS\60607989\Drawing\REPORT\FAIRVIEW_REC\FAIRVIEW_REC_515.dgn

AECOM

PROJECT
項目

S.12A PLANNING APPLICATION FOR REZONING VARIOUS LOTS & ADJACENT G.L. IN DD 104, "R(D)" SITE, KAM TIN, YUEN LONG

CLIENT
客戶

CONSULTANT
工程顧問公司

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SUB-CONSULTANTS
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ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容簡要	CHK. 核核

STATUS
階段

SCALE 比例: N.T.S.

DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60607989

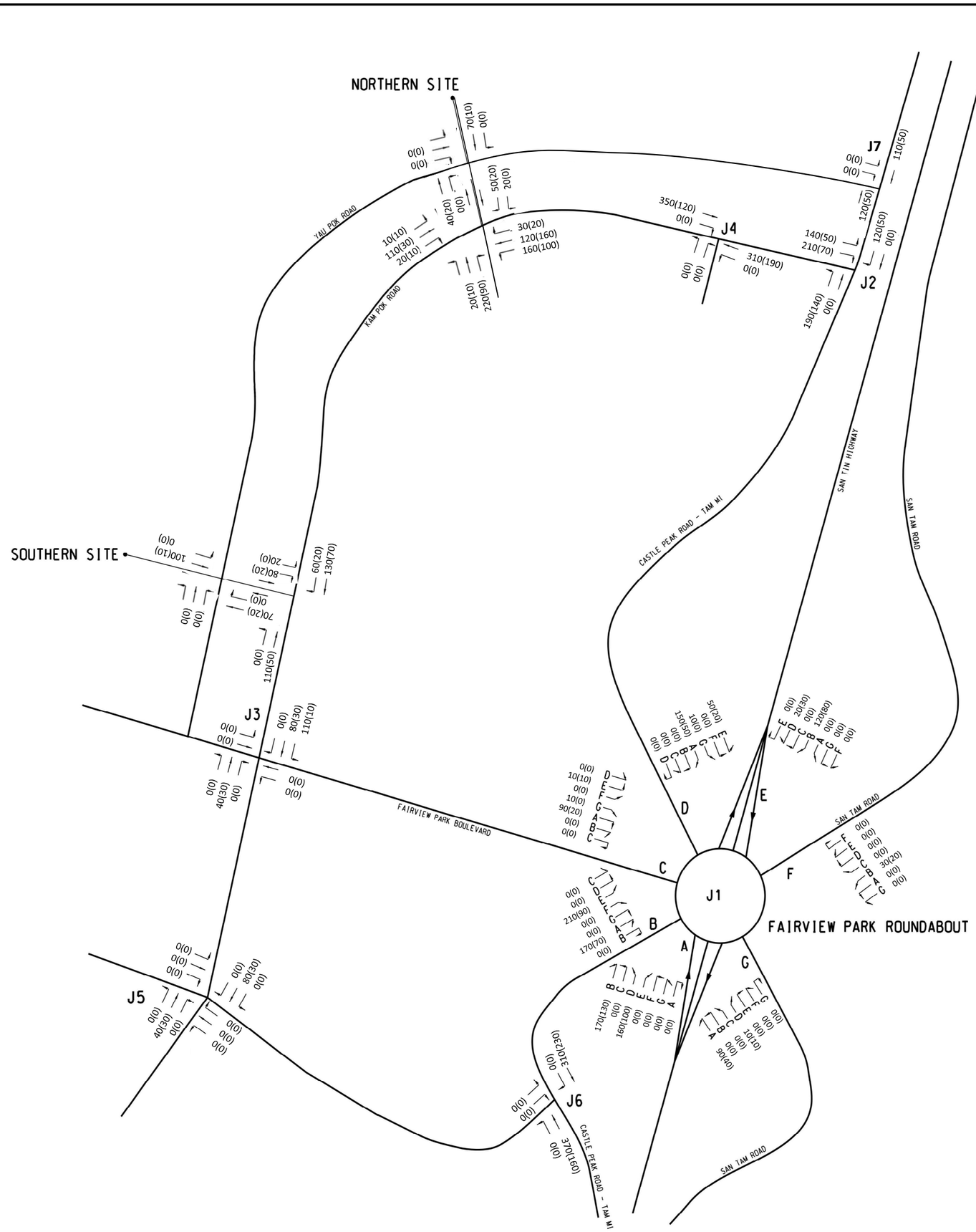
CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱

2034 DESIGN TRAFFIC FLOWS (SENSITIVITY TEST I)

SHEET NUMBER
圖紙編號

FIGURE 4.11



Project Management Initials: Designer: Checked: Approved: ISO A1 594mm x 841mm

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STATUS
形段

SCALE 比例: N.T.S.

DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60607989

CONTRACT NO. 合約編號

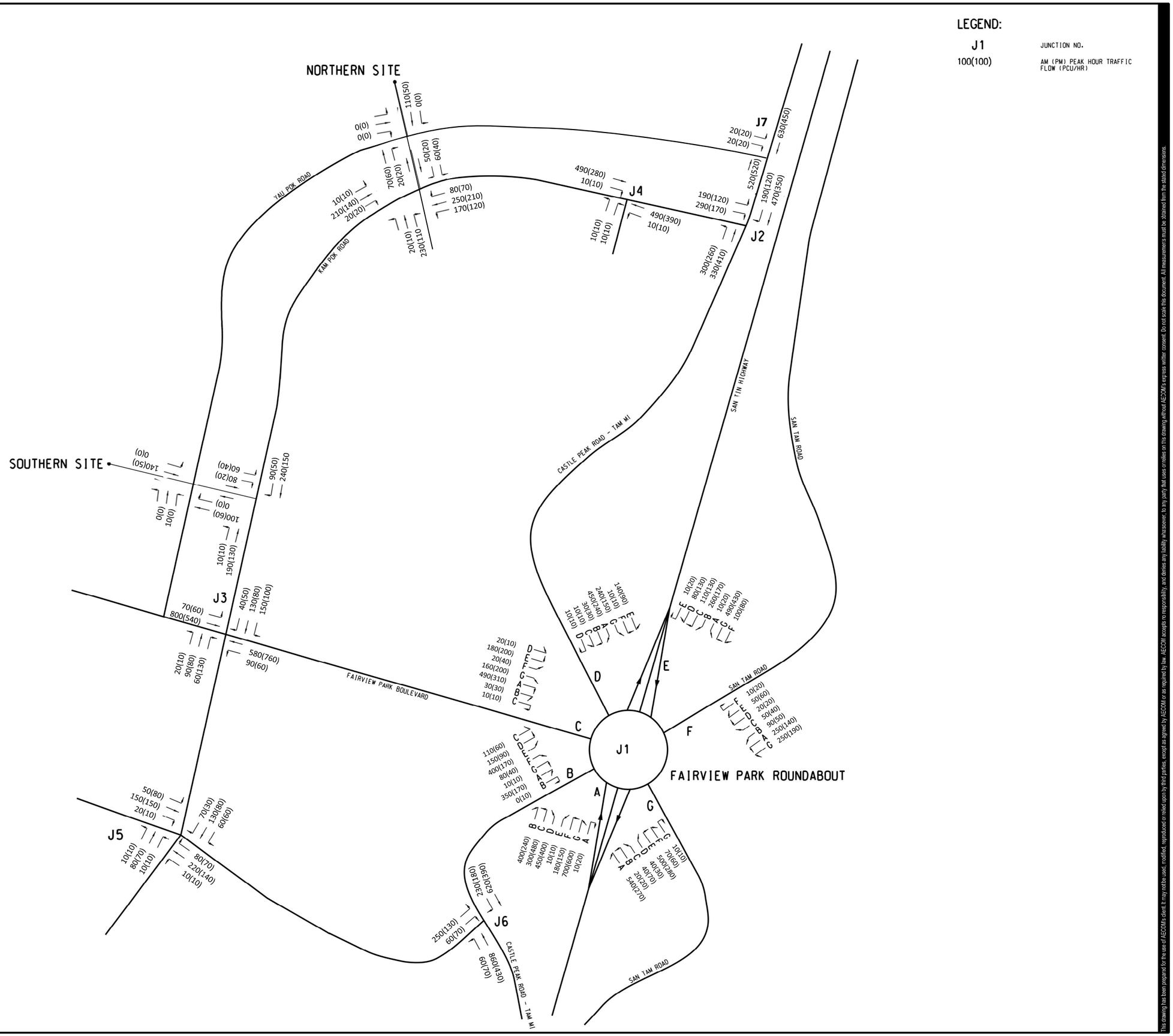
SHEET TITLE
圖紙名稱

SITE DEVELOPMENT TRAFFIC FLOWS (NET INCREASE) - SENSITIVITY TEST (II)

SHEET NUMBER
圖紙編號

FIGURE 4.12

Project Management Initials: Designer: Checked: Approved: ISO A1 594mm x 841mm



Plot File by: ZHAOHO2 12/28/2021
PATH: P:\PROJECTS\60607989\Drawing\REPORT\FAIRVIEW_REC\FAIRVIEW_REC_515.dgn

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項目

S.12A PLANNING APPLICATION FOR REZONING VARIOUS LOTS & ADJACENT G.L. IN DD 104, "R(D)" SITE, KAM TIN, YUEN LONG

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業主

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ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核快

STATUS
階段

SCALE 比例 N.T.S.

DIMENSION UNIT 尺寸單位 METRES

KEY PLAN 索引圖

PROJECT NO. 項目編號
60607989

CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱
2034 DESIGN TRAFFIC FLOWS (SENSITIVITY TEST II)

SHEET NUMBER
圖紙編號
FIGURE 4.13

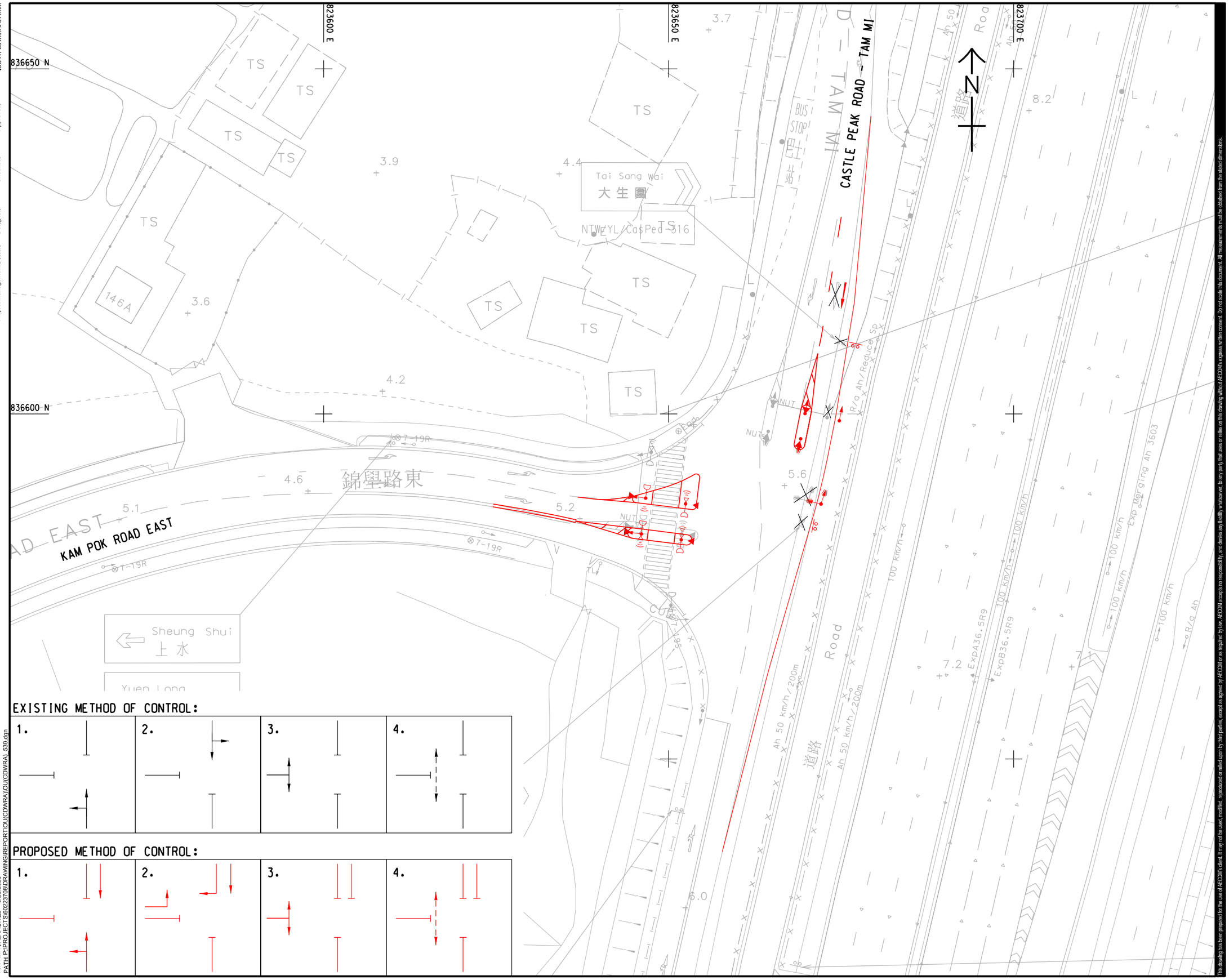
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:



EXISTING METHOD OF CONTROL:

PROPOSED METHOD OF CONTROL:

Plot File by: ZHAOHQ2 9/25/2023
PATH: P:\PROJECTS\60223708\DRAWING\REPORT\OU(CDWRA)\OU(CDWRA)_530.dgn

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項目
S. 12A PLANNING APPLICATION FOR REZONING VARIOUS LOTS & ADJACENT G.L. IN DD 104, "R(D)" SITE, KAM TIN, YUEN LONG

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STATUS
階段

SCALE 比例
A3 1 : 500

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60223708

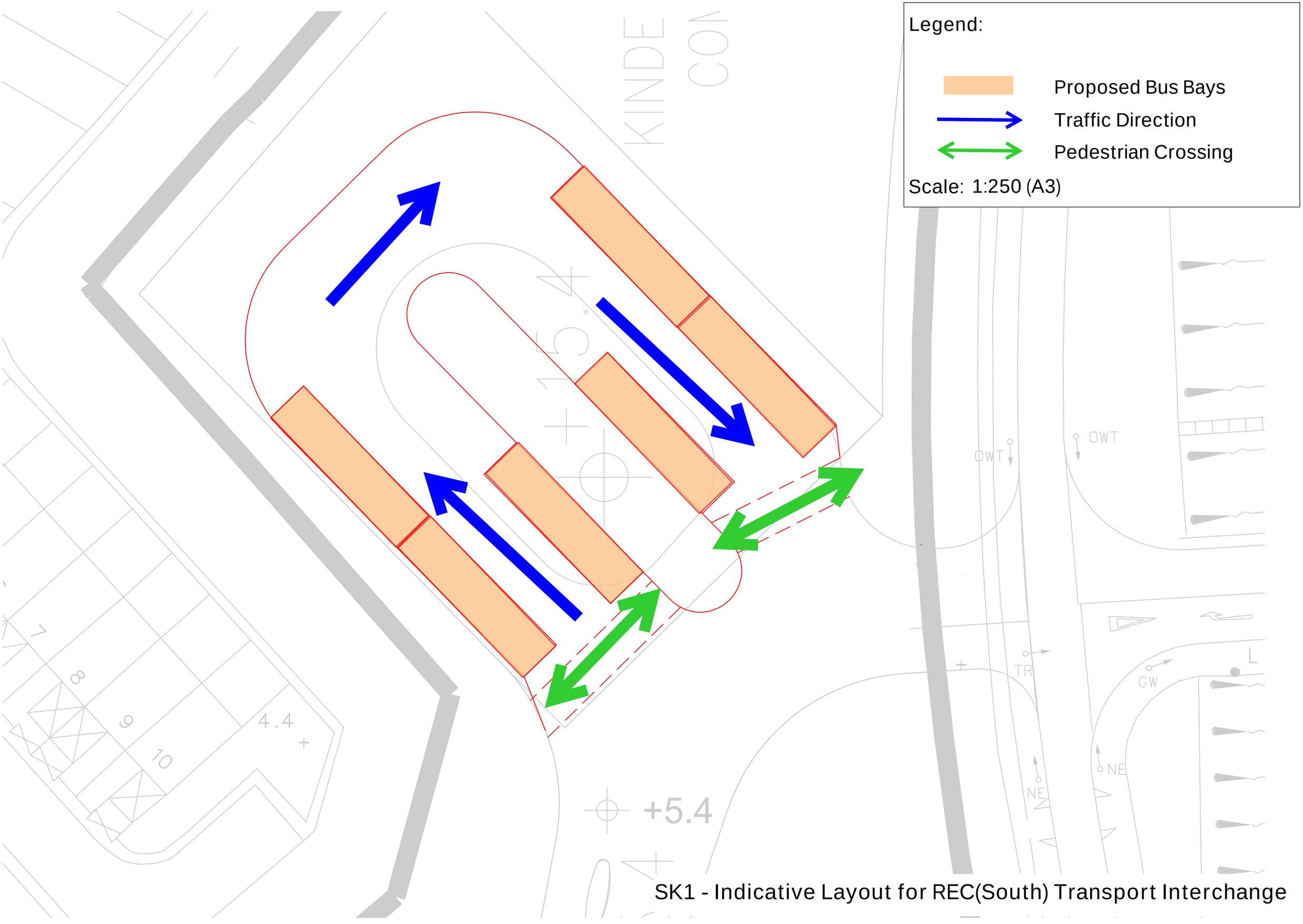
CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱
PROPOSED IMPROVEMENT SCHEME FOR JUNCTION OF CASTLE PEAK ROAD - TAM MI / KAM POK ROAD EAST (J6) - UNDER SENSITIVITY TEST (II)

SHEET NUMBER
圖紙編號
FIGURE 4.14

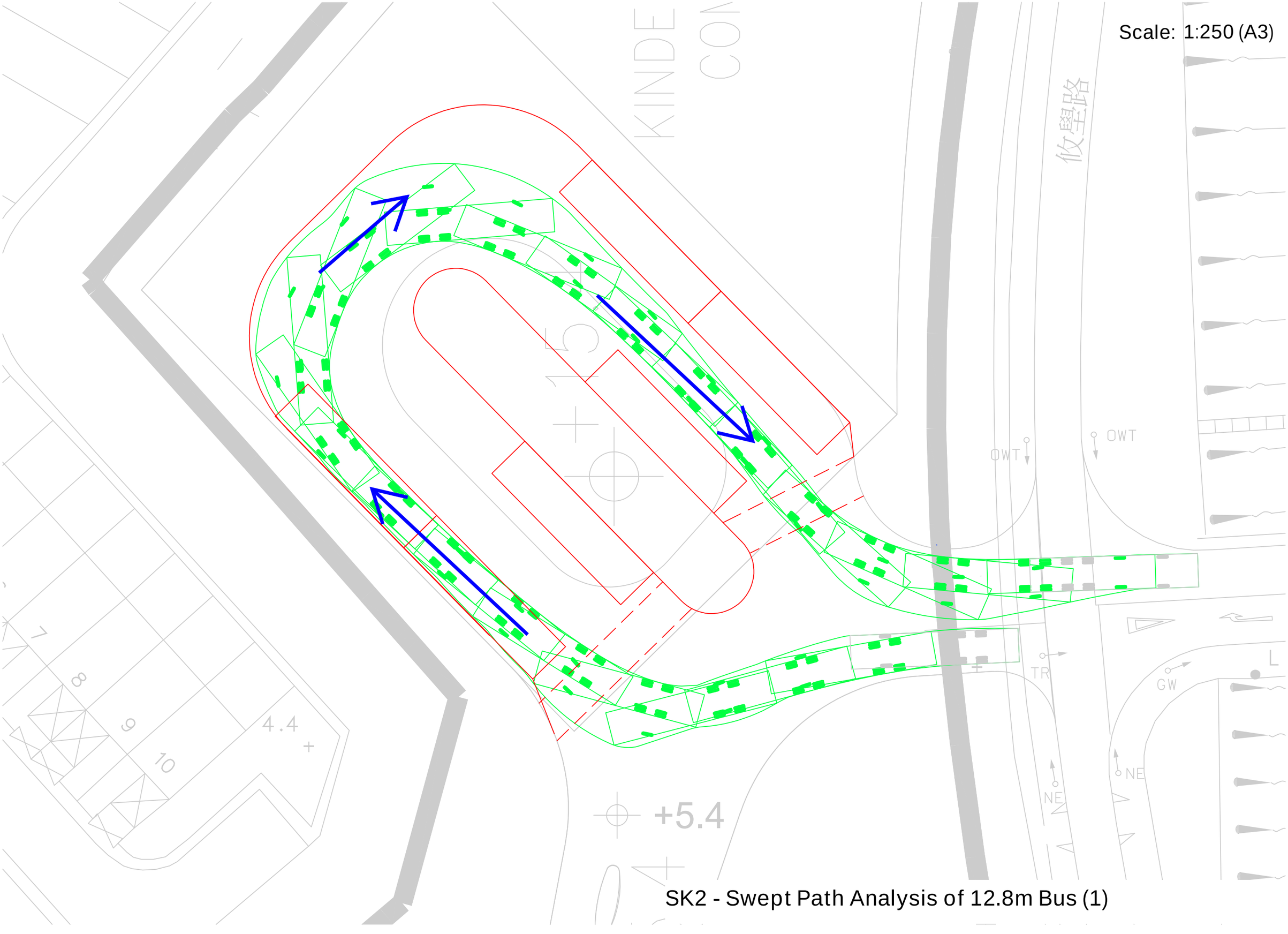
Appendix A

Indicative Layout of Transport Layby and Swept Path Analysis



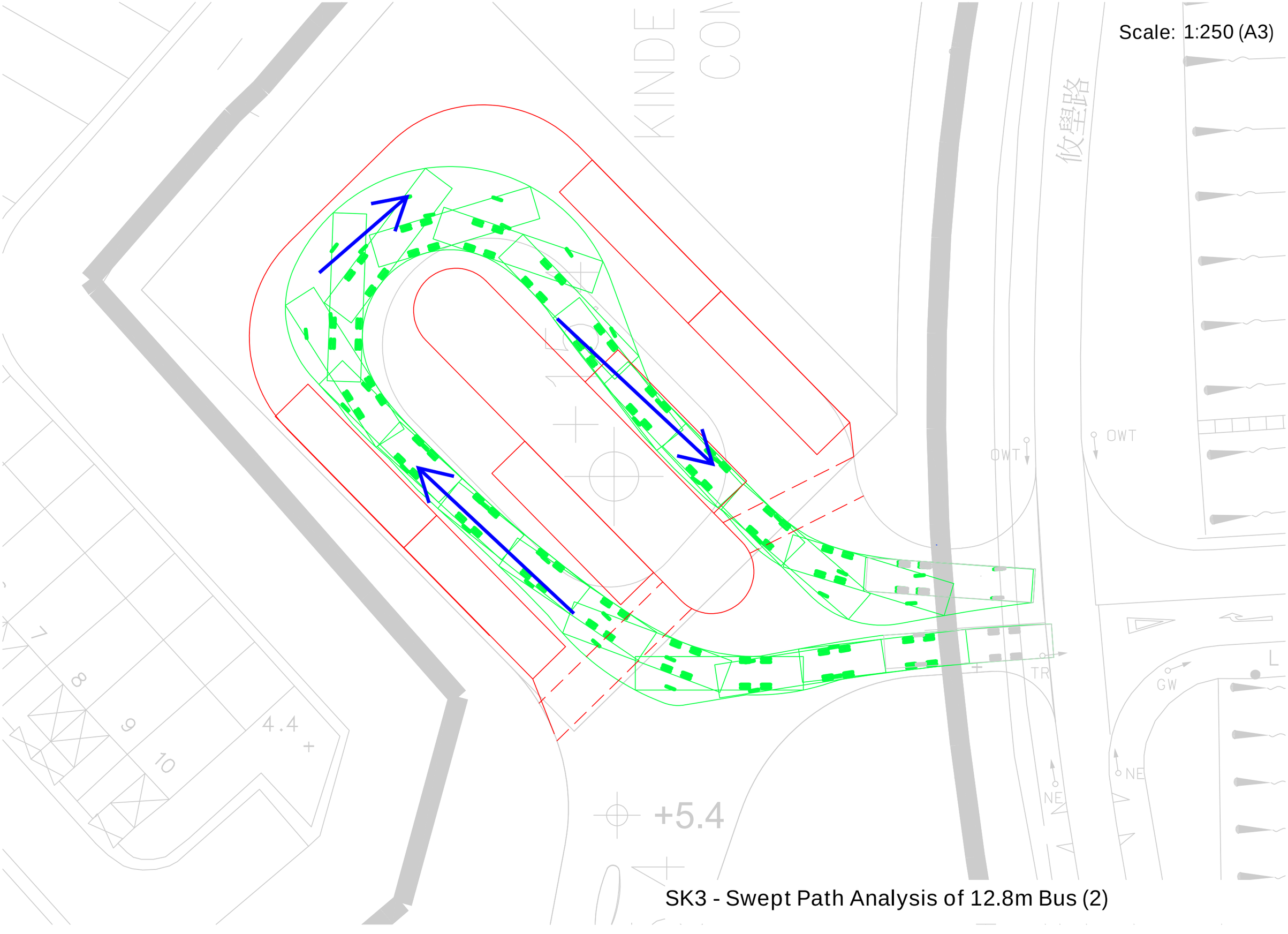
SK1 - Indicative Layout for REC(South) Transport Interchange

Scale: 1:250 (A3)



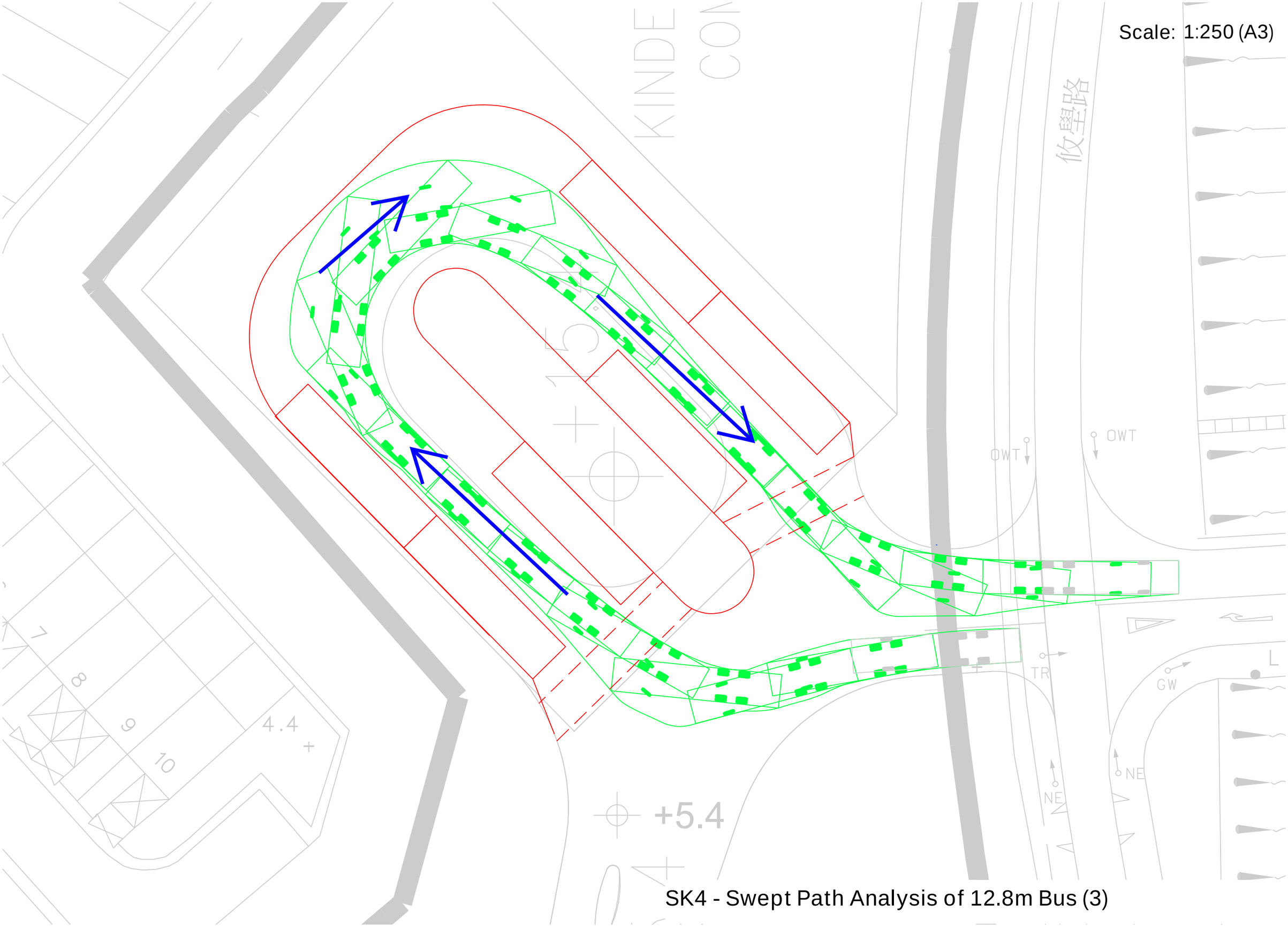
SK2 - Swept Path Analysis of 12.8m Bus (1)

Scale: 1:250 (A3)



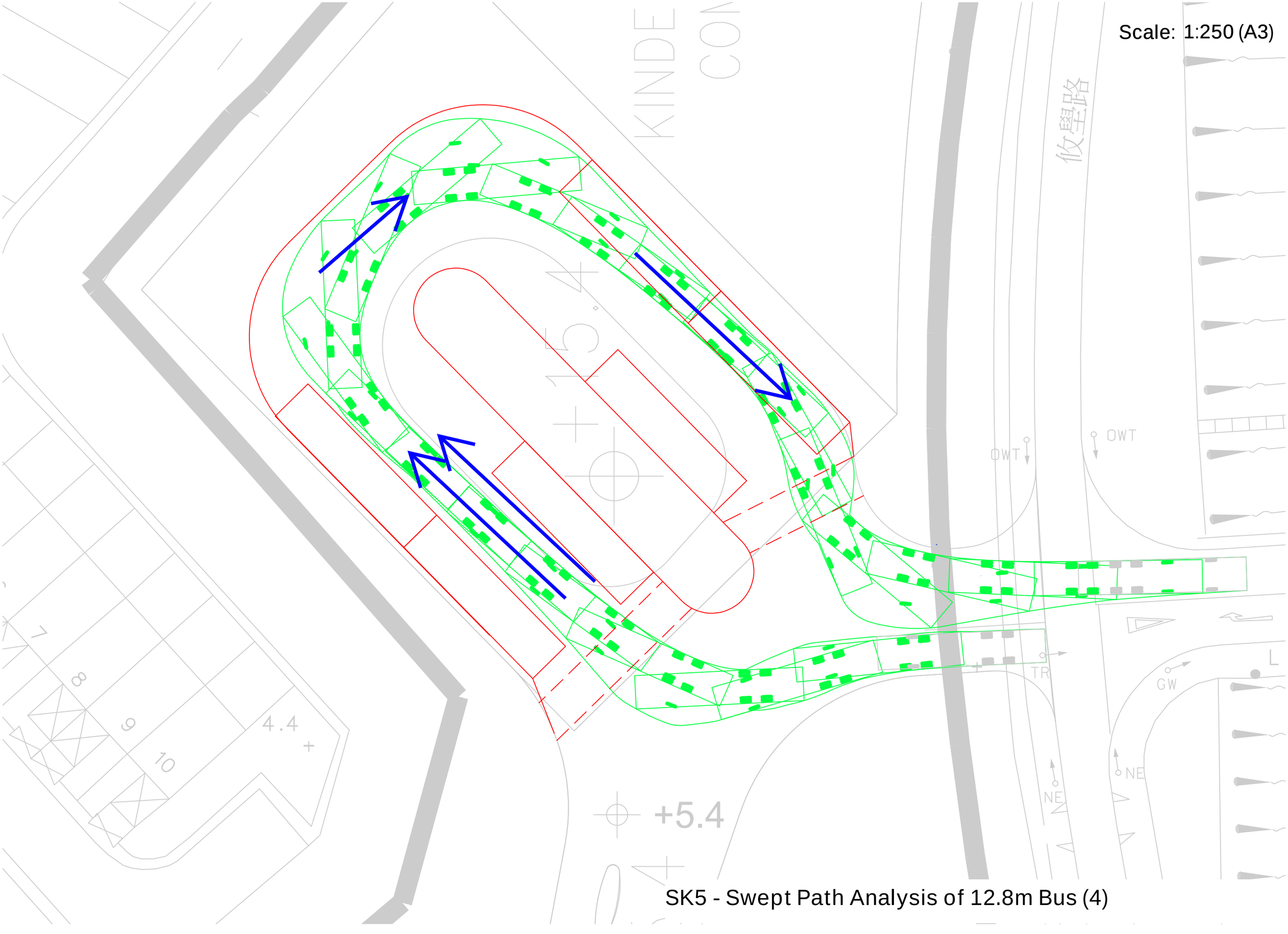
SK3 - Swept Path Analysis of 12.8m Bus (2)

Scale: 1:250 (A3)



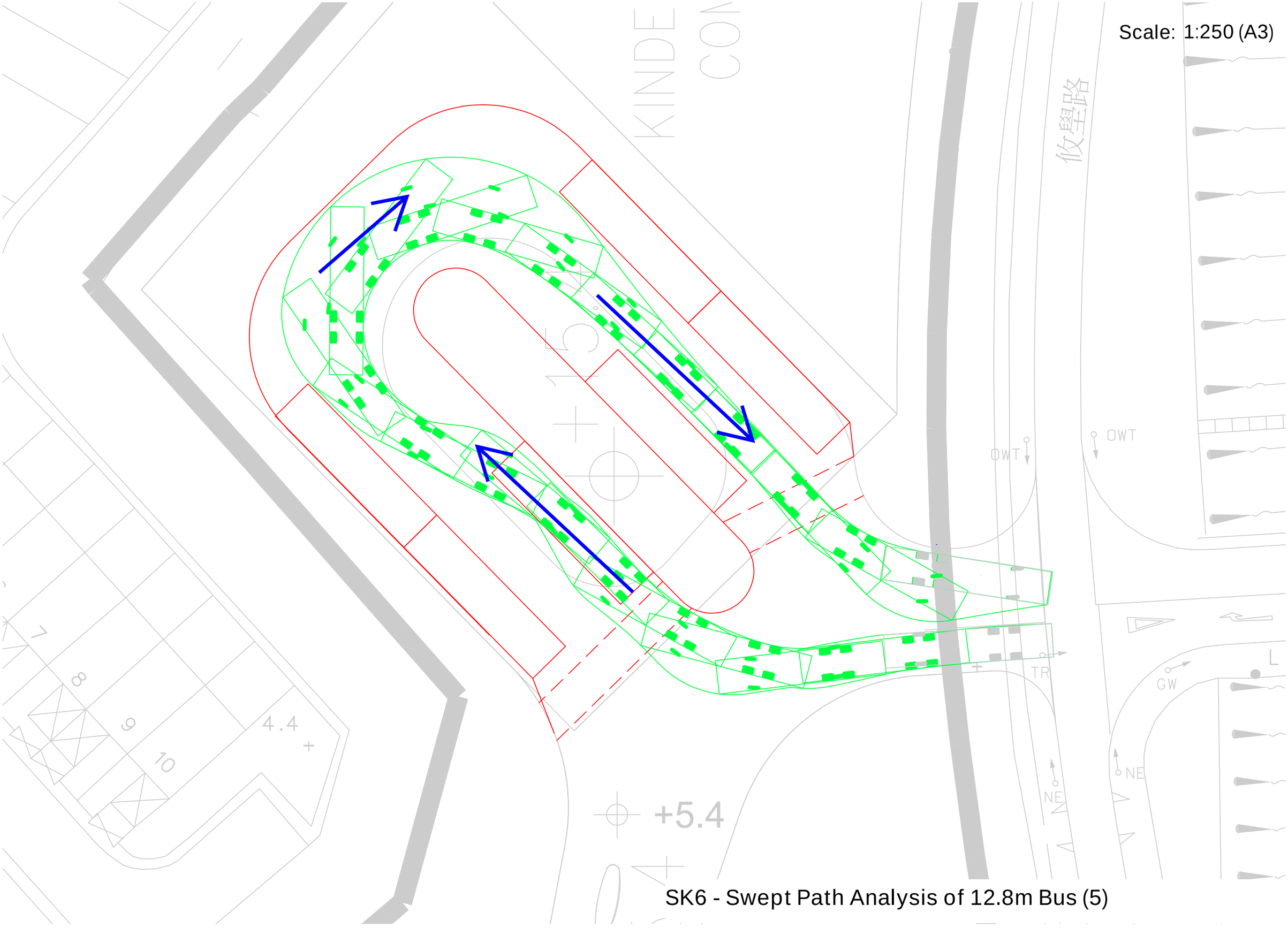
SK4 - Swept Path Analysis of 12.8m Bus (3)

Scale: 1:250 (A3)



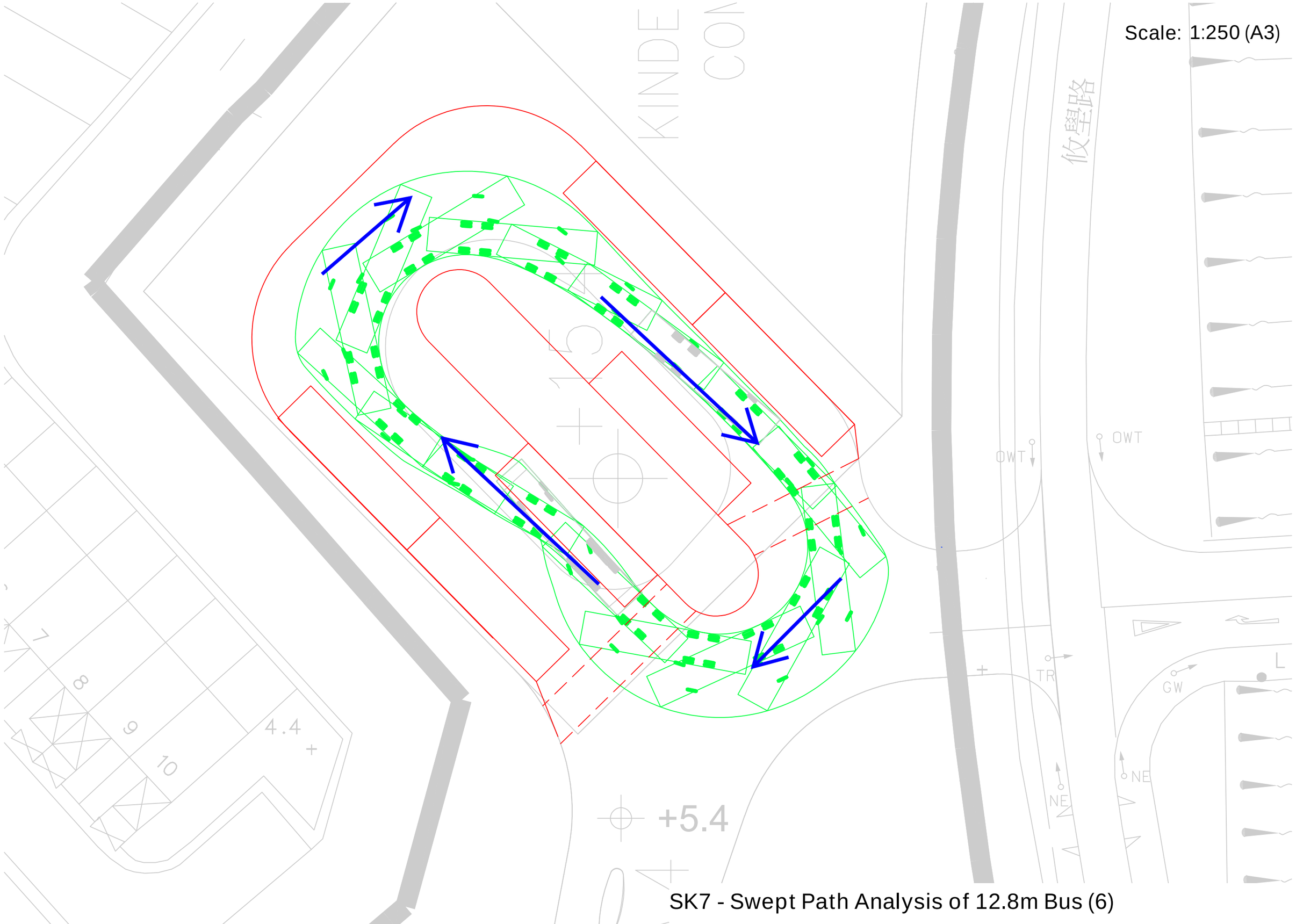
SK5 - Swept Path Analysis of 12.8m Bus (4)

Scale: 1:250 (A3)



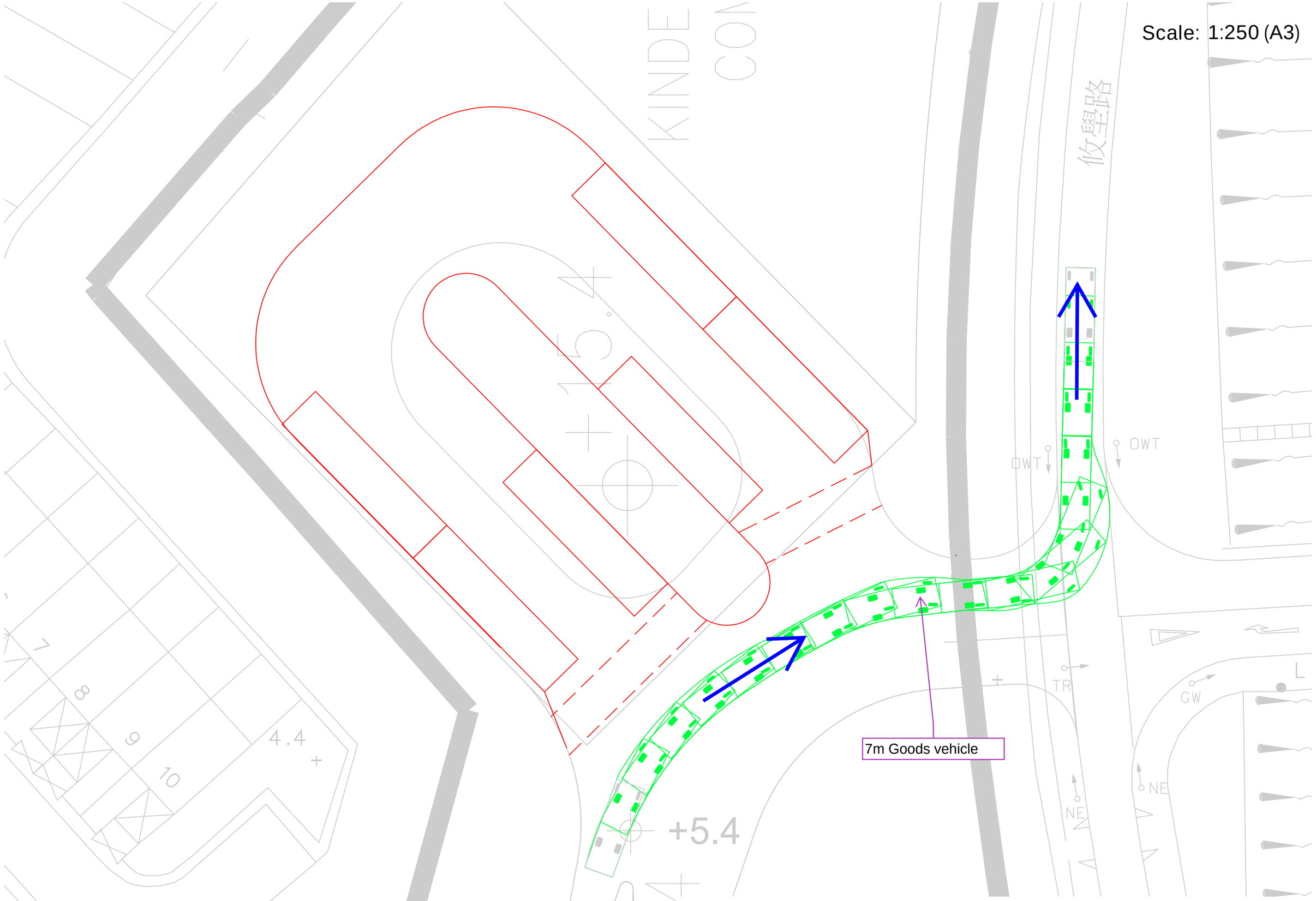
SK6 - Swept Path Analysis of 12.8m Bus (5)

Scale: 1:250 (A3)



SK7 - Swept Path Analysis of 12.8m Bus (6)

Scale: 1:250 (A3)



SK8 - Swept Path Analysis of 7m GV

Legend:

Proposed Bus Bays

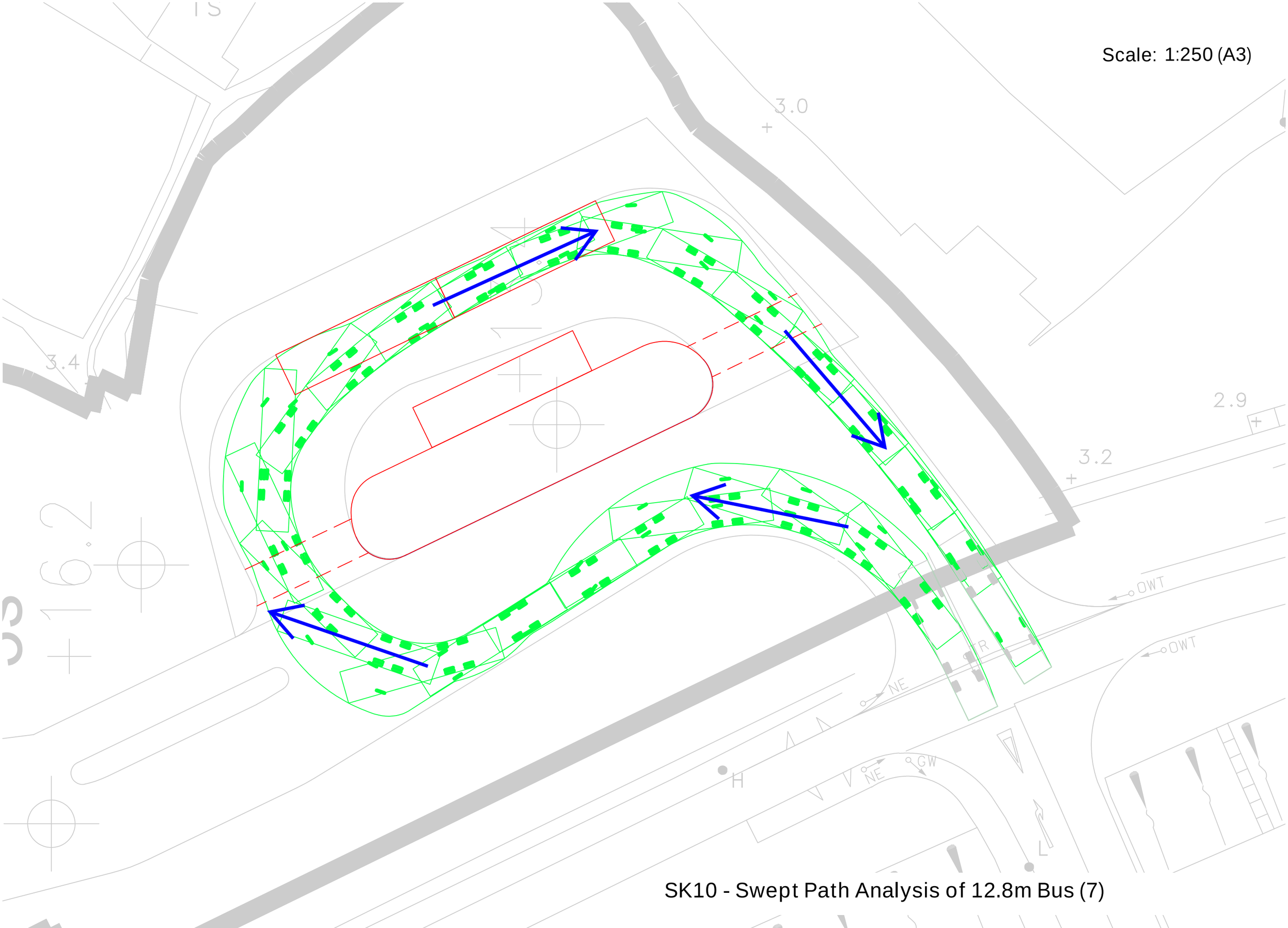
Traffic Direction

Pedestrian Crossing

Scale: 1:250 (A3)

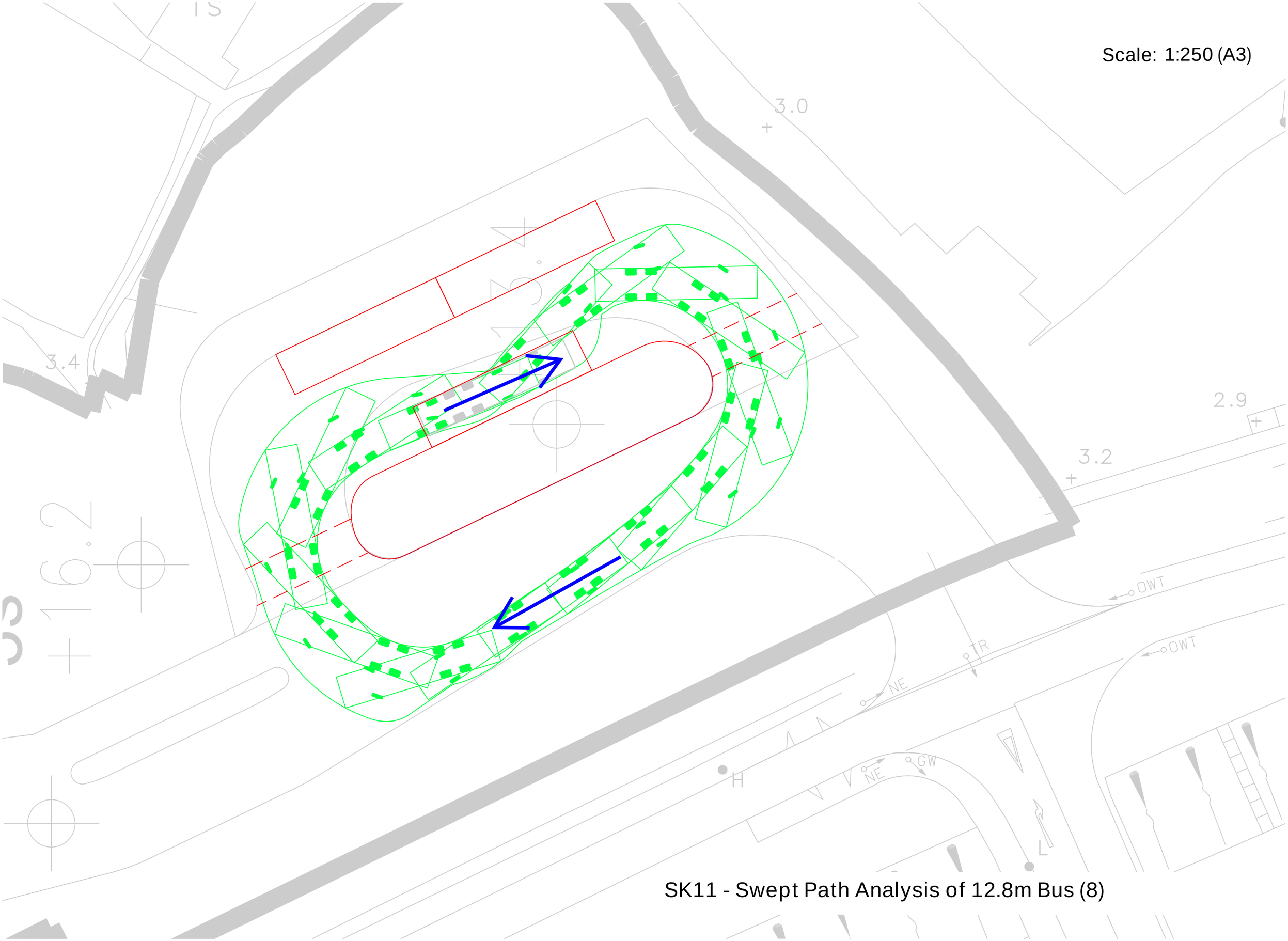
SK9 - Indicative Layout for REC(North) Transport Interchange

Scale: 1:250 (A3)



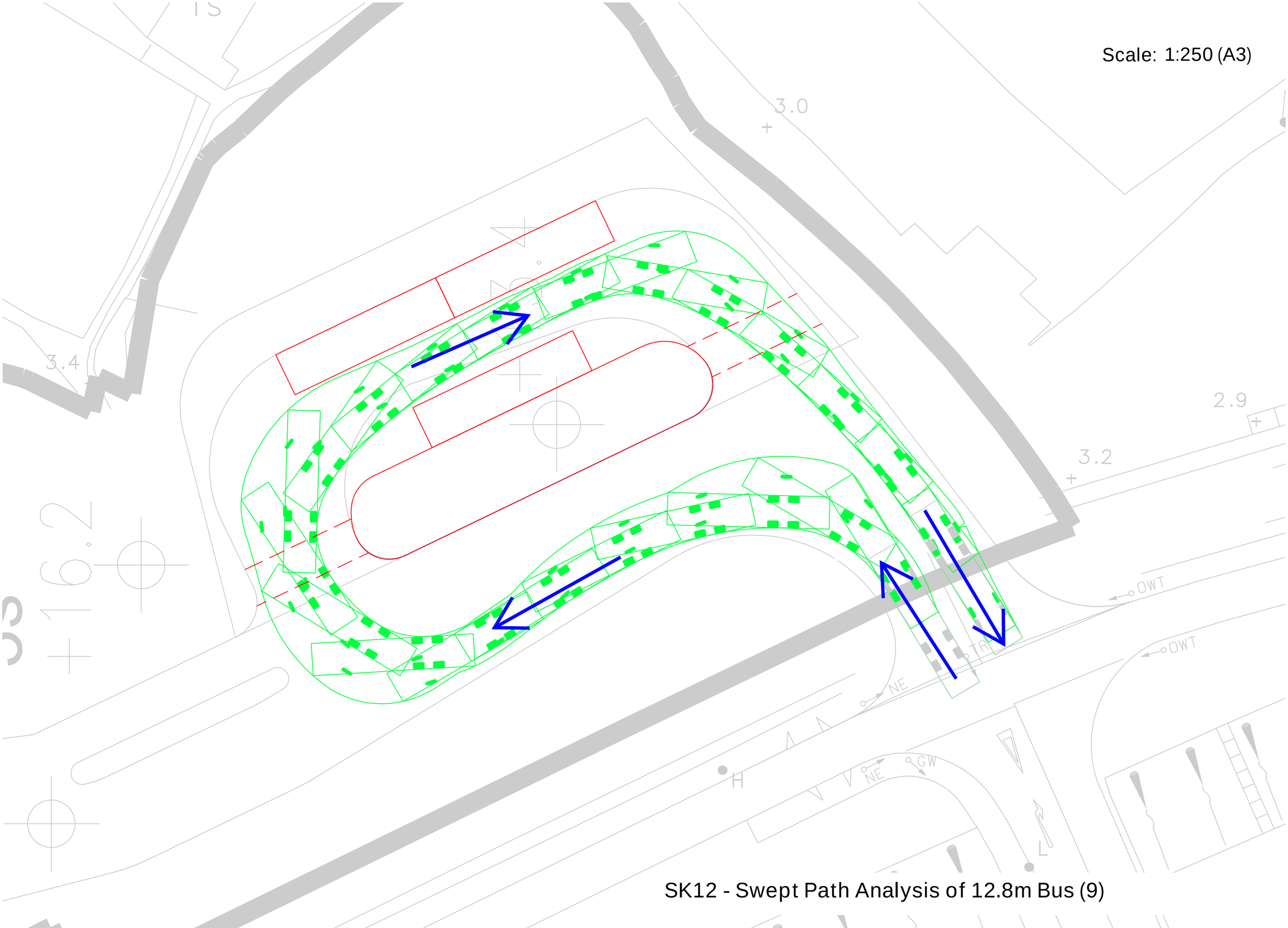
SK10 - Swept Path Analysis of 12.8m Bus (7)

Scale: 1:250 (A3)



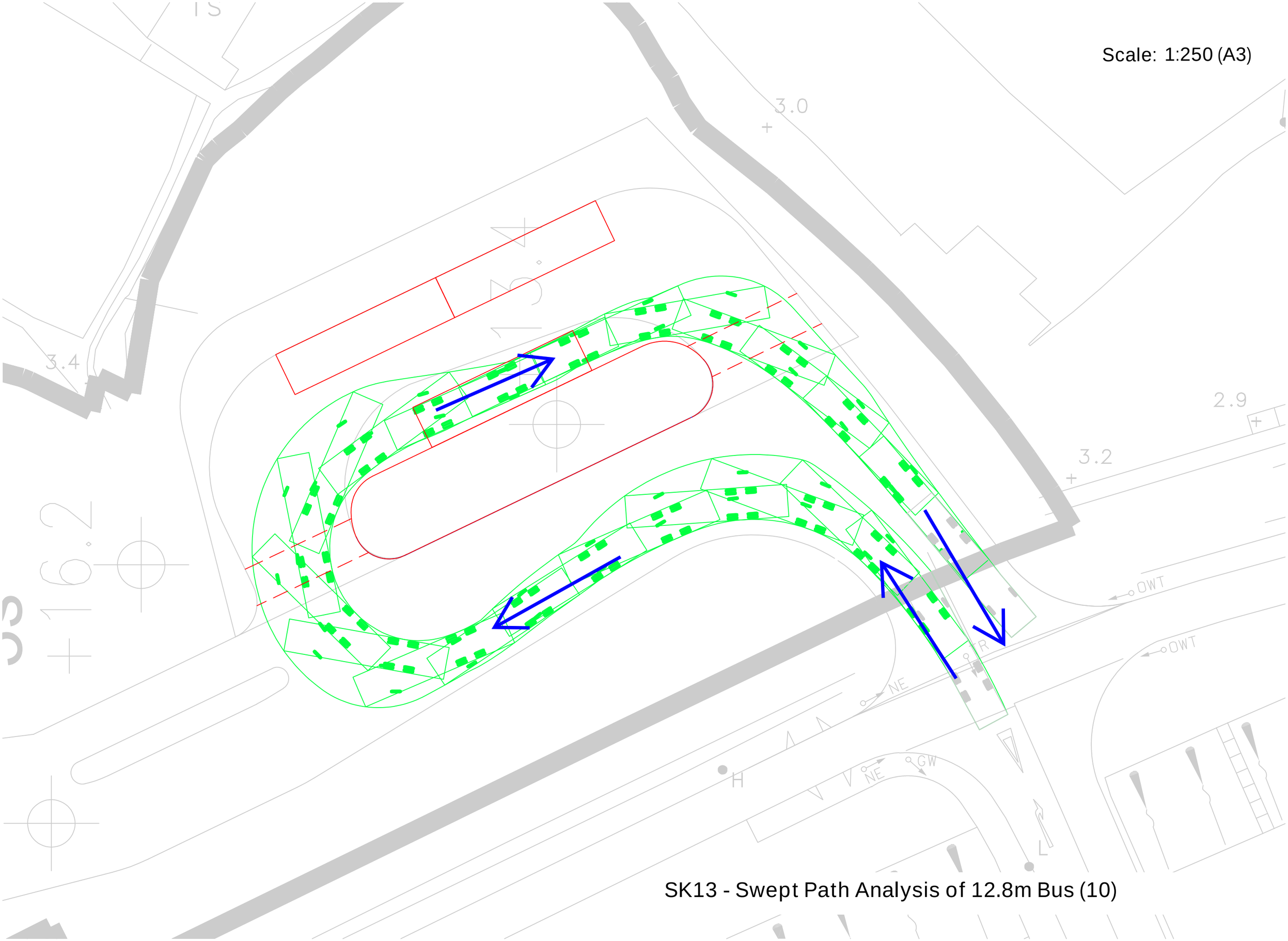
SK11 - Swept Path Analysis of 12.8m Bus (8)

Scale: 1:250 (A3)



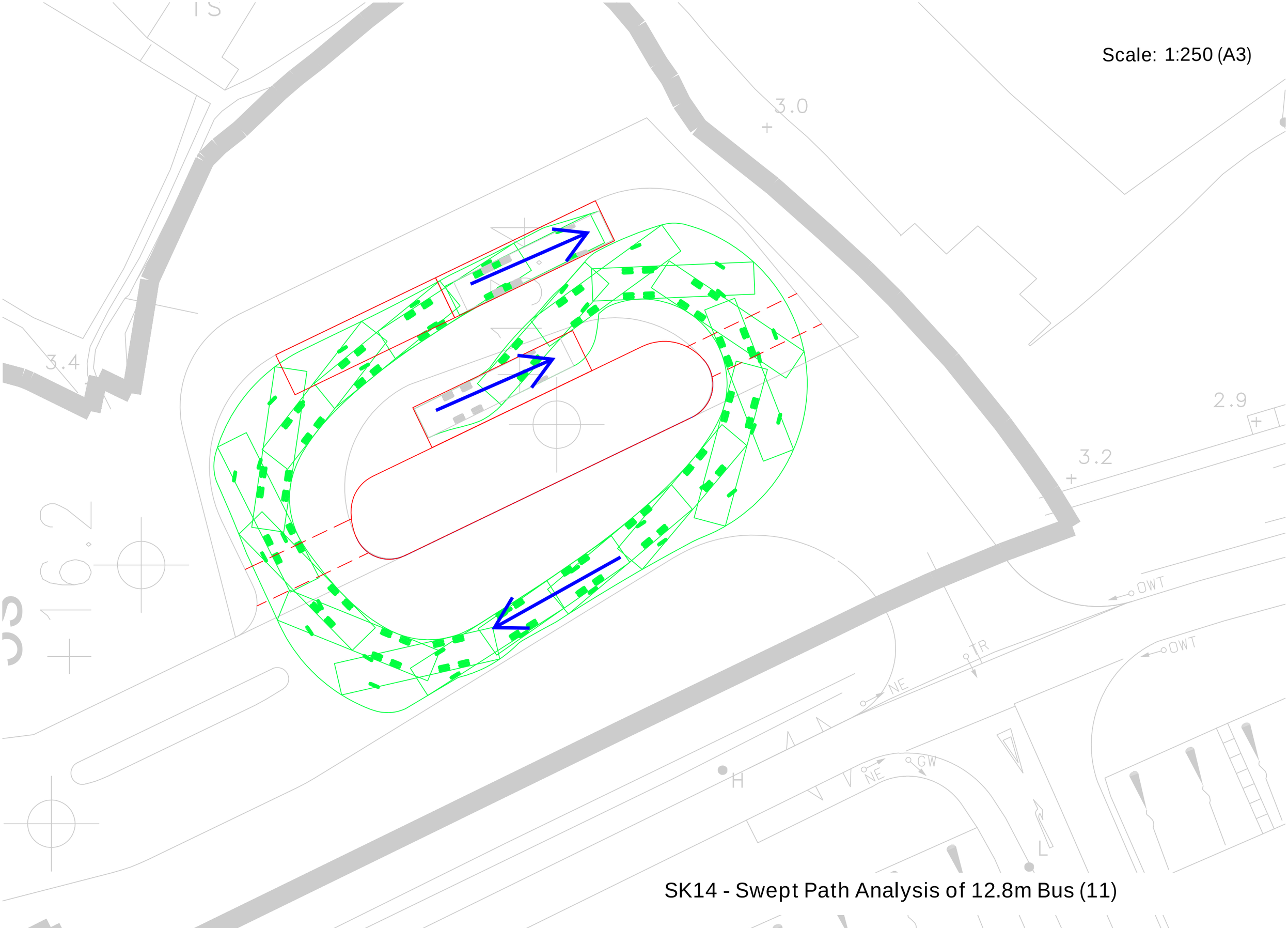
SK12 - Swept Path Analysis of 12.8m Bus (9)

Scale: 1:250 (A3)



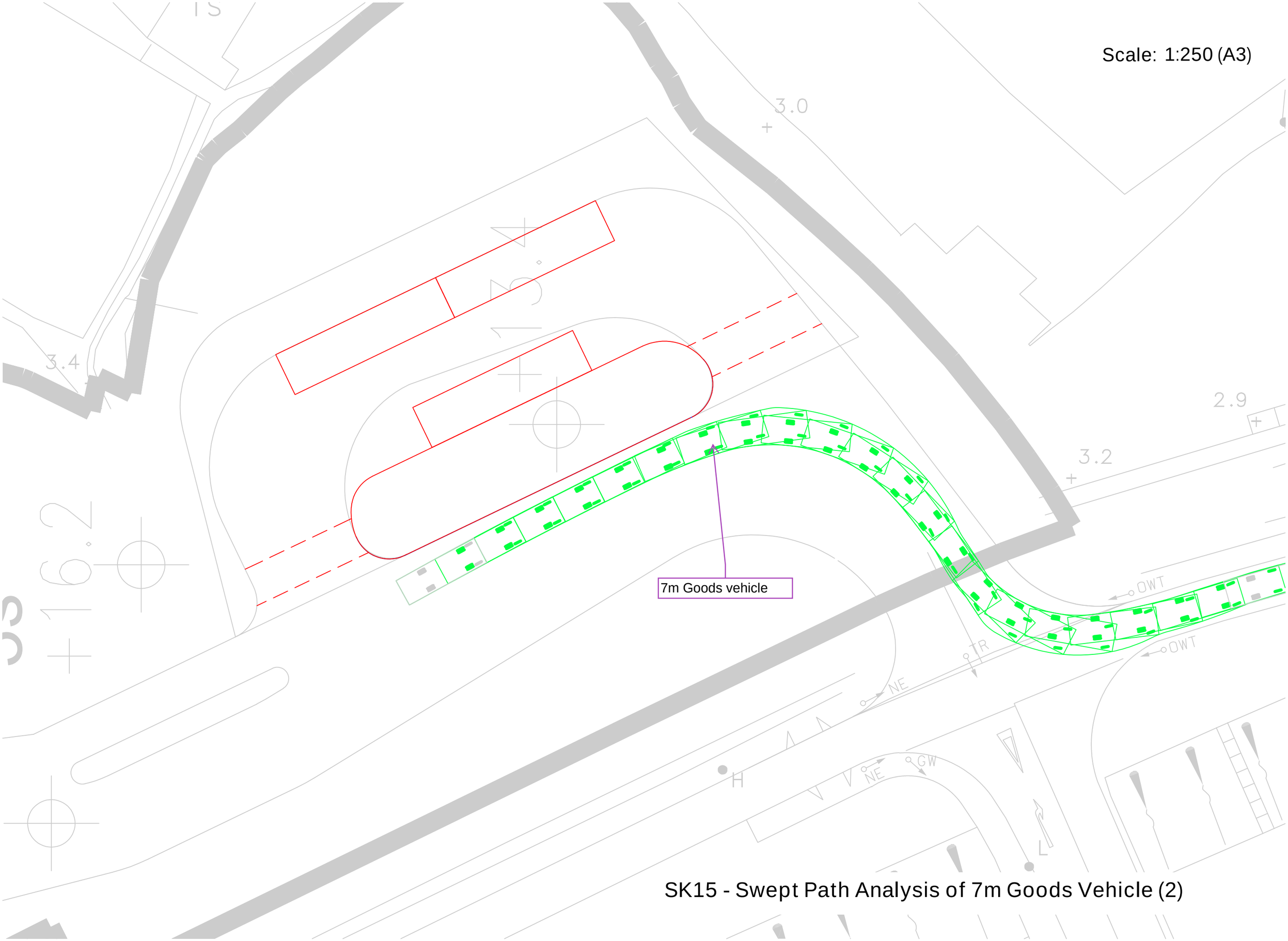
SK13 - Swept Path Analysis of 12.8m Bus (10)

Scale: 1:250 (A3)

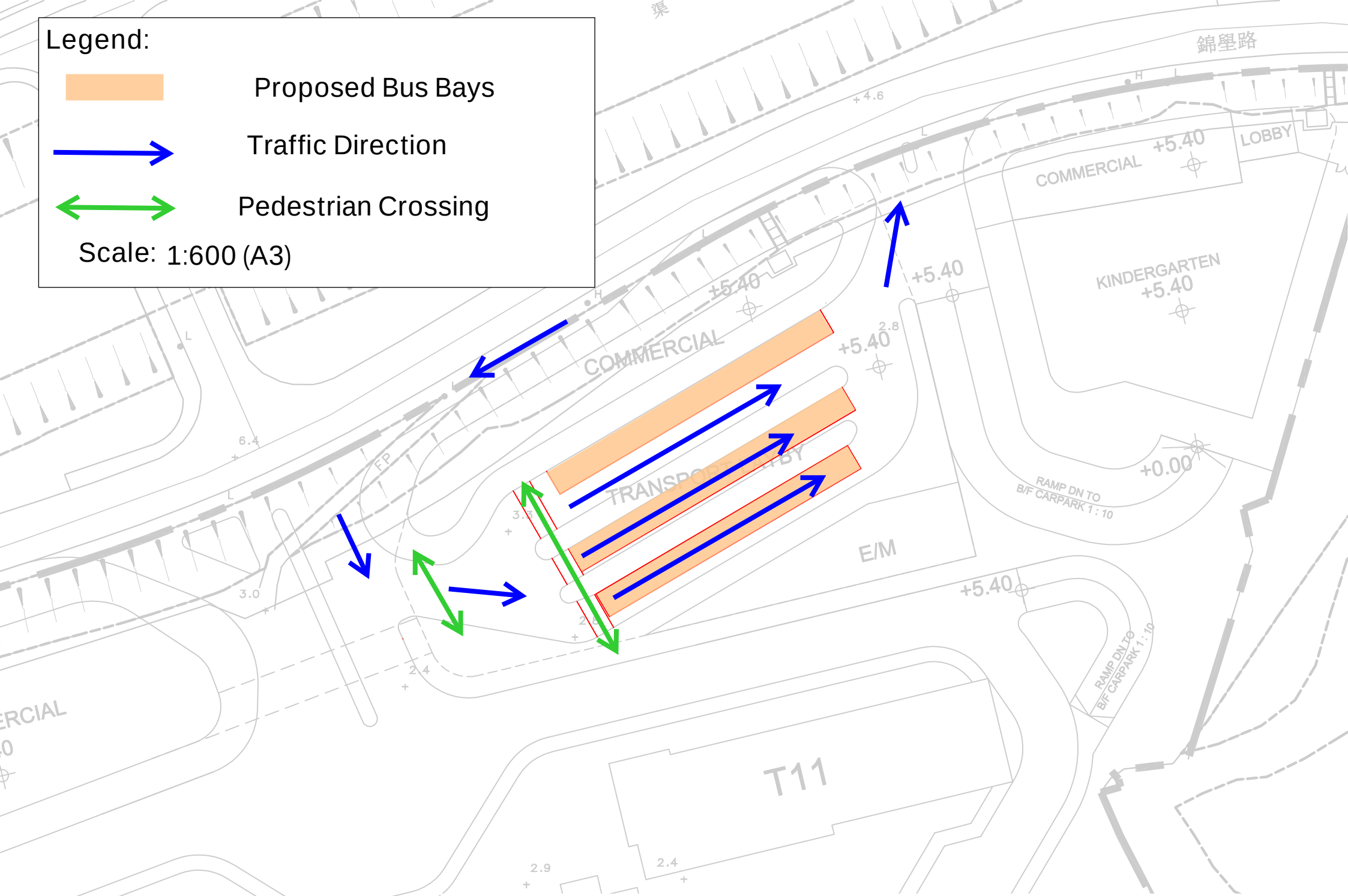


SK14 - Swept Path Analysis of 12.8m Bus (11)

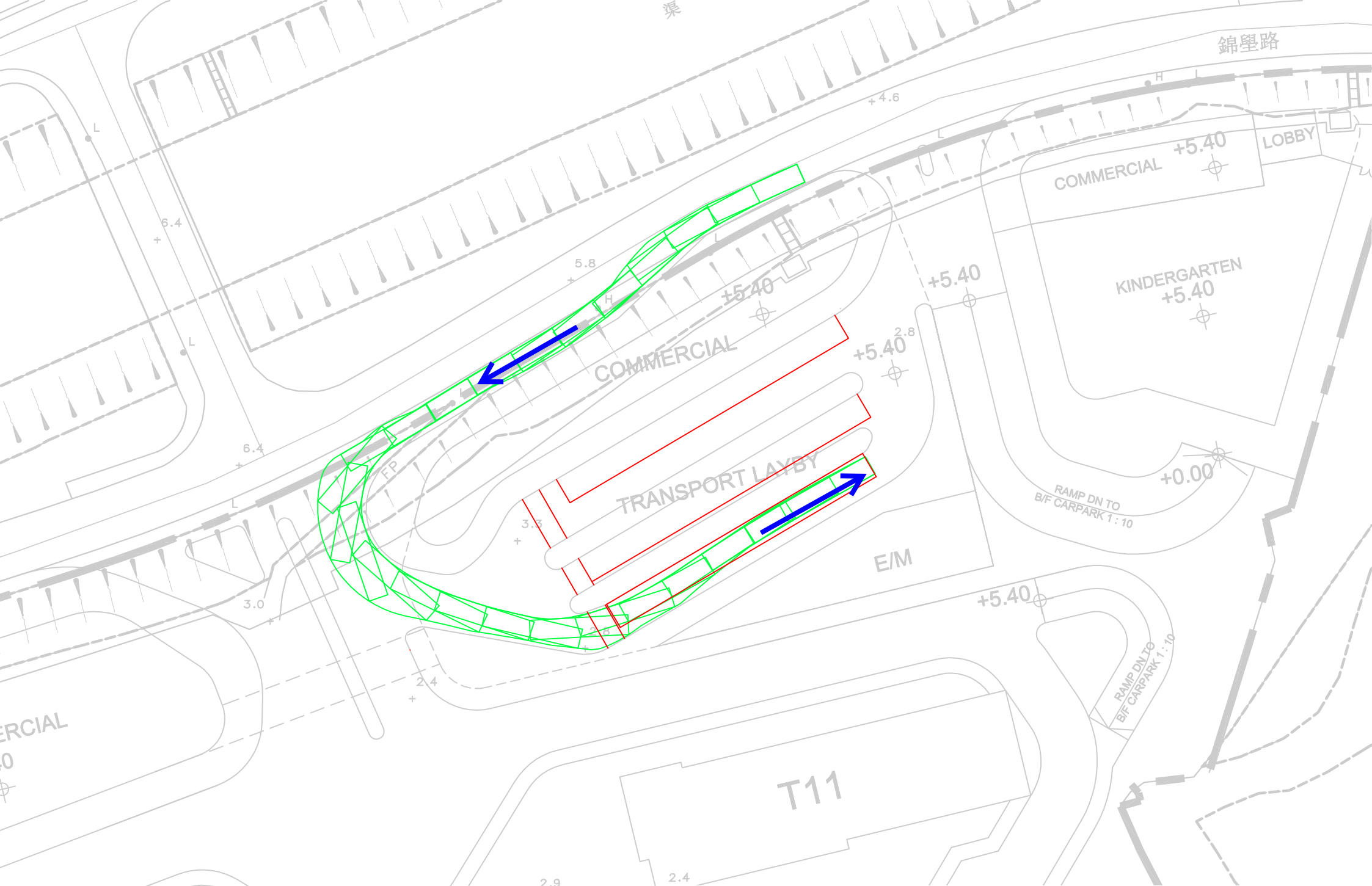
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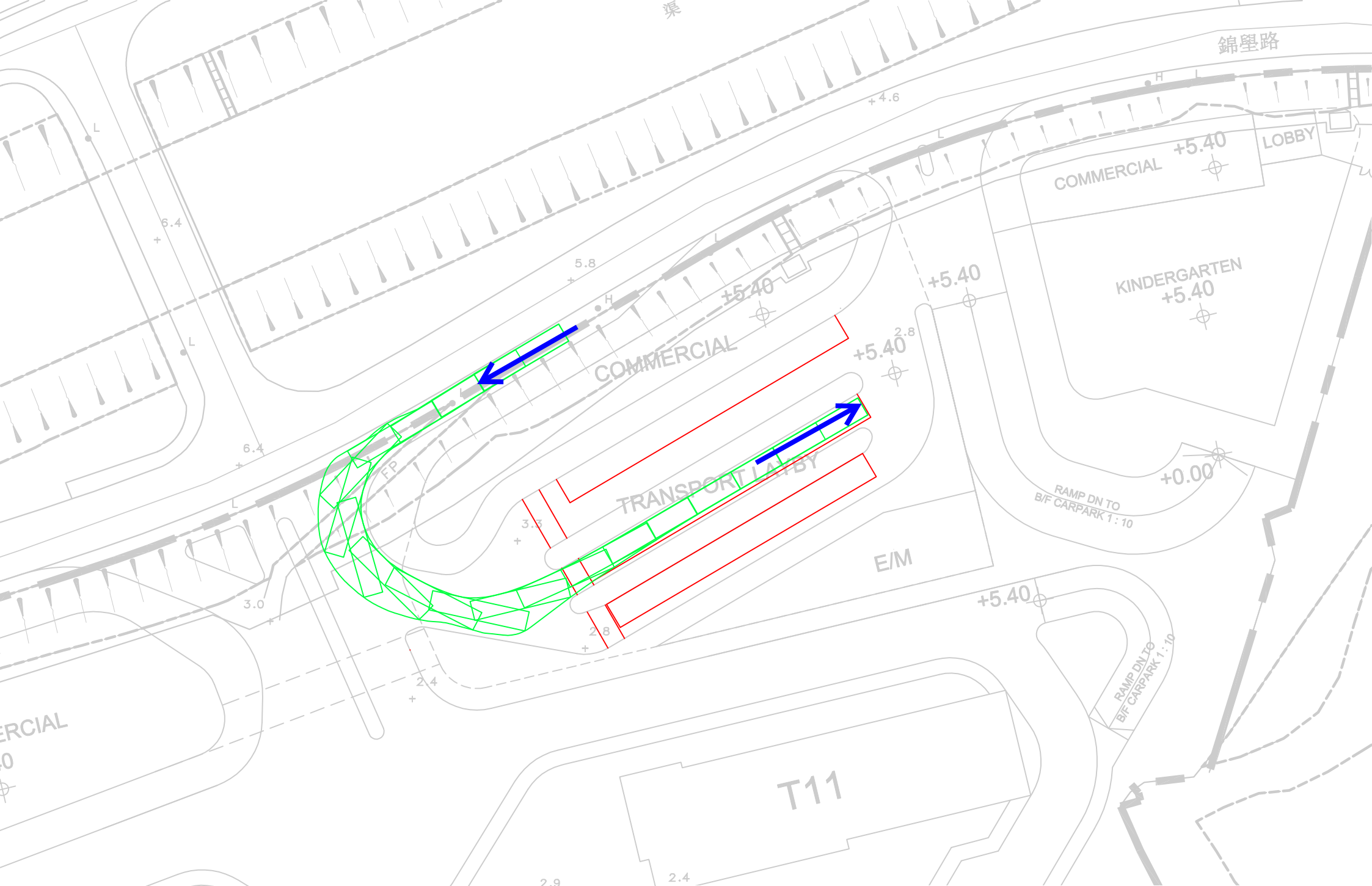
SK15 - Swept Path Analysis of 7m Goods Vehicle (2)



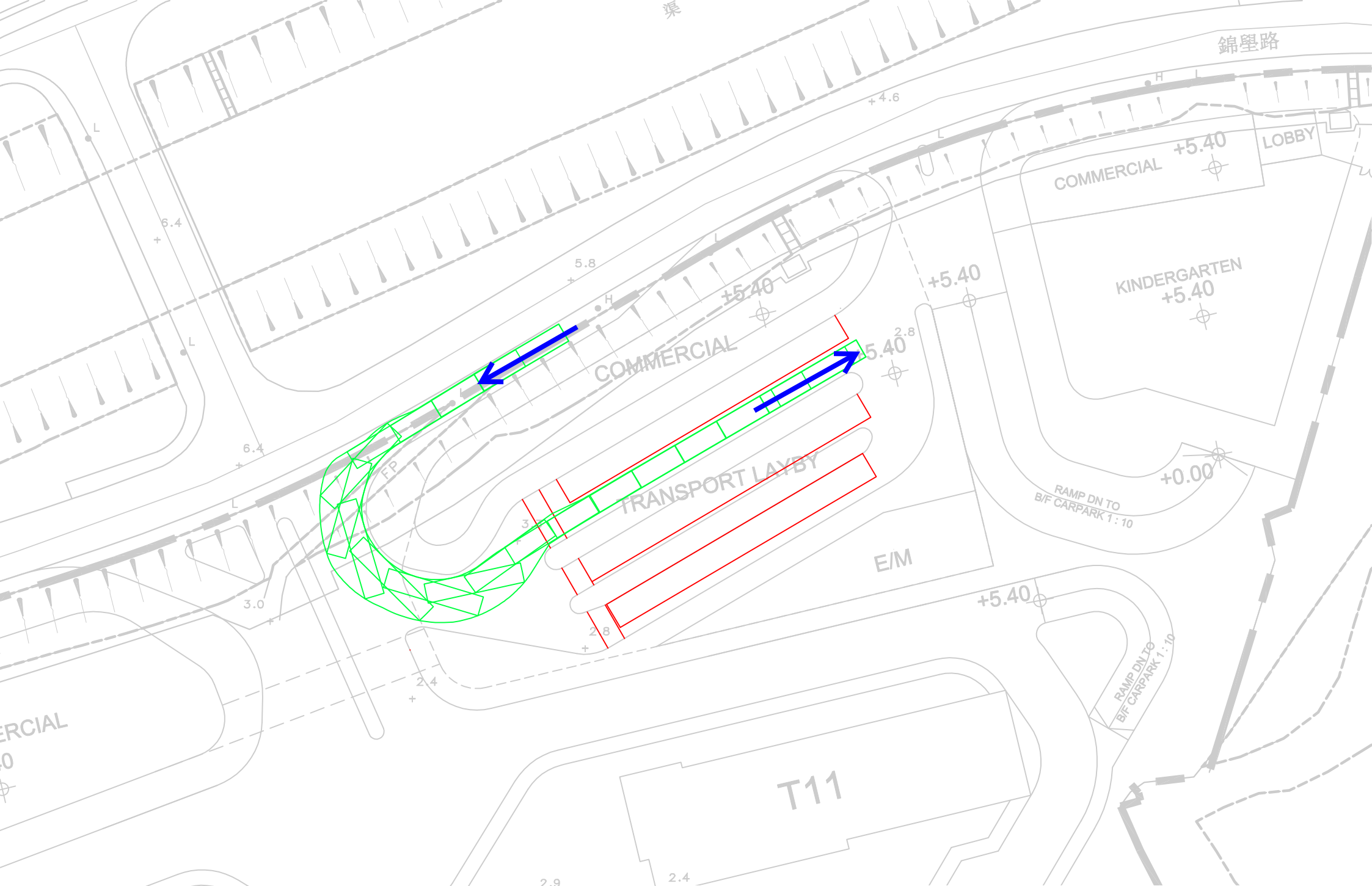
SK16 - Indicative Layout for R(D) Transport Interchange



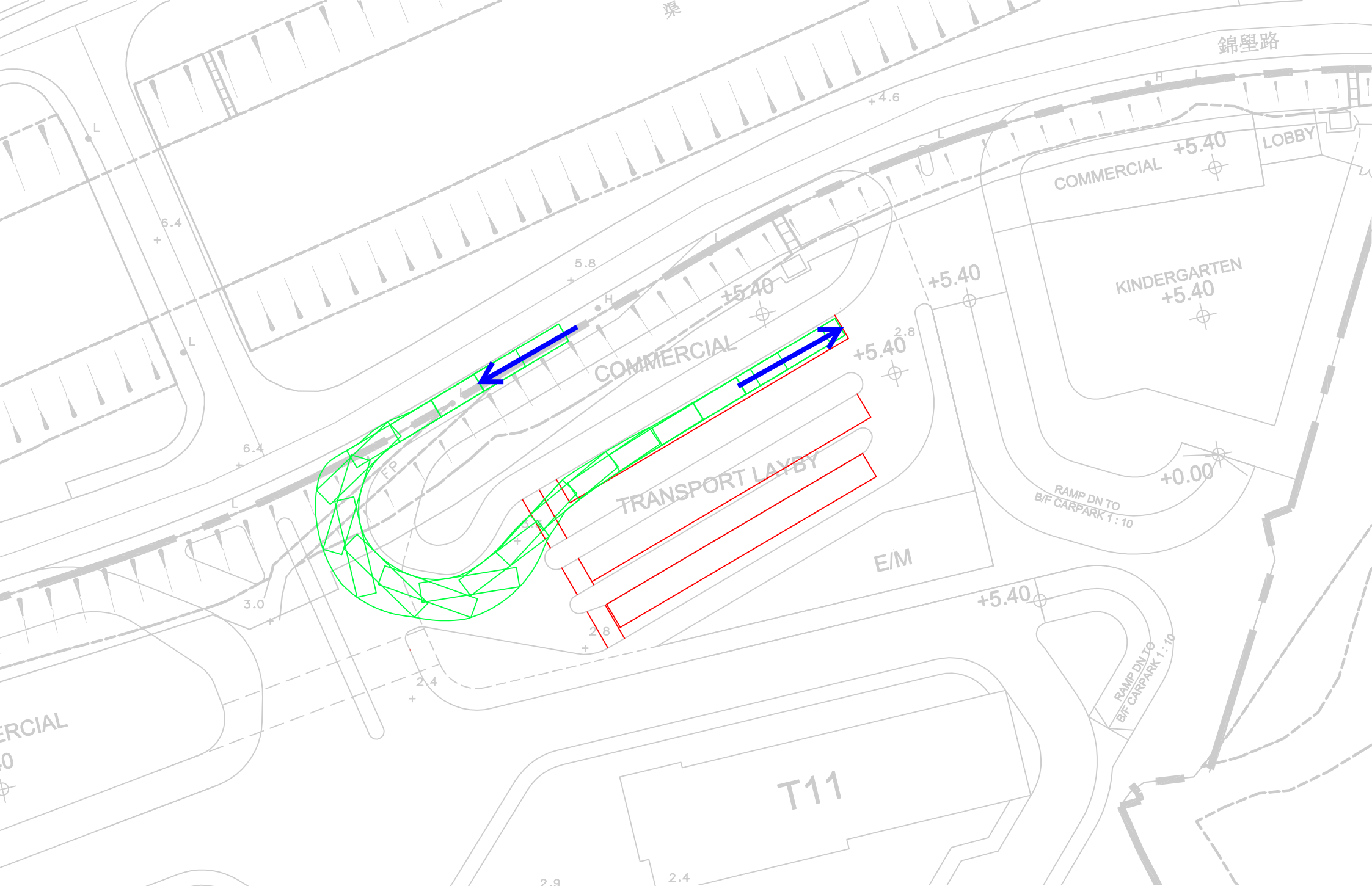
SK16 - Swept Path Analysis of 12.8m Bus (1)



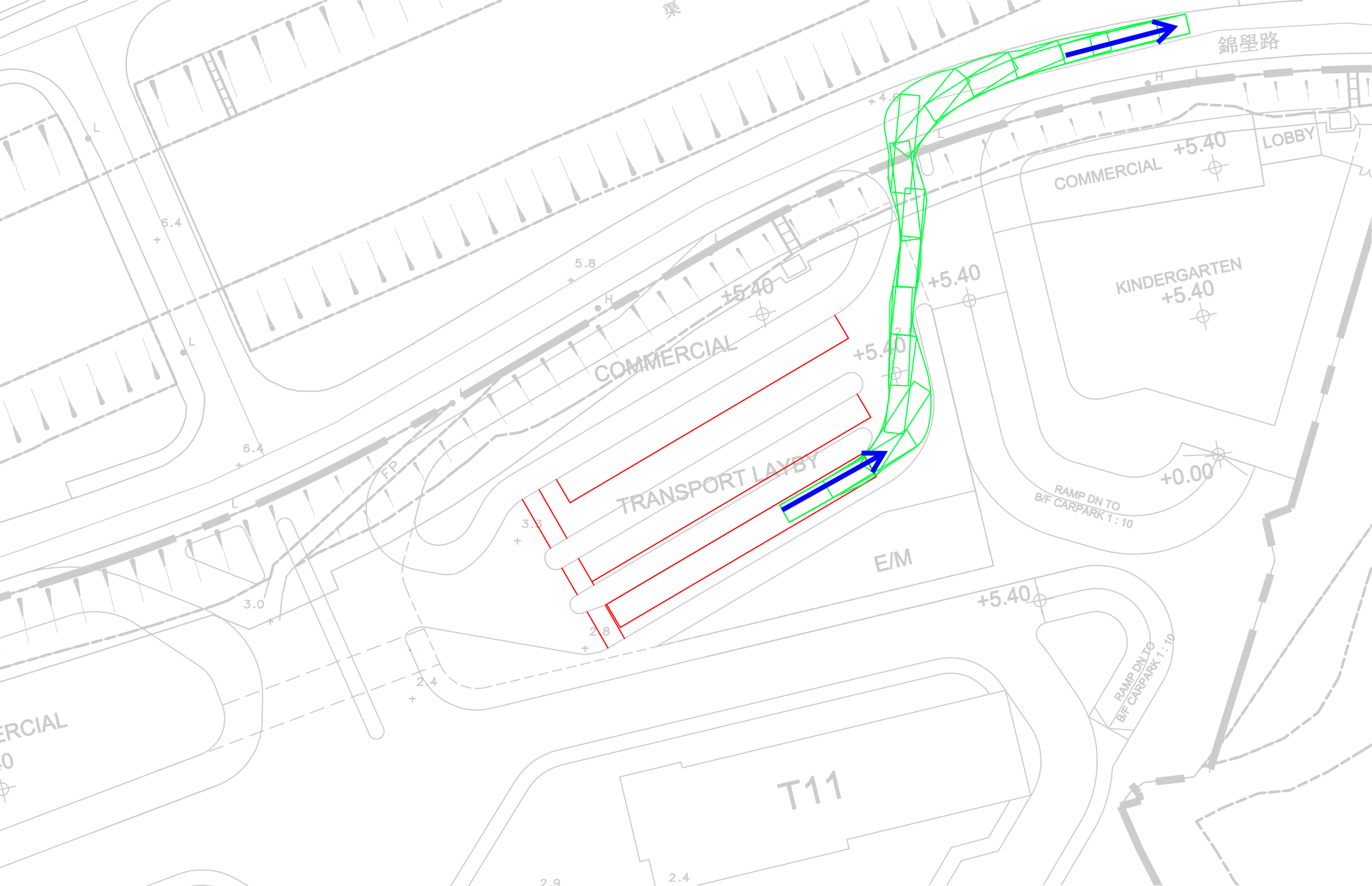
SK17 - Swept Path Analysis of 12.8m Bus (2)



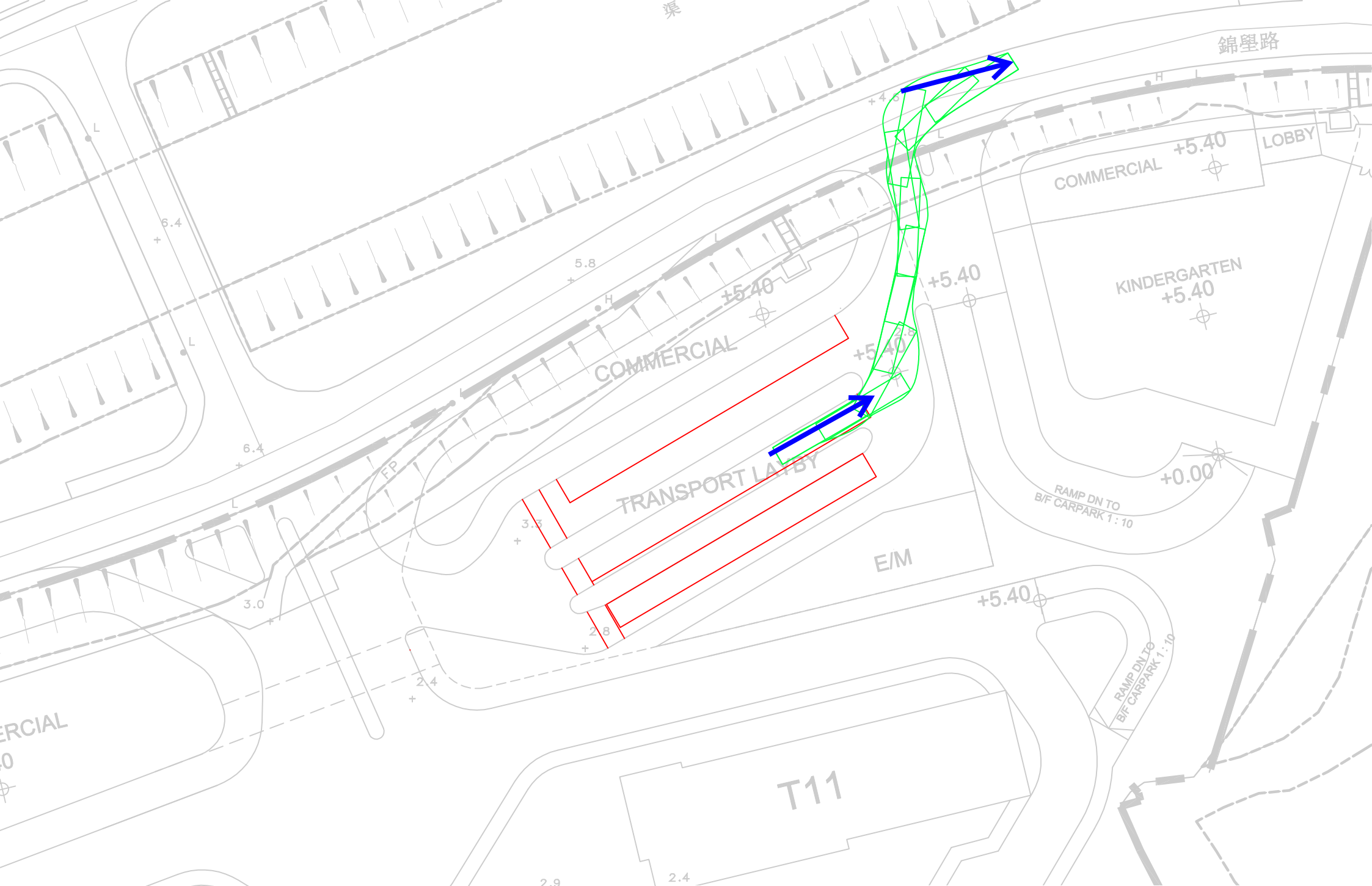
SK18 - Swept Path Analysis of 12.8m Bus (3)



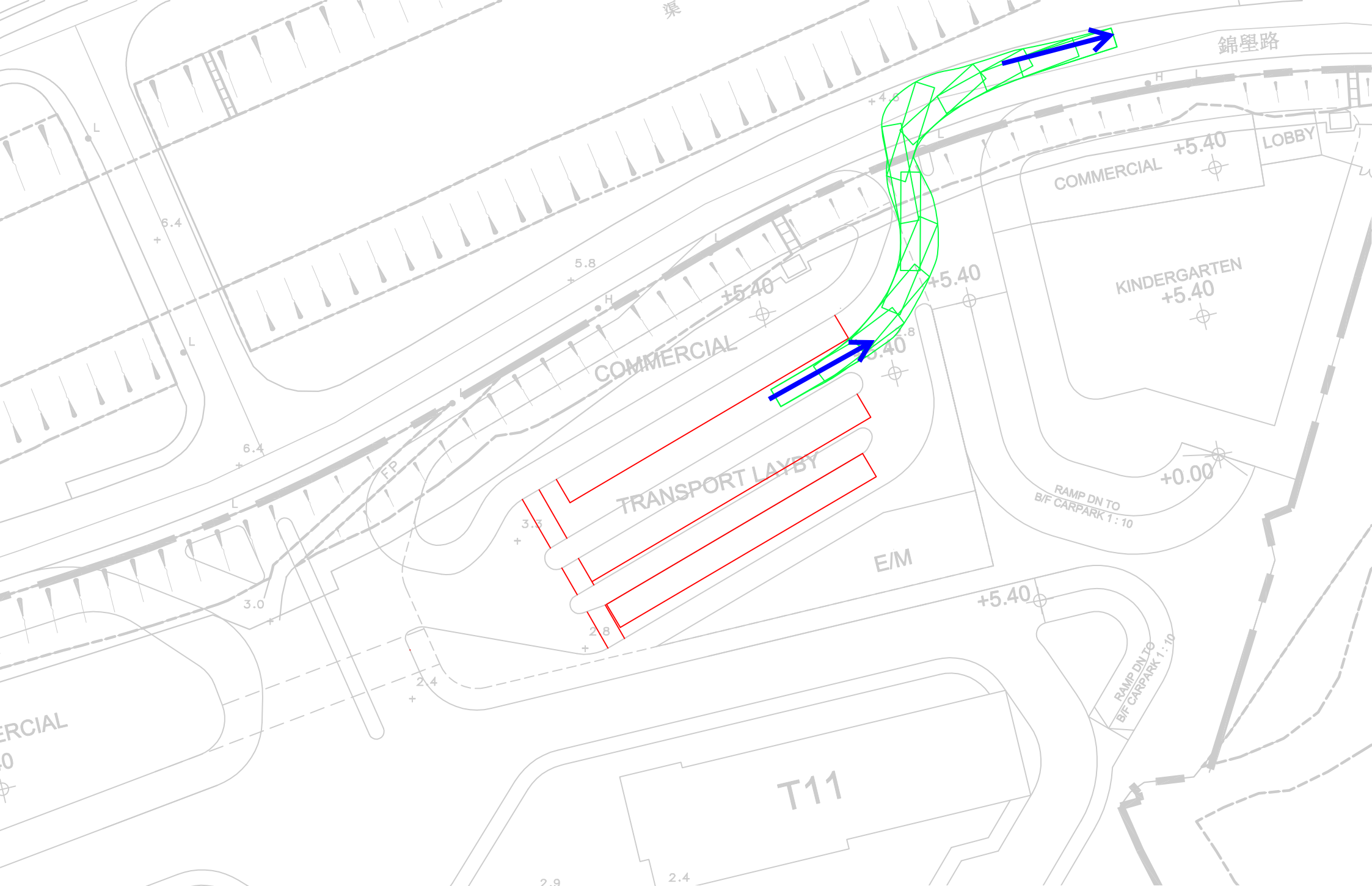
SK19 - Swept Path Analysis of 12.8m Bus (4)



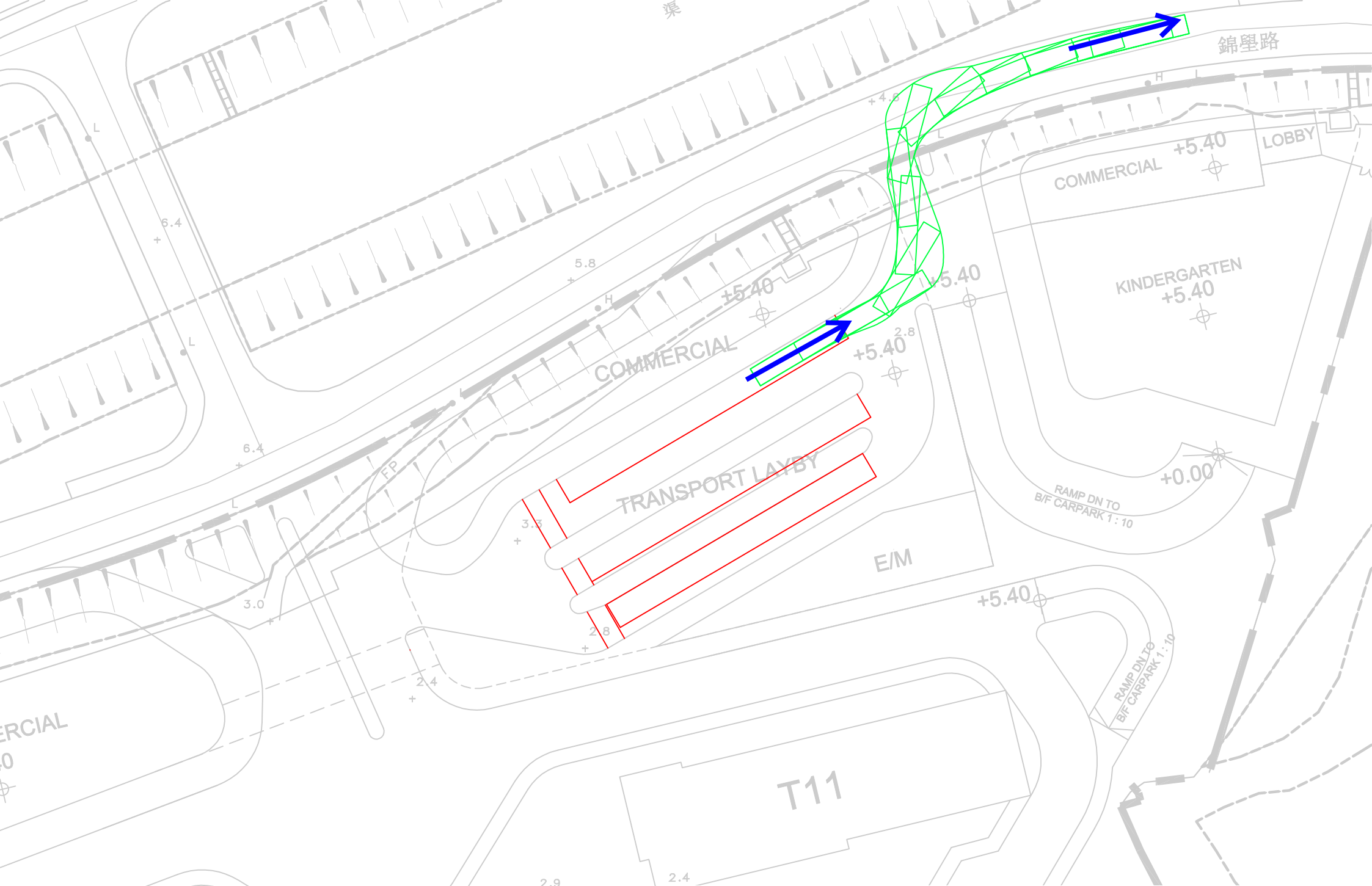
SK20 - Swept Path Analysis of 12.8m Bus (5)



SK21 - Swept Path Analysis of 12.8m Bus (6)



SK22 - Swept Path Analysis of 12.8m Bus (7)



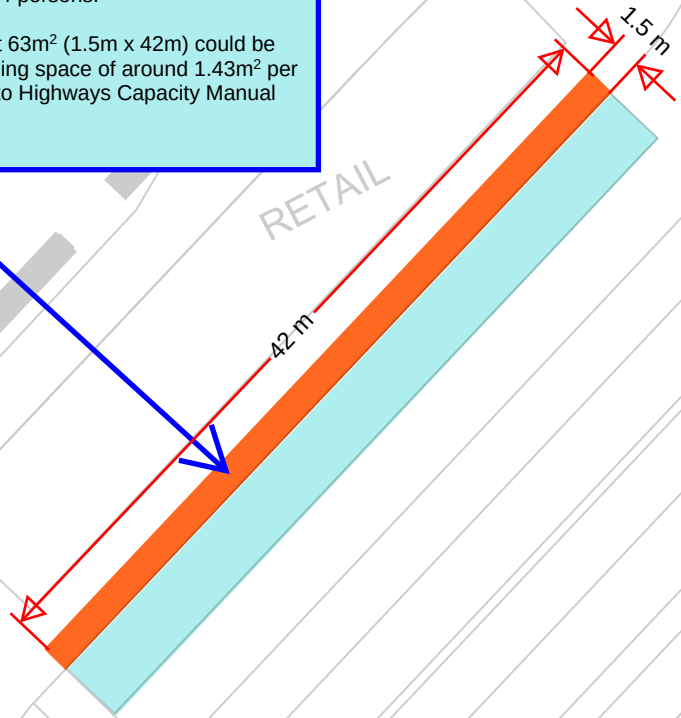
SK23 - Swept Path Analysis of 12.8m Bus (8)

Appendix B
LOS Assessment for Proposed Bus Stops

Based on the patronage demand as given in the TIA report, the hourly demand for the feeder service is 654 pax/hr (i.e. 6,270 x 1.83 x 0.12 x 0.73 x 0.65) at AM peak.

By assuming 60% of peak hour passengers occurs at peak 30 minutes (i.e. 13 passengers per minute), given a 4 minutes headway for the bus service, the maximum passenger queue would be around 44 persons.

As shown in the figure, a queuing area of about 63m^2 (1.5m x 42m) could be provided in this terminating point, giving a queuing space of around 1.43m^2 per passenger, thus could attain LOS A according to Highways Capacity Manual 2000.

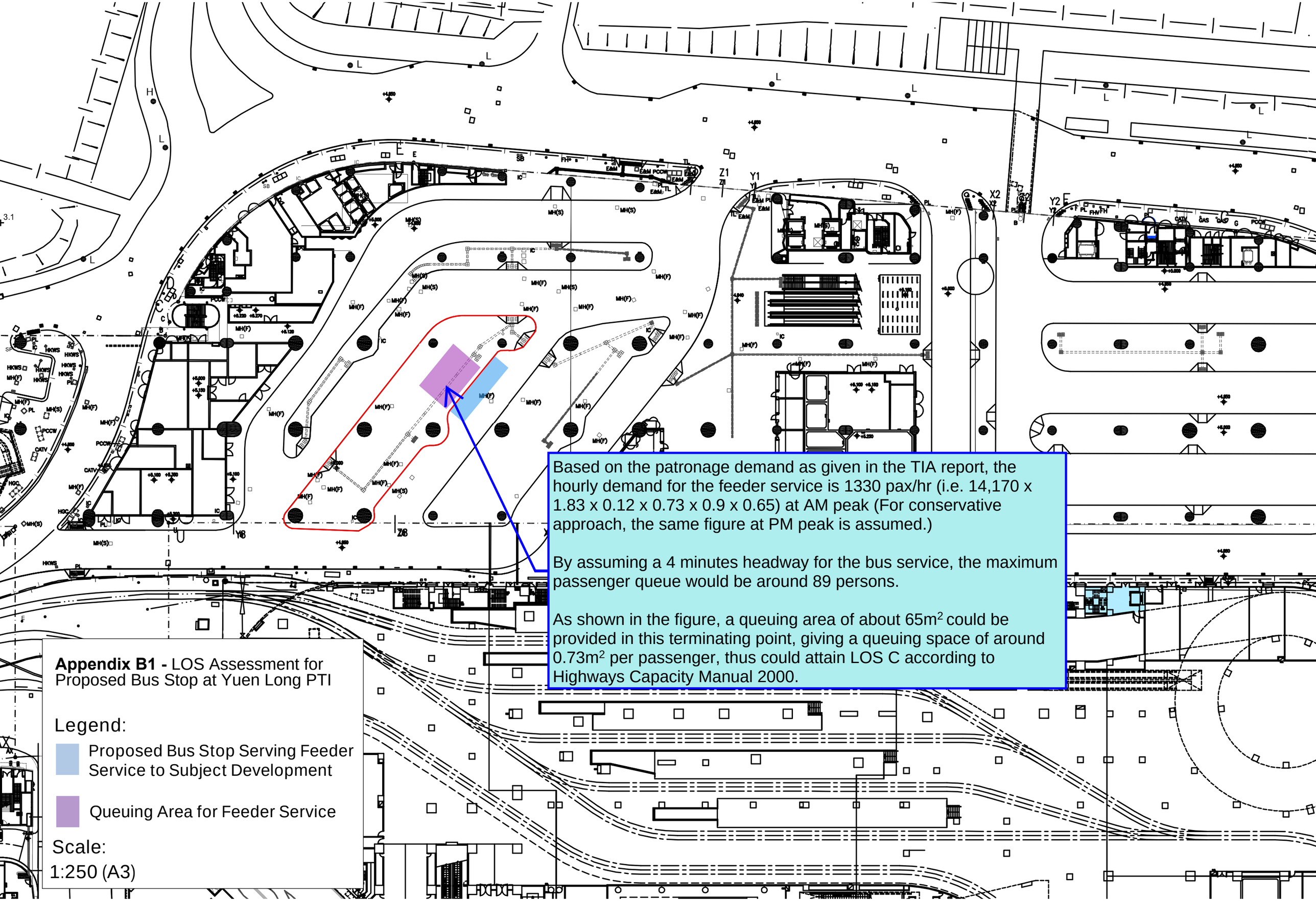


Appendix B2 - LOS Assessment for Proposed Bus Stop at R(D) Site Transport Layby

Proposed Bus Lay-by serving Feeder Service

Queuing Area for Feeder Service

Scale:
1:400 (A4)


Based on the patronage demand as given in the TIA report, the hourly demand for the feeder service is 1330 pax/hr (i.e. 14,170 x 1.83 x 0.12 x 0.73 x 0.9 x 0.65) at AM peak (For conservative approach, the same figure at PM peak is assumed.)
By assuming a 4 minutes headway for the bus service, the maximum passenger queue would be around 89 persons.
As shown in the figure, a queuing area of about 65m2 could be provided in this terminating point, giving a queuing space of around 0.73m2 per passenger, thus could attain LOS C according to Highways Capacity Manual 2000.
Appendix B1 - LOS Assessment for Proposed Bus Stop at Yuen Long PTI
Legend:
Proposed Bus Stop Serving Feeder Service to Subject Development
Queuing Area for Feeder Service
Scale:
1:250 (A3)

Appendix C
Preliminary Design of Directional Signs at Egresses of Application Site

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

LEGEND:

SITE BOUNDARY

823400 E

823600 E

823800 E

837700 N

837500 N

837300 N

N

5m FOOTPATH

3.5m FOOTPATH

NGAU TAM MEI CHANNEL

KAM POK ROAD

YAU POK ROAD

CHUK YUEN ROAD

FUNG CHUK ROAD

HA CHUK YUEN ROAD

Fairview Park Roundabout

錦綉花園交匯處

APPLICATION SITE

CHUK YUEN STORMWATER DETENTION POND

CHUK YUEN TSUEN

COMMERCIAL & GIC FACILITIES +14.40

COMMERCIAL & TRANSPORT LAYBY +15.40

RAMP ON TO B/F CARPARK +7.10

RAMP ON TO B/F CARPARK +7.10

E&M +10.40

COMMERCIAL +15.40

T1 15s +56.70

T2 15s +56.70

T3 14s +53.55

T5 14s +53.55

T6 16s +59.85

T7 16s +59.85

T8 16s +59.85

T9 16s +59.85

T10 16s +59.85

T11 16s +59.85

CLUBHOUSE +10.40

CLUBHOUSE +15.40

CLUBHOUSE +10.40

CLUBHOUSE +10.40

CLUBHOUSE +9.90

OUTDOOR SWIMMING POOL

LANDSCAPE POND

LANDSCAPE AREA +5.40

PRIVATE GARDEN

PRIVATE OPEN SPACE (OPEN FOR PUBLIC USE)

Chain link fence

HANG FOOK GARDENS

竹園村

Open Storage

Chuk Yuen Stormwater Pumping Station

AECOM

PROJECT
項目

S.12A PLANNING APPLICATION FOR REZONING VARIOUS LOTS & ADJACENT G.L. IN DD 104, "R(D)" SITE, KAM TIN, YUEN LONG

CLIENT
業主

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工程顧問公司

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STATUS
狀況

SCALE
比例

A3 1 : 2000

DIMENSION UNIT
尺寸單位

METRES

KEY PLAN
索引圖

PROJECT NO.
項目編號

60607989

CONTRACT NO.
合約編號

SHEET TITLE
圖紙名稱

PRELIMINARY DESIGN OF DIRECTIONAL SIGNS AT EGRESSES OF APPLICATION SITE

SHEET NUMBER
圖紙編號

Appendix C

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Appendix D

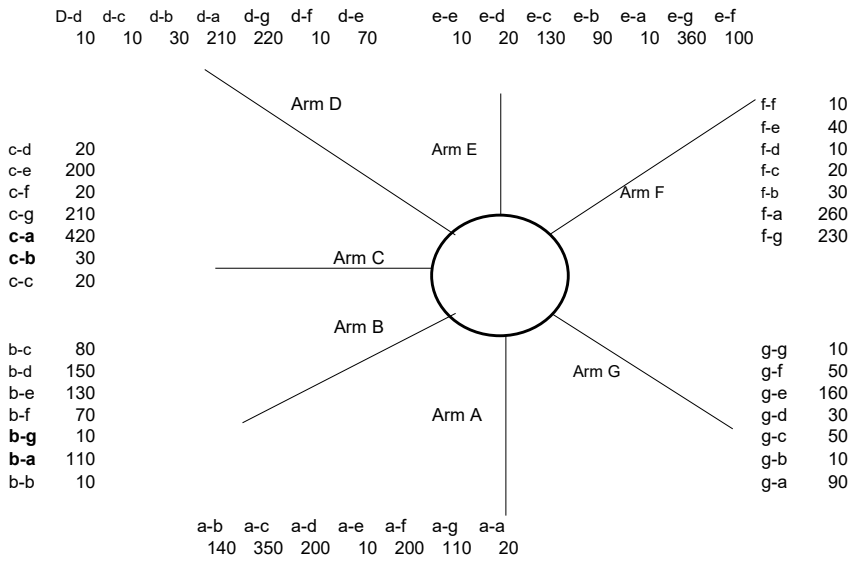
Junction Calculation Sheets

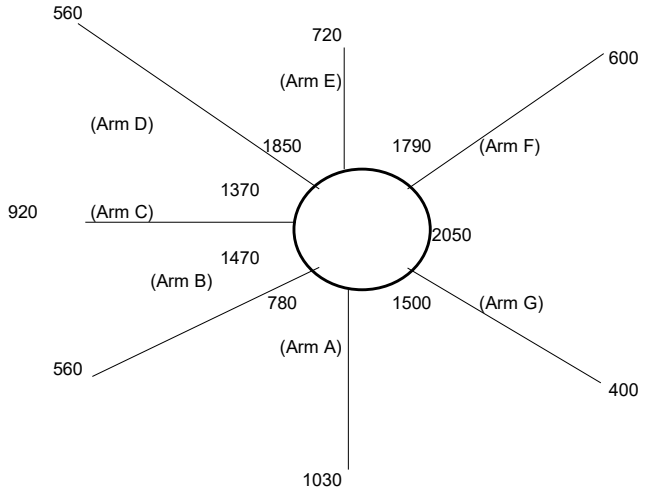
Observed Flow

ROUNDABOUT CAPACITY CALCULATIC

AECOM

Junction	Junction J1 - Fairview Roundabout	cenar	2021 AM Observed Flows	Project No.	Prepared By	Checked By	Date
				-	MK	JL	Sep 2024





ARM	A	B	C	D	E	F	G
INPUT PARAMETERS:							
V = Approach half width (m)	6.00	5.00	7.00	5.50	6.30	5.90	5.50
E = Entry width (m)	8.00	5.80	10.00	10.00	7.30	8.50	7.80
L = Effective length of flare (m)	10.00	5.00	10.00	16.00	4.50	10.00	5.00
R = Entry radius (m)	20.00	25.00	22.00	20.00	18.00	20.00	20.00
D = Inscribed circle diameter (m)	140.00	140.00	140.00	140.00	140.00	140.00	140.00
A = Entry angle (degree)	65.00	50.00	40.00	45.00	41.00	60.00	50.00
Q = Entry flow (pcu/h)	1030	560	920	560	720	600	400
Qc= Circulating flow across entry (pcu/h)	780	1470	1370	1850	1790	2050	1500
OUTPUT PARAMETERS:							
S = Sharpness of flare = 1.6(E-V)/L	0.32	0.26	0.48	0.45	0.36	0.42	0.74
K = 1-0.00347(A-30)-0.978(1/R-0.05)	0.88	0.94	0.97	0.95	0.96	0.90	0.93
X2= V + ((E-V)/(1+2S))	7.22	5.53	8.53	7.87	6.88	7.32	6.43
M = EXP((D-60)/10)	2981	2981	2981	2981	2981	2981	2981
F = 303*X2	2188	1675	2585	2384	2086	2218	1948
Td= 1+(0.5/(1+M))	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fc= 0.21*Td(1+0.2*X2)	0.51	0.44	0.57	0.54	0.50	0.52	0.48
Qe= K(F-Fc*Qc)	1570	964	1751	1312	1140	1036	1143
DFC = Design flow/Capacity = Q/Qe	0.66	0.58	0.53	0.43	0.63	0.58	0.35

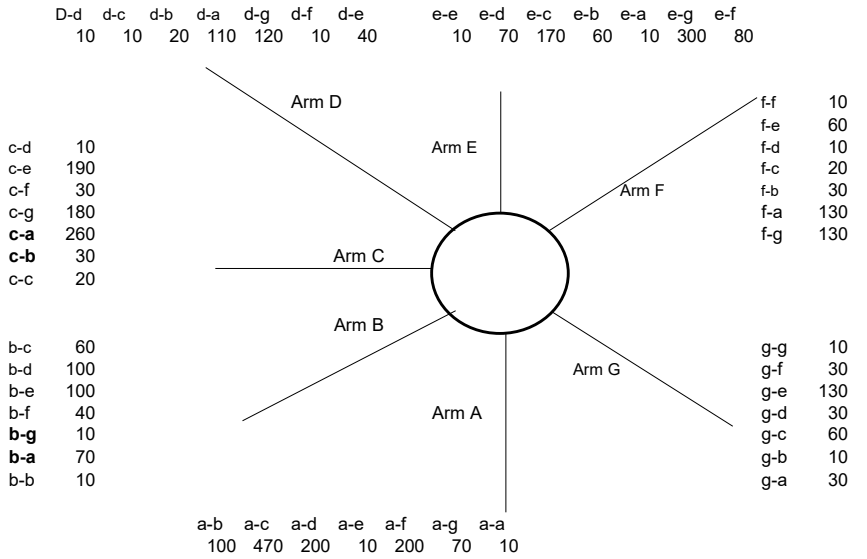
TOTAL ENTRY FLOWS = 4790 PCU

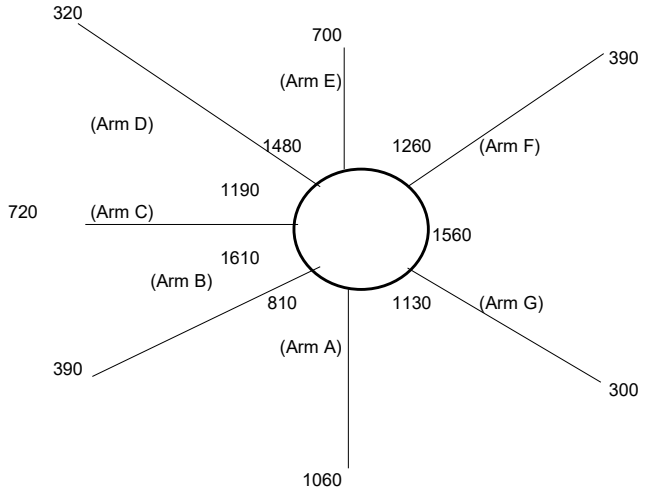
CRITICAL DFC = 0.66

ROUNDABOUT CAPACITY CALCULATIC

AECOM

Junction	Junction J1 - Fairview Roundabout	cenar	2021 PM Observed Flows	Project No.	Prepared By	Checked By	Date
				-	MK	JL	Sep 2024





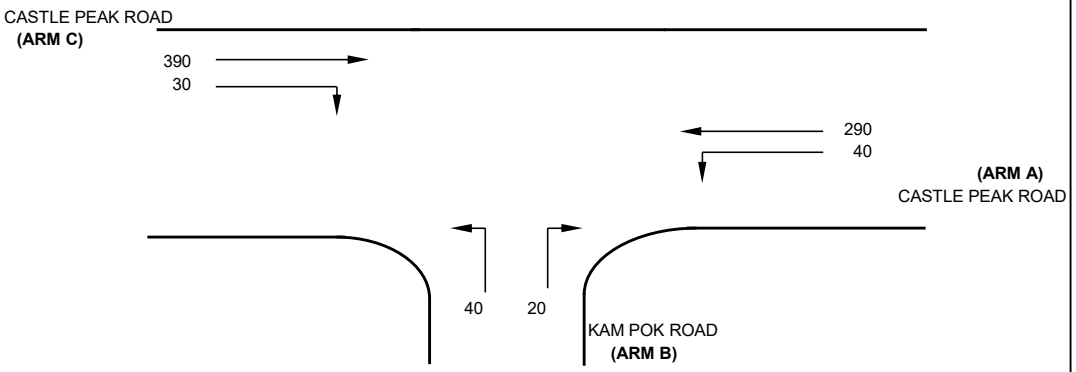
ARM	A	B	C	D	E	F	G
INPUT PARAMETERS:							
V = Approach half width (m)	6.00	5.00	7.00	5.50	6.30	5.90	5.50
E = Entry width (m)	8.00	5.80	10.00	10.00	7.30	8.50	7.80
L = Effective length of flare (m)	10.00	5.00	10.00	16.00	4.50	10.00	5.00
R = Entry radius (m)	20.00	25.00	22.00	20.00	18.00	20.00	20.00
D = Inscribed circle diameter (m)	140.00	140.00	140.00	140.00	140.00	140.00	140.00
A = Entry angle (degree)	65.00	50.00	40.00	45.00	41.00	60.00	50.00
Q = Entry flow (pcu/h)	1060	390	720	320	700	390	300
Qc= Circulating flow across entry (pcu/h)	810	1610	1190	1480	1260	1560	1130
OUTPUT PARAMETERS:							
S = Sharpness of flare = 1.6(E-V)/L	0.32	0.26	0.48	0.45	0.36	0.42	0.74
K = 1-0.00347(A-30)-0.978(1/R-0.05)	0.88	0.94	0.97	0.95	0.96	0.90	0.93
X2= V + ((E-V)/(1+2S))	7.22	5.53	8.53	7.87	6.88	7.32	6.43
M = EXP((D-60)/10)	2981	2981	2981	2981	2981	2981	2981
F = 303*X2	2188	1675	2585	2384	2086	2218	1948
Td= 1+(0.5/(1+M))	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fc= 0.21*Td(1+0.2*X2)	0.51	0.44	0.57	0.54	0.50	0.52	0.48
Qe= K(F-Fc*Qc)	1557	906	1851	1502	1393	1264	1308
DFC = Design flow/Capacity = Q/Qe	0.68	0.43	0.39	0.21	0.50	0.31	0.23

TOTAL ENTRY FLOWS = 3880 PCU

CRITICAL DFC = 0.68

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J2 - Castle Peak Road / Kam Pok Road	2021 AM 2021 Observed	Designed By :	Checked By :	Job No. :	Date : Dec 21



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.9 (metres)
W cr	=	0 (metres)
q a-b	=	40 (pcu/hr)
q a-c	=	290 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05 (metres)
Vr c-b	=	30 (metres)
q c-a	=	390 (pcu/hr)
q c-b	=	30 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	4.5 (metres)
W b-c	=	4.5 (metres)
Vl b-a	=	70 (metres)
Vr b-a	=	53 (metres)
Vr b-c	=	70 (metres)
q b-a	=	20 (pcu/hr)
q b-c	=	40 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.966072
E	=	1.031305
F	=	0.780782
Y	=	0.761950

THE CAPACITY OF MOVEMENT :

Q b-a	=	447
Q b-c	=	681
Q c-b	=	510
Q b-ac	=	580

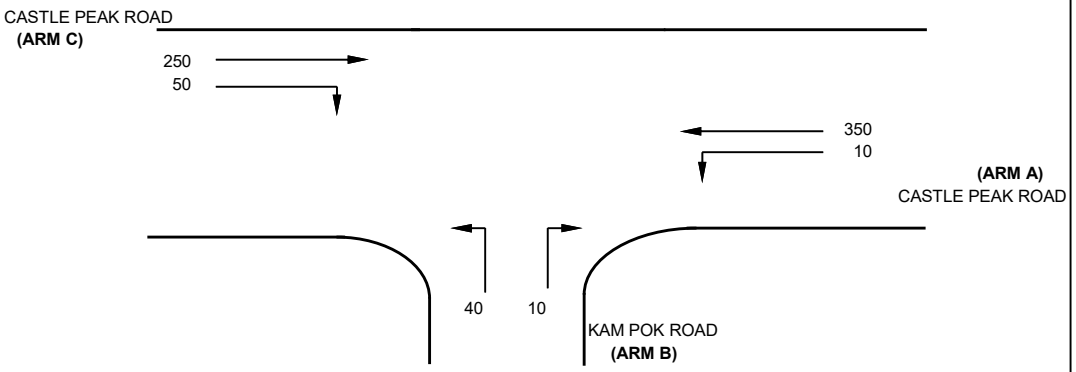
CRITICAL DFC = 0.10

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.04
DFC b-c	=	0.06
DFC c-b	=	0.06
DFC b-ac	=	0.10

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J2 - Castle Peak Road / Kam Pok Road	2021 PM 2021 Observed	Designed By :	Checked By :	Job No. :	Date : Dec 21



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.9 (metres)
W cr	=	0 (metres)
q a-b	=	10 (pcu/hr)
q a-c	=	350 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05 (metres)
Vr c-b	=	30 (metres)
q c-a	=	250 (pcu/hr)
q c-b	=	50 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	4.5 (metres)
W b-c	=	4.5 (metres)
Vl b-a	=	70 (metres)
Vr b-a	=	53 (metres)
Vr b-c	=	70 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	40 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.966072
E	=	1.031305
F	=	0.780782
Y	=	0.761950

THE CAPACITY OF MOVEMENT :

Q b-a	=	450
Q b-c	=	667
Q c-b	=	504
Q b-ac	=	608

CRITICAL DFC = 0.10

COMPARISION OF DESIGN FLOW TO CAPACITY :

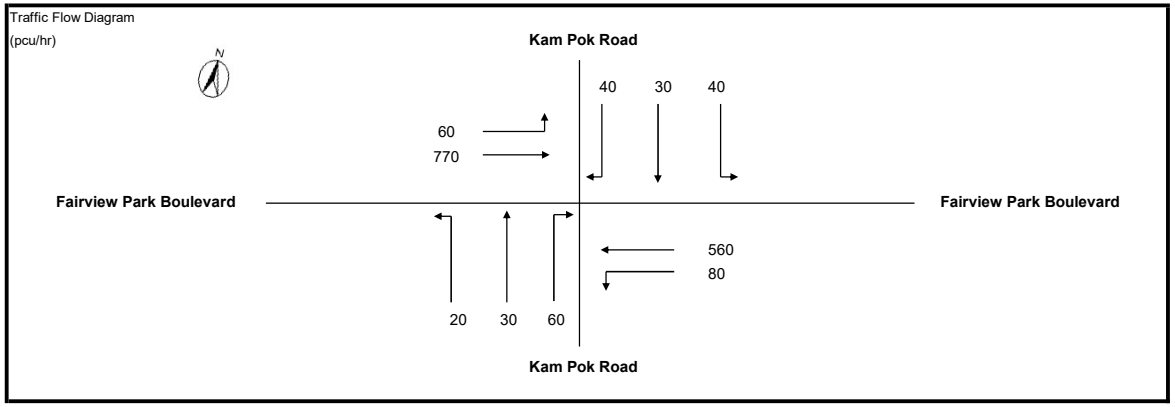
DFC b-a	=	0.02
DFC b-c	=	0.06
DFC c-b	=	0.10
DFC b-ac	=	0.08

JUNCTION CAPACITY CALCULATION

Junction J3 - Fairview Park Boulevard - Kam Pok Road	2021 AM Existing Traffic Flows	DESIGN: 0	CHECK: 0	JOB NO: -	DATE: Sep 24

J3

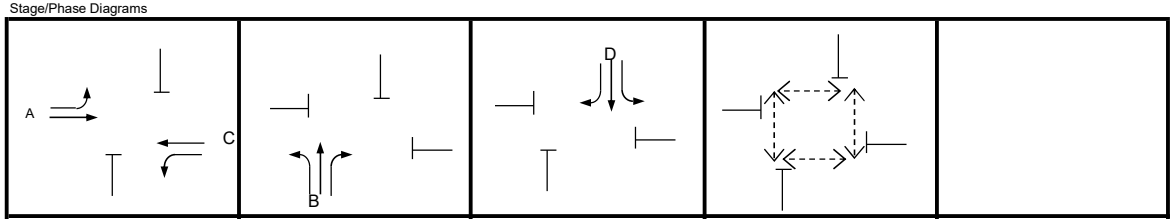
Traffic Flow Diagram
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	120	sec
Sum(y)	Y =	0.329	
Lost time	L =	44	sec
Total Flow	=	11,870	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	106	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	66	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.570	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	73.4	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	69	sec
Y_{max}	$= 1-L/C$	=	0.633	

Stage/Phase Diagrams



Stage 1	Stage 2	Stage 3	Stage 4	
I/G = 7	I/G = 7	I/G = 11	G = 10	I/G = 12

Critical Case : A,B,D,Ep

R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 73%

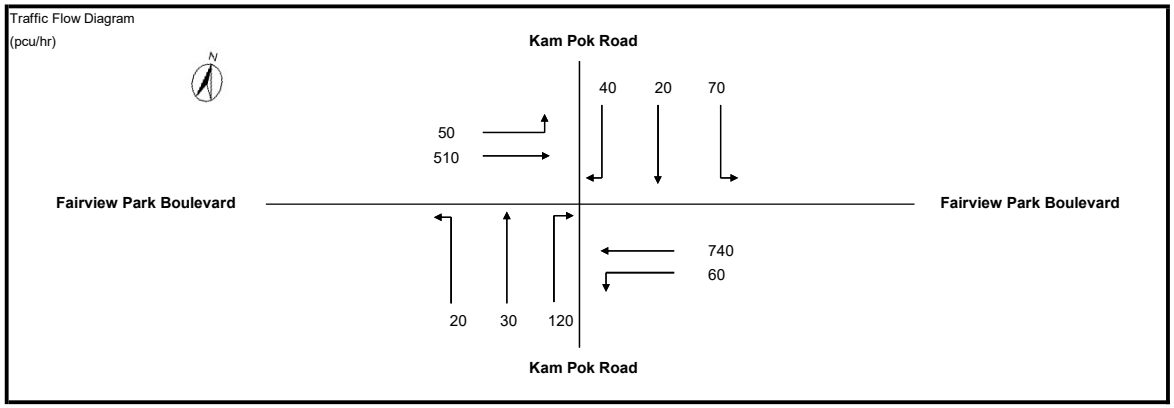
MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.300	1	15			1		0		1945	60	352		412	15%		1917	0.215	0.215
	A	1	3.300	1				1		0		1945		418		418			1945	0.215	
	B	2	3.600	1	13	20	0	1		0		1975	20	30	60	110	18%	55%	1860	0.059	0.059
	C	1	3.000	1	17			1		0		1915	80	234		314	25%		1873	0.168	
	C	1	3.300	1				1		0		1945		326		326			1945	0.168	
	D	3	5.300	1	15.5	17.5	0	1		0		2145	40	30	40	110	36%	36%	2012	0.055	0.055
Pedestrian Crossing				GM		FGM															
	Ep	4	min.	10	+	9	=	19	sec												*

JUNCTION CAPACITY CALCULATION

Junction J3 - Fairview Park Boulevard - Kam Pok Road	2021 PM Existing Traffic Flows	DESIGN: 0	CHECK: 0	JOB NO: -	DATE: Sep 24

J3

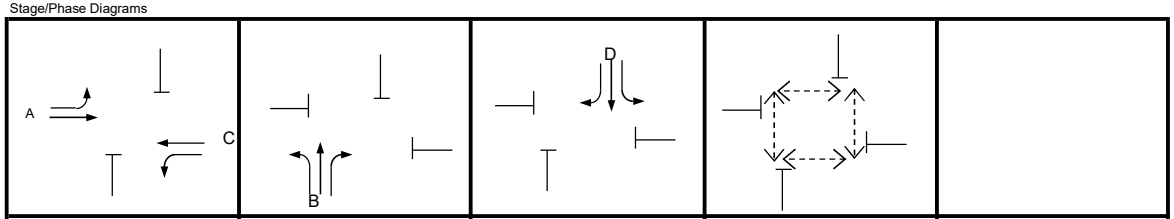
Traffic Flow Diagram
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	120	sec
Sum(y)	Y =	0.366	
Lost time	L =	44	sec
Total Flow	=	11,870	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	112	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	69	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.570	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	55.8	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	74	sec
Y_{max}	$= 1-L/C$	=	0.633	

Stage/Phase Diagrams



I/G = 7 I/G = 7 I/G = 11 G = 10 I/G = 12

Critical Case : B,C,D,Ep

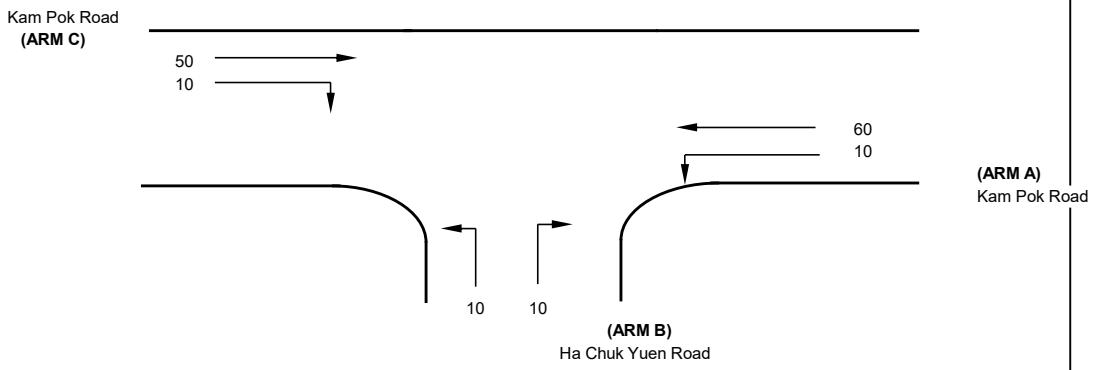
R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 56%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.300	1	15			1		0		1945	50	228		278	18%		1911	0.145	
	A	1	3.300	1				1		0		1945		283		283			1945	0.145	
	B	2	3.600	1	13	20	0	1		0		1975	20	30	120	170	12%	71%	1852	0.092	0.092
	C	1	3.000	1	17			1		0		1915	60	334		394	15%		1890	0.209	0.209
	C	1	3.300	1				1		0		1945		406		406			1945	0.209	
	D	3	5.300	1	15.5	17.5	0	1		0		2145	70	20	40	130	54%	31%	1989	0.065	0.065
Pedestrian Crossing				GM		FGM															
	Ep	4	min.	10	+	9	=	19	sec												*

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

J4 - Kam Pok Road - Ha Chuk Yuen Road	2021 AM Observed Traffic Flows	Designed By : MKCN	Checked By : SHSN	Job No. : -	Date : Sep 24



J4

NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.7)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.7)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.7)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	9.3 (metres)
W cr	=	0 (metres)
q a-b	=	10 (pcu/hr)
q a-c	=	60 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.5 (metres)
Vr c-b	=	50 (metres)
q c-a	=	50 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	2.05 (metres)
W b-c	=	2.05 (metres)
Vl b-a	=	50 (metres)
Vr b-a	=	50 (metres)
Vr b-c	=	50 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	10 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.748311
E	=	0.796075
F	=	0.923788
Y	=	0.679150

THE CAPACITY OF MOVEMENT :

Q b-a	=	449
Q b-c	=	580
Q c-b	=	672
Q b-ac	=	506

CRITICAL DFC = 0.04

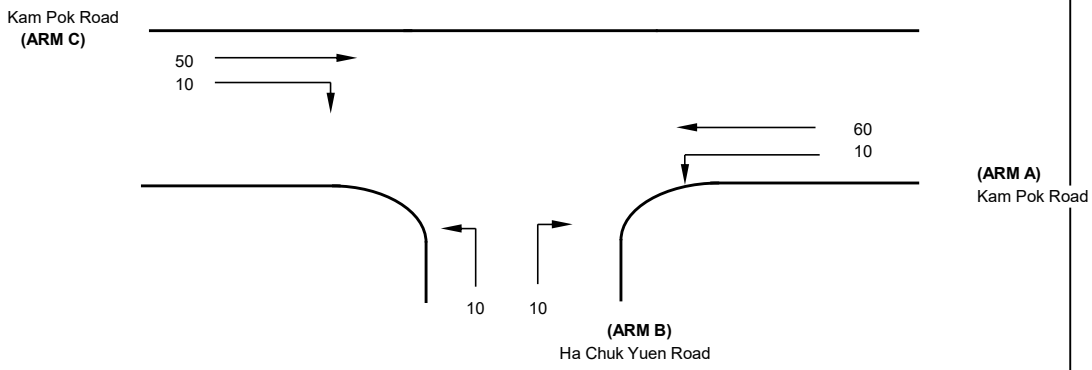
COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.02
DFC b-c	=	0.02
DFC c-b	=	0.01
DFC b-ac	=	0.04

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

J4 - Kam Pok Road - Ha Chuk Yuen Road	2021 PM Observed Traffic Flows	Designed By : MKCN	Checked By : SHSN	Job No. : -	Date : Sep 24



J4

NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.7)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.7)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.7)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	9.3 (metres)
W cr	=	0 (metres)
q a-b	=	10 (pcu/hr)
q a-c	=	60 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.5 (metres)
Vr c-b	=	50 (metres)
q c-a	=	50 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	2.05 (metres)
W b-c	=	2.05 (metres)
Vl b-a	=	50 (metres)
Vr b-a	=	50 (metres)
Vr b-c	=	50 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	10 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.748311
E	=	0.796075
F	=	0.923788
Y	=	0.679150

THE CAPACITY OF MOVEMENT :

Q b-a	=	449
Q b-c	=	580
Q c-b	=	672
Q b-ac	=	506

CRITICAL DFC = 0.04

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.02
DFC b-c	=	0.02
DFC c-b	=	0.01
DFC b-ac	=	0.04

TRL LIMITED

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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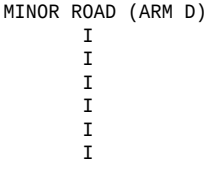
Run with file:- "C:\Users\Sam.Wong\Downloads\21OBS_KPR-PWSR_V1.vpi" (drive-on-the-left) at 16:02:22 on Wednesday, 11 September 2024

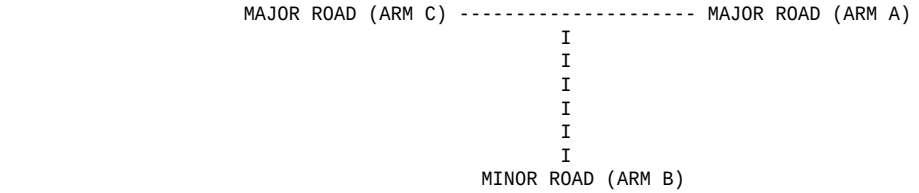
.RUN INFORMATION

RUN TITLE	: 2021 Observed - Kam Pok Road/ Pok Wai South Road
LOCATION	:
DATE	: 21/12/13
CLIENT	:
ENUMERATOR	: nokhinnaomi.tam [HKSHT1PC0702]
JOB NUMBER	:
STATUS	:
DESCRIPTION	:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA





ARM A IS Kam Pok Road
ARM B IS Pok Wai South Road
ARM C IS Kam Pok Road West
ARM D IS Kam Pok Road

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD
MINOR ROAD D	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH (W)	8.80
CENTRAL RESERVE WIDTH (WCR)	0.00
MAJOR ROAD RIGHT TURN - WIDTH (WA-D)	2.20
- VISIBILITY (VA-D)	50.00
- BLOCKS TRAFFIC (SPACES) (0)	YES (0)
MINOR ROAD - VISIBILITY TO LEFT (VD-A)	50.0
- VISIBILITY TO RIGHT (VD-C)	50.0
- LANE 1 WIDTH (WD-A)	5.00
- LANE 2 WIDTH (WD-C)	0.00
(VB-C)	50.0
(VB-A)	50.0
(WB-C)	2.20
(WB-A)	0.00

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
I 602.92	0.21	0.08	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I 786.65	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For OpposingI STREAM D-B	I
I 476.98	0.19	0.19	0.19	0.19	I

I	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For OpposingI STREAM D-C	I
I	0.08	0.12	0.28	0.10	I

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For OpposingI STREAM B-D	I
I 622.33	0.25	0.25	0.25	0.25	I

STREAM D-C

I	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For OpposingI STREAM B-A	I
I	0.10	0.16	0.36	0.13	I

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For OpposingI STREAM A-D	I
I 602.92	0.21	0.21	0.29	I

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For OpposingI STREAM C-D	I
I 602.92	0.21	0.29	0.21	I

B-D Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B
STREAM C-B	I		
I 476.98	0.19	0.19	0.08
0.28	I		

I	Slope For Opposing	Slope For Opposing	Slope For Opposing
I	STREAM C-A	STREAM C-D	
I	0.12	0.12	
	I		

B-D Stream From Right Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B
STREAM C-B	I		
I 476.98	0.19	0.19	0.08
0.28	I		

I	Slope For Opposing	Slope For Opposing	Slope For Opposing
I	STREAM C-A	STREAM C-D	
I	0.12	0.12	
	I		

D-B Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM D-B	STREAM C-A	STREAM C-B	STREAM C-D
STREAM A-D	I		
I 622.33	0.25	0.25	0.10
0.36	I		

I	Slope For Opposing	Slope For Opposing	Slope For Opposing
I	STREAM A-C	STREAM A-B	
I	0.16	0.16	
	I		

D-B Stream From Right Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM B-D	STREAM C-A	STREAM C-B	STREAM C-D
STREAM A-D	I		
I 622.33	0.25	0.25	0.10
0.36	I		

```
-------------------------------------------------------------------------------
-----------------

-------------------------------------------------------------------------------
-----------------
 I              Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I               STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
-----------------
 I                      0.16               0.16
               I

-------------------------------------------------------------------------------
-----------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        2023 Observed AM - Kam Pok Road/ Pok Wai South Road


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
---
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
  I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
  I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
  I
 I        I             I             I            I        I         I
  I

-------------------------------------------------------------------------------
---
 I ARM  A I     15.00   I     45.00   I    75.00   I  3.38  I   5.06  I  3.38
  I
 I ARM  B I     15.00   I     45.00   I    75.00   I  0.38  I   0.56  I  0.38
  I
 I ARM  C I     15.00   I     45.00   I    75.00   I  2.50  I   3.75  I  2.50
  I
 I ARM  D I     15.00   I     45.00   I    75.00   I  1.50  I   2.25  I  1.50
  I

-------------------------------------------------------------------------------
---

.Demand set:        2023 Observed AM - Kam Pok Road/ Pok Wai South Road
 ----------------------------------------------------------------
 I                    I         TURNING PROPORTIONS               I
 I                    I         TURNING COUNTS                    I
 I                    I        (PERCENTAGE OF H.V.S)              I
 I                    ------------------------------------------
 I        TIME        I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ----------------------------------------------------------------
 I   08.00 - 09.30    I         I        I        I        I        I
 I                    I ARM  A  I  0.000 I  0.037 I  0.741 I  0.222 I
 I                    I         I    0.0 I   10.0 I  200.0 I   60.0 I
 I                    I         I (  0.0)I ( 10.0)I ( 10.0)I ( 10.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  B  I  0.333 I  0.000 I  0.333 I  0.333 I
 I                    I         I   10.0 I    0.0 I   10.0 I   10.0 I
 I                    I         I ( 10.0)I (  0.0)I ( 10.0)I ( 10.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  C  I  0.700 I  0.100 I  0.000 I  0.200 I
 I                    I         I  140.0 I   20.0 I    0.0 I   40.0 I
 I                    I         I ( 10.0)I ( 10.0)I (  0.0)I ( 10.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  D  I  0.417 I  0.083 I  0.500 I  0.000 I
 I                    I         I   50.0 I   10.0 I   60.0 I    0.0 I
 I                    I         I ( 10.0)I ( 10.0)I ( 10.0)I (  0.0)I
 I                    I         I        I        I        I        I
 ----------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
 DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ---------------------------------------------------------
                FOR DEMAND SET         2023 Observed AM - Kam Pok Road/ Pok Wai
South Road
                AND FOR TIME PERIOD        1
.-------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
  (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                                I
```

I								
I	B-ACD	0.38	6.81	0.055	0.00	0.06	0.8	
I								
I	A-B	0.13						
I								
I	A-C	2.51						
I								
I	A-D	0.75	8.60	0.088	0.00	0.10	1.4	
I								
I	D-ABC	1.51	9.24	0.163	0.00	0.19	2.8	
I								
I	C-ABD	0.32	9.93	0.032	0.00	0.04	0.6	
I								
I	C-D	0.49						
I								
I	C-A	1.70						
I								
I								
I								

I TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I	(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I			(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I 08.15-08.30										
I										
I B-ACD	0.45	6.62	0.068	0.06	0.07	1.1				
I										
I A-B	0.15									
I										
I A-C	3.00									
I										
I A-D	0.90	8.49	0.106	0.10	0.12	1.7				
I										
I D-ABC	1.80	9.02	0.199	0.19	0.25	3.6				
I										
I C-ABD	0.40	10.09	0.040	0.04	0.06	0.8				
I										
I C-D	0.58									
I										
I C-A	2.02									
I										
I										
I										

I TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I	(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I			(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I 08.30-08.45										
I										
I B-ACD	0.55	6.35	0.087	0.07	0.09	1.4				
I										
I A-B	0.18									
I										
I A-C	3.67									
I										
I A-D	1.10	8.35	0.132	0.12	0.15	2.2				
I										
I D-ABC	2.20	8.71	0.253	0.25	0.33	4.9				
I										
I C-ABD	0.53	10.32	0.051	0.06	0.08	1.2				
I										
I C-D	0.70									
I										
I C-A	2.44									
I										
I										

I TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY	GEOMETRIC DELAY	AVERAGE DELAY	I
I	(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/	(VEH.MIN/	PER ARRIVING	I
I			(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)	TIME SEGMENT)	VEHICLE (MIN)	I
I 08.45-09.00										
I										
I B-ACD	0.55	6.35	0.087	0.09	0.09	1.4				
I										
I A-B	0.18									
I										
I A-C	3.67									
I										
I A-D	1.10	8.35	0.132	0.15	0.15	2.3				
I										
I D-ABC	2.20	8.71	0.253	0.33	0.34	5.0				
I										
I C-ABD	0.53	10.32	0.051	0.08	0.08	1.2				
I										
I C-D	0.70									
I										
I C-A	2.44									
I										
I										

```
                                I
.-------------------------------------------------------------------------------
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.-------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                                I
 I   B-ACD     0.45      6.61    0.068               0.09   0.07        1.1
                                I
 I   A-B       0.15
                                I
 I   A-C       3.00
                                I
 I   A-D       0.90      8.49    0.106               0.15   0.12        1.8
                                I
 I   D-ABC     1.80      9.01    0.199               0.34   0.25        3.9
                                I
 I   C-ABD     0.41     10.09    0.040               0.08   0.06        0.9
                                I
 I   C-D       0.58
                                I
 I   C-A       2.02
                                I
 I
                                I
.-------------------------------------------------------------------------------
---------------------------------

.-------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                                I
 I   B-ACD     0.38      6.81    0.055               0.07   0.06        0.9
                                I
 I   A-B       0.13
                                I
 I   A-C       2.51
                                I
 I   A-D       0.75      8.60    0.088               0.12   0.10        1.5
                                I
 I   D-ABC     1.51      9.23    0.163               0.25   0.20        3.0
                                I
 I   C-ABD     0.32      9.93    0.033               0.06   0.04        0.7
                                I
 I   C-D       0.49
                                I
 I   C-A       1.70
                                I
 I
                                I
.-------------------------------------------------------------------------------
---------------------------------
*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    A-D
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.2
   09.00           0.2
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    D-ABC
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.2
   08.30           0.2
   08.45           0.3
   09.00           0.3
   09.15           0.3
   09.30           0.2
.
 QUEUE FOR STREAM    C-ABD
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.1
```

08.45	0.1
09.00	0.1
09.15	0.1
09.30	0.0

.

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-ACD	41.3	27.5	6.7	0.16	6.7	0.16
A-B	13.8	9.2				
A-C	275.3	183.5				
A-D	82.6	55.1	10.9	0.13	10.9	0.13
D-ABC	165.2	110.1	23.2	0.14	23.2	0.14
C-ABD	37.8	25.2	5.4	0.14	5.4	0.14
C-D	52.8	35.2				
C-A	184.7	123.2				
ALL	853.4	568.9	46.2	0.05	46.2	0.05

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
602.92	0.21	0.08

STREAM D-A

Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D
786.65	0.27	0.11

STREAM B-A

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For Opposing STREAM D-B
476.98	0.19	0.19	0.19	0.19

Intercept For	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM D-C
	0.08	0.12	0.28	0.10

STREAM D-C

Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For Opposing STREAM B-D
622.33	0.25	0.25	0.25	0.25

I	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I	STREAM C-D	STREAM A-C	STREAM A-D	STREAM B-A I
I	0.10	0.16	0.36	0.13 I

STREAM C-B

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM C-B	STREAM A-B	STREAM A-C	STREAM A-D I
I 602.92	0.21	0.21	0.29 I

STREAM A-D

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM A-D	STREAM C-A	STREAM C-B	STREAM C-D I
I 602.92	0.21	0.29	0.21 I

B-D Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B
STREAM C-B I			
I 476.98	0.19	0.19	0.08
0.28 I			

I	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For Opposing I			
I	STREAM C-A	STREAM C-D	
I	0.12	0.12	
I			

B-D Stream From Right Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For Opposing I			
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B
STREAM C-B I			
I 476.98	0.19	0.19	0.08
0.28 I			

I	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For Opposing I			
I	STREAM C-A	STREAM C-D	
I	0.12	0.12	
I			

D-B Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For Opposing I			
I STREAM D-B	STREAM C-A	STREAM C-B	STREAM C-D
STREAM A-D I			
I 622.33	0.25	0.25	0.10
0.36 I			

```
--------------------------------------------------------------------------------
----------------

--------------------------------------------------------------------------------
----------------
 I              Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I               STREAM  A-C          STREAM A-B

--------------------------------------------------------------------------------
----------------
 I                       0.16               0.16
               I

--------------------------------------------------------------------------------
----------------


 D-B Stream From Right Hand Lane

--------------------------------------------------------------------------------
----------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

--------------------------------------------------------------------------------
----------------
 I     622.33           0.25               0.25                0.10
     0.36       I

--------------------------------------------------------------------------------
----------------

--------------------------------------------------------------------------------
----------------
 I              Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I               STREAM  A-C          STREAM A-B

--------------------------------------------------------------------------------
----------------
 I                       0.16               0.16
               I

--------------------------------------------------------------------------------
----------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        2023 Observed PM - Kam Pok Road/ Pok Wai South Road


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


--------------------------------------------------------------------------------
---
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
  I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
  I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
  I
 I        I             I             I            I        I         I
  I

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---
 I ARM  A I     15.00   I     45.00   I    75.00   I  2.63  I   3.94  I  2.63
  I
 I ARM  B I     15.00   I     45.00   I    75.00   I  0.50  I   0.75  I  0.50
  I
 I ARM  C I     15.00   I     45.00   I    75.00   I  3.00  I   4.50  I  3.00
  I
 I ARM  D I     15.00   I     45.00   I    75.00   I  1.13  I   1.69  I  1.13
  I

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.Demand set:        2023 Observed PM - Kam Pok Road/ Pok Wai South Road
 ------------------------------------------------------------------
 I                    I        TURNING PROPORTIONS                I
 I                    I        TURNING COUNTS                     I
 I                    I       (PERCENTAGE OF H.V.S)               I
 I                    ---------------------------------------------
 I        TIME        I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ------------------------------------------------------------------
 I   08.00 - 09.30    I         I       I       I       I       I
 I                    I ARM  A  I  0.000 I  0.048 I  0.619 I  0.333 I
 I                    I         I    0.0 I   10.0 I  130.0 I   70.0 I
 I                    I         I (  0.0)I ( 10.0)I ( 10.0)I ( 10.0)I
 I                    I         I       I       I       I       I
```

```
 I                   I ARM  B  I  0.250 I  0.000 I  0.250 I  0.500 I
 I                   I         I   10.0 I    0.0 I   10.0 I   20.0 I
 I                   I         I ( 10.0)I (  0.0)I ( 10.0)I ( 10.0)I
 I                   I         I        I        I        I        I
 I                   I ARM  C  I  0.625 I  0.042 I  0.000 I  0.333 I
 I                   I         I  150.0 I   10.0 I    0.0 I   80.0 I
 I                   I         I ( 10.0)I ( 10.0)I (  0.0)I ( 10.0)I
 I                   I         I        I        I        I        I
 I                   I ARM  D  I  0.667 I  0.111 I  0.222 I  0.000 I
 I                   I         I   60.0 I   10.0 I   20.0 I    0.0 I
 I                   I         I ( 10.0)I ( 10.0)I ( 10.0)I (  0.0)I
 I                   I         I        I        I        I        I
 ------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
 DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ---------------------------------------------------------
                FOR DEMAND SET         2023 Observed PM - Kam Pok Road/ Pok Wai
South Road
                AND FOR TIME PERIOD        1
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---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                                I
 I   B-ACD     0.50      6.80    0.074               0.00   0.08        1.1
                                I
 I   A-B       0.13
                                I
 I   A-C       1.63
                                I
 I   A-D       0.88      8.51    0.103               0.00   0.11        1.6
                                I
 I   D-ABC     1.13     10.02    0.113               0.00   0.13        1.8
                                I
 I   C-ABD     0.17     10.48    0.016               0.00   0.02        0.3
                                I
 I   C-D       0.99
                                I
 I   C-A       1.85
                                I
 I
                                I
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---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                                I
 I   B-ACD     0.60      6.64    0.090               0.08   0.10        1.4
                                I
 I   A-B       0.15
                                I
 I   A-C       1.95
                                I
 I   A-D       1.05      8.38    0.125               0.11   0.14        2.1
                                I
 I   D-ABC     1.35      9.84    0.137               0.13   0.16        2.3
                                I
 I   C-ABD     0.22     10.75    0.020               0.02   0.02        0.4
                                I
 I   C-D       1.18
                                I
 I   C-A       2.20
                                I
 I
                                I
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---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                                I
 I   B-ACD     0.73      6.41    0.115               0.10   0.13        1.9
                                I
 I   A-B       0.18
                                I
 I   A-C       2.39
                                I
 I   A-D       1.28      8.22    0.156               0.14   0.18        2.7
                                I
 I   D-ABC     1.65      9.58    0.172               0.16   0.21        3.0
                                I
 I   C-ABD     0.29     11.12    0.026               0.02   0.03        0.5
                                I
 I   C-D       1.43
                                I
 I   C-A       2.69
                                I
 I
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                                I
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---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                                I
 I   B-ACD     0.73      6.41    0.115               0.13   0.13        1.9
                                I
 I   A-B       0.18
                                I
 I   A-C       2.39
                                I
 I   A-D       1.28      8.21    0.156               0.18   0.18        2.8
                                I
 I   D-ABC     1.65      9.57    0.172               0.21   0.21        3.1
                                I
 I   C-ABD     0.29     11.12    0.026               0.03   0.03        0.5
                                I
 I   C-D       1.43
                                I
 I   C-A       2.69
                                I
 I
                                I
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---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                                I
 I   B-ACD     0.60      6.63    0.090               0.13   0.10        1.5
                                I
 I   A-B       0.15
                                I
 I   A-C       1.95
                                I
 I   A-D       1.05      8.38    0.125               0.18   0.14        2.2
                                I
 I   D-ABC     1.35      9.83    0.137               0.21   0.16        2.5
                                I
 I   C-ABD     0.22     10.75    0.020               0.03   0.02        0.4
                                I
 I   C-D       1.18
                                I
 I   C-A       2.20
                                I
 I
                                I
.-------------------------------------------------------------------------------
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.-------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                                I
 I   B-ACD     0.50      6.80    0.074               0.10   0.08        1.2
                                I
 I   A-B       0.13
                                I
 I   A-C       1.63
                                I
 I   A-D       0.88      8.51    0.103               0.14   0.12        1.8
                                I
 I   D-ABC     1.13     10.02    0.113               0.16   0.13        2.0
                                I
 I   C-ABD     0.17     10.48    0.016               0.02   0.02        0.3
                                I
 I   C-D       0.99
                                I
 I   C-A       1.85
                                I
 I
                                I
.-------------------------------------------------------------------------------
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*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.1
.
```

QUEUE FOR STREAM A-D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.1
08.45	0.2
09.00	0.2
09.15	0.1
09.30	0.1

.

QUEUE FOR STREAM D-ABC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.2
08.45	0.2
09.00	0.2
09.15	0.2
09.30	0.1

.

QUEUE FOR STREAM C-ABD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

.

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-ACD	55.1	36.7	9.1	0.17	9.1	0.17
A-B	13.8	9.2				
A-C	178.9	119.3				
A-D	96.3	64.2	13.2	0.14	13.2	0.14
D-ABC	123.9	82.6	14.7	0.12	14.7	0.12
C-ABD	20.2	13.5	2.3	0.11	2.3	0.11
C-D	107.9	71.9				
C-A	202.2	134.8				
ALL	798.3	532.2	39.3	0.05	39.3	0.05

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

****** PICADY 5 run completed.

JUNCTION CAPACITY CALCULATION

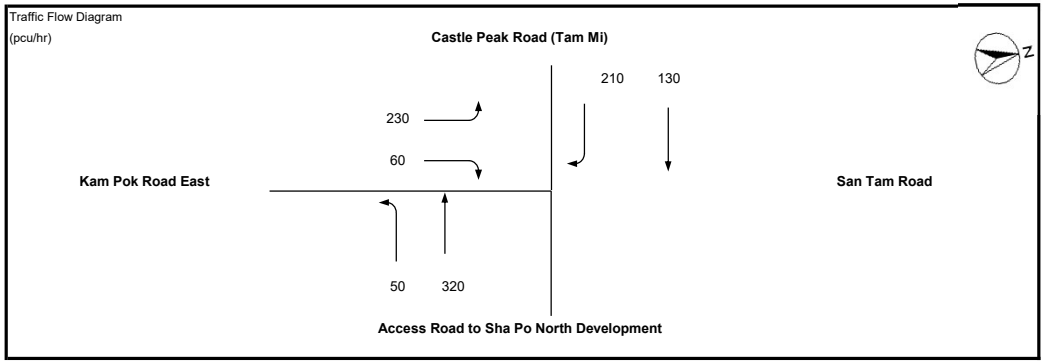
AECOM

Junction J6 - Castle Peak Road -Tam Mi / Kam Pok Road East	2021 AM Peak Hour Observed Traffic Flows	DESIGN: MKCN	CHECK: SHSN	JOB NO: -	DATE: May 21

J6

Traffic Flow Diagram

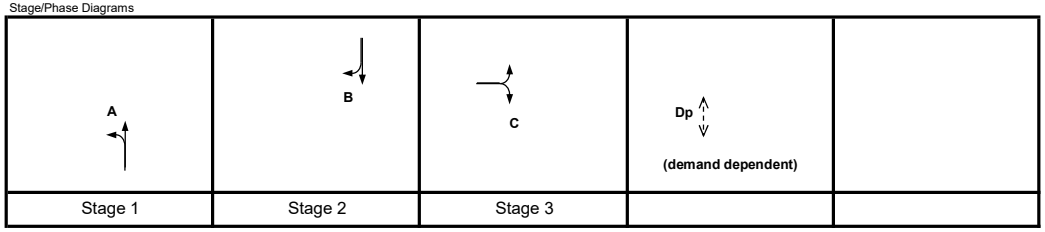
(pcu/hr)



No. of stages per cycle	N =	3	
Cycle time	C =	90	sec
Sum(y)	Y =	0.419	
Lost time	L =	13	sec
Total Flow	=	10,075	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	42	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	22	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.803	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	91.4	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	24	sec
Y_{max}	$= 1-L/C$	=	0.856	

Stage/Phase Diagrams



Critical Case : A,B,C,Dp

R.C.(C) = $(0.9xY_{max}-Y)/Yx100\%$ = 84%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.500	1	25			1		0		1965	50	320		370	14%		1949	0.190	0.190
	B	2	3.400	1				1		0		1955		130		130			1955	0.066	
	B	2	3.500	1		30	0	0		0		2105			210	210		100%	2005	0.105	0.105
	C	3	3.400	1	25			1		0		1955	230			230	100%		1844	0.125	0.125
	C	3	3.400	1		30	0	0		0		2095			60	60		100%	1995	0.030	

Pedestrian Crossing			GM		FGM					
	Dp	4	min.	13	+	12	=	25	sec	

JUNCTION CAPACITY CALCULATION

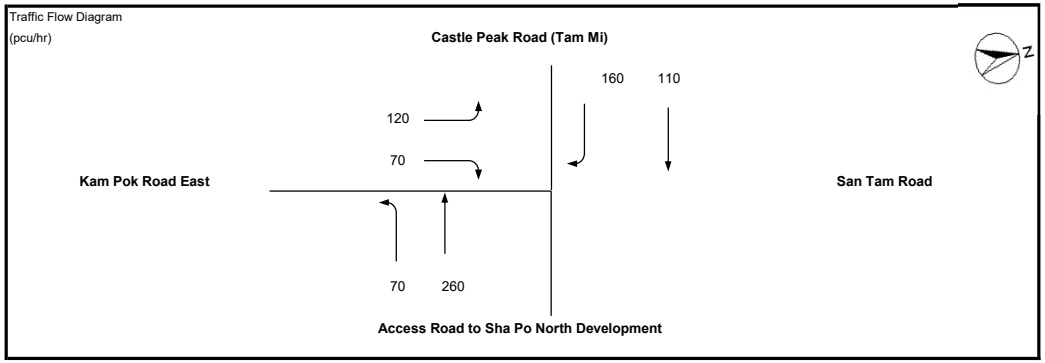
AECOM

Junction J6 - Castle Peak Road -Tam Mi / Kam Pok Road East	2021 PM Peak Hour Observed Traffic Flows	DESIGN: MKCN	CHECK: SHSN	JOB NO: -	DATE: May 21

J6

Traffic Flow Diagram

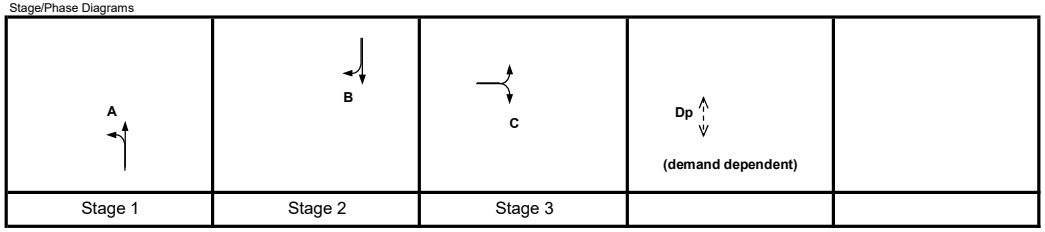
(pcu/hr)



No. of stages per cycle	N =	3	
Cycle time	C =	90	sec
Sum(y)	Y =	0.315	
Lost time	L =	13	sec
Total Flow	=	10,075	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	36	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	19	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.803	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	154.8	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	20	sec
Y_{max}	$= 1-L/C$	=	0.856	

Stage/Phase Diagrams



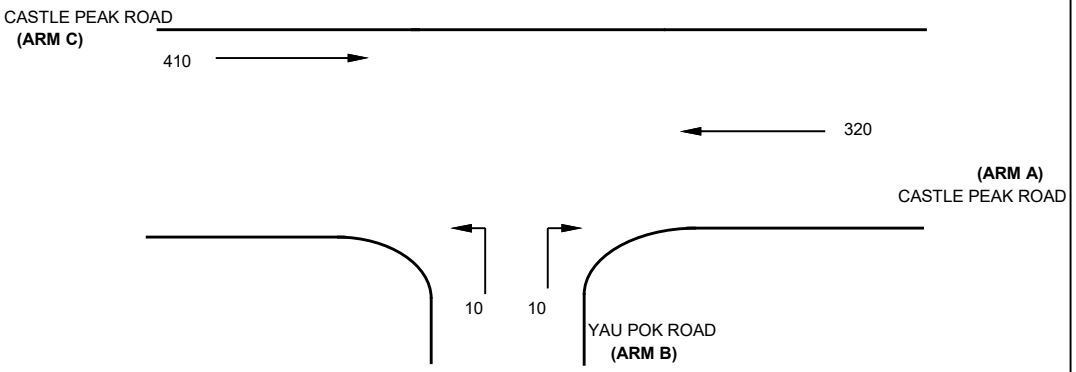
Critical Case : A,B,C,Dp

R.C.(C) = $(0.9xY_{max}-Y)/Yx100\%$ = 144%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
↑	A	1	3.500	1	25			1		0		1965	70	260		330	21%		1940	0.170	0.170
↓	B	2	3.400	1				1		0		1955		110		110			1955	0.056	
↓	B	2	3.500	1		30	0	0		0		2105			160	160		100%	2005	0.080	0.080
→	C	3	3.400	1	25			1		0		1955	120			120	100%		1844	0.065	0.065
↓	C	3	3.400	1		30	0	0		0		2095			70	70		100%	1995	0.035	
Pedestrian Crossing				GM		FGM															
	Dp	4	min.	13	+	12	=	25	sec												

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J7 - Castle Peak Road / Yau Pok Road	2033 AM Observed Flow	Designed By :	Checked By :	Job No. :	Date : Jan 00



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.5 (metres)
W cr	=	0 (metres)
q a-b	=	0 (pcu/hr)
q a-c	=	320 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0 (metres)
Vr c-b	=	25 (metres)
q c-a	=	410 (pcu/hr)
q c-b	=	0 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	1.8 (metres)
W b-c	=	1.8 (metres)
Vl b-a	=	25 (metres)
Vr b-a	=	25 (metres)
Vr b-c	=	25 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	10 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.698808
E	=	0.755468
F	=	0.600735
Y	=	0.775750

THE CAPACITY OF MOVEMENT :

Q b-a	=	324
Q b-c	=	495
Q c-b	=	393
Q b-ac	=	392

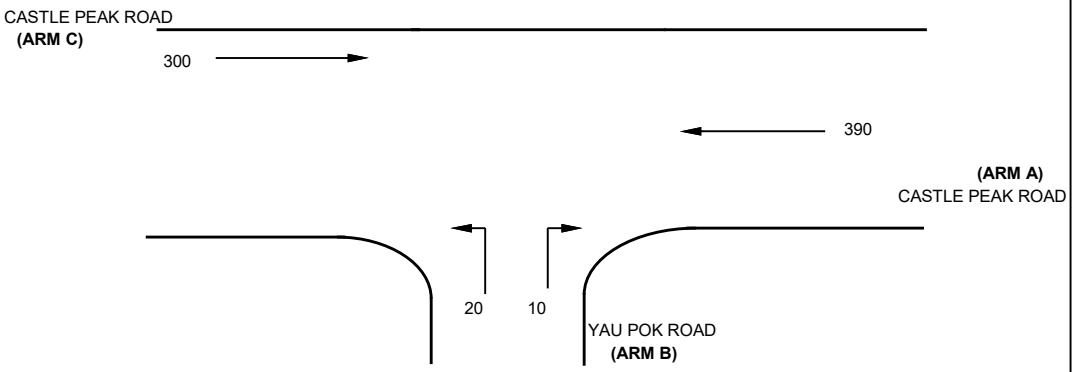
CRITICAL DFC = 0.03

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.03
DFC b-c	=	0.02
DFC c-b	=	0.00

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J7 - Castle Peak Road / Yau Pok Road	2033 PM Observed Flow	Designed By :	Checked By :	Job No. :	Date : Jan 00



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.5 (metres)
W cr	=	0 (metres)
q a-b	=	0 (pcu/hr)
q a-c	=	390 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0 (metres)
Vr c-b	=	25 (metres)
q c-a	=	300 (pcu/hr)
q c-b	=	0 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	1.8 (metres)
W b-c	=	1.8 (metres)
Vl b-a	=	25 (metres)
Vr b-a	=	25 (metres)
Vr b-c	=	25 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	20 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.698808
E	=	0.755468
F	=	0.600735
Y	=	0.775750

THE CAPACITY OF MOVEMENT :

Q b-a	=	324
Q b-c	=	480
Q c-b	=	381
Q b-ac	=	413

CRITICAL DFC = 0.04

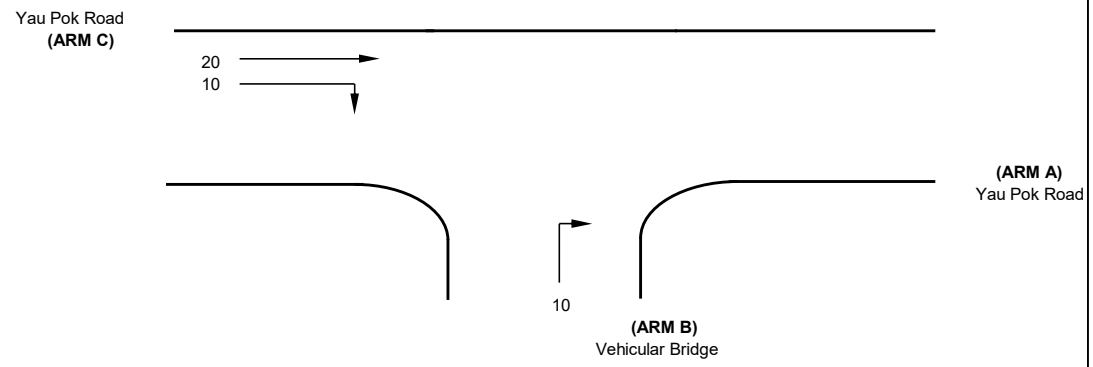
COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.03
DFC b-c	=	0.04
DFC c-b	=	0.00

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

Junction J8 - Vehicular Bridge/ Yau Pok Rd	2021 AM Observed Flow	Designed By : MHS	Checked By : WCS	Job No. :	Date : Sep 24



J8

NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.70)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.70)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.70)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.4 (metres)
W cr	=	0 (metres)
q a-b	=	0 (pcu/hr)
q a-c	=	0 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05 (metres)
Vr c-b	=	20 (metres)
q c-a	=	20 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.6 (metres)
W b-c	=	2.05 (metres)
Vl b-a	=	20 (metres)
Vr b-a	=	20 (metres)
Vr b-c	=	20 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	0 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.835077
E	=	0.773136
F	=	0.773136
Y	=	0.779200

THE CAPACITY OF MOVEMENT :

Q b-a	=	517
Q b-c	=	576
Q c-b	=	576
Q b-ac	=	517

COMPARISION OF DESIGN FLOW TO CAPACITY :

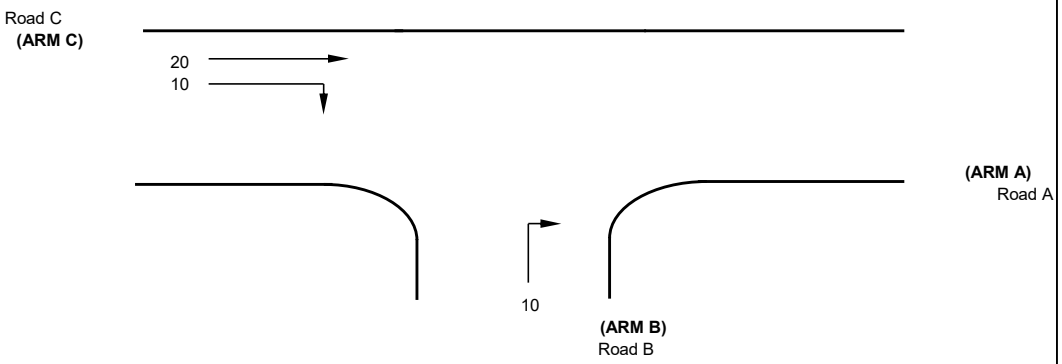
DFC b-a	=	0.02
DFC b-c	=	0.00
DFC c-b	=	0.02
DFC b-ac	=	0.02

CRITICAL DFC = 0.02

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

Junction J8 - Vehicular Bridge/ Yau Pok Rd	2021 PM Observed Flow	Designed By : MHS	Checked By : WCS	Job No. :	Date : Sep 24



J8

NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.70)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.70)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.70)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.4 (metres)
W cr	=	0 (metres)
q a-b	=	0 (pcu/hr)
q a-c	=	0 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05 (metres)
Vr c-b	=	20 (metres)
q c-a	=	20 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.6 (metres)
W b-c	=	2.05 (metres)
Vl b-a	=	20 (metres)
Vr b-a	=	20 (metres)
Vr b-c	=	20 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	0 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.835077
E	=	0.773136
F	=	0.773136
Y	=	0.779200

THE CAPACITY OF MOVEMENT :

Q b-a	=	517
Q b-c	=	576
Q c-b	=	576
Q b-ac	=	517

COMPARISION OF DESIGN FLOW TO CAPACITY :

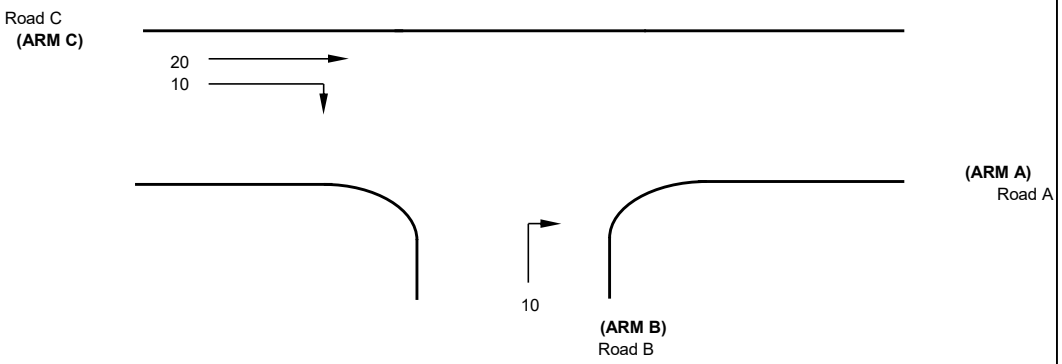
DFC b-a	=	0.02
DFC b-c	=	0.00
DFC c-b	=	0.02
DFC b-ac	=	0.02

CRITICAL DFC = 0.02

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

Junction J9 - Vehicular Bridge/ Yau Pok Rd	2021 AM Observed Flow	Designed By : MHS	Checked By : WCS	Job No. :	Date : Sep 24



J9

NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.70)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.70)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.70)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.4 (metres)
W cr	=	0 (metres)
q a-b	=	0 (pcu/hr)
q a-c	=	0 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05 (metres)
Vr c-b	=	20 (metres)
q c-a	=	20 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.6 (metres)
W b-c	=	2.05 (metres)
Vl b-a	=	20 (metres)
Vr b-a	=	20 (metres)
Vr b-c	=	20 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	0 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.835077
E	=	0.773136
F	=	0.773136
Y	=	0.779200

THE CAPACITY OF MOVEMENT :

Q b-a	=	517
Q b-c	=	576
Q c-b	=	576
Q b-ac	=	517

COMPARISION OF DESIGN FLOW TO CAPACITY :

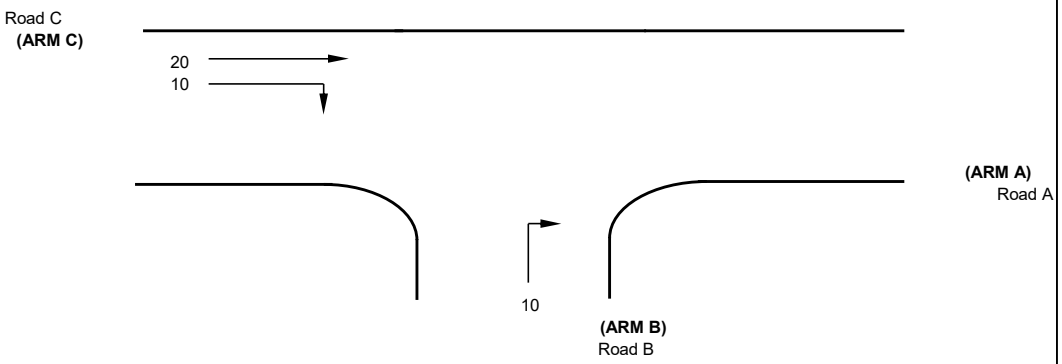
DFC b-a	=	0.02
DFC b-c	=	0.00
DFC c-b	=	0.02
DFC b-ac	=	0.02

CRITICAL DFC = 0.02

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

Junction J9 - Vehicular Bridge/ Yau Pok Rd	2021 PM Observed Flow	Designed By : MHS	Checked By : WCS	Job No. :	Date : Sep 24



J9

NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.70)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.70)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.70)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.4 (metres)
W cr	=	0 (metres)
q a-b	=	0 (pcu/hr)
q a-c	=	0 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05 (metres)
Vr c-b	=	20 (metres)
q c-a	=	20 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.6 (metres)
W b-c	=	2.05 (metres)
Vl b-a	=	20 (metres)
Vr b-a	=	20 (metres)
Vr b-c	=	20 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	0 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.835077
E	=	0.773136
F	=	0.773136
Y	=	0.779200

THE CAPACITY OF MOVEMENT :

Q b-a	=	517
Q b-c	=	576
Q c-b	=	576
Q b-ac	=	517

COMPARISION OF DESIGN FLOW TO CAPACITY :

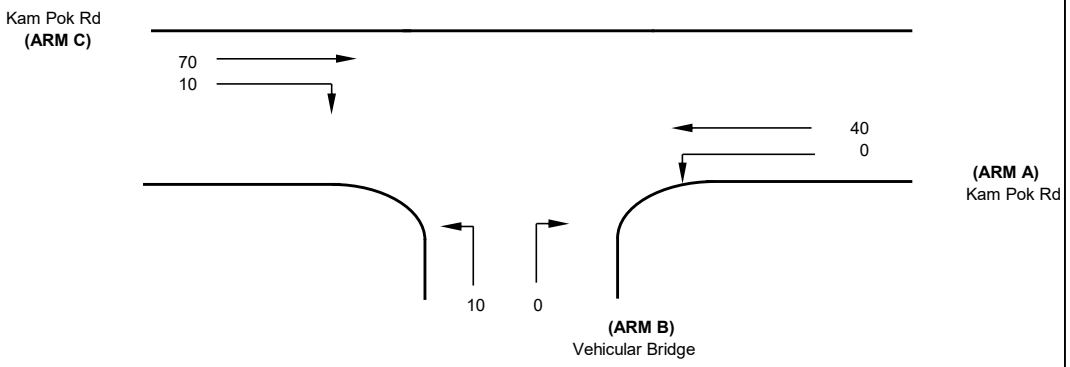
DFC b-a	=	0.02
DFC b-c	=	0.00
DFC c-b	=	0.02
DFC b-ac	=	0.02

CRITICAL DFC = 0.02

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

Junction J10 - Vehicular Bridge/ Kam Pok Road	2021 AM Observed Flow	Designed By : MHS	Checked By : WCS	Job No. :	Date : Sep 24



J10

NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.70)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.70)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.70)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	7.2 (metres)
W cr	=	0 (metres)
q a-b	=	0 (pcu/hr)
q a-c	=	40 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.6 (metres)
Vr c-b	=	20 (metres)
q c-a	=	70 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.6 (metres)
W b-c	=	3.6 (metres)
Vl b-a	=	20 (metres)
Vr b-a	=	20 (metres)
Vr b-c	=	20 (metres)
q b-a	=	0 (pcu/hr)
q b-c	=	10 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.835077
E	=	0.905723
F	=	0.905723
Y	=	0.751600

THE CAPACITY OF MOVEMENT :

Q b-a	=	501
Q b-c	=	665
Q c-b	=	665
Q b-ac	=	665

COMPARISION OF DESIGN FLOW TO CAPACITY :

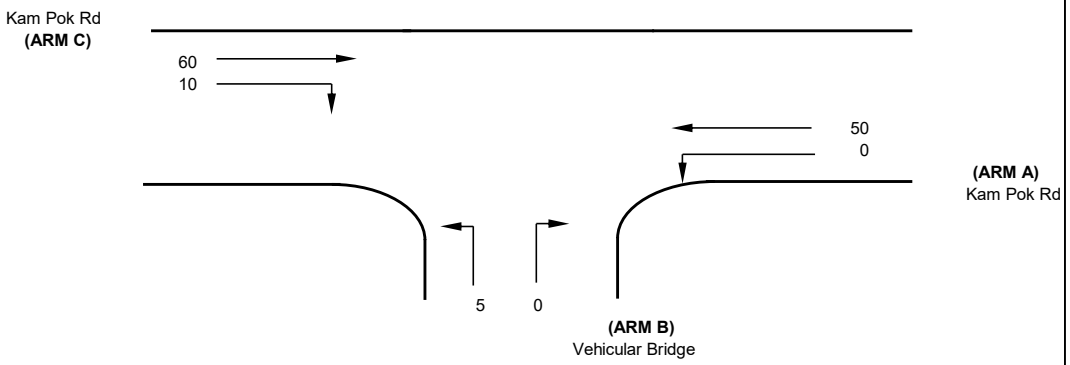
DFC b-a	=	0.00
DFC b-c	=	0.02
DFC c-b	=	0.02
DFC b-ac	=	0.02

CRITICAL DFC = 0.02

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

Junction J10 - Vehicular Bridge/ Kam Pok Road	2021 PM Observed Flow	Designed By : MHS	Checked By : WCS	Job No. :	Date : Sep 24



J10

NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.70)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.70)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.70)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	7.2 (metres)
W cr	=	0 (metres)
q a-b	=	0 (pcu/hr)
q a-c	=	50 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.6 (metres)
Vr c-b	=	20 (metres)
q c-a	=	60 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.6 (metres)
W b-c	=	3.6 (metres)
Vl b-a	=	20 (metres)
Vr b-a	=	20 (metres)
Vr b-c	=	20 (metres)
q b-a	=	0 (pcu/hr)
q b-c	=	5 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.835077
E	=	0.905723
F	=	0.905723
Y	=	0.751600

THE CAPACITY OF MOVEMENT :

Q b-a	=	500
Q b-c	=	662
Q c-b	=	662
Q b-ac	=	662

COMPARISION OF DESIGN FLOW TO CAPACITY :

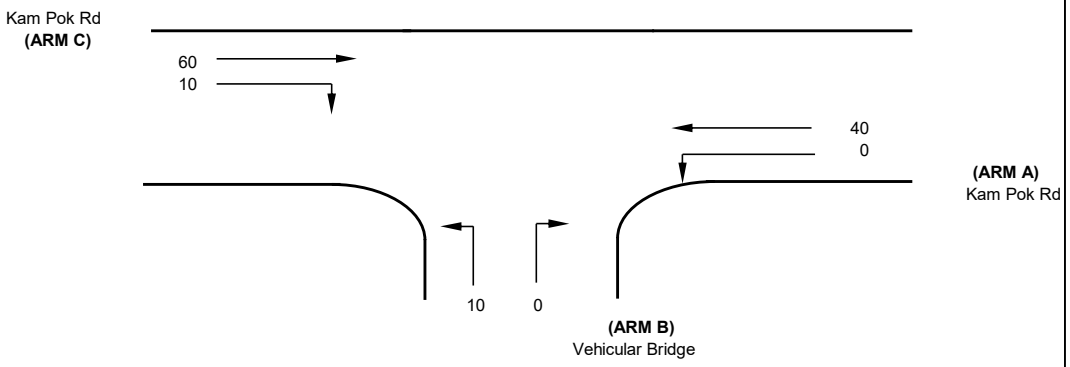
DFC b-a	=	0.00
DFC b-c	=	0.01
DFC c-b	=	0.02
DFC b-ac	=	0.01

CRITICAL DFC = 0.02

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

Junction J11 - Vehicular Bridge/ Kam Pok Road	2021 AM Observed Flow	Designed By : MHS	Checked By : WCS	Job No. :	Date : Sep 24



J11

NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.70)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.70)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.70)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	7.2	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	40	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.6	(metres)
Vr c-b	=	20	(metres)
q c-a	=	60	(pcu/hr)
q c-b	=	10	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.6	(metres)
W b-c	=	3.6	(metres)
Vl b-a	=	20	(metres)
Vr b-a	=	20	(metres)
Vr b-c	=	20	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	10	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.835077
E	=	0.905723
F	=	0.905723
Y	=	0.751600

THE CAPACITY OF MOVEMENT :

Q b-a	=	503
Q b-c	=	665
Q c-b	=	665
Q b-ac	=	665

COMPARISION OF DESIGN FLOW TO CAPACITY :

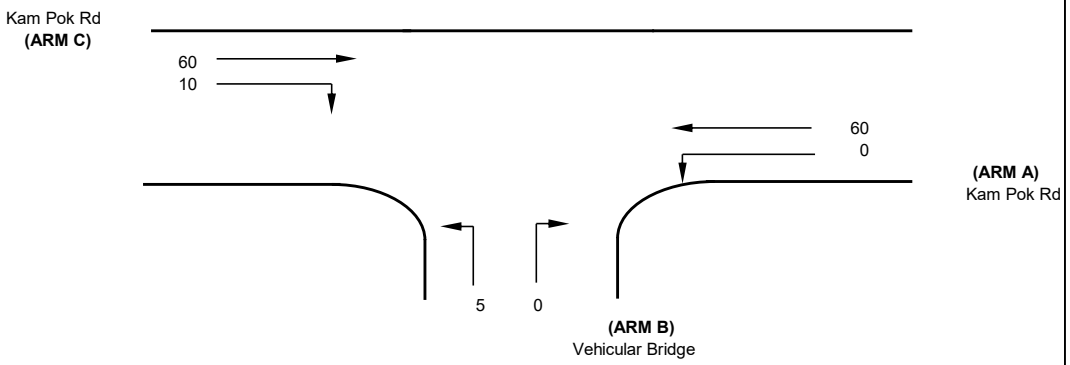
DFC b-a	=	0.00
DFC b-c	=	0.02
DFC c-b	=	0.02
DFC b-ac	=	0.02

CRITICAL DFC = 0.02

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

Junction J11 - Vehicular Bridge/ Kam Pok Road	2021 PM Observed Flow	Designed By : MHS	Checked By : WCS	Job No. :	Date : Sep 24



NOTES : (GEOMETRIC INPUT DATA)

J11

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.70)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.70)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.70)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	7.2 (metres)
W cr	=	0 (metres)
q a-b	=	0 (pcu/hr)
q a-c	=	60 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.6 (metres)
Vr c-b	=	20 (metres)
q c-a	=	60 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.6 (metres)
W b-c	=	3.6 (metres)
Vl b-a	=	20 (metres)
Vr b-a	=	20 (metres)
Vr b-c	=	20 (metres)
q b-a	=	0 (pcu/hr)
q b-c	=	5 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.835077
E	=	0.905723
F	=	0.905723
Y	=	0.751600

THE CAPACITY OF MOVEMENT :

Q b-a	=	498
Q b-c	=	660
Q c-b	=	660
Q b-ac	=	660

CRITICAL DFC = 0.02

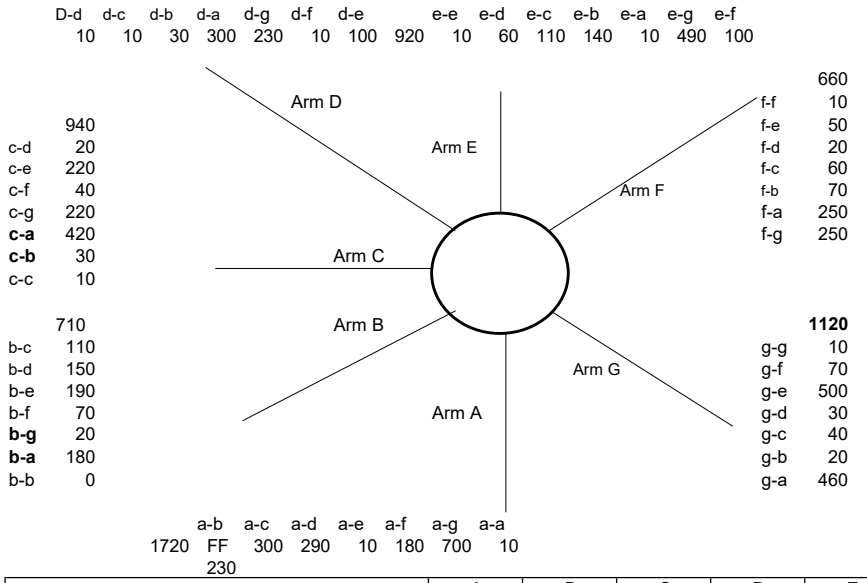
COMPARISION OF DESIGN FLOW TO CAPACITY :

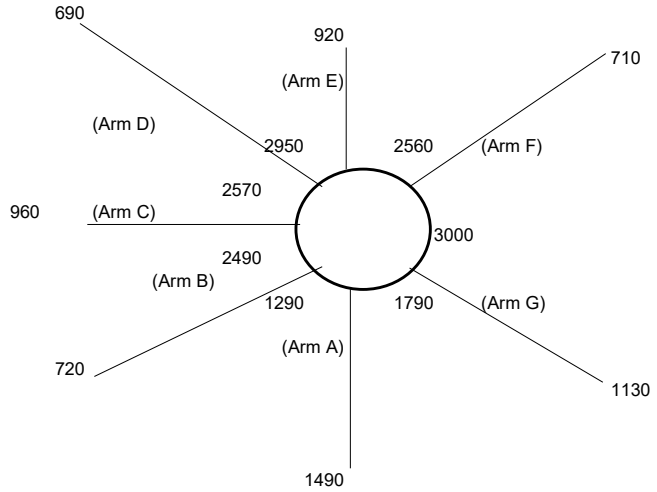
DFC b-a	=	0.00
DFC b-c	=	0.01
DFC c-b	=	0.02
DFC b-ac	=	0.01

Reference Flow

ROUNDABOUT CAPACITY CALCULATIC **AECOM**

Junction	Junction J1 - Fairview Roundabout	cenar	2034 AM Reference Flows	Project No.	Prepared By	Checked By	Date
				-	MK	JL	Apr 2025





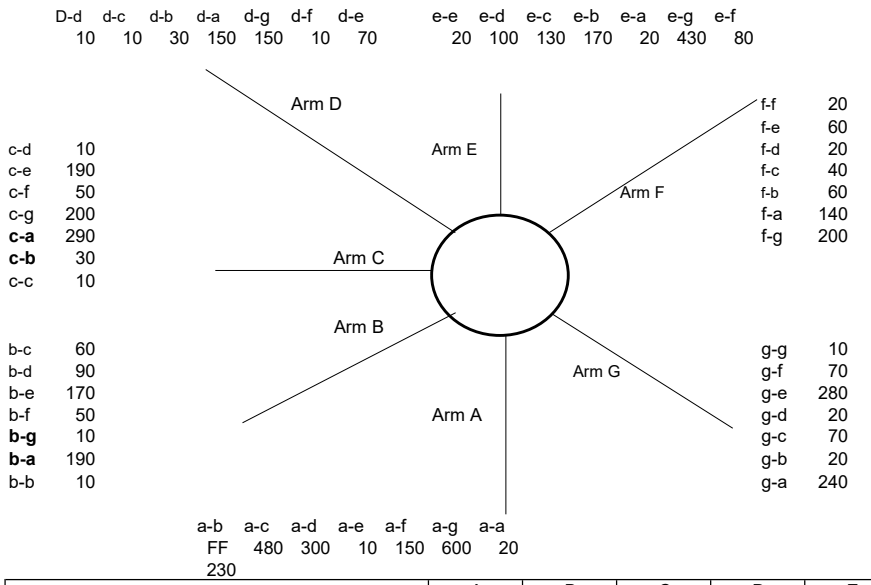
ARM	A	B	C	D	E	F	G
INPUT PARAMETERS:							
V = Approach half width (m)	6.00	5.00	7.00	5.50	6.30	5.90	6.75
E = Entry width (m)	8.00	8.00	10.00	10.00	10.00	8.50	8.50
L = Effective length of flare (m)	10.00	25.00	10.00	16.00	30.00	10.00	20.00
R = Entry radius (m)	20.00	22.00	22.00	20.00	23.00	20.00	20.00
D = Inscribed circle diameter (m)	140.00	140.00	140.00	140.00	140.00	140.00	140.00
A = Entry angle (degree)	65.00	30.00	40.00	45.00	30.00	60.00	35.00
Q = Entry flow (pcu/h)	1490	720	960	690	920	710	1130
Qc= Circulating flow across entry (pcu/h)	1290	2490	2570	2950	2560	3000	1790
OUTPUT PARAMETERS:							
S = Sharpness of flare = 1.6(E-V)/L	0.32	0.19	0.48	0.45	0.20	0.42	0.14
K = 1-0.00347(A-30)-0.978(1/R-0.05)	0.88	1.00	0.97	0.95	1.01	0.90	0.98
X2= V + ((E-V)/(1+2S))	7.22	7.17	8.53	7.87	8.95	7.32	8.12
M = EXP((D-60)/10)	2981	2981	2981	2981	2981	2981	2981
F = 303*X2	2188	2172	2585	2384	2713	2218	2460
Td= 1+(0.5/(1+M))	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fc= 0.21*Td(1+0.2*X2)	0.51	0.51	0.57	0.54	0.59	0.52	0.55
Qe= K(F-Fc*Qc)	1340	903	1090	748	1220	596	1448
DFC = Design flow/Capacity = Q/Qe	1.11	0.80	0.88	0.92	0.75	1.19	0.78

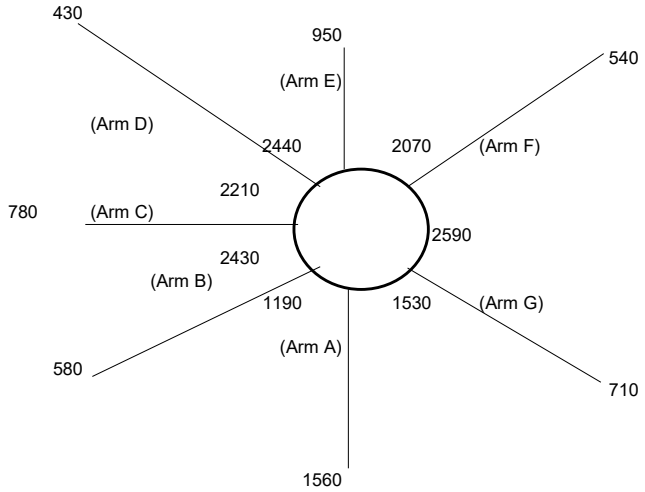
TOTAL ENTRY FLOWS = 6620 PCU

CRITICAL DFC = 1.19

ROUNDABOUT CAPACITY CALCULATIC **AECOM**

Junction	Junction J1 - Fairview Roundabout	cenar	2034 PM Reference Flows	Project No.	Prepared By	Checked By	Date
				-	MK	JL	Apr 2025





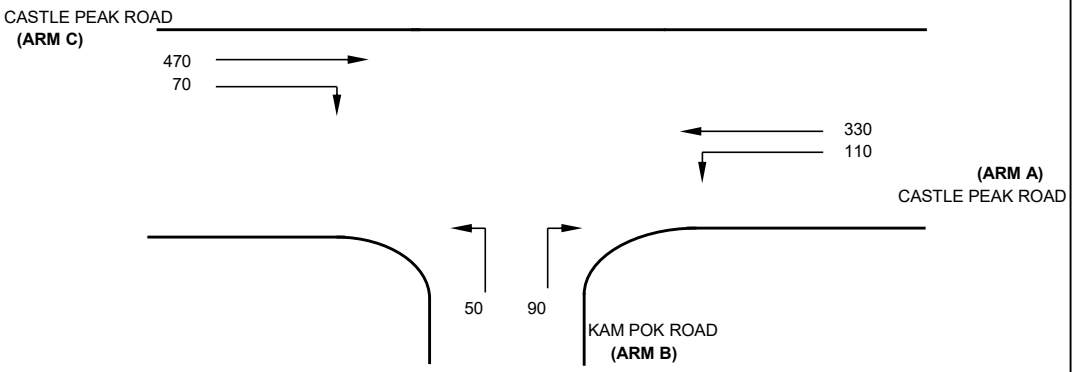
ARM	A	B	C	D	E	F	G
INPUT PARAMETERS:							
V = Approach half width (m)	6.00	5.00	7.00	5.50	6.30	5.90	6.75
E = Entry width (m)	8.00	8.00	10.00	10.00	10.00	8.50	8.50
L = Effective length of flare (m)	10.00	25.00	10.00	16.00	30.00	10.00	20.00
R = Entry radius (m)	20.00	22.00	22.00	20.00	23.00	20.00	20.00
D = Inscribed circle diameter (m)	140.00	140.00	140.00	140.00	140.00	140.00	140.00
A = Entry angle (degree)	65.00	30.00	40.00	45.00	30.00	60.00	35.00
Q = Entry flow (pcu/h)	1560	580	780	430	950	540	710
Qc= Circulating flow across entry (pcu/h)	1190	2430	2210	2440	2070	2590	1530
OUTPUT PARAMETERS:							
S = Sharpness of flare = 1.6(E-V)/L	0.32	0.19	0.48	0.45	0.20	0.42	0.14
K = 1-0.00347(A-30)-0.978(1/R-0.05)	0.88	1.00	0.97	0.95	1.01	0.90	0.98
X2= V + ((E-V)/(1+2S))	7.22	7.17	8.53	7.87	8.95	7.32	8.12
M = EXP((D-60)/10)	2981	2981	2981	2981	2981	2981	2981
F = 303*X2	2188	2172	2585	2384	2713	2218	2460
Td= 1+(0.5/(1+M))	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fc= 0.21*Td(1+0.2*X2)	0.51	0.51	0.57	0.54	0.59	0.52	0.55
Qe= K(F-Fc*Qc)	1385	934	1288	1010	1509	786	1588
DFC = Design flow/Capacity = Q/Qe	1.13	0.62	0.61	0.43	0.63	0.69	0.45

TOTAL ENTRY FLOWS = 5550 PCU

CRITICAL DFC = 1.13

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J2 - Castle Peak Road / Kam Pok Road	2034 AM Reference Flows	Designed By :	Checked By :	Job No. :	Date : Dec 21



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.9 (metres)
W cr	=	0 (metres)
q a-b	=	110 (pcu/hr)
q a-c	=	330 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05 (metres)
Vr c-b	=	30 (metres)
q c-a	=	470 (pcu/hr)
q c-b	=	70 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	4.5 (metres)
W b-c	=	4.5 (metres)
Vl b-a	=	70 (metres)
Vr b-a	=	53 (metres)
Vr b-c	=	70 (metres)
q b-a	=	90 (pcu/hr)
q b-c	=	50 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.966072
E	=	1.031305
F	=	0.780782
Y	=	0.761950

THE CAPACITY OF MOVEMENT :

Q b-a	=	400
Q b-c	=	661
Q c-b	=	486
Q b-ac	=	465

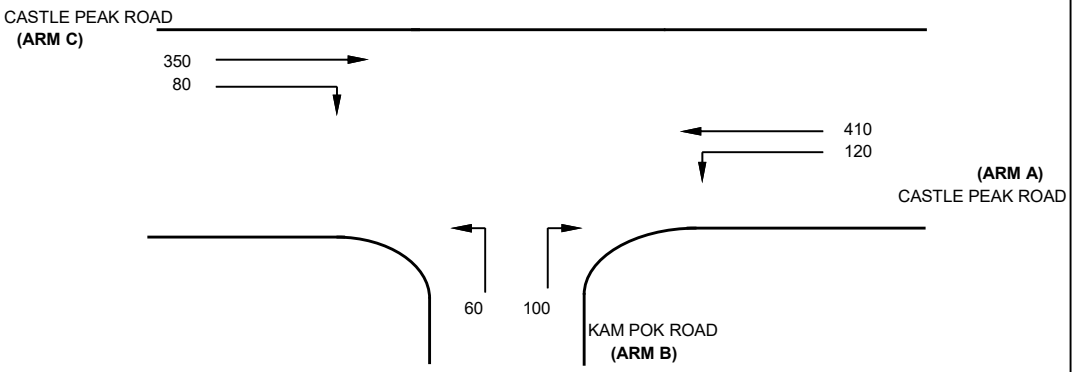
CRITICAL DFC = 0.30

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.23
DFC b-c	=	0.08
DFC c-b	=	0.14
DFC b-ac	=	0.30

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J2 - Castle Peak Road / Kam Pok Road	2034 PM Reference Flows	Designed By :	Checked By :	Job No. :	Date : Dec 21



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.9	(metres)
W cr	=	0	(metres)
q a-b	=	120	(pcu/hr)
q a-c	=	410	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05	(metres)
Vr c-b	=	30	(metres)
q c-a	=	350	(pcu/hr)
q c-b	=	80	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	4.5	(metres)
W b-c	=	4.5	(metres)
Vl b-a	=	70	(metres)
Vr b-a	=	53	(metres)
Vr b-c	=	70	(metres)
q b-a	=	100	(pcu/hr)
q b-c	=	60	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.966072
E	=	1.031305
F	=	0.780782
Y	=	0.761950

THE CAPACITY OF MOVEMENT :

Q b-a	=	394
Q b-c	=	637
Q c-b	=	467
Q b-ac	=	459

CRITICAL DFC = 0.35

COMPARISION OF DESIGN FLOW TO CAPACITY :

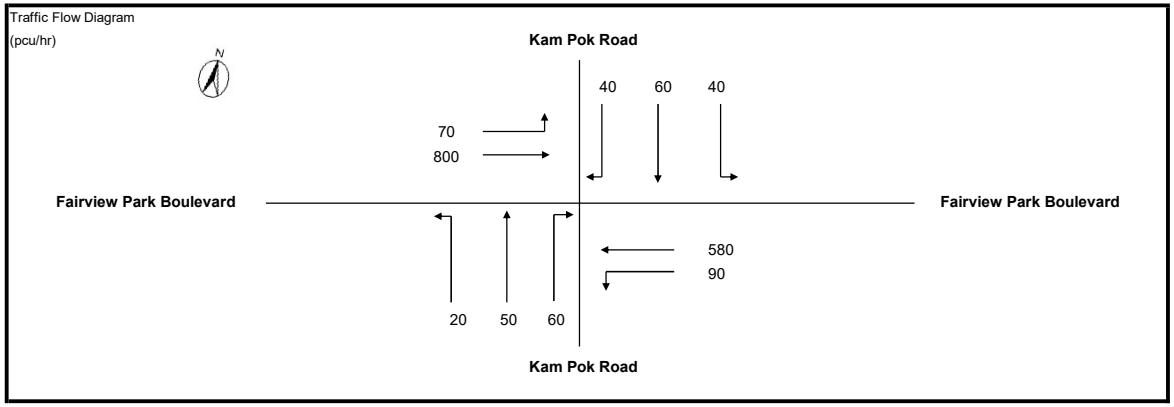
DFC b-a	=	0.25
DFC b-c	=	0.09
DFC c-b	=	0.17
DFC b-ac	=	0.35

JUNCTION CAPACITY CALCULATION

Junction J3 - Fairview Park Boulevard - Kam Pok Road	2034 AM Reference Flows	DESIGN: MHS	CHECK: WCS	JOB NO: -	DATE: Sep 24

J3

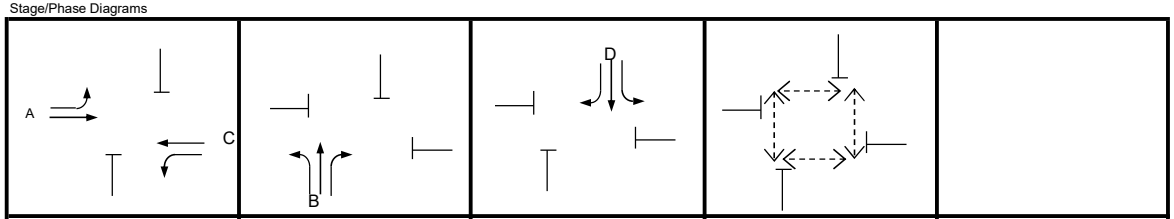
Traffic Flow Diagram
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	120	sec
Sum(y)	Y =	0.360	
Lost time	L =	44	sec
Total Flow	=	11,980	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	111	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	69	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.570	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	58.3	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	73	sec
Y_{max}	$= 1-L/C$	=	0.633	

Stage/Phase Diagrams



Stage 1	Stage 2	Stage 3	Stage 4	
I/G = 7	I/G = 7	I/G = 11	G = 10	I/G = 12

Critical Case : A,B,D,Ep

R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 58%

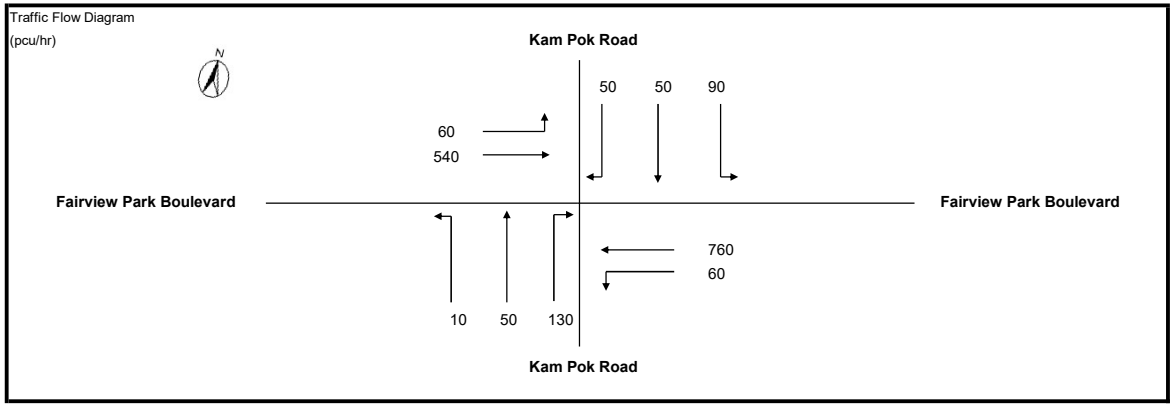
MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.300	1	15			1		0		1945	70	362		432	16%		1914	0.225	0.225
	A	1	3.300	1				1		0		1945		439		439			1945	0.225	
	B	2	3.600	1	13	20	0	1		0		1975	20	50	60	130	15%	46%	1877	0.069	0.069
	C	1	3.000	1	17			1		0		1915	90	238		328	27%		1870	0.176	
	C	1	3.300	1				1		0		1945		342		342			1945	0.176	
	D	3	6.400	1	15.5	17.5	0	1		0		2255	40	60	40	140	29%	29%	2143	0.065	0.065
Pedestrian Crossing				GM		FGM															
	Ep	4	min.	10	+	9	=	19	sec												*

JUNCTION CAPACITY CALCULATION

Junction J3 - Fairview Park Boulevard - Kam Pok Road	2034 PM Existing Traffic Flows	DESIGN: 0	CHECK: 0	JOB NO: -	DATE: Sep 24

J3

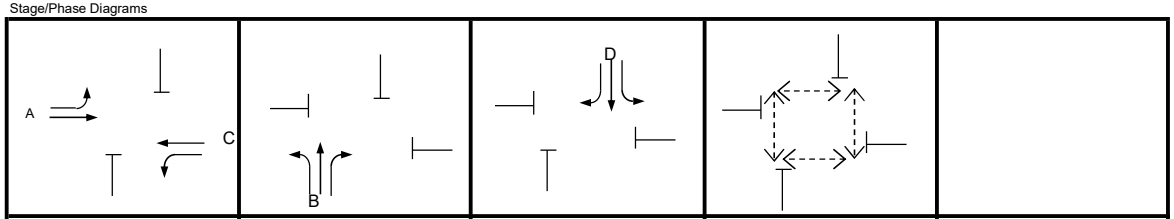
Traffic Flow Diagram
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	120	sec
Sum(y)	Y =	0.406	
Lost time	L =	44	sec
Total Flow	=	11,980	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$ =		119	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	74	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.570	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	40.5	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	80	sec
Y_{max}	$= 1-L/C$	=	0.633	

Stage/Phase Diagrams



I/G = 7 I/G = 7 I/G = 11 G = 10 I/G = 12

Critical Case : C,B,D,Ep

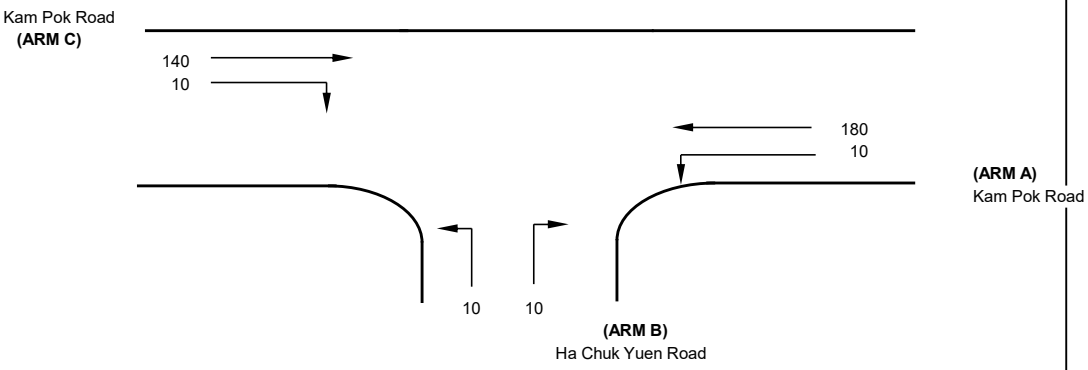
R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 41%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.300	1	15			1		0		1945	60	237		297	20%		1906	0.156	
	A	1	3.300	1				1		0		1945		303		303			1945	0.156	
	B	2	3.600	1	13	20	0	1		0		1975	10	50	130	190	5%	68%	1868	0.102	0.102
	C	1	3.000	1	17			1		0		1915	60	344		404	15%		1890	0.214	
	C	1	3.300	1				1		0		1945		416		416			1945	0.214	0.214
	D	3	6.400	1	15.5	17.5	0	1		0		2255	90	50	50	190	47%	26%	2111	0.090	0.090
Pedestrian Crossing				GM		FGM															
	Ep	4	min.	10	+	9	=	19	sec												*

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

J4 - Kam Pok Road - Ha Chuk Yuen Road	2034 AM Reference Traffic Flows	Designed By : MKCN	Checked By : SHSN	Job No. : -	Date : Sep 24



J4

NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.7)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.7)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.7)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	9.3 (metres)
W cr	=	0 (metres)
q a-b	=	10 (pcu/hr)
q a-c	=	180 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.5 (metres)
Vr c-b	=	50 (metres)
q c-a	=	140 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	2.05 (metres)
W b-c	=	2.05 (metres)
Vl b-a	=	50 (metres)
Vr b-a	=	50 (metres)
Vr b-c	=	50 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	10 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.748311
E	=	0.796075
F	=	0.923788
Y	=	0.679150

THE CAPACITY OF MOVEMENT :

Q b-a	=	416
Q b-c	=	557
Q c-b	=	645
Q b-ac	=	476

CRITICAL DFC = 0.04

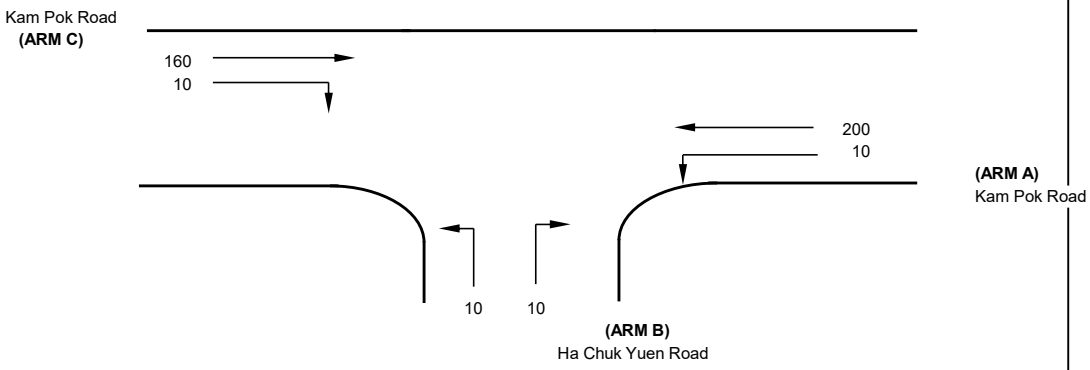
COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.02
DFC b-c	=	0.02
DFC c-b	=	0.02
DFC b-ac	=	0.04

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

J4 - Kam Pok Road - Ha Chuk Yuen Road	2034 PM Reference Traffic Flows	Designed By : MKCN	Checked By : SHSN	Job No. : -	Date : Sep 24



J4

NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.7)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.7)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.7)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	9.3 (metres)
W cr	=	0 (metres)
q a-b	=	10 (pcu/hr)
q a-c	=	200 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.5 (metres)
Vr c-b	=	50 (metres)
q c-a	=	160 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	2.05 (metres)
W b-c	=	2.05 (metres)
Vl b-a	=	50 (metres)
Vr b-a	=	50 (metres)
Vr b-c	=	50 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	10 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.748311
E	=	0.796075
F	=	0.923788
Y	=	0.679150

THE CAPACITY OF MOVEMENT :

Q b-a	=	410
Q b-c	=	553
Q c-b	=	640
Q b-ac	=	471

CRITICAL DFC = 0.04

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.02
DFC b-c	=	0.02
DFC c-b	=	0.02
DFC b-ac	=	0.04

TRL LIMITED

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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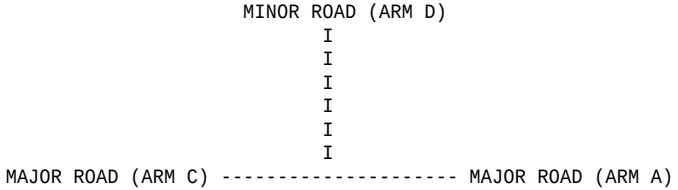
Run with file:- "C:\Users\Sam.Wong\Downloads\J5\34_KPR-PWSR_REF.vpi" (drive-on-the-left) at 12:27:45 on Friday, 13 September 2024

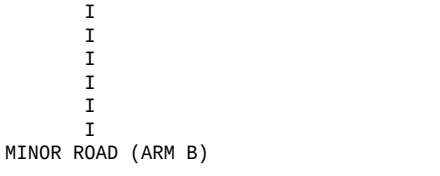
.RUN INFORMATION
****

RUN TITLE : 2034 - J5 Kam Pok Road/ Pok Wai South Road
LOCATION :
DATE : 21/12/13
CLIENT :
ENUMERATOR : nokhinnaomi.tam [HKSHT1PC0702]
JOB NUMBER :
STATUS :
DESCRIPTION :

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA





ARM A IS Kam Pok Road
ARM B IS Pok Wai South Road
ARM C IS Kam Pok Road West
ARM D IS Kam Pok Road

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH (W)	8.80 M.
CENTRAL RESERVE WIDTH (WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH (WA-D)	2.20 M.
- VISIBILITY (VA-D)	50.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (0)
	NO (0)
MINOR ROAD - VISIBILITY TO LEFT (VD-A)	50.0 M.
- VISIBILITY TO RIGHT (VD-C)	50.0 M.
- LANE 1 WIDTH (WD-A)	5.00 M.
- LANE 2 WIDTH (WD-C)	0.00 M.

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
I 602.92	0.21	0.08	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I 786.65	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	I
I 476.98	0.19	0.19	0.19	I
0.19				

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	I
I 622.33	0.25	0.25	0.25	I
0.25				

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
I 602.92	0.21	0.21	0.29	I

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.21	0.29	0.21	I

B-D Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing Slope For OpposingI
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B STREAM C-B I
I 476.98	0.19	0.19	0.08 0.28 I

I	Slope For Opposing	Slope For Opposing	Slope For Opposing Slope For OpposingI
I	STREAM C-A	STREAM C-D	
I	0.12	0.12	I

B-D Stream From Right Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing Slope For OpposingI
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B STREAM C-B I
I 476.98	0.19	0.19	0.08 0.28 I

I	Slope For Opposing	Slope For Opposing	Slope For Opposing Slope For OpposingI
I	STREAM C-A	STREAM C-D	
I	0.12	0.12	I

D-B Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing Slope For OpposingI
I STREAM D-B	STREAM C-A	STREAM C-B	STREAM C-D STREAM A-D I
I 622.33	0.25	0.25	0.10 0.36 I

I	Slope For Opposing	Slope For Opposing	Slope For Opposing Slope For OpposingI
I	STREAM A-C	STREAM A-B	
I	0.16	0.16	I

D-B Stream From Right Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing Slope For OpposingI
I STREAM B-D	STREAM C-A	STREAM C-B	STREAM C-D STREAM A-D I
I 622.33	0.25	0.25	0.10 0.36 I

```
 I              Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I               STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
------------------
 I                      0.16               0.16
                I

-------------------------------------------------------------------------------
------------------


.TRAFFIC DEMAND DATA
 ------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        2034 Reference AM - J5 Kam Pok Road/ Pok Wai South Road


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
----
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
   I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
   I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
   I
 I        I             I             I            I        I         I
   I

-------------------------------------------------------------------------------
----
 I ARM  A I     15.00   I     45.00   I    75.00   I  3.75  I   5.63  I  3.75
   I
 I ARM  B I     15.00   I     45.00   I    75.00   I  0.75  I   1.13  I  0.75
   I
 I ARM  C I     15.00   I     45.00   I    75.00   I  2.75  I   4.13  I  2.75
   I
 I ARM  D I     15.00   I     45.00   I    75.00   I  2.13  I   3.19  I  2.13
   I

-------------------------------------------------------------------------------
----

.Demand set:        2034 Reference AM - J5 Kam Pok Road/ Pok Wai South Road
 ----------------------------------------------------------------
 I                   I         TURNING PROPORTIONS                I
 I                   I         TURNING COUNTS                     I
 I                   I        (PERCENTAGE OF H.V.S)               I
 I                   ---------------------------------------------
 I        TIME       I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ----------------------------------------------------------------
 I   08.00 - 09.30   I         I       I       I       I       I
 I                   I ARM  A  I  0.000 I  0.033 I  0.733 I  0.233 I
 I                   I         I    0.0 I   10.0 I  220.0 I   70.0 I
 I                   I         I (  0.0)I ( 10.0)I ( 10.0)I ( 10.0)I
 I                   I         I       I       I       I       I
 I                   I ARM  B  I  0.167 I  0.000 I  0.167 I  0.667 I
 I                   I         I   10.0 I    0.0 I   10.0 I   40.0 I
 I                   I         I ( 10.0)I (  0.0)I ( 10.0)I ( 10.0)I
 I                   I         I       I       I       I       I
 I                   I ARM  C  I  0.682 I  0.091 I  0.000 I  0.227 I
 I                   I         I  150.0 I   20.0 I    0.0 I   50.0 I
 I                   I         I ( 10.0)I ( 10.0)I (  0.0)I ( 10.0)I
 I                   I         I       I       I       I       I
 I                   I ARM  D  I  0.294 I  0.294 I  0.412 I  0.000 I
 I                   I         I   50.0 I   50.0 I   70.0 I    0.0 I
 I                   I         I ( 10.0)I ( 10.0)I ( 10.0)I (  0.0)I
 I                   I         I       I       I       I       I
 ----------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
 DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

.             QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
              ----------------------------------------------------------
               FOR DEMAND SET         2034 Reference AM - J5 Kam Pok Road/ Pok
Wai South Road
               AND FOR TIME PERIOD        1
.-------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                                I
 I   B-ACD     0.75      6.40    0.118               0.00   0.13        1.9
                                I
 I   A-B       0.13
                                I
 I   A-C       2.76
                                I
 I   A-D       0.88      8.55    0.103               0.00   0.11        1.6
                                I
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 I   D-ABC     2.13      8.73    0.244               0.00   0.32        4.6
                                 I
 I   C-ABD     0.33     10.02    0.033               0.00   0.04        0.7
                                 I
 I   C-D       0.61
                                 I
 I   C-A       1.82
                                 I
 I
                                 I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                                 I
 I   B-ACD     0.90      6.18    0.145               0.13   0.17        2.4
                                 I
 I   A-B       0.15
                                 I
 I   A-C       3.30
                                 I
 I   A-D       1.05      8.43    0.124               0.11   0.14        2.1
                                 I
 I   D-ABC     2.55      8.47    0.301               0.32   0.42        6.2
                                 I
 I   C-ABD     0.42     10.20    0.041               0.04   0.06        0.9
                                 I
 I   C-D       0.72
                                 I
 I   C-A       2.16
                                 I
 I
                                 I
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----------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                                 I
 I   B-ACD     1.10      5.88    0.187               0.17   0.23        3.3
                                 I
 I   A-B       0.18
                                 I
 I   A-C       4.04
                                 I
 I   A-D       1.28      8.27    0.155               0.14   0.18        2.7
                                 I
 I   D-ABC     3.12      8.10    0.385               0.42   0.61        8.8
                                 I
 I   C-ABD     0.55     10.46    0.053               0.06   0.08        1.2
                                 I
 I   C-D       0.87
                                 I
 I   C-A       2.61
                                 I
 I
                                 I
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----------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                                 I
 I   B-ACD     1.10      5.88    0.187               0.23   0.23        3.4
                                 I
 I   A-B       0.18
                                 I
 I   A-C       4.04
                                 I
 I   A-D       1.28      8.27    0.155               0.18   0.18        2.7
                                 I
 I   D-ABC     3.12      8.10    0.385               0.61   0.62        9.3
                                 I
 I   C-ABD     0.55     10.46    0.053               0.08   0.08        1.2
                                 I
 I   C-D       0.87
                                 I
 I   C-A       2.61
                                 I
 I
                                 I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
```

```
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                                I
 I   B-ACD     0.90      6.18    0.146                0.23   0.17        2.7
                                I
 I   A-B       0.15
                                I
 I   A-C       3.30
                                I
 I   A-D       1.05      8.43    0.124                0.18   0.14        2.2
                                I
 I   D-ABC     2.55      8.46    0.301                0.62   0.44        6.8
                                I
 I   C-ABD     0.42     10.20    0.041                0.08   0.06        0.9
                                I
 I   C-D       0.72
                                I
 I   C-A       2.16
                                I
 I
                                I
.-------------------------------------------------------------------------------
---------------------------------

.-------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                                I
 I   B-ACD     0.75      6.39    0.118                0.17   0.14        2.1
                                I
 I   A-B       0.13
                                I
 I   A-C       2.76
                                I
 I   A-D       0.88      8.55    0.103                0.14   0.12        1.8
                                I
 I   D-ABC     2.13      8.72    0.244                0.44   0.33        5.1
                                I
 I   C-ABD     0.33     10.02    0.033                0.06   0.05        0.7
                                I
 I   C-D       0.61
                                I
 I   C-A       1.82
                                I
 I
                                I
.-------------------------------------------------------------------------------
---------------------------------
*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
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.
 QUEUE FOR STREAM    B-ACD
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.2
   08.45           0.2
   09.00           0.2
   09.15           0.2
   09.30           0.1
.
 QUEUE FOR STREAM    A-D
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.2
   09.00           0.2
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    D-ABC
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.3
   08.30           0.4
   08.45           0.6    *
   09.00           0.6    *
   09.15           0.4
   09.30           0.3
.
 QUEUE FOR STREAM    C-ABD
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.0
.
                 QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                 --------------------------------------------
 ------------------------------------------------------------------------------
 I STREAM I   TOTAL DEMAND  I   * QUEUEING *      I * INCLUSIVE QUEUEING * I
 I        I                 I    * DELAY *        I       * DELAY *        I
 I        I-----------------------------------------------------------------I
 I        I  (VEH)  (VEH/H) I  (MIN)    (MIN/VEH) I    (MIN)     (MIN/VEH) I
```

B-ACD	82.6	55.1	15.8	0.19	15.8	0.19	
A-B	13.8	9.2					
A-C	302.8	201.9					
A-D	96.3	64.2	13.1	0.14	13.1	0.14	
D-ABC	234.0	156.0	40.7	0.17	40.7	0.17	
C-ABD	39.1	26.1	5.6	0.14	5.6	0.14	
C-D	65.9	43.9					
C-A	197.8	131.8					
ALL	1032.3	688.2	75.1	0.07	75.1	0.07	

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
602.92	0.21	0.08

STREAM D-A

Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D
786.65	0.27	0.11

STREAM B-A

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For Opposing STREAM D-B
476.98	0.19	0.19	0.19	0.19

STREAM D-C

Intercept For STREAM D-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM D-C
622.33	0.25	0.25	0.25	0.25

STREAM C-D

Intercept For STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For Opposing STREAM D-B
1032.30	0.07	0.07	0.07	0.07

STREAM A-B

Intercept For STREAM A-B	Slope For Opposing STREAM B-C	Slope For Opposing STREAM B-D	Slope For Opposing STREAM D-A	Slope For Opposing STREAM D-B
1032.30	0.07	0.07	0.07	0.07

STREAM C-A

Intercept For STREAM C-A	Slope For Opposing STREAM B-C	Slope For Opposing STREAM B-D	Slope For Opposing STREAM D-A	Slope For Opposing STREAM D-B
1032.30	0.07	0.07	0.07	0.07

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
I 602.92	0.21	0.21	0.29	I

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.21	0.29	0.21	I

B-D Stream From Left Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-B	I
I 476.98	0.19	0.19	0.08	0.28	I

I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I	0.12	0.12	I

B-D Stream From Right Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-B	I
I 476.98	0.19	0.19	0.08	0.28	I

I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	Slope For Opposing	I
I	0.12	0.12	I	

D-B Stream From Left Hand Lane

I Intercept For STREAM D-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-D	I
I 622.33	0.25	0.25	0.10	0.36	I

I	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing	I
I	0.16	0.16	I	

D-B Stream From Right Hand Lane

Intercept For Slope For Opposing STREAM B-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-D
622.33	0.25	0.25	0.10	0.36

	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing
	0.16	0.16	

.TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100
D	100

.Demand set: 2034 Reference PM - J5 Kam Pok Road/ Pok Wai South Road

TIME PERIOD BEGINS 08.00 AND ENDS 09.30

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	2.75	4.13	2.75
ARM B	15.00	45.00	75.00	0.75	1.13	0.75
ARM C	15.00	45.00	75.00	3.00	4.50	3.00
ARM D	15.00	45.00	75.00	1.50	2.25	1.50

.Demand set: 2034 Reference PM - J5 Kam Pok Road/ Pok Wai South Road

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D
08.00 - 09.30	ARM A	0.000	0.045	0.636	0.318
		0.0	10.0	140.0	70.0
		(0.0)	(10.0)	(10.0)	(10.0)
	ARM B	0.167	0.000	0.167	0.667
		10.0	0.0	10.0	40.0
		(10.0)	(0.0)	(10.0)	(10.0)
	ARM C	0.625	0.042	0.000	0.333
		150.0	10.0	0.0	80.0
		(10.0)	(10.0)	(0.0)	(10.0)
	ARM D	0.500	0.250	0.250	0.000
		60.0	30.0	30.0	0.0
		(10.0)	(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

. QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET 2034 Reference PM - J5 Kam Pok Road/ Pok Wai South Road
AND FOR TIME PERIOD 1

TIME SEGMENT		DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ VEHICLE (MIN)	GEOMETRIC DELAY (VEH.MIN/ TIME (MIN)	AVERAGE DELAY PER ARRIVING
08.00-08.15										
	B-ACD	0.75	6.61	0.114		0.00	0.13	1.8		
	A-B	0.13								
	A-C	1.76								
	A-D	0.88	8.51	0.103		0.00	0.11	1.6		
	D-ABC	1.51	9.46	0.159		0.00	0.19	2.7		
	C-ABD	0.17	10.46	0.016		0.00	0.02	0.3		
	C-D	0.99								
	C-A	1.85								
08.15-08.30										
	B-ACD	0.90	6.43	0.140		0.13	0.16	2.3		
	A-B	0.15								
	A-C	2.10								
	A-D	1.05	8.38	0.125		0.11	0.14	2.1		
	D-ABC	1.80	9.24	0.194		0.19	0.24	3.5		
	C-ABD	0.22	10.72	0.020		0.02	0.02	0.4		
	C-D	1.18								
	C-A	2.20								
08.30-08.45										
	B-ACD	1.10	6.19	0.178		0.16	0.21	3.1		
	A-B	0.18								
	A-C	2.57								
	A-D	1.28	8.22	0.156		0.14	0.18	2.7		
	D-ABC	2.20	8.95	0.246		0.24	0.32	4.7		
	C-ABD	0.29	11.08	0.026		0.02	0.03	0.5		
	C-D	1.43								
	C-A	2.68								
08.45-09.00										
	B-ACD	1.10	6.19	0.178		0.21	0.21	3.2		
	A-B	0.18								
	A-C	2.57								

```
 I   A-D       1.28      8.21    0.156               0.18   0.18        2.8
                                 I
 I   D-ABC     2.20      8.94    0.246               0.32   0.32        4.9
                                 I
 I   C-ABD     0.29     11.08    0.026               0.03   0.03        0.5
                                 I
 I   C-D       1.43
                                 I
 I   C-A       2.68
                                 I
 I
                                 I
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----------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                                 I
 I   B-ACD     0.90      6.43    0.140               0.21   0.16        2.5
                                 I
 I   A-B       0.15
                                 I
 I   A-C       2.10
                                 I
 I   A-D       1.05      8.38    0.125               0.18   0.14        2.2
                                 I
 I   D-ABC     1.80      9.24    0.195               0.32   0.24        3.8
                                 I
 I   C-ABD     0.22     10.72    0.020               0.03   0.02        0.4
                                 I
 I   C-D       1.18
                                 I
 I   C-A       2.20
                                 I
 I
                                 I
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----------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                                 I
 I   B-ACD     0.75      6.60    0.114               0.16   0.13        2.0
                                 I
 I   A-B       0.13
                                 I
 I   A-C       1.76
                                 I
 I   A-D       0.88      8.51    0.103               0.14   0.12        1.8
                                 I
 I   D-ABC     1.51      9.46    0.159               0.24   0.19        2.9
                                 I
 I   C-ABD     0.17     10.46    0.016               0.02   0.02        0.3
                                 I
 I   C-D       0.99
                                 I
 I   C-A       1.85
                                 I
 I
                                 I
.--------------------------------------------------------------------------------
----------------------------------
*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.2
   08.45           0.2
   09.00           0.2
   09.15           0.2
   09.30           0.1
.
 QUEUE FOR STREAM    A-D
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.2
   09.00           0.2
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    D-ABC
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.2
   08.30           0.2
   08.45           0.3
   09.00           0.3
   09.15           0.2
```

```
  09.30           0.2
```

QUEUE FOR STREAM C-ABD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-ACD	82.6	55.1	15.0	0.18	15.0	0.18
A-B	13.8	9.2				
A-C	192.7	128.5				
A-D	96.3	64.2	13.2	0.14	13.2	0.14
D-ABC	165.2	110.1	22.5	0.14	22.5	0.14
C-ABD	20.3	13.5	2.3	0.11	2.3	0.11
C-D	107.9	71.9				
C-A	202.2	134.8				
ALL	880.9	587.3	52.9	0.06	52.9	0.06

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

****** PICADY 5 run completed.

JUNCTION CAPACITY CALCULATION

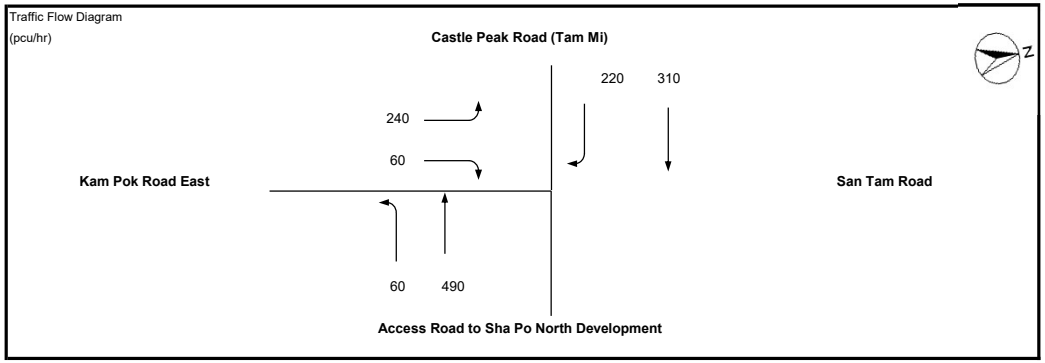
AECOM

Junction J6 - Castle Peak Road -Tam Mi / Kam Pok Road East	2034 AM Peak Hour Reference Traffic Flows	DESIGN: MKCN	CHECK: SHSN	JOB NO: -	DATE: May 21

J6

Traffic Flow Diagram

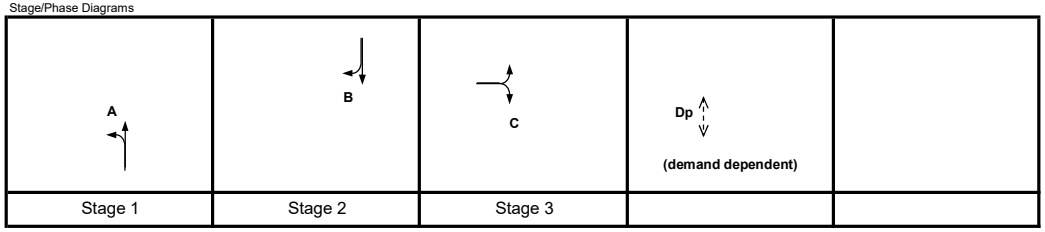
(pcu/hr)



No. of stages per cycle	N =	3	
Cycle time	C =	90	sec
Sum(y)	Y =	0.570	
Lost time	L =	13	sec
Total Flow	=	10,075	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	57	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	30	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.803	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	40.7	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	36	sec
Y_{max}	$= 1-L/C$	=	0.856	

Stage/Phase Diagrams



Critical Case : A,B,C,Dp

R.C.(C) = $(0.9xY_{max}-Y)/Yx100\%$ = 35%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.500	1	25			1		0		1965	60	490		550	11%		1952	0.282	0.282
	B	2	3.400	1				1		0		1955		310		310			1955	0.159	0.159
	B	2	3.500	1		30	0	0		0		2105			220	220		100%	2005	0.110	
	C	3	3.400	1	25			1		0		1955	240			240	100%		1844	0.130	0.130
	C	3	3.400	1		30	0	0		0		2095			60	60		100%	1995	0.030	

Pedestrian Crossing			GM		FGM					
	Dp	4	min.	13	+	12	=	25	sec	

JUNCTION CAPACITY CALCULATION

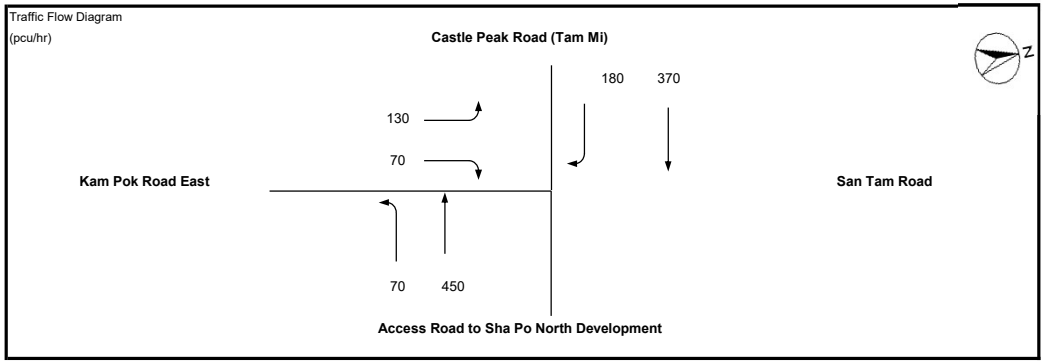
AECOM

Junction J6 - Castle Peak Road -Tam Mi / Kam Pok Road East	2034 PM Peak Hour Reference Traffic Flows	DESIGN: MKCN	CHECK: SHSN	JOB NO: -	DATE: May 21

J6

Traffic Flow Diagram

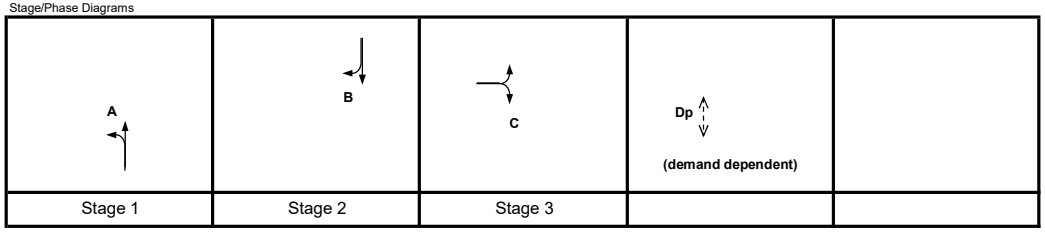
(pcu/hr)



No. of stages per cycle	N =	3	
Cycle time	C =	90	sec
Sum(y)	Y =	0.527	
Lost time	L =	13	sec
Total Flow	=	10,075	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	52	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	27	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.803	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	52.4	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	31	sec
Y_{max}	$= 1-L/C$	=	0.856	

Stage/Phase Diagrams



Critical Case : A,B,C,Dp

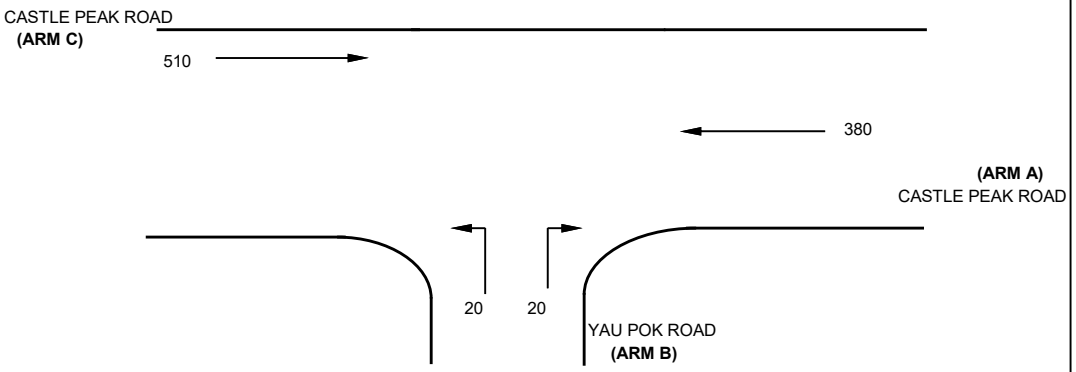
R.C.(C) = $(0.9xY_{max}-Y)/Yx100\%$ = 46%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
↰	A	1	3.500	1	25			1		0		1965	70	450		520	13%		1949	0.267	0.267
↓	B	2	3.400	1				1		0		1955		370		370			1955	0.189	0.189
↳	B	2	3.500	1		30	0	0		0		2105			180	180		100%	2005	0.090	
→	C	3	3.400	1	25			1		0		1955	130			130	100%		1844	0.070	0.070
↳	C	3	3.400	1		30	0	0		0		2095			70	70		100%	1995	0.035	

Pedestrian Crossing			GM		FGM				
	Dp	4	min.	13	+	12	=	25	sec

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J7 - Castle Peak Road / Yau Pok Road	2034 AM Reference Flow	Designed By : MHS	Checked By : WCS	Job No. :	Date : Jan 00



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.5 (metres)
W cr	=	0 (metres)
q a-b	=	0 (pcu/hr)
q a-c	=	380 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0 (metres)
Vr c-b	=	25 (metres)
q c-a	=	510 (pcu/hr)
q c-b	=	0 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	1.8 (metres)
W b-c	=	1.8 (metres)
Vl b-a	=	25 (metres)
Vr b-a	=	25 (metres)
Vr b-c	=	25 (metres)
q b-a	=	20 (pcu/hr)
q b-c	=	20 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.698808
E	=	0.755468
F	=	0.600735
Y	=	0.775750

THE CAPACITY OF MOVEMENT :

Q b-a	=	300
Q b-c	=	482
Q c-b	=	383
Q b-ac	=	370

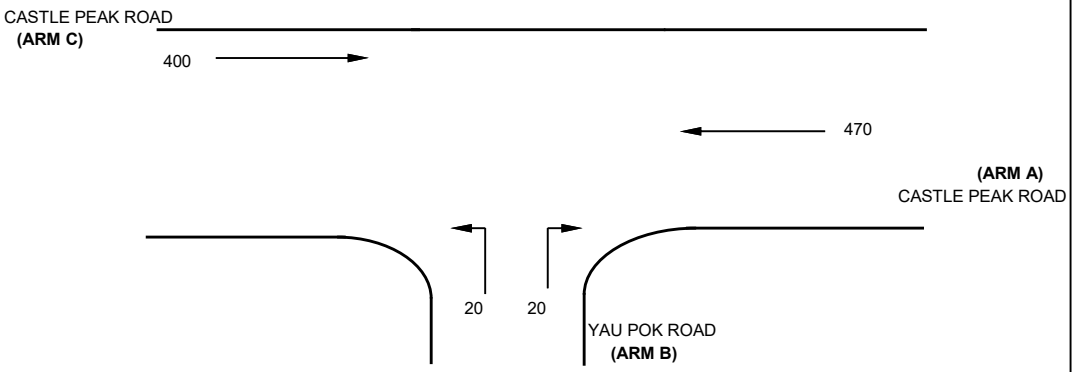
CRITICAL DFC = 0.07

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.07
DFC b-c	=	0.04
DFC c-b	=	0.00

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J7 - Castle Peak Road / Yau Pok Road	2034 PM Reference Flow	Designed By : MHS	Checked By : WCS	Job No. :	Date : Jan 00



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.5 (metres)
W cr	=	0 (metres)
q a-b	=	0 (pcu/hr)
q a-c	=	470 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0 (metres)
Vr c-b	=	25 (metres)
q c-a	=	400 (pcu/hr)
q c-b	=	0 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	1.8 (metres)
W b-c	=	1.8 (metres)
Vl b-a	=	25 (metres)
Vr b-a	=	25 (metres)
Vr b-c	=	25 (metres)
q b-a	=	20 (pcu/hr)
q b-c	=	20 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.698808
E	=	0.755468
F	=	0.600735
Y	=	0.775750

THE CAPACITY OF MOVEMENT :

Q b-a	=	296
Q b-c	=	463
Q c-b	=	368
Q b-ac	=	361

CRITICAL DFC = 0.07

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.07
DFC b-c	=	0.04
DFC c-b	=	0.00

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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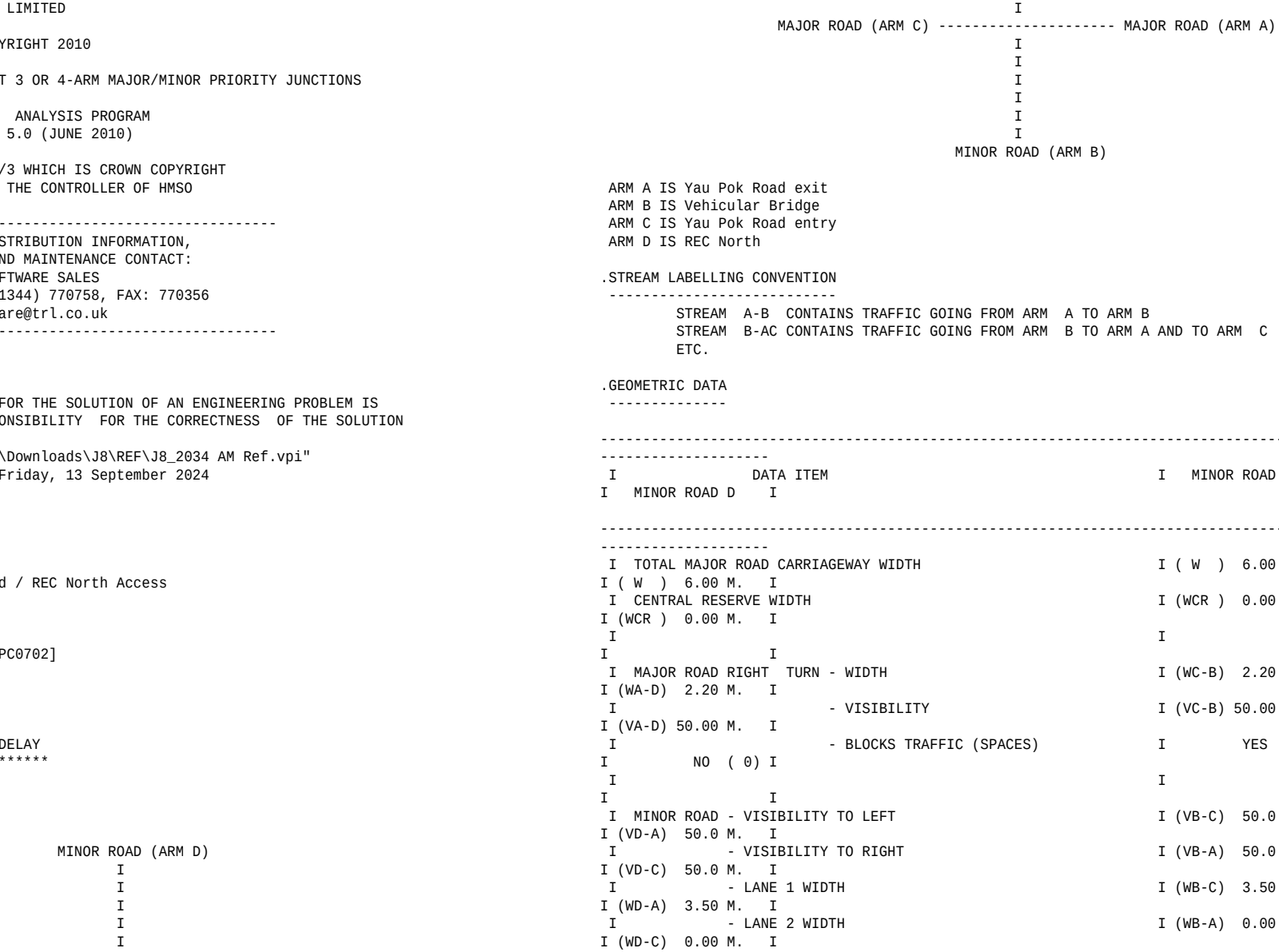
Run with file:- "C:\Users\Sam.Wong\Downloads\J8\REF\J8_2034 AM Ref.vpi"
(drive-on-the-left) at 12:37:31 on Friday, 13 September 2024

.RUN INFORMATION
****

RUN TITLE : J8 - Yau Pok Road / REC North Access
LOCATION : Fairview
DATE : 09/02/24
CLIENT : SHK
ENUMERATOR : sam.wong [HKSHT1PC0702]
JOB NUMBER :
STATUS :
DESCRIPTION :

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Yau Pok Road exit
ARM B IS Vehicular Bridge
ARM C IS Yau Pok Road entry
ARM D IS REC North

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 6.00 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 50.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (0)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 50.0 M.
- VISIBILITY TO RIGHT	(VB-A) 50.0 M.
- LANE 1 WIDTH	(WB-C) 3.50 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

DATA ITEM	MINOR ROAD D
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 6.00 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WA-D) 2.20 M.
- VISIBILITY	(VA-D) 50.00 M.
- BLOCKS TRAFFIC (SPACES)	NO (0)
MINOR ROAD - VISIBILITY TO LEFT	(VD-A) 50.0 M.
- VISIBILITY TO RIGHT	(VD-C) 50.0 M.
- LANE 1 WIDTH	(WD-A) 3.50 M.
- LANE 2 WIDTH	(WD-C) 0.00 M.

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
I 688.22	0.27	0.11	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I 688.22	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For OpposingI STREAM D-B I
I 544.46	0.25	0.25	0.25	0.25 I

I	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For OpposingI STREAM D-C I
I	0.10	0.16	0.36	0.13 I

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For OpposingI STREAM B-D I
I 544.46	0.25	0.25	0.25	0.25 I

I	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For OpposingI STREAM B-A I
I	0.10	0.16	0.36	0.13 I

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For OpposingI STREAM A-D I
I 602.92	0.23	0.23	0.33 I

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.23	0.33	0.23	I

B-D Stream From Left Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For OpposingI STREAM C-B I
I 544.46	0.25	0.25	0.10	0.36 I

I Intercept For STREAM D-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	Slope For OpposingI STREAM A-D I
I 544.46	0.25	0.25	0.10	0.36 I

B-D Stream From Right Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For OpposingI STREAM C-B I
I 544.46	0.25	0.25	0.10	0.36 I

I Intercept For STREAM D-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	Slope For OpposingI STREAM A-D I
I 544.46	0.25	0.25	0.10	0.36 I

D-B Stream From Left Hand Lane

I Intercept For STREAM D-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	Slope For OpposingI STREAM A-D I
I 544.46	0.25	0.25	0.10	0.36 I

I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM A-B	Slope For OpposingI STREAM C-B I
I	0.16	0.16	I

D-B Stream From Right Hand Lane

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 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing   Slope
For OpposingI
 I STREAM B-D     STREAM  C-A          STREAM C-B          STREAM  C-D          STREAM
 A-D       I

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 I     544.46            0.25               0.25                 0.10
0.36       I

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 I              Slope For Opposing   Slope For Opposing   Slope For Opposing   Slope
For OpposingI
 I                STREAM  A-C          STREAM A-B

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 I                       0.16               0.16
           I

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.TRAFFIC DEMAND DATA
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 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
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.Demand set:        J8 2034 REF AM - Yau Pok Road / REC North Access


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

 ------------------------------------------------------------------------------
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)       I
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 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER       I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK        I
 I        I             I             I           I        I         I              I
 ---------------------------------------------------------------------------------------
 I ARM  A I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00       I
 I ARM  B I     15.00   I     45.00   I    75.00   I  0.63  I   0.94  I  0.63       I
 I ARM  C I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00       I
 I ARM  D I     15.00   I     45.00   I    75.00   I  0.50  I   0.75  I  0.50       I
 ---------------------------------------------------------------------------------------

.Demand set:        J8 2034 REF AM - Yau Pok Road / REC North Access
 ------------------------------------------------------------------
 I                   I         TURNING PROPORTIONS                I
 I                   I         TURNING COUNTS                     I
 I                   I        (PERCENTAGE OF H.V.S)               I
 I                   ----------------------------------------------
 I       TIME        I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ------------------------------------------------------------------
 I   08.00 - 09.30   I         I        I        I        I        I
 I                   I ARM  A  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I        I        I        I        I
 I                   I ARM  B  I  0.400 I  0.000 I  0.000 I  0.600 I
 I                   I         I   20.0 I    0.0 I    0.0 I   30.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I        I        I        I        I
 I                   I ARM  C  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I        I        I        I        I
 I                   I ARM  D  I  0.000 I  1.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I   40.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I        I        I        I        I
 ------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

.             QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
              ---------------------------------------------------------
               FOR DEMAND SET         J8 2034 REF AM - Yau Pok Road / REC North
Access
               AND FOR TIME PERIOD        1
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                          I
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 I   B-ACD     0.63      9.02    0.070               0.00   0.07        1.1
                           I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                           I
 I   D-ABC     0.50      9.07    0.055               0.00   0.06        0.8
                           I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                           I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I
                           I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                           I
 I   B-ACD     0.75      9.01    0.083               0.07   0.09        1.3
                           I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                           I
 I   D-ABC     0.60      9.07    0.066               0.06   0.07        1.0
                           I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                           I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I
                           I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                           I
 I   B-ACD     0.92      9.00    0.102               0.09   0.11        1.7
                           I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                           I
 I   D-ABC     0.73      9.07    0.081               0.07   0.09        1.3
                           I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                           I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I
                           I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                           I
 I   B-ACD     0.92      9.00    0.102               0.11   0.11        1.7
                           I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                           I
 I   D-ABC     0.73      9.07    0.081               0.09   0.09        1.3
                           I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                           I
 I   C-D       0.00
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                          I
 I   C-A       0.00
                          I
 I
                          I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I        (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                          I
 I   B-ACD     0.75      9.01    0.083               0.11   0.09        1.4
                          I
 I   A-B       0.00
                          I
 I   A-C       0.00
                          I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                          I
 I   D-ABC     0.60      9.07    0.066               0.09   0.07        1.1
                          I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                          I
 I   C-D       0.00
                          I
 I   C-A       0.00
                          I
 I
                          I
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----------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I        (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                          I
 I   B-ACD     0.63      9.02    0.070               0.09   0.08        1.2
                          I
 I   A-B       0.00
                          I
 I   A-C       0.00
                          I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                          I
 I   D-ABC     0.50      9.07    0.055               0.07   0.06        0.9
                          I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                          I
 I   C-D       0.00
                          I
 I   C-A       0.00
                          I
 I
                          I
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*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    A-D
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.0
   08.45           0.0
   09.00           0.0
   09.15           0.0
   09.30           0.0
.
 QUEUE FOR STREAM    D-ABC
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.1
```

QUEUE FOR STREAM C-ABD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-ACD	68.8	45.9	8.3	0.12	8.3	0.12
A-B	0.0	0.0				
A-C	0.0	0.0				
A-D	0.0	0.0	0.0	0.00	0.0	0.00
D-ABC	55.1	36.7	6.5	0.12	6.5	0.12
C-ABD	0.0	0.0	0.0	0.00	0.0	0.00
C-D	0.0	0.0				
C-A	0.0	0.0				
ALL	123.9	82.6	14.8	0.12	14.8	0.12

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
688.22	0.27	0.11

STREAM D-A

Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D
688.22	0.27	0.11

STREAM B-A

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For Opposing STREAM D-B
544.46	0.25	0.25	0.25	0.25

Intercept	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM D-C
	0.10	0.16	0.36	0.13

STREAM D-C

Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For Opposing STREAM B-D

I	544.46	0.25	0.25	0.25	0.25	I

I	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM B-A	I
I	0.10	0.16	0.36	0.13	I

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
I 602.92	0.23	0.23	0.33	I

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.23	0.33	0.23	I

B-D Stream From Left Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-B	I
I 544.46	0.25	0.25	0.10	0.36	I

I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	Slope For Opposing	Slope For Opposing	I
I	0.16	0.16			I

B-D Stream From Right Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-B	I
I 544.46	0.25	0.25	0.10	0.36	I

I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	Slope For Opposing	Slope For Opposing	I
I	0.16	0.16			I

D-B Stream From Left Hand Lane

I Intercept For STREAM D-B A-D I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	Slope For OpposingI STREAM A-D I
I 544.46	0.25	0.25	0.10	0.36 I

I Intercept For STREAM B-D A-D I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	Slope For OpposingI STREAM A-D I
I 544.46	0.25	0.25	0.10	0.36 I

D-B Stream From Right Hand Lane

I	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing	Slope For OpposingI I
I	0.16	0.16		I

I	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing	Slope For OpposingI I
I	0.16	0.16		I

.TRAFFIC DEMAND DATA

I ARM I	FLOW SCALE(%) I
I A I	100 I
I B I	100 I
I C I	100 I
I D I	100 I

.Demand set: J8 2034 REF PM - Yau Pok Road / REC North Access

TIME PERIOD BEGINS 08.00 AND ENDS 09.30

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

I ARM I	NUMBER OF MINUTES FROM START WHEN FLOW STARTS I TO RISE I	I TOP OF PEAK I IS REACHED I	I FLOW STOPS I FALLING I	RATE OF FLOW (VEH/MIN) I BEFORE I PEAK I	I AT TOP I OF PEAK I	I AFTER I PEAK I
I ARM A I	15.00 I	45.00 I	75.00 I	0.00 I	0.00 I	0.00 I
I ARM B I	15.00 I	45.00 I	75.00 I	0.75 I	1.13 I	0.75 I
I ARM C I	15.00 I	45.00 I	75.00 I	0.00 I	0.00 I	0.00 I
I ARM D I	15.00 I	45.00 I	75.00 I	0.50 I	0.75 I	0.50 I

.Demand set: J8 2034 REF PM - Yau Pok Road / REC North Access

I TIME I	TURNING PROPORTIONS / TURNING COUNTS / (PERCENTAGE OF H.V.S) FROM/TO I ARM A I ARM B I ARM C I ARM D I

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 I   08.00 - 09.30    I         I        I        I        I        I
 I                    I ARM  A  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  B  I  0.333 I  0.000 I  0.000 I  0.667 I
 I                    I         I   20.0 I    0.0 I    0.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  C  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  D  I  0.000 I  1.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I   40.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 ------------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ---------------------------------------------------------
                FOR DEMAND SET         J8 2034 REF PM - Yau Pok Road / REC North
Access
                AND FOR TIME PERIOD        1
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                          I
 I   B-ACD     0.75      9.03    0.083               0.00   0.09        1.3
                          I
 I   A-B       0.00
                          I
 I   A-C       0.00
                          I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                          I
 I   D-ABC     0.50      9.07    0.055               0.00   0.06        0.8
                          I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                          I
 I   C-D       0.00
                          I
 I   C-A       0.00
                          I
 I
                          I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                          I
 I   B-ACD     0.90      9.02    0.100               0.09   0.11        1.6
                          I
 I   A-B       0.00
                          I
 I   A-C       0.00
                          I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                          I
 I   D-ABC     0.60      9.07    0.066               0.06   0.07        1.0
                          I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                          I
 I   C-D       0.00
                          I
 I   C-A       0.00
                          I
 I
                          I
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-----------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                          I
 I   B-ACD     1.10      9.01    0.122               0.11   0.14        2.0
                          I
 I   A-B       0.00
                          I
 I   A-C       0.00
                          I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                          I
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 I   D-ABC     0.73      9.07    0.081               0.07   0.09        1.3
                          I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                          I
 I   C-D       0.00
                          I
 I   C-A       0.00
                          I
 I
                          I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                          I
 I   B-ACD     1.10      9.01    0.122               0.14   0.14        2.1
                          I
 I   A-B       0.00
                          I
 I   A-C       0.00
                          I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                          I
 I   D-ABC     0.73      9.07    0.081               0.09   0.09        1.3
                          I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                          I
 I   C-D       0.00
                          I
 I   C-A       0.00
                          I
 I
                          I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                          I
 I   B-ACD     0.90      9.02    0.100               0.14   0.11        1.7
                          I
 I   A-B       0.00
                          I
 I   A-C       0.00
                          I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                          I
 I   D-ABC     0.60      9.07    0.066               0.09   0.07        1.1
                          I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                          I
 I   C-D       0.00
                          I
 I   C-A       0.00
                          I
 I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                          I
 I   B-ACD     0.75      9.03    0.083               0.11   0.09        1.4
                          I
 I   A-B       0.00
                          I
 I   A-C       0.00
                          I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                          I
 I   D-ABC     0.50      9.07    0.055               0.07   0.06        0.9
                          I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                          I
 I   C-D       0.00
                          I
 I   C-A       0.00
                          I
 I
                          I
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*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
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QUEUE FOR STREAM B-ACD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1
09.15	0.1
09.30	0.1

.

QUEUE FOR STREAM A-D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

.

QUEUE FOR STREAM D-ABC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1
09.15	0.1
09.30	0.1

.

QUEUE FOR STREAM C-ABD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

.

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING *		* INCLUSIVE QUEUEING *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-ACD	82.6	55.1	10.1	0.12	10.1	0.12
A-B	0.0	0.0				
A-C	0.0	0.0				
A-D	0.0	0.0	0.0	0.00	0.0	0.00
D-ABC	55.1	36.7	6.5	0.12	6.5	0.12
C-ABD	0.0	0.0	0.0	0.00	0.0	0.00
C-D	0.0	0.0				
C-A	0.0	0.0				
ALL	137.6	91.8	16.6	0.12	16.6	0.12

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

****** PICADY 5 run completed.

TRL LIMITED

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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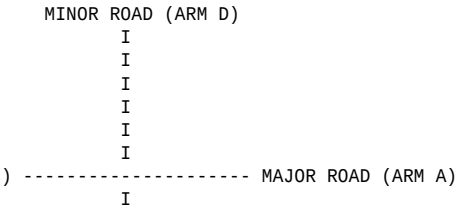
Run with file:- "C:\Users\Sam.Wong\Downloads\J9\REF\J9_2034 AM REF.vpi"
(drive-on-the-left) at 14:18:48 on Friday, 13 September 2024

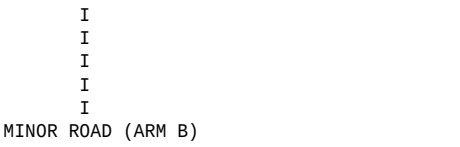
.RUN INFORMATION
****

RUN TITLE : J9 - Yau Pok Road / REC South Access
LOCATION : Fairview
DATE : 09/02/24
CLIENT : SHK
ENUMERATOR : sam.wong [HKSHT1PC0702]
JOB NUMBER :
STATUS :
DESCRIPTION :

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA





ARM A IS Yau Pok Road exit
ARM B IS Vehicular Bridge
ARM C IS Yau Pok Road entry
ARM D IS REC South

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD D
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH (W)	6.00 M.
CENTRAL RESERVE WIDTH (WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH (WA-D)	2.20 M.
- VISIBILITY (VA-D)	50.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (0)
	NO (0)
MINOR ROAD - VISIBILITY TO LEFT (VD-A)	50.0 M.
- VISIBILITY TO RIGHT (VD-C)	50.0 M.
- LANE 1 WIDTH (WD-A)	3.50 M.
- LANE 2 WIDTH (WD-C)	0.00 M.

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH (W)	6.00 M.
CENTRAL RESERVE WIDTH (WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH (WC-B)	2.20 M.
- VISIBILITY (VC-B)	50.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (0)
	NO (0)
MINOR ROAD - VISIBILITY TO LEFT (VB-C)	50.0 M.
- VISIBILITY TO RIGHT (VB-A)	50.0 M.
- LANE 1 WIDTH (WB-C)	3.50 M.
- LANE 2 WIDTH (WB-A)	0.00 M.

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
I 688.22	0.27	0.11	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I 688.22	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For Opposing I
I 544.46	0.25	0.25	0.25	
0.25 I				

STREAM B-D

I Intercept For STREAM B-D	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing I
I 0.10	0.16	0.36		
0.13 I				

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For Opposing I
I 544.46	0.25	0.25	0.25	
0.25 I				

STREAM C-D

I Slope For Opposing	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing I
I 0.10	0.16	0.36		
0.13 I				

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
I 602.92	0.23	0.23	0.33	I

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.23	0.33	0.23	I

B-D Stream From Left Hand Lane

I Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B	STREAM C-B I
I 544.46	0.25	0.25	0.10	0.36 I

I	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I	STREAM C-A	STREAM C-D		
I	0.16	0.16		I

B-D Stream From Right Hand Lane

I Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B	STREAM C-B I
I 544.46	0.25	0.25	0.10	0.36 I

I	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I	STREAM C-A	STREAM C-D		
I	0.16	0.16		I

D-B Stream From Left Hand Lane

I Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM D-B	STREAM C-A	STREAM C-B	STREAM C-D	STREAM A-D I
I 544.46	0.25	0.25	0.10	0.36 I

I	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I	STREAM A-C	STREAM A-B		
I	0.16	0.16		I

D-B Stream From Right Hand Lane

I Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM B-D	STREAM C-A	STREAM C-B	STREAM C-D	STREAM A-D I
I 544.46	0.25	0.25	0.10	0.36 I

I	Slope For Opposing	Slope For Opposing	Slope For Opposing

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Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

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 I                       0.16                0.16
             I

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.TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100
D	100

.Demand set: J9 REF AM- Yau Pok Road / REC South Access

TIME PERIOD BEGINS 08.00 AND ENDS 09.30

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	0.00	0.00	0.00
ARM B	15.00	45.00	75.00	0.38	0.56	0.38
ARM C	15.00	45.00	75.00	0.13	0.19	0.13
ARM D	15.00	45.00	75.00	0.50	0.75	0.50

.Demand set: J9 REF AM- Yau Pok Road / REC South Access

TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D
08.00 - 09.30					
	ARM A	0.000	0.000	0.000	0.000
		0.0	0.0	0.0	0.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM B	0.000	0.000	0.000	1.000
		0.0	0.0	0.0	30.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM C	0.000	1.000	0.000	0.000
		0.0	10.0	0.0	0.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM D	0.000	1.000	0.000	0.000
		0.0	40.0	0.0	0.0
		(0.0)	(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

. QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET J9 REF AM- Yau Pok Road / REC South Access
AND FOR TIME PERIOD 1

TIME SEGMENT		DEMAND FLOW (VEH/MIN)	CAPACITY (VEH/MIN) (RFC)	DEMAND/ CAPACITY	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ VEHICLE (MIN))
08.00-08.15								
	B-ACD	0.38	9.03	0.042		0.00	0.04	0.6
	A-B	0.00						
	A-C	0.00						
	A-D	0.00	9.10	0.000		0.00	0.00	0.0
	D-ABC	0.50	9.04	0.056		0.00	0.06	0.8
	C-ABD	0.13	10.05	0.012		0.00	0.01	0.2
	C-D	0.00						

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 I   C-A       0.00
                             I
 I
                             I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                             I
 I   B-ACD     0.45      9.02    0.050                0.04   0.05        0.8
                             I
 I   A-B       0.00
                             I
 I   A-C       0.00
                             I
 I   A-D       0.00      9.09    0.000                0.00   0.00        0.0
                             I
 I   D-ABC     0.60      9.04    0.066                0.06   0.07        1.0
                             I
 I   C-ABD     0.15     10.05    0.015                0.01   0.02        0.2
                             I
 I   C-D       0.00
                             I
 I   C-A       0.00
                             I
 I
                             I
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-------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                             I
 I   B-ACD     0.55      9.01    0.061                0.05   0.06        0.9
                             I
 I   A-B       0.00
                             I
 I   A-C       0.00
                             I
 I   A-D       0.00      9.08    0.000                0.00   0.00        0.0
                             I
 I   D-ABC     0.73      9.03    0.081                0.07   0.09        1.3
                             I
 I   C-ABD     0.18     10.05    0.018                0.02   0.02        0.3
                             I
 I   C-D       0.00
                             I
 I   C-A       0.00
                             I
 I
                             I
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-------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                             I
 I   B-ACD     0.55      9.01    0.061                0.06   0.06        1.0
                             I
 I   A-B       0.00
                             I
 I   A-C       0.00
                             I
 I   A-D       0.00      9.08    0.000                0.00   0.00        0.0
                             I
 I   D-ABC     0.73      9.03    0.081                0.09   0.09        1.3
                             I
 I   C-ABD     0.18     10.05    0.018                0.02   0.02        0.3
                             I
 I   C-D       0.00
                             I
 I   C-A       0.00
                             I
 I
                             I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                             I
 I   B-ACD     0.45      9.02    0.050                0.06   0.05        0.8
                             I
```

```
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.09    0.000                0.00   0.00        0.0
                           I
 I   D-ABC     0.60      9.04    0.066                0.09   0.07        1.1
                           I
 I   C-ABD     0.15     10.05    0.015                0.02   0.02        0.2
                           I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I
                           I
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------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                           I
 I   B-ACD     0.38      9.03    0.042                0.05   0.04        0.7
                           I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.10    0.000                0.00   0.00        0.0
                           I
 I   D-ABC     0.50      9.04    0.056                0.07   0.06        0.9
                           I
 I   C-ABD     0.13     10.05    0.012                0.02   0.01        0.2
                           I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I
                           I
.-------------------------------------------------------------------------------
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*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
    08.15           0.0
    08.30           0.1
    08.45           0.1
    09.00           0.1
    09.15           0.1
    09.30           0.0
.
 QUEUE FOR STREAM    A-D
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
    08.15           0.0
    08.30           0.0
    08.45           0.0
    09.00           0.0
    09.15           0.0
    09.30           0.0
.
 QUEUE FOR STREAM    D-ABC
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
    08.15           0.1
    08.30           0.1
    08.45           0.1
    09.00           0.1
    09.15           0.1
    09.30           0.1
.
 QUEUE FOR STREAM    C-ABD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
    08.15           0.0
    08.30           0.0
    08.45           0.0
    09.00           0.0
    09.15           0.0
    09.30           0.0
.
                 QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                 --------------------------------------------
 -------------------------------------------------------------------------------
 I STREAM I   TOTAL DEMAND  I   * QUEUEING *      I * INCLUSIVE QUEUEING * I
 I        I                 I    * DELAY *        I       * DELAY *        I
 I        I-----------------------------------------------------------------I
 I        I  (VEH)  (VEH/H) I  (MIN)    (MIN/VEH) I    (MIN)     (MIN/VEH) I
 -------------------------------------------------------------------------------
 I  B-ACD I   41.3 I   27.5 I     4.8 I    0.12   I       4.8  I    0.12   I
 I  A-B   I    0.0 I    0.0 I         I           I            I           I
 I  A-C   I    0.0 I    0.0 I         I           I            I           I
 I  A-D   I    0.0 I    0.0 I     0.0 I    0.00   I       0.0  I    0.00   I
 I  D-ABC I   55.1 I   36.7 I     6.5 I    0.12   I       6.5  I    0.12   I
```

I C-ABD I	13.8 I	9.2 I	1.4 I	0.10 I	1.4 I	0.10 I		
I C-D I	0.0 I	0.0 I	I	I	I	I		
I C-A I	0.0 I	0.0 I	I	I	I	I		
I ALL I	110.1 I	73.4 I	12.7 I	0.12 I	12.7 I	0.12 I		

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
I 688.22	0.27	0.11 I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D
I 688.22	0.27	0.11 I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A
I 544.46	0.25	0.25	0.25 I 0.25 I

I	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
I	0.10	0.16	0.36 I 0.13 I

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C
I 544.46	0.25	0.25	0.25 I 0.25 I

I	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D
I	0.10	0.16	0.36 I 0.13 I

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D
I 602.92	0.23	0.23	0.33 I

```
 ---------------------------------------------------------------------------


 STREAM   A-D
 ---------------------------------------------------------------------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For OpposingI
 I STREAM A-D     STREAM C-A          STREAM  C-B          STREAM C-D        I
 ---------------------------------------------------------------------------
 I     602.92           0.23               0.33               0.23        I
 ---------------------------------------------------------------------------


 B-D Stream From Left Hand Lane

-------------------------------------------------------------------------------
--------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  A-C          STREAM A-D          STREAM  A-B
STREAM  C-B       I

-------------------------------------------------------------------------------
--------------
 I     544.46           0.25               0.25                0.10
  0.36       I

-------------------------------------------------------------------------------
--------------

-------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I               STREAM  C-A          STREAM C-D

-------------------------------------------------------------------------------
--------------
 I                     0.16               0.16
             I

-------------------------------------------------------------------------------
--------------


 B-D Stream From Right Hand Lane

-------------------------------------------------------------------------------
--------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  A-C          STREAM A-D          STREAM  A-B
STREAM  C-B       I

-------------------------------------------------------------------------------
--------------
 I     544.46           0.25               0.25                0.10
  0.36       I

-------------------------------------------------------------------------------
--------------

-------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I               STREAM  C-A          STREAM C-D

-------------------------------------------------------------------------------
--------------
 I                     0.16               0.16
             I

-------------------------------------------------------------------------------
--------------


 D-B Stream From Left Hand Lane

-------------------------------------------------------------------------------
--------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM D-B     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------
--------------
 I     544.46           0.25               0.25                0.10
  0.36       I

-------------------------------------------------------------------------------
--------------

-------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I               STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
--------------
 I                     0.16               0.16
             I

-------------------------------------------------------------------------------
--------------


 D-B Stream From Right Hand Lane

-------------------------------------------------------------------------------
--------------
```

```
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------
--------------
 I     544.46           0.25               0.25                0.10
  0.36       I

-------------------------------------------------------------------------------
--------------

-------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
--------------
 I                       0.16               0.16
             I

-------------------------------------------------------------------------------
--------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        J9 REF PM - Yau Pok Road / REC South Access


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
I
 I        I            I            I            I       I        I
I

-------------------------------------------------------------------------------
 I ARM  A I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
I
 I ARM  B I     15.00   I     45.00   I    75.00   I  0.50  I   0.75  I  0.50
I
 I ARM  C I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
I
 I ARM  D I     15.00   I     45.00   I    75.00   I  0.50  I   0.75  I  0.50
I

-------------------------------------------------------------------------------

.Demand set:        J9 REF PM - Yau Pok Road / REC South Access
 ---------------------------------------------------------------------
 I                    I         TURNING PROPORTIONS                 I
 I                    I         TURNING COUNTS                      I
 I                    I        (PERCENTAGE OF H.V.S)                I
 I                    ----------------------------------------------
 I        TIME        I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ---------------------------------------------------------------------
 I   08.00 - 09.30    I         I        I        I        I        I
 I                    I ARM  A  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  B  I  0.000 I  0.000 I  0.000 I  1.000 I
 I                    I         I    0.0 I    0.0 I    0.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  C  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  D  I  0.000 I  1.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I   40.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 ---------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ---------------------------------------------------------
                FOR DEMAND SET         J9 REF PM - Yau Pok Road / REC South Access
                AND FOR TIME PERIOD        1
.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
```

I 08.00-08.15							
I	B-ACD	0.50	9.07	0.055	0.00	0.06	0.8
I	A-B	0.00					
I	A-C	0.00					
I	A-D	0.00	9.14	0.000	0.00	0.00	0.0
I	D-ABC	0.50	9.07	0.055	0.00	0.06	0.8
I	C-ABD	0.00	9.14	0.000	0.00	0.00	0.0
I	C-D	0.00					
I	C-A	0.00					

I TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ VEHICLE (MIN)	AVERAGE DELAY PER ARRIVING TIME SEGMENT) I
I 08.15-08.30									
I	B-ACD	0.60	9.07	0.066	0.06	0.07	1.0		
I	A-B	0.00							
I	A-C	0.00							
I	A-D	0.00	9.14	0.000	0.00	0.00	0.0		
I	D-ABC	0.60	9.07	0.066	0.06	0.07	1.0		
I	C-ABD	0.00	9.14	0.000	0.00	0.00	0.0		
I	C-D	0.00							
I	C-A	0.00							

I TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ VEHICLE (MIN)	AVERAGE DELAY PER ARRIVING TIME SEGMENT) I
I 08.30-08.45									
I	B-ACD	0.73	9.07	0.081	0.07	0.09	1.3		
I	A-B	0.00							
I	A-C	0.00							
I	A-D	0.00	9.14	0.000	0.00	0.00	0.0		
I	D-ABC	0.73	9.07	0.081	0.07	0.09	1.3		
I	C-ABD	0.00	9.14	0.000	0.00	0.00	0.0		
I	C-D	0.00							
I	C-A	0.00							

I TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ VEHICLE (MIN)	AVERAGE DELAY PER ARRIVING TIME SEGMENT) I
I 08.45-09.00									
I	B-ACD	0.73	9.07	0.081	0.09	0.09	1.3		
I	A-B	0.00							
I	A-C	0.00							
I	A-D	0.00	9.14	0.000	0.00	0.00	0.0		
I	D-ABC	0.73	9.07	0.081	0.09	0.09	1.3		
I	C-ABD	0.00	9.14	0.000	0.00	0.00	0.0		
I	C-D	0.00							
I	C-A	0.00							

```
                            I
.-------------------------------------------------------------------------------
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.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                            I
 I   B-ACD     0.60      9.07    0.066               0.09   0.07        1.1
                            I
 I   A-B       0.00
                            I
 I   A-C       0.00
                            I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                            I
 I   D-ABC     0.60      9.07    0.066               0.09   0.07        1.1
                            I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                            I
 I   C-D       0.00
                            I
 I   C-A       0.00
                            I
 I
                            I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                            I
 I   B-ACD     0.50      9.07    0.055               0.07   0.06        0.9
                            I
 I   A-B       0.00
                            I
 I   A-C       0.00
                            I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                            I
 I   D-ABC     0.50      9.07    0.055               0.07   0.06        0.9
                            I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                            I
 I   C-D       0.00
                            I
 I   C-A       0.00
                            I
 I
                            I
.-------------------------------------------------------------------------------
------------------------------
*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    A-D
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.0
   08.45           0.0
   09.00           0.0
   09.15           0.0
   09.30           0.0
.
 QUEUE FOR STREAM    D-ABC
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    C-ABD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.0
   08.45           0.0
   09.00           0.0
```

```
  09.15           0.0
  09.30           0.0
```

.

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-ACD	55.1	36.7	6.5	0.12	6.5	0.12
A-B	0.0	0.0				
A-C	0.0	0.0				
A-D	0.0	0.0	0.0	0.00	0.0	0.00
D-ABC	55.1	36.7	6.5	0.12	6.5	0.12
C-ABD	0.0	0.0	0.0	0.00	0.0	0.00
C-D	0.0	0.0				
C-A	0.0	0.0				
ALL	110.1	73.4	12.9	0.12	12.9	0.12

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
 A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

****** PICADY 5 run completed.

JUNCTION CAPACITY CALCULATION

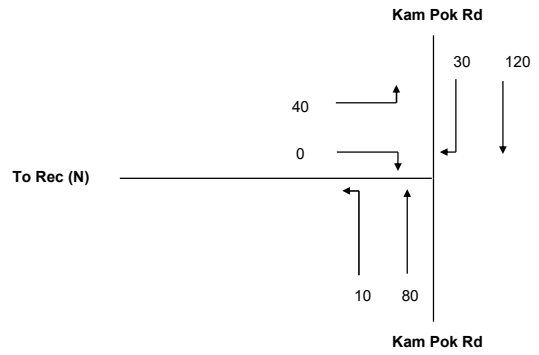
AECOM

Junction J10 - Kam Pok Road / Vehicular Bridge	2034 AM Reference Flows	DESIGN: 0	CHECK: 0	JOB NO: 60XXXXXX	DATE: Sep 24

J10

Traffic Flow Diagram

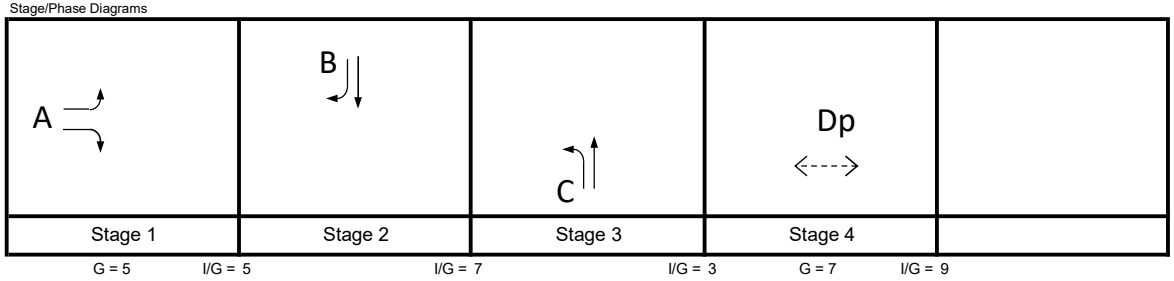
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	60	sec
Sum(y)	Y =	0.125	
Lost time	L =	34	sec
Total Flow	=	280	pcu

Optimum Cycle C_o	= (1.5×L+5)/(1-Y)	=	64	sec
Min. Cycle Time C_m	= L/(1-Y)	=	39	sec
Y_{ult}	= 0.9-0.0075×L	=	0.645	
$R.C._{ult}$	= (Y_{ult}-Y)/Yx100%	=	414.7	%
Practical Cycle Time C_p	= 0.9×L/(0.9-Y)	=	40	sec
Y_{max}	= 1-L/C	=	0.433	

Stage/Phase Diagrams



G = 5 I/G = 5 I/G = 7 I/G = 3 G = 7 I/G = 9

Critical Case : A,B,C,Dp

R.C.(C) = (0.9xY_{max}-Y)/Yx100% = 211%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
↓	A	1	3.600	1	5	10	0	0		0		2115	40		0	40	100%	0%	1627	0.025	
↓	B	2	3.600	1		10	0	1		0		1975		120	30	150		20%	1917	0.078	0.078
↑	C	3	3.600	1	5			1		0		1975	10	80		90	11%		1911	0.047	0.047
Pedestrian Crossing				GM		FGM															
	Dp	4	min.	7	+	7	=	14	sec												*

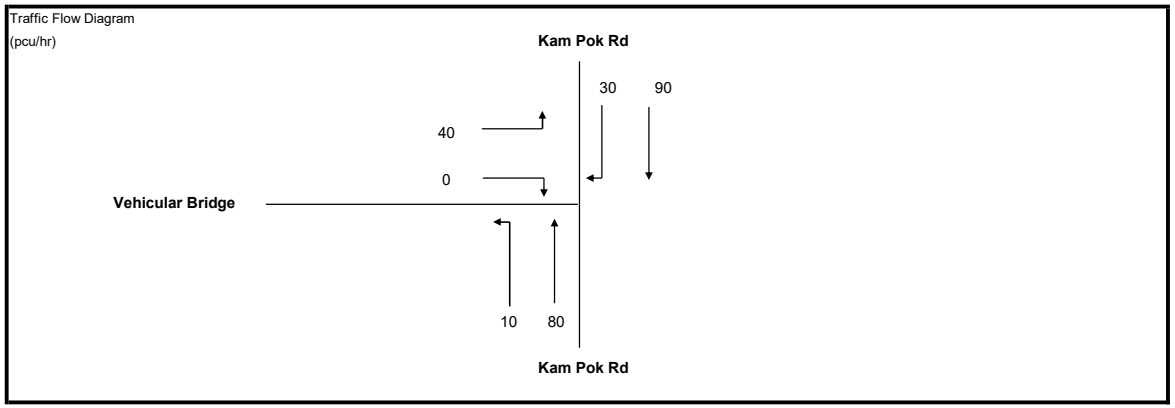
JUNCTION CAPACITY CALCULATION

AECOM

Junction J10 - Kam Pok Road / Vehicular Bridge	2034 PM Reference Flows	DESIGN: 0	CHECK: 0	JOB NO: 60XXXXXX	DATE: Sep 24

J10

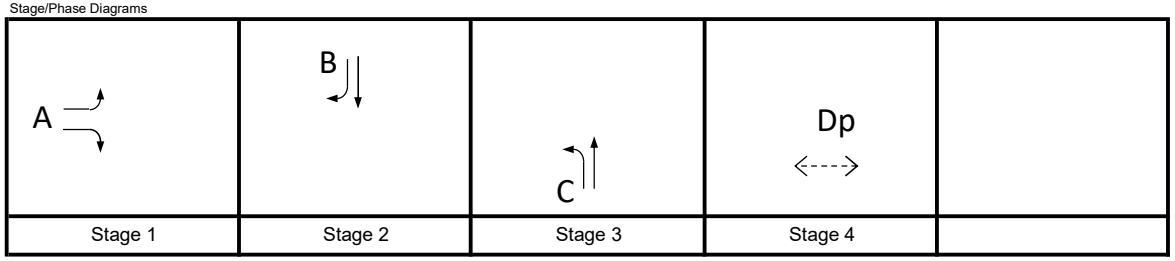
Traffic Flow Diagram (pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	60	sec
Sum(y)	Y =	0.135	
Lost time	L =	27	sec
Total Flow	=	250	pcu

Optimum Cycle C_o	= (1.5×L+5)/(1-Y)	=	53	sec
Min. Cycle Time C_m	= L/(1-Y)	=	31	sec
Y_{ult}	= 0.9-0.0075×L	=	0.698	
$R.C._{ult}$	= (Y_{ult}-Y)/Yx100%	=	417.8	%
Practical Cycle Time C_p	= 0.9×L/(0.9-Y)	=	32	sec
Y_{max}	= 1-L/C	=	0.550	

Stage/Phase Diagrams



Critical Case : A,B,C,Dp

R.C.(C) = (0.9xY_{max}-Y)/Yx100% = 267%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
↓	A	1	3.600	1	5	10	0	0		0		2115	40		0	40	100%	0%	1627	0.025	0.025
↓	B	2	3.600	1		10	0	1		0		1975		90	30	120		25%	1904	0.063	0.063
↑	C	3	3.600	1	5			1		0		1975	10	80		90	11%		1911	0.047	0.047
Pedestrian Crossing				GM		FGM															
	Dp	4	min.	7	+	7	=	14	sec												*

JUNCTION CAPACITY CALCULATION

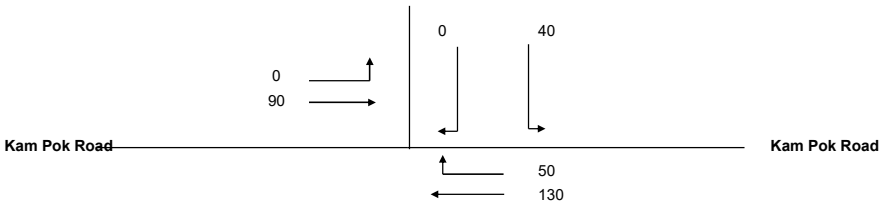
AECOM

Junction J11 - Kam Pok Road / Vehicular Bridge	2034 AM Reference Traffic Flows	DESIGN: 0	CHECK: 0	#VALUE!	DATE: Oct 24

J11

Traffic Flow Diagram

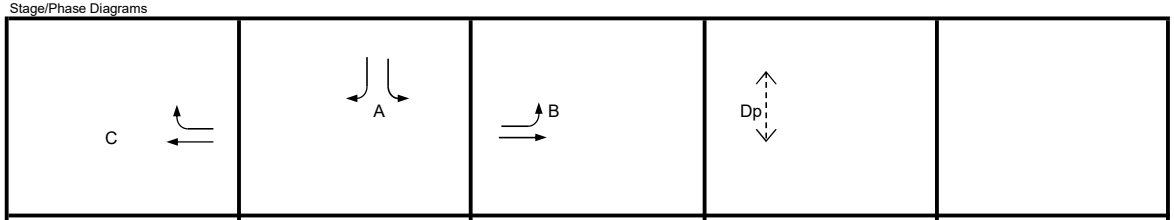
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	60	sec
Sum(y)	Y =	0.138	
Lost time	L =	34	sec
Total Flow	=	310	pcu

Optimum Cycle C_o	= (1.5×L+5)/(1-Y)	=	65	sec
Min. Cycle Time C_m	= L/(1-Y)	=	39	sec
Y_{ult}	= 0.9-0.0075×L	=	0.645	
R.C.$_{ult}$	= (Y_{ult}-Y)/Yx100%	=	367.8	%
Practical Cycle Time C_p	= 0.9×L/(0.9-Y)	=	40	sec
Y_{max}	= 1-L/C	=	0.433	

Stage/Phase Diagrams



I/G = 5 G = 5 I/G = 5 I/G = 5 G = 7 I/G = 9

Critical Case : C,A,B,Dp

R.C.(C) = (0.9xY_{max}-Y)/Yx100% = 183%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	C	1	3.650	1		25	0	1		0		1980		130	50	180		28%	1948	0.092	0.092
	B	3	3.650	1	20			1		0		1980	0	90		90	0%		1980	0.045	0.045
	A	2	3.650	1	20	25	0	1		0		1980	40		0	40	100%	0%	1842	0.022	

Pedestrian Crossing				GM		FGM															
	Dp	4	min.	7	+	7	=	14	sec												*

JUNCTION CAPACITY CALCULATION

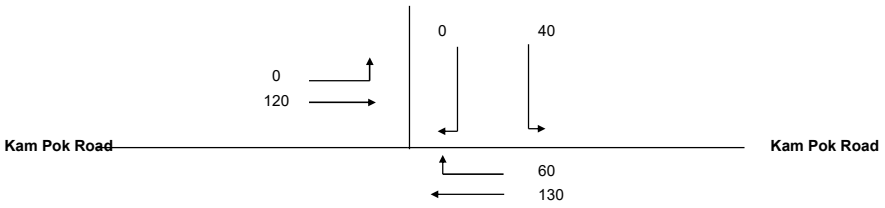
AECOM

Junction J11 - Kam Pok Road / Vehicular Bridge	2034 PM Reference Traffic Flows	DESIGN: 0	CHECK: 0	#VALUE!	DATE: Oct 24

J11

Traffic Flow Diagram

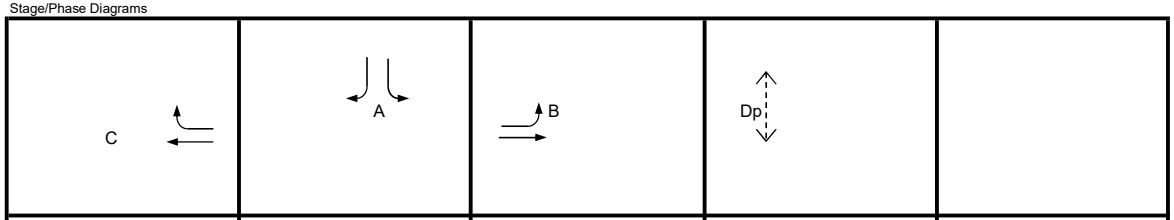
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	60	sec
Sum(y)	Y =	0.158	
Lost time	L =	34	sec
Total Flow	=	350	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	67	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	40	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.645	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	307.2	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	41	sec
Y_{max}	$= 1-L/C$	=	0.433	

Stage/Phase Diagrams



Critical Case : C,A,B,Dp

R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 146%

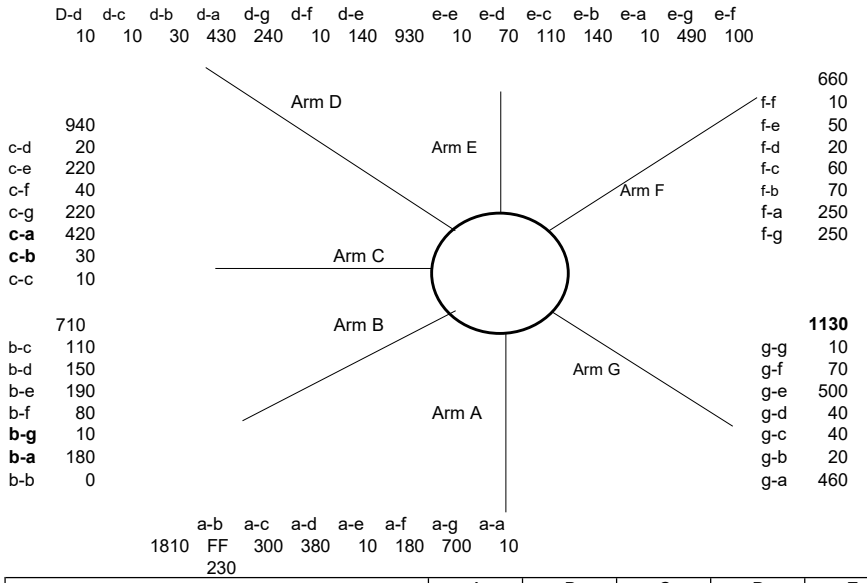
MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	C	1	3.650	1		25	0	1		0		1980		130	60	190		32%	1943	0.098	0.098
	B	3	3.650	1	20			1		0		1980	0	120		120	0%		1980	0.061	0.061
	A	2	3.650	1	20	25	0	1		0		1980	40		0	40	100%	0%	1842	0.022	

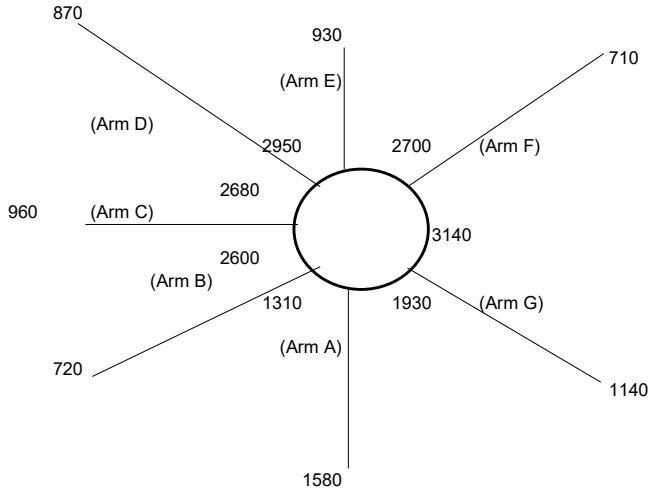
Pedestrian Crossing			GM		FGM					
	Dp	4	min.	7	+	7	=	14	sec	*

Design Flow

ROUNDABOUT CAPACITY CALCULATIC **AECOM**

Junction	Junction J1 - Fairview Roundabout	cenar	2034 AM Design Flows	Project No.	Prepared By	Checked By	Date
				-	MK	JL	Apr 2025





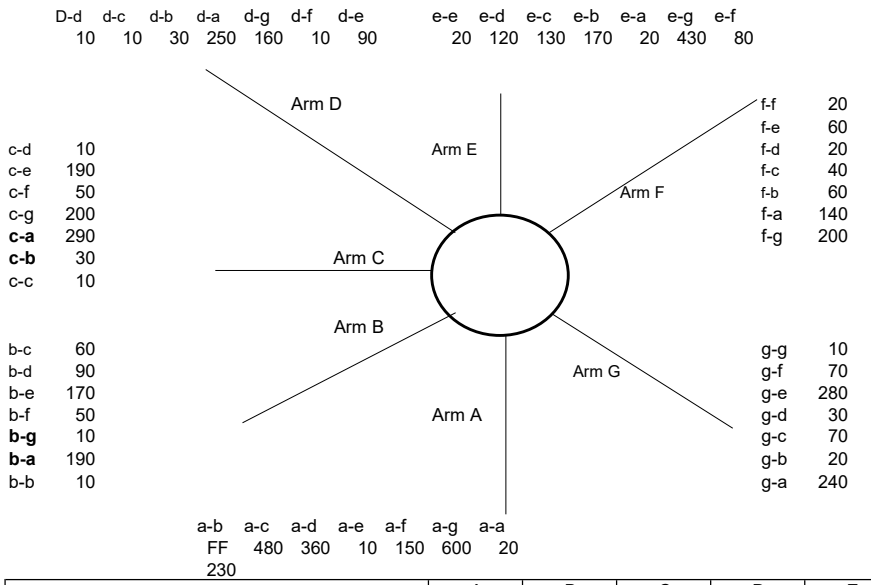
ARM	A	B	C	D	E	F	G
INPUT PARAMETERS:							
V = Approach half width (m)	6.00	5.00	7.00	5.50	6.30	5.90	6.75
E = Entry width (m)	8.00	8.00	10.00	10.00	10.00	8.50	8.50
L = Effective length of flare (m)	10.00	25.00	10.00	16.00	30.00	10.00	20.00
R = Entry radius (m)	20.00	22.00	22.00	20.00	23.00	20.00	20.00
D = Inscribed circle diameter (m)	140.00	140.00	140.00	140.00	140.00	140.00	140.00
A = Entry angle (degree)	65.00	30.00	40.00	45.00	30.00	60.00	35.00
Q = Entry flow (pcu/h)	1580	720	960	870	930	710	1140
Qc= Circulating flow across entry (pcu/h)	1310	2600	2680	2950	2700	3140	1930
OUTPUT PARAMETERS:							
S = Sharpness of flare = 1.6(E-V)/L	0.32	0.19	0.48	0.45	0.20	0.42	0.14
K = 1-0.00347(A-30)-0.978(1/R-0.05)	0.88	1.00	0.97	0.95	1.01	0.90	0.98
X2= V + ((E-V)/(1+2S))	7.22	7.17	8.53	7.87	8.95	7.32	8.12
M = EXP((D-60)/10)	2981	2981	2981	2981	2981	2981	2981
F = 303*X2	2188	2172	2585	2384	2713	2218	2460
Td= 1+(0.5/(1+M))	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fc= 0.21*Td(1+0.2*X2)	0.51	0.51	0.57	0.54	0.59	0.52	0.55
Qe= K(F-Fc*Qc)	1331	847	1029	748	1137	531	1372
DFC = Design flow/Capacity = Q/Qe	1.19	0.85	0.93	1.16	0.82	1.34	0.83

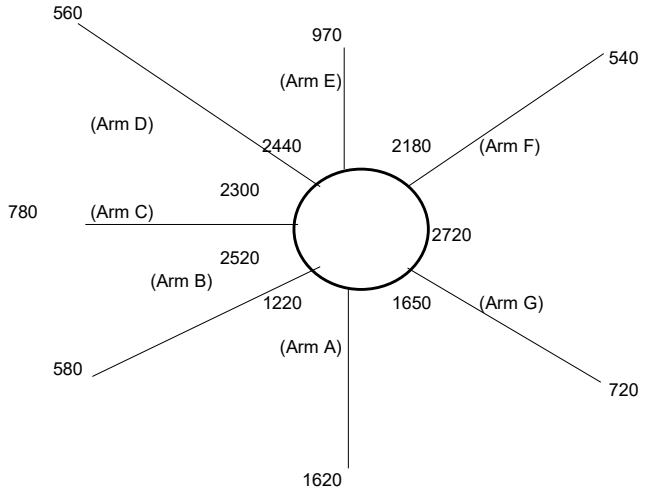
TOTAL ENTRY FLOWS = 6910 PCU

CRITICAL DFC = 1.34

ROUNDABOUT CAPACITY CALCULATIC **AECOM**

Junction	Junction J1 - Fairview Roundabout	cenar	2034 PM Design Flows	Project No.	Prepared By	Checked By	Date
				-	MK	JL	Apr 2025





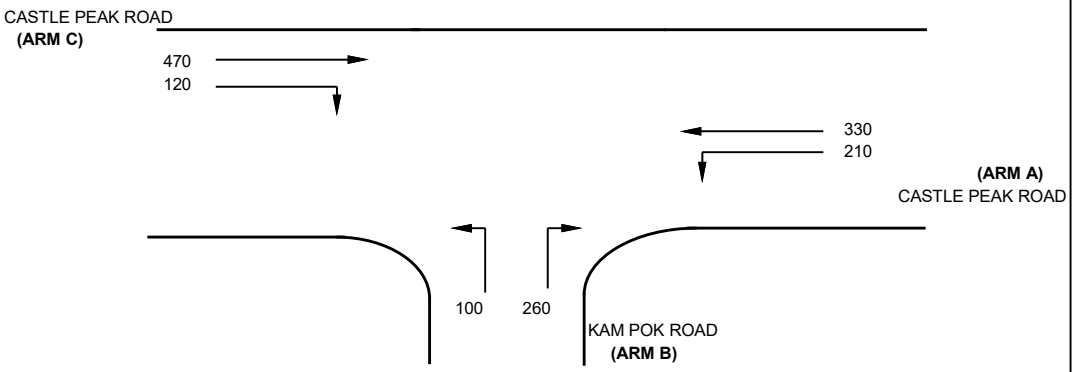
ARM	A	B	C	D	E	F	G
INPUT PARAMETERS:							
V = Approach half width (m)	6.00	5.00	7.00	5.50	6.30	5.90	6.75
E = Entry width (m)	8.00	8.00	10.00	10.00	10.00	8.50	8.50
L = Effective length of flare (m)	10.00	25.00	10.00	16.00	30.00	10.00	20.00
R = Entry radius (m)	20.00	22.00	22.00	20.00	23.00	20.00	20.00
D = Inscribed circle diameter (m)	140.00	140.00	140.00	140.00	140.00	140.00	140.00
A = Entry angle (degree)	65.00	30.00	40.00	45.00	30.00	60.00	35.00
Q = Entry flow (pcu/h)	1620	580	780	560	970	540	720
Qc= Circulating flow across entry (pcu/h)	1220	2520	2300	2440	2180	2720	1650
OUTPUT PARAMETERS:							
S = Sharpness of flare = 1.6(E-V)/L	0.32	0.19	0.48	0.45	0.20	0.42	0.14
K = 1-0.00347(A-30)-0.978(1/R-0.05)	0.88	1.00	0.97	0.95	1.01	0.90	0.98
X2= V + ((E-V)/(1+2S))	7.22	7.17	8.53	7.87	8.95	7.32	8.12
M = EXP((D-60)/10)	2981	2981	2981	2981	2981	2981	2981
F = 303*X2	2188	2172	2585	2384	2713	2218	2460
Td= 1+(0.5/(1+M))	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fc= 0.21*Td(1+0.2*X2)	0.51	0.51	0.57	0.54	0.59	0.52	0.55
Qe= K(F-Fc*Qc)	1372	888	1239	1010	1444	726	1523
DFC = Design flow/Capacity = Q/Qe	1.18	0.65	0.63	0.55	0.67	0.74	0.47

TOTAL ENTRY FLOWS = 5770 PCU

CRITICAL DFC = 1.18

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J2 - Castle Peak Road / Kam Pok Road	2034 AM Design Flows	Designed By :	Checked By :	Job No. :	Date : Dec 21



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.9	(metres)
W cr	=	0	(metres)
q a-b	=	210	(pcu/hr)
q a-c	=	330	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05	(metres)
Vr c-b	=	30	(metres)
q c-a	=	470	(pcu/hr)
q c-b	=	120	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	4.5	(metres)
W b-c	=	4.5	(metres)
Vl b-a	=	70	(metres)
Vr b-a	=	53	(metres)
Vr b-c	=	70	(metres)
q b-a	=	260	(pcu/hr)
q b-c	=	100	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.966072
E	=	1.031305
F	=	0.780782
Y	=	0.761950

THE CAPACITY OF MOVEMENT :

Q b-a	=	370
Q b-c	=	650
Q c-b	=	465
Q b-ac	=	420

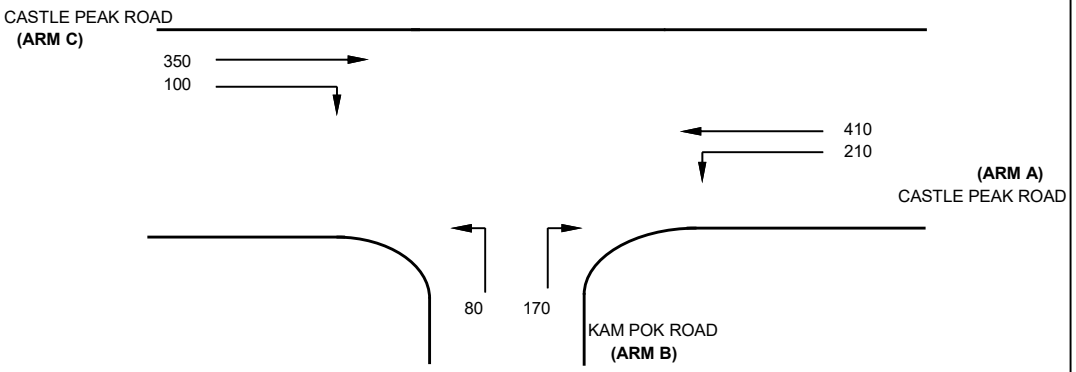
CRITICAL DFC = 0.86

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.70
DFC b-c	=	0.15
DFC c-b	=	0.26
DFC b-ac	=	0.86

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J2 - Castle Peak Road / Kam Pok Road	2034 PM Design Flows	Designed By :	Checked By :	Job No. :	Date : Dec 21



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.8 (metres)
W cr	=	0 (metres)
q a-b	=	210 (pcu/hr)
q a-c	=	410 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05 (metres)
Vr c-b	=	30 (metres)
q c-a	=	350 (pcu/hr)
q c-b	=	100 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	4.5 (metres)
W b-c	=	4.5 (metres)
Vl b-a	=	70 (metres)
Vr b-a	=	53 (metres)
Vr b-c	=	70 (metres)
q b-a	=	170 (pcu/hr)
q b-c	=	80 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.966072
E	=	1.031305
F	=	0.780782
Y	=	0.765400

THE CAPACITY OF MOVEMENT :

Q b-a	=	375
Q b-c	=	627
Q c-b	=	447
Q b-ac	=	431

CRITICAL DFC = 0.58

COMPARISION OF DESIGN FLOW TO CAPACITY :

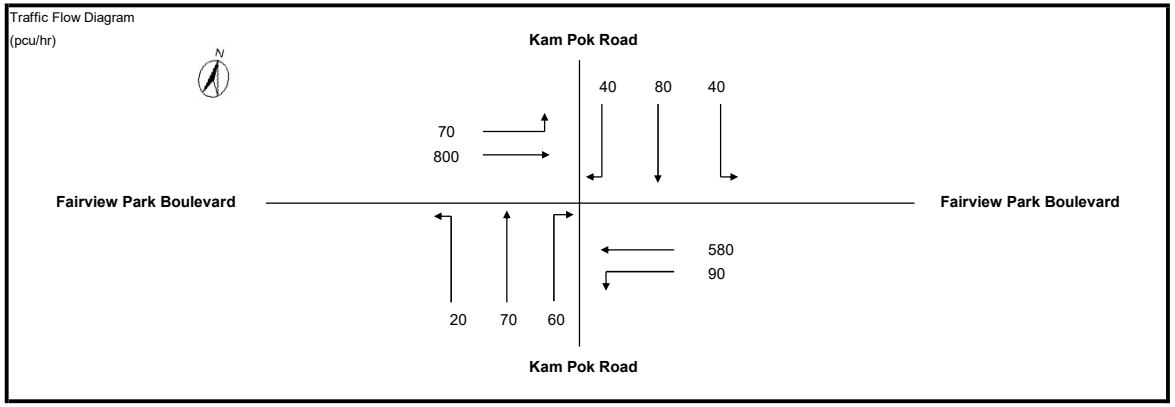
DFC b-a	=	0.45
DFC b-c	=	0.13
DFC c-b	=	0.22
DFC b-ac	=	0.58

JUNCTION CAPACITY CALCULATION

Junction J3 - Fairview Park Boulevard - Kam Pok Road	2034 AM Design Traffic Flows	DESIGN: 0	CHECK: 0	JOB NO: -	DATE: Sep 24

J3

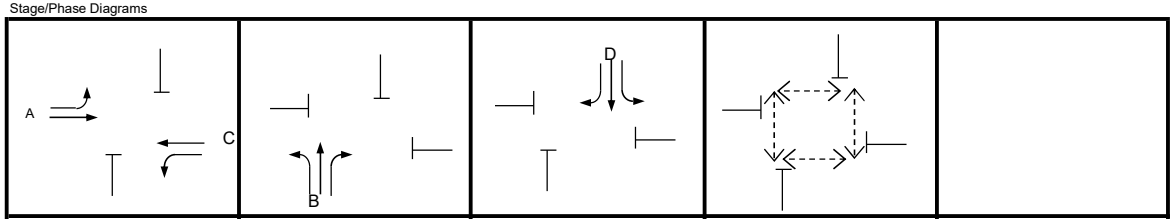
Traffic Flow Diagram
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	120	sec
Sum(y)	Y =	0.385	
Lost time	L =	44	sec
Total Flow	=	11,840	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	115	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	71	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.570	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	48.2	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	77	sec
Y_{max}	$= 1-L/C$	=	0.633	

Stage/Phase Diagrams



Stage 1	Stage 2	Stage 3	Stage 4	
I/G = 7	I/G = 7	I/G = 11	G = 10	I/G = 12

Critical Case : A,B,D,Ep

R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 48%

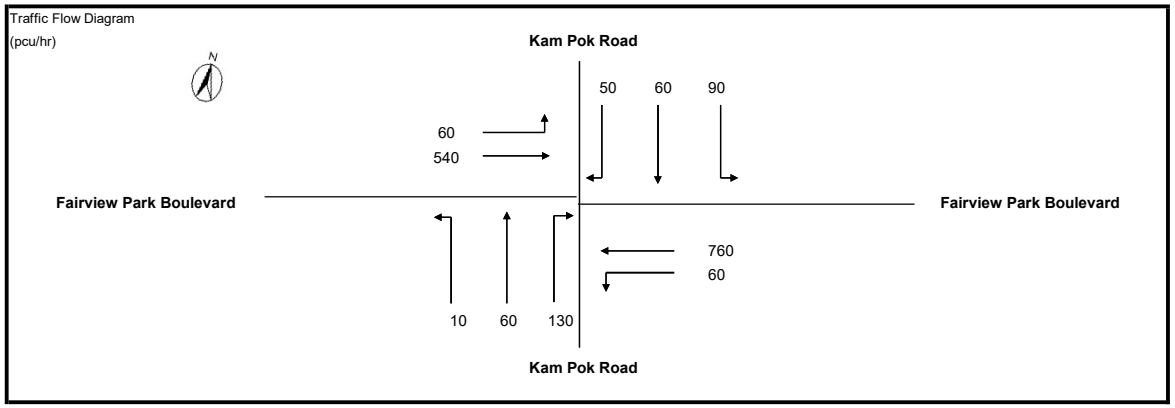
MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.100	1	15			1		0		1925	70	360		430	16%		1894	0.227	
	A	1	3.200	1				1		0		1935		440		440			1935	0.227	0.227
	B	2	3.600	1	13	20	0	1		0		1975	20	70	60	150	13%	40%	1889	0.079	0.079
	C	1	3.000	1	17			1		0		1915	90	238		328	27%		1870	0.176	
	C	1	3.300	1				1		0		1945		342		342			1945	0.176	
	D	3	5.300	1	15.5	17.5	0	1		0		2145	40	80	40	160	25%	25%	2051	0.078	0.078
Pedestrian Crossing				GM		FGM															
	Ep	4	min.	10	+	9	=	19	sec												*

JUNCTION CAPACITY CALCULATION

Junction J3 - Fairview Park Boulevard - Kam Pok Road	2034 PM Design Traffic Flows	DESIGN: 0	CHECK: 0	JOB NO: -	DATE: Sep 24

J3

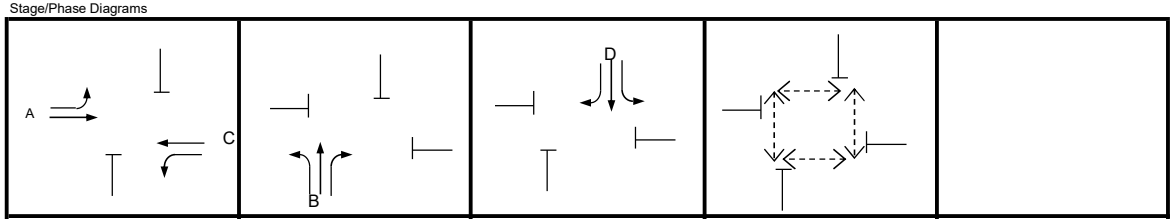
Traffic Flow Diagram
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	120	sec
Sum(y)	Y =	0.420	
Lost time	L =	44	sec
Total Flow	=	11,840	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	122	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	76	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.570	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	35.7	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	82	sec
Y_{max}	$= 1-L/C$	=	0.633	

Stage/Phase Diagrams



I/G = 7 I/G = 7 I/G = 11 G = 10 I/G = 12

Critical Case : B,C,D,Ep

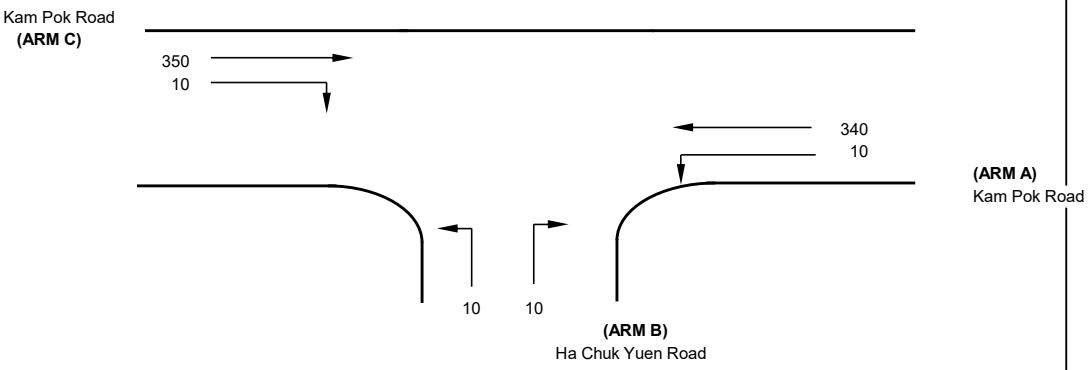
R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 36%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.100	1	15			1		0		1925	60	236		296	20%		1887	0.157	
	A	1	3.200	1				1		0		1935		304		304			1935	0.157	
	B	2	3.600	1	13	20	0	1		0		1975	10	60	130	200	5%	65%	1873	0.107	0.107
	C	1	3.000	1	17			1		0		1915	60	344		404	15%		1890	0.214	0.214
	C	1	3.300	1				1		0		1945		416		416			1945	0.214	
	D	3	5.300	1	15.5	17.5	0	1		0		2145	90	60	50	200	45%	25%	2014	0.099	0.099
Pedestrian Crossing				GM		FGM															
	Ep	4	min.	10	+	9	=	19	sec												*

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

J4 - Kam Pok Road - Ha Chuk Yuen Road	2034 AM Design Traffic Flows	Designed By : MKCN	Checked By : SHSN	Job No. : -	Date : Sep 24



J4

NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.7)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.7)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.7)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	9.3 (metres)
W cr	=	0 (metres)
q a-b	=	10 (pcu/hr)
q a-c	=	340 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.5 (metres)
Vr c-b	=	50 (metres)
q c-a	=	350 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	2.05 (metres)
W b-c	=	2.05 (metres)
Vl b-a	=	50 (metres)
Vr b-a	=	50 (metres)
Vr b-c	=	50 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	10 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.748311
E	=	0.796075
F	=	0.923788
Y	=	0.679150

THE CAPACITY OF MOVEMENT :

Q b-a	=	362
Q b-c	=	525
Q c-b	=	608
Q b-ac	=	429

CRITICAL DFC = 0.05

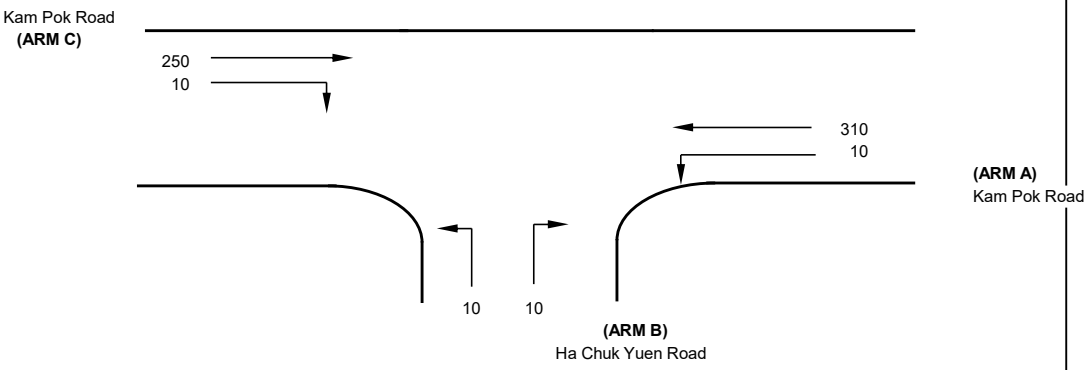
COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.03
DFC b-c	=	0.02
DFC c-b	=	0.02
DFC b-ac	=	0.05

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

J4 - Kam Pok Road - Ha Chuk Yuen Road	2034 PM Design Traffic Flows	Designed By : MKCN	Checked By : SHSN	Job No. : -	Date : Sep 24



J4

NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.7)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.7)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.7)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	9.3 (metres)
W cr	=	0 (metres)
q a-b	=	10 (pcu/hr)
q a-c	=	310 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.5 (metres)
Vr c-b	=	50 (metres)
q c-a	=	250 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	2.05 (metres)
W b-c	=	2.05 (metres)
Vl b-a	=	50 (metres)
Vr b-a	=	50 (metres)
Vr b-c	=	50 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	10 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.748311
E	=	0.796075
F	=	0.923788
Y	=	0.679150

THE CAPACITY OF MOVEMENT :

Q b-a	=	379
Q b-c	=	531
Q c-b	=	615
Q b-ac	=	443

CRITICAL DFC = 0.05

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.03
DFC b-c	=	0.02
DFC c-b	=	0.02
DFC b-ac	=	0.05

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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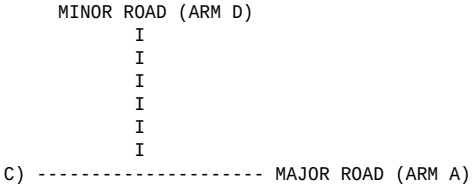
Run with file:-
"T:\Anthony Sun\20240920 Picidy\Junction 5_Picaddy\2034 REF DES SEN\0920 Des RD\RD Des.vpi"
(drive-on-the-left) at 12:36:19 on Friday, 20 September 2024

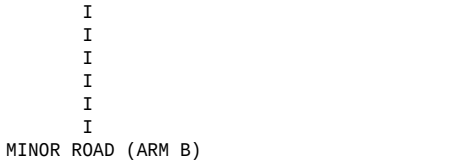
.RUN INFORMATION
****

RUN TITLE : 2034 - J5 Kam Pok Road/ Pok Wai South Road
LOCATION :
DATE : 13/12/21
CLIENT :
ENUMERATOR : nokhinnaomi.tam [HKSHT1PC0702]
JOB NUMBER :
STATUS :
DESCRIPTION :

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA





ARM A IS Kam Pok Road
ARM B IS Pok Wai South Road
ARM C IS Kam Pok Road West
ARM D IS Kam Pok Road

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD D	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 8.80 M.	(W) 8.80 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH		(WC-B) 2.20 M.
- VISIBILITY	(WA-D) 2.20 M.	(VC-B) 50.00 M.
- BLOCKS TRAFFIC (SPACES)	(VA-D) 50.00 M.	YES (0)
	NO (0)	
MINOR ROAD - VISIBILITY TO LEFT		(VB-C) 50.0 M.
- VISIBILITY TO RIGHT	(VD-A) 50.0 M.	(VB-A) 50.0 M.
- LANE 1 WIDTH	(VD-C) 50.0 M.	(WB-C) 2.20 M.
- LANE 2 WIDTH	(WD-A) 5.00 M.	(WB-A) 0.00 M.
	(WD-C) 0.00 M.	

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
I 602.92	0.21	0.08	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I 786.65	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	I
I 476.98	0.19	0.19	0.19	I
0.19				

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	I
I 622.33	0.25	0.25	0.25	I
0.25				

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
I 602.92	0.21	0.21	0.29	I

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.21	0.29	0.21	I

B-D Stream From Left Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	I
I 622.33	0.25	0.25	0.25	I
0.25				

I	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
I	0.10	0.16	0.36	I
0.13				

```
 I STREAM B-D     STREAM  A-C          STREAM A-D          STREAM  A-B
STREAM  C-B       I

-------------------------------------------------------------------------------
---------------
 I     476.98            0.19               0.19                0.08
   0.28       I

-------------------------------------------------------------------------------
---------------

-------------------------------------------------------------------------------
---------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  C-A          STREAM C-D

-------------------------------------------------------------------------------
---------------
 I                        0.12               0.12
              I

-------------------------------------------------------------------------------
---------------


 B-D Stream From Right Hand Lane

-------------------------------------------------------------------------------
---------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  A-C          STREAM A-D          STREAM  A-B
STREAM  C-B       I

-------------------------------------------------------------------------------
---------------
 I     476.98            0.19               0.19                0.08
   0.28       I

-------------------------------------------------------------------------------
---------------

-------------------------------------------------------------------------------
---------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  C-A          STREAM C-D

-------------------------------------------------------------------------------
---------------
 I                        0.12               0.12
              I

-------------------------------------------------------------------------------
---------------
```

```
 D-B Stream From Left Hand Lane

-------------------------------------------------------------------------------
---------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM D-B     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------
---------------
 I     622.33            0.25               0.25                0.10
   0.36       I

-------------------------------------------------------------------------------
---------------

-------------------------------------------------------------------------------
---------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
---------------
 I                        0.16               0.16
              I

-------------------------------------------------------------------------------
---------------


 D-B Stream From Right Hand Lane

-------------------------------------------------------------------------------
---------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------
---------------
 I     622.33            0.25               0.25                0.10
   0.36       I

-------------------------------------------------------------------------------
---------------

-------------------------------------------------------------------------------
---------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
```

```
--------------
 I                      0.16               0.16
             I

-------------------------------------------------------------------------------
--------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        0920 Des Rd AM


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
-
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
I
 I        I             I             I            I        I         I
I

-------------------------------------------------------------------------------
-
 I ARM  A I     15.00   I     45.00   I    75.00   I  3.75  I   5.63  I  3.75
I
 I ARM  B I     15.00   I     45.00   I    75.00   I  0.88  I   1.31  I  0.88
I
 I ARM  C I     15.00   I     45.00   I    75.00   I  2.75  I   4.13  I  2.75
I
 I ARM  D I     15.00   I     45.00   I    75.00   I  2.38  I   3.56  I  2.38
I

-------------------------------------------------------------------------------
-

.Demand set:        0920 Des Rd AM
 ---------------------------------------------------------------------
```

```
 I                   I         TURNING PROPORTIONS                 I
 I                   I         TURNING COUNTS                      I
 I                   I        (PERCENTAGE OF H.V.S)                I
 I                   ------------------------------------------------
 I        TIME       I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ---------------------------------------------------------------------
 I   08.00 - 09.30   I         I        I        I        I        I
 I                   I ARM  A  I  0.000 I  0.033 I  0.733 I  0.233 I
 I                   I         I    0.0 I   10.0 I  220.0 I   70.0 I
 I                   I         I (  0.0)I ( 10.0)I ( 10.0)I ( 10.0)I
 I                   I         I        I        I        I        I
 I                   I ARM  B  I  0.143 I  0.000 I  0.143 I  0.714 I
 I                   I         I   10.0 I    0.0 I   10.0 I   50.0 I
 I                   I         I ( 10.0)I (  0.0)I ( 10.0)I ( 10.0)I
 I                   I         I        I        I        I        I
 I                   I ARM  C  I  0.682 I  0.091 I  0.000 I  0.227 I
 I                   I         I  150.0 I   20.0 I    0.0 I   50.0 I
 I                   I         I ( 10.0)I ( 10.0)I (  0.0)I ( 10.0)I
 I                   I         I        I        I        I        I
 I                   I ARM  D  I  0.263 I  0.368 I  0.368 I  0.000 I
 I                   I         I   50.0 I   70.0 I   70.0 I    0.0 I
 I                   I         I ( 10.0)I ( 10.0)I ( 10.0)I (  0.0)I
 I                   I         I        I        I        I        I
 ---------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
 DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ---------------------------------------------------------
                FOR DEMAND SET         0920 Des Rd AM
                AND FOR TIME PERIOD        1
.-------------------------------------------------------------------------------
--------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
 (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                                  I
 I   B-ACD     0.88      6.35    0.138               0.00   0.16        2.3
                    0.18      I
 I   A-B       0.13
                                  I
 I   A-C       2.76
                                  I
 I   A-D       0.88      8.55    0.103               0.00   0.11        1.6
                    0.13      I
 I   D-ABC     2.38      8.64    0.276               0.00   0.38        5.4
                    0.16      I
 I   C-ABD     0.33     10.02    0.033               0.00   0.04        0.7
                    0.10      I
 I   C-D       0.61
                                  I
 I   C-A       1.82
                                  I
```

```
 I                                I
                                  I
.-------------------------------------------------------------------------------
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.-------------------------------------------------------------------------------
-------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
 (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                                  I
 I   B-ACD     1.05      6.13    0.171                0.16   0.20        3.0
                  0.20      I
 I   A-B       0.15
                                  I
 I   A-C       3.30
                                  I
 I   A-D       1.05      8.43    0.124                0.11   0.14        2.1
                  0.14      I
 I   D-ABC     2.85      8.37    0.340                0.38   0.51        7.3
                  0.18      I
 I   C-ABD     0.42     10.20    0.041                0.04   0.06        0.9
                  0.10      I
 I   C-D       0.72
                                  I
 I   C-A       2.16
                                  I
 I
                                  I
.-------------------------------------------------------------------------------
-------------------------------

.-------------------------------------------------------------------------------
-------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
 (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                                  I
 I   B-ACD     1.28      5.83    0.220                0.20   0.28        4.0
                  0.22      I
 I   A-B       0.18
                                  I
 I   A-C       4.04
                                  I
 I   A-D       1.28      8.27    0.155                0.14   0.18        2.7
                  0.14      I
 I   D-ABC     3.49      8.00    0.436                0.51   0.75       10.8
                  0.22      I
 I   C-ABD     0.55     10.46    0.053                0.06   0.08        1.2
                  0.10      I
 I   C-D       0.87
                                  I
 I   C-A       2.61
                                  I
 I
                                  I
.-------------------------------------------------------------------------------
-------------------------------

.-------------------------------------------------------------------------------
-------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
 (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                                  I
 I   B-ACD     1.28      5.83    0.220                0.28   0.28        4.2
                  0.22      I
 I   A-B       0.18
                                  I
 I   A-C       4.04
                                  I
 I   A-D       1.28      8.27    0.155                0.18   0.18        2.7
                  0.14      I
 I   D-ABC     3.49      8.00    0.436                0.75   0.76       11.4
                  0.22      I
 I   C-ABD     0.55     10.46    0.053                0.08   0.08        1.2
                  0.10      I
 I   C-D       0.87
                                  I
 I   C-A       2.61
                                  I
 I
                                  I
.-------------------------------------------------------------------------------
-------------------------------

.-------------------------------------------------------------------------------
-------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
 (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                                  I
 I   B-ACD     1.05      6.13    0.171                0.28   0.21        3.3
                  0.20      I
 I   A-B       0.15
                                  I
 I   A-C       3.30
                                  I
```

```
 I   A-D       1.05      8.43    0.124               0.18   0.14        2.2
                 0.14      I
 I   D-ABC     2.85      8.37    0.340               0.76   0.52        8.2
                 0.18      I
 I   C-ABD     0.42     10.20    0.041               0.08   0.06        0.9
                 0.10      I
 I   C-D       0.72
                           I
 I   C-A       2.16
                           I
 I
                           I
.-------------------------------------------------------------------------------
-------------------------------

.-------------------------------------------------------------------------------
-------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
 (VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                           I
 I   B-ACD     0.88      6.35    0.138               0.21   0.16        2.5
                 0.18      I
 I   A-B       0.13
                           I
 I   A-C       2.76
                           I
 I   A-D       0.88      8.55    0.103               0.14   0.12        1.8
                 0.13      I
 I   D-ABC     2.38      8.63    0.276               0.52   0.39        6.0
                 0.16      I
 I   C-ABD     0.33     10.02    0.033               0.06   0.05        0.7
                 0.10      I
 I   C-D       0.61
                           I
 I   C-A       1.82
                           I
 I
                           I
.-------------------------------------------------------------------------------
-------------------------------
*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.2
   08.30           0.2
   08.45           0.3
   09.00           0.3
   09.15           0.2
   09.30           0.2
.
 QUEUE FOR STREAM    A-D
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.2
   09.00           0.2
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    D-ABC
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.4
   08.30           0.5    *
   08.45           0.8    *
   09.00           0.8    *
   09.15           0.5    *
   09.30           0.4
.
 QUEUE FOR STREAM    C-ABD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.0
.
                 QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                 --------------------------------------------
-------------------------------------------------------------------------------
 I STREAM I   TOTAL DEMAND  I   * QUEUEING *      I * INCLUSIVE QUEUEING * I
 I        I                 I    * DELAY *        I       * DELAY *        I
 I        I-----------------------------------------------------------------I
 I        I  (VEH)  (VEH/H) I  (MIN)    (MIN/VEH) I    (MIN)     (MIN/VEH) I
-------------------------------------------------------------------------------
 I  B-ACD I   96.3 I   64.2 I    19.2 I    0.20   I      19.2  I    0.20   I
 I  A-B   I   13.8 I    9.2 I         I           I            I           I
 I  A-C   I  302.8 I  201.9 I         I           I            I           I
 I  A-D   I   96.3 I   64.2 I    13.1 I    0.14   I      13.1  I    0.14   I
 I  D-ABC I  261.5 I  174.3 I    49.1 I    0.19   I      49.1  I    0.19   I
 I  C-ABD I   39.1 I   26.1 I     5.6 I    0.14   I       5.6  I    0.14   I
 I  C-D   I   65.9 I   43.9 I         I           I            I           I
 I  C-A   I  197.8 I  131.8 I         I           I            I           I
-------------------------------------------------------------------------------
 I  ALL   I 1073.6 I  715.7 I    86.9 I    0.08   I      86.9  I    0.08   I
-------------------------------------------------------------------------------
```

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
602.92	0.21	0.08	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
786.65	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	I
476.98	0.19	0.19	0.19	
0.19	I			

I	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	
	0.08	0.12	0.28	
0.10	I			

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	I
622.33	0.25	0.25	0.25	
0.25	I			

I	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	
	0.10	0.16	0.36	
0.13	I			

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
602.92	0.21	0.21	0.29	

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I

```
 I     602.92            0.21                0.29                0.21        I
 ------------------------------------------------------------------------------


 B-D Stream From Left Hand Lane

-------------------------------------------------------------------------------------
---------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  A-C          STREAM A-D          STREAM  A-B
STREAM  C-B       I

-------------------------------------------------------------------------------------
---------------
 I     476.98            0.19                0.19                 0.08
   0.28       I

-------------------------------------------------------------------------------------
---------------

-------------------------------------------------------------------------------------
---------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  C-A          STREAM C-D

-------------------------------------------------------------------------------------
---------------
 I                        0.12                0.12
              I

-------------------------------------------------------------------------------------
---------------


 B-D Stream From Right Hand Lane

-------------------------------------------------------------------------------------
---------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  A-C          STREAM A-D          STREAM  A-B
STREAM  C-B       I

-------------------------------------------------------------------------------------
---------------
 I     476.98            0.19                0.19                 0.08
   0.28       I

-------------------------------------------------------------------------------------
---------------

-------------------------------------------------------------------------------------
---------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  C-A          STREAM C-D

-------------------------------------------------------------------------------------
---------------
 I                        0.12                0.12
              I

-------------------------------------------------------------------------------------
---------------


 D-B Stream From Left Hand Lane

-------------------------------------------------------------------------------------
---------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM D-B     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------------
---------------
 I     622.33            0.25                0.25                 0.10
   0.36       I

-------------------------------------------------------------------------------------
---------------

-------------------------------------------------------------------------------------
---------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------------
---------------
 I                        0.16                0.16
              I

-------------------------------------------------------------------------------------
---------------


 D-B Stream From Right Hand Lane

-------------------------------------------------------------------------------------
---------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------------
---------------
 I     622.33            0.25                0.25                 0.10
   0.36       I
```

```
--------------------------------------------------------------------------------
--------------

--------------------------------------------------------------------------------
--------------
 I              Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I               STREAM  A-C          STREAM A-B

--------------------------------------------------------------------------------
--------------
 I                       0.16               0.16
             I

--------------------------------------------------------------------------------
--------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        0920 Des RD PM


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


--------------------------------------------------------------------------------
-
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
I
 I        I             I             I            I        I         I
I

--------------------------------------------------------------------------------
-
 I ARM  A I     15.00   I     45.00   I    75.00   I  2.75  I   4.13  I  2.75
I
 I ARM  B I     15.00   I     45.00   I    75.00   I  0.88  I   1.31  I  0.88
I
 I ARM  C I     15.00   I     45.00   I    75.00   I  3.00  I   4.50  I  3.00
I
 I ARM  D I     15.00   I     45.00   I    75.00   I  1.75  I   2.63  I  1.75
I

--------------------------------------------------------------------------------
-

.Demand set:        0920 Des RD PM
 ---------------------------------------------------------------------
 I                    I         TURNING PROPORTIONS                  I
 I                    I         TURNING COUNTS                       I
 I                    I        (PERCENTAGE OF H.V.S)                 I
 I                    ----------------------------------------------
 I        TIME        I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ---------------------------------------------------------------------
 I   08.00 - 09.30    I         I        I        I        I        I
 I                    I ARM  A  I  0.000 I  0.045 I  0.636 I  0.318 I
 I                    I         I    0.0 I   10.0 I  140.0 I   70.0 I
 I                    I         I (  0.0)I ( 10.0)I ( 10.0)I ( 10.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  B  I  0.143 I  0.000 I  0.143 I  0.714 I
 I                    I         I   10.0 I    0.0 I   10.0 I   50.0 I
 I                    I         I ( 10.0)I (  0.0)I ( 10.0)I ( 10.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  C  I  0.625 I  0.042 I  0.000 I  0.333 I
 I                    I         I  150.0 I   10.0 I    0.0 I   80.0 I
 I                    I         I ( 10.0)I ( 10.0)I (  0.0)I ( 10.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  D  I  0.429 I  0.357 I  0.214 I  0.000 I
 I                    I         I   60.0 I   50.0 I   30.0 I    0.0 I
 I                    I         I ( 10.0)I ( 10.0)I ( 10.0)I (  0.0)I
 I                    I         I        I        I        I        I
 ---------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
 DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ----------------------------------------------------------
                FOR DEMAND SET         0920 Des RD PM
                AND FOR TIME PERIOD        1
.--------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
 (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                              I
 I   B-ACD     0.88      6.56    0.134                0.00   0.15        2.2
                   0.18      I
 I   A-B       0.13
                              I
 I   A-C       1.76
                              I
```

```
 I   A-D       0.88      8.51    0.103               0.00   0.11        1.6
                   0.13      I
 I   D-ABC     1.76      9.25    0.190               0.00   0.23        3.3
                   0.13      I
 I   C-ABD     0.17     10.46    0.016               0.00   0.02        0.3
                   0.10      I
 I   C-D       0.99
                             I
 I   C-A       1.85
                             I
 I
                             I
.-------------------------------------------------------------------------------
-------------------------------

.-------------------------------------------------------------------------------
-------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
 (VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                             I
 I   B-ACD     1.05      6.38    0.164               0.15   0.19        2.8
                   0.19      I
 I   A-B       0.15
                             I
 I   A-C       2.10
                             I
 I   A-D       1.05      8.38    0.125               0.11   0.14        2.1
                   0.14      I
 I   D-ABC     2.10      9.03    0.232               0.23   0.30        4.4
                   0.14      I
 I   C-ABD     0.22     10.72    0.020               0.02   0.02        0.4
                   0.10      I
 I   C-D       1.18
                             I
 I   C-A       2.20
                             I
 I
                             I
.-------------------------------------------------------------------------------
-------------------------------

.-------------------------------------------------------------------------------
-------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
 (VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                             I
 I   B-ACD     1.28      6.14    0.209               0.19   0.26        3.8
                   0.21      I
 I   A-B       0.18
                             I
 I   A-C       2.57
                             I
 I   A-D       1.28      8.22    0.156               0.14   0.18        2.7
                   0.14      I
 I   D-ABC     2.57      8.72    0.295               0.30   0.41        6.0
                   0.16      I
 I   C-ABD     0.29     11.08    0.026               0.02   0.03        0.5
                   0.09      I
 I   C-D       1.43
                             I
 I   C-A       2.68
                             I
 I
                             I
.-------------------------------------------------------------------------------
-------------------------------

.-------------------------------------------------------------------------------
-------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
 (VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                             I
 I   B-ACD     1.28      6.14    0.209               0.26   0.26        3.9
                   0.21      I
 I   A-B       0.18
                             I
 I   A-C       2.57
                             I
 I   A-D       1.28      8.21    0.156               0.18   0.18        2.8
                   0.14      I
 I   D-ABC     2.57      8.72    0.295               0.41   0.41        6.2
                   0.16      I
 I   C-ABD     0.29     11.08    0.026               0.03   0.03        0.5
                   0.09      I
 I   C-D       1.43
                             I
 I   C-A       2.68
                             I
 I
                             I
.-------------------------------------------------------------------------------
-------------------------------

.-------------------------------------------------------------------------------
-------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
 (VEH.MIN/      PER ARRIVING  I
```

```
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                               I
 I   B-ACD     1.05      6.38    0.164               0.26   0.20        3.1
                    0.19       I
 I   A-B       0.15
                               I
 I   A-C       2.10
                               I
 I   A-D       1.05      8.38    0.125               0.18   0.14        2.2
                    0.14       I
 I   D-ABC     2.10      9.02    0.232               0.41   0.31        4.7
                    0.14       I
 I   C-ABD     0.22     10.72    0.020               0.03   0.02        0.4
                    0.10       I
 I   C-D       1.18
                               I
 I   C-A       2.20
                               I
 I
                               I
.-------------------------------------------------------------------------------
-------------------------------

.-------------------------------------------------------------------------------
-------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
 (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                               I
 I   B-ACD     0.88      6.55    0.134               0.20   0.16        2.4
                    0.18       I
 I   A-B       0.13
                               I
 I   A-C       1.76
                               I
 I   A-D       0.88      8.51    0.103               0.14   0.12        1.8
                    0.13       I
 I   D-ABC     1.76      9.25    0.190               0.31   0.24        3.6
                    0.13       I
 I   C-ABD     0.17     10.46    0.016               0.02   0.02        0.3
                    0.10       I
 I   C-D       0.99
                               I
 I   C-A       1.85
                               I
 I
                               I
.-------------------------------------------------------------------------------
-------------------------------
*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
```

```
 QUEUE FOR STREAM    B-ACD
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.2
   08.30           0.2
   08.45           0.3
   09.00           0.3
   09.15           0.2
   09.30           0.2
.
 QUEUE FOR STREAM    A-D
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.2
   09.00           0.2
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    D-ABC
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.2
   08.30           0.3
   08.45           0.4
   09.00           0.4
   09.15           0.3
   09.30           0.2
.
 QUEUE FOR STREAM    C-ABD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.0
   08.45           0.0
   09.00           0.0
   09.15           0.0
   09.30           0.0
.
                 QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                 --------------------------------------------
 ------------------------------------------------------------------------------
 I STREAM I   TOTAL DEMAND  I   * QUEUEING *      I * INCLUSIVE QUEUEING * I
 I        I                I    * DELAY *        I       * DELAY *        I
 I        I----------------------------------------------------------------I
 I        I  (VEH)  (VEH/H) I  (MIN)    (MIN/VEH) I    (MIN)     (MIN/VEH) I
 ------------------------------------------------------------------------------
 I  B-ACD I   96.3 I   64.2 I    18.2 I    0.19   I      18.2  I    0.19   I
```

A-B	13.8	9.2					
A-C	192.7	128.5					
A-D	96.3	64.2	13.2	0.14	13.2	0.14	
D-ABC	192.7	128.5	28.3	0.15	28.3	0.15	
C-ABD	20.3	13.5	2.3	0.11	2.3	0.11	
C-D	107.9	71.9					
C-A	202.2	134.8					
ALL	922.2	614.8	62.0	0.07	62.0	0.07	

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
 A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

JUNCTION CAPACITY CALCULATION

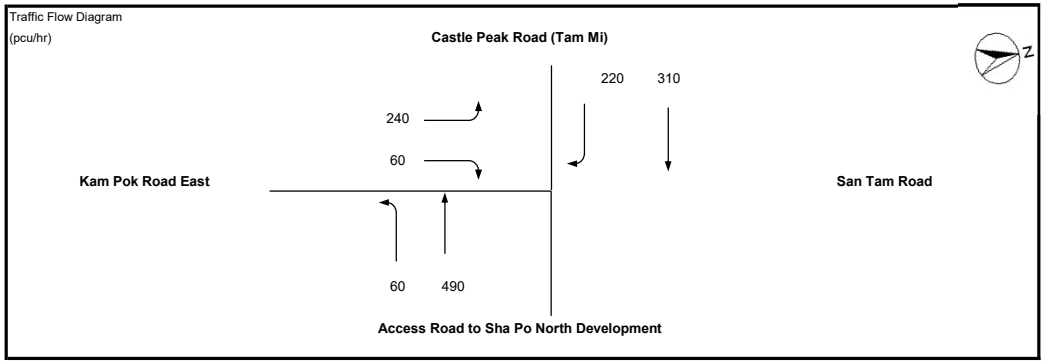
AECOM

Junction J6 - Castle Peak Road -Tam Mi / Kam Pok Road East	2034 AM Peak Hour Design Traffic Flows	DESIGN: MKCN	CHECK: SHSN	JOB NO: -	DATE: May 21

J6

Traffic Flow Diagram

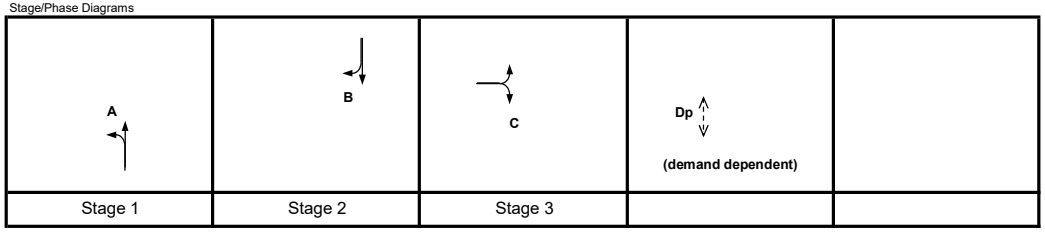
(pcu/hr)



No. of stages per cycle	N =	3	
Cycle time	C =	90	sec
Sum(y)	Y =	0.570	
Lost time	L =	13	sec
Total Flow	=	10,075	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	57	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	30	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.803	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	40.7	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	36	sec
Y_{max}	$= 1-L/C$	=	0.856	

Stage/Phase Diagrams



Critical Case : A,B,C,Dp

R.C.(C) = $(0.9xY_{max}-Y)/Yx100\%$ = 35%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.500	1	25			1		0		1965	60	490		550	11%		1952	0.282	0.282
	B	2	3.400	1				1		0		1955		310		310			1955	0.159	0.159
	B	2	3.500	1		30	0	0		0		2105			220	220		100%	2005	0.110	
	C	3	3.400	1	25			1		0		1955	240			240	100%		1844	0.130	0.130
	C	3	3.400	1		30	0	0		0		2095			60	60		100%	1995	0.030	

Pedestrian Crossing			GM		FGM					
	Dp	4	min.	13	+	12	=	25	sec	

JUNCTION CAPACITY CALCULATION

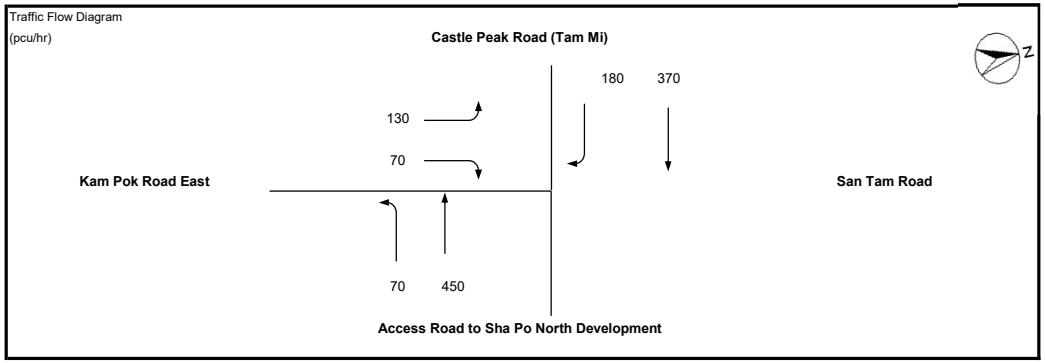
AECOM

Junction J6 - Castle Peak Road -Tam Mi / Kam Pok Road East	2034 PM Peak Hour Design Traffic Flows	DESIGN: MKCN	CHECK: SHSN	JOB NO: -	DATE: May 21

J6

Traffic Flow Diagram

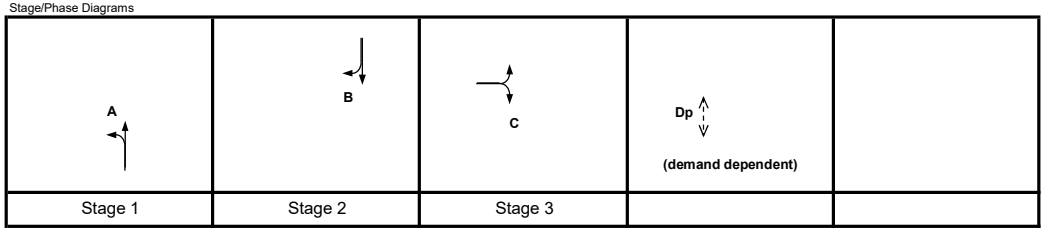
(pcu/hr)



No. of stages per cycle	N =	3	
Cycle time	C =	90	sec
Sum(y)	Y =	0.527	
Lost time	L =	13	sec
Total Flow	=	10,075	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	52	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	27	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.803	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	52.4	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	31	sec
Y_{max}	$= 1-L/C$	=	0.856	

Stage/Phase Diagrams



Critical Case : A,B,C,Dp

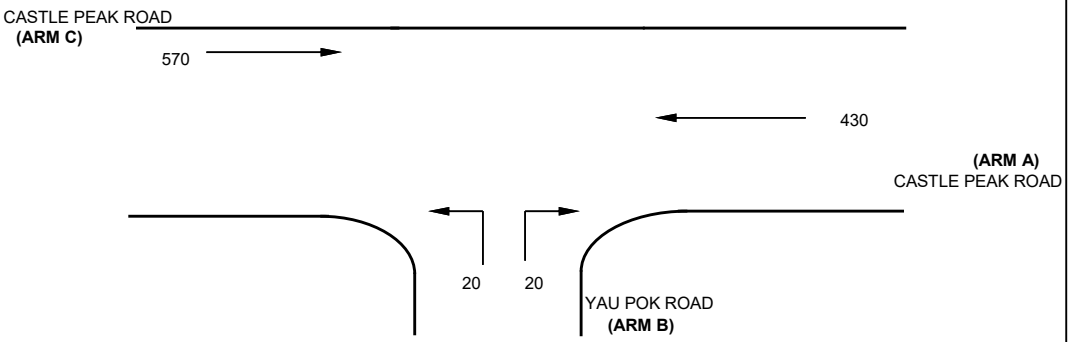
R.C.(C) = $(0.9xY_{max}-Y)/Yx100\%$ = 46%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
↰	A	1	3.500	1	25			1		0		1965	70	450		520	13%		1949	0.267	0.267
↓	B	2	3.400	1				1		0		1955		370		370			1955	0.189	0.189
↳	B	2	3.500	1		30	0	0		0		2105			180	180		100%	2005	0.090	
↱	C	3	3.400	1	25			1		0		1955	130			130	100%		1844	0.070	0.070
↳	C	3	3.400	1		30	0	0		0		2095			70	70		100%	1995	0.035	

Pedestrian Crossing			GM		FGM				
	Dp	4	min.	13	+	12	=	25	sec

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J7 - Castle Peak Road / Yau Pok Road	2034 AM Design Flow	Designed By :	Checked By :	Job No. :	Date : Jan 00



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.5	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	430	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0	(metres)
Vr c-b	=	25	(metres)
q c-a	=	570	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	1.8	(metres)
W b-c	=	1.8	(metres)
Vl b-a	=	25	(metres)
Vr b-a	=	25	(metres)
Vr b-c	=	25	(metres)
q b-a	=	20	(pcu/hr)
q b-c	=	20	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.698808
E	=	0.755468
F	=	0.600735
Y	=	0.775750

THE CAPACITY OF MOVEMENT :

Q b-a	=	283
Q b-c	=	471
Q c-b	=	375
Q b-ac	=	353

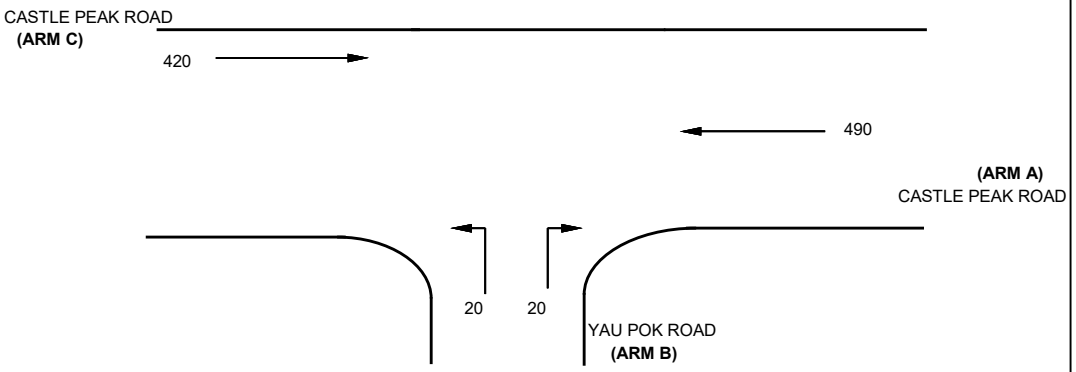
COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.07
DFC b-c	=	0.04
DFC c-b	=	0.00

CRITICAL DFC = 0.07

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J7 - Castle Peak Road / Yau Pok Road	2034 PM Design Flow	Designed By :	Checked By :	Job No. :	Date : Jan 00



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.5	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	490	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0	(metres)
Vr c-b	=	25	(metres)
q c-a	=	420	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	1.8	(metres)
W b-c	=	1.8	(metres)
Vl b-a	=	25	(metres)
Vr b-a	=	25	(metres)
Vr b-c	=	25	(metres)
q b-a	=	20	(pcu/hr)
q b-c	=	20	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.698808
E	=	0.755468
F	=	0.600735
Y	=	0.775750

THE CAPACITY OF MOVEMENT :

Q b-a	=	289
Q b-c	=	458
Q c-b	=	364
Q b-ac	=	355

CRITICAL DFC = 0.07

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.07
DFC b-c	=	0.04
DFC c-b	=	0.00

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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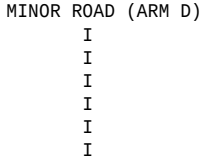
Run with file:-
"T:\Anthony Sun\20240920 Picidy\Junction 8 - Yau Pok Road REC N\0920 Des RD\Des Rd.vpi"
(drive-on-the-left) at 12:19:54 on Friday, 20 September 2024

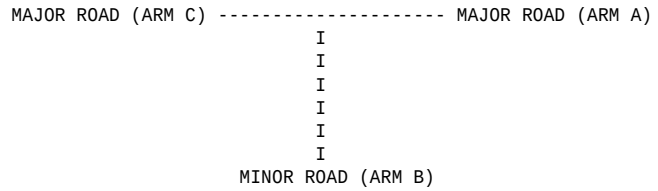
.RUN INFORMATION
****

RUN TITLE : J8 - Yau Pok Road / REC North Access
LOCATION : Fairview
DATE : 02/09/24
CLIENT : SHK
ENUMERATOR : sam.wong [HKSHT1PC0702]
JOB NUMBER :
STATUS :
DESCRIPTION :

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA





ARM A IS Yau Pok Road exit
ARM B IS Vehicular Bridge
ARM C IS Yau Pok Road entry
ARM D IS REC North

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
MINOR ROAD D	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH (W)	6.00 M.
(W) 6.00 M.	
CENTRAL RESERVE WIDTH (WCR)	0.00 M.
(WCR) 0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH (WA-D)	(WC-B) 2.20 M.
2.20 M.	
- VISIBILITY (VA-D)	(VC-B) 50.00 M.
50.00 M.	
- BLOCKS TRAFFIC (SPACES)	YES (0)
NO (0)	
MINOR ROAD - VISIBILITY TO LEFT (VD-A)	(VB-C) 50.0 M.
50.0 M.	
- VISIBILITY TO RIGHT (VD-C)	(VB-A) 50.0 M.
50.0 M.	
- LANE 1 WIDTH (WD-A)	(WB-C) 3.50 M.
3.50 M.	
- LANE 2 WIDTH (WD-C)	(WB-A) 0.00 M.
0.00 M.	

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
I 688.22	0.27	0.11	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I 688.22	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	I
I 544.46	0.25	0.25	0.25	I
0.25				

STREAM D-B

I Intercept For STREAM D-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	I
I 0.13	0.10	0.16	0.36	I

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	I
I 544.46	0.25	0.25	0.25	I
0.25				

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
I 602.92	0.23	0.23	0.33	I

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.23	0.33	0.23	I

B-D Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B
STREAM C-B	I		
I 544.46	0.25	0.25	0.10
0.36	I		

I	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For OpposingI			
I	STREAM C-A	STREAM C-D	
I	0.16	0.16	
I			

B-D Stream From Right Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For OpposingI			
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B
STREAM C-B	I		
I 544.46	0.25	0.25	0.10
0.36	I		

I	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For OpposingI			
I	STREAM C-A	STREAM C-D	
I	0.16	0.16	
I			

I			

D-B Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For OpposingI			
I STREAM D-B	STREAM C-A	STREAM C-B	STREAM C-D
STREAM A-D	I		
I 544.46	0.25	0.25	0.10
0.36	I		

I	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For OpposingI			
I	STREAM A-C	STREAM A-B	
I	0.16	0.16	
I			

D-B Stream From Right Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For OpposingI			
I STREAM B-D	STREAM C-A	STREAM C-B	STREAM C-D
STREAM A-D	I		
I 544.46	0.25	0.25	0.10
0.36	I		

```
--------------
 I              Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I               STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
--------------
 I                      0.16               0.16
            I

-------------------------------------------------------------------------------
--------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        0920 Des RD AM


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
I
 I        I             I             I            I        I         I
I

-------------------------------------------------------------------------------
 I ARM  A I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
I
 I ARM  B I     15.00   I     45.00   I    75.00   I  0.63  I   0.94  I  0.63
I
 I ARM  C I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
I
 I ARM  D I     15.00   I     45.00   I    75.00   I  0.50  I   0.75  I  0.50
I
```

```
-------------------------------------------------------------------------------

.Demand set:        0920 Des RD AM
 ---------------------------------------------------------------------
 I                     I         TURNING PROPORTIONS                 I
 I                     I         TURNING COUNTS                      I
 I                     I        (PERCENTAGE OF H.V.S)                I
 I                     I -----------------------------------------------
 I        TIME         I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ---------------------------------------------------------------------
 I   08.00 - 09.30     I         I        I        I        I        I
 I                     I ARM  A  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                     I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                     I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                     I         I        I        I        I        I
 I                     I ARM  B  I  0.400 I  0.000 I  0.000 I  0.600 I
 I                     I         I   20.0 I    0.0 I    0.0 I   30.0 I
 I                     I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                     I         I        I        I        I        I
 I                     I ARM  C  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                     I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                     I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                     I         I        I        I        I        I
 I                     I ARM  D  I  0.000 I  1.000 I  0.000 I  0.000 I
 I                     I         I    0.0 I   40.0 I    0.0 I    0.0 I
 I                     I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                     I         I        I        I        I        I
 ---------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ---------------------------------------------------------
                FOR DEMAND SET         0920 Des RD AM
                AND FOR TIME PERIOD        1
.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                                I
 I   B-ACD     0.63      9.02    0.070               0.00   0.07        1.1
                   0.12      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   D-ABC     0.50      9.07    0.055               0.00   0.06        0.8
                   0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
```

```
 I   C-D       0.00
                            I
 I   C-A       0.00
                            I
 I
                            I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                            I
 I   B-ACD     0.75      9.01    0.083               0.07   0.09        1.3
                 0.12       I
 I   A-B       0.00
                            I
 I   A-C       0.00
                            I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00       I
 I   D-ABC     0.60      9.07    0.066               0.06   0.07        1.0
                 0.12       I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00       I
 I   C-D       0.00
                            I
 I   C-A       0.00
                            I
 I
                            I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                            I
 I   B-ACD     0.92      9.00    0.102               0.09   0.11        1.7
                 0.12       I
 I   A-B       0.00
                            I
 I   A-C       0.00
                            I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00       I
 I   D-ABC     0.73      9.07    0.081               0.07   0.09        1.3
                 0.12       I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00       I
 I   C-D       0.00
                            I
 I   C-A       0.00
                            I
 I
                            I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                            I
 I   B-ACD     0.92      9.00    0.102               0.11   0.11        1.7
                 0.12       I
 I   A-B       0.00
                            I
 I   A-C       0.00
                            I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00       I
 I   D-ABC     0.73      9.07    0.081               0.09   0.09        1.3
                 0.12       I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00       I
 I   C-D       0.00
                            I
 I   C-A       0.00
                            I
 I
                            I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                            I
```

```
 I   B-ACD     0.75      9.01    0.083               0.11   0.09        1.4
                 0.12      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.60      9.07    0.066               0.09   0.07        1.1
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I
                           I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                           I
 I   B-ACD     0.63      9.02    0.070               0.09   0.08        1.2
                 0.12      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.50      9.07    0.055               0.07   0.06        0.9
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I
                           I
.-------------------------------------------------------------------------------
------------------------------
*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    A-D
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.0
   08.45           0.0
   09.00           0.0
   09.15           0.0
   09.30           0.0
.
 QUEUE FOR STREAM    D-ABC
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    C-ABD
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.0
   08.45           0.0
   09.00           0.0
   09.15           0.0
   09.30           0.0
.
                 QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                 --------------------------------------------
-------------------------------------------------------------------------------
I STREAM I   TOTAL DEMAND  I   * QUEUEING *      I * INCLUSIVE QUEUEING * I
I        I                I    * DELAY *        I       * DELAY *        I
I        I----------------------------------------------------------------I
I        I  (VEH)  (VEH/H) I  (MIN)    (MIN/VEH) I    (MIN)     (MIN/VEH) I
-------------------------------------------------------------------------------
I  B-ACD I   68.8 I   45.9 I     8.3 I    0.12   I       8.3  I    0.12   I
I  A-B   I    0.0 I    0.0 I         I           I            I           I
I  A-C   I    0.0 I    0.0 I         I           I            I           I
```

A-D	0.0	0.0	0.0	0.00	0.0	0.00
D-ABC	55.1	36.7	6.5	0.12	6.5	0.12
C-ABD	0.0	0.0	0.0	0.00	0.0	0.00
C-D	0.0	0.0				
C-A	0.0	0.0				
ALL	123.9	82.6	14.8	0.12	14.8	0.12

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
 A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
688.22	0.27	0.11

STREAM D-A

Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D
688.22	0.27	0.11

STREAM B-A

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For Opposing STREAM D-B
544.46	0.25	0.25	0.25	0.25

Intercept For STREAM D-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For Opposing STREAM B-D
0.10	0.16	0.36	0.13		

STREAM D-C

Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For Opposing STREAM B-D
544.46	0.25	0.25	0.25	0.25

STREAM B-A

Intercept For STREAM B-A	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-B
0.10	0.16	0.36	0.13	

STREAM C-B

Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.23	0.23	0.33	I

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.23	0.33	0.23	I

B-D Stream From Left Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-B	I
I 544.46	0.25	0.25	0.10	0.36	I

I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	Slope For Opposing	I
I	0.16	0.16		I

B-D Stream From Right Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-B	I
I 544.46	0.25	0.25	0.10	0.36	I

I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	Slope For Opposing	I
I	0.16	0.16		I

D-B Stream From Left Hand Lane

I Intercept For STREAM D-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-D	I
I 544.46	0.25	0.25	0.10	0.36	I

I	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing	I
I	0.16	0.16		I

D-B Stream From Right Hand Lane

```
-------------------------------------------------------------------------------
-------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------
-------------
 I     544.46            0.25               0.25                0.10
  0.36       I

-------------------------------------------------------------------------------
-------------

-------------------------------------------------------------------------------
-------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
-------------
 I                       0.16               0.16
            I

-------------------------------------------------------------------------------
-------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        0920 Des RD PM


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
I
 I        I             I             I            I        I         I
I

-------------------------------------------------------------------------------
 I ARM  A I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
I
 I ARM  B I     15.00   I     45.00   I    75.00   I  0.75  I   1.13  I  0.75
I
 I ARM  C I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
I
 I ARM  D I     15.00   I     45.00   I    75.00   I  0.50  I   0.75  I  0.50
I

-------------------------------------------------------------------------------

.Demand set:        0920 Des RD PM
 ---------------------------------------------------------------
 I                    I         TURNING PROPORTIONS               I
 I                    I         TURNING COUNTS                    I
 I                    I        (PERCENTAGE OF H.V.S)              I
 I                    ------------------------------------------
 I        TIME        I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ---------------------------------------------------------------------
 I   08.00 - 09.30    I         I        I        I        I        I
 I                    I ARM  A  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  B  I  0.333 I  0.000 I  0.000 I  0.667 I
 I                    I         I   20.0 I    0.0 I    0.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  C  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  D  I  0.000 I  1.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I   40.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 ---------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ---------------------------------------------------------
                FOR DEMAND SET         0920 Des RD PM
                AND FOR TIME PERIOD        1
.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
```

```
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                               I
 I   B-ACD     0.75      9.03    0.083               0.00   0.09        1.3
                   0.12      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   D-ABC     0.50      9.07    0.055               0.00   0.06        0.8
                   0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   C-D       0.00
                               I
 I   C-A       0.00
                               I
 I
                               I
.--------------------------------------------------------------------------------
------------------------------

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------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                               I
 I   B-ACD     0.90      9.02    0.100               0.09   0.11        1.6
                   0.12      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   D-ABC     0.60      9.07    0.066               0.06   0.07        1.0
                   0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   C-D       0.00
                               I
 I   C-A       0.00
                               I
 I
                               I
.--------------------------------------------------------------------------------
------------------------------

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------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                               I
 I   B-ACD     1.10      9.01    0.122               0.11   0.14        2.0
                   0.13      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   D-ABC     0.73      9.07    0.081               0.07   0.09        1.3
                   0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   C-D       0.00
                               I
 I   C-A       0.00
                               I
 I
                               I
.--------------------------------------------------------------------------------
------------------------------

.--------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                               I
 I   B-ACD     1.10      9.01    0.122               0.14   0.14        2.1
                   0.13      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   D-ABC     0.73      9.07    0.081               0.09   0.09        1.3
                   0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   C-D       0.00
                               I
 I   C-A       0.00
```

```
                            I
 I                          I
                            I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                            I
 I   B-ACD     0.90      9.02    0.100               0.14   0.11        1.7
                 0.12      I
 I   A-B       0.00
                            I
 I   A-C       0.00
                            I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.60      9.07    0.066               0.09   0.07        1.1
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                            I
 I   C-A       0.00
                            I
 I
                            I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                            I
 I   B-ACD     0.75      9.03    0.083               0.11   0.09        1.4
                 0.12      I
 I   A-B       0.00
                            I
 I   A-C       0.00
                            I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.50      9.07    0.055               0.07   0.06        0.9
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                            I
 I   C-A       0.00
                            I
 I
                            I
.-------------------------------------------------------------------------------
------------------------------
*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    A-D
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.0
   08.45           0.0
   09.00           0.0
   09.15           0.0
   09.30           0.0
.
 QUEUE FOR STREAM    D-ABC
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    C-ABD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.0
```

08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

.

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-ACD	82.6	55.1	10.1	0.12	10.1	0.12
A-B	0.0	0.0				
A-C	0.0	0.0				
A-D	0.0	0.0	0.0	0.00	0.0	0.00
D-ABC	55.1	36.7	6.5	0.12	6.5	0.12
C-ABD	0.0	0.0	0.0	0.00	0.0	0.00
C-D	0.0	0.0				
C-A	0.0	0.0				
ALL	137.6	91.8	16.6	0.12	16.6	0.12

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

TRL LIMITED

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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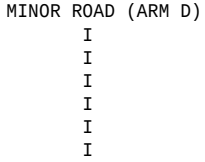
Run with file:-
"T:\Anthony Sun\20240920 Picidy\Junction 9 - Yau Pok Road REC S\0920 Des Rd\Des RD.vpi"
(drive-on-the-left) at 12:26:10 on Friday, 20 September 2024

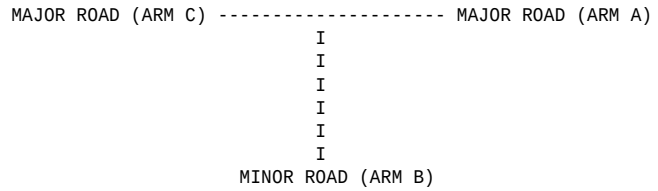
.RUN INFORMATION
****

RUN TITLE : J9 - Yau Pok Road / REC South Access
LOCATION : Fairview
DATE : 02/09/24
CLIENT : SHK
ENUMERATOR : sam.wong [HKSHT1PC0702]
JOB NUMBER :
STATUS :
DESCRIPTION :

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA





ARM A IS Yau Pok Road exit
ARM B IS Vehicular Bridge
ARM C IS Yau Pok Road entry
ARM D IS REC South

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
MINOR ROAD D	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH (W)	6.00 M.
(W) 6.00 M.	
CENTRAL RESERVE WIDTH (WCR)	0.00 M.
(WCR) 0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH (WA-D)	(WC-B) 2.20 M.
(WA-D) 2.20 M.	
- VISIBILITY (VA-D)	(VC-B) 50.00 M.
(VA-D) 50.00 M.	
- BLOCKS TRAFFIC (SPACES)	YES (0)
NO (0)	
MINOR ROAD - VISIBILITY TO LEFT (VD-A)	(VB-C) 50.0 M.
(VD-A) 50.0 M.	
- VISIBILITY TO RIGHT (VD-C)	(VB-A) 50.0 M.
(VD-C) 50.0 M.	
- LANE 1 WIDTH (WD-A)	(WB-C) 3.50 M.
(WD-A) 3.50 M.	
- LANE 2 WIDTH (WD-C)	(WB-A) 0.00 M.
(WD-C) 0.00 M.	

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
I 688.22	0.27	0.11	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I 688.22	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	I
I 544.46	0.25	0.25	0.25	I
0.25				

STREAM C-A

I Intercept For STREAM C-A	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-B	Slope For Opposing STREAM D-C	I
I 0.10	0.16	0.36		
0.13	I			

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For Opposing STREAM B-D	I
I 544.46	0.25	0.25	0.25		
0.25	I				

STREAM C-D

I Intercept For STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM B-A	I
I 0.10	0.16	0.36		
0.13	I			

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
I 602.92	0.23	0.23	0.33	I

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.23	0.33	0.23	I

B-D Stream From Left Hand Lane

I Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B	STREAM C-B I
I 544.46	0.25	0.25	0.10	0.36 I

I	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I	STREAM C-A	STREAM C-D		
I	0.16	0.16		I

B-D Stream From Right Hand Lane

I Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B	STREAM C-B I
I 544.46	0.25	0.25	0.10	0.36 I

I	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I	STREAM C-A	STREAM C-D		
I	0.16	0.16		I

D-B Stream From Left Hand Lane

I Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM D-B	STREAM C-A	STREAM C-B	STREAM C-D	STREAM A-D I
I 544.46	0.25	0.25	0.10	0.36 I

I	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I	STREAM A-C	STREAM A-B		
I	0.16	0.16		I

D-B Stream From Right Hand Lane

I Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM B-D	STREAM C-A	STREAM C-B	STREAM C-D	STREAM A-D I
I 544.46	0.25	0.25	0.10	0.36 I

```
--------------
 I              Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I               STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
--------------
 I                      0.16               0.16
            I

-------------------------------------------------------------------------------
--------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        0920 Des RD AM


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
I
 I        I             I             I            I        I         I
I

-------------------------------------------------------------------------------
 I ARM  A I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
I
 I ARM  B I     15.00   I     45.00   I    75.00   I  0.38  I   0.56  I  0.38
I
 I ARM  C I     15.00   I     45.00   I    75.00   I  0.13  I   0.19  I  0.13
I
 I ARM  D I     15.00   I     45.00   I    75.00   I  0.50  I   0.75  I  0.50
I
```

```
-------------------------------------------------------------------------------

.Demand set:        0920 Des RD AM
 ---------------------------------------------------------------------
 I                     I         TURNING PROPORTIONS                 I
 I                     I         TURNING COUNTS                      I
 I                     I        (PERCENTAGE OF H.V.S)                I
 I                     I -------------------------------------------- I
 I        TIME         I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ---------------------------------------------------------------------
 I   08.00 - 09.30     I         I        I        I        I        I
 I                     I ARM  A  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                     I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                     I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                     I         I        I        I        I        I
 I                     I ARM  B  I  0.000 I  0.000 I  0.000 I  1.000 I
 I                     I         I    0.0 I    0.0 I    0.0 I   30.0 I
 I                     I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                     I         I        I        I        I        I
 I                     I ARM  C  I  0.000 I  1.000 I  0.000 I  0.000 I
 I                     I         I    0.0 I   10.0 I    0.0 I    0.0 I
 I                     I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                     I         I        I        I        I        I
 I                     I ARM  D  I  0.000 I  1.000 I  0.000 I  0.000 I
 I                     I         I    0.0 I   40.0 I    0.0 I    0.0 I
 I                     I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                     I         I        I        I        I        I
 ---------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ---------------------------------------------------------
                FOR DEMAND SET         0920 Des RD AM
                AND FOR TIME PERIOD        1
.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                               I
 I   B-ACD     0.38      9.03    0.042               0.00   0.04        0.6
                   0.12      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.10    0.000               0.00   0.00        0.0
                   0.00      I
 I   D-ABC     0.50      9.04    0.056               0.00   0.06        0.8
                   0.12      I
 I   C-ABD     0.13     10.05    0.012               0.00   0.01        0.2
                   0.10      I
```

```
 I   C-D       0.00
                            I
 I   C-A       0.00
                            I
 I
                            I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                            I
 I   B-ACD     0.45      9.02    0.050               0.04   0.05        0.8
                 0.12       I
 I   A-B       0.00
                            I
 I   A-C       0.00
                            I
 I   A-D       0.00      9.09    0.000               0.00   0.00        0.0
                 0.00       I
 I   D-ABC     0.60      9.04    0.066               0.06   0.07        1.0
                 0.12       I
 I   C-ABD     0.15     10.05    0.015               0.01   0.02        0.2
                 0.10       I
 I   C-D       0.00
                            I
 I   C-A       0.00
                            I
 I
                            I
.-------------------------------------------------------------------------------
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.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                            I
 I   B-ACD     0.55      9.01    0.061               0.05   0.06        0.9
                 0.12       I
 I   A-B       0.00
                            I
 I   A-C       0.00
                            I
 I   A-D       0.00      9.08    0.000               0.00   0.00        0.0
                 0.00       I
 I   D-ABC     0.73      9.03    0.081               0.07   0.09        1.3
                 0.12       I
 I   C-ABD     0.18     10.05    0.018               0.02   0.02        0.3
                 0.10       I
 I   C-D       0.00
                            I
 I   C-A       0.00
                            I
 I
                            I
.-------------------------------------------------------------------------------
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.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                            I
 I   B-ACD     0.55      9.01    0.061               0.06   0.06        1.0
                 0.12       I
 I   A-B       0.00
                            I
 I   A-C       0.00
                            I
 I   A-D       0.00      9.08    0.000               0.00   0.00        0.0
                 0.00       I
 I   D-ABC     0.73      9.03    0.081               0.09   0.09        1.3
                 0.12       I
 I   C-ABD     0.18     10.05    0.018               0.02   0.02        0.3
                 0.10       I
 I   C-D       0.00
                            I
 I   C-A       0.00
                            I
 I
                            I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                            I
```

```
 I   B-ACD     0.45      9.02    0.050               0.06   0.05        0.8
                 0.12      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.09    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.60      9.04    0.066               0.09   0.07        1.1
                 0.12      I
 I   C-ABD     0.15     10.05    0.015               0.02   0.02        0.2
                 0.10      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I
                           I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                           I
 I   B-ACD     0.38      9.03    0.042               0.05   0.04        0.7
                 0.12      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.10    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.50      9.04    0.056               0.07   0.06        0.9
                 0.12      I
 I   C-ABD     0.13     10.05    0.012               0.02   0.01        0.2
                 0.10      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I
                           I
.-------------------------------------------------------------------------------
------------------------------
*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.0
.
 QUEUE FOR STREAM    A-D
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.0
   08.45           0.0
   09.00           0.0
   09.15           0.0
   09.30           0.0
.
 QUEUE FOR STREAM    D-ABC
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    C-ABD
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.0
   08.45           0.0
   09.00           0.0
   09.15           0.0
   09.30           0.0
.
                 QUEUEING DELAY INFORMATION OVER WHOLE PERIOD
                 --------------------------------------------
-------------------------------------------------------------------------------
I STREAM I   TOTAL DEMAND  I   * QUEUEING *      I * INCLUSIVE QUEUEING * I
I        I                I    * DELAY *        I       * DELAY *        I
I        I----------------------------------------------------------------I
I        I  (VEH)  (VEH/H) I  (MIN)    (MIN/VEH) I    (MIN)     (MIN/VEH) I
-------------------------------------------------------------------------------
I  B-ACD I   41.3 I   27.5 I     4.8 I    0.12   I       4.8  I    0.12   I
I  A-B   I    0.0 I    0.0 I         I           I            I           I
I  A-C   I    0.0 I    0.0 I         I           I            I           I
```

I A-D	I	0.0	I 0.0	I 0.0	I 0.00	I	0.0	I 0.00	I
I D-ABC	I	55.1	I 36.7	I 6.5	I 0.12	I	6.5	I 0.12	I
I C-ABD	I	13.8	I 9.2	I 1.4	I 0.10	I	1.4	I 0.10	I
I C-D	I	0.0	I 0.0	I	I	I		I	I
I C-A	I	0.0	I 0.0	I	I	I		I	I
I ALL	I	110.1	I 73.4	I 12.7	I 0.12	I	12.7	I 0.12	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
I 688.22	0.27	0.11	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I 688.22	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	I
I 544.46	0.25	0.25	0.25	
0.25	I			

I	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	
Slope For Opposing STREAM D-C	I			
I	0.10	0.16	0.36	
0.13	I			

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	
Slope For Opposing STREAM B-D	I			
I 544.46	0.25	0.25	0.25	
0.25	I			

I	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	
Slope For Opposing STREAM B-A	I			
I	0.10	0.16	0.36	
0.13	I			

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.23	0.23	0.33	I

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.23	0.33	0.23	I

B-D Stream From Left Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-B	I
I 544.46	0.25	0.25	0.10	0.36	I

I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	Slope For Opposing	I
I	0.16	0.16			I

B-D Stream From Right Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-B	I
I 544.46	0.25	0.25	0.10	0.36	I

I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	Slope For Opposing	I
I	0.16	0.16		I

D-B Stream From Left Hand Lane

I Intercept For STREAM D-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-D	I
I 544.46	0.25	0.25	0.10	0.36	I

I	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing	I
I	0.16	0.16		I

D-B Stream From Right Hand Lane

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-------------------------------------------------------------------------------
-------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------
-------------
 I     544.46            0.25               0.25                0.10
  0.36       I

-------------------------------------------------------------------------------
-------------

-------------------------------------------------------------------------------
-------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
-------------
 I                      0.16               0.16
            I

-------------------------------------------------------------------------------
-------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        0920 Des RD PM


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
I
 I        I             I             I            I        I         I
I

-------------------------------------------------------------------------------
 I ARM  A I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
I
 I ARM  B I     15.00   I     45.00   I    75.00   I  0.50  I   0.75  I  0.50
I
 I ARM  C I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
I
 I ARM  D I     15.00   I     45.00   I    75.00   I  0.50  I   0.75  I  0.50
I

-------------------------------------------------------------------------------

.Demand set:        0920 Des RD PM
 ---------------------------------------------------------------
 I                    I         TURNING PROPORTIONS               I
 I                    I         TURNING COUNTS                    I
 I                    I        (PERCENTAGE OF H.V.S)              I
 I                    ------------------------------------------
 I        TIME        I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ---------------------------------------------------------------
 I   08.00 - 09.30    I         I        I        I        I        I
 I                    I ARM  A  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  B  I  0.000 I  0.000 I  0.000 I  1.000 I
 I                    I         I    0.0 I    0.0 I    0.0 I   40.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  C  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  D  I  0.000 I  1.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I   40.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 ---------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ---------------------------------------------------------
                FOR DEMAND SET         0920 Des RD PM
                AND FOR TIME PERIOD        1
.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
```

```
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                               I
 I   B-ACD     0.50      9.07    0.055               0.00   0.06        0.8
                   0.12      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   D-ABC     0.50      9.07    0.055               0.00   0.06        0.8
                   0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   C-D       0.00
                               I
 I   C-A       0.00
                               I
 I
                               I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                               I
 I   B-ACD     0.60      9.07    0.066               0.06   0.07        1.0
                   0.12      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   D-ABC     0.60      9.07    0.066               0.06   0.07        1.0
                   0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   C-D       0.00
                               I
 I   C-A       0.00
                               I
 I
                               I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                               I
 I   B-ACD     0.73      9.07    0.081               0.07   0.09        1.3
                   0.12      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   D-ABC     0.73      9.07    0.081               0.07   0.09        1.3
                   0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   C-D       0.00
                               I
 I   C-A       0.00
                               I
 I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                               I
 I   B-ACD     0.73      9.07    0.081               0.09   0.09        1.3
                   0.12      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   D-ABC     0.73      9.07    0.081               0.09   0.09        1.3
                   0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   C-D       0.00
                               I
 I   C-A       0.00
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                            I
 I                          I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                            I
 I   B-ACD     0.60      9.07    0.066               0.09   0.07        1.1
                 0.12      I
 I   A-B       0.00
                            I
 I   A-C       0.00
                            I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.60      9.07    0.066               0.09   0.07        1.1
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                            I
 I   C-A       0.00
                            I
 I
                            I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                            I
 I   B-ACD     0.50      9.07    0.055               0.07   0.06        0.9
                 0.12      I
 I   A-B       0.00
                            I
 I   A-C       0.00
                            I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.50      9.07    0.055               0.07   0.06        0.9
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                            I
 I   C-A       0.00
                            I
 I
                            I
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*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    A-D
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.0
   08.45           0.0
   09.00           0.0
   09.15           0.0
   09.30           0.0
.
 QUEUE FOR STREAM    D-ABC
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    C-ABD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.0
```

08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

.

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-ACD	55.1	36.7	6.5	0.12	6.5	0.12
A-B	0.0	0.0				
A-C	0.0	0.0				
A-D	0.0	0.0	0.0	0.00	0.0	0.00
D-ABC	55.1	36.7	6.5	0.12	6.5	0.12
C-ABD	0.0	0.0	0.0	0.00	0.0	0.00
C-D	0.0	0.0				
C-A	0.0	0.0				
ALL	110.1	73.4	12.9	0.12	12.9	0.12

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
 A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

JUNCTION CAPACITY CALCULATION

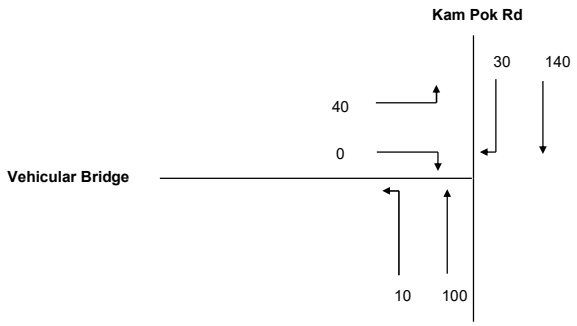
AECOM

Junction J10 - Kam Pok Road / Vehicular Bridge	2034 AM Design Flows	DESIGN: 0	CHECK: 0	JOB NO: 60XXXXXX	DATE: Sep 24

J10

Traffic Flow Diagram

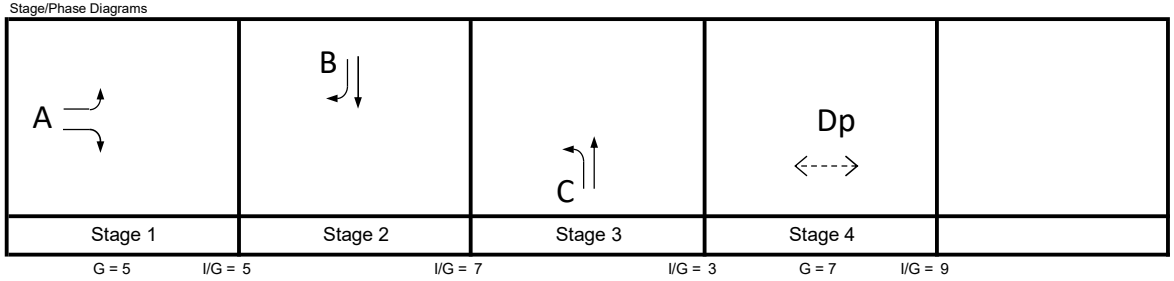
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	60	sec
Sum(y)	Y =	0.146	
Lost time	L =	34	sec
Total Flow	=	320	pcu

Optimum Cycle C_o	= (1.5×L+5)/(1-Y)	=	66	sec
Min. Cycle Time C_m	= L/(1-Y)	=	40	sec
Y_{ult}	= 0.9-0.0075×L	=	0.645	
$R.C._{ult}$	= (Y_{ult}-Y)/Yx100%	=	343.1	%
Practical Cycle Time C_p	= 0.9×L/(0.9-Y)	=	41	sec
Y_{max}	= 1-L/C	=	0.433	

Stage/Phase Diagrams



Critical Case : A,B,C,Dp

R.C.(C) = (0.9xY_{max}-Y)/Yx100% = 168%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
↓	A	1	3.600	1	5	10	0	0		0		2115	40		0	40	100%	0%	1627	0.025	
↓	B	2	3.600	1		10	0	1		0		1975		140	30	170		18%	1924	0.088	0.088
↑	C	3	3.600	1	5			1		0		1975	10	100		110	9%		1923	0.057	0.057
Pedestrian Crossing				GM		FGM															
	Dp	4	min.	7	+	7	=	14	sec												*

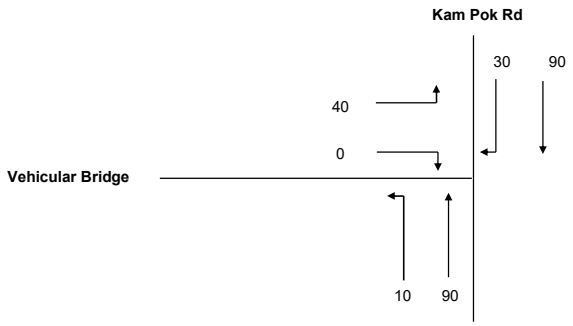
JUNCTION CAPACITY CALCULATION

AECOM

Junction J10 - Kam Pok Road / Vehicular Bridge	2034 PM Design Flows	DESIGN: 0	CHECK: 0	JOB NO: 60XXXXXX	DATE: Sep 24

J10

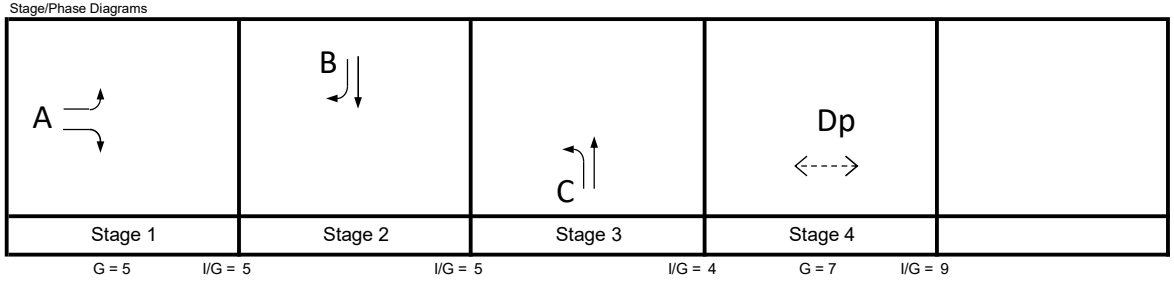
Traffic Flow Diagram
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	60	sec
Sum(y)	Y =	0.115	
Lost time	L =	33	sec
Total Flow	=	260	pcu

Optimum Cycle C_o	= (1.5×L+5)/(1-Y)	=	62	sec
Min. Cycle Time C_m	= L/(1-Y)	=	37	sec
Y_{ult}	= 0.9-0.0075×L	=	0.653	
$R.C._{ult}$	= (Y_{ult}-Y)/Yx100%	=	466.5	%
Practical Cycle Time C_p	= 0.9×L/(0.9-Y)	=	38	sec
Y_{max}	= 1-L/C	=	0.450	

Stage/Phase Diagrams



G = 5 I/G = 5 I/G = 5 I/G = 4 G = 7 I/G = 9

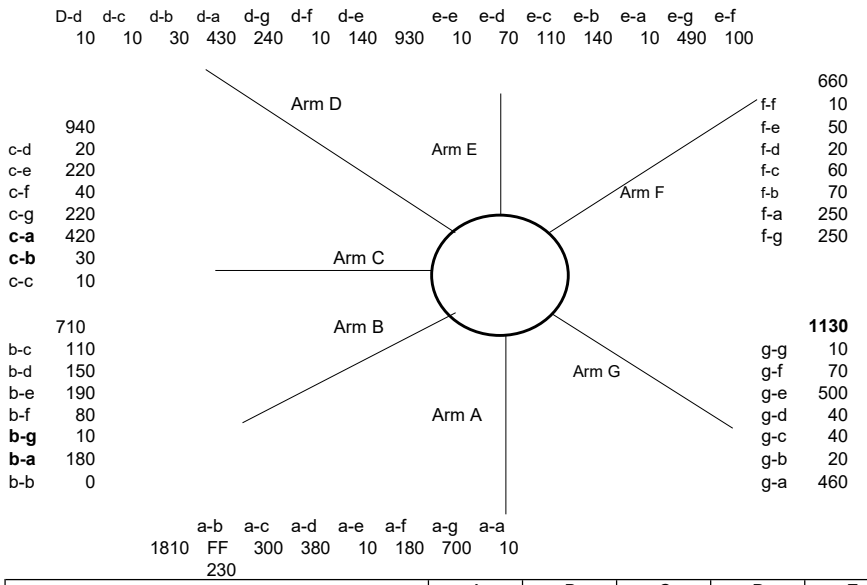
Critical Case : A,B,C,Dp

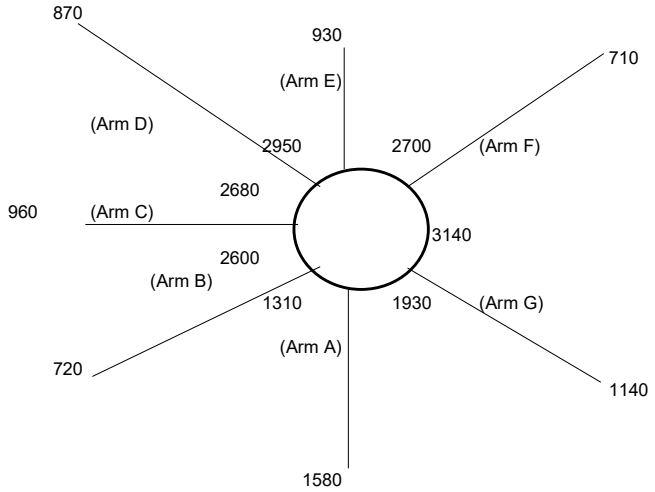
R.C.(C) = (0.9xY_{max}-Y)/Yx100% = 252%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
↓	A	1	3.600	1	5	10	0	0		0		2115	40		0	40	100%	0%	1627	0.025	
↓	B	2	3.600	1		10	0	1		0		1975		90	30	120		25%	1904	0.063	0.063
↑	C	3	3.600	1	5			1		0		1975	10	90		100	10%		1917	0.052	0.052
Pedestrian Crossing				GM		FGM															
	Dp	4	min.	7	+	7	=	14	sec												*

ROUNDABOUT CAPACITY CALCULATIC **AECOM**

Junction	Junction J1 - Fairview Roundabout	cenar	2034 AM Design Flows (with Improvement)	Project No.	Prepared By	Checked By	Date
				-	MK	JL	May 2025





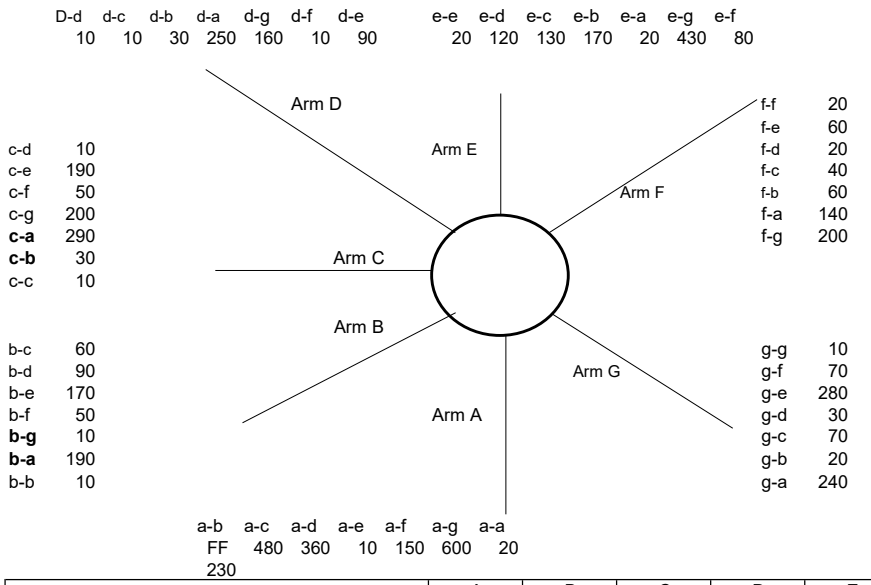
ARM	A	B	C	D	E	F	G
INPUT PARAMETERS:							
V = Approach half width (m)	6.00	6.50	7.00	7.30	7.30	7.30	7.30
E = Entry width (m)	12.50	11.20	11.80	12.00	13.00	11.00	12.00
L = Effective length of flare (m)	20.00	22.00	20.00	36.00	13.00	23.00	27.00
R = Entry radius (m)	25.00	25.00	25.00	30.00	45.00	25.00	25.00
D = Inscribed circle diameter (m)	140.00	140.00	140.00	140.00	140.00	140.00	140.00
A = Entry angle (degree)	40.00	35.00	35.00	25.00	30.00	35.00	45.00
Q = Entry flow (pcu/h)	1580	720	960	870	930	710	1140
Qc= Circulating flow across entry (pcu/h)	1310	2600	2680	2950	2700	3140	1930
OUTPUT PARAMETERS:							
S = Sharpness of flare = 1.6(E-V)/L	0.52	0.34	0.38	0.21	0.70	0.26	0.28
K = 1-0.00347(A-30)-0.978(1/R-0.05)	0.98	0.99	0.99	1.03	1.03	0.99	0.96
X2= V + ((E-V)/(1+2S))	9.19	9.29	9.71	10.62	9.67	9.74	10.32
M = EXP((D-60)/10)	2981	2981	2981	2981	2981	2981	2981
F = 303*X2	2783	2815	2944	3216	2931	2952	3127
Td= 1+(0.5/(1+M))	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fc= 0.21*Td(1+0.2*X2)	0.60	0.60	0.62	0.66	0.62	0.62	0.64
Qe= K(F-Fc*Qc)	1953	1245	1277	1324	1301	1000	1805
DFC = Design flow/Capacity = Q/Qe	0.81	0.58	0.75	0.66	0.71	0.71	0.63

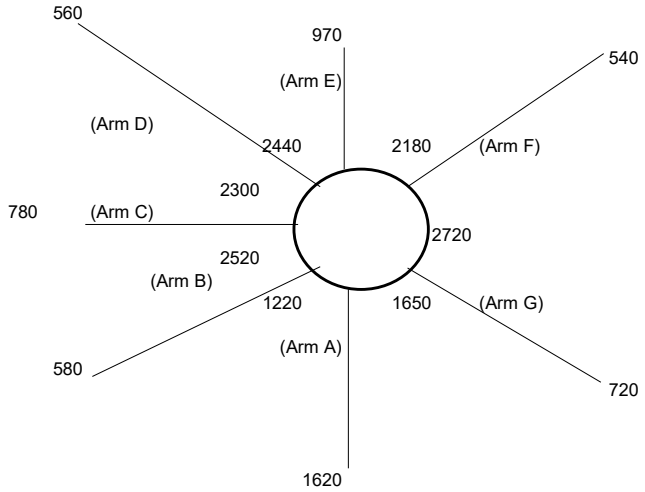
TOTAL ENTRY FLOWS = 6910 PCU

CRITICAL DFC = 0.81

ROUNDABOUT CAPACITY CALCULATIC **AECOM**

Junction	Junction J1 - Fairview Roundabout	cenar	2034 PM Design Flows (with Improvement)	Project No.	Prepared By	Checked By	Date
				-	MK	JL	May 2025





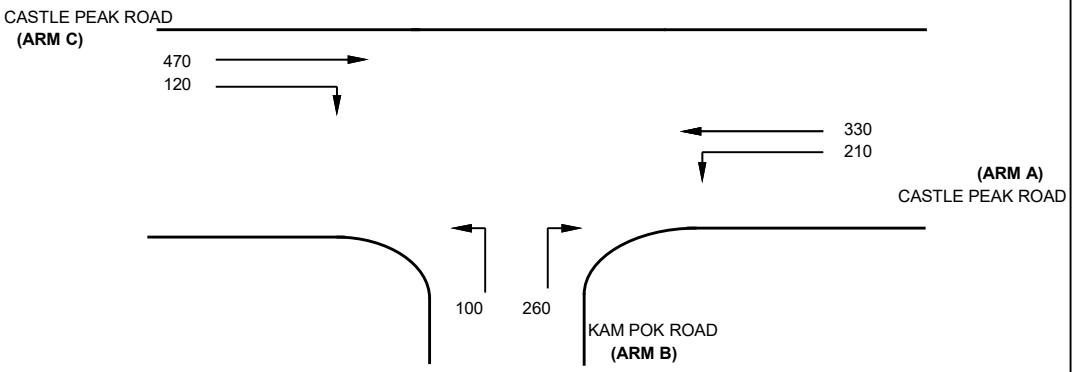
ARM	A	B	C	D	E	F	G
INPUT PARAMETERS:							
V = Approach half width (m)	6.00	6.50	7.00	7.30	7.30	7.30	7.30
E = Entry width (m)	12.50	11.20	11.80	12.00	13.00	11.00	12.00
L = Effective length of flare (m)	20.00	22.00	20.00	36.00	13.00	23.00	27.00
R = Entry radius (m)	25.00	25.00	25.00	30.00	45.00	25.00	25.00
D = Inscribed circle diameter (m)	140.00	140.00	140.00	140.00	140.00	140.00	140.00
A = Entry angle (degree)	40.00	35.00	35.00	25.00	30.00	35.00	45.00
Q = Entry flow (pcu/h)	1620	580	780	560	970	540	720
Qc= Circulating flow across entry (pcu/h)	1220	2520	2300	2440	2180	2720	1650
OUTPUT PARAMETERS:							
S = Sharpness of flare = 1.6(E-V)/L	0.52	0.34	0.38	0.21	0.70	0.26	0.28
K = 1-0.00347(A-30)-0.978(1/R-0.05)	0.98	0.99	0.99	1.03	1.03	0.99	0.96
X2= V + ((E-V)/(1+2S))	9.19	9.29	9.71	10.62	9.67	9.74	10.32
M = EXP((D-60)/10)	2981	2981	2981	2981	2981	2981	2981
F = 303*X2	2783	2815	2944	3216	2931	2952	3127
Td= 1+(0.5/(1+M))	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fc= 0.21*Td(1+0.2*X2)	0.60	0.60	0.62	0.66	0.62	0.62	0.64
Qe= K(F-Fc*Qc)	2005	1293	1510	1670	1630	1258	1977
DFC = Design flow/Capacity = Q/Qe	0.81	0.45	0.52	0.34	0.60	0.43	0.36

TOTAL ENTRY FLOWS = 5770 PCU

CRITICAL DFC = 0.81

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J2 - Castle Peak Road / Kam Pok Road	2034 AM Design Flows (with IMP)	Designed By :	Checked By :	Job No. :	Date : Dec 21



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.9 (metres)
W cr	=	1.5 (metres)
q a-b	=	210 (pcu/hr)
q a-c	=	330 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05 (metres)
Vr c-b	=	30 (metres)
q c-a	=	470 (pcu/hr)
q c-b	=	120 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	4.3 (metres)
W b-c	=	4.3 (metres)
Vl b-a	=	70 (metres)
Vr b-a	=	53 (metres)
Vr b-c	=	70 (metres)
q b-a	=	260 (pcu/hr)
q b-c	=	100 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.949254
E	=	1.013351
F	=	0.780782
Y	=	0.761950

THE CAPACITY OF MOVEMENT :

Q b-a	=	383
Q b-c	=	639
Q c-b	=	465
Q b-ac	=	431

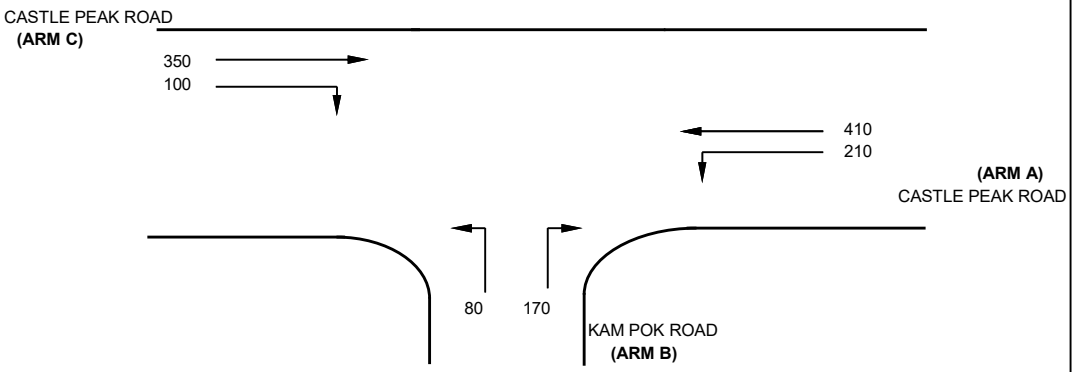
CRITICAL DFC = 0.68

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.68
DFC b-c	=	0.16
DFC c-b	=	0.26

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J2 - Castle Peak Road / Kam Pok Road	2034 PM Design Flows (with IMP)	Designed By :	Checked By :	Job No. :	Date : Dec 21



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.9 (metres)
W cr	=	0 (metres)
q a-b	=	210 (pcu/hr)
q a-c	=	410 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05 (metres)
Vr c-b	=	30 (metres)
q c-a	=	350 (pcu/hr)
q c-b	=	100 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	4.3 (metres)
W b-c	=	4.3 (metres)
Vl b-a	=	70 (metres)
Vr b-a	=	53 (metres)
Vr b-c	=	70 (metres)
q b-a	=	170 (pcu/hr)
q b-c	=	80 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.949254
E	=	1.013351
F	=	0.780782
Y	=	0.761950

THE CAPACITY OF MOVEMENT :

Q b-a	=	370
Q b-c	=	616
Q c-b	=	447
Q b-ac	=	424

CRITICAL DFC = 0.46

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.46
DFC b-c	=	0.13
DFC c-b	=	0.22

JUNCTION CAPACITY CALCULATION

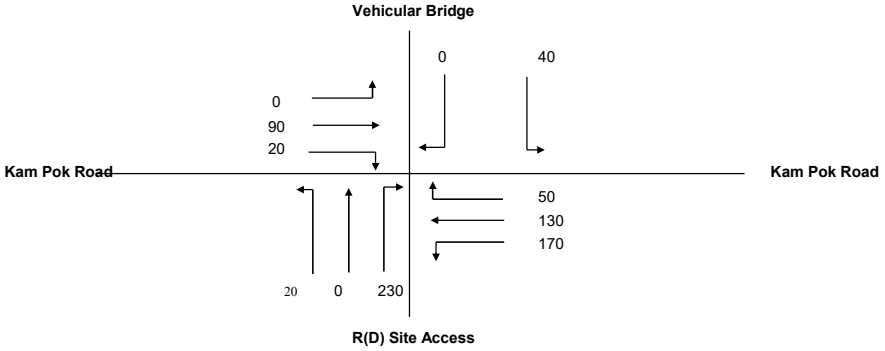
AECOM

Junction J11 - Kam Pok Road / Vehicular Bridge / R(D) Site Access	Year 2034 AM R(D)Design Flow	DESIGN: 0	CHECK: 0	#VALUE!	DATE: Oct 24

J11

Traffic Flow Diagram

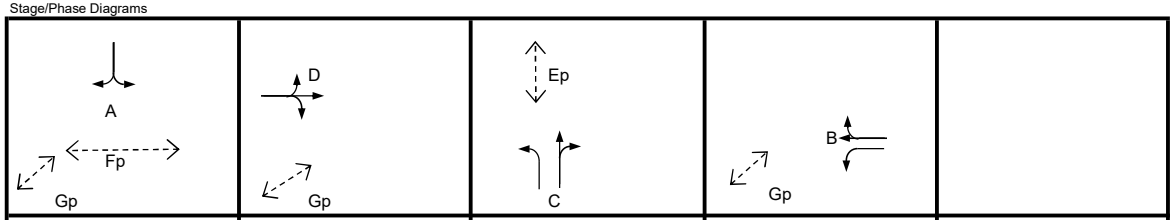
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	90	sec
Sum(y)	Y =	0.295	
Lost time	L =	37	sec
Total Flow	=	750	pcu

Optimum Cycle C_o	= (1.5×L+5)/(1-Y)	=	86	sec
Min. Cycle Time C_m	= L/(1-Y)	=	52	sec
Y_{ult}	= 0.9-0.0075×L	=	0.623	
R.C.$_{ult}$	= (Y_{ult}-Y)/Yx100%	=	110.9	%
Practical Cycle Time C_p	= 0.9×L/(0.9-Y)	=	55	sec
Y_{max}	= 1-L/C	=	0.589	

Stage/Phase Diagrams



Critical Case : Fp,D,C,B

R.C.(C) = ($0.9xY_{max}$-Y)/Yx100% = 80%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.500	1	10	12	0	0		0		2105	40		0	40	100%	0%	1830	0.022	
	B	4	3.650	1	15			1		0		1980	170			170	100%		1800	0.094	0.094
	B	4	3.650	1		15	0	0		0		2120		130	50	180		28%	2063	0.087	
	C	3	3.000	1	12	15	0	1		0		1915	20	0	230	250	8%	92%	1738	0.144	0.144
	D	2	3.650	1	10	12	0	1		0		1980	0	90	20	110	0%	18%	1936	0.057	0.057
Pedestrian Crossing				GM		FGM															
	Ep	3	min.	10	+	10	=	20	sec												
	Fp	1	min.	11	+	10	=	21	sec												*
	Gp	1,2,4	min.	5	+	5	=	10	sec												

JUNCTION CAPACITY CALCULATION

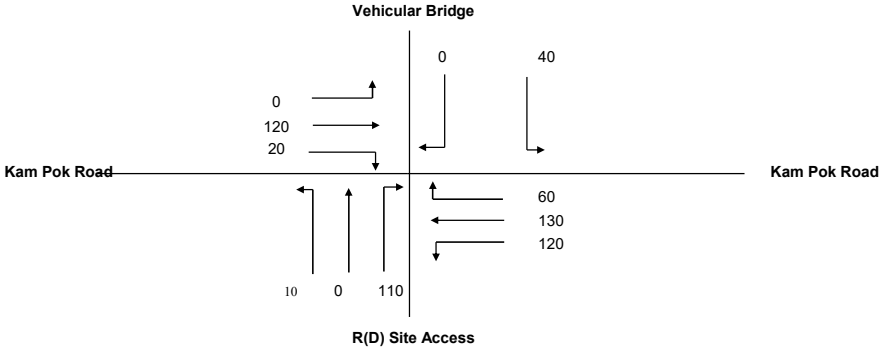
AECOM

Junction J11 - Kam Pok Road / Vehicular Bridge / R(D) Site Access	Year 2034 PM R(D)Design Flow	DESIGN: 0	CHECK: 0	#VALUE!	DATE: Oct 24

J11

Traffic Flow Diagram

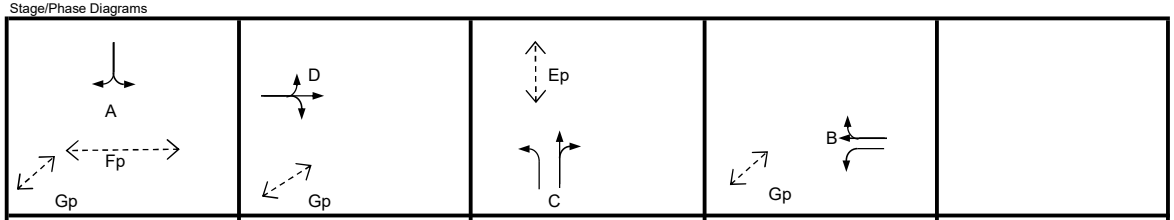
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	90	sec
Sum(y)	Y =	0.233	
Lost time	L =	37	sec
Total Flow	=	610	pcu

Optimum Cycle C_o	= (1.5×L+5)/(1-Y)	=	79	sec
Min. Cycle Time C_m	= L/(1-Y)	=	48	sec
Y_{ult}	= 0.9-0.0075×L	=	0.623	
R.C.$_{ult}$	= (Y_{ult}-Y)/Yx100%	=	166.6	%
Practical Cycle Time C_p	= 0.9×L/(0.9-Y)	=	50	sec
Y_{max}	= 1-L/C	=	0.589	

Stage/Phase Diagrams



Critical Case : Fp,D,C,B

R.C.(C) = (0.9xY_{max}-Y)/Yx100% = 127%

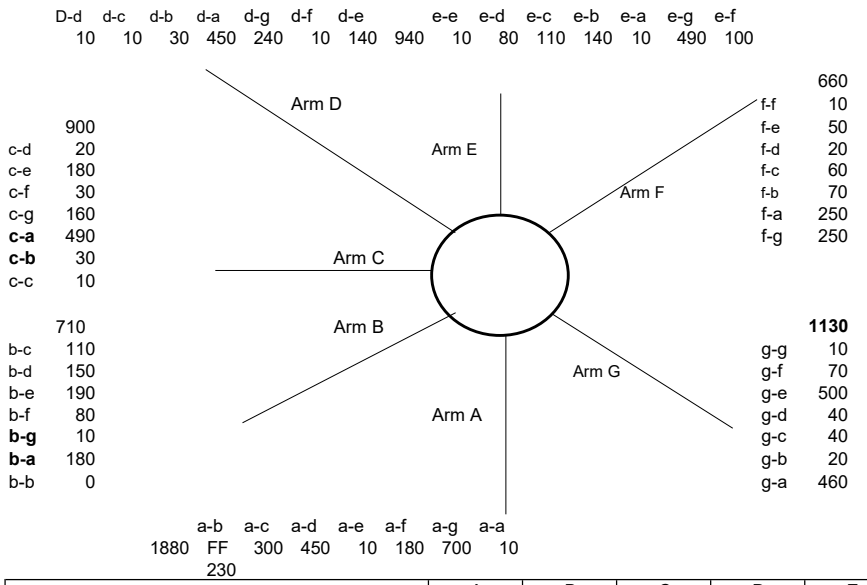
MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.500	1	10	12	0	0		0		2105	40		0	40	100%	0%	1830	0.022	
	B	4	3.650	1	15			1		0		1980	120			120	100%		1800	0.067	
	B	4	3.650	1		15	0	0		0		2120		130	60	190		32%	2055	0.092	0.092
	C	3	3.000	1	12	15	0	1		0		1915	10	0	110	120	8%	92%	1738	0.069	0.069
	D	2	3.650	1	10	12	0	1		0		1980	0	120	20	140	0%	14%	1945	0.072	0.072
Pedestrian Crossing				GM		FGM															
	Ep	3	min.	10	+	10	=	20	sec												
	Fp	1	min.	11	+	10	=	21	sec												*
	Gp	1,2,4	min.	5	+	5	=	10	sec												

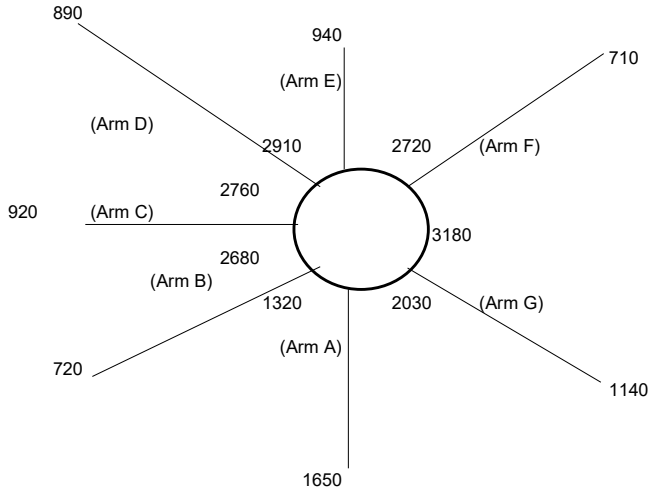
Design Flow

Sensitivity Test (I)

ROUNDABOUT CAPACITY CALCULATIC **AECOM**

Junction	Junction J1 - Fairview Roundabout	cenar	2034 AM Design Flows (Sensitivity Test w IMP)	Project No.	Prepared By	Checked By	Date
				-	MK	JL	May 2025





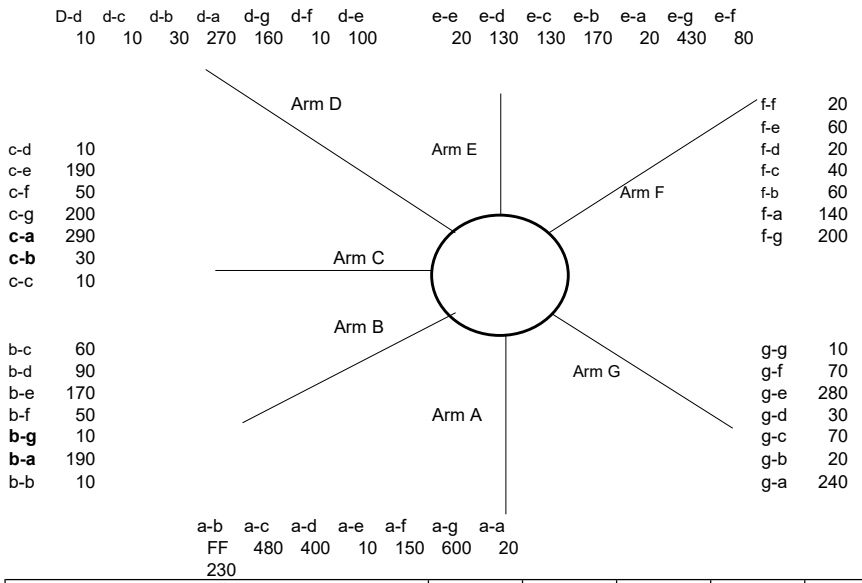
ARM	A	B	C	D	E	F	G
INPUT PARAMETERS:							
V = Approach half width (m)	6.00	6.50	7.00	7.30	7.30	7.30	7.30
E = Entry width (m)	12.50	11.20	11.80	12.00	13.00	11.00	12.00
L = Effective length of flare (m)	20.00	22.00	20.00	36.00	13.00	23.00	27.00
R = Entry radius (m)	25.00	25.00	25.00	30.00	45.00	25.00	25.00
D = Inscribed circle diameter (m)	140.00	140.00	140.00	140.00	140.00	140.00	140.00
A = Entry angle (degree)	40.00	35.00	35.00	25.00	30.00	35.00	45.00
Q = Entry flow (pcu/h)	1650	720	920	890	940	710	1140
Qc= Circulating flow across entry (pcu/h)	1320	2680	2760	2910	2720	3180	2030
OUTPUT PARAMETERS:							
S = Sharpness of flare = 1.6(E-V)/L	0.52	0.34	0.38	0.21	0.70	0.26	0.28
K = 1-0.00347(A-30)-0.978(1/R-0.05)	0.98	0.99	0.99	1.03	1.03	0.99	0.96
X2= V + ((E-V)/(1+2S))	9.19	9.29	9.71	10.62	9.67	9.74	10.32
M = EXP((D-60)/10)	2981	2981	2981	2981	2981	2981	2981
F = 303*X2	2783	2815	2944	3216	2931	2952	3127
Td= 1+(0.5/(1+M))	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fc= 0.21*Td(1+0.2*X2)	0.60	0.60	0.62	0.66	0.62	0.62	0.64
Qe= K(F-Fc*Qc)	1947	1197	1228	1352	1288	975	1743
DFC = Design flow/Capacity = Q/Qe	0.85	0.60	0.75	0.66	0.73	0.73	0.65

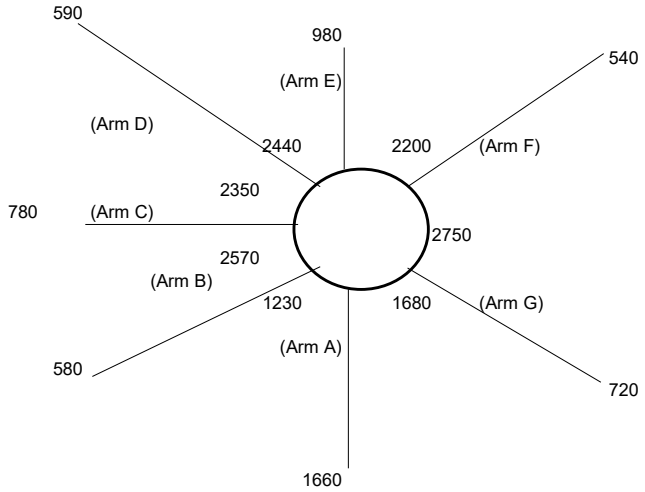
TOTAL ENTRY FLOWS = 6970 PCU

CRITICAL DFC = 0.85

ROUNDABOUT CAPACITY CALCULATIC **AECOM**

Junction	Junction J1 - Fairview Roundabout	cenar	2034 PM Design Flows (Sensitivity Test w IMP)	Project No.	Prepared By	Checked By	Date
				-	MK	JL	May 2025





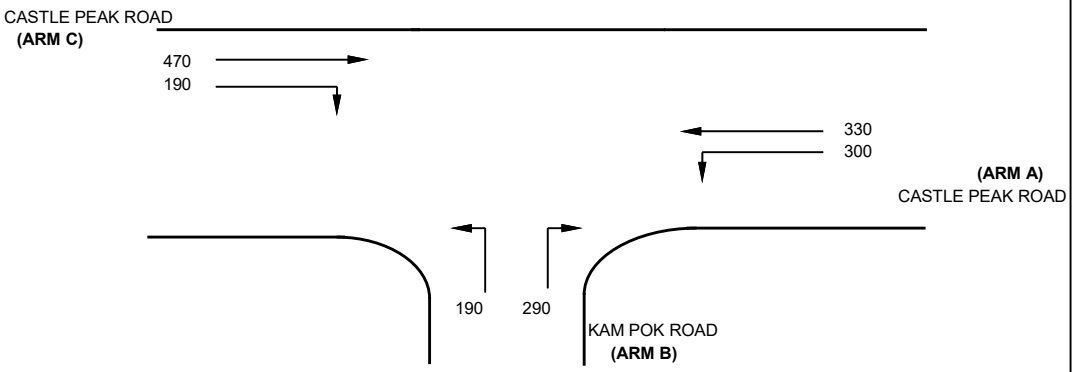
ARM	A	B	C	D	E	F	G
INPUT PARAMETERS:							
V = Approach half width (m)	6.00	6.50	7.00	7.30	7.30	7.30	7.30
E = Entry width (m)	12.50	11.20	11.80	12.00	13.00	11.00	12.00
L = Effective length of flare (m)	20.00	22.00	20.00	36.00	13.00	23.00	27.00
R = Entry radius (m)	25.00	25.00	25.00	30.00	45.00	25.00	25.00
D = Inscribed circle diameter (m)	140.00	140.00	140.00	140.00	140.00	140.00	140.00
A = Entry angle (degree)	40.00	35.00	35.00	25.00	30.00	35.00	45.00
Q = Entry flow (pcu/h)	1660	580	780	590	980	540	720
Qc= Circulating flow across entry (pcu/h)	1230	2570	2350	2440	2200	2750	1680
OUTPUT PARAMETERS:							
S = Sharpness of flare = 1.6(E-V)/L	0.52	0.34	0.38	0.21	0.70	0.26	0.28
K = 1-0.00347(A-30)-0.978(1/R-0.05)	0.98	0.99	0.99	1.03	1.03	0.99	0.96
X2= V + ((E-V)/(1+2S))	9.19	9.29	9.71	10.62	9.67	9.74	10.32
M = EXP((D-60)/10)	2981	2981	2981	2981	2981	2981	2981
F = 303*X2	2783	2815	2944	3216	2931	2952	3127
Td= 1+(0.5/(1+M))	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fc= 0.21*Td(1+0.2*X2)	0.60	0.60	0.62	0.66	0.62	0.62	0.64
Qe= K(F-Fc*Qc)	1999	1263	1480	1670	1617	1239	1959
DFC = Design flow/Capacity = Q/Qe	0.83	0.46	0.53	0.35	0.61	0.44	0.37

TOTAL ENTRY FLOWS = 5850 PCU

CRITICAL DFC = 0.83

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J2 - Castle Peak Road / Kam Pok Road	2034 AM Design Flows Sensitivity Test 1 (with IMP)	Designed By :	Checked By :	Job No. :	Date : Dec 21



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.9 (metres)
W cr	=	0 (metres)
q a-b	=	300 (pcu/hr)
q a-c	=	330 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05 (metres)
Vr c-b	=	30 (metres)
q c-a	=	470 (pcu/hr)
q c-b	=	190 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	4.3 (metres)
W b-c	=	4.3 (metres)
Vl b-a	=	70 (metres)
Vr b-a	=	53 (metres)
Vr b-c	=	70 (metres)
q b-a	=	290 (pcu/hr)
q b-c	=	190 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.949254
E	=	1.013351
F	=	0.780782
Y	=	0.761950

THE CAPACITY OF MOVEMENT :

Q b-a	=	328
Q b-c	=	629
Q c-b	=	445
Q b-ac	=	404

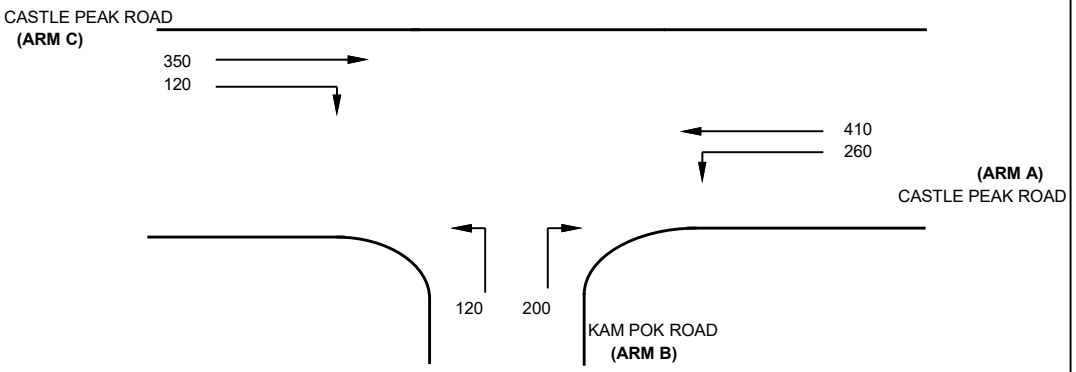
CRITICAL DFC = 0.88

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.88
DFC b-c	=	0.30
DFC c-b	=	0.43

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J2 - Castle Peak Road / Kam Pok Road	2034 PM Design Flows Sensitivity Test 1 (With IMP)	Designed By :	Checked By :	Job No. :	Date : Dec 21



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.9 (metres)
W cr	=	0 (metres)
q a-b	=	260 (pcu/hr)
q a-c	=	410 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05 (metres)
Vr c-b	=	30 (metres)
q c-a	=	350 (pcu/hr)
q c-b	=	120 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	4.3 (metres)
W b-c	=	4.3 (metres)
Vl b-a	=	70 (metres)
Vr b-a	=	53 (metres)
Vr b-c	=	70 (metres)
q b-a	=	200 (pcu/hr)
q b-c	=	120 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.949254
E	=	1.013351
F	=	0.780782
Y	=	0.761950

THE CAPACITY OF MOVEMENT :

Q b-a	=	357
Q b-c	=	611
Q c-b	=	437
Q b-ac	=	423

CRITICAL DFC = 0.56

COMPARISION OF DESIGN FLOW TO CAPACITY :

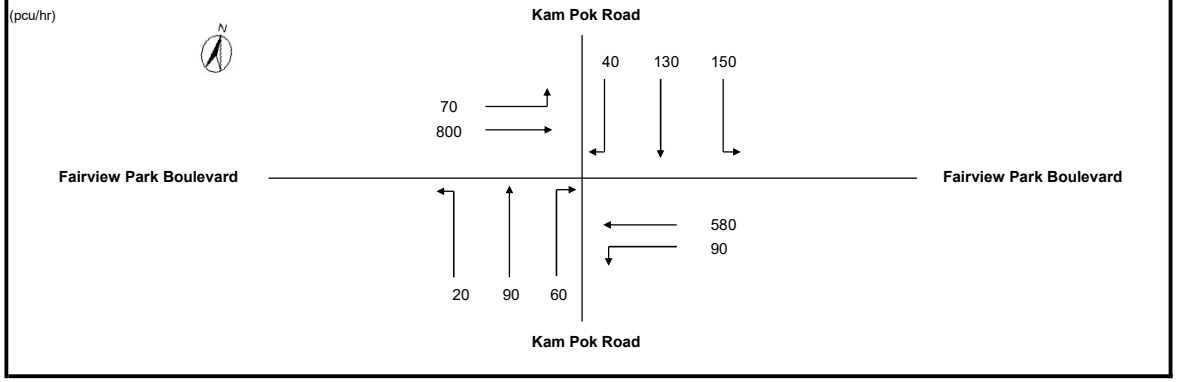
DFC b-a	=	0.56
DFC b-c	=	0.20
DFC c-b	=	0.27

JUNCTION CAPACITY CALCULATION

Junction J3 - Fairview Park Boulevard - Kam Pok Road	2034 AM Design Traffic Flows (Sensitivity Test)	DESIGN: 0	CHECK: 0	JOB NO: -	DATE: Oct 24

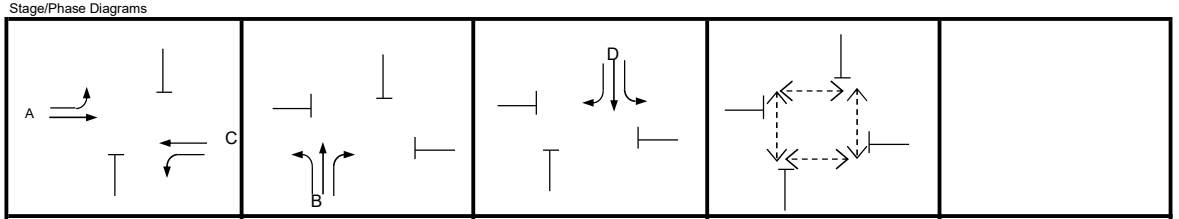
J3

Traffic Flow Diagram
(pcu/hr)



No. of stages per cycle		N =	4	
Cycle time		C =	120	sec
Sum(y)		Y =	0.473	
Lost time		L =	44	sec
Total Flow		=	11,870	pcu
Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	135	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	83	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.570	
$R.C._{-ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	20.6	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	93	sec
Y_{max}	$= 1-L/C$	=	0.633	

Stage/Phase Diagrams



I/G = 7 I/G = 7 I/G = 11 G = 10 I/G = 12

Critical Case : A,B,D,Ep

R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 21%

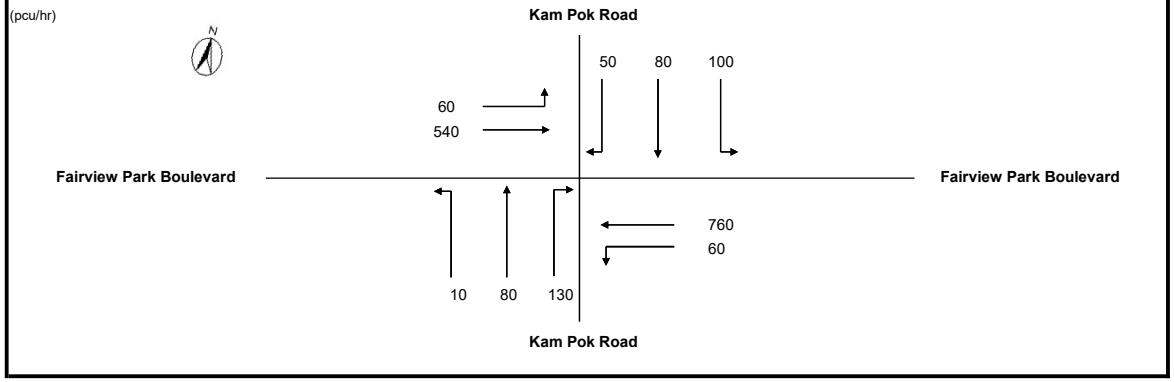
MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.300	1	15			1		0		1945	70	362		432	16%		1914	0.225	0.225
	A	1	3.300	1				1		0		1945		439		439			1945	0.225	
	B	2	3.600	1	13	20	0	1		0		1975	20	90	60	170	12%	35%	1899	0.090	0.090
	C	1	3.000	1	17			1		0		1915	90	238		328	27%		1870	0.176	
	C	1	3.300	1				1		0		1945		342		342			1945	0.176	
	D	3	5.300	1	15.5	17.5	0	1		0		2145	150	130	40	320	47%	13%	2031	0.158	0.158
Pedestrian Crossing				GM		FGM															
	Ep	4	min.	10	+	9	=	19	sec												*

JUNCTION CAPACITY CALCULATION

Junction J3 - Fairview Park Boulevard - Kam Pok Road	2034 PM Design Traffic Flows (Sensitivity Test)	DESIGN: 0	CHECK: 0	JOB NO: -	DATE: Oct 24

J3

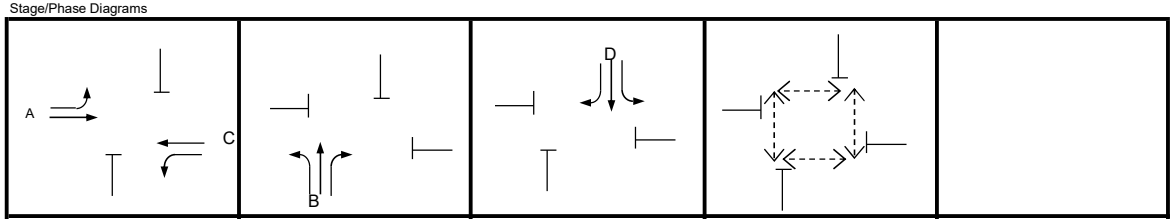
Traffic Flow Diagram
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	120	sec
Sum(y)	Y =	0.444	
Lost time	L =	44	sec
Total Flow	=	11,870	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	128	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	79	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.570	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	28.2	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	87	sec
Y_{max}	$= 1-L/C$	=	0.633	

Stage/Phase Diagrams



I/G = 7 I/G = 7 I/G = 11 G = 10 I/G = 12

Critical Case : B,C,D,Ep

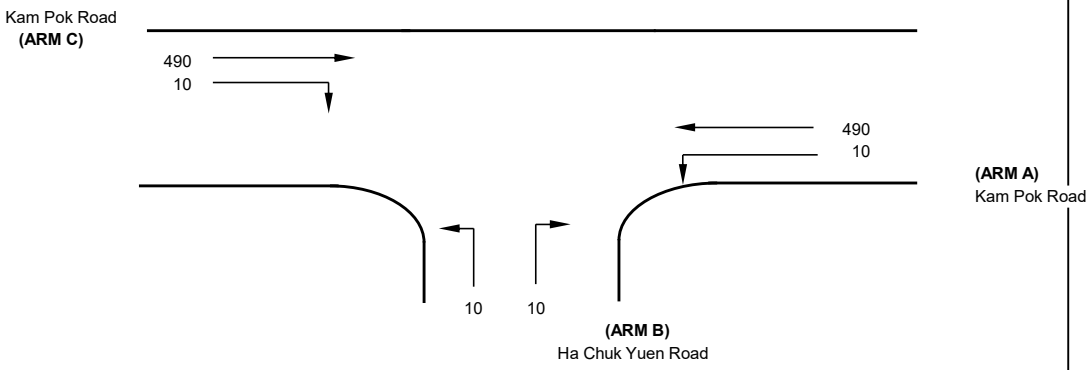
R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 28%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.300	1	15			1		0		1945	60	237		297	20%		1906	0.156	
	A	1	3.300	1				1		0		1945		303		303			1945	0.156	
	B	2	3.600	1	13	20	0	1		0		1975	10	80	130	220	5%	59%	1882	0.117	0.117
	C	1	3.000	1	17			1		0		1915	60	344		404	15%		1890	0.214	0.214
	C	1	3.300	1				1		0		1945		416		416			1945	0.214	
	D	3	5.300	1	15.5	17.5	0	1		0		2145	100	80	50	230	43%	22%	2022	0.114	0.114
Pedestrian Crossing				GM		FGM															
	Ep	4	min.	10	+	9	=	19	sec												*

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

J4 - Kam Pok Road - Ha Chuk Yuen Road	2034 AM Design Traffic Flows - Sensitivity Test	Designed By : MKCN	Checked By : SHSN	Job No. : -	Date : Oct 24



NOTES : (GEOMETRIC INPUT DATA)

J4

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.7)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.7)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.7)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	9.3 (metres)
W cr	=	0 (metres)
q a-b	=	10 (pcu/hr)
q a-c	=	490 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.5 (metres)
Vr c-b	=	50 (metres)
q c-a	=	490 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	2.05 (metres)
W b-c	=	2.05 (metres)
Vl b-a	=	50 (metres)
Vr b-a	=	50 (metres)
Vr b-c	=	50 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	10 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.748311
E	=	0.796075
F	=	0.923788
Y	=	0.679150

THE CAPACITY OF MOVEMENT :

Q b-a	=	318
Q b-c	=	496
Q c-b	=	574
Q b-ac	=	388

CRITICAL DFC = 0.05

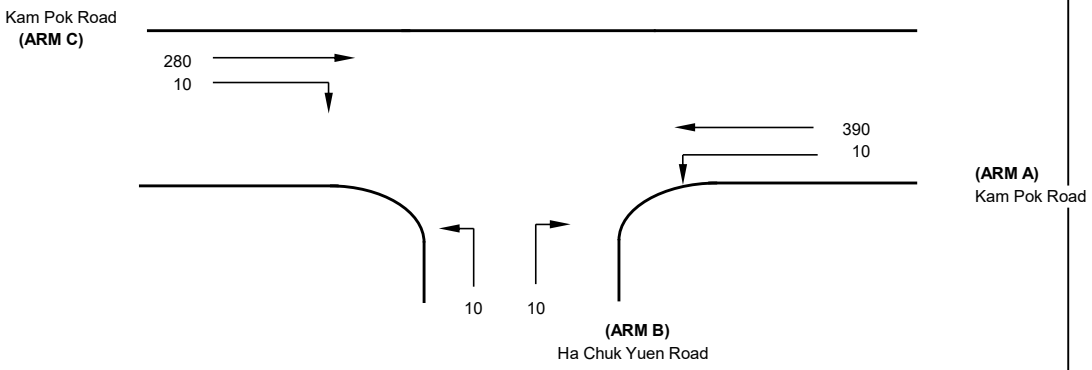
COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.03
DFC b-c	=	0.02
DFC c-b	=	0.02
DFC b-ac	=	0.05

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

J4 - Kam Pok Road - Ha Chuk Yuen Road	2034 PM Design Traffic Flows - Sensitivity Test	Designed By : MKCN	Checked By : SHSN	Job No. : -	Date : Oct 24



NOTES : (GEOMETRIC INPUT DATA)

J4

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.7)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.7)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.7)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	9.3 (metres)
W cr	=	0 (metres)
q a-b	=	10 (pcu/hr)
q a-c	=	390 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.5 (metres)
Vr c-b	=	50 (metres)
q c-a	=	280 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	2.05 (metres)
W b-c	=	2.05 (metres)
Vl b-a	=	50 (metres)
Vr b-a	=	50 (metres)
Vr b-c	=	50 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	10 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.748311
E	=	0.796075
F	=	0.923788
Y	=	0.679150

THE CAPACITY OF MOVEMENT :

Q b-a	=	361
Q b-c	=	516
Q c-b	=	597
Q b-ac	=	425

CRITICAL DFC = 0.05

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.03
DFC b-c	=	0.02
DFC c-b	=	0.02
DFC b-ac	=	0.05

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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Run with file:-
"L:\Secure\Transportation\Group\TTP_TE\Private Job\Fairview\Info\TIA Working RD and REC\Flow\
V13 202407_RD1.5+REC1.2 Combined\Junction 5_Picaddy\20241031 Sen 1\Sen 1.vpi"
(drive-on-the-left) at 13:56:27 on Thursday, 31 October 2024

.RUN INFORMATION
****

RUN TITLE : 2034 - J5 Kam Pok Road/ Pok Wai South Road
LOCATION :
DATE : 13/12/21
CLIENT :
ENUMERATOR : nokhinnaomi.tam [HKSHT1PC0702]
JOB NUMBER :
STATUS :
DESCRIPTION :

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

```
                                    MINOR ROAD (ARM D)
                                           I
                                           I
                                           I
                                           I
                                           I
                                           I
                                           I
MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
                                           I
                                           I
                                           I
                                           I
                                           I
                                           I
                                MINOR ROAD (ARM B)
```

ARM A IS Kam Pok Road
ARM B IS Pok Wai South Road
ARM C IS Kam Pok Road West
ARM D IS Kam Pok Road

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 8.80
CENTRAL RESERVE WIDTH	(WCR) 0.00
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20
- VISIBILITY	(VC-B) 50.00
- BLOCKS TRAFFIC (SPACES)	YES
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 50.0
- VISIBILITY TO RIGHT	(VB-A) 50.0
- LANE 1 WIDTH	(WB-C) 2.20
- LANE 2 WIDTH	(WB-A) 0.00

MINOR ROAD D
(W) 8.80
(WCR) 0.00
(VA-D) 50.00
NO (0)
(VD-A) 50.0
(VD-C) 50.0
(WD-A) 5.00
(WD-C) 0.00

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
I 602.92	0.21	0.08	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I 786.65	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For OpposingI STREAM D-B	I
I 476.98	0.19	0.19	0.19	0.19	I

I	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For OpposingI STREAM D-C	I
I	0.08	0.12	0.28	0.10	I

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For OpposingI STREAM B-D	I
I 622.33	0.25	0.25	0.25	0.25	I

I	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For OpposingI STREAM B-A	I
I	0.10	0.16	0.36	0.13	I

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For OpposingI STREAM A-D	I
I 602.92	0.21	0.21	0.29	I

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For OpposingI STREAM C-D	I

```
 I     602.92            0.21               0.29               0.21       I
 ------------------------------------------------------------------------------


 B-D Stream From Left Hand Lane

-------------------------------------------------------------------------------
------------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  A-C          STREAM A-D          STREAM  A-B
STREAM  C-B       I

-------------------------------------------------------------------------------
------------------
 I     476.98            0.19               0.19                0.08
      0.28       I

-------------------------------------------------------------------------------
------------------

-------------------------------------------------------------------------------
------------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  C-A          STREAM C-D

-------------------------------------------------------------------------------
------------------
 I                     0.12               0.12
                 I

-------------------------------------------------------------------------------
------------------


 B-D Stream From Right Hand Lane

-------------------------------------------------------------------------------
------------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  A-C          STREAM A-D          STREAM  A-B
STREAM  C-B       I

-------------------------------------------------------------------------------
------------------
 I     476.98            0.19               0.19                0.08
      0.28       I

-------------------------------------------------------------------------------
------------------

-------------------------------------------------------------------------------
------------------
```

```
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  C-A          STREAM C-D

-------------------------------------------------------------------------------
------------------
 I                     0.12               0.12
                 I

-------------------------------------------------------------------------------
------------------


 D-B Stream From Left Hand Lane

-------------------------------------------------------------------------------
------------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM D-B     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------
------------------
 I     622.33            0.25               0.25                0.10
      0.36       I

-------------------------------------------------------------------------------
------------------

-------------------------------------------------------------------------------
------------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
------------------
 I                     0.16               0.16
                 I

-------------------------------------------------------------------------------
------------------


 D-B Stream From Right Hand Lane

-------------------------------------------------------------------------------
------------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------
```

```
------------------
 I     622.33           0.25               0.25                0.10
      0.36       I
-------------------------------------------------------------------------------
------------------

-------------------------------------------------------------------------------
------------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
------------------
 I                       0.16               0.16
                 I

-------------------------------------------------------------------------------
------------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        20241031 Sen 1 AM


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
----
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
   I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
   I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
   I
 I        I             I             I            I        I         I
   I
-------------------------------------------------------------------------------
----
 I ARM  A I     15.00   I     45.00   I    75.00   I  3.75  I   5.63  I  3.75
   I
 I ARM  B I     15.00   I     45.00   I    75.00   I  1.25  I   1.88  I  1.25
   I
 I ARM  C I     15.00   I     45.00   I    75.00   I  2.75  I   4.13  I  2.75
   I
 I ARM  D I     15.00   I     45.00   I    75.00   I  3.13  I   4.69  I  3.13
   I

-------------------------------------------------------------------------------
----

.Demand set:        20241031 Sen 1 AM
 ---------------------------------------------------------------------
 I                    I         TURNING PROPORTIONS                  I
 I                    I         TURNING COUNTS                       I
 I                    I        (PERCENTAGE OF H.V.S)                 I
 I                    ----------------------------------------------
 I        TIME        I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ---------------------------------------------------------------------
 I   08.00 - 09.30    I         I        I        I        I        I
 I                    I ARM  A  I  0.000 I  0.033 I  0.733 I  0.233 I
 I                    I         I    0.0 I   10.0 I  220.0 I   70.0 I
 I                    I         I (  0.0)I ( 10.0)I ( 10.0)I ( 10.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  B  I  0.100 I  0.000 I  0.100 I  0.800 I
 I                    I         I   10.0 I    0.0 I   10.0 I   80.0 I
 I                    I         I ( 10.0)I (  0.0)I ( 10.0)I ( 10.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  C  I  0.682 I  0.091 I  0.000 I  0.227 I
 I                    I         I  150.0 I   20.0 I    0.0 I   50.0 I
 I                    I         I ( 10.0)I ( 10.0)I (  0.0)I ( 10.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  D  I  0.200 I  0.520 I  0.280 I  0.000 I
 I                    I         I   50.0 I  130.0 I   70.0 I    0.0 I
 I                    I         I ( 10.0)I ( 10.0)I ( 10.0)I (  0.0)I
 I                    I         I        I        I        I        I
 ---------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
 DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

 .              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
                ---------------------------------------------------------
                 FOR DEMAND SET         20241031 Sen 1 AM
                 AND FOR TIME PERIOD        1
 .-------------------------------------------------------------------------------
 ----------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
```

I 08.00-08.15							
I	B-ACD	1.25	6.27	0.200	0.00	0.25	3.5
			0.20				
I	A-B	0.13					
I	A-C	2.76					
I	A-D	0.88	8.55	0.103	0.00	0.11	1.6
			0.13				
I	D-ABC	3.14	8.46	0.371	0.00	0.58	8.2
			0.19				
I	C-ABD	0.33	10.02	0.033	0.00	0.04	0.7
			0.10				
I	C-D	0.61					
I	C-A	1.82					
I							

I 08.15-08.30							
I	B-ACD	1.50	6.05	0.248	0.25	0.32	4.7
			0.22				
I	A-B	0.15					
I	A-C	3.30					
I	A-D	1.05	8.43	0.124	0.11	0.14	2.1
			0.14				
I	D-ABC	3.75	8.19	0.458	0.58	0.82	11.8
			0.22				
I	C-ABD	0.42	10.20	0.041	0.04	0.06	0.9
			0.10				
I	C-D	0.72					
I	C-A	2.16					
I							

I 08.30-08.45							
I	B-ACD	1.84	5.74	0.319	0.32	0.46	6.6
			0.25				
I	A-B	0.18					
I	A-C	4.04					
I	A-D	1.28	8.27	0.155	0.14	0.18	2.7
			0.14				
I	D-ABC	4.59	7.80	0.588	0.82	1.36	19.0
			0.30				
I	C-ABD	0.55	10.46	0.053	0.06	0.08	1.2
			0.10				
I	C-D	0.87					
I	C-A	2.61					
I							

I 08.45-09.00							
I	B-ACD	1.84	5.74	0.320	0.46	0.46	6.9
			0.26				
I	A-B	0.18					
I	A-C	4.04					
I	A-D	1.28	8.27	0.155	0.18	0.18	2.7
			0.14				
I	D-ABC	4.59	7.80	0.588	1.36	1.39	20.7
			0.31				
I	C-ABD	0.55	10.46	0.053	0.08	0.08	1.2
			0.10				
I	C-D	0.87					
I	C-A	2.61					

```
                                I
 I                              I
.--------------------------------------------------------------------------------
----------------------------------

.--------------------------------------------------------------------------------
----------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                                I
 I   B-ACD     1.50      6.05    0.248                0.46   0.34        5.2
                        0.22      I
 I   A-B       0.15
                                I
 I   A-C       3.30
                                I
 I   A-D       1.05      8.43    0.124                0.18   0.14        2.2
                        0.14      I
 I   D-ABC     3.75      8.18    0.458                1.39   0.87       13.8
                        0.23      I
 I   C-ABD     0.42     10.20    0.041                0.08   0.06        0.9
                        0.10      I
 I   C-D       0.72
                                I
 I   C-A       2.16
                                I
 I                              I
.--------------------------------------------------------------------------------
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----------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                                I
 I   B-ACD     1.25      6.27    0.200                0.34   0.25        3.9
                        0.20      I
 I   A-B       0.13
                                I
 I   A-C       2.76
                                I
 I   A-D       0.88      8.55    0.103                0.14   0.12        1.8
                        0.13      I
 I   D-ABC     3.14      8.45    0.371                0.87   0.60        9.4
                        0.19      I
 I   C-ABD     0.33     10.02    0.033                0.06   0.05        0.7
                        0.10      I
 I   C-D       0.61
                                I
 I   C-A       1.82
                                I
 I                              I
.--------------------------------------------------------------------------------
----------------------------------
*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.2
   08.30           0.3
   08.45           0.5
   09.00           0.5
   09.15           0.3
   09.30           0.3
.
 QUEUE FOR STREAM    A-D
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.2
   09.00           0.2
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    D-ABC
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.6    *
   08.30           0.8    *
   08.45           1.4    *
   09.00           1.4    *
   09.15           0.9    *
   09.30           0.6    *
.
 QUEUE FOR STREAM    C-ABD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
```

08.15	0.0
08.30	0.1
08.45	0.1
09.00	0.1
09.15	0.1
09.30	0.0

.

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I STREAM I	TOTAL DEMAND	I	* QUEUEING * DELAY *		I * INCLUSIVE QUEUEING * DELAY *		I
I	I		I		I		I
I	I (VEH)	(VEH/H) I	(MIN)	(MIN/VEH) I	(MIN)	(MIN/VEH)	I
I B-ACD	I 137.6	I 91.8	I 30.9	I 0.22	I 30.9	I 0.22	I
I A-B	I 13.8	I 9.2	I	I	I	I	I
I A-C	I 302.8	I 201.9	I	I	I	I	I
I A-D	I 96.3	I 64.2	I 13.1	I 0.14	I 13.1	I 0.14	I
I D-ABC	I 344.1	I 229.4	I 82.9	I 0.24	I 82.9	I 0.24	I
I C-ABD	I 39.1	I 26.1	I 5.6	I 0.14	I 5.6	I 0.14	I
I C-D	I 65.9	I 43.9	I	I	I	I	I
I C-A	I 197.8	I 131.8	I	I	I	I	I
I ALL	I 1197.5	I 798.3	I 132.4	I 0.11	I 132.4	I 0.11	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
I 602.92	0.21	0.08	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I 786.65	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For Opposing STREAM D-B	I
I 476.98	0.19	0.19	0.19	0.19	I

I	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM D-C	I
I	0.08	0.12	0.28	0.10	I

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For Opposing STREAM B-D	I
I 622.33	0.25	0.25	0.25	0.25	I

I	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM B-A	I
I	0.10	0.16	0.36	0.13	I

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
I 602.92	0.21	0.21	0.29	I

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.21	0.29	0.21	I

B-D Stream From Left Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-B	I
I 476.98	0.19	0.19	0.08	0.28	I

I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	Slope For Opposing	I
I	0.12	0.12	I	

B-D Stream From Right Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-B	I
I 476.98	0.19	0.19	0.08	0.28	I

I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	Slope For Opposing	I
I	0.12	0.12	I	

D-B Stream From Left Hand Lane

I Intercept For STREAM D-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-D	I
I 622.33	0.25	0.25	0.10		

```
      0.36       I

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-------------------------------------------------------------------------------
------------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
------------------
 I                       0.16               0.16
                 I

-------------------------------------------------------------------------------
------------------


 D-B Stream From Right Hand Lane

-------------------------------------------------------------------------------
------------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------
------------------
 I     622.33           0.25               0.25                0.10
      0.36       I

-------------------------------------------------------------------------------
------------------

-------------------------------------------------------------------------------
------------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
------------------
 I                       0.16               0.16
                 I

-------------------------------------------------------------------------------
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.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
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```
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        20241031 Sen 1 PM


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
----
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
   I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
   I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
   I
 I        I             I             I            I        I         I
   I

-------------------------------------------------------------------------------
----
 I ARM  A I     15.00   I     45.00   I    75.00   I  2.75  I   4.13  I  2.75
   I
 I ARM  B I     15.00   I     45.00   I    75.00   I  1.13  I   1.69  I  1.13
   I
 I ARM  C I     15.00   I     45.00   I    75.00   I  3.00  I   4.50  I  3.00
   I
 I ARM  D I     15.00   I     45.00   I    75.00   I  2.13  I   3.19  I  2.13
   I

-------------------------------------------------------------------------------
----

.Demand set:        20241031 Sen 1 PM
 ---------------------------------------------------------------------
 I                    I         TURNING PROPORTIONS                 I
 I                    I         TURNING COUNTS                      I
 I                    I        (PERCENTAGE OF H.V.S)                I
 I                    ----------------------------------------------
 I        TIME        I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ---------------------------------------------------------------------
 I   08.00 - 09.30    I         I        I        I        I        I
 I                    I ARM  A  I  0.000 I  0.045 I  0.636 I  0.318 I
 I                    I         I    0.0 I   10.0 I  140.0 I   70.0 I
```

```
 I                  I         I (  0.0)I ( 10.0)I ( 10.0)I ( 10.0)I
 I                  I         I        I        I        I        I
 I                  I ARM  B  I  0.111 I  0.000 I  0.111 I  0.778 I
 I                  I         I   10.0 I    0.0 I   10.0 I   70.0 I
 I                  I         I ( 10.0)I (  0.0)I ( 10.0)I ( 10.0)I
 I                  I         I        I        I        I        I
 I                  I ARM  C  I  0.625 I  0.042 I  0.000 I  0.333 I
 I                  I         I  150.0 I   10.0 I    0.0 I   80.0 I
 I                  I         I ( 10.0)I ( 10.0)I (  0.0)I ( 10.0)I
 I                  I         I        I        I        I        I
 I                  I ARM  D  I  0.353 I  0.471 I  0.176 I  0.000 I
 I                  I         I   60.0 I   80.0 I   30.0 I    0.0 I
 I                  I         I ( 10.0)I ( 10.0)I ( 10.0)I (  0.0)I
 I                  I         I        I        I        I        I
 ---------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
 DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ---------------------------------------------------------
                FOR DEMAND SET         20241031 Sen 1 PM
                AND FOR TIME PERIOD        1
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---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                                I
 I   B-ACD     1.13      6.50    0.174               0.00   0.21        3.0
                       0.19      I
 I   A-B       0.13
                                I
 I   A-C       1.76
                                I
 I   A-D       0.88      8.51    0.103               0.00   0.11        1.6
                       0.13      I
 I   D-ABC     2.13      9.03    0.236               0.00   0.31        4.4
                       0.14      I
 I   C-ABD     0.17     10.46    0.016               0.00   0.02        0.3
                       0.10      I
 I   C-D       0.99
                                I
 I   C-A       1.85
                                I
 I
                                I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                                I
 I   B-ACD     1.35      6.32    0.214               0.21   0.27        3.9
                       0.20      I
 I   A-B       0.15
                                I
 I   A-C       2.10
                                I
 I   A-D       1.05      8.38    0.125               0.11   0.14        2.1
                       0.14      I
 I   D-ABC     2.55      8.80    0.289               0.31   0.40        5.8
                       0.16      I
 I   C-ABD     0.22     10.72    0.020               0.02   0.02        0.4
                       0.10      I
 I   C-D       1.18
                                I
 I   C-A       2.20
                                I
 I
                                I
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---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                                I
 I   B-ACD     1.65      6.07    0.272               0.27   0.37        5.3
                       0.23      I
 I   A-B       0.18
                                I
 I   A-C       2.57
                                I
 I   A-D       1.28      8.22    0.156               0.14   0.18        2.7
                       0.14      I
 I   D-ABC     3.12      8.49    0.368               0.40   0.57        8.2
                       0.19      I
 I   C-ABD     0.29     11.08    0.026               0.02   0.03        0.5
                       0.09      I
 I   C-D       1.43
                                I
 I   C-A       2.68
                                I
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 I                                 I
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---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                                 (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                                   I
 I   B-ACD     1.65      6.07    0.272               0.37   0.37        5.5
                         0.23      I
 I   A-B       0.18
                                   I
 I   A-C       2.57
                                   I
 I   A-D       1.28      8.21    0.156               0.18   0.18        2.8
                         0.14      I
 I   D-ABC     3.12      8.48    0.368               0.57   0.58        8.6
                         0.19      I
 I   C-ABD     0.29     11.08    0.026               0.03   0.03        0.5
                         0.09      I
 I   C-D       1.43
                                   I
 I   C-A       2.68
                                   I
 I                                 I
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---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                                 (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                                   I
 I   B-ACD     1.35      6.31    0.214               0.37   0.28        4.3
                         0.20      I
 I   A-B       0.15
                                   I
 I   A-C       2.10
                                   I
 I   A-D       1.05      8.38    0.125               0.18   0.14        2.2
                         0.14      I
 I   D-ABC     2.55      8.80    0.289               0.58   0.41        6.4
                         0.16      I
 I   C-ABD     0.22     10.72    0.020               0.03   0.02        0.4
                         0.10      I
 I   C-D       1.18
                                   I
 I   C-A       2.20
                                   I
 I                                 I
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---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                                 (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                                   I
 I   B-ACD     1.13      6.49    0.174               0.28   0.21        3.3
                         0.19      I
 I   A-B       0.13
                                   I
 I   A-C       1.76
                                   I
 I   A-D       0.88      8.51    0.103               0.14   0.12        1.8
                         0.13      I
 I   D-ABC     2.13      9.03    0.236               0.41   0.31        4.8
                         0.15      I
 I   C-ABD     0.17     10.46    0.016               0.02   0.02        0.3
                         0.10      I
 I   C-D       0.99
                                   I
 I   C-A       1.85
                                   I
 I                                 I
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*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.2
   08.30           0.3
   08.45           0.4
   09.00           0.4
   09.15           0.3
   09.30           0.2
```

QUEUE FOR STREAM A-D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	0.1	
08.30	0.1	
08.45	0.2	
09.00	0.2	
09.15	0.1	
09.30	0.1	

QUEUE FOR STREAM D-ABC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	0.3	
08.30	0.4	
08.45	0.6	*
09.00	0.6	*
09.15	0.4	
09.30	0.3	

QUEUE FOR STREAM C-ABD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-ACD	123.9	82.6	25.3	0.20	25.3	0.20
A-B	13.8	9.2				
A-C	192.7	128.5				
A-D	96.3	64.2	13.2	0.14	13.2	0.14
D-ABC	234.0	156.0	38.3	0.16	38.3	0.16
C-ABD	20.3	13.5	2.3	0.11	2.3	0.11
C-D	107.9	71.9				
C-A	202.2	134.8				
ALL	991.0	660.7	79.1	0.08	79.1	0.08

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

JUNCTION CAPACITY CALCULATION

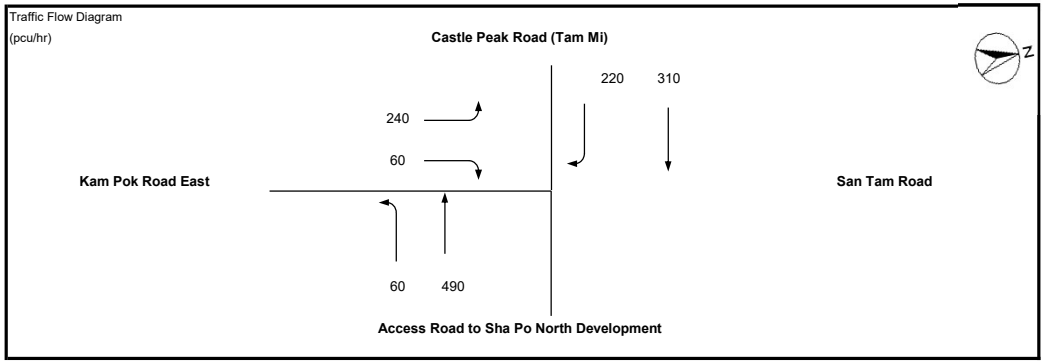
AECOM

Junction J6 - Castle Peak Road -Tam Mi / Kam Pok Road East	2034 AM Peak Hour Design Traffic Flows - Sensitivity Test	DESIGN: MKCN	CHECK: SHSN	JOB NO: -	DATE: May 21

J6

Traffic Flow Diagram

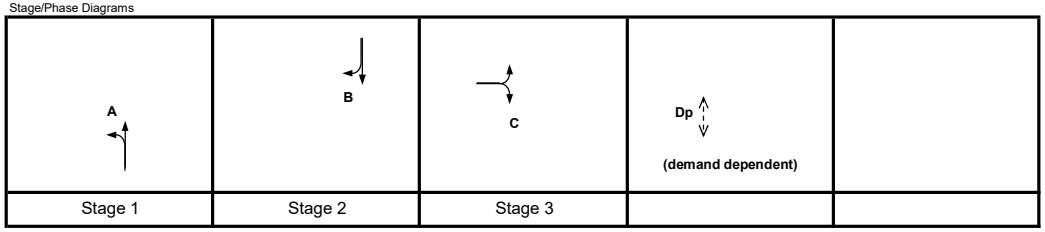
(pcu/hr)



No. of stages per cycle	N =	3	
Cycle time	C =	90	sec
Sum(y)	Y =	0.570	
Lost time	L =	13	sec
Total Flow	=	10,075	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	57	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	30	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.803	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	40.7	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	36	sec
Y_{max}	$= 1-L/C$	=	0.856	

Stage/Phase Diagrams



Critical Case : A,B,C,Dp

R.C.(C) = $(0.9xY_{max}-Y)/Yx100\%$ = 35%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.500	1	25			1		0		1965	60	490		550	11%		1952	0.282	0.282
	B	2	3.400	1				1		0		1955		310		310			1955	0.159	0.159
	B	2	3.500	1		30	0	0		0		2105			220	220		100%	2005	0.110	
	C	3	3.400	1	25			1		0		1955	240			240	100%		1844	0.130	0.130
	C	3	3.400	1		30	0	0		0		2095			60	60		100%	1995	0.030	

Pedestrian Crossing			GM		FGM				
	Dp	4	min.	13	+	12	=	25	sec

JUNCTION CAPACITY CALCULATION

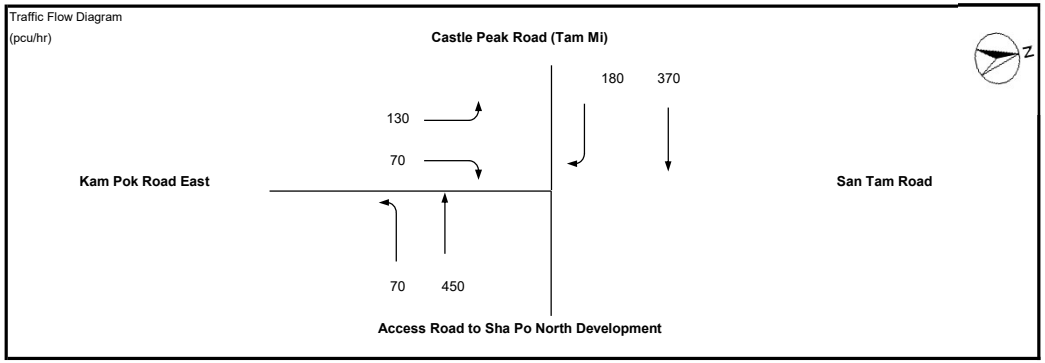
AECOM

Junction J6 - Castle Peak Road -Tam Mi / Kam Pok Road East	2034 PM Peak Hour Design Traffic Flows - Sensitivity Test	DESIGN: MKCN	CHECK: SHSN	JOB NO: -	DATE: May 21

J6

Traffic Flow Diagram

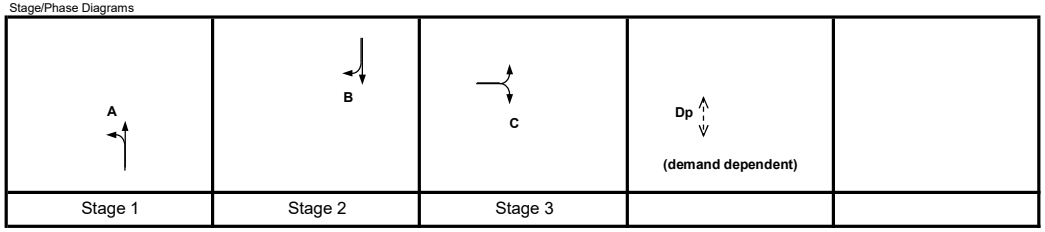
(pcu/hr)



No. of stages per cycle	N =	3	
Cycle time	C =	90	sec
Sum(y)	Y =	0.527	
Lost time	L =	13	sec
Total Flow	=	10,075	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	52	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	27	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.803	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	52.4	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	31	sec
Y_{max}	$= 1-L/C$	=	0.856	

Stage/Phase Diagrams



Critical Case : A,B,C,Dp

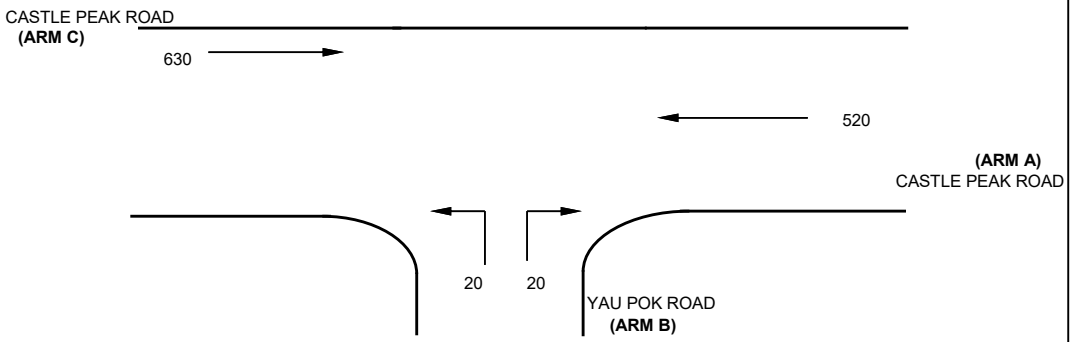
R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 46%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
↰	A	1	3.500	1	25			1		0		1965	70	450		520	13%		1949	0.267	0.267
↓	B	2	3.400	1				1		0		1955		370		370			1955	0.189	0.189
↳	B	2	3.500	1		30	0	0		0		2105			180	180		100%	2005	0.090	
↱	C	3	3.400	1	25			1		0		1955	130			130	100%		1844	0.070	0.070
↳	C	3	3.400	1		30	0	0		0		2095			70	70		100%	1995	0.035	

Pedestrian Crossing			GM		FGM				
	Dp	4	min.	13	+	12	=	25	sec

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J7 - Castle Peak Road / Yau Pok Road	2034 AM Design Flow (Sensitivity Test 1)	Designed By :	Checked By :	Job No. :	Date : Jan 00



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.5	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	520	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0	(metres)
Vr c-b	=	25	(metres)
q c-a	=	630	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	1.8	(metres)
W b-c	=	1.8	(metres)
Vl b-a	=	25	(metres)
Vr b-a	=	25	(metres)
Vr b-c	=	25	(metres)
q b-a	=	20	(pcu/hr)
q b-c	=	20	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.698808
E	=	0.755468
F	=	0.600735
Y	=	0.775750

THE CAPACITY OF MOVEMENT :

Q b-a	=	257
Q b-c	=	452
Q c-b	=	359
Q b-ac	=	328

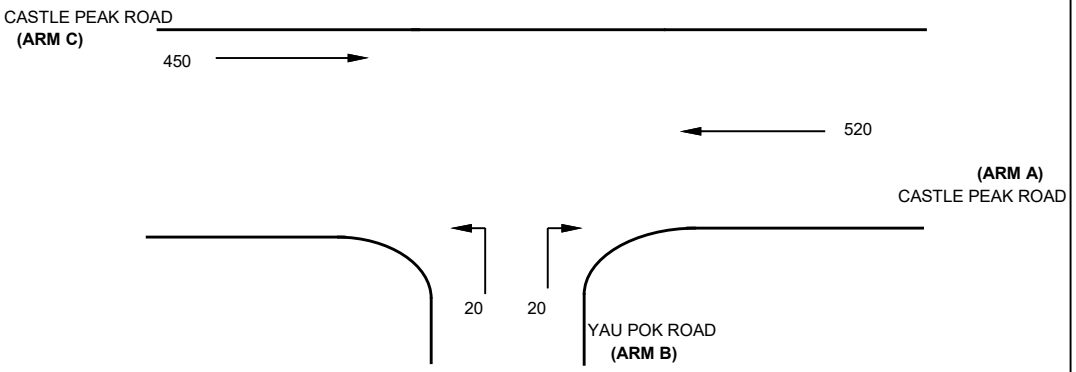
CRITICAL DFC = 0.08

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.08
DFC b-c	=	0.04
DFC c-b	=	0.00

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J7 - Castle Peak Road / Yau Pok Road	2034 PM Design Flow (Sensitivity Test 1)	Designed By :	Checked By :	Job No. :	Date : Jan 00



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.5 (metres)
W cr	=	0 (metres)
q a-b	=	0 (pcu/hr)
q a-c	=	520 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0 (metres)
Vr c-b	=	25 (metres)
q c-a	=	450 (pcu/hr)
q c-b	=	0 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	1.8 (metres)
W b-c	=	1.8 (metres)
Vl b-a	=	25 (metres)
Vr b-a	=	25 (metres)
Vr b-c	=	25 (metres)
q b-a	=	20 (pcu/hr)
q b-c	=	20 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.698808
E	=	0.755468
F	=	0.600735
Y	=	0.775750

THE CAPACITY OF MOVEMENT :

Q b-a	=	280
Q b-c	=	452
Q c-b	=	359
Q b-ac	=	346

CRITICAL DFC = 0.07

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.07
DFC b-c	=	0.04
DFC c-b	=	0.00

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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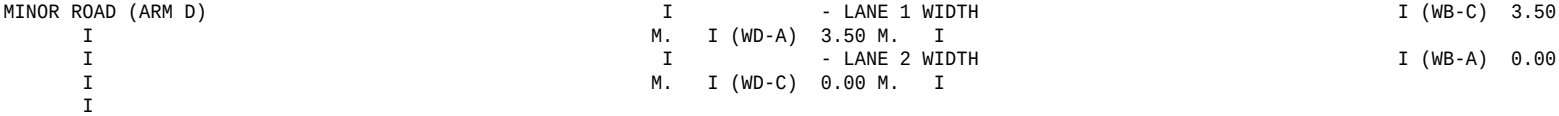
Run with file:-
"T:\Anthony Sun\20240920 Picidy\Junction 8 - Yau Pok Road REC N\0920 Cumu Des\Cumu Des.vpi"
(drive-on-the-left) at 12:21:52 on Friday, 20 September 2024

.RUN INFORMATION
****

RUN TITLE : J8 - Yau Pok Road / REC North Access
LOCATION : Fairview
DATE : 02/09/24
CLIENT : SHK
ENUMERATOR : sam.wong [HKSHT1PC0702]
JOB NUMBER :
STATUS :
DESCRIPTION :

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Yau Pok Road exit
ARM B IS Vehicular Bridge
ARM C IS Yau Pok Road entry
ARM D IS REC North

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B	MINOR ROAD D
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH (W)	6.00 M.	6.00 M.
CENTRAL RESERVE WIDTH (WCR)	0.00 M.	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH (WC-B)	2.20 M.	2.20 M.
- VISIBILITY (VC-B)	50.00 M.	50.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (0)	NO (0)
MINOR ROAD - VISIBILITY TO LEFT (VB-C)	50.0 M.	50.0 M.
- VISIBILITY TO RIGHT (VB-A)	50.0 M.	50.0 M.
- LANE 1 WIDTH (WB-C)	3.50 M.	3.50 M.
- LANE 2 WIDTH (WB-A)	0.00 M.	0.00 M.

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
I 688.22	0.27	0.11	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I 688.22	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For Opposing STREAM D-B	I
I 544.46	0.25	0.25	0.25	0.25	I

I	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM D-C	I
I	0.10	0.16	0.36	0.13	I

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For Opposing STREAM B-D	I
I 544.46	0.25	0.25	0.25	0.25	I

I	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM B-A	I
I	0.10	0.16	0.36	0.13	I

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
I 602.92	0.23	0.23	0.33	I

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.23	0.33	0.23	I

B-D Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B
STREAM C-B	I		
I 544.46	0.25	0.25	0.10
0.36	I		

I Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM C-A	STREAM C-D		
I 0.16	0.16		
I			

B-D Stream From Right Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B
STREAM C-B	I		
I 544.46	0.25	0.25	0.10
0.36	I		

I Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM C-A	STREAM C-D		
I 0.16	0.16		
I			

D-B Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM D-B	STREAM C-A	STREAM C-B	STREAM C-D
STREAM A-D	I		
I 544.46	0.25	0.25	0.10
0.36	I		

I Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM A-C	STREAM A-B		
I 0.16	0.16		
I			

D-B Stream From Right Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM B-D	STREAM C-A	STREAM C-B	STREAM C-D
STREAM A-D	I		

```
 I     544.46            0.25               0.25                0.10
     0.36       I

-------------------------------------------------------------------------------
-----------------

-------------------------------------------------------------------------------
-----------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
-----------------
 I                       0.16               0.16
                I

-------------------------------------------------------------------------------
-----------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        0920 Cumu Des Am


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
---
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
  I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
  I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
  I
 I        I             I             I            I        I         I
  I

-------------------------------------------------------------------------------
---
 I ARM  A I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
  I
 I ARM  B I     15.00   I     45.00   I    75.00   I  1.13  I   1.69  I  1.13
  I
 I ARM  C I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
  I
 I ARM  D I     15.00   I     45.00   I    75.00   I  1.38  I   2.06  I  1.38
  I

-------------------------------------------------------------------------------
---

.Demand set:        0920 Cumu Des Am
 ------------------------------------------------------------------
 I                    I         TURNING PROPORTIONS                 I
 I                    I         TURNING COUNTS                      I
 I                    I        (PERCENTAGE OF H.V.S)                I
 I                    ----------------------------------------------
 I        TIME        I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ------------------------------------------------------------------
 I   08.00 - 09.30    I         I        I        I        I        I
 I                    I ARM  A  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  B  I  0.222 I  0.000 I  0.000 I  0.778 I
 I                    I         I   20.0 I    0.0 I    0.0 I   70.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  C  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  D  I  0.000 I  1.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I  110.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 ------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ---------------------------------------------------------
                FOR DEMAND SET         0920 Cumu Des Am
                AND FOR TIME PERIOD        1
.-------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                                I
```

```
 I   B-ACD     1.13      9.00    0.126               0.00   0.14        2.1
                     0.13      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                     0.00      I
 I   D-ABC     1.38      9.07    0.152               0.00   0.18        2.6
                     0.13      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                     0.00      I
 I   C-D       0.00
                               I
 I   C-A       0.00
                               I
 I
                               I
.--------------------------------------------------------------------------------
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.--------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                               I
 I   B-ACD     1.35      8.98    0.150               0.14   0.18        2.6
                     0.13      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                     0.00      I
 I   D-ABC     1.65      9.07    0.182               0.18   0.22        3.2
                     0.13      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                     0.00      I
 I   C-D       0.00
                               I
 I   C-A       0.00
                               I
 I
                               I
.--------------------------------------------------------------------------------
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.--------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                               I
 I   B-ACD     1.65      8.96    0.184               0.18   0.22        3.3
                     0.14      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                     0.00      I
 I   D-ABC     2.02      9.07    0.222               0.22   0.28        4.1
                     0.14      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                     0.00      I
 I   C-D       0.00
                               I
 I   C-A       0.00
                               I
 I
                               I
.--------------------------------------------------------------------------------
---------------------------------

.--------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                               I
 I   B-ACD     1.65      8.96    0.184               0.22   0.22        3.4
                     0.14      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                     0.00      I
 I   D-ABC     2.02      9.07    0.222               0.28   0.28        4.3
                     0.14      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                     0.00      I
 I   C-D       0.00
                               I
 I   C-A       0.00
                               I
 I
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                                I
.-------------------------------------------------------------------------------
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.-------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                                I
 I   B-ACD     1.35      8.98    0.150               0.22   0.18        2.7
                      0.13      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   D-ABC     1.65      9.07    0.182               0.28   0.22        3.4
                      0.13      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
.-------------------------------------------------------------------------------
---------------------------------

.-------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                                I
 I   B-ACD     1.13      8.99    0.126               0.18   0.14        2.2
                      0.13      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   D-ABC     1.38      9.07    0.152               0.22   0.18        2.8
                      0.13      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
.-------------------------------------------------------------------------------
---------------------------------
*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.2
   08.45           0.2
   09.00           0.2
   09.15           0.2
   09.30           0.1
.
 QUEUE FOR STREAM    A-D
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.0
   08.45           0.0
   09.00           0.0
   09.15           0.0
   09.30           0.0
.
 QUEUE FOR STREAM    D-ABC
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.2
   08.30           0.2
   08.45           0.3
   09.00           0.3
   09.15           0.2
   09.30           0.2
.
 QUEUE FOR STREAM    C-ABD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.0
   08.30           0.0
```

08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

.

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I STREAM I	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
I	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
I B-ACD I	123.9	82.6	16.2	0.13	16.2	0.13
I A-B I	0.0	0.0				
I A-C I	0.0	0.0				
I A-D I	0.0	0.0	0.0	0.00	0.0	0.00
I D-ABC I	151.4	100.9	20.4	0.13	20.4	0.13
I C-ABD I	0.0	0.0	0.0	0.00	0.0	0.00
I C-D I	0.0	0.0				
I C-A I	0.0	0.0				
I ALL I	275.3	183.5	36.6	0.13	36.6	0.13

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing I
I 688.22	0.27	0.11	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	Slope For Opposing I
I 688.22	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For Opposing I
STREAM D-B				
I 544.46	0.25	0.25	0.25	
0.25	I			

I	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing I
STREAM D-C				
I	0.10	0.16	0.36	
0.13	I			

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For Opposing I
STREAM B-D				
I 544.46	0.25	0.25	0.25	
0.25	I			

I	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I	STREAM C-D	STREAM A-C	STREAM A-D	STREAM B-A I
I	0.10	0.16	0.36	0.13 I

STREAM C-B

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM C-B	STREAM A-B	STREAM A-C	STREAM A-D I
I 602.92	0.23	0.23	0.33 I

STREAM A-D

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM A-D	STREAM C-A	STREAM C-B	STREAM C-D I
I 602.92	0.23	0.33	0.23 I

B-D Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B
STREAM C-B I			
I 544.46	0.25	0.25	0.10
0.36 I			

I	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For Opposing I			
I	STREAM C-A	STREAM C-D	
I	0.16	0.16	
I			

B-D Stream From Right Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For Opposing I			
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B
STREAM C-B I			
I 544.46	0.25	0.25	0.10
0.36 I			

I	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For Opposing I			
I	STREAM C-A	STREAM C-D	
I	0.16	0.16	
I			

D-B Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For Opposing I			
I STREAM D-B	STREAM C-A	STREAM C-B	STREAM C-D
STREAM A-D I			
I 544.46	0.25	0.25	0.10
0.36 I			

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-----------------

---------------------------------------------------------------------------------
-----------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

---------------------------------------------------------------------------------
-----------------
 I                       0.16               0.16
                I

---------------------------------------------------------------------------------
-----------------


 D-B Stream From Right Hand Lane

---------------------------------------------------------------------------------
-----------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

---------------------------------------------------------------------------------
-----------------
 I     544.46            0.25               0.25                0.10
     0.36       I

---------------------------------------------------------------------------------
-----------------

---------------------------------------------------------------------------------
-----------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

---------------------------------------------------------------------------------
-----------------
 I                       0.16               0.16
                I

---------------------------------------------------------------------------------
-----------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        0920 cumu Des Pm


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
---
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
  I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
  I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
  I
 I        I             I             I            I        I         I
  I

-------------------------------------------------------------------------------
---
 I ARM  A I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
  I
 I ARM  B I     15.00   I     45.00   I    75.00   I  1.00  I   1.50  I  1.00
  I
 I ARM  C I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
  I
 I ARM  D I     15.00   I     45.00   I    75.00   I  0.63  I   0.94  I  0.63
  I

-------------------------------------------------------------------------------
---

.Demand set:        0920 cumu Des Pm
 ------------------------------------------------------------------
 I                   I        TURNING PROPORTIONS                 I
 I                   I        TURNING COUNTS                      I
 I                   I       (PERCENTAGE OF H.V.S)                I
 I                   ---------------------------------------------
 I        TIME       I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ------------------------------------------------------------------
 I   08.00 - 09.30   I         I       I       I       I       I
 I                   I ARM  A  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I       I       I       I       I
```

```
 I                   I ARM  B  I  0.250 I  0.000 I  0.000 I  0.750 I
 I                   I         I   20.0 I    0.0 I    0.0 I   60.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I        I        I        I        I
 I                   I ARM  C  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I        I        I        I        I
 I                   I ARM  D  I  0.000 I  1.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I   50.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I        I        I        I        I
 ----------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

.             QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
              ---------------------------------------------------------
               FOR DEMAND SET         0920 cumu Des Pm
               AND FOR TIME PERIOD        1
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---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                                I
 I   B-ACD     1.00      9.03    0.111               0.00   0.12        1.8
                      0.12      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   D-ABC     0.63      9.07    0.069               0.00   0.07        1.1
                      0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
.-------------------------------------------------------------------------------
---------------------------------

.-------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                                I
 I   B-ACD     1.20      9.03    0.133               0.12   0.15        2.2
                      0.13      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   D-ABC     0.75      9.07    0.083               0.07   0.09        1.3
                      0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
.-------------------------------------------------------------------------------
---------------------------------

.-------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                                I
 I   B-ACD     1.47      9.02    0.163               0.15   0.19        2.8
                      0.13      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   D-ABC     0.92      9.07    0.101               0.09   0.11        1.6
                      0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
.-------------------------------------------------------------------------------
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---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                                I
 I   B-ACD     1.47      9.02    0.163               0.19   0.19        2.9
                      0.13      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   D-ABC     0.92      9.07    0.101               0.11   0.11        1.7
                      0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
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---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                                I
 I   B-ACD     1.20      9.03    0.133               0.19   0.15        2.4
                      0.13      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   D-ABC     0.75      9.07    0.083               0.11   0.09        1.4
                      0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
.--------------------------------------------------------------------------------
---------------------------------

.--------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                                I
 I   B-ACD     1.00      9.03    0.111               0.15   0.13        1.9
                      0.12      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   D-ABC     0.63      9.07    0.069               0.09   0.07        1.1
                      0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
.--------------------------------------------------------------------------------
---------------------------------
*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.2
   08.45           0.2
   09.00           0.2
   09.15           0.2
   09.30           0.1
.
 QUEUE FOR STREAM    A-D
 -------------------------
```

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

.

QUEUE FOR STREAM D-ABC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1
09.15	0.1
09.30	0.1

.

QUEUE FOR STREAM C-ABD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

.

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-ACD	110.1	73.4	14.0	0.13	14.0	0.13
A-B	0.0	0.0				
A-C	0.0	0.0				
A-D	0.0	0.0	0.0	0.00	0.0	0.00
D-ABC	68.8	45.9	8.2	0.12	8.2	0.12
C-ABD	0.0	0.0	0.0	0.00	0.0	0.00
C-D	0.0	0.0				
C-A	0.0	0.0				
ALL	178.9	119.3	22.3	0.12	22.3	0.12

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

TRL LIMITED

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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Run with file:-
"T:\Anthony Sun\20240920 Picidy\Junction 9 - Yau Pok Road REC S\0920 Cumu Des\Cumu Des.vpi"
(drive-on-the-left) at 12:27:46 on Friday, 20 September 2024

.RUN INFORMATION
****

RUN TITLE : J9 - Yau Pok Road / REC South Access
LOCATION : Fairview
DATE : 02/09/24
CLIENT : SHK
ENUMERATOR : sam.wong [HKSHT1PC0702]
JOB NUMBER :
STATUS :
DESCRIPTION :

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

MINOR ROAD (ARM D)
I
I
I
I
I
MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Yau Pok Road exit
ARM B IS Vehicular Bridge
ARM C IS Yau Pok Road entry
ARM D IS REC South

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B	MINOR ROAD D
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH (W)	6.00 M.	6.00 M.
CENTRAL RESERVE WIDTH (WCR)	0.00 M.	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH (WC-B)	2.20 M.	2.20 M.
- VISIBILITY (VC-B)	50.00 M.	50.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (0)	NO (0)
MINOR ROAD - VISIBILITY TO LEFT (VB-C)	50.0 M.	50.0 M.
- VISIBILITY TO RIGHT (VB-A)	50.0 M.	50.0 M.
- LANE 1 WIDTH (WB-C)	3.50 M.	3.50 M.
- LANE 2 WIDTH (WB-A)	0.00 M.	0.00 M.

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
I 688.22	0.27	0.11	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I 688.22	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For Opposing STREAM D-B	I
I 544.46	0.25	0.25	0.25	0.25	I

I	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM D-C	I
I	0.10	0.16	0.36	0.13	I

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For Opposing STREAM B-D	I
I 544.46	0.25	0.25	0.25	0.25	I

I	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM B-A	I
I	0.10	0.16	0.36	0.13	I

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
I 602.92	0.23	0.23	0.33	I

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.23	0.33	0.23	I

B-D Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B
STREAM C-B	I		
I 544.46	0.25	0.25	0.10
0.36	I		

I Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM C-A	STREAM C-D		
I 0.16	0.16		
I			

B-D Stream From Right Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B
STREAM C-B	I		
I 544.46	0.25	0.25	0.10
0.36	I		

I Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM C-A	STREAM C-D		
I 0.16	0.16		
I			

D-B Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM D-B	STREAM C-A	STREAM C-B	STREAM C-D
STREAM A-D	I		
I 544.46	0.25	0.25	0.10
0.36	I		

I Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM A-C	STREAM A-B		
I 0.16	0.16		
I			

D-B Stream From Right Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I STREAM B-D	STREAM C-A	STREAM C-B	STREAM C-D
STREAM A-D	I		

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 I     544.46            0.25               0.25                0.10
     0.36       I
```

```
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B
```

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 I                       0.16               0.16
                I
```

.TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100
D	100

.Demand set: 0920 Cumu Des AM

TIME PERIOD BEGINS 08.00 AND ENDS 09.30

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

	NUMBER OF MINUTES FROM START WHEN			RATE OF FLOW (VEH/MIN)		
ARM	FLOW STARTS	TOP OF PEAK	FLOW STOPS	BEFORE	AT TOP	AFTER
	TO RISE	IS REACHED	FALLING	PEAK	OF PEAK	PEAK

```
 I ARM  A I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
  I
 I ARM  B I     15.00   I     45.00   I    75.00   I  1.25  I   1.88  I  1.25
  I
 I ARM  C I     15.00   I     45.00   I    75.00   I  0.13  I   0.19  I  0.13
  I
 I ARM  D I     15.00   I     45.00   I    75.00   I  1.75  I   2.63  I  1.75
  I
```

.Demand set: 0920 Cumu Des AM

TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D
08.00 - 09.30					
	ARM A	0.000	0.000	0.000	0.000
		0.0	0.0	0.0	0.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM B	0.000	0.000	0.000	1.000
		0.0	0.0	0.0	100.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM C	0.000	1.000	0.000	0.000
		0.0	10.0	0.0	0.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM D	0.000	1.000	0.000	0.000
		0.0	140.0	0.0	0.0
		(0.0)	(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

. QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET 0920 Cumu Des AM
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ VEHICLE (MIN)	AVERAGE DELAY PER ARRIVING (VEH.MIN/ TIME SEGMENT)
08.00-08.15									

```
 I   B-ACD     1.25      9.03    0.139                0.00   0.16        2.3
                     0.13      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.10    0.000                0.00   0.00        0.0
                     0.00      I
 I   D-ABC     1.76      9.04    0.194                0.00   0.24        3.4
                     0.14      I
 I   C-ABD     0.13     10.05    0.012                0.00   0.01        0.2
                     0.10      I
 I   C-D       0.00
                               I
 I   C-A       0.00
                               I
 I
                               I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                               I
 I   B-ACD     1.50      9.02    0.166                0.16   0.20        2.9
                     0.13      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.09    0.000                0.00   0.00        0.0
                     0.00      I
 I   D-ABC     2.10      9.04    0.232                0.24   0.30        4.4
                     0.14      I
 I   C-ABD     0.15     10.05    0.015                0.01   0.02        0.2
                     0.10      I
 I   C-D       0.00
                               I
 I   C-A       0.00
                               I
 I
                               I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                               I
 I   B-ACD     1.84      9.01    0.204                0.20   0.25        3.7
                     0.14      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.08    0.000                0.00   0.00        0.0
                     0.00      I
 I   D-ABC     2.57      9.03    0.285                0.30   0.39        5.7
                     0.15      I
 I   C-ABD     0.18     10.05    0.018                0.02   0.02        0.3
                     0.10      I
 I   C-D       0.00
                               I
 I   C-A       0.00
                               I
 I
                               I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                               I
 I   B-ACD     1.84      9.01    0.204                0.25   0.25        3.8
                     0.14      I
 I   A-B       0.00
                               I
 I   A-C       0.00
                               I
 I   A-D       0.00      9.08    0.000                0.00   0.00        0.0
                     0.00      I
 I   D-ABC     2.57      9.03    0.285                0.39   0.39        5.9
                     0.15      I
 I   C-ABD     0.18     10.05    0.018                0.02   0.02        0.3
                     0.10      I
 I   C-D       0.00
                               I
 I   C-A       0.00
                               I
 I
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                                I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                                I
 I   B-ACD     1.50      9.02    0.166               0.25   0.20        3.1
                      0.13      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.09    0.000               0.00   0.00        0.0
                      0.00      I
 I   D-ABC     2.10      9.04    0.232               0.39   0.31        4.7
                      0.14      I
 I   C-ABD     0.15     10.05    0.015               0.02   0.02        0.2
                      0.10      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
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---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                                I
 I   B-ACD     1.25      9.03    0.139               0.20   0.16        2.5
                      0.13      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.10    0.000               0.00   0.00        0.0
                      0.00      I
 I   D-ABC     1.76      9.04    0.194               0.31   0.24        3.7
                      0.14      I
 I   C-ABD     0.13     10.05    0.012               0.02   0.01        0.2
                      0.10      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
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*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
    08.15          0.2
    08.30          0.2
    08.45          0.3
    09.00          0.3
    09.15          0.2
    09.30          0.2
.
 QUEUE FOR STREAM    A-D
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
    08.15          0.0
    08.30          0.0
    08.45          0.0
    09.00          0.0
    09.15          0.0
    09.30          0.0
.
 QUEUE FOR STREAM    D-ABC
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
    08.15          0.2
    08.30          0.3
    08.45          0.4
    09.00          0.4
    09.15          0.3
    09.30          0.2
.
 QUEUE FOR STREAM    C-ABD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
    08.15          0.0
    08.30          0.0
```

08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

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QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I STREAM I	TOTAL DEMAND		I * QUEUEING * DELAY *		I * INCLUSIVE QUEUEING * DELAY *		I
I	(VEH)	(VEH/H)	I (MIN)	(MIN/VEH)	I (MIN)	(MIN/VEH)	I
I B-ACD	137.6	91.8	I 18.3	0.13	I 18.3	0.13	I
I A-B	0.0	0.0	I		I		I
I A-C	0.0	0.0	I		I		I
I A-D	0.0	0.0	I 0.0	0.00	I 0.0	0.00	I
I D-ABC	192.7	128.5	I 27.9	0.14	I 27.9	0.14	I
I C-ABD	13.8	9.2	I 1.4	0.10	I 1.4	0.10	I
I C-D	0.0	0.0	I		I		I
I C-A	0.0	0.0	I		I		I
I ALL	344.1	229.4	I 47.6	0.14	I 47.6	0.14	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
I 688.22	0.27	0.11	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I 688.22	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For Opposing STREAM D-B	I
I 544.46	0.25	0.25	0.25	0.25	I

I	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM D-C	I
I	0.10	0.16	0.36	0.13	I

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For Opposing STREAM B-D	I
I 544.46	0.25	0.25	0.25	0.25	I

I	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I	STREAM C-D	STREAM A-C	STREAM A-D	STREAM B-A I
I	0.10	0.16	0.36	0.13 I

STREAM C-B

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM C-B	STREAM A-B	STREAM A-C	STREAM A-D I
I 602.92	0.23	0.23	0.33 I

STREAM A-D

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM A-D	STREAM C-A	STREAM C-B	STREAM C-D I
I 602.92	0.23	0.33	0.23 I

B-D Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing I
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B
STREAM C-B I			
I 544.46	0.25	0.25	0.10
0.36 I			

I	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For Opposing I			
I	STREAM C-A	STREAM C-D	
I	0.16	0.16	
I			

B-D Stream From Right Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For Opposing I			
I STREAM B-D	STREAM A-C	STREAM A-D	STREAM A-B
STREAM C-B I			
I 544.46	0.25	0.25	0.10
0.36 I			

I	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For Opposing I			
I	STREAM C-A	STREAM C-D	
I	0.16	0.16	
I			

D-B Stream From Left Hand Lane

I Intercept For Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
Slope For Opposing I			
I STREAM D-B	STREAM C-A	STREAM C-B	STREAM C-D
STREAM A-D I			
I 544.46	0.25	0.25	0.10
0.36 I			

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-----------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

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-----------------
 I                       0.16               0.16
                I

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 D-B Stream From Right Hand Lane

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 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

---------------------------------------------------------------------------------
-----------------
 I     544.46            0.25               0.25                 0.10
     0.36       I

---------------------------------------------------------------------------------
-----------------

---------------------------------------------------------------------------------
-----------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

---------------------------------------------------------------------------------
-----------------
 I                       0.16               0.16
                I

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-----------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        0920 Cumu Des PM


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


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 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
  I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
  I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
  I
 I        I             I             I            I        I         I
  I

---------------------------------------------------------------------------------
---
 I ARM  A I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
  I
 I ARM  B I     15.00   I     45.00   I    75.00   I  0.75  I   1.13  I  0.75
  I
 I ARM  C I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
  I
 I ARM  D I     15.00   I     45.00   I    75.00   I  0.63  I   0.94  I  0.63
  I

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.Demand set:        0920 Cumu Des PM
 ------------------------------------------------------------------
 I                   I        TURNING PROPORTIONS                I
 I                   I        TURNING COUNTS                     I
 I                   I       (PERCENTAGE OF H.V.S)               I
 I                   ---------------------------------------------
 I        TIME       I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ------------------------------------------------------------------
 I   08.00 - 09.30   I         I       I       I       I       I
 I                   I ARM  A  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I       I       I       I       I
```

```
 I                   I ARM  B  I  0.000 I  0.000 I  0.000 I  1.000 I
 I                   I         I    0.0 I    0.0 I    0.0 I   60.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I        I        I        I        I
 I                   I ARM  C  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I        I        I        I        I
 I                   I ARM  D  I  0.000 I  1.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I   50.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I        I        I        I        I
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 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

.             QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
              ---------------------------------------------------------
               FOR DEMAND SET         0920 Cumu Des PM
               AND FOR TIME PERIOD        1
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                                I
 I   B-ACD     0.75      9.07    0.083               0.00   0.09        1.3
                       0.12      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                       0.00      I
 I   D-ABC     0.63      9.07    0.069               0.00   0.07        1.1
                       0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                       0.00      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                                I
 I   B-ACD     0.90      9.07    0.099               0.09   0.11        1.6
                       0.12      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                       0.00      I
 I   D-ABC     0.75      9.07    0.083               0.07   0.09        1.3
                       0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                       0.00      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                                I
 I   B-ACD     1.10      9.07    0.121               0.11   0.14        2.0
                       0.13      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                       0.00      I
 I   D-ABC     0.92      9.07    0.101               0.09   0.11        1.6
                       0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                       0.00      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                                I
 I   B-ACD     1.10      9.07    0.121               0.14   0.14        2.1
                      0.13      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   D-ABC     0.92      9.07    0.101               0.11   0.11        1.7
                      0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                                I
 I   B-ACD     0.90      9.07    0.099               0.14   0.11        1.7
                      0.12      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   D-ABC     0.75      9.07    0.083               0.11   0.09        1.4
                      0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
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---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
   (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
 TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                                I
 I   B-ACD     0.75      9.07    0.083               0.11   0.09        1.4
                      0.12      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   D-ABC     0.63      9.07    0.069               0.09   0.07        1.1
                      0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                      0.00      I
 I   C-D       0.00
                                I
 I   C-A       0.00
                                I
 I
                                I
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*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.1
   09.00           0.1
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    A-D
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TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

.

QUEUE FOR STREAM D-ABC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1
09.15	0.1
09.30	0.1

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QUEUE FOR STREAM C-ABD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

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QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-ACD	82.6	55.1	10.1	0.12	10.1	0.12
A-B	0.0	0.0				
A-C	0.0	0.0				
A-D	0.0	0.0	0.0	0.00	0.0	0.00
D-ABC	68.8	45.9	8.2	0.12	8.2	0.12
C-ABD	0.0	0.0	0.0	0.00	0.0	0.00
C-D	0.0	0.0				
C-A	0.0	0.0				
ALL	151.4	100.9	18.3	0.12	18.3	0.12

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

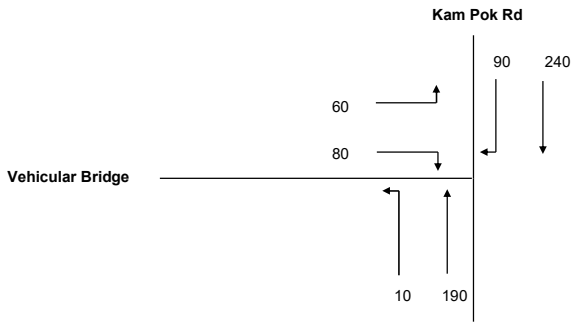
JUNCTION CAPACITY CALCULATION

AECOM

Junction J10 - Kam Pok Road / Vehicular Bridge	2034 AM Design - Sensitivity Test (I)	DESIGN: 0	CHECK: 0	JOB NO: 60XXXXXX	DATE: Oct 24

J10

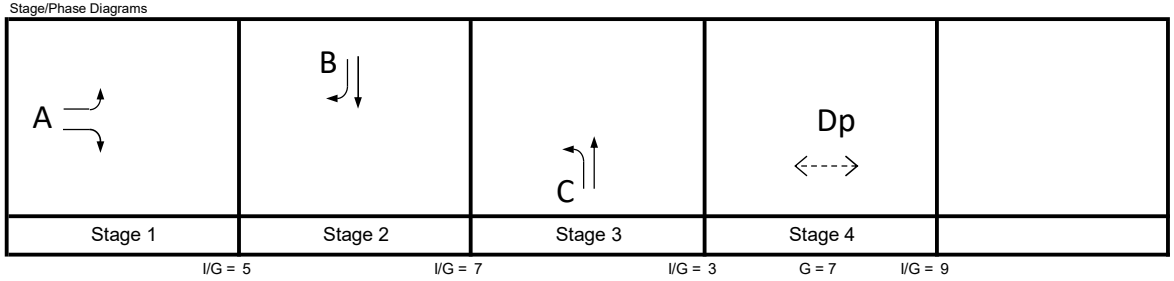
Traffic Flow Diagram
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	60	sec
Sum(y)	Y =	0.357	
Lost time	L =	28	sec
Total Flow	=	670	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$ =	73	sec
Min. Cycle Time C_m	$= L/(1-Y)$ =	44	sec
Y_{ult}	$= 0.9-0.0075 \times L$ =	0.690	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$ =	93.2	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$ =	46	sec
Y_{max}	$= 1-L/C$ =	0.533	

Stage/Phase Diagrams



I/G = 5 I/G = 7 I/G = 3 G = 7 I/G = 9

Critical Case : A,B,C,Dp

R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 34%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.600	1	5	10	0	0		0		2115	60		80	140	43%	57%	1742	0.080	0.080
	B	2	3.600	1		10	0	1		0		1975		240	90	330		27%	1897	0.174	0.174
	C	3	3.600	1	5			1		0		1975	10	190		200	5%		1946	0.103	0.103
Pedestrian Crossing				GM		FGM															
	Dp	4	min.	7	+	7	=	14	sec												*

JUNCTION CAPACITY CALCULATION

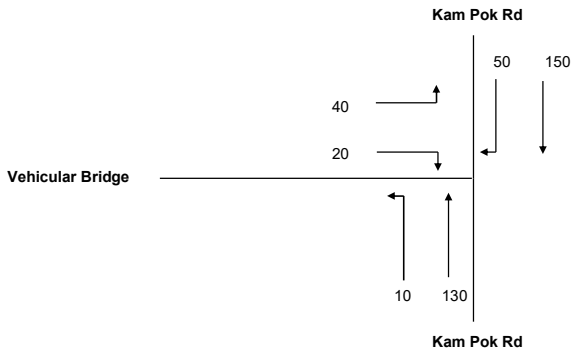
AECOM

Junction J10 - Kam Pok Road / Vehicular Bridge	2034 PM Design - Sensitivity Test (I)	DESIGN: 0	CHECK: 0	JOB NO: 60XXXXXX	DATE: Oct 24

J10

Traffic Flow Diagram

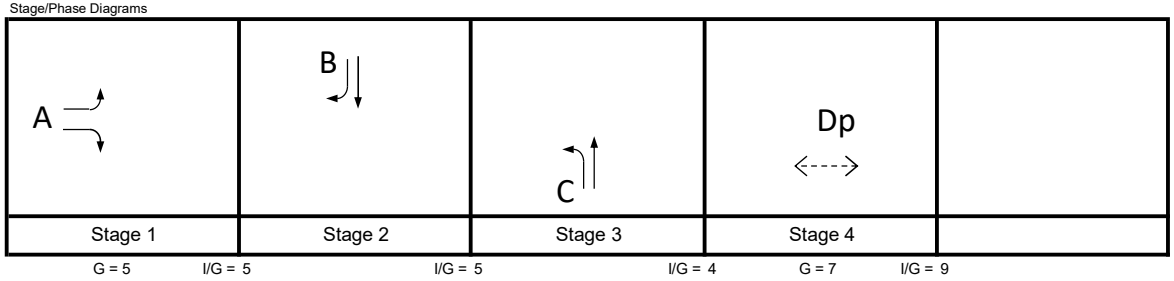
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	60	sec
Sum(y)	Y =	0.177	
Lost time	L =	33	sec
Total Flow	=	400	pcu

Optimum Cycle C_o	= (1.5×L+5)/(1-Y)	=	66	sec
Min. Cycle Time C_m	= L/(1-Y)	=	40	sec
Y_{ult}	= 0.9-0.0075×L	=	0.653	
$R.C._{ult}$	= (Y_{ult}-Y)/Yx100%	=	267.7	%
Practical Cycle Time C_p	= 0.9×L/(0.9-Y)	=	41	sec
Y_{max}	= 1-L/C	=	0.450	

Stage/Phase Diagrams



G = 5 I/G = 5 I/G = 5 I/G = 4 G = 7 I/G = 9

Critical Case : A,B,C,Dp

R.C.(C) = (0.9xY_{max}-Y)/Yx100% = 128%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.600	1	5	10	0	0		0		2115	40		20	60	67%	33%	1692	0.035	
	B	2	3.600	1		10	0	1		0		1975		150	50	200		25%	1904	0.105	0.105
	C	3	3.600	1	5			1		0		1975	10	130		140	7%		1934	0.072	0.072
Pedestrian Crossing				GM		FGM															
	Dp	4	min.	7	+	7	=	14	sec												*

JUNCTION CAPACITY CALCULATION

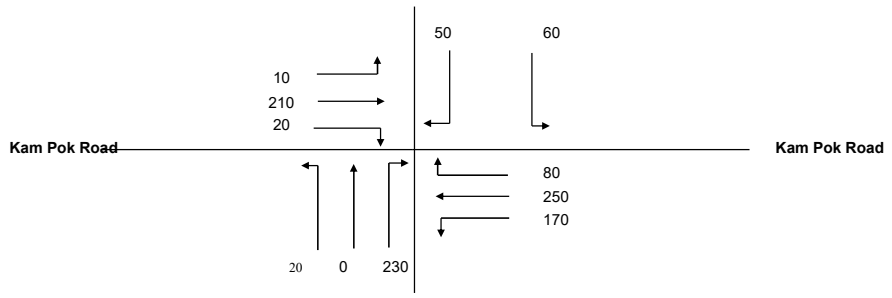
AECOM

Junction J11 - Kam Pok Road / Vehicular Bridge / R(D) Site Access	Year 2034 AM Cumulative Traffic Impact [R(D) + REC(NS)] & 100% Kam Pok R	DESIGN: 0	CHECK: 0	#VALUE!	DATE: Oct 24

J11

Traffic Flow Diagram

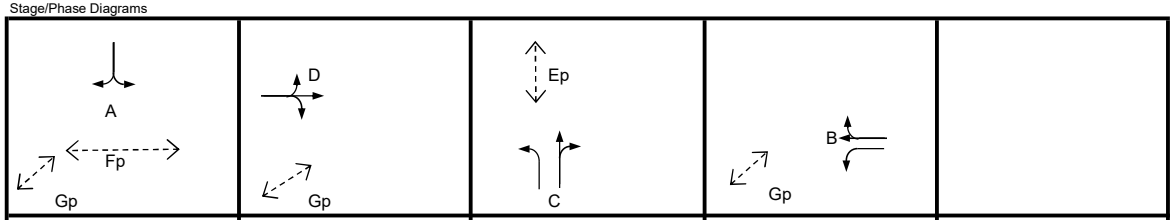
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	90	sec
Sum(y)	Y =	0.427	
Lost time	L =	37	sec
Total Flow	=	1,100	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	105	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	65	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.623	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	45.9	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	70	sec
Y_{max}	$= 1-L/C$	=	0.589	

Stage/Phase Diagrams



G = 11 I/G = 12 I/G = 5 I/G = 5 I/G = 7

Critical Case : Fp,D,C,B

R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 24%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.500	1	10	12	0	0		0		2105	60		50	110	55%	45%	1849	0.060	
	B	4	3.650	1	15			1		0		1980	170			170	100%		1800	0.094	
	B	4	3.650	1		15	0	0		0		2120		250	80	330		24%	2070	0.159	0.159
	C	3	3.000	1	12	15	0	1		0		1915	20	0	230	250	8%	92%	1738	0.144	0.144
	D	2	3.650	1	10	12	0	1		0		1980	10	210	20	240	4%	8%	1948	0.123	0.123
Pedestrian Crossing				GM		FGM															
	Ep	3	min.	10	+	10	=	20	sec												
	Fp	1	min.	11	+	10	=	21	sec												*
	Gp	1,2,4	min.	5	+	5	=	10	sec												

JUNCTION CAPACITY CALCULATION

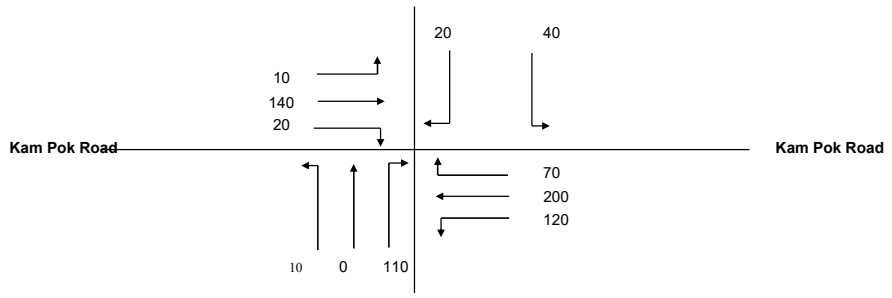
AECOM

Junction J11 - Kam Pok Road / Vehicular Bridge / R(D) Site Access	Year 2034 AM Cumulative Traffic Impact [R(D) + REC(NS)] & 100% Kam Pok R	DESIGN: 0	CHECK: 0	#VALUE!	DATE: Oct 24

J11

Traffic Flow Diagram

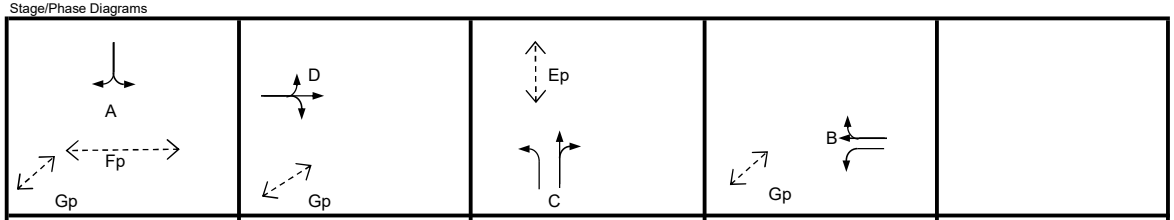
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	90	sec
Sum(y)	Y =	0.292	
Lost time	L =	37	sec
Total Flow	=	750	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	85	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	52	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.623	
R.C.$_{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	113.0	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	55	sec
Y_{max}	$= 1-L/C$	=	0.589	

Stage/Phase Diagrams



G = 11 I/G = 12 I/G = 5 I/G = 5 I/G = 7

Critical Case : Fp,D,C,B

R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 81%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.500	1	10	12	0	0		0		2105	40		20	60	67%	33%	1844	0.033	
	B	4	3.650	1	15			1		0		1980	120			120	100%		1800	0.067	
	B	4	3.650	1		15	0	0		0		2120		210	70	280		25%	2068	0.135	0.135
	C	3	3.000	1	12	15	0	1		0		1915	10	0	110	120	8%	92%	1738	0.069	0.069
	D	2	3.650	1	10	12	0	1		0		1980	10	140	20	170	6%	12%	1934	0.088	0.088
Pedestrian Crossing				GM		FGM															
	Ep	3	min.	10	+	10	=	20	sec												
	Fp	1	min.	11	+	10	=	21	sec												*
	Gp	1,2,4	min.	5	+	5	=	10	sec												

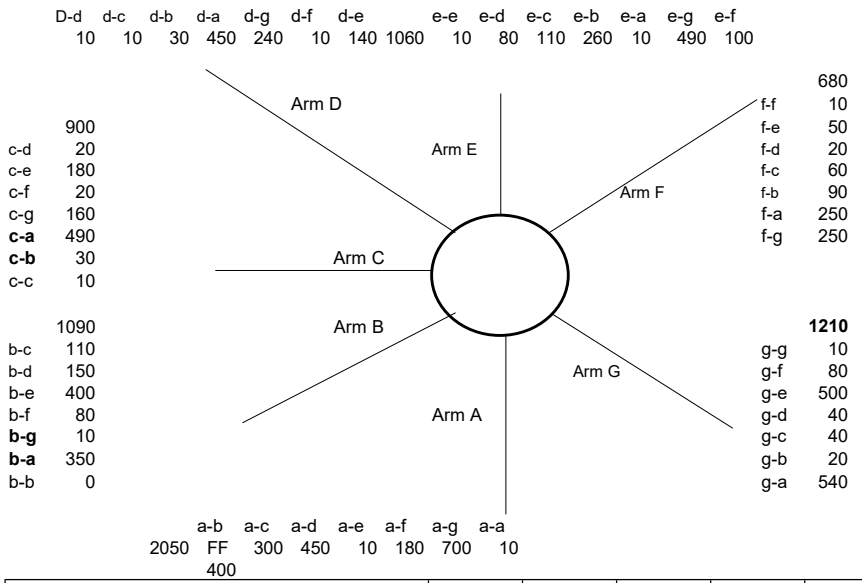
Design Flow

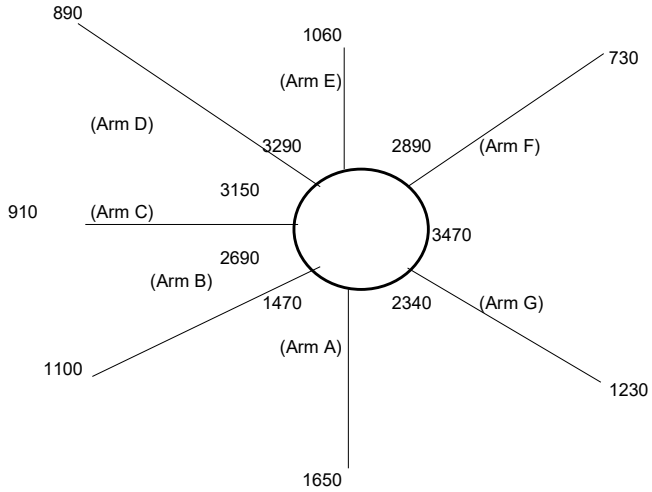
Sensitivity Test (II)

ROUNDABOUT CAPACITY CALCULATIC

AECOM

Junction	Junction J1 - Fairview Roundabout	cenar	2034 AM Design Flows (Sensitivity Test with Soy Factory w IMP)	Project No.	Prepared By	Checked By	Date
				-	MK	JL	May 2025





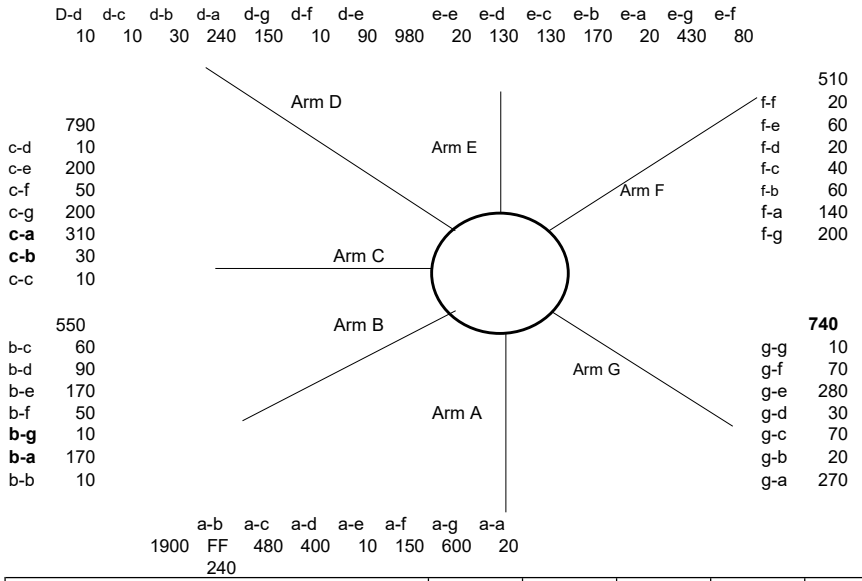
ARM	A	B	C	D	E	F	G
INPUT PARAMETERS:							
V = Approach half width (m)	6.00	6.50	7.00	7.30	7.30	7.30	7.30
E = Entry width (m)	12.50	11.20	11.80	12.00	13.00	11.00	12.00
L = Effective length of flare (m)	20.00	22.00	20.00	36.00	13.00	23.00	27.00
R = Entry radius (m)	25.00	25.00	25.00	30.00	45.00	25.00	25.00
D = Inscribed circle diameter (m)	140.00	140.00	140.00	140.00	140.00	140.00	140.00
A = Entry angle (degree)	40.00	35.00	35.00	25.00	30.00	35.00	45.00
Q = Entry flow (pcu/h)	1650	1100	910	890	1060	730	1230
Qc= Circulating flow across entry (pcu/h)	1470	2690	3150	3290	2890	3470	2340
OUTPUT PARAMETERS:							
S = Sharpness of flare = 1.6(E-V)/L	0.52	0.34	0.38	0.21	0.70	0.26	0.28
K = 1-0.00347(A-30)-0.978(1/R-0.05)	0.98	0.99	0.99	1.03	1.03	0.99	0.96
X2= V + ((E-V)/(1+2S))	9.19	9.29	9.71	10.62	9.67	9.74	10.32
M = EXP((D-60)/10)	2981	2981	2981	2981	2981	2981	2981
F = 303*X2	2783	2815	2944	3216	2931	2952	3127
Td= 1+(0.5/(1+M))	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fc= 0.21*Td(1+0.2*X2)	0.60	0.60	0.62	0.66	0.62	0.62	0.64
Qe= K(F-Fc*Qc)	1860	1191	989	1094	1181	797	1552
DFC = Design flow/Capacity = Q/Qe	0.89	0.92	0.92	0.81	0.90	0.92	0.79

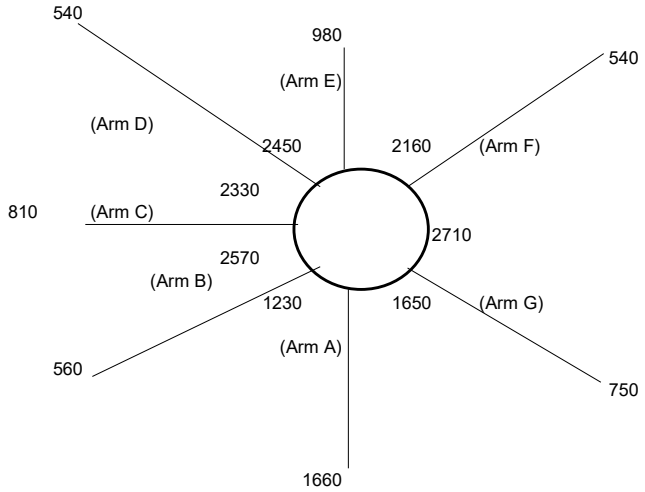
TOTAL ENTRY FLOWS = 7570 PCU

CRITICAL DFC = 0.92

ROUNDABOUT CAPACITY CALCULATIC **AECOM**

Junction	Junction J1 - Fairview Roundabout	cenar	2034 PM Design Flows (Sensitivity Test with Soy Factory w IMP)	Project No.	Prepared By	Checked By	Date
				-	MK	JL	May 2025





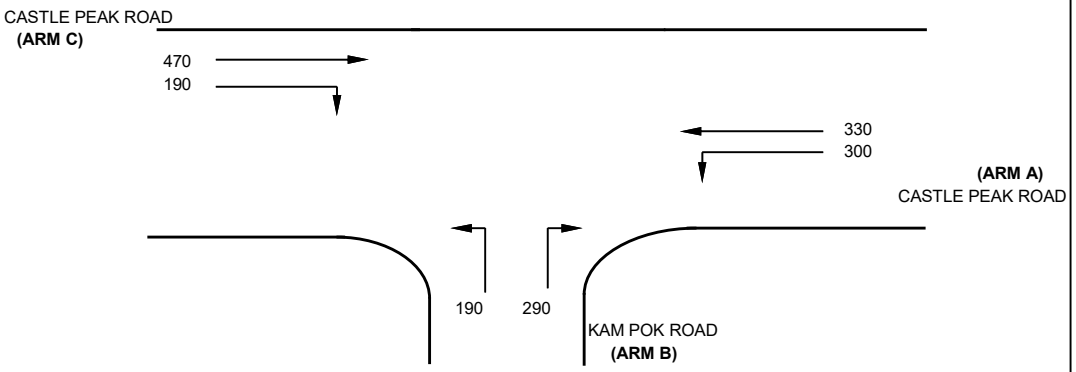
ARM	A	B	C	D	E	F	G
INPUT PARAMETERS:							
V = Approach half width (m)	6.00	6.50	7.00	7.30	7.30	7.30	7.30
E = Entry width (m)	12.50	11.20	11.80	12.00	13.00	11.00	12.00
L = Effective length of flare (m)	20.00	22.00	20.00	36.00	13.00	23.00	27.00
R = Entry radius (m)	25.00	25.00	25.00	30.00	45.00	25.00	25.00
D = Inscribed circle diameter (m)	140.00	140.00	140.00	140.00	140.00	140.00	140.00
A = Entry angle (degree)	40.00	35.00	35.00	25.00	30.00	35.00	45.00
Q = Entry flow (pcu/h)	1660	560	810	540	980	540	750
Qc= Circulating flow across entry (pcu/h)	1230	2570	2330	2450	2160	2710	1650
OUTPUT PARAMETERS:							
S = Sharpness of flare = 1.6(E-V)/L	0.52	0.34	0.38	0.21	0.70	0.26	0.28
K = 1-0.00347(A-30)-0.978(1/R-0.05)	0.98	0.99	0.99	1.03	1.03	0.99	0.96
X2= V + ((E-V)/(1+2S))	9.19	9.29	9.71	10.62	9.67	9.74	10.32
M = EXP((D-60)/10)	2981	2981	2981	2981	2981	2981	2981
F = 303*X2	2783	2815	2944	3216	2931	2952	3127
Td= 1+(0.5/(1+M))	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fc= 0.21*Td(1+0.2*X2)	0.60	0.60	0.62	0.66	0.62	0.62	0.64
Qe= K(F-Fc*Qc)	1999	1263	1492	1663	1643	1264	1977
DFC = Design flow/Capacity = Q/Qe	0.83	0.44	0.54	0.32	0.60	0.43	0.38

TOTAL ENTRY FLOWS = 5840 PCU

CRITICAL DFC = 0.83

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J2 - Castle Peak Road / Kam Pok Road	2034 AM Design Flows (Sentivity Test with Soy Factory)(Wit	Designed By :	Checked By :	Job No. :	Date : Dec 21



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.9 (metres)
W cr	=	0 (metres)
q a-b	=	300 (pcu/hr)
q a-c	=	330 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05 (metres)
Vr c-b	=	30 (metres)
q c-a	=	470 (pcu/hr)
q c-b	=	190 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	4.3 (metres)
W b-c	=	4.3 (metres)
Vl b-a	=	70 (metres)
Vr b-a	=	53 (metres)
Vr b-c	=	70 (metres)
q b-a	=	290 (pcu/hr)
q b-c	=	190 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.949254
E	=	1.013351
F	=	0.780782
Y	=	0.761950

THE CAPACITY OF MOVEMENT :

Q b-a	=	328
Q b-c	=	629
Q c-b	=	445
Q b-ac	=	404

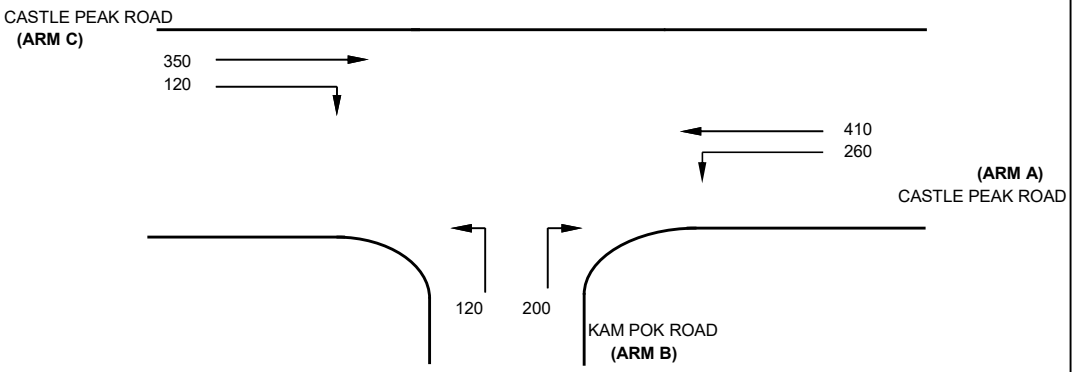
CRITICAL DFC = 0.88

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.88
DFC b-c	=	0.30
DFC c-b	=	0.43

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J2 - Castle Peak Road / Kam Pok Road	2034 PM Design Flows (Sentivity Test with Soy Factory)(Wit	Designed By :	Checked By :	Job No. :	Date : Dec 21



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.9 (metres)
W cr	=	0 (metres)
q a-b	=	260 (pcu/hr)
q a-c	=	410 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.05 (metres)
Vr c-b	=	30 (metres)
q c-a	=	350 (pcu/hr)
q c-b	=	120 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	4.3 (metres)
W b-c	=	4.3 (metres)
Vl b-a	=	70 (metres)
Vr b-a	=	53 (metres)
Vr b-c	=	70 (metres)
q b-a	=	200 (pcu/hr)
q b-c	=	120 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.949254
E	=	1.013351
F	=	0.780782
Y	=	0.761950

THE CAPACITY OF MOVEMENT :

Q b-a	=	357
Q b-c	=	611
Q c-b	=	437
Q b-ac	=	423

CRITICAL DFC = 0.56

COMPARISION OF DESIGN FLOW TO CAPACITY :

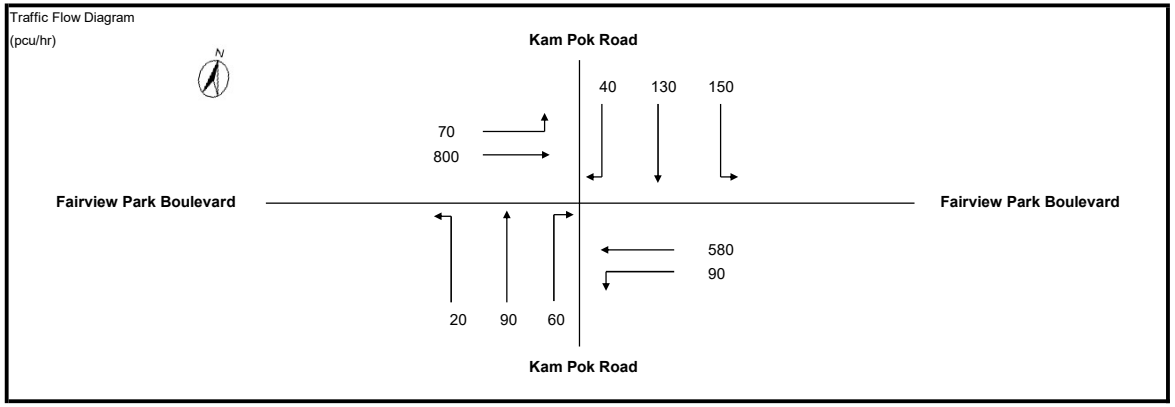
DFC b-a	=	0.56
DFC b-c	=	0.20
DFC c-b	=	0.27

JUNCTION CAPACITY CALCULATION

Junction J3 - Fairview Park Boulevard - Kam Pok Road	2034 AM Design Traffic Flows (SEN II)	DESIGN: 0	CHECK: 0	JOB NO: -	DATE: Oct 24

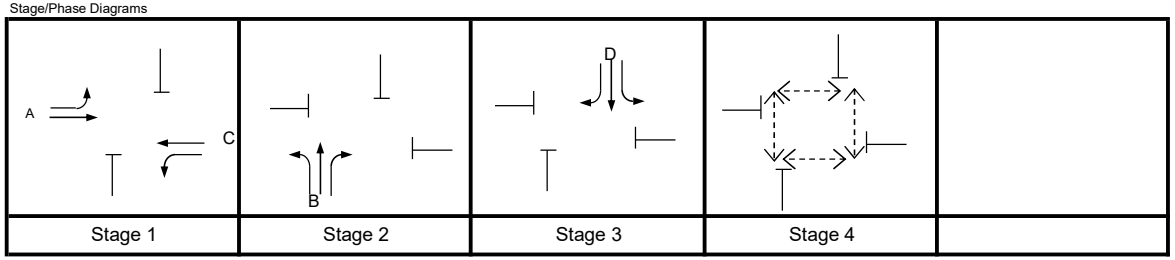
J3

Traffic Flow Diagram
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	120	sec
Sum(y)	Y =	0.473	
Lost time	L =	44	sec
Total Flow	=	11,870	pcu
Optimum Cycle C_o = (1.5×L+5)/(1-Y)	=	135	sec
Min. Cycle Time C_m = L/(1-Y)	=	83	sec
Y_{ult} = 0.9-0.0075×L	=	0.570	
$R.C._{ult}$ = $(Y_{ult}-Y)/Yx100\%$	=	20.6	%
Practical Cycle Time C_p = 0.9×L/(0.9-Y)	=	93	sec
Y_{max} = 1-L/C	=	0.633	

Stage/Phase Diagrams



I/G = 7 I/G = 7 I/G = 11 G = 10 I/G = 12

Critical Case : A,B,D,Ep

R.C.(C) = $(0.9xY_{max}-Y)/Yx100\%$ = 21%

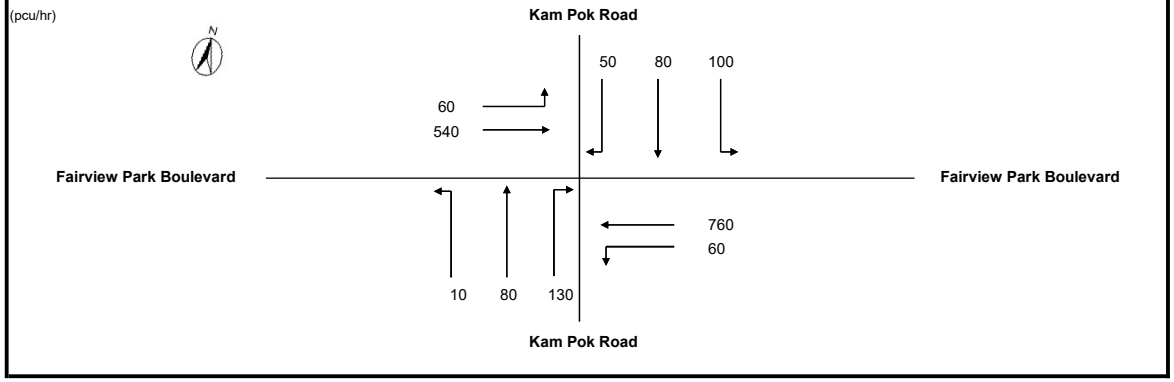
MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.300	1	15			1		0		1945	70	362		432	16%		1914	0.225	0.225
	A	1	3.300	1				1		0		1945		439		439			1945	0.225	
	B	2	3.600	1	13	20	0	1		0		1975	20	90	60	170	12%	35%	1899	0.090	0.090
	C	1	3.000	1	17			1		0		1915	90	238		328	27%		1870	0.176	
	C	1	3.300	1				1		0		1945		342		342			1945	0.176	
	D	3	5.300	1	15.5	17.5	0	1		0		2145	150	130	40	320	47%	13%	2031	0.158	0.158
Pedestrian Crossing				GM		FGM															
	Ep	4	min.	10	+	9	=	19	sec												*

JUNCTION CAPACITY CALCULATION

Junction J3 - Fairview Park Boulevard - Kam Pok Road	2034 PM Design Traffic Flows (SEN II)	DESIGN: 0	CHECK: 0	JOB NO: -	DATE: Oct 24

J3

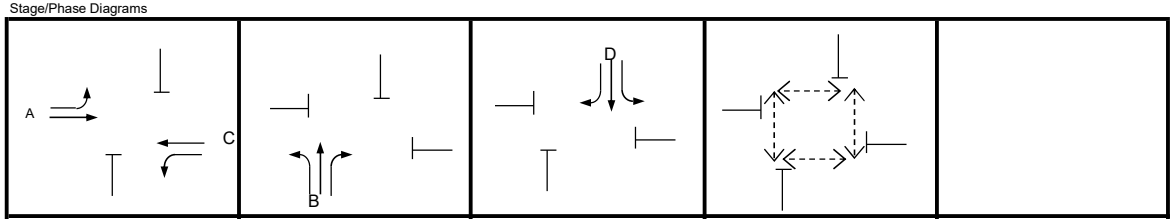
Traffic Flow Diagram
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	120	sec
Sum(y)	Y =	0.444	
Lost time	L =	44	sec
Total Flow	=	11,870	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$ =		128	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	79	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.570	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	28.2	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	87	sec
Y_{max}	$= 1-L/C$	=	0.633	

Stage/Phase Diagrams



I/G = 7 I/G = 7 I/G = 11 G = 10 I/G = 12

Critical Case : B,C,D,Ep

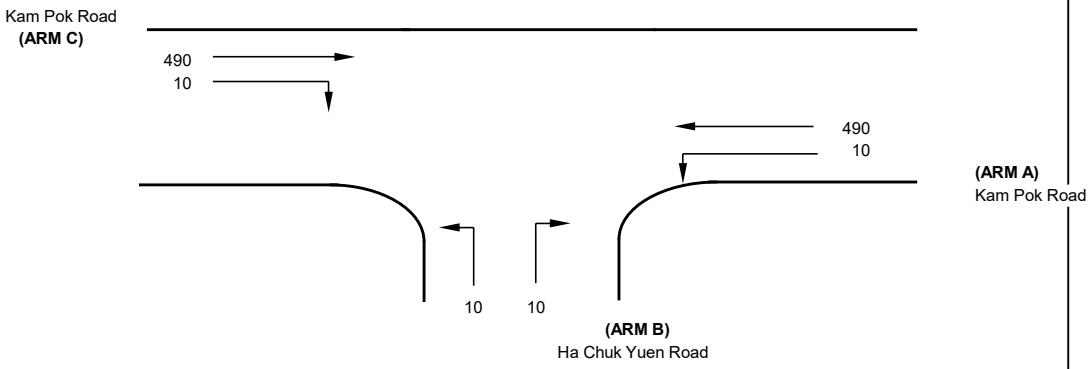
R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 28%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.300	1	15			1		0		1945	60	237		297	20%		1906	0.156	
	A	1	3.300	1				1		0		1945		303		303			1945	0.156	
	B	2	3.600	1	13	20	0	1		0		1975	10	80	130	220	5%	59%	1882	0.117	0.117
	C	1	3.000	1	17			1		0		1915	60	344		404	15%		1890	0.214	0.214
	C	1	3.300	1				1		0		1945		416		416			1945	0.214	
	D	3	5.300	1	15.5	17.5	0	1		0		2145	100	80	50	230	43%	22%	2022	0.114	0.114
Pedestrian Crossing				GM		FGM															
	Ep	4	min.	10	+	9	=	19	sec												*

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

J4 - Kam Pok Road - Ha Chuk Yuen Road	2034 AM Design Traffic Flows - Sensitivity Test (with Soy Factory)	Designed By : MKCN	Checked By : SHSN	Job No. : -	Date : Oct 24



NOTES : (GEOMETRIC INPUT DATA)

J4

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.7)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.7)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.7)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	9.3 (metres)
W cr	=	0 (metres)
q a-b	=	10 (pcu/hr)
q a-c	=	490 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.5 (metres)
Vr c-b	=	50 (metres)
q c-a	=	490 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	2.05 (metres)
W b-c	=	2.05 (metres)
Vl b-a	=	50 (metres)
Vr b-a	=	50 (metres)
Vr b-c	=	50 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	10 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.748311
E	=	0.796075
F	=	0.923788
Y	=	0.679150

THE CAPACITY OF MOVEMENT :

Q b-a	=	318
Q b-c	=	496
Q c-b	=	574
Q b-ac	=	388

CRITICAL DFC = 0.05

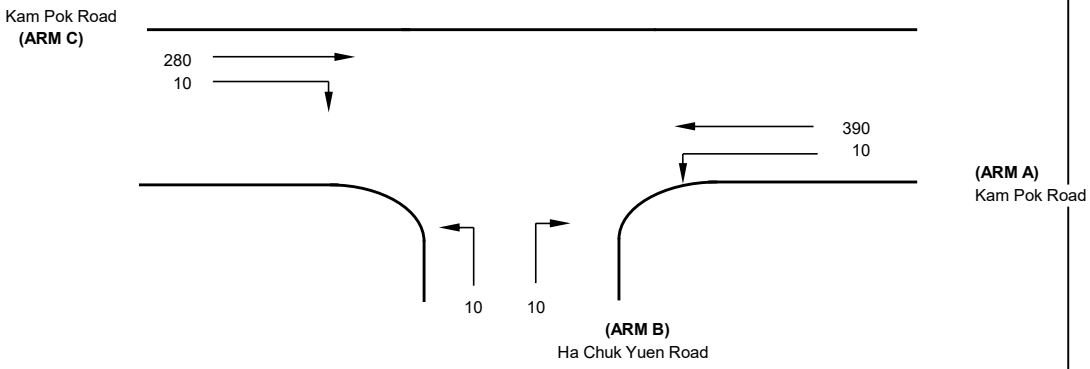
COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.03
DFC b-c	=	0.02
DFC c-b	=	0.02
DFC b-ac	=	0.05

PRIORITY JUNCTION CAPACITY CALCULATION

AECOM

J4 - Kam Pok Road - Ha Chuk Yuen Road	2034 PM Design Traffic Flows - Sensitivity Test (with Soy Factory)	Designed By : MKCN	Checked By : SHSN	Job No. : -	Date : Oct 24



J4

NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.7)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.7)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.7)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	9.3 (metres)
W cr	=	0 (metres)
q a-b	=	10 (pcu/hr)
q a-c	=	390 (pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.5 (metres)
Vr c-b	=	50 (metres)
q c-a	=	280 (pcu/hr)
q c-b	=	10 (pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	2.05 (metres)
W b-c	=	2.05 (metres)
Vl b-a	=	50 (metres)
Vr b-a	=	50 (metres)
Vr b-c	=	50 (metres)
q b-a	=	10 (pcu/hr)
q b-c	=	10 (pcu/hr)

GEOMETRIC FACTORS :

D	=	0.748311
E	=	0.796075
F	=	0.923788
Y	=	0.679150

THE CAPACITY OF MOVEMENT :

Q b-a	=	361
Q b-c	=	516
Q c-b	=	597
Q b-ac	=	425

CRITICAL DFC = 0.05

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.03
DFC b-c	=	0.02
DFC c-b	=	0.02
DFC b-ac	=	0.05

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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Run with file:-
"L:\Secure\Transportation\Group\TTP_TE\Private Job\Fairview\Info\TIA Working RD and REC\Flow\
V13 202407_RD1.5+REC1.2 Combined\Junction 5_Picaddy\20241031 Sen 2\Sen 2.vpi"
(drive-on-the-left) at 14:00:19 on Thursday, 31 October 2024

.RUN INFORMATION
****

RUN TITLE : 2034 - J5 Kam Pok Road/ Pok Wai South Road
LOCATION :
DATE : 13/12/21
CLIENT :
ENUMERATOR : nokhinnaomi.tam [HKSHT1PC0702]
JOB NUMBER :
STATUS :
DESCRIPTION :

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

```
                                    MINOR ROAD (ARM D)
                                           I
                                           I
                                           I
                                           I
                                           I
                                           I
                                           I
MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
                                           I
                                           I
                                           I
                                           I
                                           I
                                           I
                                    MINOR ROAD (ARM B)
```

ARM A IS Kam Pok Road
ARM B IS Pok Wai South Road
ARM C IS Kam Pok Road West
ARM D IS Kam Pok Road

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 8.80
CENTRAL RESERVE WIDTH	(WCR) 0.00
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20
- VISIBILITY	(VC-B) 50.00
- BLOCKS TRAFFIC (SPACES)	YES
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 50.0
- VISIBILITY TO RIGHT	(VB-A) 50.0
- LANE 1 WIDTH	(WB-C) 2.20
- LANE 2 WIDTH	(WB-A) 0.00

DATA ITEM	MINOR ROAD
	(VD-A) 50.0
	(VD-C) 50.0
	(WD-A) 5.00
	(WD-C) 0.00

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
I 602.92	0.21	0.08	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I 786.65	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For OpposingI STREAM D-B	I
I 476.98	0.19	0.19	0.19	0.19	I

I	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For OpposingI STREAM D-C	I
I	0.08	0.12	0.28	0.10	I

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For OpposingI STREAM B-D	I
I 622.33	0.25	0.25	0.25	0.25	I

I	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For OpposingI STREAM B-A	I
I	0.10	0.16	0.36	0.13	I

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
I 602.92	0.21	0.21	0.29	I

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I

```
 I     602.92           0.21               0.29               0.21       I
 ------------------------------------------------------------------------------


 B-D Stream From Left Hand Lane

-------------------------------------------------------------------------------
------------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  A-C          STREAM A-D          STREAM  A-B
STREAM  C-B       I

-------------------------------------------------------------------------------
------------------
 I     476.98           0.19               0.19                0.08
      0.28       I

-------------------------------------------------------------------------------
------------------

-------------------------------------------------------------------------------
------------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  C-A          STREAM C-D

-------------------------------------------------------------------------------
------------------
 I                     0.12               0.12
                 I

-------------------------------------------------------------------------------
------------------


 B-D Stream From Right Hand Lane

-------------------------------------------------------------------------------
------------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  A-C          STREAM A-D          STREAM  A-B
STREAM  C-B       I

-------------------------------------------------------------------------------
------------------
 I     476.98           0.19               0.19                0.08
      0.28       I

-------------------------------------------------------------------------------
------------------

-------------------------------------------------------------------------------
------------------
```

```
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  C-A          STREAM C-D

-------------------------------------------------------------------------------
------------------
 I                     0.12               0.12
                 I

-------------------------------------------------------------------------------
------------------


 D-B Stream From Left Hand Lane

-------------------------------------------------------------------------------
------------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM D-B     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------
------------------
 I     622.33           0.25               0.25                0.10
      0.36       I

-------------------------------------------------------------------------------
------------------

-------------------------------------------------------------------------------
------------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
------------------
 I                     0.16               0.16
                 I

-------------------------------------------------------------------------------
------------------


 D-B Stream From Right Hand Lane

-------------------------------------------------------------------------------
------------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------
```

```
------------------
 I     622.33           0.25               0.25                0.10
      0.36       I
-------------------------------------------------------------------------------
------------------

-------------------------------------------------------------------------------
------------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
------------------
 I                       0.16               0.16
                 I

-------------------------------------------------------------------------------
------------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        20241031 Sen 2 AM


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
----
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
   I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
   I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
   I
 I        I             I             I            I        I         I
   I
-------------------------------------------------------------------------------
----
 I ARM  A I     15.00   I     45.00   I    75.00   I  3.75  I   5.63  I  3.75
   I
 I ARM  B I     15.00   I     45.00   I    75.00   I  1.25  I   1.88  I  1.25
   I
 I ARM  C I     15.00   I     45.00   I    75.00   I  2.75  I   4.13  I  2.75
   I
 I ARM  D I     15.00   I     45.00   I    75.00   I  3.13  I   4.69  I  3.13
   I

-------------------------------------------------------------------------------
----

.Demand set:        20241031 Sen 2 AM
 ------------------------------------------------------------------
 I                    I         TURNING PROPORTIONS                I
 I                    I         TURNING COUNTS                     I
 I                    I        (PERCENTAGE OF H.V.S)               I
 I                    ---------------------------------------------
 I        TIME        I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ------------------------------------------------------------------
 I   08.00 - 09.30    I         I        I        I        I        I
 I                    I ARM  A  I  0.000 I  0.033 I  0.733 I  0.233 I
 I                    I         I    0.0 I   10.0 I  220.0 I   70.0 I
 I                    I         I (  0.0)I ( 10.0)I ( 10.0)I ( 10.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  B  I  0.100 I  0.000 I  0.100 I  0.800 I
 I                    I         I   10.0 I    0.0 I   10.0 I   80.0 I
 I                    I         I ( 10.0)I (  0.0)I ( 10.0)I ( 10.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  C  I  0.682 I  0.091 I  0.000 I  0.227 I
 I                    I         I  150.0 I   20.0 I    0.0 I   50.0 I
 I                    I         I ( 10.0)I ( 10.0)I (  0.0)I ( 10.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  D  I  0.200 I  0.520 I  0.280 I  0.000 I
 I                    I         I   50.0 I  130.0 I   70.0 I    0.0 I
 I                    I         I ( 10.0)I ( 10.0)I ( 10.0)I (  0.0)I
 I                    I         I        I        I        I        I
 ------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
 DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ----------------------------------------------------------
                FOR DEMAND SET         20241031 Sen 2 AM
                AND FOR TIME PERIOD        1
.-------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
```

I 08.00-08.15							
I	B-ACD	1.25	6.27	0.200	0.00	0.25	3.5
			0.20				
I	A-B	0.13					
I	A-C	2.76					
I	A-D	0.88	8.55	0.103	0.00	0.11	1.6
			0.13				
I	D-ABC	3.14	8.46	0.371	0.00	0.58	8.2
			0.19				
I	C-ABD	0.33	10.02	0.033	0.00	0.04	0.7
			0.10				
I	C-D	0.61					
I	C-A	1.82					
I							

I 08.15-08.30							
I	B-ACD	1.50	6.05	0.248	0.25	0.32	4.7
			0.22				
I	A-B	0.15					
I	A-C	3.30					
I	A-D	1.05	8.43	0.124	0.11	0.14	2.1
			0.14				
I	D-ABC	3.75	8.19	0.458	0.58	0.82	11.8
			0.22				
I	C-ABD	0.42	10.20	0.041	0.04	0.06	0.9
			0.10				
I	C-D	0.72					
I	C-A	2.16					
I							

I 08.30-08.45							
I	B-ACD	1.84	5.74	0.319	0.32	0.46	6.6
			0.25				
I	A-B	0.18					
I	A-C	4.04					
I	A-D	1.28	8.27	0.155	0.14	0.18	2.7
			0.14				
I	D-ABC	4.59	7.80	0.588	0.82	1.36	19.0
			0.30				
I	C-ABD	0.55	10.46	0.053	0.06	0.08	1.2
			0.10				
I	C-D	0.87					
I	C-A	2.61					
I							

I 08.45-09.00							
I	B-ACD	1.84	5.74	0.320	0.46	0.46	6.9
			0.26				
I	A-B	0.18					
I	A-C	4.04					
I	A-D	1.28	8.27	0.155	0.18	0.18	2.7
			0.14				
I	D-ABC	4.59	7.80	0.588	1.36	1.39	20.7
			0.31				
I	C-ABD	0.55	10.46	0.053	0.08	0.08	1.2
			0.10				
I	C-D	0.87					
I	C-A	2.61					

I	TIME SEGMENT	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ VEHICLE)	GEOMETRIC DELAY TIME	AVERAGE DELAY (VEH.MIN/ PER ARRIVING)	I

```
                                I
 I                              I
.-------------------------------------------------------------------------------
---------------------------------

.-------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                                I
 I   B-ACD     1.50      6.05    0.248                0.46   0.34        5.2
                        0.22      I
 I   A-B       0.15
                                I
 I   A-C       3.30
                                I
 I   A-D       1.05      8.43    0.124                0.18   0.14        2.2
                        0.14      I
 I   D-ABC     3.75      8.18    0.458                1.39   0.87       13.8
                        0.23      I
 I   C-ABD     0.42     10.20    0.041                0.08   0.06        0.9
                        0.10      I
 I   C-D       0.72
                                I
 I   C-A       2.16
                                I
 I                              I
.-------------------------------------------------------------------------------
---------------------------------

.-------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                                I
 I   B-ACD     1.25      6.27    0.200                0.34   0.25        3.9
                        0.20      I
 I   A-B       0.13
                                I
 I   A-C       2.76
                                I
 I   A-D       0.88      8.55    0.103                0.14   0.12        1.8
                        0.13      I
 I   D-ABC     3.14      8.45    0.371                0.87   0.60        9.4
                        0.19      I
 I   C-ABD     0.33     10.02    0.033                0.06   0.05        0.7
                        0.10      I
 I   C-D       0.61
                                I
 I   C-A       1.82
                                I
 I                              I
.-------------------------------------------------------------------------------
---------------------------------
*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.2
   08.30           0.3
   08.45           0.5
   09.00           0.5
   09.15           0.3
   09.30           0.3
.
 QUEUE FOR STREAM    A-D
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.1
   08.30           0.1
   08.45           0.2
   09.00           0.2
   09.15           0.1
   09.30           0.1
.
 QUEUE FOR STREAM    D-ABC
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.6    *
   08.30           0.8    *
   08.45           1.4    *
   09.00           1.4    *
   09.15           0.9    *
   09.30           0.6    *
.
 QUEUE FOR STREAM    C-ABD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
```

08.15	0.0
08.30	0.1
08.45	0.1
09.00	0.1
09.15	0.1
09.30	0.0

.

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I STREAM I	TOTAL DEMAND	I	* QUEUEING * DELAY *		I * INCLUSIVE QUEUEING * DELAY *		I
I	I		I		I		I
I	I (VEH)	(VEH/H) I	(MIN)	(MIN/VEH) I	(MIN)	(MIN/VEH)	I
I B-ACD	I 137.6	I 91.8	I 30.9	I 0.22	I 30.9	I 0.22	I
I A-B	I 13.8	I 9.2	I	I	I	I	I
I A-C	I 302.8	I 201.9	I	I	I	I	I
I A-D	I 96.3	I 64.2	I 13.1	I 0.14	I 13.1	I 0.14	I
I D-ABC	I 344.1	I 229.4	I 82.9	I 0.24	I 82.9	I 0.24	I
I C-ABD	I 39.1	I 26.1	I 5.6	I 0.14	I 5.6	I 0.14	I
I C-D	I 65.9	I 43.9	I	I	I	I	I
I C-A	I 197.8	I 131.8	I	I	I	I	I
I ALL	I 1197.5	I 798.3	I 132.4	I 0.11	I 132.4	I 0.11	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

I Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	I
I 602.92	0.21	0.08	I

STREAM D-A

I Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	I
I 786.65	0.27	0.11	I

STREAM B-A

I Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM D-A	Slope For Opposing STREAM D-B	I
I 476.98	0.19	0.19	0.19	0.19	I

I	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM D-C	I
I	0.08	0.12	0.28	0.10	I

STREAM D-C

I Intercept For STREAM D-C	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM B-C	Slope For Opposing STREAM B-D	I
I 622.33	0.25	0.25	0.25	0.25	I

I	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM B-A	I
I	0.10	0.16	0.36	0.13	I

STREAM C-B

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
I 602.92	0.21	0.21	0.29	I

STREAM A-D

I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.21	0.29	0.21	I

B-D Stream From Left Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-B	I
I 476.98	0.19	0.19	0.08	0.28	I

I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	Slope For Opposing	I
I	0.12	0.12	I	

B-D Stream From Right Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-B	I
I 476.98	0.19	0.19	0.08	0.28	I

I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	Slope For Opposing	I
I	0.12	0.12	I	

D-B Stream From Left Hand Lane

I Intercept For STREAM D-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	Slope For Opposing STREAM A-D	I
I 622.33	0.25	0.25	0.10		

```
      0.36       I

-------------------------------------------------------------------------------
------------------

-------------------------------------------------------------------------------
------------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
------------------
 I                       0.16               0.16
                 I

-------------------------------------------------------------------------------
------------------


 D-B Stream From Right Hand Lane

-------------------------------------------------------------------------------
------------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------
------------------
 I     622.33           0.25               0.25                0.10
      0.36       I

-------------------------------------------------------------------------------
------------------

-------------------------------------------------------------------------------
------------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
------------------
 I                       0.16               0.16
                 I

-------------------------------------------------------------------------------
------------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
```

```
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        20241031 Sen 2 PM


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
----
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
   I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
   I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
   I
 I        I             I             I            I        I         I
   I

-------------------------------------------------------------------------------
----
 I ARM  A I     15.00   I     45.00   I    75.00   I  2.75  I   4.13  I  2.75
   I
 I ARM  B I     15.00   I     45.00   I    75.00   I  1.13  I   1.69  I  1.13
   I
 I ARM  C I     15.00   I     45.00   I    75.00   I  3.00  I   4.50  I  3.00
   I
 I ARM  D I     15.00   I     45.00   I    75.00   I  2.13  I   3.19  I  2.13
   I

-------------------------------------------------------------------------------
----

.Demand set:        20241031 Sen 2 PM
 ---------------------------------------------------------------------
 I                    I         TURNING PROPORTIONS                 I
 I                    I         TURNING COUNTS                      I
 I                    I        (PERCENTAGE OF H.V.S)                I
 I                    ----------------------------------------------
 I        TIME        I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ---------------------------------------------------------------------
 I   08.00 - 09.30    I         I        I        I        I        I
 I                    I ARM  A  I  0.000 I  0.045 I  0.636 I  0.318 I
 I                    I         I    0.0 I   10.0 I  140.0 I   70.0 I
```

```
 I                  I         I (  0.0)I ( 10.0)I ( 10.0)I ( 10.0)I
 I                  I         I        I        I        I        I
 I                  I ARM  B  I  0.111 I  0.000 I  0.111 I  0.778 I
 I                  I         I   10.0 I    0.0 I   10.0 I   70.0 I
 I                  I         I ( 10.0)I (  0.0)I ( 10.0)I ( 10.0)I
 I                  I         I        I        I        I        I
 I                  I ARM  C  I  0.625 I  0.042 I  0.000 I  0.333 I
 I                  I         I  150.0 I   10.0 I    0.0 I   80.0 I
 I                  I         I ( 10.0)I ( 10.0)I (  0.0)I ( 10.0)I
 I                  I         I        I        I        I        I
 I                  I ARM  D  I  0.353 I  0.471 I  0.176 I  0.000 I
 I                  I         I   60.0 I   80.0 I   30.0 I    0.0 I
 I                  I         I ( 10.0)I ( 10.0)I ( 10.0)I (  0.0)I
 I                  I         I        I        I        I        I
 ---------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
 DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ---------------------------------------------------------
                FOR DEMAND SET         20241031 Sen 2 PM
                AND FOR TIME PERIOD        1
.-------------------------------------------------------------------------------
---------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                                I
 I   B-ACD     1.13      6.50    0.174               0.00   0.21        3.0
                       0.19      I
 I   A-B       0.13
                                I
 I   A-C       1.76
                                I
 I   A-D       0.88      8.51    0.103               0.00   0.11        1.6
                       0.13      I
 I   D-ABC     2.13      9.03    0.236               0.00   0.31        4.4
                       0.14      I
 I   C-ABD     0.17     10.46    0.016               0.00   0.02        0.3
                       0.10      I
 I   C-D       0.99
                                I
 I   C-A       1.85
                                I
 I
                                I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                                I
 I   B-ACD     1.35      6.32    0.214               0.21   0.27        3.9
                       0.20      I
 I   A-B       0.15
                                I
 I   A-C       2.10
                                I
 I   A-D       1.05      8.38    0.125               0.11   0.14        2.1
                       0.14      I
 I   D-ABC     2.55      8.80    0.289               0.31   0.40        5.8
                       0.16      I
 I   C-ABD     0.22     10.72    0.020               0.02   0.02        0.4
                       0.10      I
 I   C-D       1.18
                                I
 I   C-A       2.20
                                I
 I
                                I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                                I
 I   B-ACD     1.65      6.07    0.272               0.27   0.37        5.3
                       0.23      I
 I   A-B       0.18
                                I
 I   A-C       2.57
                                I
 I   A-D       1.28      8.22    0.156               0.14   0.18        2.7
                       0.14      I
 I   D-ABC     3.12      8.49    0.368               0.40   0.57        8.2
                       0.19      I
 I   C-ABD     0.29     11.08    0.026               0.02   0.03        0.5
                       0.09      I
 I   C-D       1.43
                                I
 I   C-A       2.68
                                I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                                 I
 I   B-ACD     1.65      6.07    0.272               0.37   0.37        5.5
                       0.23      I
 I   A-B       0.18
                                 I
 I   A-C       2.57
                                 I
 I   A-D       1.28      8.21    0.156               0.18   0.18        2.8
                       0.14      I
 I   D-ABC     3.12      8.48    0.368               0.57   0.58        8.6
                       0.19      I
 I   C-ABD     0.29     11.08    0.026               0.03   0.03        0.5
                       0.09      I
 I   C-D       1.43
                                 I
 I   C-A       2.68
                                 I
 I
                                 I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                                 I
 I   B-ACD     1.35      6.31    0.214               0.37   0.28        4.3
                       0.20      I
 I   A-B       0.15
                                 I
 I   A-C       2.10
                                 I
 I   A-D       1.05      8.38    0.125               0.18   0.14        2.2
                       0.14      I
 I   D-ABC     2.55      8.80    0.289               0.58   0.41        6.4
                       0.16      I
 I   C-ABD     0.22     10.72    0.020               0.03   0.02        0.4
                       0.10      I
 I   C-D       1.18
                                 I
 I   C-A       2.20
                                 I
 I
                                 I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
 GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
    (VEH.MIN/      PER ARRIVING  I
 I                               (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME
SEGMENT)  TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                                 I
 I   B-ACD     1.13      6.49    0.174               0.28   0.21        3.3
                       0.19      I
 I   A-B       0.13
                                 I
 I   A-C       1.76
                                 I
 I   A-D       0.88      8.51    0.103               0.14   0.12        1.8
                       0.13      I
 I   D-ABC     2.13      9.03    0.236               0.41   0.31        4.8
                       0.15      I
 I   C-ABD     0.17     10.46    0.016               0.02   0.02        0.3
                       0.10      I
 I   C-D       0.99
                                 I
 I   C-A       1.85
                                 I
 I
                                 I
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*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 ------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
   08.15           0.2
   08.30           0.3
   08.45           0.4
   09.00           0.4
   09.15           0.3
   09.30           0.2
```

QUEUE FOR STREAM A-D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	0.1	
08.30	0.1	
08.45	0.2	
09.00	0.2	
09.15	0.1	
09.30	0.1	

QUEUE FOR STREAM D-ABC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	0.3	
08.30	0.4	
08.45	0.6	*
09.00	0.6	*
09.15	0.4	
09.30	0.3	

QUEUE FOR STREAM C-ABD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-ACD	123.9	82.6	25.3	0.20	25.3	0.20
A-B	13.8	9.2				
A-C	192.7	128.5				
A-D	96.3	64.2	13.2	0.14	13.2	0.14
D-ABC	234.0	156.0	38.3	0.16	38.3	0.16
C-ABD	20.3	13.5	2.3	0.11	2.3	0.11
C-D	107.9	71.9				
C-A	202.2	134.8				
ALL	991.0	660.7	79.1	0.08	79.1	0.08

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

JUNCTION CAPACITY CALCULATION

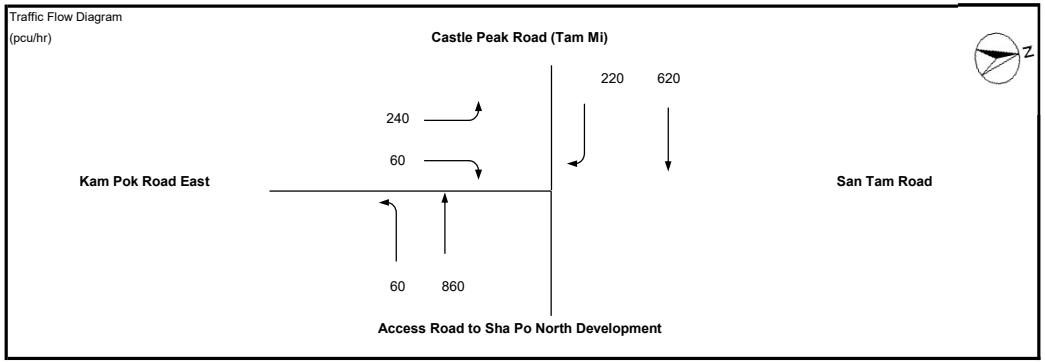
AECOM

Junction J6 - Castle Peak Road -Tam Mi / Kam Pok Road East	2034 AM Peak Hour Design Traffic Flows - Sensitivity Test (with Soy Factory)	DESIGN: MKCN	CHECK: SHSN	JOB NO: -	DATE: May 21

J6

Traffic Flow Diagram

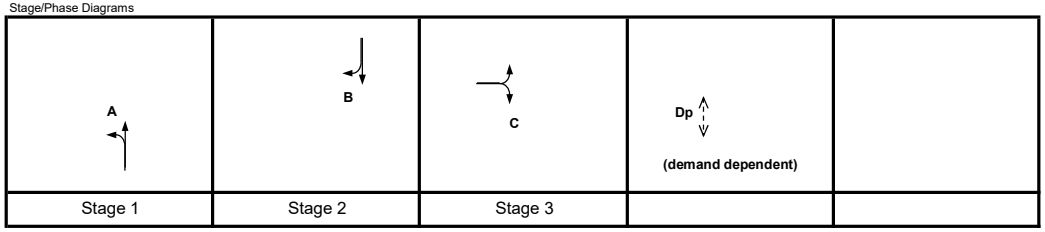
(pcu/hr)



No. of stages per cycle	N =	3	
Cycle time	C =	90	sec
Sum(y)	Y =	0.825	
Lost time	L =	13	sec
Total Flow	=	10,075	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	140	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	74	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.803	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	-2.8	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	157	sec
Y_{max}	$= 1-L/C$	=	0.856	

Stage/Phase Diagrams



Critical Case : A,B,C,Dp

R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = -7%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
↰	A	1	3.500	1	25			1		0		1965	60	770		830	7%		1957	0.424	0.424
↓	B	2	3.400	1				1		0		1955		530		530			1955	0.271	0.271
↳	B	2	3.500	1		30	0	0		0		2105			220	220		100%	2005	0.110	
↱	C	3	3.400	1	25			1		0		1955	240			240	100%		1844	0.130	0.130
↳	C	3	3.400	1		30	0	0		0		2095			60	60		100%	1995	0.030	

Pedestrian Crossing			GM		FGM					
Dp	4	min.	13	+	12	=	25	sec		

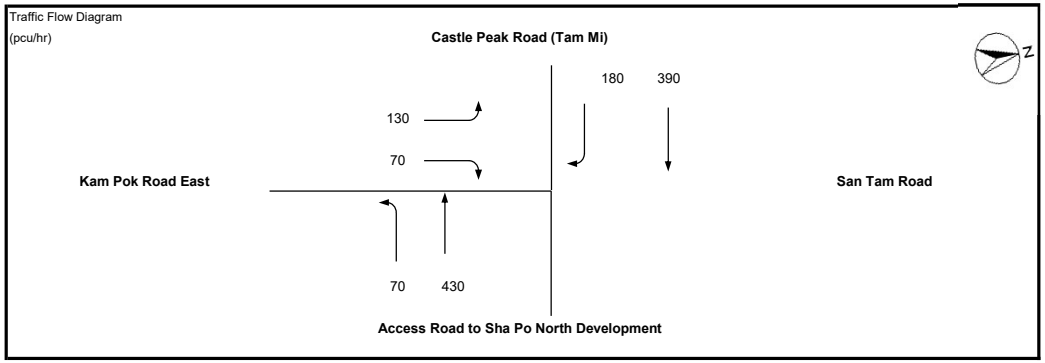
JUNCTION CAPACITY CALCULATION

AECOM

Junction J6 - Castle Peak Road -Tam Mi / Kam Pok Road East	2034 PM Peak Hour Design Traffic Flows - Sensitivity Test (with Soy Factory)	DESIGN: MKCN	CHECK: SHSN	JOB NO: -	DATE: May 21

J6

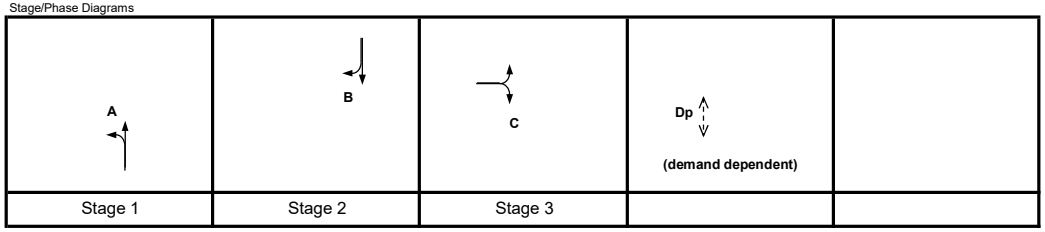
Traffic Flow Diagram
(pcu/hr)



No. of stages per cycle	N =	3	
Cycle time	C =	90	sec
Sum(y)	Y =	0.588	
Lost time	L =	13	sec
Total Flow	=	10,075	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	59	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	32	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.803	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	36.5	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	37	sec
Y_{max}	$= 1-L/C$	=	0.856	

Stage/Phase Diagrams



I/G = 6 I/G = 5 I/G = 5

Critical Case : A,B,C,Dp

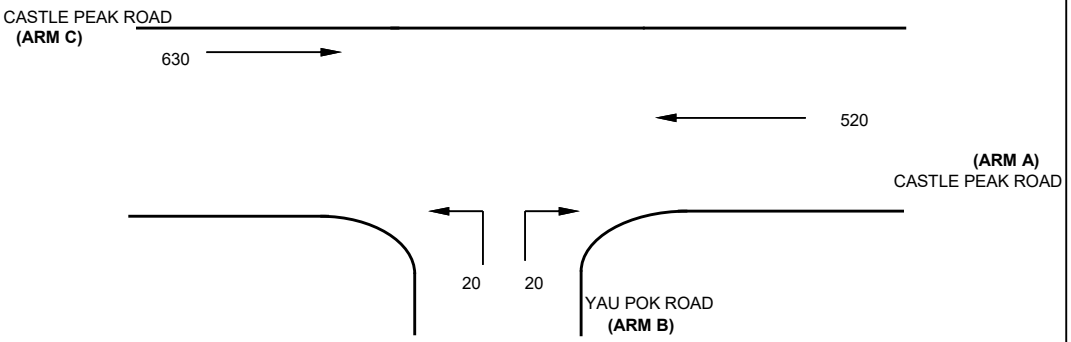
R.C.(C) = $(0.9xY_{max}-Y)/Yx100\%$ = 31%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
↑	A	1	3.500	1	25			1		0		1965	70	490		560	13%		1950	0.287	0.287
↓	B	2	3.400	1				1		0		1955		450		450			1955	0.230	0.230
↓	B	2	3.500	1		30	0	0		0		2105			180	180		100%	2005	0.090	
→	C	3	3.400	1	25			1		0		1955	130			130	100%		1844	0.070	0.070
↓	C	3	3.400	1		30	0	0		0		2095			70	70		100%	1995	0.035	

Pedestrian Crossing			GM		FGM				
	Dp	4	min.	13	+	12	=	25	sec

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J7 - Castle Peak Road / Yau Pok Road	2034 AM Design Flow (Sensitivity Test II)	Designed By :	Checked By :	Job No. :	Date : Jan 00



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.5	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	520	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0	(metres)
Vr c-b	=	25	(metres)
q c-a	=	630	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	1.8	(metres)
W b-c	=	1.8	(metres)
Vl b-a	=	25	(metres)
Vr b-a	=	25	(metres)
Vr b-c	=	25	(metres)
q b-a	=	20	(pcu/hr)
q b-c	=	20	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.698808
E	=	0.755468
F	=	0.600735
Y	=	0.775750

THE CAPACITY OF MOVEMENT :

Q b-a	=	257
Q b-c	=	452
Q c-b	=	359
Q b-ac	=	328

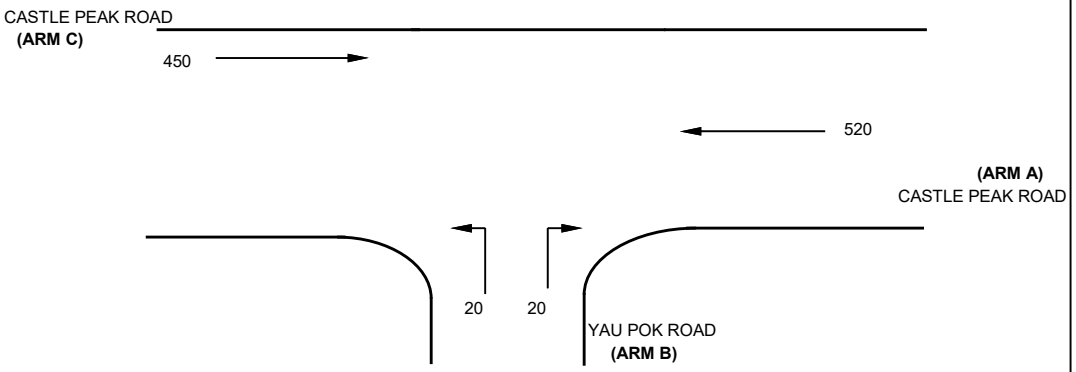
CRITICAL DFC = 0.08

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.08
DFC b-c	=	0.04
DFC c-b	=	0.00

PRIORITY JUNCTION CAPACITY CALCULATION

Junction J7 - Castle Peak Road / Yau Pok Road	2034 PM Design Flow (Sensitivity Test II)	Designed By :	Checked By :	Job No. :	Date : Jan 00



NOTES : (GEOMETRIC INPUT DATA)

W	= Major Road Width (6.4 - 20.0)
W cr	= Central Reserve width (1.2 - 9.0, kerbed central reserve only)
W b-a	= Lane width available to vehicle waiting in stream b-a (2.05 - 4.07)
W b-c	= Lane width available to vehicle waiting in stream b-c (2.05 - 4.07)
W c-b	= Lane width available to vehicle waiting in stream c-b (2.05 - 4.07)
Vl b-a	= Visibility to the left for vehicles waiting in stream b-a (22.0 - 250.0)
Vr b-a	= Visibility to the right for vehicles waiting in stream b-a (17.0 - 250.0)
Vr b-c	= Visibilitu to the right for vehicles waiting in stream b-c (17.0 - 250.0)
Vr c-b	= Visibility to the right for vehicles waiting in stream c-b (17.0 - 250.0)
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	=	6.5	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	520	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0	(metres)
Vr c-b	=	25	(metres)
q c-a	=	450	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	1.8	(metres)
W b-c	=	1.8	(metres)
Vl b-a	=	25	(metres)
Vr b-a	=	25	(metres)
Vr b-c	=	25	(metres)
q b-a	=	20	(pcu/hr)
q b-c	=	20	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.698808
E	=	0.755468
F	=	0.600735
Y	=	0.775750

THE CAPACITY OF MOVEMENT :

Q b-a	=	280
Q b-c	=	452
Q c-b	=	359
Q b-ac	=	346

CRITICAL DFC = 0.07

COMPARISION OF DESIGN FLOW TO CAPACITY :

DFC b-a	=	0.07
DFC b-c	=	0.04
DFC c-b	=	0.00

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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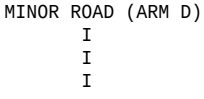
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(drive-on-the-left) at 15:16:35 on Wednesday, 16 October 2024

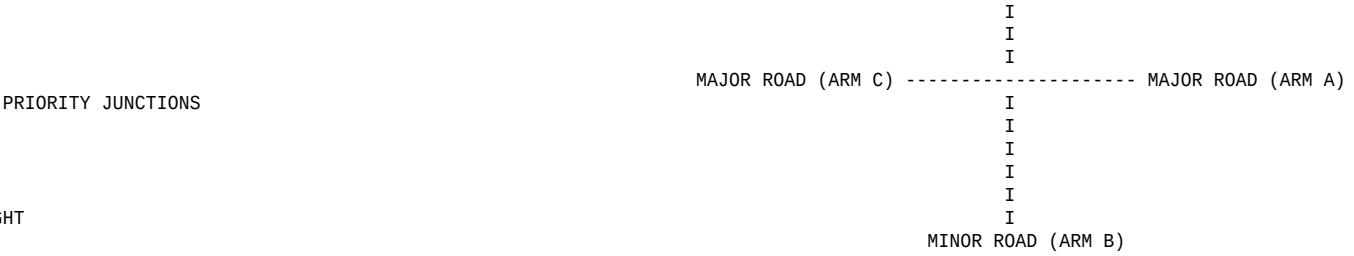
.RUN INFORMATION

RUN TITLE : J8 - Yau Pok Road / REC North Access
LOCATION : Fairview
DATE : 02/09/24
CLIENT : SHK
ENUMERATOR : sam.wong [HKSHT1PC0702]
JOB NUMBER :
STATUS :
DESCRIPTION :

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA





ARM A IS Yau Pok Road exit
ARM B IS Vehicular Bridge
ARM C IS Yau Pok Road entry
ARM D IS REC North

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
MINOR ROAD D	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH (W)	6.00 M.
(W) 6.00 M.	
CENTRAL RESERVE WIDTH (WCR)	0.00 M.
(WCR) 0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH (WA-D)	2.20 M.
(WA-D) 2.20 M.	
- VISIBILITY (VA-D)	50.00 M.
(VA-D) 50.00 M.	
- BLOCKS TRAFFIC (SPACES)	YES (0)
NO (0)	
MINOR ROAD - VISIBILITY TO LEFT (VD-A)	50.0 M.
(VD-A) 50.0 M.	
- VISIBILITY TO RIGHT (VD-C)	50.0 M.
(VD-C) 50.0 M.	
- WIDTH (WC-B)	2.20 M.
(WC-B) 2.20 M.	
- VISIBILITY (VC-B)	50.00 M.
(VC-B) 50.00 M.	
- BLOCKS TRAFFIC (SPACES)	YES (0)
NO (0)	
MINOR ROAD - VISIBILITY TO LEFT (VB-C)	50.0 M.
(VB-C) 50.0 M.	
- VISIBILITY TO RIGHT (VB-A)	50.0 M.
(VB-A) 50.0 M.	

```
 I            - LANE 1 WIDTH                                    I (WB-C)  3.50 M.
 I (WD-A)  3.50 M.   I
 I            - LANE 2 WIDTH                                    I (WB-A)  0.00 M.
 I (WD-C)  0.00 M.   I

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 .SLOPES AND INTERCEPT
  --------------------
  (NB:Streams may be combined, in which case capacity will be adjusted)

 STREAM   B-C
 ------------------------------------------------------------
 I Intercept For Slope For Opposing   Slope For Opposing I
 I STREAM B-C     STREAM  A-C          STREAM A-B        I
 ------------------------------------------------------------
 I     688.22           0.27               0.11        I
 ------------------------------------------------------------


 STREAM   D-A
 ------------------------------------------------------------
 I Intercept For Slope For Opposing   Slope For Opposing I
 I STREAM D-A     STREAM  C-A          STREAM C-D        I
 ------------------------------------------------------------
 I     688.22           0.27               0.11        I
 ------------------------------------------------------------


 STREAM   B-A

--------------------------------------------------------------------------------
--------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-A     STREAM  A-C          STREAM A-D          STREAM  D-A
STREAM  D-B       I

--------------------------------------------------------------------------------
--------------
 I     544.46           0.25               0.25                0.25
  0.25       I

--------------------------------------------------------------------------------
--------------


--------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-B          STREAM C-A          STREAM  C-B
STREAM  D-C       I

--------------------------------------------------------------------------------
--------------
 I                      0.10               0.16                0.36
  0.13       I

--------------------------------------------------------------------------------
--------------


 STREAM   D-C

--------------------------------------------------------------------------------
--------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM D-C     STREAM  C-A          STREAM C-B          STREAM  B-C
STREAM  B-D       I

--------------------------------------------------------------------------------
--------------
 I     544.46           0.25               0.25                0.25
  0.25       I

--------------------------------------------------------------------------------
--------------


--------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  C-D          STREAM A-C          STREAM  A-D
STREAM  B-A       I

--------------------------------------------------------------------------------
--------------
 I                      0.10               0.16                0.36
  0.13       I

--------------------------------------------------------------------------------
--------------


 STREAM   C-B
 ------------------------------------------------------------------------------
```

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
I 602.92	0.23	0.23	0.33	I

STREAM A-D				
I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.23	0.33	0.23	I

B-D Stream From Left Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM C-B	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing I
I 544.46	0.25	0.25	0.10	0.36 I

I	Slope For Opposing STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	Slope For Opposing I
I	0.16	0.16	I	

B-D Stream From Right Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing I
I 544.46	0.25	0.25	0.10	0.36 I

I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	Slope For Opposing I
I	0.16	0.16	I

D-B Stream From Left Hand Lane

I Intercept For STREAM D-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	Slope For Opposing I
I 544.46	0.25	0.25	0.10	0.36 I

I	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing I

```
-------------------------------------------------------------------------------
--------------
 I                       0.16               0.16
            I

-------------------------------------------------------------------------------
--------------


 D-B Stream From Right Hand Lane

-------------------------------------------------------------------------------
--------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------
--------------
 I     544.46            0.25               0.25                 0.10
  0.36       I

-------------------------------------------------------------------------------
--------------

-------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
--------------
 I                       0.16               0.16
            I

-------------------------------------------------------------------------------
--------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------
```

```
.Demand set:        1016 Sen 2 AM


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
I
 I        I             I             I            I        I         I
I

-------------------------------------------------------------------------------
 I ARM  A I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
I
 I ARM  B I     15.00   I     45.00   I    75.00   I  1.13  I   1.69  I  1.13
I
 I ARM  C I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
I
 I ARM  D I     15.00   I     45.00   I    75.00   I  1.38  I   2.06  I  1.38
I

-------------------------------------------------------------------------------

.Demand set:        1016 Sen 2 AM
 ---------------------------------------------------------------------
 I                    I         TURNING PROPORTIONS                  I
 I                    I         TURNING COUNTS                       I
 I                    I        (PERCENTAGE OF H.V.S)                 I
 I                    ----------------------------------------------
 I        TIME        I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ---------------------------------------------------------------------
 I   08.00 - 09.30    I         I        I        I        I        I
 I                    I ARM  A  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  B  I  0.222 I  0.000 I  0.000 I  0.778 I
 I                    I         I   20.0 I    0.0 I    0.0 I   70.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
```

```
 I                   I         I        I        I        I        I
 I                   I ARM  C  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I        I        I        I        I
 I                   I ARM  D  I  0.000 I  1.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I  110.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I        I        I        I        I
 ---------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ---------------------------------------------------------
                FOR DEMAND SET         1016 Sen 2 AM
                AND FOR TIME PERIOD        1
.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                              I
 I   B-ACD     1.13      9.00    0.126               0.00   0.14        2.1
                  0.13      I
 I   A-B       0.00
                              I
 I   A-C       0.00
                              I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                  0.00      I
 I   D-ABC     1.38      9.07    0.152               0.00   0.18        2.6
                  0.13      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                  0.00      I
 I   C-D       0.00
                              I
 I   C-A       0.00
                              I
 I
                              I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                              I
 I   B-ACD     1.35      8.98    0.150               0.14   0.18        2.6
                  0.13      I
 I   A-B       0.00
                              I
 I   A-C       0.00
                              I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                  0.00      I
 I   D-ABC     1.65      9.07    0.182               0.18   0.22        3.2
                  0.13      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                  0.00      I
 I   C-D       0.00
                              I
 I   C-A       0.00
                              I
 I
                              I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                              I
 I   B-ACD     1.65      8.96    0.184               0.18   0.22        3.3
                  0.14      I
 I   A-B       0.00
                              I
 I   A-C       0.00
                              I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                  0.00      I
 I   D-ABC     2.02      9.07    0.222               0.22   0.28        4.1
                  0.14      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                  0.00      I
 I   C-D       0.00
                              I
```

```
 I   C-A       0.00
                           I
 I                         I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I        (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                            (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                           I
 I   B-ACD     1.65      8.96    0.184               0.22   0.22        3.4
                 0.14      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     2.02      9.07    0.222               0.28   0.28        4.3
                 0.14      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I                         I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I        (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                            (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                           I
 I   B-ACD     1.35      8.98    0.150               0.22   0.18        2.7
                 0.13      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     1.65      9.07    0.182               0.28   0.22        3.4
                 0.13      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I                         I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I        (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                            (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                           I
 I   B-ACD     1.13      8.99    0.126               0.18   0.14        2.2
                 0.13      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     1.38      9.07    0.152               0.22   0.18        2.8
                 0.13      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I                         I
.-------------------------------------------------------------------------------
------------------------------
*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
```

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.2
08.45	0.2
09.00	0.2
09.15	0.2
09.30	0.1

.

QUEUE FOR STREAM A-D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

.

QUEUE FOR STREAM D-ABC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.2
08.30	0.2
08.45	0.3
09.00	0.3
09.15	0.2
09.30	0.2

.

QUEUE FOR STREAM C-ABD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

.

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY (MIN)	* QUEUEING * DELAY (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY (MIN)	* INCLUSIVE QUEUEING * DELAY (MIN/VEH)
B-ACD	123.9	82.6	16.2	0.13	16.2	0.13
A-B	0.0	0.0				
A-C	0.0	0.0				
A-D	0.0	0.0	0.0	0.00	0.0	0.00
D-ABC	151.4	100.9	20.4	0.13	20.4	0.13
C-ABD	0.0	0.0	0.0	0.00	0.0	0.00
C-D	0.0	0.0				
C-A	0.0	0.0				
ALL	275.3	183.5	36.6	0.13	36.6	0.13

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
688.22	0.27	0.11

STREAM D-A

Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D
688.22	0.27	0.11

STREAM B-A

```
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-A     STREAM  A-C          STREAM A-D          STREAM  D-A
STREAM  D-B       I
-------------------------------------------------------------------------------
--------------
 I     544.46            0.25               0.25                0.25
  0.25       I
-------------------------------------------------------------------------------
--------------


-------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-B          STREAM C-A          STREAM  C-B
STREAM  D-C       I
-------------------------------------------------------------------------------
--------------
 I                        0.10               0.16                0.36
  0.13       I
-------------------------------------------------------------------------------
--------------


 STREAM   D-C

-------------------------------------------------------------------------------
--------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM D-C     STREAM  C-A          STREAM C-B          STREAM  B-C
STREAM  B-D       I
-------------------------------------------------------------------------------
--------------
 I     544.46            0.25               0.25                0.25
  0.25       I
-------------------------------------------------------------------------------
--------------


-------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  C-D          STREAM A-C          STREAM  A-D
STREAM  B-A       I
-------------------------------------------------------------------------------
--------------
 I                        0.10               0.16                0.36
  0.13       I
-------------------------------------------------------------------------------
--------------


 STREAM   C-B
 -------------------------------------------------------------------------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For OpposingI
 I STREAM C-B     STREAM A-B          STREAM  A-C          STREAM A-D        I
 -------------------------------------------------------------------------------
 I     602.92            0.23               0.23               0.33        I
 -------------------------------------------------------------------------------


 STREAM   A-D
 -------------------------------------------------------------------------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For OpposingI
 I STREAM A-D     STREAM C-A          STREAM  C-B          STREAM C-D        I
 -------------------------------------------------------------------------------
 I     602.92            0.23               0.33               0.23        I
 -------------------------------------------------------------------------------


 B-D Stream From Left Hand Lane

-------------------------------------------------------------------------------
--------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  A-C          STREAM A-D          STREAM  A-B
STREAM  C-B       I
-------------------------------------------------------------------------------
--------------
 I     544.46            0.25               0.25                0.10
  0.36       I
-------------------------------------------------------------------------------
--------------


-------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
```

Slope For OpposingI
 I   STREAM C-A   STREAM C-D

 I   0.16   0.16
             I

 B-D Stream From Right Hand Lane

 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D   STREAM A-C   STREAM A-D   STREAM A-B
STREAM C-B   I

 I   544.46   0.25   0.25   0.10
  0.36   I

 I   Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I   STREAM C-A   STREAM C-D

 I   0.16   0.16
             I

 D-B Stream From Left Hand Lane

 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM D-B   STREAM C-A   STREAM C-B   STREAM C-D
STREAM A-D   I

 I   544.46   0.25   0.25   0.10
  0.36   I

 I   Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I   STREAM A-C   STREAM A-B

 I   0.16   0.16
             I

 D-B Stream From Right Hand Lane

 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D   STREAM C-A   STREAM C-B   STREAM C-D
STREAM A-D   I

 I   544.46   0.25   0.25   0.10
  0.36   I

 I   Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I   STREAM A-C   STREAM A-B

 I   0.16   0.16

```
            I
--------------------------------------------------------------------------------
--------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------

.Demand set:        1016 Sen 2 PM


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


--------------------------------------------------------------------------------
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
I
 I        I            I            I           I        I        I
I

--------------------------------------------------------------------------------
 I ARM  A I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
I
 I ARM  B I     15.00   I     45.00   I    75.00   I  1.00  I   1.50  I  1.00
I
 I ARM  C I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
I
 I ARM  D I     15.00   I     45.00   I    75.00   I  0.63  I   0.94  I  0.63
I

--------------------------------------------------------------------------------

.Demand set:        1016 Sen 2 PM
```

```
 ------------------------------------------------------------------
 I                   I        TURNING PROPORTIONS                 I
 I                   I        TURNING COUNTS                      I
 I                   I       (PERCENTAGE OF H.V.S)                I
 I                   ----------------------------------------------
 I       TIME        I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ------------------------------------------------------------------
 I   08.00 - 09.30   I         I       I       I       I       I
 I                   I ARM  A  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I       I       I       I       I
 I                   I ARM  B  I  0.250 I  0.000 I  0.000 I  0.750 I
 I                   I         I   20.0 I    0.0 I    0.0 I   60.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I       I       I       I       I
 I                   I ARM  C  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I       I       I       I       I
 I                   I ARM  D  I  0.000 I  1.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I   50.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I       I       I       I       I
 ------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ---------------------------------------------------------
                FOR DEMAND SET         1016 Sen 2 PM
                AND FOR TIME PERIOD        1
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-------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                              (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                                I
 I   B-ACD     1.00      9.03    0.111               0.00   0.12        1.8
                   0.12      I
 I   A-B       0.00
                                I
 I   A-C       0.00
                                I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                   0.00      I
 I   D-ABC     0.63      9.07    0.069               0.00   0.07        1.1
                   0.12      I
```

```
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I                         I
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------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                           I
 I   B-ACD     1.20      9.03    0.133               0.12   0.15        2.2
                 0.13      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.75      9.07    0.083               0.07   0.09        1.3
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I                         I
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------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                           I
 I   B-ACD     1.47      9.02    0.163               0.15   0.19        2.8
                 0.13      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.92      9.07    0.101               0.09   0.11        1.6
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I                         I
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------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                           I
 I   B-ACD     1.47      9.02    0.163               0.19   0.19        2.9
                 0.13      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.92      9.07    0.101               0.11   0.11        1.7
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I                         I
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------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                              I
 I   B-ACD     1.20      9.03    0.133               0.19   0.15        2.4
                 0.13      I
 I   A-B       0.00
                              I
 I   A-C       0.00
                              I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.75      9.07    0.083               0.11   0.09        1.4
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                              I
 I   C-A       0.00
                              I
 I
                              I
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------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                              I
 I   B-ACD     1.00      9.03    0.111               0.15   0.13        1.9
                 0.12      I
 I   A-B       0.00
                              I
 I   A-C       0.00
                              I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.63      9.07    0.069               0.09   0.07        1.1
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                              I
 I   C-A       0.00
                              I
 I
                              I
.-------------------------------------------------------------------------------
------------------------------
*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
    08.15          0.1
    08.30          0.2
    08.45          0.2
    09.00          0.2
    09.15          0.2
    09.30          0.1
.
 QUEUE FOR STREAM    A-D
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
    08.15          0.0
    08.30          0.0
    08.45          0.0
    09.00          0.0
    09.15          0.0
    09.30          0.0
.
 QUEUE FOR STREAM    D-ABC
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
    08.15          0.1
    08.30          0.1
    08.45          0.1
    09.00          0.1
    09.15          0.1
    09.30          0.1
.
 QUEUE FOR STREAM    C-ABD
```

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

.

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-ACD	110.1	73.4	14.0	0.13	14.0	0.13
A-B	0.0	0.0				
A-C	0.0	0.0				
A-D	0.0	0.0	0.0	0.00	0.0	0.00
D-ABC	68.8	45.9	8.2	0.12	8.2	0.12
C-ABD	0.0	0.0	0.0	0.00	0.0	0.00
C-D	0.0	0.0				
C-A	0.0	0.0				
ALL	178.9	119.3	22.3	0.12	22.3	0.12

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

TRL LIMITED

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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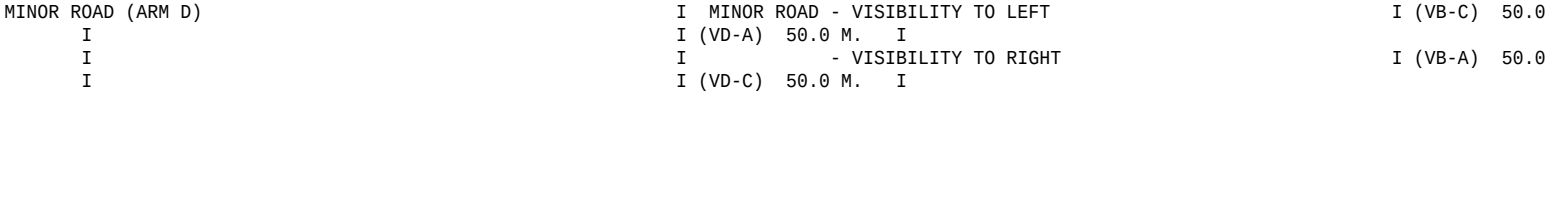
Run with file:- "T:\Anthony Sun\J9 Soy RD\1016 Soy RD Sen 2.vpi"
(drive-on-the-left) at 15:21:14 on Wednesday, 16 October 2024

.RUN INFORMATION

RUN TITLE : J9 - Yau Pok Road / REC South Access
LOCATION : Fairview
DATE : 02/09/24
CLIENT : SHK
ENUMERATOR : sam.wong [HKSHT1PC0702]
JOB NUMBER :
STATUS :
DESCRIPTION :

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS Yau Pok Road exit
ARM B IS Vehicular Bridge
ARM C IS Yau Pok Road entry
ARM D IS REC South

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
MINOR ROAD D	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH (W)	6.00 M.
(W) 6.00 M.	
CENTRAL RESERVE WIDTH (WCR)	0.00 M.
(WCR) 0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH (WA-D)	2.20 M.
(WA-D) 2.20 M.	
- VISIBILITY (VA-D)	50.00 M.
(VA-D) 50.00 M.	
- BLOCKS TRAFFIC (SPACES)	YES (0)
NO (0)	
MINOR ROAD - VISIBILITY TO LEFT (VD-A)	50.0 M.
(VD-A) 50.0 M.	
- VISIBILITY TO RIGHT (VD-C)	50.0 M.
(VD-C) 50.0 M.	
- WIDTH (WC-B)	2.20 M.
(WC-B) 2.20 M.	
- VISIBILITY (VC-B)	50.00 M.
(VC-B) 50.00 M.	
- BLOCKS TRAFFIC (SPACES)	YES (0)
NO (0)	
MINOR ROAD - VISIBILITY TO LEFT (VB-C)	50.0 M.
(VB-C) 50.0 M.	
- VISIBILITY TO RIGHT (VB-A)	50.0 M.
(VB-A) 50.0 M.	

```
 I            - LANE 1 WIDTH                                    I (WB-C)  3.50 M.
 I (WD-A)  3.50 M.   I
 I            - LANE 2 WIDTH                                    I (WB-A)  0.00 M.
 I (WD-C)  0.00 M.   I

--------------------------------------------------------------------------------
----------------------


 .SLOPES AND INTERCEPT
  --------------------
  (NB:Streams may be combined, in which case capacity will be adjusted)

 STREAM   B-C
 ------------------------------------------------------------
 I Intercept For Slope For Opposing   Slope For Opposing I
 I STREAM B-C     STREAM  A-C          STREAM A-B        I
 ------------------------------------------------------------
 I     688.22           0.27               0.11        I
 ------------------------------------------------------------


 STREAM   D-A
 ------------------------------------------------------------
 I Intercept For Slope For Opposing   Slope For Opposing I
 I STREAM D-A     STREAM  C-A          STREAM C-D        I
 ------------------------------------------------------------
 I     688.22           0.27               0.11        I
 ------------------------------------------------------------


 STREAM   B-A

--------------------------------------------------------------------------------
--------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-A     STREAM  A-C          STREAM A-D          STREAM  D-A
STREAM  D-B       I

--------------------------------------------------------------------------------
--------------
 I     544.46           0.25               0.25                0.25
  0.25       I

--------------------------------------------------------------------------------
--------------


--------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-B          STREAM C-A          STREAM  C-B
STREAM  D-C       I

--------------------------------------------------------------------------------
--------------
 I                      0.10               0.16                0.36
  0.13       I

--------------------------------------------------------------------------------
--------------


 STREAM   D-C

--------------------------------------------------------------------------------
--------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM D-C     STREAM  C-A          STREAM C-B          STREAM  B-C
STREAM  B-D       I

--------------------------------------------------------------------------------
--------------
 I     544.46           0.25               0.25                0.25
  0.25       I

--------------------------------------------------------------------------------
--------------


--------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  C-D          STREAM A-C          STREAM  A-D
STREAM  B-A       I

--------------------------------------------------------------------------------
--------------
 I                      0.10               0.16                0.36
  0.13       I

--------------------------------------------------------------------------------
--------------


 STREAM   C-B
 ------------------------------------------------------------------------------
```

I Intercept For STREAM C-B	Slope For Opposing STREAM A-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	I
I 602.92	0.23	0.23	0.33	I

STREAM A-D				
I Intercept For STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	I
I 602.92	0.23	0.33	0.23	I

B-D Stream From Left Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM C-B	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing I
I 544.46	0.25	0.25	0.10	0.36 I

I	Slope For Opposing STREAM A-D	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	Slope For Opposing I
I	0.16	0.16	I	

B-D Stream From Right Hand Lane

I Intercept For STREAM B-D	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-D	Slope For Opposing STREAM A-B	Slope For Opposing I
I 544.46	0.25	0.25	0.10	0.36 I

I	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D	Slope For Opposing I
I	0.16	0.16	I

D-B Stream From Left Hand Lane

I Intercept For STREAM D-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B	Slope For Opposing STREAM C-D	Slope For Opposing I
I 544.46	0.25	0.25	0.10	0.36 I

I	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing I

```
-------------------------------------------------------------------------------
--------------
 I                       0.16               0.16
            I

-------------------------------------------------------------------------------
--------------


 D-B Stream From Right Hand Lane

-------------------------------------------------------------------------------
--------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  C-A          STREAM C-B          STREAM  C-D
STREAM  A-D       I

-------------------------------------------------------------------------------
--------------
 I     544.46            0.25               0.25                 0.10
  0.36       I

-------------------------------------------------------------------------------
--------------

-------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-C          STREAM A-B

-------------------------------------------------------------------------------
--------------
 I                       0.16               0.16
            I

-------------------------------------------------------------------------------
--------------


.TRAFFIC DEMAND DATA
 -------------------
 ----------------------
 I ARM I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 I D   I      100      I
 ----------------------
```

```
.Demand set:        1016 Sen 2 AM


 TIME PERIOD BEGINS 08.00 AND ENDS  09.30

 LENGTH OF TIME PERIOD  -   90 MIN.
 LENGTH OF TIME SEGMENT -   15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA


-------------------------------------------------------------------------------
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN)
I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER
I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK
I
 I        I             I             I            I        I         I
I

-------------------------------------------------------------------------------
 I ARM  A I     15.00   I     45.00   I    75.00   I  0.00  I   0.00  I  0.00
I
 I ARM  B I     15.00   I     45.00   I    75.00   I  1.25  I   1.88  I  1.25
I
 I ARM  C I     15.00   I     45.00   I    75.00   I  0.13  I   0.19  I  0.13
I
 I ARM  D I     15.00   I     45.00   I    75.00   I  1.75  I   2.63  I  1.75
I

-------------------------------------------------------------------------------

.Demand set:        1016 Sen 2 AM
 ---------------------------------------------------------------------
 I                    I         TURNING PROPORTIONS                  I
 I                    I         TURNING COUNTS                       I
 I                    I        (PERCENTAGE OF H.V.S)                 I
 I                    ----------------------------------------------
 I        TIME        I FROM/TO I ARM  A I ARM  B I ARM  C I ARM  D I
 ---------------------------------------------------------------------
 I   08.00 - 09.30    I         I        I        I        I        I
 I                    I ARM  A  I  0.000 I  0.000 I  0.000 I  0.000 I
 I                    I         I    0.0 I    0.0 I    0.0 I    0.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                    I         I        I        I        I        I
 I                    I ARM  B  I  0.000 I  0.000 I  0.000 I  1.000 I
 I                    I         I    0.0 I    0.0 I    0.0 I  100.0 I
 I                    I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
```

```
 I                   I         I        I        I        I        I
 I                   I ARM  C  I  0.000 I  1.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I   10.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I        I        I        I        I
 I                   I ARM  D  I  0.000 I  1.000 I  0.000 I  0.000 I
 I                   I         I    0.0 I  140.0 I    0.0 I    0.0 I
 I                   I         I (  0.0)I (  0.0)I (  0.0)I (  0.0)I
 I                   I         I        I        I        I        I
 ---------------------------------------------------------------------
 TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

.              QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT
               ---------------------------------------------------------
                FOR DEMAND SET         1016 Sen 2 AM
                AND FOR TIME PERIOD        1
.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.00-08.15
                              I
 I   B-ACD     1.25      9.03    0.139               0.00   0.16        2.3
                 0.13      I
 I   A-B       0.00
                              I
 I   A-C       0.00
                              I
 I   A-D       0.00      9.10    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     1.76      9.04    0.194               0.00   0.24        3.4
                 0.14      I
 I   C-ABD     0.13     10.05    0.012               0.00   0.01        0.2
                 0.10      I
 I   C-D       0.00
                              I
 I   C-A       0.00
                              I
 I
                              I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                              I
 I   B-ACD     1.50      9.02    0.166               0.16   0.20        2.9
                 0.13      I
 I   A-B       0.00
                              I
 I   A-C       0.00
                              I
 I   A-D       0.00      9.09    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     2.10      9.04    0.232               0.24   0.30        4.4
                 0.14      I
 I   C-ABD     0.15     10.05    0.015               0.01   0.02        0.2
                 0.10      I
 I   C-D       0.00
                              I
 I   C-A       0.00
                              I
 I
                              I
.-------------------------------------------------------------------------------
------------------------------

.-------------------------------------------------------------------------------
------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                              I
 I   B-ACD     1.84      9.01    0.204               0.20   0.25        3.7
                 0.14      I
 I   A-B       0.00
                              I
 I   A-C       0.00
                              I
 I   A-D       0.00      9.08    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     2.57      9.03    0.285               0.30   0.39        5.7
                 0.15      I
 I   C-ABD     0.18     10.05    0.018               0.02   0.02        0.3
                 0.10      I
 I   C-D       0.00
                              I
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 I   C-A       0.00
                           I
 I                         I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I        (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                            (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                           I
 I   B-ACD     1.84      9.01    0.204               0.25   0.25        3.8
                 0.14      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.08    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     2.57      9.03    0.285               0.39   0.39        5.9
                 0.15      I
 I   C-ABD     0.18     10.05    0.018               0.02   0.02        0.3
                 0.10      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I                         I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I        (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                            (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                           I
 I   B-ACD     1.50      9.02    0.166               0.25   0.20        3.1
                 0.13      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.09    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     2.10      9.04    0.232               0.39   0.31        4.7
                 0.14      I
 I   C-ABD     0.15     10.05    0.015               0.02   0.02        0.2
                 0.10      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I                         I
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------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I        (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                            (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                           I
 I   B-ACD     1.25      9.03    0.139               0.20   0.16        2.5
                 0.13      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.10    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     1.76      9.04    0.194               0.31   0.24        3.7
                 0.14      I
 I   C-ABD     0.13     10.05    0.012               0.02   0.01        0.2
                 0.10      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I                         I
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*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
```

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.2
08.30	0.2
08.45	0.3
09.00	0.3
09.15	0.2
09.30	0.2

QUEUE FOR STREAM A-D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

QUEUE FOR STREAM D-ABC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.2
08.30	0.3
08.45	0.4
09.00	0.4
09.15	0.3
09.30	0.2

QUEUE FOR STREAM C-ABD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY (MIN)	* QUEUEING * DELAY (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY (MIN)	* INCLUSIVE QUEUEING * DELAY (MIN/VEH)
B-ACD	137.6	91.8	18.3	0.13	18.3	0.13
A-B	0.0	0.0				
A-C	0.0	0.0				
A-D	0.0	0.0	0.0	0.00	0.0	0.00
D-ABC	192.7	128.5	27.9	0.14	27.9	0.14
C-ABD	13.8	9.2	1.4	0.10	1.4	0.10
C-D	0.0	0.0				
C-A	0.0	0.0				
ALL	344.1	229.4	47.6	0.14	47.6	0.14

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

STREAM B-C

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
688.22	0.27	0.11

STREAM D-A

Intercept For STREAM D-A	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-D
688.22	0.27	0.11

STREAM B-A

```
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-A     STREAM  A-C          STREAM A-D          STREAM  D-A
STREAM  D-B       I
-------------------------------------------------------------------------------
--------------
 I     544.46            0.25               0.25                0.25
  0.25       I
-------------------------------------------------------------------------------
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-------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  A-B          STREAM C-A          STREAM  C-B
STREAM  D-C       I
-------------------------------------------------------------------------------
--------------
 I                        0.10               0.16                0.36
  0.13       I
-------------------------------------------------------------------------------
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 STREAM   D-C

-------------------------------------------------------------------------------
--------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM D-C     STREAM  C-A          STREAM C-B          STREAM  B-C
STREAM  B-D       I
-------------------------------------------------------------------------------
--------------
 I     544.46            0.25               0.25                0.25
  0.25       I
-------------------------------------------------------------------------------
--------------


-------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I                STREAM  C-D          STREAM A-C          STREAM  A-D
STREAM  B-A       I
-------------------------------------------------------------------------------
--------------
 I                        0.10               0.16                0.36
  0.13       I
-------------------------------------------------------------------------------
--------------


 STREAM   C-B
 -------------------------------------------------------------------------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For OpposingI
 I STREAM C-B     STREAM A-B          STREAM  A-C          STREAM A-D        I
 -------------------------------------------------------------------------------
 I     602.92            0.23               0.23               0.33        I
 -------------------------------------------------------------------------------


 STREAM   A-D
 -------------------------------------------------------------------------------
 I Intercept For Slope For Opposing   Slope For Opposing   Slope For OpposingI
 I STREAM A-D     STREAM C-A          STREAM  C-B          STREAM C-D        I
 -------------------------------------------------------------------------------
 I     602.92            0.23               0.33               0.23        I
 -------------------------------------------------------------------------------


 B-D Stream From Left Hand Lane

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 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D     STREAM  A-C          STREAM A-D          STREAM  A-B
STREAM  C-B       I
-------------------------------------------------------------------------------
--------------
 I     544.46            0.25               0.25                0.10
  0.36       I
-------------------------------------------------------------------------------
--------------


-------------------------------------------------------------------------------
--------------
 I               Slope For Opposing   Slope For Opposing   Slope For Opposing
```

Slope For OpposingI
 I   STREAM C-A   STREAM C-D

 I   0.16   0.16
             I

 B-D Stream From Right Hand Lane

 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D   STREAM A-C   STREAM A-D   STREAM A-B
STREAM C-B   I

 I   544.46   0.25   0.25   0.10
  0.36   I

 I   Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I   STREAM C-A   STREAM C-D

 I   0.16   0.16
             I

 D-B Stream From Left Hand Lane

 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM D-B   STREAM C-A   STREAM C-B   STREAM C-D
STREAM A-D   I

 I   544.46   0.25   0.25   0.10
  0.36   I

 I   Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I   STREAM A-C   STREAM A-B

 I   0.16   0.16
             I

 D-B Stream From Right Hand Lane

 I Intercept For Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I STREAM B-D   STREAM C-A   STREAM C-B   STREAM C-D
STREAM A-D   I

 I   544.46   0.25   0.25   0.10
  0.36   I

 I   Slope For Opposing   Slope For Opposing   Slope For Opposing
Slope For OpposingI
 I   STREAM A-C   STREAM A-B

 I   0.16   0.16

I

.TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100
D	100

.Demand set: 1016 Sen 2 PM

TIME PERIOD BEGINS 08.00 AND ENDS 09.30

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	0.00	0.00	0.00
ARM B	15.00	45.00	75.00	0.75	1.13	0.75
ARM C	15.00	45.00	75.00	0.00	0.00	0.00
ARM D	15.00	45.00	75.00	0.63	0.94	0.63

.Demand set: 1016 Sen 2 PM

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D
08.00 - 09.30	ARM A	0.000	0.000	0.000	0.000
		0.0	0.0	0.0	0.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM B	0.000	0.000	0.000	1.000
		0.0	0.0	0.0	60.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM C	0.000	0.000	0.000	0.000
		0.0	0.0	0.0	0.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM D	0.000	1.000	0.000	0.000
		0.0	50.0	0.0	0.0
		(0.0)	(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

. QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET 1016 Sen 2 PM
AND FOR TIME PERIOD 1

TIME SEGMENT	GEOMETRIC DELAY (VEH.MIN/ VEHICLE)	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN) (RFC)	DEMAND/ CAPACITY	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	AVERAGE DELAY (VEH.MIN/ PER ARRIVING TIME SEGMENT)
08.00-08.15								
B-ACD	0.75	9.07	0.083			0.00	0.09	1.3
	0.12							
A-B	0.00							
A-C	0.00							
A-D	0.00	9.14	0.000			0.00	0.00	0.0
	0.00							
D-ABC	0.63	9.07	0.069			0.00	0.07	1.1
	0.12							

```
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I                         I
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------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.15-08.30
                           I
 I   B-ACD     0.90      9.07    0.099               0.09   0.11        1.6
                 0.12      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.75      9.07    0.083               0.07   0.09        1.3
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I                         I
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------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.30-08.45
                           I
 I   B-ACD     1.10      9.07    0.121               0.11   0.14        2.0
                 0.13      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.92      9.07    0.101               0.09   0.11        1.6
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I                         I
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------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 08.45-09.00
                           I
 I   B-ACD     1.10      9.07    0.121               0.14   0.14        2.1
                 0.13      I
 I   A-B       0.00
                           I
 I   A-C       0.00
                           I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.92      9.07    0.101               0.11   0.11        1.7
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                           I
 I   C-A       0.00
                           I
 I                         I
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 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.00-09.15
                              I
 I   B-ACD     0.90      9.07    0.099               0.14   0.11        1.7
                 0.12      I
 I   A-B       0.00
                              I
 I   A-C       0.00
                              I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.75      9.07    0.083               0.11   0.09        1.4
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                              I
 I   C-A       0.00
                              I
 I
                              I
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------------------------------
 I  TIME      DEMAND  CAPACITY  DEMAND/   PEDESTRIAN  START   END       DELAY
GEOMETRIC DELAY   AVERAGE DELAY I
 I         (VEH/MIN) (VEH/MIN) CAPACITY      FLOW     QUEUE  QUEUE    (VEH.MIN/
(VEH.MIN/      PER ARRIVING  I
 I                             (RFC)    (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)
TIME SEGMENT)    VEHICLE (MIN) I
 I 09.15-09.30
                              I
 I   B-ACD     0.75      9.07    0.083               0.11   0.09        1.4
                 0.12      I
 I   A-B       0.00
                              I
 I   A-C       0.00
                              I
 I   A-D       0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   D-ABC     0.63      9.07    0.069               0.09   0.07        1.1
                 0.12      I
 I   C-ABD     0.00      9.14    0.000               0.00   0.00        0.0
                 0.00      I
 I   C-D       0.00
                              I
 I   C-A       0.00
                              I
 I
                              I
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*WARNING* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR
.
 QUEUE FOR STREAM    B-ACD
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
    08.15          0.1
    08.30          0.1
    08.45          0.1
    09.00          0.1
    09.15          0.1
    09.30          0.1
.
 QUEUE FOR STREAM    A-D
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
    08.15          0.0
    08.30          0.0
    08.45          0.0
    09.00          0.0
    09.15          0.0
    09.30          0.0
.
 QUEUE FOR STREAM    D-ABC
 -------------------------
  TIME          NO. OF
  SEGMENT       VEHICLES
  ENDING        IN QUEUE
    08.15          0.1
    08.30          0.1
    08.45          0.1
    09.00          0.1
    09.15          0.1
    09.30          0.1
.
 QUEUE FOR STREAM    C-ABD
```

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

.

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-ACD	82.6	55.1	10.1	0.12	10.1	0.12
A-B	0.0	0.0				
A-C	0.0	0.0				
A-D	0.0	0.0	0.0	0.00	0.0	0.00
D-ABC	68.8	45.9	8.2	0.12	8.2	0.12
C-ABD	0.0	0.0	0.0	0.00	0.0	0.00
C-D	0.0	0.0				
C-A	0.0	0.0				
ALL	151.4	100.9	18.3	0.12	18.3	0.12

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

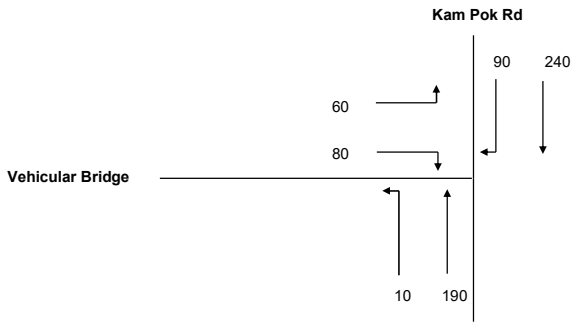
JUNCTION CAPACITY CALCULATION

AECOM

Junction J10 - Kam Pok Road / Vehicular Bridge	2034 AM Design Flows - Sensitivity Test (II)	DESIGN: 0	CHECK: 0	JOB NO: 60XXXXXX	DATE: Oct 24

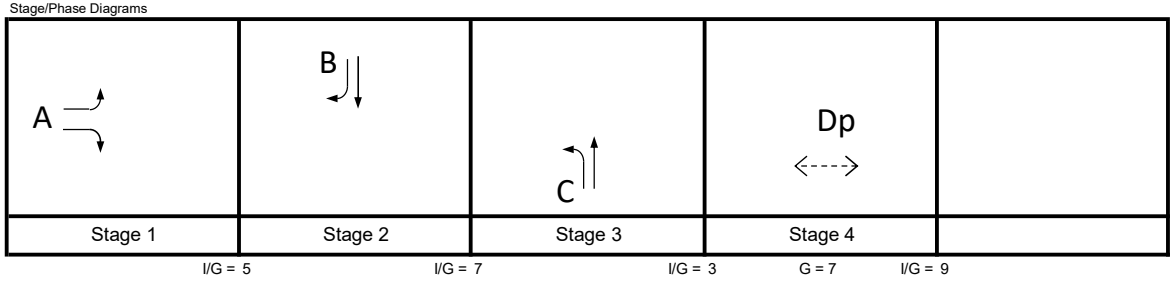
J10

Traffic Flow Diagram (pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	60	sec
Sum(y)	Y =	0.357	
Lost time	L =	28	sec
Total Flow	=	670	pcu
Optimum Cycle C_o = (1.5×L+5)/(1-Y)	=	73	sec
Min. Cycle Time C_m = L/(1-Y)	=	44	sec
Y_{ult} = 0.9-0.0075×L	=	0.690	
$R.C._{ult}$ = $(Y_{ult}-Y)/Yx100\%$	=	93.2	%
Practical Cycle Time C_p = 0.9×L/(0.9-Y)	=	46	sec
Y_{max} = 1-L/C	=	0.533	

Stage/Phase Diagrams



Critical Case : A,B,C,Dp

R.C.(C) = $(0.9xY_{max}-Y)/Yx100\%$ = 34%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
↑↓	A	1	3.600	1	5	10	0	0		0		2115	60		80	140	43%	57%	1742	0.080	0.080
↓	B	2	3.600	1		10	0	1		0		1975		240	90	330		27%	1897	0.174	0.174
↑	C	3	3.600	1	5			1		0		1975	10	190		200	5%		1946	0.103	0.103
Pedestrian Crossing				GM		FGM															
	Dp	4	min.	7	+	7	=	14	sec												*

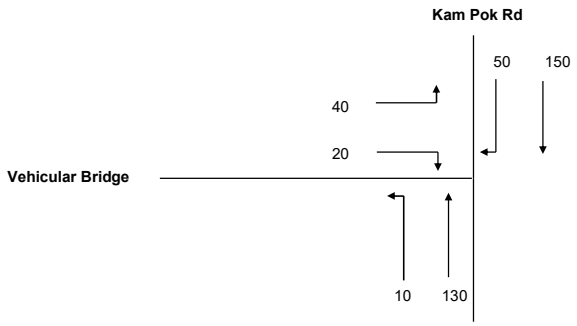
JUNCTION CAPACITY CALCULATION

AECOM

Junction J10 - Kam Pok Road / Vehicular Bridge	2034 PM Design Flows - Sensitivity Test (II)	DESIGN: 0	CHECK: 0	JOB NO: 60XXXXXX	DATE: Oct 24

J10

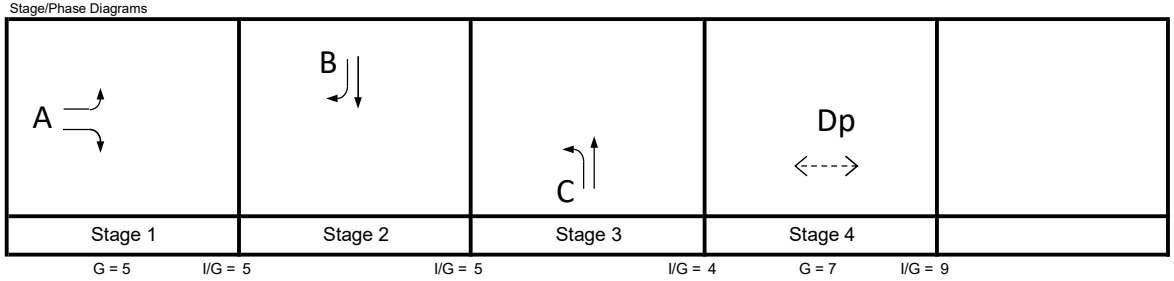
Traffic Flow Diagram (pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	60	sec
Sum(y)	Y =	0.177	
Lost time	L =	33	sec
Total Flow	=	400	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	66	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	40	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.653	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	267.7	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	41	sec
Y_{max}	$= 1-L/C$	=	0.450	

Stage/Phase Diagrams



G = 5 I/G = 5 I/G = 5 I/G = 4 G = 7 I/G = 9

Critical Case : A,B,C,Dp

R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 128%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.600	1	5	10	0	0		0		2115	40		20	60	67%	33%	1692	0.035	
	B	2	3.600	1		10	0	1		0		1975		150	50	200		25%	1904	0.105	0.105
	C	3	3.600	1	5			1		0		1975	10	130		140	7%		1934	0.072	0.072
Pedestrian Crossing				GM		FGM															
	Dp	4	min.	7	+	7	=	14	sec												*

JUNCTION CAPACITY CALCULATION

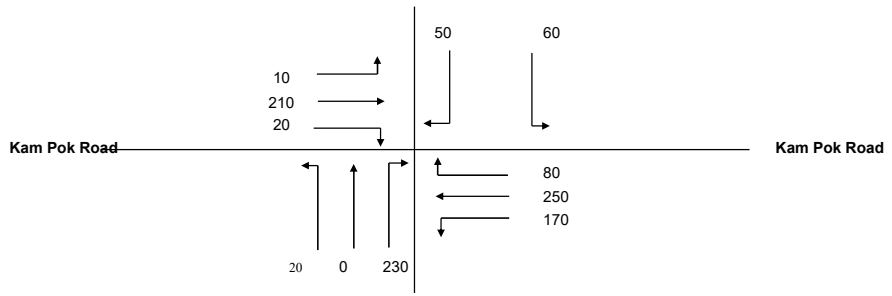
AECOM

Junction J11 - Kam Pok Road / Vehicular Bridge / R(D) Site Access	Year 2034 AM SENSITIVITY TEST II	DESIGN: 0	CHECK: 0	#VALUE!	DATE: Oct 24

J11

Traffic Flow Diagram

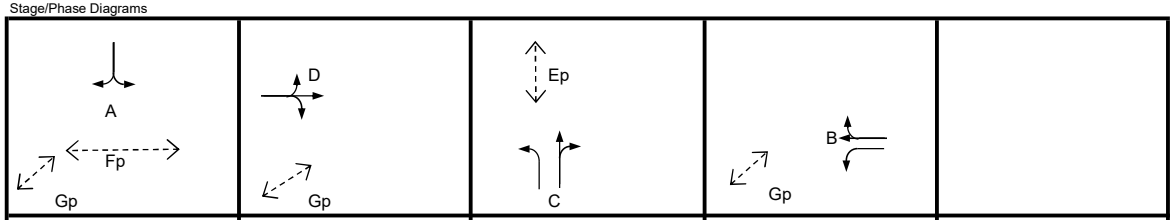
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	90	sec
Sum(y)	Y =	0.427	
Lost time	L =	37	sec
Total Flow	=	1,100	pcu

Optimum Cycle C_o	= (1.5×L+5)/(1-Y)	=	105	sec
Min. Cycle Time C_m	= L/(1-Y)	=	65	sec
Y_{ult}	= 0.9-0.0075×L	=	0.623	
R.C.$_{ult}$	= (Y_{ult}-Y)/Yx100%	=	45.9	%
Practical Cycle Time C_p	= 0.9×L/(0.9-Y)	=	70	sec
Y_{max}	= 1-L/C	=	0.589	

Stage/Phase Diagrams



G = 11 I/G = 12 I/G = 5 I/G = 5 I/G = 7

Critical Case : Fp,D,C,B

R.C.(C) = ($0.9xY_{max}$-Y)/Yx100% = 24%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.500	1	10	12	0	0		0		2105	60		50	110	55%	45%	1849	0.060	
	B	4	3.650	1	15			1		0		1980	170			170	100%		1800	0.094	
	B	4	3.650	1		15	0	0		0		2120		250	80	330		24%	2070	0.159	0.159
	C	3	3.000	1	12	15	0	1		0		1915	20	0	230	250	8%	92%	1738	0.144	0.144
	D	2	3.650	1	10	12	0	1		0		1980	10	210	20	240	4%	8%	1948	0.123	0.123
Pedestrian Crossing				GM		FGM															
	Ep	3	min.	10	+	10	=	20	sec												
	Fp	1	min.	11	+	10	=	21	sec												*
	Gp	1,2,4	min.	5	+	5	=	10	sec												

JUNCTION CAPACITY CALCULATION

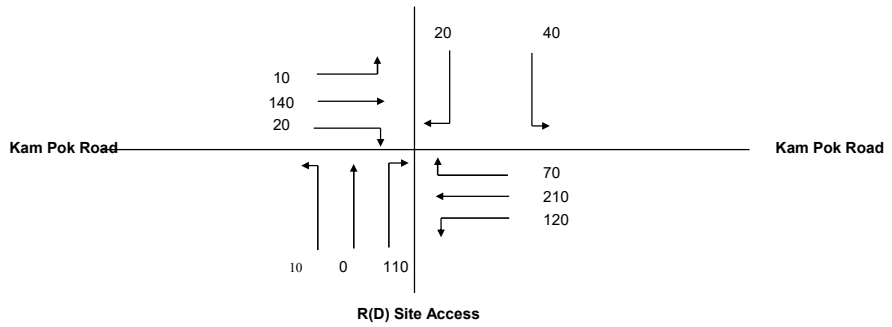
AECOM

Junction J11 - Kam Pok Road / Vehicular Bridge / R(D) Site Access	Year 2034 PM SENSITIVITY TEST II	DESIGN: 0	CHECK: 0	#VALUE!	DATE: Oct 24

J11

Traffic Flow Diagram

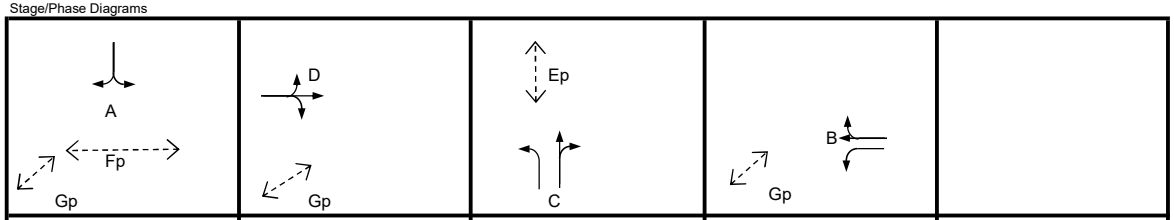
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	90	sec
Sum(y)	Y =	0.292	
Lost time	L =	37	sec
Total Flow	=	750	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	85	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	52	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.623	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$	=	113.0	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	55	sec
Y_{max}	$= 1-L/C$	=	0.589	

Stage/Phase Diagrams



G = 11 I/G = 12 I/G = 5 I/G = 5 I/G = 7

Critical Case : Fp,D,C,B

R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 81%

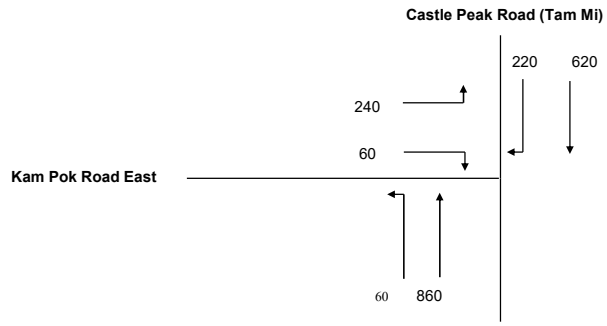
MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*
	A	1	3.500	1	10	12	0	0		0		2105	40		20	60	67%	33%	1844	0.033	
	B	4	3.650	1	15			1		0		1980	120			120	100%		1800	0.067	
	B	4	3.650	1		15	0	0		0		2120		210	70	280		25%	2068	0.135	0.135
	C	3	3.000	1	12	15	0	1		0		1915	10	0	110	120	8%	92%	1738	0.069	0.069
	D	2	3.650	1	10	12	0	1		0		1980	10	140	20	170	6%	12%	1934	0.088	0.088
Pedestrian Crossing				GM		FGM															
	Ep	3	min.	10	+	10	=	20	sec												
	Fp	1	min.	11	+	10	=	21	sec												*
	Gp	1,2,4	min.	5	+	5	=	10	sec												

JUNCTION CAPACITY CALCULATION

AECOM

Junction J6 - Castle Peak Road -Tam Mi / Kam Pok Road East	2034 AM Peak Hour Design Traffic Flows - Sensitivity Test (with Soy Factory) wit	DESIGN: MKCN	CHECK: SHSN	JOB NO: -	DATE: May 25

Traffic Flow Diagram
(pcu/hr)

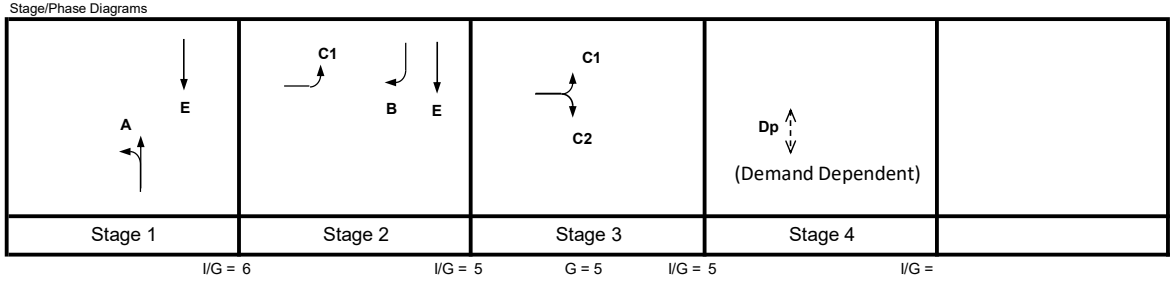


J6

No. of stages per cycle	N =	4	
Cycle time	C =	120	sec
Sum(y)	Y =	0.580	
Lost time	L =	19	sec
Total Flow	=	2,060	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$ =	80	sec
Min. Cycle Time C_m	$= L/(1-Y)$ =	45	sec
Y_{ult}	$= 0.9-0.0075 \times L$ =	0.758	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$ =	30.7	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$ =	53	sec
Y_{max}	= 1-L/C =	0.842	

Stage/Phase Diagrams



Critical Case : A,B,C2,Dp

R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 31%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*	EFFECTIVE GREEN g=y/Yx(C-L) (sec)	ACTUAL GREEN G (sec)	DEGREE OF SATURATION X	Average Queue N
↑	A	1	3.500	1	25			1		0		1965	60	860		920	7%		1957	0.470	0.470	82	81	0.689	10
↓	E	1,2	3.400	1				1		0		1955		620		620			1955	0.317		55	98	0.384	4
↓	B	2	3.500	1		30	0	0		0		2105			220	220		100%	2005	0.110	0.110	19	18	0.689	6
↑	C1	2,3	3.500	1	25			1		0		1965	240			240	100%		1854	0.129		23	22	0.672	7
↓	C2	3	3.500	1		30	0	0		0		2105			60	60		100%	2005	0.030		5	4	0.718	3
Pedestrian Crossing				GM		FGM																			
	Dp	4	min.	0	+	0	=	0	sec												*				

JUNCTION CAPACITY CALCULATION

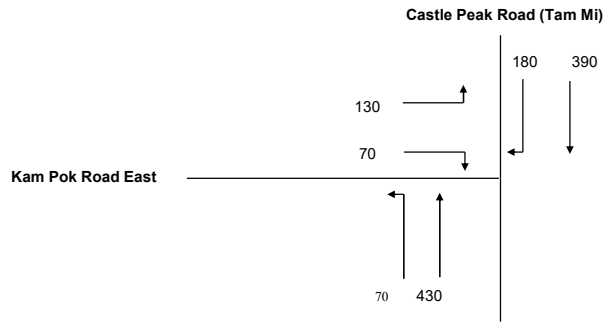
AECOM

Junction J6 - Castle Peak Road -Tam Mi / Kam Pok Road East	2034 AM Peak Hour Design Traffic Flows - Sensitivity Test (with Soy Factory) wit	DESIGN: MKCN	CHECK: SHSN	JOB NO: -	DATE: May 25

J6

Traffic Flow Diagram

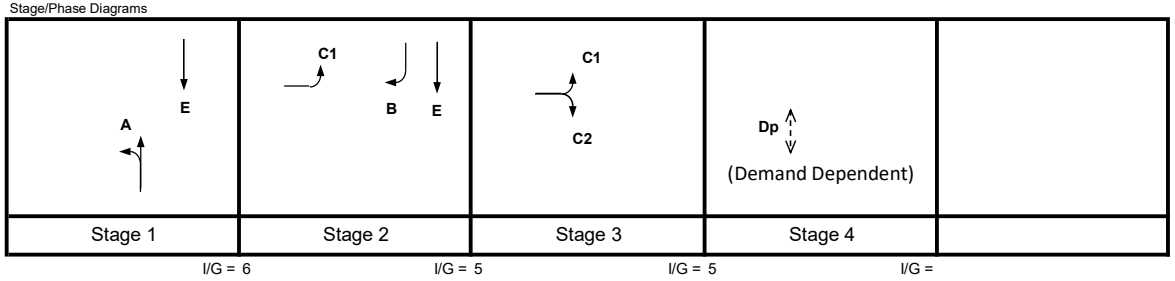
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	120	sec
Sum(y)	Y =	0.382	
Lost time	L =	13	sec
Total Flow	=	1,270	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$ =	40	sec
Min. Cycle Time C_m	$= L/(1-Y)$ =	21	sec
Y_{ult}	$= 0.9-0.0075 \times L$ =	0.803	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$ =	110.0	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$ =	23	sec
Y_{max}	$= 1-L/C$ =	0.892	

Stage/Phase Diagrams



Critical Case : A,B,C2,Dp

R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 110%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*	EFFECTIVE GREEN g=y/Yx(C-L) (sec)	ACTUAL GREEN G (sec)	DEGREE OF SATURATION X	Average Queue N
	A	1	3.500	1	25			1		0		1965	70	430		500	14%		1949	0.257	0.257	72	71	0.429	7
	E	1,2	3.400	1				1		0		1955		390		390			1955	0.199		56	94	0.251	3
	B	2	3.500	1		25	0	0		0		2105			180	180		100%	1986	0.091	0.091	25	24	0.429	5
	C1	2,3	3.500	1	25			1		0		1965	130			130	100%		1854	0.070		20	28	0.286	3
	C2	3	3.500	1		30	0	0		0		2105			70	70		100%	2005	0.035	0.035	10	4	0.838	4
Pedestrian Crossing				GM		FGM																			
	Dp	4	min.	0	+	0	=	0	sec												*				

JUNCTION CAPACITY CALCULATION

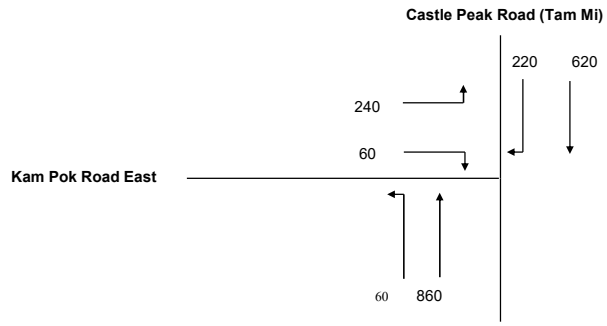
AECOM

Junction J6 - Castle Peak Road -Tam Mi / Kam Pok Road East	2034 AM Peak Hour Design Traffic Flows - Sensitivity Test (with Soy Factory) wit	DESIGN: MKCN	CHECK: SHSN	JOB NO: -	DATE: May 25

J6

Traffic Flow Diagram

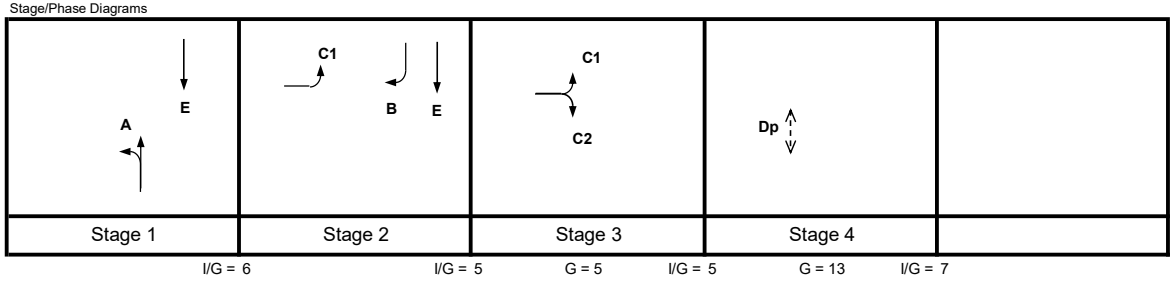
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	120	sec
Sum(y)	Y =	0.580	
Lost time	L =	39	sec
Total Flow	=	2,060	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$	=	151	sec
Min. Cycle Time C_m	$= L/(1-Y)$	=	93	sec
Y_{ult}	$= 0.9-0.0075 \times L$	=	0.608	
$R.C._{ult}$	$= (Y_{ult}-Y)/Y \times 100\%$	=	4.8	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$	=	110	sec
Y_{max}	$= 1-L/C$	=	0.675	

Stage/Phase Diagrams



Critical Case : A,B,C2,Dp

R.C.(C) $= (0.9xY_{max}-Y)/Y \times 100\%$ = 5%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*	EFFECTIVE GREEN g=y/Yx(C-L) (sec)	ACTUAL GREEN G (sec)	DEGREE OF SATURATION X	Average Queue N
	A	1	3.500	1	25			1		0		1965	60	860		920	7%		1957	0.470	0.470	66	65	0.859	15
	E	1,2	3.400	1				1		0		1955		620		620			1955	0.317		44	78	0.482	7
	B	2	3.500	1		30	0	0		0		2105			220	220		100%	2005	0.110	0.110	15	14	0.859	8
	C1	2,3	3.500	1	25			1		0		1965	240			240	100%		1854	0.129		18	18	0.804	8
	C2	3	3.500	1		30	0	0		0		2105			60	60		100%	2005	0.030		4	4	0.718	3
Pedestrian Crossing				GM		FGM																			
	Dp	4	min.	13	+	7	=	20	sec												*				

JUNCTION CAPACITY CALCULATION

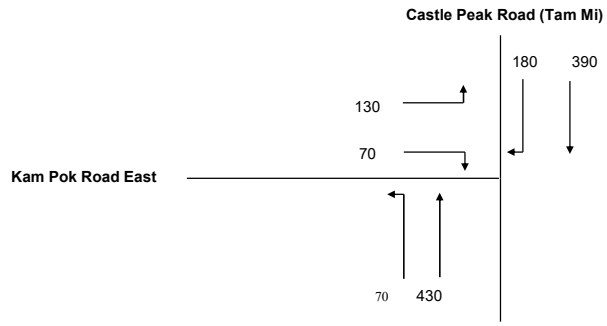
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Junction J6 - Castle Peak Road -Tam Mi / Kam Pok Road East	2034 AM Peak Hour Design Traffic Flows - Sensitivity Test (with Soy Factory) wit	DESIGN: MKCN	CHECK: SHSN	JOB NO: -	DATE: May 25

J6

Traffic Flow Diagram

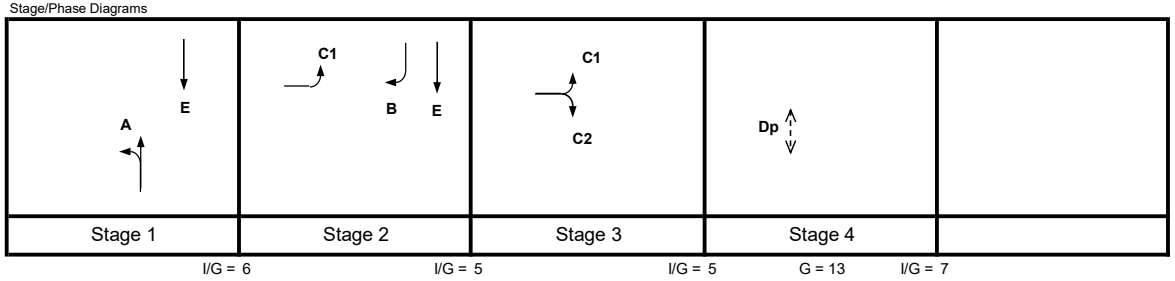
(pcu/hr)



No. of stages per cycle	N =	4	
Cycle time	C =	120	sec
Sum(y)	Y =	0.382	
Lost time	L =	33	sec
Total Flow	=	1,270	pcu

Optimum Cycle C_o	$= (1.5 \times L+5)/(1-Y)$ =	88	sec
Min. Cycle Time C_m	$= L/(1-Y)$ =	53	sec
Y_{ult}	$= 0.9-0.0075 \times L$ =	0.653	
$R.C._{ult}$	$= (Y_{ult}-Y)/Yx100\%$ =	70.7	%
Practical Cycle Time C_p	$= 0.9 \times L/(0.9-Y)$ =	57	sec
Y_{max}	$= 1-L/C$ =	0.725	

Stage/Phase Diagrams



Critical Case : A,B,C2,Dp

R.C.(C) $= (0.9xY_{max}-Y)/Yx100\%$ = 71%

MOVEMENT	PHASE	STAGE	LANE WIDTH (m)	NO. OF LANES	RADIUS (m) LEFT	RADIUS (m) RIGHT	OPPOSING TRAFFIC	NEAR SIDE LANE	UPHILL GRADIENT (%)	GRADIENT EFFECT (pcu/hr)	ADDITIONAL CAPACITY (pcu/hr)	STRAIGHT-AHEAD SAT. FLOW (pcu/hr)	FLOW (pcu/hr) LEFT	FLOW (pcu/hr) STRAIGHT AHEAD	FLOW (pcu/hr) RIGHT	TOTAL FLOW (pcu/hr)	PROPORTION OF TURNING VEHICLES (%) LEFT	PROPORTION OF TURNING VEHICLES (%) RIGHT	REVISED SAT. FLOW (pcu/hr)	FLOW FACTOR *y*	CRITICAL *y*	EFFECTIVE GREEN g=y/Yx(C-L) (sec)	ACTUAL GREEN G (sec)	DEGREE OF SATURATION X	Average Queue N
⇦	A	1	3.500	1	25			1		0		1965	70	430		500	14%		1949	0.257	0.257	58	57	0.527	9
↑	E	1,2	3.400	1				1		0		1955		390		390			1955	0.199		45	76	0.311	5
↱	B	2	3.500	1		25	0	0		0		2105			180	180		100%	1986	0.091	0.091	21	20	0.527	5
⇦	C1	2,3	3.500	1	25			1		0		1965	130			130	100%		1854	0.070		16	24	0.342	3
↱	C2	3	3.500	1		30	0	0		0		2105			70	70		100%	2005	0.035	0.035	8	4	0.838	4
Pedestrian Crossing				GM		FGM																			
	Dp	4	min.	13	+	7	=	20	sec												*				

Responses to Comments

(Pre-submission Enquiry; submitted to the Planning Department on 8.11.2024 by email in response to comments from the Transport Department received on 22.10.2024)

Rezoning from "Residential (Group D)" to "Residential (Group C) 1" Zone
For a Proposed Residential Development
at Various Lots in D.D. 104 and the Adjoining Government Land
in Yuen Long, N.T.
- Pre-Submission Enquiry -

(Planning Application No: N/A)

Comments	Response
Email dated 22 October 2024 refers: **Comments from Transport Department:** **(Contact Person: Mr Jason CHAN Tel: [redacted])**	
Please include the two (2) newly constructed signalized junctions between Kam Pok Road and vehicular bridge to Yau Pok Road in the assessment.	Noted. J/O Kam Pok Road / vehicular Bridge (North) has been included as J11 and J/O Kam Pok Road / vehicular Bridge (South) has been included as J10.
Please provide a plan showing the Area of Influence (AOI) of the TIA. All roads and critical junctions within the AOI shall be included in the assessment.	Noted. The revised Figure 3.1 has indicated all critical road links and junctions within the AOI.
Please review and consider providing a minimum motorcycle parking spaces up to a ratio of 1 per 10 private car parking spaces.	Noted. Based on the TIA report, the higher end of provision requirement according to HKPSG has already been adopted for the proposed provision of motorcycle parking spaces. The Applicant may consider providing more motorcycle parking spaces within the Site, and the exact no. of the respective parking space will be agreed with TD at detailed design / land exchange stage.
To promote green transport modes, please review and consider providing bicycle parking space up to a ratio of 1 per 7.5 flats.	Noted. Based on the TIA report, the higher end of provision requirement according to HKPSG has already been adopted for the proposed provision of bicycle parking spaces. The Applicant may consider providing more bicycle parking spaces within the site, and the exact no. of the respective parking space will be agreed with TD at detailed design / land exchange stage.

Comments	Response
Noted the list of future planned development in Table 4.3 is different from previous rezoning submission (MP/6), please explain and seek Planning Department's endorsement on those development.	Please refer to **Annex A** for clarifying the difference on future planned development between the two submissions. Noted, we will seek advice from PlanD in parallel.
Please justify the use of traffic survey results in Year 2021, which is 3 years ago and under COVID-19 epidemic situation, is representative to reflect the normal traffic conditions.	Based on ATC station 5016 (Castle Peak Road) traffic data, 2018 Weekday Daily: 47360+44070 = 91430 2021 Weekday Daily: 46090+45730 = 91820 2018 AM = 3240+3190 = 6430 2021 AM = 3170+3340 = 6510 2018 PM = 3170+3250 = 6420 2021 PM = 3070+3390 = 6460 The traffic flow in Year 2021 is in a similar level of Year 2018 which indicates that COVID-19 epidemic situation did not cast significant impact on traffic in this area.
Figure 4.5, please explain to function of the hatching in the inner lane of the Fairview Park Interchange and update it as necessary.	Please note that the hatching in the inner lane of Fairview Park Interchange has been removed and improvement scheme has been revised accordingly in the revised **Figure. 4.10**.
Assessment on pedestrian network shall be provided. I reserve the comments on pedestrian assessment.	As no rail service is provided within 500m of the subject site, it is expected that mechanical trips would be the major mode choice. With the provision of commercial and transport layby within the site, it is

Comments	Response
	expected that pedestrian trips would be minimal travelling out of the site area. As shown in **Figure 2.1**, the footpath provision along Kam Pok Road has a minimum width of 3.5m at the proposed R(D) site, providing a two-way pedestrian through put of 4,830ppl/hr to 6,930ppl/hr. The proposed development scheme included 2,322 units with 6,270 population. In case 30% of the population (1,881ppl) contributes to the 2-way trips along the 3.5m footpath section, the flow rate would be 9ped/min/m, which provide a LOS A (reference to Chapter 11, Highway Capacity Manual) for pedestrian corridor.
A sensitivity analysis shall be conducted with the assumption that there is programme mismatch between the development and Sha Po Public Housing Development. The analysis shall assess the associated traffic impact to the existing road network and junctions and shall identify the necessary improvement work. I reserve the comments on the sensitivity analysis.	With reference to the gazette document under Sha Po Public Housing Development, the only interface junction would be Fairview Park Interchange (J1). The proposed junction improvement, to be implemented by the Subject Site is already wider than the one proposed by Sha Po Public Housing project (except the exit arm of San Tam Road (South of J1)). In case there is any programme mismatch between the subject site and Sha Po Public Housing Development, the subject planning application would construct free-flow lane from San Tin Highway NB slip road to Castle Peak Road – Tam Mi. The proposed layout is shown in **Figure 4.11**. **Section 4.5.4** has also been revised to reflec the same.
Please provide a figure to illustrate the development trips in the TIA.	**Figure 4.3** has been provided to illustrate development trips of the Subject Site (i.e. R(D) Site).

Comments	Response
Please explain why under the reference scenario, the performance of J1 in Year 2034 would be better than that in Year 2031 from the previous TIA report under MP/6 planning submission.	Please be clarified that under previous submission, J1 (Year 2031 version) has not considered the planned junction improvement by Sha Po Public Housing. Therefore, the performance of J1 in Year 2034 is better than that in Year 2031 (Previous submission).
Please explain why there is a significant change in the performance of J2 under Design case between the previous TIA report under MP/6 planning submission (DFC=0.85) and the current submission (DFC=0.71).	Please be clarified that the previous submission adopted DPR 1.8 whereas the current submission is adopting DPR1.5. Considered the traffic generated by the subject development has been reduced, the junction performance of J2 would therefore be improved.
Please confirm the two nearby private residential development Y/YL-MP/7 and MP/8 have been considered in the assessment.	Please be clarified that light public housing has already been considered in the assessment under both reference and design scenarios. Meanwhile, the two private residential developments (i.e. REC (North) and REC (South)) sites have been considered in the assessment under sensitivity test (1). Also, referring to the results of Sensitivity Test (1), all assessed junctions and road links would be able to handle the future traffic demand with the proposed junction improvement.
Under the sensitivity test (II), it is noted that the performance of J1 and J6 would be operating approaching to its capacity. Please recommend necessary junction improvement schemes for J1 and J6	Noted. Traffic improvement scheme of J1 has been revised to maximize J1's capacity.

Comments	Response
accordingly.	Potential traffic improvement scheme has been proposed for J6, please refer to **Figure 4.16**.
Please clearly identify all the loading/unloading spaces on plan for our comments.	Please refer to **Annex B** of this RtC for the LUL spaces. Page 1 has indicated the L/UL spaces for residential portion, while Page 2 has indicated the L/UL spaces for GIC and retail portion.
Please clearly identify the location of kindergarten, RCHE, neighbourhood elderly centre, retail/ eating place on plan for information.	Please refer to Page 4 to Page 6 of **Annex B** of this RtC for the locations of kindergarten, NEC, retail/eating place. As per the request given by the Social Welfare Department, no more RCHE will be proposed at the Site.
It is noted that there is a landscape pond with the Site, please advise whether this landscape pond is open to public or not. If affirmative, please provide car parking spaces and include the associated trip attraction rate in the assessment.	Please be clarified that the landscape pond would not be open to the public.
Noted there is a private open space (open for public use), this location could be an attractive spot to the locals and will attract outsiders. Please provide more details of this private open space, i.e. ingress/egress point for the public, the trip attraction rate and car parking provision.	Please be clarified that the private open space (open for public use) will only provide passive activities such as pergola/shelter with seating, open lawn and planting. It will mainly serve the villagers of the adjoining Chuk Yuen Tsuen. No mechanical trips generation/attraction would be expected.
Please specify the use of the parcel of land adjacent to & opposite to the private open space for information.	Please be clarified that the private open space (open for public use) will only provide passive activities such as pergola/shelter with seating, open lawn and planting. It will mainly serve the villagers of the adjoining Chuk Yuen Tsuen. No mechanical trips generation/attraction would be

Comments	Response
	expected.
Please clearly indicate the pedestrian access on plan and be reminded to segregate the vehicular access and pedestrian access for safety consideration.	The potential residential access is planned to be located along Kam Pok Road, as indicated in Annex B. Separation of vehicular and pedestrian movements would be considered for safety concern, as per Transport Department's comment. The exact location and details of the future pedestrian accesses will be proposed in detailed design stage.
Please provide the carpark layout for comment.	Please refer to Page 2 of **Annex B** for the basement carpark serving retail, v visitor and GIC portion. The residential portion will be further provided in detailed design stage.
To create an enjoyable walking environment, the applicant is encouraged to provide building canopies, including over public footpath(s) and/or right-of-way(s) in accordance with the following where applicable: 1. Chapter 8 of the Hong Kong Planning Standards and Guidelines provides for the provision of building canopies (i.e. para. 5.6.11) and for the subject of pedestrian planning be included in development studies and planning applications (para. 5.9.2). "Projections over Public Streets" stipulated in Lands Administration Office Practice Note 3/2020 (Design, Deposition and Height Clause under Lease); and/or Building Ordinances, in particular Building (Planning) Regulation 10 in Cap. 123F regarding balconies and canopies over streets.	Noted and these will be considered at the detailed design stage

Responses to Comments

(Further Information No. 1; submitted to the Town Planning Board on 17.4.2025 by email in response to comments from the Transport Department received on 10.4.2025)

Comments	Response
Comments from Transport Department: **(Contact Person: Mr Donald LEUNG Tel: [redacted])**	
Traffic engineering comment: 1) Please advise whether TTIA has been taken into account of the trips arising from the development of Ngau Tam Mei Area.	Noted, Ngau Tam Mei Area has been considered into the traffic forecast. Please refer to the Ref. No. 15 in Table 4.3 of the revised Traffic Impact Assessment in *Appendix VI*.
2) As per the previous comment in the pre-submission, the traffic survey in the current TTIA was conducted more than 3 years ago and during the COVID-19 epidemic situation, the applicant should justify the survey data reflects the prevailing traffic condition.	According to the survey conducted in Year 2025 April (normal weekday), the traffic flow in Year 2025 is comparatively smaller, especially in J1 Fairview Park Roundabout and J2 Kam Pok Road / Castle Peak Road – Tam Mi. Please refer to Figure 3.14 and Para. 3.1.4 the revised TIA report in *Appendix VII* for Year 2025 survey. For a conservative assessment, the original survey results have been adopted as the base for the design year traffic forecast.
3) Table 2.4: a. Please review and considering providing a minimum motorcycle parking spaces up to a ratio of 1 per 10 private car parking spaces.	Based on the TIA report, the higher end of provision requirement according to HKPSG has already been adopted for the proposed provision of motorcycle parking spaces. The Applicant will consider providing more motorcycle parking spaces within the site, and the exact no. of the respective parking space will be agreed with TD at detailed design / land exchange stage.
b. To promote green transport modes, please review and consider providing bicycle parking space up to a ratio of 1 per 7.5 flats.	Based on the TIA report, the higher end of provision requirement according to HKPSG has already been adopted for the proposed provision

Comments	Response
	of bicycle parking spaces. The Applicant will consider providing more bicycle parking spaces within the site, and the exact no. of the respective parking space will be agreed with TD at detailed design / land exchange stage.
4) Para. 2.5.5: In view of the nearby residential development (i.e. MP/7 and MP/8), please review the pedestrian connectivity between the nearby residential development (i.e. MP/7 and MP/8) and the subject site and to review the LOS of existing footpath.	Noted, Section 2.5 has been updated to include the pedestrian assessment of the MP/7 and MP/8 to and from the subject site (*Appendix VII* refers).
5) Table 3.2: Noted J7 to J11 has been included in the current TTIA submission. Please advise whether the traffic data in J7 to J11 is from Year 2021 or not.	The traffic data in J7 to J11 is also from Year 2021.
6) Table 3.2: Please explain why the junction performance in Year 2021 existing case is different from that in the pre-submission.	Please be clarified that the roundabout parameters have been revised.
7) Table 3.3: Please provide the assumed frontage in deriving the road link capacity for ease of reference and review the road link capacity of L2: Castle Peak Road – Tam Mi.	To consider the impact induced by the roadside activities, it is suggested to consider a site factor of 0.85 for the capacity of L2: Castle Peak Road – Tam Mi. Road link assessment in Table 3.3, 4.7 and 4.11 have been revised accordingly (*Appendix VII* refers).
8) For consistency, please standardise the naming of all junctions in the TTIA report, i.e. (J1), Fairview Park Interchange vs Fairview Park Roundabout.	Noted, relevant text has been revised.
9) Table 4.3: Noted there is a great change in the planned developments in Table 4.3 as well as the development parameters, i.e. the trip	Please be clarified that the reduction of trips generated by Kam Tin South Priority Sites is due to the uncertain programme of Pat Heung Depot

Comments	Response
generation in AM peak for Kam Tin South Priority Sites Development has been reduced from 3575 pcu/hr in MP/6 TTIA to 1160 pcu/hr in the current TTIA submission, please explain and seek PlanD's endorsement on the list of planned development in Table 4.3.	topside development and Kam Sheung Road Station Topside Package 2. All planned developments available in the public domain have been included in Table 4.3 and the current TIA. No comments have been received from PlanD regarding the above.
10) Para. 4.4.2 to 4.4.5 and Figure 3.9 to 3.12: The existing junction layouts for J8, J9, J10 and J11 as shown on Figure 3.9 to 3.12 are outdated and the junction improvement works as shown in Figures 4.6 to 4.8 were already implemented on site. Please update the figures and the relevant section of the report accordingly.	Noted, Figures 3.9 to 3.12 have been revised accordingly (*Appendix VII* refers).
11) Figure 4.3: When compare with the previous planning application MP/6, noted there is a substantial change on the directional split for the development trips, i.e. J2. Please provide justification on these changes and review whether the proposed split is reasonable.	The directional split of the development trips has been revised accordingly.
12) For arm C of J1, please explain why the reference flow in Year 2034 would be lower than that in the existing flow in Year 2021.	A typo was found. The traffic flow in arm C in Year 2034 reference case is revised accordingly.
13) Para. 4.5.4: a. Please explicitly mention in the Report that the additional junction improvement works proposed in J1 as described in Figure 4.10, would be undertaken by the applicant prior to the commissioning.	Noted and supplemented accordingly (*Appendix VII* refers).
b. Please explicitly mention in the Report that in case of programme mismatch between the subject site and Sha Po	Noted and supplemented accordingly (*Appendix VII* refers).

Comments	Response
Public Housing Development, the applicant would undertake all the junction improvement works in J1 as described in Figure 4.11 prior to the commissioning.	
14) Para. 4.7.6: Under the sensitivity test (II), please explicitly mention in the Report that the proposed improvement works in Figure 4.16 would be undertaken by the applicant.	Noted and supplemented accordingly (*Appendix VII* refers).
15) As per the previous comment in the pre-submission, the location of kindergarten, NEC, retail/eating place should be clearly shown in figures. Please also advise the locations of the associated loading/unloading spaces in the figures.	Noted and Figure 2.1 has been revised (*Appendix VII* refers).
Transport operation comment:	
16) Para. 2.4.3 and para. 3.3: please note there are existing public transport services (i.e. 2 bus routes and 1 GMB route) for Yau Pok Road Light Public Housing, which commenced operation on 28 March 2025.	Noted and supplemented accordingly (*Appendix VII* refers).
17) The assessment of the exact mode of transport services and details are subject to TD's further assessment/consideration, with due consideration to the development and planning of transport system/services near the time.	Noted.
18) The proposed (PTI/lay-bys, regardless of the name) should be provided with appropriate terminating facilities to support the proposed PT services. Nothing two new bus routes were recommended to terminate at the site, a minimum of 2	2 nos. of bus stacking spaces have been reserved in the transport lay-by. Please refer to Appendix A for the location of stacking spaces.

Comments	Response
boarding/alighting bus bays (for 12.8m double decker buses) and relevant bus staking spaces should be provided (according to TPDM, the no. of bus stacking spaces should be twice of that of the boarding/alighting bays (i.e. 4 in the above example). It is also noted another 1 bus bays will be reserved for by-passing route with flexibility for converting to GMB bay (if required).	Meanwhile, the Applicant will further review the necessity of providing other ancillary facilities that would normally be required in a PTI at detailed design stage.
19) Please indicate the ancillary facilities for the franchised bus operators (e.g. Bus regulatory office, rest room with toilets) on the layout plan (please refer to the latest TPDM and HKPSG for details of the requirements).	The ancillary facilities will be further considered at the detailed design stage.
20) The proposed PTI/PTT/transport lay-by is in private land and should be managed by the private developer/their management office (Not TD). The management office of the private PTI should allow the allocation of public transport services within the PTI by TD.	Noted.
21) Please ensure the public transport facilities provided in each of the subject development site its associated sites would be self-sufficient in case other development sites mentioned in the TTIA report (e.g. R(D) sites, Southern Site/Northern Site) could not commence in line with the population intake of other sites.	Noted.

Responses to Comments

(Further Information No. 4; submitted to the Town Planning Board on 10.6.2025 by email in response to comments from the Transport Department received on 27.5.2025)

Comments	Response
Comments from Transport Department: **(Contact Person: Mr. Mark Wong; Tel: [redacted]**	
Transport Operation Comments: 1) Please confirm that the "transport lay-bys" would be managed and maintained by the private developer	The transport lay-bys would be managed and maintained by the Proposed Development.
2) Para 2.4.8: Please confirm if a total of three 42m parallel bays would be reserved for public transport services (i.e. a minimum of 2 X 42m bays for franchised bus with another 1 42m bay with flexibility for by-passing franchised bus / GMB / taxi).	Noted, relevant text has been revised.
3) Given 2 terminating franchised bus routes were proposed, a total of 4 stacking spaces should be provided as per TPDM's requirement	4 stacking spaces have been provided.

Comments	Response
4) Regardless of the name of the public transport facilities (lay-bys / PTI), ancillary facilities for franchised bus operators should be provided as per requirements of latest TPDM	The ancillary facilities will be further considered at detailed design stage.
5) It is noted that the layout plans of the PTI / lay-bys of other development sites (e.g. REC sites) are outside the scope of the current planning application and are attached for our reference only (hence, TD is not in the position to provide comments at this juncture)	Noted.

Reply from the Planning Department on Planned Developments

寄件者: Jane Ching Kei LAU/PLAND
收件者: Wilson Man
副本: Kenneth To; Gladys Ng; Rebecca Wong Shun Wun; Sun Kwok Kee; Jovial Wong Cho Ting; Emerson Li Si Juan; Chu, Sin Yi; Pak Him CHIU/PLAND
主旨: Re: Y/YL-MP/10 - Planned Developments (TIA)
日期： 2025年5月20日 12:18:49

Dear Wilson,

I refer to your preceding email with an updated list of planning developments for the TIA. While we have no further comment on the updated list, please consider removing the last sentence (marked in red as below) for Site No. 17.

Should you have any questions, please contact the undersigned. Thank you.

Best Regards,
Jane LAU
FSYLE DPO
Planning Department
Tel: [redacted]

From: Wilson Man [redacted]
Sent: Monday, May 19, 2025 4:02 PM
To: Jane Ching Kei LAU/PLAND [redacted]
Cc: Kenneth To [redacted]; Gladys Ng [redacted]; Rebecca Wong Shun Wun [redacted]; Sun Kwok Kee [redacted] Jovial Wong Cho Ting [redacted]; Emerson Li Si Juan [redacted] Chu, Sin Yi [redacted]; Pak Him CHIU/PLAND [redacted]
Subject: RE: Y/YL-MP/10 - Planned Developments (TIA)

Dear Jane,

In response to your comments below, please find attached the updated list of planned developments for your confirmation. Thank you.

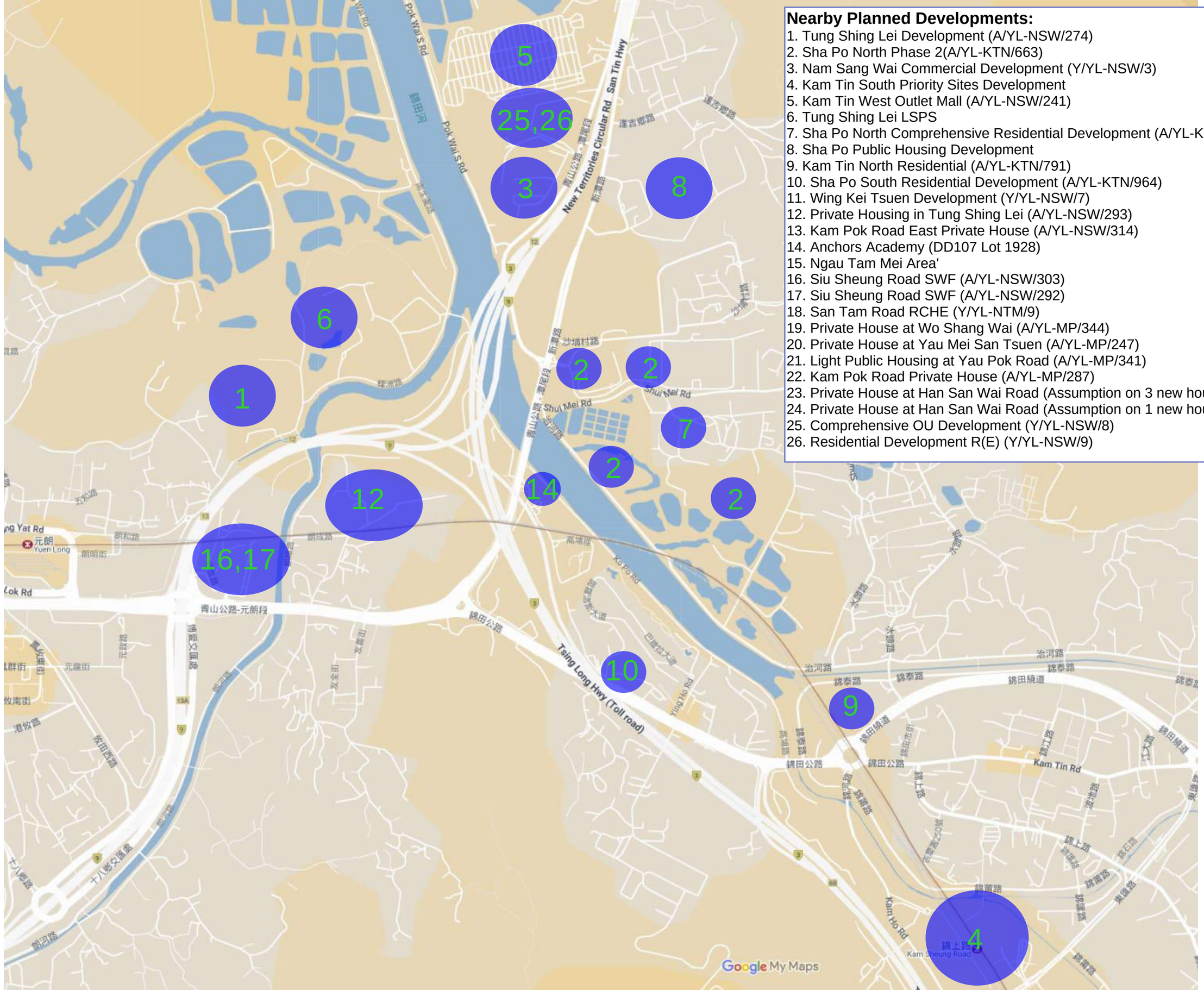
Site Reference No.	Development	Key Development Parameters
1	Tung Shing Lei Development (A/YL-NSW/274)	• 1518 private residential units (average flat size = about 46m^2)
2	Sha Po North Phase 2 Residential Development (A/YL-KTN/663)	• 1,154 private residential units (average flat size = about 42.57m^2)
3	Kam Tin South Priority Sites Development	• 9,060 units of public housing (average flat size = about 50m^2) • 2,200 units of private housing (average flat size = about 70m^2)
4	Tung Shing Lei Land Sharing Pilot Scheme Development	• 1,261 units of private housing • (average flat size = about 40m^2) • 1,868 units of public housing • (average flat size = about 50m^2)
5	Sha Po North Comprehensive residential development (A/YL-KTN/604)	• 3,891 private residential units (average flat size = about 49m^2) • 5,500 m^2 retail GFA
6	Sha Po Public Housing Development	• 16,300 Flats • 1 Primary School • 20,668 m^2 retail GFA • 5 Kindergarten • 38,384 m^2 Welfare Facilities • 19,267 m^2 GIC
7	Kam Tin North Residential Development (A/YL-KTN/791)	• 330 flats · 87 houses (average flat/house size = about 38.73 m^2)
8	Sha Po South Residential Development (A/YL-KTN/964)	• 615 private residential units (average flat size = about 38 m^2)
9	Wing Kei Tsuen Development (Y/YL-NSW/7)	• 1,997 private residential units • (average flat size = 48.9 m^2)
	Private Housing in Tung Shing	• 3,556 Flats

10	Lei (A/YL-NSW/293)	• 9 Houses • 5,358 Non-Domestic GFA
11	Kam Pok Road East Private House (A/YL-NSW/314)	• 90 units
12	Ngau Tam Mei Area *	• Population: 9,600 – 10,800 • No. of Flats: 3,600 – 3,900
13	Siu Sheung Road (A/YL-NSW/303)	• Social Welfare Facilities (5,400 m^2)
14	Siu Sheung Road (A/YL-NSW292)	• Social Welfare Facilities (9,180 m^2)
15	San Tam Road (Y/YL-NTM/9)	• GIC Facilities (5,400 m^2)
16	Private House at Mai Po (A/YL-MP/344)	• 789 Houses
17	Private House at Yau Pok Road (A/YL-MP/247)	• 105 Houses • The planning permission of the proposed development was extended to 30.9.2024. ~~# is deemed to have already commenced.~~
18	Light Public Housing at Yau Pok Road	• 2150 Flats
19	Kam Pok Road Private House (A/YL-MP/287)	• 65 Houses
20	Private House at Ha San Wai Road	• 3 Houses
21	Private House at Ha San Wai Road	• 1 House
22	Comprehensive OU Development (Y/YL-NSW/8)#	• 6,825 Flats • 3,950 m2 Non-Domestic GFA • 2 nos. of GIC Facilities • 1 Kindergarten
23	Residential Development R(E) (Y/YL-NSW/9)#	• 3,115 Flats • 2,900 m2 Non-Domestic GFA • 1 Primary School • 1 Kindergarten • Soy Factory

Best Regards,

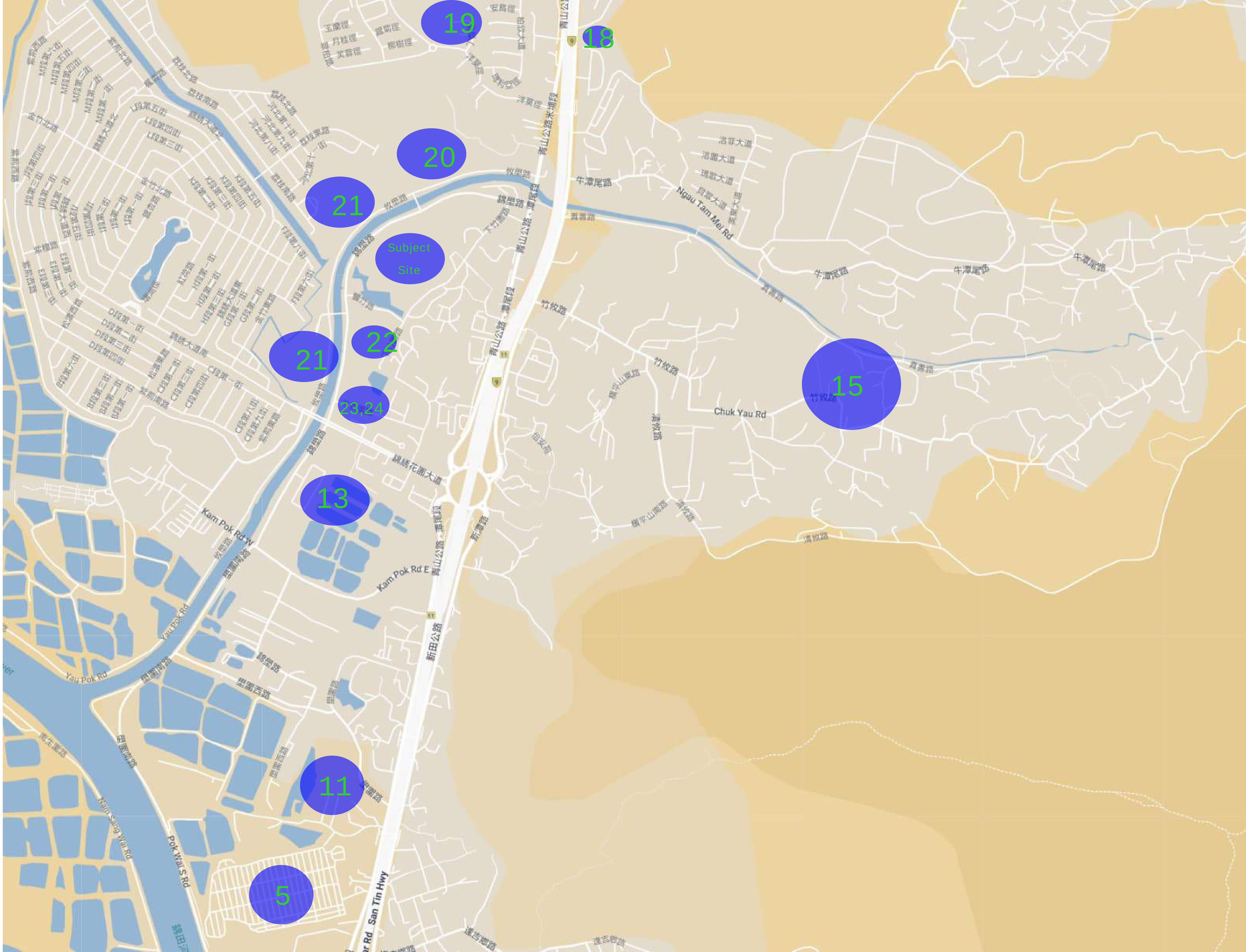
Wilson Man
Assistant Town Planner

KTA Planning Limited
[redacted]



Nearby Planned Developments:

1. Tung Shing Lei Development (A/YL-NSW/274)
2. Sha Po North Phase 2(A/YL-KTN/663)
3. Nam Sang Wai Commercial Development (Y/YL-NSW/3)
4. Kam Tin South Priority Sites Development
5. Kam Tin West Outlet Mall (A/YL-NSW/241)
6. Tung Shing Lei LSPS
7. Sha Po North Comprehensive Residential Development (A/YL-KTN/604)
8. Sha Po Public Housing Development
9. Kam Tin North Residential (A/YL-KTN/791)
10. Sha Po South Residential Development (A/YL-KTN/964)
11. Wing Kei Tsuen Development (Y/YL-NSW/7)
12. Private Housing in Tung Shing Lei (A/YL-NSW/293)
13. Kam Pok Road East Private House (A/YL-NSW/314)
14. Anchors Academy (DD107 Lot 1928)
15. Ngau Tam Mei Area'
16. Siu Sheung Road SWF (A/YL-NSW/303)
17. Siu Sheung Road SWF (A/YL-NSW/292)
18. San Tam Road RCHE (Y/YL-NTM/9)
19. Private House at Wo Shang Wai (A/YL-MP/344)
20. Private House at Yau Mei San Tsuen (A/YL-MP/247)
21. Light Public Housing at Yau Pok Road (A/YL-MP/341)
22. Kam Pok Road Private House (A/YL-MP/287)
23. Private House at Han San Wai Road (Assumption on 3 new houses)
24. Private House at Han San Wai Road (Assumption on 1 new house)
25. Comprehensive OU Development (Y/YL-NSW/8)
26. Residential Development R(E) (Y/YL-NSW/9)


19
18
20
21
Subject Site
22
21
23,24
15
13
11
5
Ngau Tam Mei Rd
牛潭尾路
竹攸路
Chuk Yau Rd
Kam Pok Rd W
Kam Pok Rd E
新田公路
Yau Pok Rd
Pok Wai S Rd
San Tin Hwy

Broad Development Parameters of the Applied Use/Development in respect of Application No. A/YL-NSW/274
關乎申請編號 A/YL-NSW/274 的擬議用途/發展的概括發展規範

Revised broad development parameters in view of the further information received on 23.12.2020 and 30.12.2020
因應於 2020 年 12 月 23 日及 2020 年 12 月 30 日接獲的進一步資料而修訂的概括發展規範

Application No. 申請編號	A/YL-NSW/274		
Location/address 位置／地址	Lots 592 S.C ss.1 S.A, 592 S.C ss.4 and 1252 S.C in D.D. 115, Tung Shing Lei, Yuen Long 元朗東成里丈量約份第 115 約地段第 592 號 C 分段第 1 小分段 A 分段、第 592 號 C 分段第 4 小分段及第 1252 號 C 分段		
Site area 地盤面積	About 約 32,711 sq. m 平方米		
Plan 圖則	Approved Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/8 南生圍分區計劃大綱核准圖編號 S/YL-NSW/8		
Zoning 地帶	"Undetermined" 「未決定用途」		
Applied use/ development 申請用途/發展	Proposed Residential (Flat) and Community Hub (Shop and Services, Eating Place, School, Place of Recreation, Sports or Culture, Public Transport Terminus and Social Welfare Facility) Development 擬議住宅（分層樓宇）及社區樞紐（商店及服務行業、食肆、學校、康體文娛場所、公共車輛總站及社會福利設施）發展		
Gross floor area and/or plot ratio 總樓面面積及／或地積比率		sq. m 平方米	Plot ratio 地積比率
	Domestic 住用	About 約 70,328	About 約 2.15
	Non-domestic 非住用	About 約 4,550	About 約 0.14
No. of block 幢數	Domestic 住用	8	
	Non-domestic 非住用	3	
	Composite 綜合用途	-	
Building height/No.	Domestic	-	m 米

of storeys 建築物高度／層數	住用	Not more than 不多於 75	mPD 米(主水平基準上)
		8 - 21 *2*	Storey(s) 層 *Include 包括* *Basement 地庫*
	Non-domestic 非住用	-	m 米
		Not more than 不多於 15	mPD 米(主水平基準上)
		3 - 4 *2*	Storey(s) 層 *Include 包括* *Basement 地庫*
	Composite 綜合用途	-	m 米
		-	mPD 米(主水平基準上)
		-	Storey(s) 層
Site coverage 上蓋面積	About 約 30 %		
No. of units 單位數目	1,518 Flats 住宅單位		
Open space 休憩用地	Private 私人	Not less than 不少於 3,795	sq. m 平方米
	Public 公眾	-	sq. m 平方米

No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle spaces 停車位總數	390
	Private Car Parking Spaces 私家車車位	270
	Motorcycle Parking Spaces 電單車車位	17
	Light Bus Parking Spaces 輕型巴士泊車位	3
	Bicycle Parking Spaces 單車泊位	99
	Coach Parking Space 旅遊巴士泊車位	1
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數	28
	Loading/Unloading Spaces for Heavy Goods Vehicle 重型貨車上落客貨車位	11
	Taxi and Private Car Lay-Bys 的士及私家車停車處	10
	Small Coach Lay-Bys 小型旅遊車停車處	5
	Bus Lay-Bys 巴士停車處	2

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1. A/YL-NSW/274

A/YL-NSW/274



RNTPC Paper No. A/YL-KTN/663B
For Consideration by
the Rural and New Town
Planning Committee
on 26.5.2020

APPLICATION FOR PERMISSION
UNDER SECTION 16 OF THE TOWN PLANNING ORDINANCE

APPLICATION NO. A/YL-KTN/663

Applicant	:	Bright Strong Limited represented by Llewelyn-Davies Hong Kong Ltd.
Site	:	Various Lots in D.D. 107 and Adjoining Government Land, Kam Tin, Yuen Long
Site Area	:	About 279,925m^2 (including Government land of about 87,376m^2 (about 31%))
Lease	:	Block Government Lease (demised for agricultural use) Lot 1927 in D.D. 107
Plan	:	Approved Kam Tin North Outline Zoning Plan (OZP) No. S/YL-KTN/9
Zoning	:	"Comprehensive Development Area" ("CDA") (about 98%) [restricted to a maximum domestic gross floor area (GFA) of 345,400m^2, a maximum non-domestic GFA of 10,000m^2 and a maximum building height (BH) of 14 storeys] "Comprehensive Development Area (1)" ("CDA(1)") (about 2%) [restricted to a maximum plot ratio of 1.2 and a maximum BH of 16 storeys]
Application	:	Proposed Flat with Minor Relaxation of BH Restriction and Public Vehicle Park (excluding container vehicle) (Proposed Amendments to Approved Master Layout Plan)

1. The Proposal

1.1 The applicant seeks planning permission for proposed flat with minor relaxation of BH restriction and public vehicle park (excluding container vehicle) (proposed amendments to approved Master Layout Plan) at the application site (the Site) (**Plan A-1a**). According to the Notes of the OZP, within the "CDA" zone, 'flat' and 'public vehicle park (excluding container vehicle)' are Column 2 uses which require planning permission from the Town Planning Board (the Board). The

applicant shall prepare a Master Layout Plan (MLP) for the approval of the Board including, among others, Visual Impact Assessment (VIA), Environmental Assessment (EA), Drainage Impact Assessment (DIA), Sewerage Impact Assessment (SIA) and Traffic Impact Assessment (TIA), etc. The Notes of the "CDA" zone also stipulate that minor relaxation of BH restriction may be considered by the Board.

1.2 The Site involves two previous applications (No. A/YL-KTN/60 and 118) for residential development with commercial, Government, Institution or Community (GIC) and open space (the latter with minor relaxation of BH restriction), which were approved in 1998 and 2001. Subsequently, an application No. A/YL-KTN/118-2 for amendments to the approved scheme was approved with conditions on 7.9.2012 (the approved scheme).

1.3 The Site mostly falls within the "CDA" zone[1]. According to the Notes of the OZP, the "CDA" zone is subject to a maximum domestic GFA of 345,400m^2, maximum non-domestic GFA of 10,000m^2 and a maximum BH of 14 storeys. The current application is for proposed amendments to the approved development under Application No. A/YL-KTN/118-2. Phase 1 of the approved scheme in the northern part of the Site has been substantially completed (i.e. Park Yoho with most of the residential towers already occupied) and no change is proposed to Phase 1[2]. The current application is for amendments to Phase 2 of the approved scheme in the south. The proposed Phase 2 site (about 7.5ha) is divided into the eastern and western portion. The eastern portion comprises 7 blocks of residential towers of 17 storeys (including one storey of basement carpark) providing about 1,154 flats. Besides, an underground public carpark of 50 parking spaces for private car is proposed as requested by the Transport Department (TD). The applicant also applies for minor relaxation of the BH restriction from 14 storeys to 17 storeys (including one storey of basement car park) (i.e. +3 storeys/ +21.43%). The western portion of the Phase 2 site is proposed for an Ecological Enhancement Area which will be implemented together with the eastern portion. The proposed Phase 2 development is tentatively scheduled for completion by 2023.

1.4 As compared with the approved scheme, major changes in Phase 2 in the current application include addition of a public carpark, reduction in number of towers (-4/ -36.36%) and the area of Ecological Enhancement Area (-2,125m^2/ -4.45%), and increase in BH (+9 storeys/ +128.57%), domestic GFA (+14,456m^2/ +41.69%) and number of flats (+625/ +118.15%). A comparison of the approved scheme under Application No. A/YL-KTN/118-2 and the current scheme are shown in the table below and in **Drawings A-1b** and **A-1c**:

---

[1] About 4,412m^2 (2%) of the Site falls within the adjoining "CDA(1)" zone. Also, a minor portion of the Site falls within "AGR" (about 0.2%) and "Other Specified Uses" annotated "Railway Reserve" (about 0.05%) zones (**Plan A-2**), which can be considered as minor boundary adjustment as permitted by the covering Notes of the OZP.

[2] The Phase 1 development of the approved scheme (i.e. Park Yoho) with about 20.5ha comprises 31 residential towers of maximum 18 storeys (including podium and basement carpark), providing 3,128 flats, as well as a shopping centre and a public transport interchange (PTI). Part of Phase 1 is preserved as an Ecological Enhancement Area and a formed site is reserved for future GIC use.

Development Parameters	Approved Scheme under Application No. A/YL-KTN/118-2 (a)	Proposed Scheme under the current application (b)	Difference (b)-(a)
Site Area			
Total Site Area (m^2) (about)	**281,796**	**279,925**	**-1,871 (-0.66%)**
Phase 1	204,950	no change	--
Phase 2	76,891	75,020	-1,871(-2.43%)[3]
(Residential portion in Phase 2)	*(29,092)*	*(29,346)*	
(Ecological Enhancement Area in Phase 2)	*(47,799)*	*(45,674)*	
GFA			
Total GFA (m^2)	**254,440**	**268,896**	**+14,456 (+5.68%)**
Total Domestic GFA (m^2)	**244,440**	**258,896[4]**	**+14,456 (+5.91%)**
Phase 1	209,765	no change	--
Phase 2	34,675	49,131	+14,456 (+41.69%)
Total Non-domestic GFA (m^2)	**10,000**	**10,000**	--
Phase 1	10,000	no change	--
Phase 2	NA	NA	NA
Plot Ratio (PR)			
Total PR (about)	**0.903**	**0.961**	**+0.058 (+6.42%)**
Total Domestic PR (about)	**0.867**	**0.925**	**+0.058 (+6.69%)**
Phase 1	1.024	no change	--
Phase 2	0.451	0.655[5]	+0.204 (+45.23%)
Total Non-domestic PR (about)	**0.035**	**0.036**	**+0.001(+2.86%)[6]**
Phase 1	0.049	no change	--
Phase 2	NA	NA	NA
Site Coverage			
Total Site Coverage[7]	**10.29%**	**10%**	**-0.29%**
Phase 1[8]	33.35%	no change	--
Phase 2[8]	35%	35%	--

[3] According to the applicant, the change in site area is due to inclusion of land at the entrance at the residential portion (about 254m^2) and exclusion of the existing Chi Ho Road in the Ecological Enhancement Area (about 2,125m^2) for the purpose of rationalizing the boundary of Phase 2.

[4] Not exceeding the maximum permissible domestic GFA of 345,400m^2 under the OZP.

[5] It is based on the total site area of Phase 2 (i.e. 75,020m^2). If based on the site area of residential portion in Phase 2 (i.e. 29,346m^2), the domestic PR is about 1.67.

[6] There is no change to the non-domestic GFA. The change in non-domestic PR is due to the change in total site area.

[7] Based on total site area (i.e. 279,925m^2) which includes residential portions and ecological enhancement areas of Phases 1 and 2.

[8] Based on site area for residential portion only.

Development Parameters	Approved Scheme under Application No. A/YL-KTN/118-2 (a)	Proposed Scheme under the current application (b)	Difference (b)-(a)
BH			
No. of Storeys			
Phase 1	11 to 16 storeys over 2 to 4 storeys of shopping centre/ club house/ basement carpark	no change	--
Phase 2	6 to 7 storeys over 2 storeys of podium/ basement carpark	16 storeys over one 1 storey of basement carpark [i.e. minor relaxation of permissible maximum 14 storeys (+21.43%)]	+9 storeys (+128.57%)
BH			
Phase 1	Maximum 60.2mPD	no change	--
Phase 2	Maximum 34.3mPD	Maximum 62.2mPD	+27.9m (81.34%)
No. of Towers, Unit and Population			
No. of Residential Towers	**42**	**38**	**-4 (-9.52%)**
Phase 1	31	no change	--
Phase 2	11	7	-4 (-36.36%)
Total No. of Unit	**3,657**	**4,282**	**+625 (+17.09%)**
Phase 1	3,128	no change	--
Phase 2	529	1,154	+625 (+118.15%)
Overall Average Flat Size (m^2)	**66.84**	**60.46**	**-6.38 (-9.55%)**
Phase 1	67.06	no change	--
Phase 2	65.55	42.57	-22.98 (-35.06%)
Anticipated Population	**11,174**	**11,663**	**+489 (+4.38%)**
Phase 1	9,240	no change	--
Phase 2	1,934	2,423	+489 (+25.28%)
Private Open Space (m^2)	**Not less than 43,922**	**Not less than 44,411**	**+489 (+1.11%)**
Phase 1	41,988	no change	--
Phase 2	Not less than 1,934	Not less than 2,423	+489 (+25.28%)

Development Parameters	Approved Scheme under Application No. A/YL-KTN/118-2 (a)	Proposed Scheme under the current application (b)	Difference (b)-(a)
Carparking and Loading/unloading (L/UL)[9]			
Private Car Parking Space (residents/visitors)	**995 to 1,017/ 179**	**1,076/ 159**	**+59 (+5.80%)/ -20 (-11.17%)**
Phase 1	899/ 124	no change	--
Phase 2	96 to 118/ 55	177/ 35	+59 (+50%)/ -20 (-36.36%)
Motorcycle Parking Space (residents)	**NA**	**103**	**NA**
Phase 1	91	no change	--
Phase 2	NA[10]	12	NA
Bicycle parking space	**NA**	**220**	**NA**
Phase 1	143	no change	--
Phase 2	NA	77	NA
L/UL Bay for Goods Vehicle (residents)	**42**	**38**	**-4 (-9.52%)**
Phase 1	31	no change	--
Phase 2	11	7	-4 (-36.36%)
Public Vehicle Park			
Phase 1	NA	NA	--
Phase 2	NA	50	+50

Remarks:
(1) The GFA of not more than about 2,210m^2 of the proposed residential clubhouse in Phase 2 (1 block and 2 storeys including basement) is proposed to be exempted from PR calculation.
(2) The GFA of about 2,500m^2 of the proposed public vehicle park (to be accommodated in basement) is proposed to be exempted from GFA calculation in accordance with the Joint Practice Note No. 4.

1.5 The MLP, basement plan, ground floor plan, section, Landscape Master Plan (LMP), photomontages of the proposed development and landownership plan are at **Drawings A-1** to **A-15**.

1.6 Relevant technical assessments including Urban Design Proposal, Landscape Design and Tree Preservation Proposals, VIA, Air Ventilation Assessment (Initial Study) (AVA (IS)), TIA, EA, Ecological Impact Assessment (EcoIA), DIA, SIA and Water Supply Impact Assessment (WSIA) are submitted to demonstrate the technical feasibility of the development proposal.

[9] The number of private car and motorcycle parking space, L/UL bay and taxi/ coach/ mini bus space for commercial remain the same.
[10] To be provided based on standards stipulated under lease.

關乎申請編號 Y/YL-NSW/3 而只作指示用途的擬議發展計劃的概括發展規範

Broad Development Parameters of the Indicative Development Proposal in Respect of Application No. Y/YL-NSW/3

因應於 2015 年 10 月 22 日接獲的進一步資料而修訂的概括發展規範

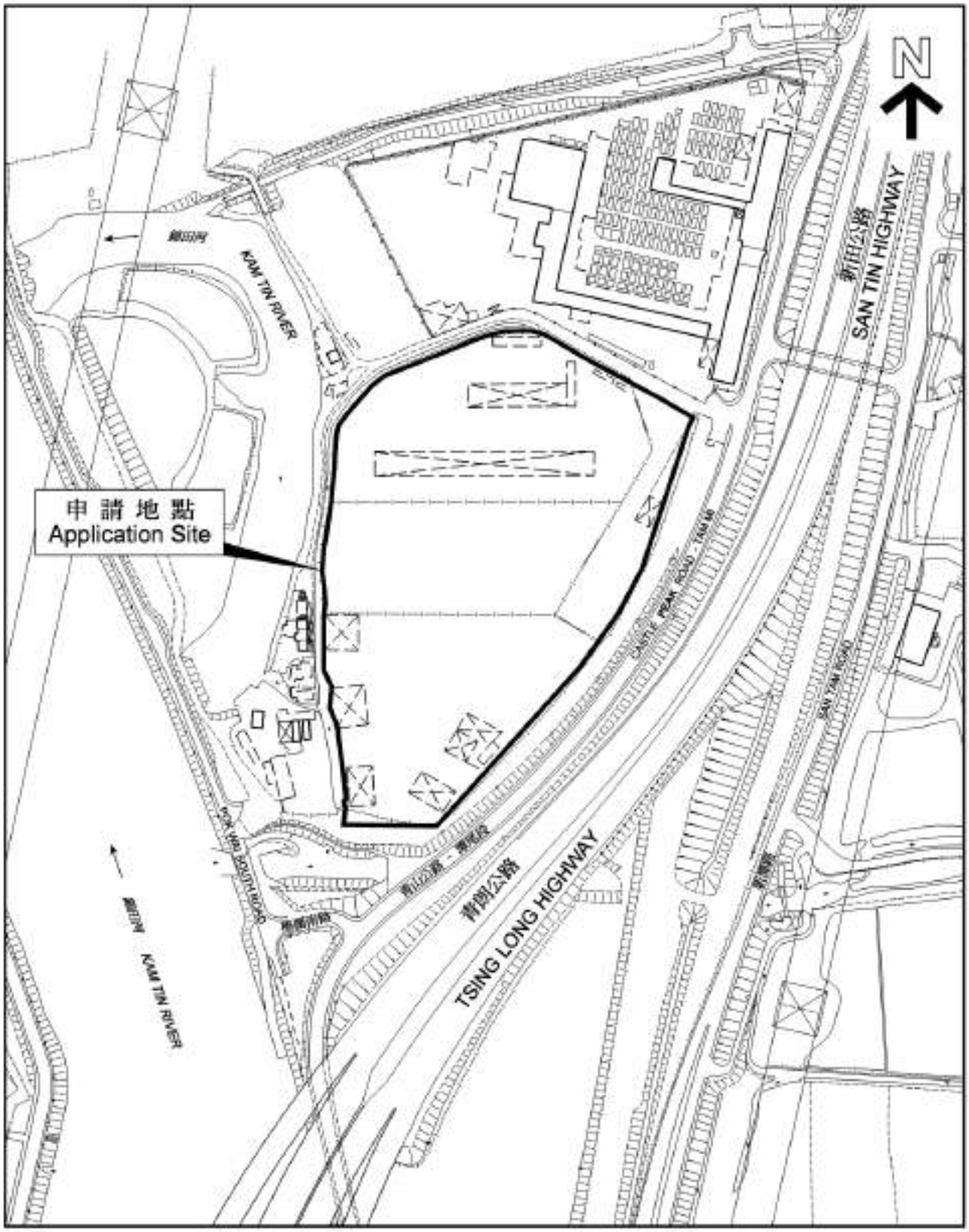
Revised broad development parameters in view of the further information received on 22.10.2015

(a)	申請編號 Application no.	Y/YL-NSW/3		
(b)	位置／地址 Location/Address	元朗榮基村以南丈量約份第 107 約地段第 1743 號 C 分段餘段（部分） Lot 1743 S.C RP (Part) in D.D. 107 to the south of Wing Kei Tsuen, Yuen Long		
(c)	地盤面積 Site area	約 About 38,593 平方米 m^2		
(d)	圖則 Plan	南生圍分區計劃大綱核准圖編號 S/YL-NSW/8 Approved Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/8		
(e)	地帶 Zoning	「露天貯物」 "Open Storage"		
(f)	擬議修訂 Proposed Amendment(s)	把「露天貯物」地帶改劃為「商業」地帶 To rezone the application site from "Open Storage" to "Commercial"		
(g)	總樓面面積及／或地積比率 Total floor area and/or plot ratio		平方米 m^2	地積比率 Plot ratio
		住用 Domestic	-	-
		非住用 Non-domestic	57,890	1.5
		包括 including		
		- 酒店 Hotel	19,590	---
		- 食肆、商店及服務行業和娛樂場所 Eating Place, Shop and Services, and Place of Entertainment	38,300	---
(h)	幢數 No. of block	住用 Domestic	-	
		非住用 Non-domestic	5	
		綜合用途 Composite	-	
(i)	建築物高度／層數 Building height/ No. of storeys	住用 Domestic	- 米 m - 米（主水平基準以上）mPD - 層 storey(s)	
		非住用 Non-domestic	- 米 m 不超過 Not Exceeding 46 米（主水平基準以上）mPD 11 層 storey(s) 包括 including 1 地庫 Basement	
		綜合用途 Composite	- 米 m - 米（主水平基準以上）mPD - 層 storey(s)	
(j)	上蓋面積 Site coverage	50 %		
(k)	單位數目 No. of units	700 酒店房間 Hotel Rooms		

(l) 休憩用地 Open Space	- 私人 Private	- 平方米 m^2	
	- 公眾 Public	- 平方米 m^2	
(m) 停車位及上落客貨車位數目 No. of parking spaces and loading/ unloading spaces	- 私家車車位 Private Car Parking Spaces		362
	- 電單車車位 Motorcycle Parking Spaces		37
	- 單層旅遊巴車位 Single-deck Tour Bus Parking Spaces		4
	- 上落客貨車位 Loading/Unloading Spaces		55

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Y/YL-NSW/3


N
申請地點
Application Site
KAM TIN RIVER
SAN TIN HIGHWAY
新田公路
TSING LONG HIGHWAY
青朗公路
KAM TIN RIVER

附件二

B776CL號工務計劃－元朗錦田南公營房屋發展之工地平整及基礎設施工程－第一期

項目建議

我們建議把**B776CL**號工務計劃的第一期工程提升為甲級。擬議工程的位置圖、工地平面圖及剖面圖載於**附件二**的**附錄一**。工程範圍包括－

(一) 工地平整及建造相關的護土牆及斜坡；

(二) 在第1號用地建造一條雙線不分隔行車路及行人路，以連接東匯路；

(三) 擴闊一段現時為單線行車路的錦莆路為雙線不分隔行車路、行人路及單車徑；

(四) 在東匯路與錦莆路的交界處進行改善工程；

(五) 在錦河路建造停車灣及進行道路改善工程；

(六) 在東匯路進行道路改善工程，並在近第6號用地提供單車停放處；以及

(七) 進行相關附屬工程，包括排水、排污、供水及環境美化工程。

2. 我們會把**B776CL**號工務計劃的餘下部分保留為乙級，範圍包括錦田南第4a-2號用地公營房屋發展項目之工地平整及相關的基礎設施工程。我們會適時為**B776CL**號工務計劃的餘下部分申請撥款。

3. 如獲財務委員會及時批准撥款，我們預計**B776CL**號工務計劃第一期工程可在2021年年中展開；土地平整工程預計可在2023年至2025年分階段完成，以配合擬議的錦田南第1、4a-1及6號用地的公營房屋發展；而基礎設施工程則預計在2026年完成，以配合公營房屋居民入伙。

理由

4. 我們擬議進行**B776CL**號工務計劃第一期工程，於錦田南第1、4a-1及6號用地，提供已平整的土地和相關的基礎設施，以配合公營房屋發展。有關公營房屋發展項目的主要發展參數及概念平面圖分別載於**附件二**的**附錄二**及**附錄三**。

5. 根據交通影響評估結果，我們亦擬議進行上文第1段所列的第（二）至（六）項道路改善工程，以應付擬議發展帶來的額外交通及運輸需求。

項目估算

6. 按付款當日價格計算，我們估計擬議工程的建設費用為9億710萬元。

公眾諮詢

7. 我們在2019年2月22日根據《道路（工程、使用及補償）條例》（第370章）（下稱《道路條例》）就擬議道路工程刊登憲報，以及根據《水污染管制(排污設備)規例》（第358AL章）第26條引用《道路條例》的規定就擬議排污工程刊登憲報。憲報刊登後，我們收到17份對擬議道路工程的反對，及15份對擬議排污工程的反對。我們已與反對者會面，解釋項目細節。最終，3位對擬議道路工程及3位對擬議排污工程的反對者無條件撤回反對，餘下的14位對擬議道路工程及12位對擬議排污工程的反對者則維持反對立場。反對意見主要與補償及安置安排和交通及運輸事宜有關。我們其後按既定程序把反對意見及與反對者的往來文件（包括會面紀錄）提交行政長官會同行政會議考慮。行政長官會同行政會議在2020年3月31日授權進行擬議道路工程及擬議排污工程，無須作出修訂，授權公告隨後已在2020年4月29日刊憲。

8. 我們在2020年3月12日諮詢錦田鄉事委員會。該委員會原則上支持政府進行公營房屋發展，但提出一些有關社區設施、交通及運輸影響、補償及安置安排和排污系統等方面的關注。

9. 我們亦分別在2020年4月29日及5月21日諮詢元朗區議會轄下的房屋及城鄉規劃和發展委員會及八鄉鄉事委員會。兩個委員會雖然均認同房屋問題為本港最迫切要解決的問題，但通過動議對公營房屋選址、社區設施、交通及運輸影響、補償及安置安排，及農地復耕和排水及污水系統表示關注。就委員會關注的事項，我們已在2020年6月24日以書面向委員會作出詳盡解說。

土地徵用

10. 這項工務計劃涉及收回約12.4公頃私人土地及清理約8.3公頃政府土地，我們計劃於**總目701「土地徵用」**項下支付有關費用。

交通影響

11. 土木工程拓展署(下稱「土拓署」)已為擬議發展進行交通影響評估。根據評估結果，在擬議的改善工程完成後，附近的道路系統足以應付擬議發展帶來的額外交通及運輸需求。土拓署會於擬議工程施工期間實施臨時交通安排，亦會對工程車輛實施適當的管制措施，以減低擬議工程對鄰近道路的交通影響。

運輸及房屋局
2020年10月

附件二附錄二

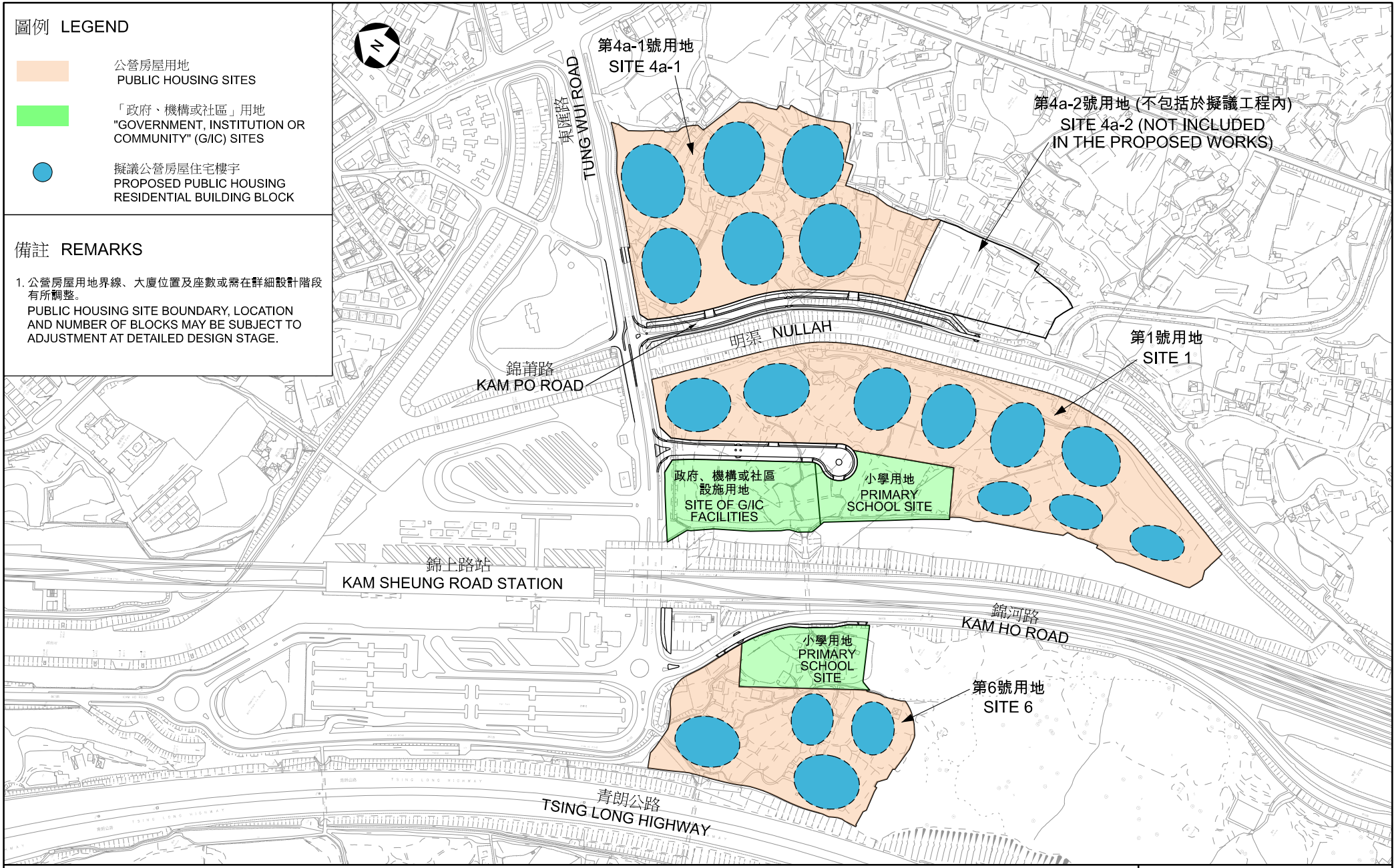
元朗錦田南第 1、4a-1 及 6 號用地

公營房屋發展計劃的主要發展參數

地盤面積	合共約 13 公頃
整體總樓面面積	約 39 萬平方米
樓宇高度限制	主水平基準上 69 米
住宅樓宇座數	19 座(須經詳細設計才能落實)
單位數目	約 8 100 個
預測人口	約 22 700 人
完工日期	2026 年起分階段落成
非住宅設施[註]	附屬泊車位、鄰舍休憩用地、幼稚園、康樂、社福、零售設施及濕貨街市等

註： 在第 1 及 6 號用地內預留合共約 2.4 公頃的「政府、機構或社區」用地作配套設施，包括小學、電力分站及社區綜合大樓。

4. Kam Tin South Priority Sites Development



工務計劃項目編號第B776CL - 元朗錦田南公營房屋發展之工地平整及基礎設施工程 - 第一期

PWP ITEM NO. B776CL -
SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS AT KAM TIN SOUTH, YUEN LONG - PHASE 1

概念平面圖
CONCEPTUAL PLAN

比例 SCALE A4 1 : 5000

R:\Drawing-WDOST-Z\WDOST-Z0209\WDOST-Z0209 NO_RED LINE.dgn

21/10/2020

A4 297mm X 210mm

附件二附錄三 ENCLOSURE 3 TO ANNEX 2

4. Kam Tin South Priority Sites Development

Our Mission

Properties Owned/ Developed/ Managed

East Rail Line

Kwun Tong Line Extension

Light Rail

Tuen Ma Line

South Island Line (East)

Tseung Kwan O Line

Tung Chung Line

Urban Lines

Shopping Malls

Invitation for Expression of Interest for Property Development

KAM SHEUNG ROAD STATION*

Package One



Consortium:
Sino Land Company Limited
China Overseas Land & Investment Limited
K. Wah International Holdings Limited

Residential GFA:
Approx. 114,000 sq.m.

No. of Flats:
Approx. 1,650

Expected Completion:
2025

Package Two

Site Area:
Approx. 5.17 hectares

* As Agent for the Relevant Subsidiaries of KCRC

關乎申請編號 A/YL-NSW/241 的擬議用途/發展的概括發展規範
Broad Development Parameters of the Applied Use/Development in respect of Application No. A/YL-NSW/241

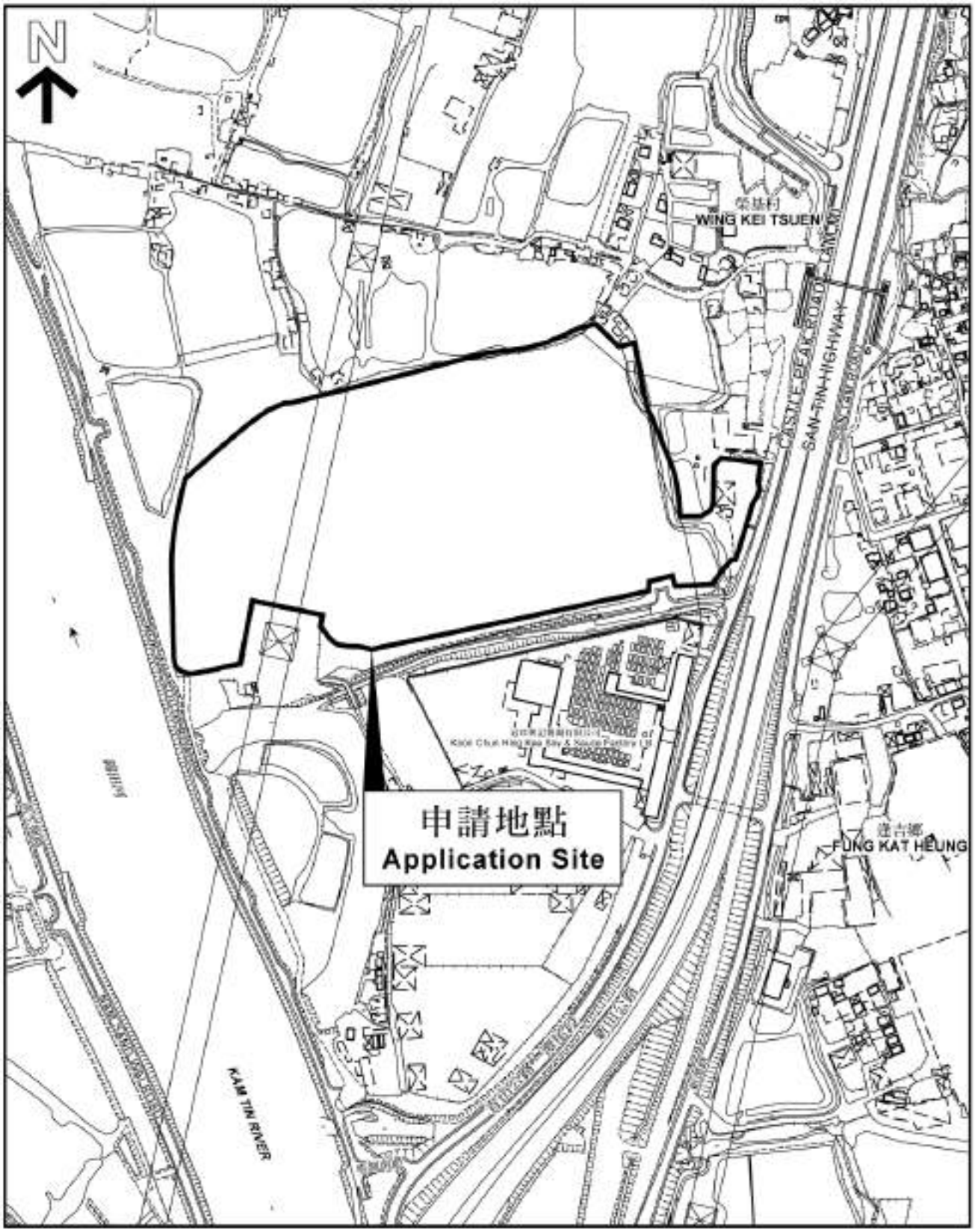
因應於 2017 年 8 月 25 日接獲的進一步資料而修訂的概括發展規範
Revised broad development parameters in view of the further information received on 25.08.2017

(a)	申請編號 Application no.	A/YL-NSW/241		
(b)	位置／地址 Location/Address	元朗塱圍及榮基村以南丈量約份第 107 約地段第 8 號餘段(部分)、第 14 號 B 分段餘段(部分)、第 45 號、第 1740 號 A 分段餘段和毗連政府土地 Lots 8 RP (Part), 14 S.B RP (Part), 45 and 1740 S.A RP in D.D.107 and Adjoining Government Land, to the South of Pok Wai and Wing Kei Tsuen, Yuen Long		
(c)	地盤面積 Site area	約 About 92,927.5 平方米 m^2（包括政府土地約 Includes Government Land of about 4,461.3 平方米 m^2）		
(d)	圖則 Plan	南生圍分區計劃大綱核准圖編號 S/YL-NSW/8 Approved Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/8		
(e)	地帶 Zoning	「其他指定用途」註明「綜合發展包括濕地修復區」 "Other Specified Uses" annotated "Comprehensive Development to include Wetland Restoration Area"		
(f)	申請用途／發展 Applied Use/ Development	擬議綜合發展作折扣商場，包括「商店及服務行業」及「食肆」的商業用途、另擬作商業養魚用途的漁塘的「農業用途」、擬議挖土及填土 Proposed Comprehensive Development of an Outlet Mall with Commercial Uses (Including 'Shop and Services' and 'Eating Place'), 'Agricultural Use' (Commercial Fish Ponds), 'Excavation of Land' and 'Filling of Land'		
(g)	總樓面面積及／或地積比率 Total floor area and/or plot ratio		平方米 m^2	地積比率 Plot ratio
		住用 Domestic	-	-
		非住用 Non-domestic	約 About 37,171	約 About 0.4
(h)	幢數 No. of block	住用 Domestic	-	
		非住用 Non-domestic	不超過 Not Exceeding 12	
		綜合用途 Composite	-	
(i)	建築物高度／層數 Building height/ No. of storeys	住用 Domestic	- 米 m - 米(主水平基準以上)mPD - 層 storey(s)	
		非住用 Non-domestic	- 米 m 不超過 Not Exceeding 23.5 米(主水平基準以上)mPD 4 層 storey(s) 包括 including 1 地庫 Basement	
		綜合用途 Composite	- 米 m - 米(主水平基準以上)mPD - 層 storey(s)	
(j)	上蓋面積 Site coverage	約 About 18.6 %		

(k) 單位數目 No. of units	-		
(l) 休憩用地 Open Space	- 私人 Private	- 平方米 m^2	
	- 公眾 Public	- 平方米 m^2	
(m) 停車位及上落客貨車位數目 No. of parking spaces and loading/ unloading spaces	- 私家車車位 Private Car Parking Spaces		285
	- 電單車車位 Motorcycle Parking Spaces		29
	- 上落客貨車位 Loading/Unloading Spaces		47

* 有關資料是為方便市民大眾參考而提供。對於所載資料在使用上的問題及文義上的歧異，城市規劃委員會概不負責。若有任何疑問，應查閱申請人提交的文件。
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A/YL-NSW/241


N
WING KEI TSUEN
CASTLE PEAK ROAD
SAN TIN HIGHWAY
申請地點
Application Site
FUNG KAT HEUNG
KAM TIN RIVER

Gist of LSPS Application No. LSPS/002
(Revised Development Proposal by Applicant)
土地共享先導計劃申請編號 LSPS/002 摘要
（經申請人修訂的發展計劃）

Part One **第一部分**	**Application Site** **申請地點**
1. Applicant 申請人	Topwood Limited, Success King Limited and Richduty Development Limited (parent company: Sun Hung Kai Properties Limited) 合域有限公司、誠君有限公司及富任發展有限公司 （母公司：新鴻基地產發展有限公司）
2. Location/address (*Plan 1: Location Plan*) 位置/地址（*圖 1：位置圖*）	Ho Chau Road, Yuen Long, New Territories (near Tung Shing Lei) (Various lots in D.D. 115 and adjoining Government land) 新界元朗蠔洲路（近東成里）（丈量約份第 115 約多個地段及毗鄰政府土地）
3. Application Site Area (sq.m.) 申請地點面積（平方米）	About 約 57,055 (Including Government land of about 包括政府土地約 20,065sq.m. 平方米)
	Including 包括： - Total Development Site Areas[(1)] 45,441 發展用地總面積[(1)] - Land designated for Access Road and Other Use (Compensation Pond) 11,614 作通道及其他用途（彌償漁塘）的土地
4. Statutory Plan 法定圖則	Approved Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/8 南生圍分區計劃大綱核准圖編號 S/YL-NSW/8
5. Zoning 土地用途地帶	"Residential (Group D)" 「住宅（丁類）」

1 Includes Private Development Portion and Public Housing/Starter Homes Portion.
包括私人發展部分及公營房屋／「首置」部分。

6. LSPS 002 - Tung Shing Lei

Part Two **第二部分**			**Development Proposal** **擬議發展計劃**	
Development Parameters[2] (*Plan 2: Master Layout Plan submitted by the applicant*) 發展參數[2]（*圖2：申請人提交的總綱發展藍圖*）			Private Housing Development Portion 私人房屋發展部分	Public Housing/ Starter Homes Portion 公營房屋／「首置」部分
1. Development Site Area (sq.m.) 發展用地面積（平方米）			About 約 23,340	About 約 22,101
2. Plot ratio 地積比率	住用 Domestic		2.15	4.23
	非住用 Non-domestic		0.09	0.04
3. Gross floor area (sq.m.) 總樓面面積（平方米）	住用 Domestic	Generated under LSPS 因土地共享先導計劃新增	About 約 40,029 [30%]	About 約 93,400 [70%]
		Private Housing Previously approved 先前已獲批准的私人房屋發展	10,150[3]	N/A 不適用
		Total 總數	About 約 50,179	About 約 93,400
	非住用 Non-domestic		About 約 2,245	About 約 800
4. No. of block 幢數	住用 Domestic		0	0
	非住用 Non-domestic		0	0
	綜合 Composite		3	6
5. Maximum Building height/ Maximum No. of storeys 建築物的最高高度／建築物的最高層數			- m米	- m米
			99.9 mPD 米 (主水平基準上)	99.3 mPD 米 (主水平基準上)
			24 Storey(s)層 *Excluding Basements* *不包括地庫*	26 Storey(s)層 *excluding Basements* *不包括地庫*
6. No. of Units 單位數目			1,261	1,868[4]
7. Anticipated Population 預計人口			3,153	5,231[4]
8. Open space 休憩用地（sq. m 平方米）			Not less than 不少於 3,153	Not less than不少於 5,231

2 The development parameters shown are for reference only and subject to detailed technical assessments by the applicant and the infrastructural capacity. They do not represent the eventual parameters to be developed and the details of public housing/Starter Homes to be determined by the Government.
上述所載的發展參數只供參考，並有待申請人提交的詳細技術評估和基礎設施容量再作確實。它們並不代表最終的發展參數及政府決定的公營房屋／「首置」細節。

3. The domestic GFA per previously approved planning application no. Y/YL-NSW/4.
先前已獲批的規劃申請（編號Y/YL-NSW/4）的住用總樓面面積。

4 No. of Units and Anticipated Population of Public Housing/Starter Homes Portion shown are based on the assumptions suggested in the "Land Sharing Pilot Scheme Topical Guideline 1" and are for reference only. The Housing Bureau will decide the number of units to be provided in due course.
公營房屋／「首置」部分的單位數目及預計人口是根據《土地共享先導計劃專題指引 1》建議的假設而得出，並只供參考。最終提供的單位數目由房屋局決定。

Part Three **第三部分**	**Proposed Government, Institution or Community (GIC) Facilities** **擬議政府、機構或社區設施**

Details of proposed GIC facilities (*Locations are shown in Plan 2*)
擬議的政府、機構或社區設施之詳情（*其位置於圖 2 展示*）

1. Within Application Site 位於申請地點內：
   - About 5% of the total domestic GFA of the Public Housing/Starter Homes Portion will be reserved for provision of social welfare facilities
     於公營房屋／「首置」部分住用總樓面面積的約5%將預留作社會福利用途

2. Outside Application Site 位於申請地點外：
   - N/A 不適用

Part Four **第四部分**	**Proposed Infrastructure** **擬議基建設施**

Details of proposed Infrastructure (including any upgrading to the existing infrastructures)
(*Plan 3: Infrastructure Location Plan*)
擬議基建設施（包括提升現有基建設施）之詳情（*圖 3：基建設施位置圖*）

Within Application Site 位於申請地點內：

- Site formation works for the Public Housing/Starter Homes Portion
  公營房屋／「首置」部分的地盤平整工程
- Access road with associated drainage, sewerage and waterworks
  擬議通道及相關排水、排污及水務工程
- A Public Transport Terminus in Private Housing Portion
  一個位於私人房屋部分的公共交通總站

Outside Application Site 位於申請地點外：

- Traffic improvement measures
  交通改善措施
- Ancillary works including water supply, sewerage, etc.
  附屬工程如供水、排污等

Part Five **第五部分**	**Tentative Implementation Programme** **初步實施時間表**

Anticipated date of commencement of statutory procedures on planning and road works: 2023
預計展開規劃及道路工程等法定程序日期：2023 年
Anticipated date of completion of site formation works for Public Housing/Starter Homes Portion: end 2026
預計公營房屋／「首置」部分土地平整工程完成日期：2026 年底

Part Six **第六部分**	**Gist of Panel of Advisors' Comments** **顧問小組意見摘要**

The Panel supported the proposed scheme, and considered that it struck a proper balance between housing demand and conservation.
顧問小組支持該發展方案，認為能為房屋需求與保育之間取得適當平衡。

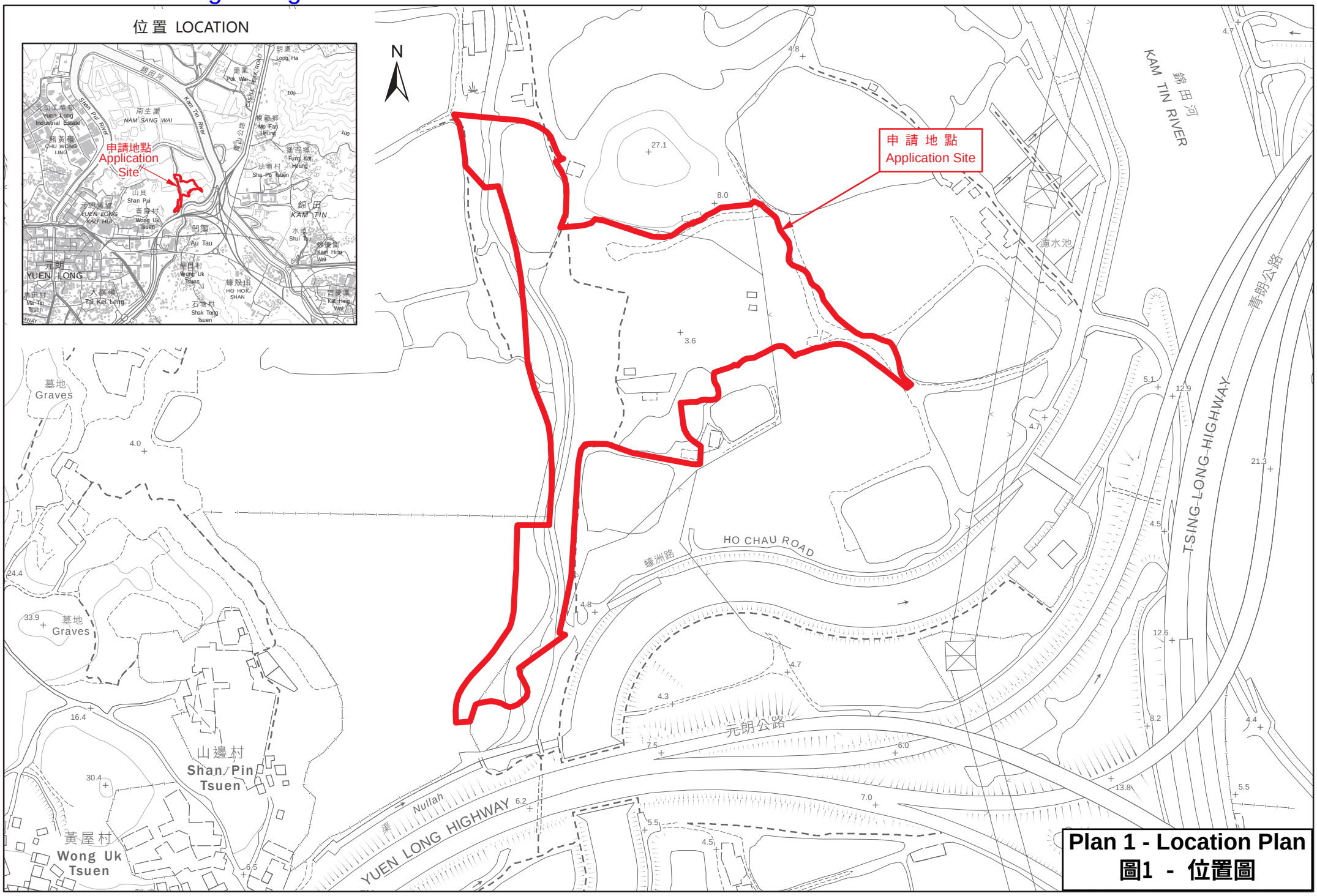
6. LSPS 002 - Tung Shing Lei

免責聲明 Disclaimer

提供有關資料旨為方便市民大眾參考。對於上述所載資料在使用上的問題及文義上的歧異，包括但不局限於由申請人提交有關土地擁有權的資料，發展局及土地共享辦事處概不負責。

The information is provided for the ease of reference by the general public. Under no circumstances will the Development Bureau and Land Sharing Office accept any liabilities for any issues arising from the use nor any inaccuracies or discrepancies of the above information, including but not limited to any land ownership particulars as submitted by the Applicant, provided hereof.

6. LSPS 002 - Tung Shing Lei



Plan 1 - Location Plan
圖1 - 位置圖

關乎申請編號 A/YL-KTN/604 的擬議用途/發展的概括發展規範
Broad Development Parameters of the Applied Use/Development in respect of Application No. A/YL-KTN/604

因應於 2019 年 2 月 11 日接獲的進一步資料而修訂的概括發展規範
Revised broad development parameters in view of the further information received on 11.02.2019

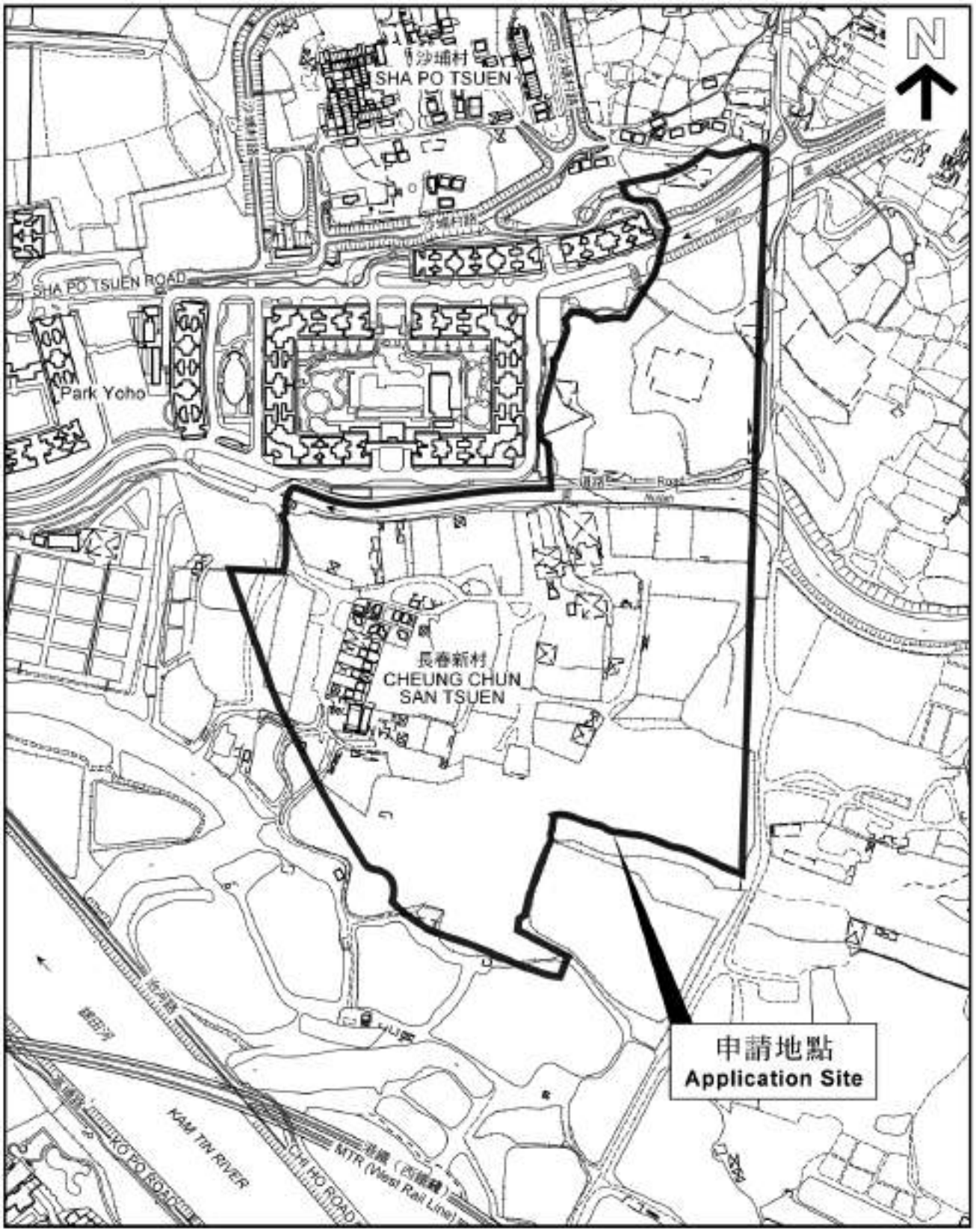
(a)	申請編號 Application no.	A/YL-KTN/604	
(b)	位置／地址 Location/Address	新界元朗錦田長春新村丈量約份第 107 約多個地段及毗連政府土地 Various Lots in D.D. 107 and Adjoining Government Land, Cheung Chun San Tsuen, Kam Tin, Yuen Long, New Territories	
(c)	地盤面積 Site area	約 About 156,065 平方米 m² （包括政府土地約 Includes Government Land of about 24,940 平方米 m²）	
(d)	圖則 Plan	錦田北分區計劃大綱核准圖編號 S/YL-KTN/9 Approved Kam Tin North Outline Zoning Plan No. S/YL-KTN/9	
(e)	地帶 Zoning	「綜合發展區(1)」及「綜合發展區」 "Comprehensive Development Area (1)" and "Comprehensive Development Area"	
(f)	申請用途／發展 Applied Use/ Development	擬議分層樓宇、商店及服務行業、食肆、學校、社會福利設施、公共車輛總站或車站，並略為放寬地積比率及建築物高度限制 Proposed Flat, Shop and Services, Eating Place, School, Social Welfare Facility, Public Transport Terminus or Station uses and Minor Relaxation of Plot Ratio and Building Height Restrictions	
(g)	總樓面面積及／或地積比率 Total floor area and/or plot ratio		平方米 m^2 / 地積比率# Plot ratio
		住用 Domestic	不超過 Not More Than 179,838 / 約 About 1.2
		包括 including	
		- 住宅 Flat	不超過 Not More Than 179,838 / ---
		非住用 Non-domestic	不超過 Not More Than 8,088 / 約 About 0.054
		包括 including	
		- 食肆／商店及服務行業／學校 Eating Place/Shop and Services/School	不超過 Not More Than 5,500 / ---
		- 車輛交匯處 Transport Interchange	不超過 Not More Than 1,800 / ---
		-社會福利設施 Social Welfare Facility	不超過 Not More Than 788 / ---

(h) 幢數 No. of block	住用	Domestic	28
	非住用	Non-domestic	5
	綜合用途	Composite	-
(i) 建築物高度／層數 Building height/ No. of storeys	住用	Domestic	- 米 m 45.95 - 66.35 米（主水平基準以上）mPD 12 - 18 層 storey(s) 包括 including 1 地庫 Basement
	非住用	Non-domestic	- 米 m 17 - 21 米（主水平基準以上）mPD 3 層 storey(s) 包括 including 1 地庫 Basement
	綜合用途	Composite	- 米 m - 米（主水平基準以上）mPD - 層 storey(s)
(j) 上蓋面積 Site coverage	不超過 Not More Than 30 %		
(k) 單位數目 No. of units	3,891 住宅單位 Flats		
(l) 休憩用地 Open Space	- 私人 Private		不少於 Not less than 8,172 平方米 m^2
	- 公眾 Public		- 平方米 m^2
(m) 停車位及上落客貨車位數目 No. of parking spaces and loading/ unloading spaces	- 私家車車位 Private Car Parking Spaces		668
	- 電單車車位 Motorcycle Parking Spaces		43
	- 單車 Bicycle		260
	- 上落客貨車位 Loading/Unloading Spaces		36

以地盤淨面積計算， 不包括約 6,200 平方米的預留學校用地。
The calculation is based on the net site area, excluding the reserve school site with a site area of about 6,200m^2.

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A/YL-KTN/604


N
沙埔村
SHA PO TSUEN
SHA PO TSUEN ROAD
Park Yoho
Road
長春新村
CHEUNG CHUN SAN TSUEN
申請地點
Application Site
KAM TIN RIVER
CHI HO ROAD
MTR (West Rail Line)

區議會文件2022/第36號
(於25.10.2022 會議討論)

元朗區議會會議

擬議修訂《錦田北分區計劃大綱核准圖編號 S/YL-KTN/9》
及
元朗沙埔公營房屋發展計劃

1. 目的

本文件旨在向各議員徵詢有關《錦田北分區計劃大綱核准圖編號S/YL-KTN/9》(下稱《大綱圖》)，就元朗沙埔棕地群作公營房屋及社區用地發展計劃所擬議的修訂項目(**圖 1**) ，以及該公營房屋發展計劃(**圖 2**)的意見。

2. 前言

2.1 2017 年 4 月，規劃署展開《新界棕地使用及作業現況研究—可行性研究》(下稱《棕地研究》)，以掌握新界各處棕地的狀況、了解有關主要行業的運作細節，以及探討相關的主要課題。2019 年 11 月，規劃署公布《棕地研究》的結果，該研究指出在 1 579 公頃棕地當中，共有 450 公頃未有發展計劃、但具較高發展潛力的棕地。

2.2 為配合行政長官於《2019 年施政報告》中提出增加土地供應以回應市民對房屋迫切需要的目標，規劃署分階段檢視這 450 公頃棕地，以評估當中有多少適合作短、中期公營房屋發展。規劃署於 2019 年完成檢視首階段 160 公頃較接近現有基建設施的棕地，並於元朗、屯門及大埔物色了八組具潛力在短、中期作較高密度公營房屋發展的棕地群，位於元朗沙埔的棕地群是其中之一。

2.3 2020 年 7 月，土木工程拓展署(下稱土拓署)就擬議在元朗沙埔棕地群發展公營房屋及社區用地的計劃展開工程可行性研究。有關研究已進行一系列技術評估，以確保擬議的發展計劃在實施所需的緩解措施後不會帶來重大的影響。

2.4 上述的發展計劃位於元朗沙埔村以北，新田公路及新潭路以東，模範鄉以南及逢吉鄉以西。擬議發展用地在《大綱圖》上現劃為「工業(丁類)」地帶及「農業」地帶，現時主要為一些棕地作業（包括露天貯物場、工場和倉庫）及鄉郊民居。擬議發展用地面積約為 15.9 公頃，當中約 11.8 公頃的土地為擬議公營房屋發展用地，其總地積比率為 6.7 倍，預計可興建約 16 300 個公營房屋單位。

3. 擬議《大綱圖》修訂項目及相關發展計劃

3.1 擬議發展的初步主要發展參數[1] 概述如下(公營房屋發展計劃概念設計見**圖 2**):

擬議發展用地面積	約 15.9 公頃
擬議房屋發展用地面積	約 11.8 公頃
擬議房屋發展總地積比率	不超過 6.7 倍
擬議樓宇高度	不高於主水平基準上 185 米
擬建單位數目	約 16 300 個單位
預計人口	約 46 000 人
康樂設施	參照《香港規劃標準與準則》的指引，提供休憩及兒童遊樂設施、綠化空間等。
泊車設施	參照《香港規劃標準與準則》的指引，提供附屬泊車設施。
其他設施	擬議發展用地內提供一間小學、消防局、警局、康樂體育中心、小型足球場、綜合公共交通交匯處、零售設施、停車場、幼稚園及社會福利設施。
公營房屋發展的預計竣工年份	2031[2]

[1] 發展參數及附件只供參考，有關公營房屋及社區用地發展計劃的細節尚待詳細規劃及於設計階段與相關部門磋商。

[2] 公營房屋發展的預計竣工年份須視乎實際情況或須有所修訂，例如有關地盤能否如期移交香港房屋委員會等。

3.2 為配合上述發展計劃，政府當局現建議把該用地由「工業(丁類)」地帶及「農業」地帶改劃為「住宅（甲類）」地帶（修訂項目A項）及「政府、機構或社區」地帶（修訂項目B項）**(圖3)**。此外，我們建議把不被納入發展計劃的「上將府」等建築物的用地由「工業(丁類)」地帶改劃作「住宅（丙類）3」地帶（修訂項目C項）（**圖3**），以反映有關建築物目前的用途。

3.3 根據土拓署所委託顧問進行的工程可行性研究，預期元朗沙埔公營房屋及社區用地發展項目不會對附近地區的交通及運輸、環境、排污、排水、供水、視覺、景觀及空氣流通等方面帶來無法克服的技術問題。交通及運輸影響評估結果顯示，在實施了建議的交通改善措施後，擬議發展對整體交通及運輸不會帶來重大的影響。在視覺及空氣流通方面，透過合適的布局、座向和間距規劃，擬議建築物會保持相當的通透性。適當的園林及建築設計亦會為居民提供理想的生活環境。

4. 徵詢意見

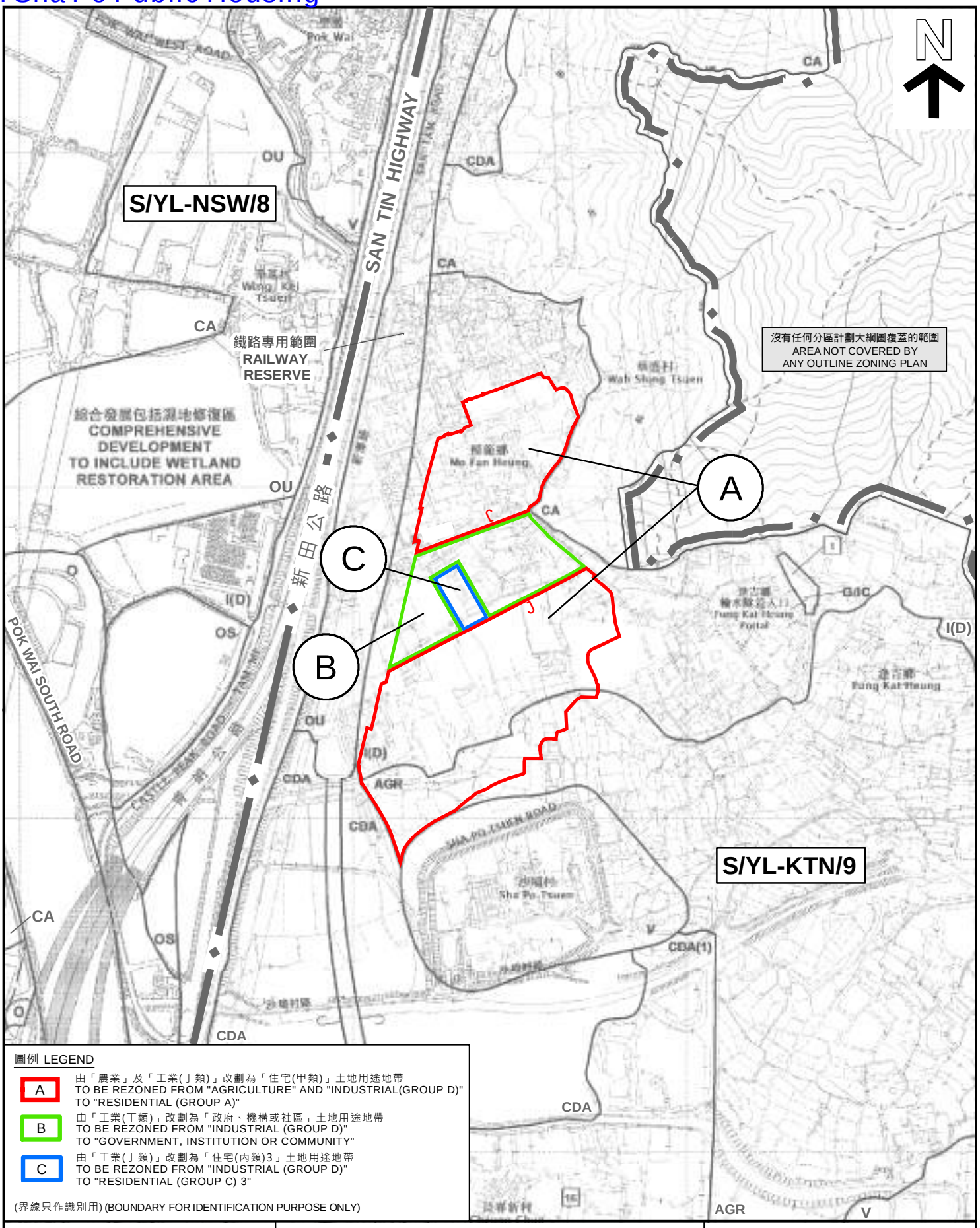
歡迎各位議員對上述擬議《大綱圖》修訂項目及公營房屋發展計劃提出意見。議員就《大綱圖》修訂項目提出的意見，將會與修訂項目和政府部門的意見一併提交城市規劃委員會（下稱「城規會」）轄下的鄉郊及新市鎮規劃小組委員會（下稱「小組委員會」）考慮。如小組委員會同意有關擬議修訂項目，城規會將根據《城市規劃條例》第5條展示涵蓋有關修訂項目的分區計劃大綱草圖作公眾諮詢，為期兩個月。屆時，公眾人士可對修訂項目提出申述。至於議員對公營房屋發展計劃的意見，房屋署會在詳細規劃及設計階段考慮。

5. 附件

圖1 位置圖
圖2 擬議公營房屋發展計劃-概念設計圖
圖3 擬議修訂項目

規劃署、土木工程拓展署及房屋署
2022年10月

8. Sha Po Public Housing



圖例 LEGEND

A	由「農業」及「工業(丁類)」改劃為「住宅(甲類)」土地用途地帶 TO BE REZONED FROM "AGRICULTURE" AND "INDUSTRIAL(GROUP D)" TO "RESIDENTIAL (GROUP A)"
B	由「工業(丁類)」改劃為「政府、機構或社區」土地用途地帶 TO BE REZONED FROM "INDUSTRIAL (GROUP D)" TO "GOVERNMENT, INSTITUTION OR COMMUNITY"
C	由「工業(丁類)」改劃為「住宅(丙類)3」土地用途地帶 TO BE REZONED FROM "INDUSTRIAL (GROUP D)" TO "RESIDENTIAL (GROUP C) 3"

(界線只作識別用) (BOUNDARY FOR IDENTIFICATION PURPOSE ONLY)

本摘要圖於2022年10月11日擬備，
所根據的資料為於2014年12月2日
核准的分區計劃大綱圖編號 S/YL-KTN/9
EXTRACT PLAN PREPARED ON 11.10.2022
BASED ON OUTLINE ZONING PLAN No. S/YL-KTN/9 APPROVED ON 2.12.2014

位置圖 LOCATION PLAN

錦田北分區計劃大綱核准圖編號S/YL-KTN/9的擬議修訂
PROPOSED AMENDMENTS TO THE APPROVED KAM TIN NORTH OUTLINE ZONING PLAN No. S/YL-KTN/9

SCALE 1 : 7 500 比例尺
米 METRES 100 0 100 200 300 米 METRES

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
M/NT/22/29

圖 PLAN
1

Broad Development Parameters of the Applied Use/Development in respect of Application No. A/YL-KTN/791
關乎申請編號 A/YL-KTN/791 的擬議用途/發展的概括發展規範

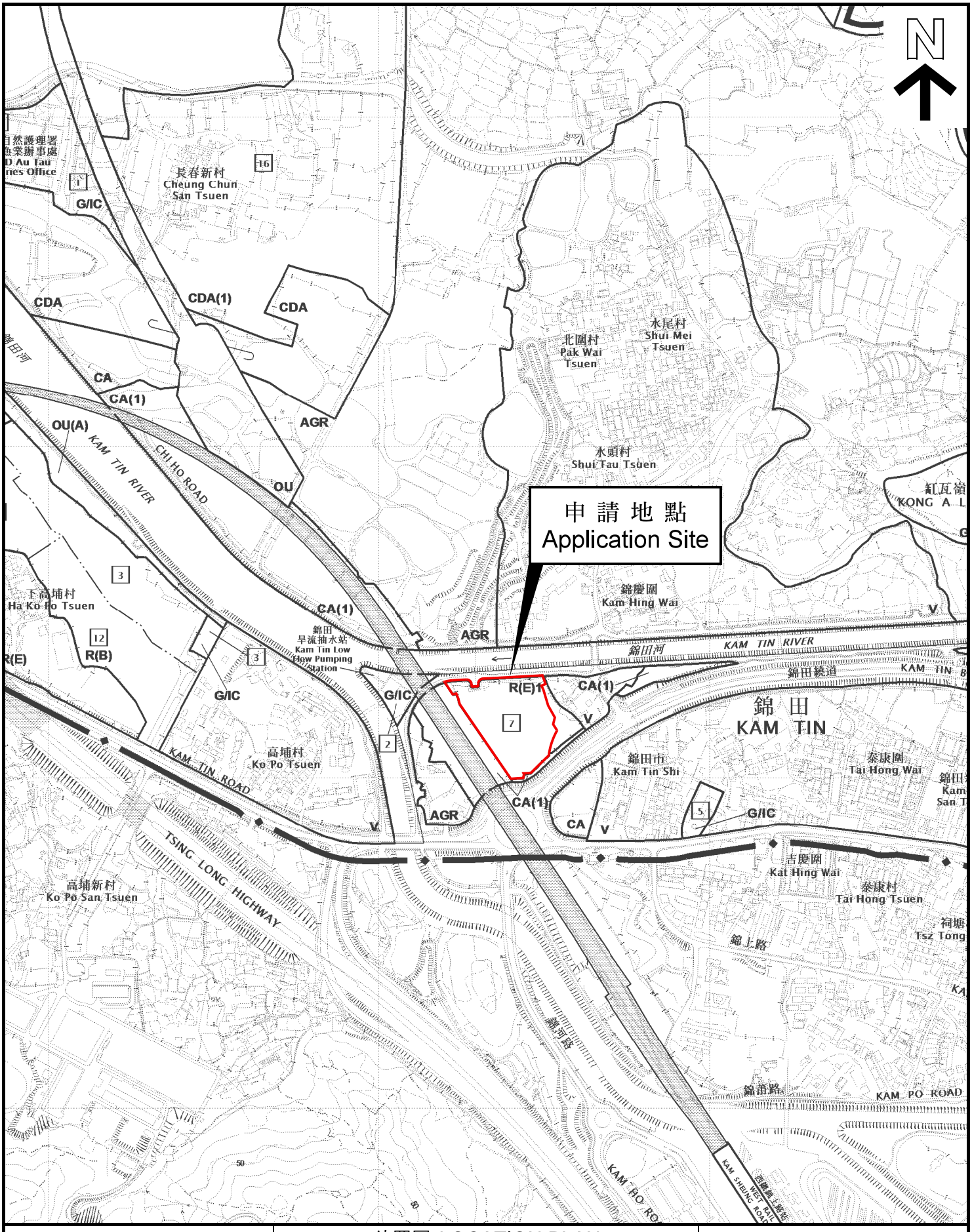
Revised broad development parameters in view of the further information received on 26.11.2021
因應於 2021 年 11 月 26 日接獲的進一步資料而修訂的概括發展規範

Application No. 申請編號	A/YL-KTN/791		
Location/address 位置／地址	Lot 2206 in D.D. 109, Kam Tai Road, Kam Tin, Yuen Long, N.T. 新界元朗錦田錦泰路丈量約份第 109 約地段第 2206 號		
Site area 地盤面積	About 約 15,978 sq. m 平方米		
Plan 圖則	Approved Kam Tin North Outline Zoning Plan No. S/YL-KTN/9 錦田北分區計劃大綱核准圖編號 S/YL-KTN/9		
Zoning 地帶	"Residential (Group E)1" 「住宅(戊類)1」		
Applied use/ development 申請用途/發展	Proposed Residential Development ("Flat" and "House" Uses) 擬議住宅發展(「分層住宅」及「屋宇」用途)		
Gross floor area and/or plot ratio 總樓面面積及／或地積比率		sq. m 平方米	Plot ratio 地積比率
	Domestic 住用	About 約 12,782	Not more than 不多於 0.8
	Non-domestic 非住用	-	-
No. of block 幢數	Domestic 住用	Towers 住宅大廈: 2; Houses 屋宇: 87	
	Non-domestic 非住用	-	
	Composite 綜合用途		
Building height/No.	Domestic	Towers 住宅大廈: not more than 不多於 21.475 Houses 屋宇: not more than 不多於 6.1-9.8 m 米	

of storeys 建築物高度／層數	住用	Towers 住宅大廈: not more than 不多於 26.3 Houses 屋宇: not more than 不多於 10.925-14.625	mPD 米(主水平基準上)
		Towers 住宅大廈: not more than 不多於 7 Houses 屋宇: not more than 不多於 2-3 *1*	Storey(s) 層 *Exclude 不包括* *Basement 地庫*
	Non-domestic 非住用	-	m 米
		-	mPD 米(主水平基準上)
		-	Storey(s) 層
	Composite 綜合用途	-	m 米
		-	mPD 米(主水平基準上)
		-	Storey(s) 層
Site coverage 上蓋面積	Not more than about 不多於約 40 %		
No. of units 單位數目	330		
Open space 休憩用地	Private 私人	Not less than 不少於 924	sq. m 平方米
	Public 公眾	-	sq. m 平方米
No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle spaces 停車位總數		141
	Private Car Parking Spaces 私家車車位		111+10
	Motorcycle Parking Spaces 電單車車位		3
	Bicycle Parking Spaces 單車車位		17
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數		2
	Heavy Goods Vehicle Spaces 重型貨車車位		2

* 有關資料是為方便市民大眾參考而提供。對於所載資料在使用上的問題及文義上的歧異，城市規劃委員會概不負責。若有任何疑問，應查閱申請人提交的文件。

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位置圖 LOCATION PLAN

本摘要圖於2021年9月20日擬備，
所根據的資料為於2014年12月2日
核准的分區計劃大綱圖編號 S/YL-KTN/9
EXTRACT PLAN PREPARED ON 20.9.2021
BASED ON OUTLINE ZONING PLAN No.
S/YL-KTN/9 APPROVED ON 2.12.2014

SCALE 1 : 7 500 比例尺

米 METRES 100 0 100 200 300 米 METRES

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.

A/YL-KTN/791

Broad Development Parameters of the Applied Use/Development in respect of Application No. A/YL-KTN/964
關乎申請編號 A/YL-KTN/964 的擬議用途/發展的概括發展規範

Revised broad development parameters in view of the further information received on 19.12.2023
因應於 2023 年 12 月 19 日接獲的進一步資料而修訂的概括發展規範

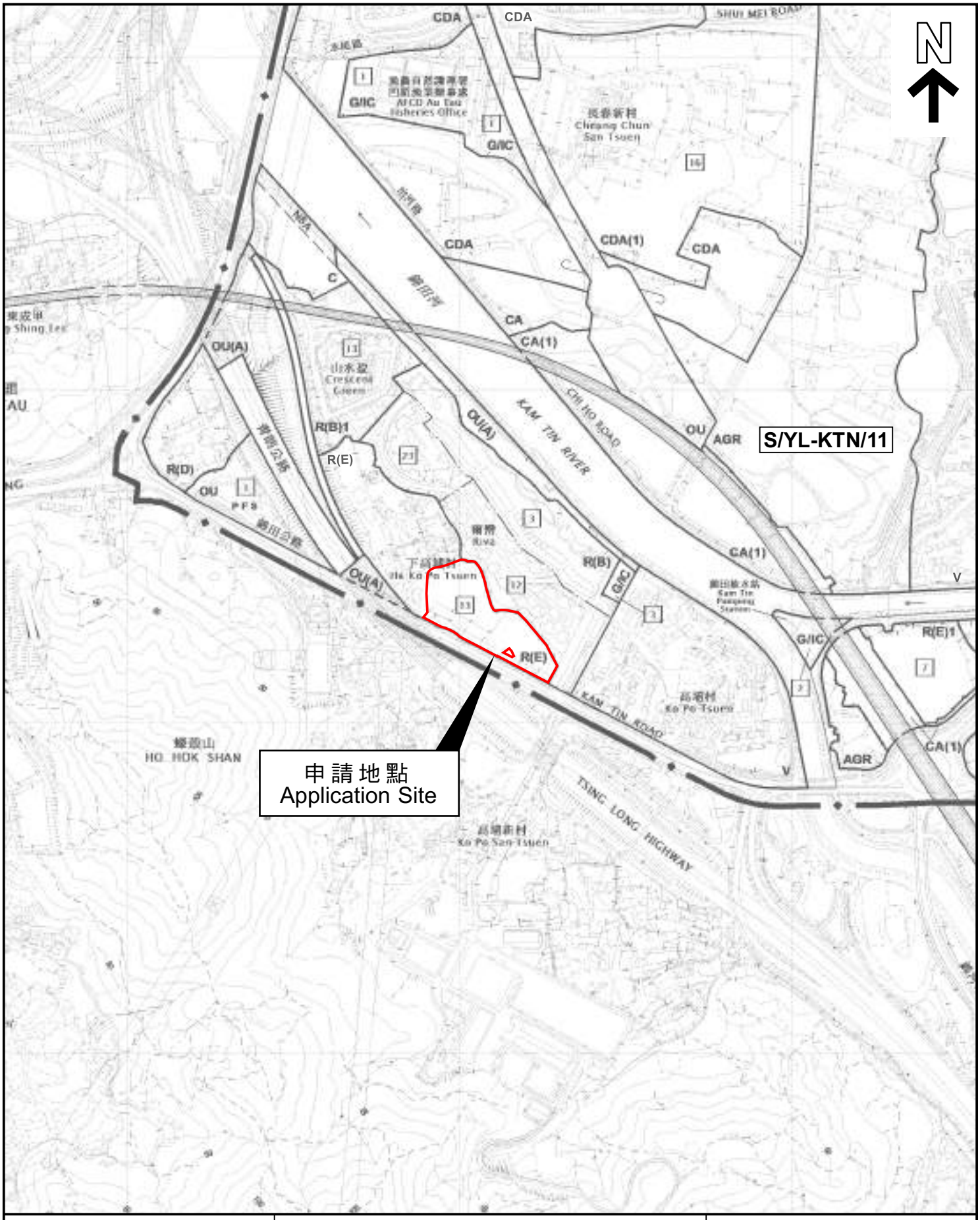
Application No. 申請編號	A/YL-KTN/964		
Location/address 位置／地址	Lot 1071 in D.D. 103, Ha Ko Po Tsuen, Kam Tin, Yuen Long 元朗錦田下高埔村丈量約份第 103 約地段第 1071 號		
Site area 地盤面積	About 約 16,293 sq. m 平方米		
Plan 圖則	Section 16 application 第 16 條申請 Draft Kam Tin North Outline Zoning Plan No. S/YL-KTN/10 錦田北分區計劃大綱草圖編號 S/YL-KTN/10		
	Further information received 接獲進一步資料 Approved Kam Tin North Outline Zoning Plan No. S/YL-KTN/11 錦田北分區計劃大綱核准圖編號 S/YL-KTN/11		
Zoning 地帶	Section 16 application 第 16 條申請 "Residential (Group E") 「住宅(戊類)」		
	Further information received 接獲進一步資料 "Residential (Group E") 「住宅(戊類)」		
Applied use/ development 申請用途/發展	Proposed Minor Relaxation of Plot Ratio and Building Height Restrictions for Permitted Residential Development 擬議略為放寬地積比率及建築物高度限制以作准許的住宅發展		
Gross floor area and/or plot ratio 總樓面面積及／或地積比率		sq. m 平方米	Plot ratio 地積比率
	Domestic 住用	Not more than 不多於 23,299	Not more than 不多於 1.43
	Non-domestic 非住用	Not more than 不多於 1,165	-
No. of block 幢數	Domestic 住用	3	
	Non-domestic 非住用	2	
	Composite 綜合用途	-	
Building height/No.	Domestic	-	m 米

of storeys 建築物高度／層數	住用	Not more than 不多於 65.93	mPD 米(主水平基準上)
		Not more than 不多於 17	Storey(s) 層
		1	Exclude 不包括 Basement 地庫
		1	Refuge Floor 防火層
	Non-domestic 非住用	-	m 米
		Not more than 不多於 10.95	mPD 米(主水平基準上)
		Not more than 不多於 1	Storey(s) 層
		1	Exclude 不包括 Basement 地庫
	Composite 綜合用途	-	m 米
		-	mPD 米(主水平基準上)
		-	Storey(s) 層
Site coverage 上蓋面積	About 約 30 %		
No. of units 單位數目	615 Flats 住宅單位		
Open space 休憩用地	Private 私人	Not less than 不少於 1,661	sq. m 平方米
	Public 公眾	-	sq. m 平方米

No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle spaces 停車位總數	176
	Private Car Parking Spaces 私家車車位	128
	Motorcycle Parking Spaces 電單車車位	7
	Bicycle Parking Spaces 單車泊車位	41
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數	4
	Heavy Goods Vehicle Spaces 重型貨車車位	4

* 有關資料是為方便市民大眾參考而提供。對於所載資料在使用上的問題及文義上的歧異，城市規劃委員會概不負責。若有任何疑問，應查閱申請人提交的文件。

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本摘要圖於2023年12月28日擬備，
所根據的資料為於2023年12月5日
核准的分區計劃大綱圖編號 S/YL-KTN/11
EXTRACT PLAN PREPARED ON 28.12.2023
BASED ON OUTLINE ZONING PLAN No.
S/YL-KTN/11 APPROVED ON 5.12.2023

位置圖 LOCATION PLAN

SCALE 1 : 7 500 比例尺

米 METRES 100 0 100 200 300 米 METRES

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.

A/YL-KTN/964

Broad Development Parameters of the Indicative Development Proposal in Respect of Application No. Y/YL-NSW/7
關乎申請編號 Y/YL-NSW/7 而只作指示用途的擬議發展計劃的概括發展規範

Revised broad development parameters in view of the further information received on 24.7.2023
因應於 2023 年 7 月 24 日接獲的進一步資料而修訂的概括發展規範

Application No. 申請編號	Y/YL-NSW/7		
Location/address 位置／地址	Various Lots in D.D. 104 and adjoining Government Land, Wing Kei Tsuen, Nam Sang Wai, Yuen Long 元朗南生圍榮基村丈量約份第 104 約多個地段和毗連政府土地		
Site area 地盤面積	About 約 68,385 sq. m 平方米 (Includes Government Land of about 包括政府土地約 6,073 sq. m 平方米)		
Plan 圖則	Approved Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/8 南生圍分區計劃大綱核准圖編號 S/YL-NSW/8		
Zoning 地帶	"Other Specified Uses" annotated "Comprehensive Development to include Wetland Restoration Area" 「其他指定用途」註明「綜合發展包括濕地修復區」		
Proposed Amendment(s) 擬議修訂	To rezone the application site from "Other Specified Uses" annotated "Comprehensive Development to include Wetland Restoration Area" to "Other Specified Uses" annotated "Comprehensive Development to include Wetland Restoration Area 1" 把申請地點由「其他指定用途」註明「綜合發展包括濕地修復區」地帶改劃為「其他指定用途」註明「綜合發展包括濕地修復區 1」地帶		
Gross floor area and/or plot ratio 總樓面面積及／或地積比率		sq. m 平方米	Plot ratio 地積比率
	Domestic 住用	Not more than 不多於 97,682 (1)	Not more than 不多於 1.5 (1)
	Non-domestic 非住用	Not more than 不多於 3,100 (1)(2)	Not more than 不多於 0.048 (1)(2)
No. of block 幢數	Domestic 住用	7	
	Non-domestic 非住用	3 (3)	
	Composite 綜合用途	-	

Building height/No. of storeys 建築物高度／層數	Domestic 住用	Not more than 不多於 48.45	m 米
		Not more than 不多於 53.95	mPD 米(主水平基準上)
		Not more than 不多於 15 [2]	Storey(s) 層 *Exclude 不包括 Basement 地庫*
	Non-domestic 非住用	Not more than 不多於 15	m 米
		Not more than 不多於 20.5	mPD 米(主水平基準上)
		Not more than 不多於 3 [2]	Storey(s) 層 *Exclude 不包括 Basement 地庫*
	Composite 綜合用途	-	m 米
		-	mPD 米(主水平基準上)
		-	Storey(s) 層
Site coverage 上蓋面積	Not more than 不多於 15 %		
No. of units 單位數目	About 約 1,997 Flats 住宅單位		
Open space 休憩用地	Private 私人	Not less than 不少於 5,592	sq. m 平方米
	Public 公眾	-	sq. m 平方米
No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle spaces 停車位總數		735
	Private Car Parking Spaces 私家車車位		703
	Motorcycle Parking Spaces 電單車車位		32
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數		13
	Taxi Spaces 的士車位		2
	Coach Spaces 旅遊巴車位		2
	Light Goods Vehicle Spaces 輕型貨車車位		1
	Heavy Goods Vehicle Spaces 重型貨車車位		8

(1) Calculated based on development site area of 65,121m² 以發展地盤面積65,121平方米計算

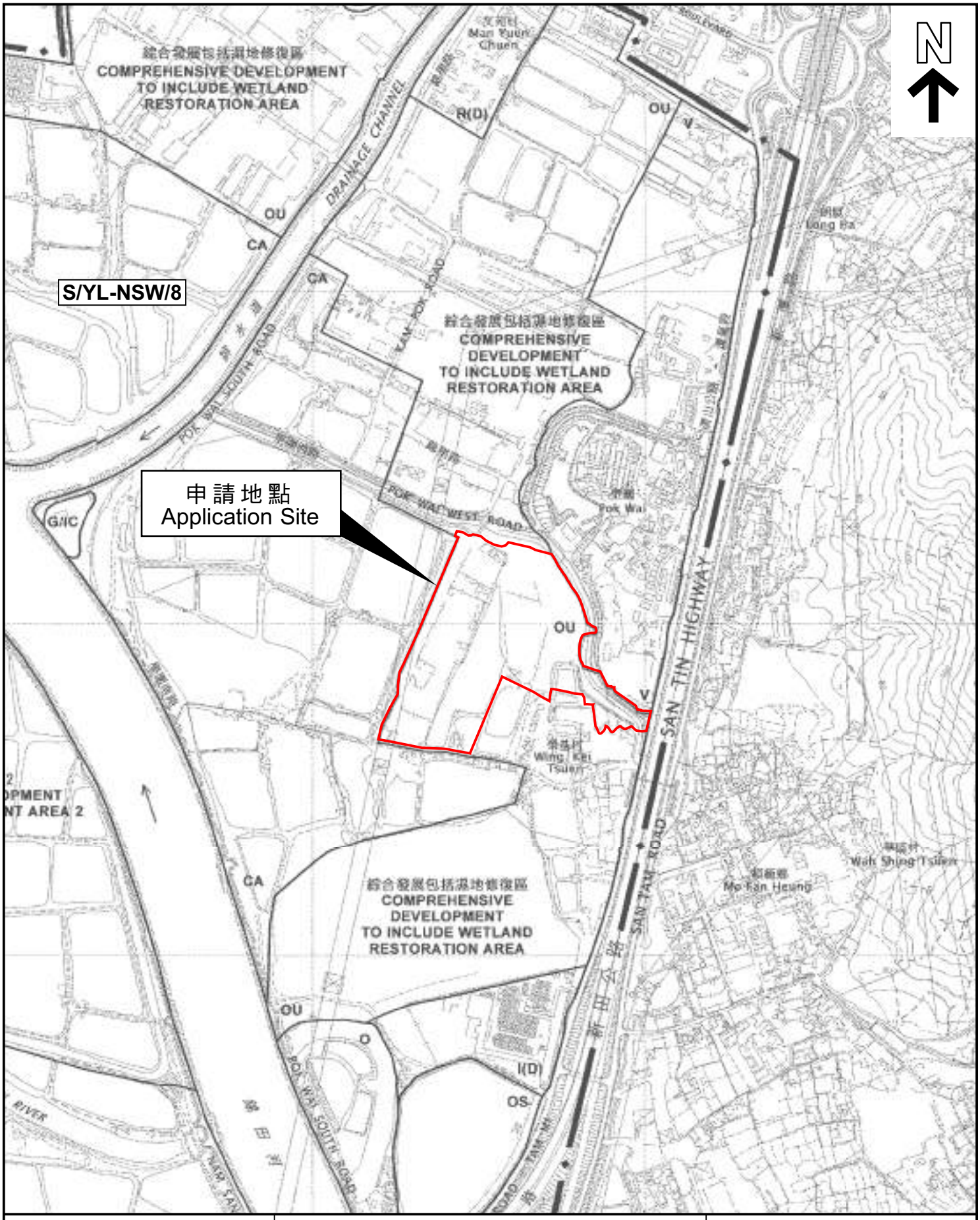
(2) Including 6-classroom kindergarten and a 100-place child care centre with GFA of about 2,200m², and retail/dining facilities with GFA of about 900m² 包括總樓面面積約 2,200 平方米作幼稚園(6 個課室)和幼兒中心(100 個名額)以及總樓面面積約 900 平方米作零售/餐飲設施

(3) Including 1 GIC & Retail block and 2 clubhouse blocks 包括 1 幢作社會福利及零售設施以及 2 幢作會所設施

* 有關資料是為方便市民大眾參考而提供。對於所載資料在使用上的問題及文義上的歧異，城市規劃委員會概不負責。若有任何疑問，應查閱申請人提交的文件。

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11. Y/YL-NSW/7



本摘要圖於2023年8月1日擬備，
所根據的資料為於2006年10月17日
核准的分區計劃大綱圖編號S/YL-NSW/8
EXTRACT PLAN PREPARED ON 1.8.2023
BASED ON OUTLINE ZONING PLAN No.
S/YL-NSW/8 APPROVED ON 17.10.2006

位置圖 LOCATION PLAN

SCALE 1 : 7 500 比例尺

米 METRES 100 0 100 200 300 米 METRES

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.
Y/YL-NSW/7

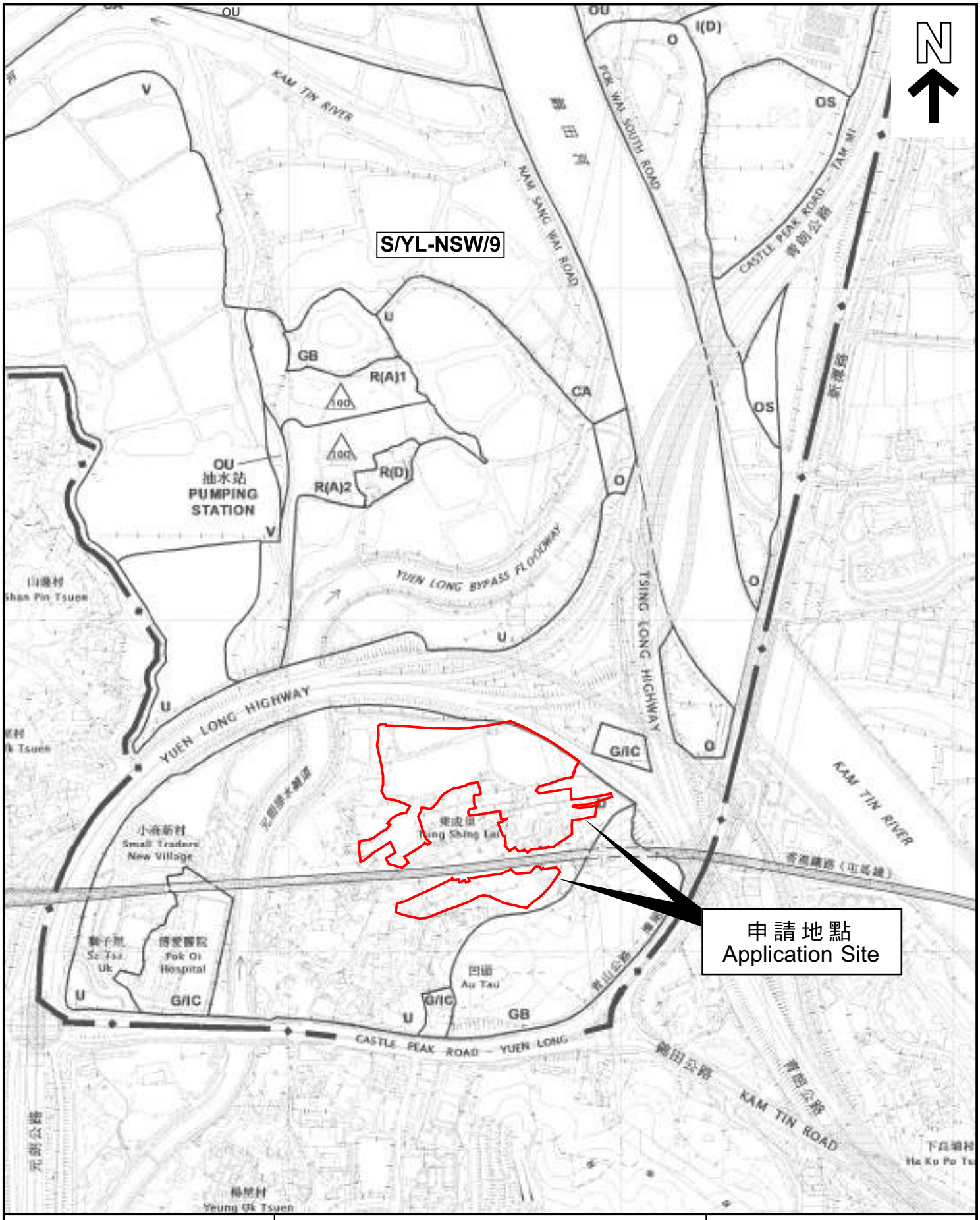
Broad Development Parameters of the Applied Use/Development in respect of Application No. A/YL-NSW/293 (Review under Section 17)
關乎申請編號 A/YL-NSW/293 的擬議用途/發展的概括發展規範（根據第 17 條的覆核）

Revised broad development parameters in view of the further information received on 24.12.2024
因應於 2024 年 12 月 24 日接獲的進一步資料而修訂的概括發展規範

Application No. 申請編號	A/YL-NSW/293
Location/address 位置／地址	Various Lots in D.D. 103 and D.D. 115, Tung Shing Lei, Nam Sang Wai, Yuen Long 元朗南生圍東成里丈量約份第 103 約多個地段和丈量約份第 115 約多個地段
Site area 地盤面積	About 約 53,584 sq. m 平方米
Plan 圖則	Section 16 application 第 16 條申請 Approved Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/8 南生圍分區計劃大綱核准圖編號 S/YL-NSW/8 Section 17 Review 第 17 條覆核 Approved Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/8 南生圍分區計劃大綱核准圖編號 S/YL-NSW/8 Further information received 接獲進一步資料 Approved Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/8 and Draft Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/9 南生圍分區計劃大綱核准圖編號 S/YL-NSW/8 及南生圍分區計劃大綱草圖編號 S/YL-NSW/9
Zoning 地帶	Section 16 application 第 16 條申請 "Undetermined" 「未決定用途」 Section 17 Review 第 17 條覆核 "Undetermined" 「未決定用途」 Further information received 接獲進一步資料 "Undetermined" 「未決定用途」
Applied use/ development 申請用途/發展	Proposed Comprehensive Residential Development 擬議綜合住宅發展
Nature of Review 覆核性質	To review the refusal decision of the application 覆核拒絕申請的決定

Gross floor area and/or plot ratio 總樓面面積及／或地積比率		sq. m 平方米	Plot ratio 地積比率
	Domestic 住用	About 約 156,880	About 約 2.928
	Non-domestic 非住用	About 約 5,358	About 約 0.1
No. of block 幢數	Domestic 住用	14 Residential Towers 住宅大樓 9 Houses 屋宇	
	Non-domestic 非住用	-	
	Composite 綜合用途	-	
Building height/ No. of storeys 建築物高度／層數	Domestic 住用	8 - 134.5	m 米
		12 - 139	mPD 米(主水平基準上)
		2 - 44 *1 - 2*	Storey(s) 層 *Exclude 不包括* *Basement 地庫* *Refuge Floor 防火層* *Podium 平台*
	Non-domestic 非住用	-	m 米
		-	mPD 米(主水平基準上)
		-	Storey(s) 層
	Composite 綜合用途	-	m 米
		-	mPD 米(主水平基準上)
		-	Storey(s) 層
Site coverage 上蓋面積	About 約 18 %		
No. of units 單位數目	3,556 Flats 住宅單位 9 Houses 屋宇		
Open space 休憩用地	Private 私人	Not less than 不少於 10,330	sq. m 平方米
	Public 公眾	-	sq. m 平方米
No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle spaces 停車位總數（excluding bicycle parking spaces 不包括單車車位）		857
	Private Car Parking Spaces 私家車車位		816 (1)
	Motorcycle Parking Spaces 電單車車位		41
	Bicycle Parking Spaces 單車車位		475
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數		21
	Light Goods Vehicle Spaces 輕型貨車車位		5
	Heavy Goods Vehicle Spaces 重型貨車車位		16

(1) Including 10 nos. accessible car parking spaces and 70 nos. visitor car parking spaces 包括 10 個暢通易達停車位 70 個訪客車



本摘要圖於2025年1月6日擬備，
所根據的資料為於2024年7月12日
展示的分區計劃大綱圖編號 S/YL-NSW/9
EXTRACT PLAN PREPARED ON 6.1.2025
BASED ON OUTLINE ZONING PLAN No.
S/YL-NSW/9 EXHIBITED ON 12.7.2024

位置圖 LOCATION PLAN

（覆核申請 REVIEW APPLICATION）

SCALE 1 : 7 500 比例尺

米 METRES 100 0 100 200 300 米 METRES

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.

A/YL-NSW/293

Broad Development Parameters of the Applied Use/Development in respect of Application No. A/YL-NSW/314
關乎申請編號 A/YL-NSW/314 的擬議用途/發展的概括發展規範

Revised broad development parameters in view of the further information received on 30.8.2024
因應於 2024 年 8 月 30 日接獲的進一步資料而修訂的概括發展規範

Application No. 申請編號	A/YL-NSW/314		
Location/address 位置／地址	Various Lots in D.D. 104, Pok Wai, Yuen Long 元朗墈圍丈量約份第 104 約多個地段		
Site area 地盤面積	About 約 51,073 sq. m 平方米		
Plan 圖則	Section 16 application 第 16 條申請 Approved Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/8 南生圍分區計劃大綱核准圖編號 S/YL-NSW/8		
	Further information received 接獲進一步資料 Draft Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/9 南生圍分區計劃大綱草圖編號 S/YL-NSW/9		
Zoning 地帶	Section 16 application 第 16 條申請 "Other Specified Uses" annotated "Comprehensive Development to include Wetland Restoration Area" 「其他指定用途」註明「綜合發展包括濕地修復區」		
	Further information received 接獲進一步資料 "Other Specified Uses" annotated "Comprehensive Development to include Wetland Restoration Area" 「其他指定用途」註明「綜合發展包括濕地修復區」		
Applied use/ development 申請用途/發展	Proposed Residential Development with Wetland Habitat and Filling of Ponds/Land and Excavation of Land 擬議住宅發展連濕地生境以及填塘/填土和挖土工程		
Gross floor area and/or plot ratio 總樓面面積及／或地積比率		sq. m 平方米	Plot ratio 地積比率
	Domestic 住用	About 約 20,427	Not more than 不多於 0.4
	Non-domestic 非住用	About 約 1,021*	-
No. of block 幢數	Domestic 住用	82	
	Non-domestic 非住用	2	

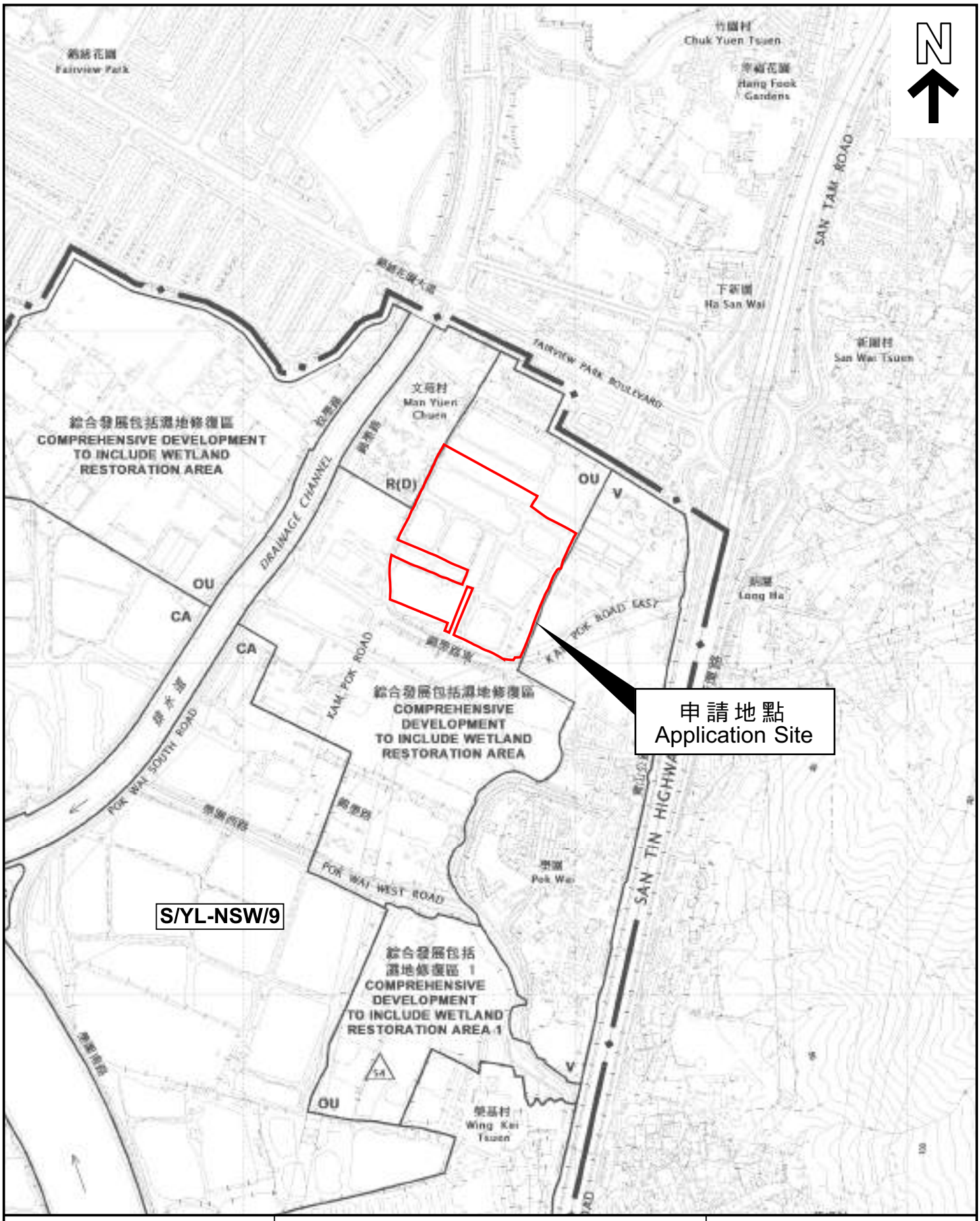
* to be exempted from GFA calculation 將免除於樓面面積計算

	Composite 綜合用途	-	
Building height/No. of storeys 建築物高度／層數	Domestic 住用	About 約 9 – 14.5	m 米
		About 約 16.1 – 19.6	mPD 米(主水平基準上)
		3 - 5 *1*	Storey(s) 層 *Include 包括* *Carport 停車間 or 或* *Basement 地庫*
	Non-domestic 非住用	About 約 10	m 米
		About 約 15.1	mPD 米(主水平基準上)
		Not more than 不多於 3 *1*	Storey(s) 層 *Include 包括* *Basement 地庫*
	Composite 綜合用途	-	m 米
		-	mPD 米(主水平基準上)
		-	Storey(s) 層
Site coverage 上蓋面積	About 約 19.81 %		
No. of units 單位數目	90 Units 單位		
Open space 休憩用地	Private 私人	About 約 561.6	sq. m 平方米
	Public 公眾	-	sq. m 平方米
No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle spaces 停車位總數		237
	Private Car Parking Spaces 私家車車位		203
	Motorcycle Parking Spaces 電單車車位		20
	Bicycle Parking Spaces		14
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數		3
	Heavy Goods Vehicle Spaces 重型貨車車位		3

* 有關資料是為方便市民大眾參考而提供。對於所載資料在使用上的問題及文義上的歧異，城市規劃委員會概不負責。若有任何疑問，應查閱申請人提交的文件。

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13. A/YL-NSW/314



本摘要圖於2024年9月17日擬備，
所根據的資料為於2024年7月12日
展示的分區計劃大綱圖編號 S/YL-NSW/9
EXTRACT PLAN PREPARED ON 17.9.2024
BASED ON OUTLINE ZONING PLAN No.
S/YL-NSW/9 EXHIBITED ON 12.7.2024

位置圖 LOCATION PLAN

SCALE 1 : 7 500 比例尺

米 METRES 100 0 100 200 300 米 METRES

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.
A/YL-NSW/314

14. Lot 1928 in DD107, Au Tau - Anchors Academy

Main Contract Works for Proposed Primary School and Kindergarten Development at Lot 1928 in DD107, Au Tau, Yuen Long

The project involves the construction of 1 No. of 4-storey primary school and kindergarten building, 1 No. of 1-storey swimming pool building, 1-level basement with carpark, emergency vehicular access, external and remaining works.

Client
Golden Chain Development Limited

Contract Sum
Approx. HK$514 Million

Contract Period
January 2021-January 2023

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Position 規劃參數 Planning Parameters

主要規劃參數 Major Planning Parameters

新增人口 New Population	約 About 32,000 – 36,000
新增單位 New Flats (以私人住宅為主) (mainly private housing)	約 About 12,000 – 13,000
新增就業機會 New Job Opportunities	約 About 22,000 – 26,000

備註：上述發展參數會在研究的下一階段再作檢視。
Remarks: The above development parameters will be further refined in the later stage of the study

土地用途預算 Land Use Budget



- 46ha 大學城@牛潭尾 UniTown@NTM
- 9ha 綜合醫教研醫院 Integrated Hospital
- 29ha 道路及其他用途 Roads and Other Uses
- 12ha 其他政府、機構及社區設施 Other GIC Facilities
- 住宅 Residential 18ha
- 休憩用地 Open Space 13ha



構思圖 Artist's Impression

Broad Development Parameters of the Applied Use/Development in respect of Application No. A/YL-NSW/303
關乎申請編號 A/YL-NSW/303 的擬議用途/發展的概括發展規範

Revised broad development parameters in view of the further information received on 14.7.2023
因應於 2023 年 7 月 14 日接獲的進一步資料而修訂的概括發展規範

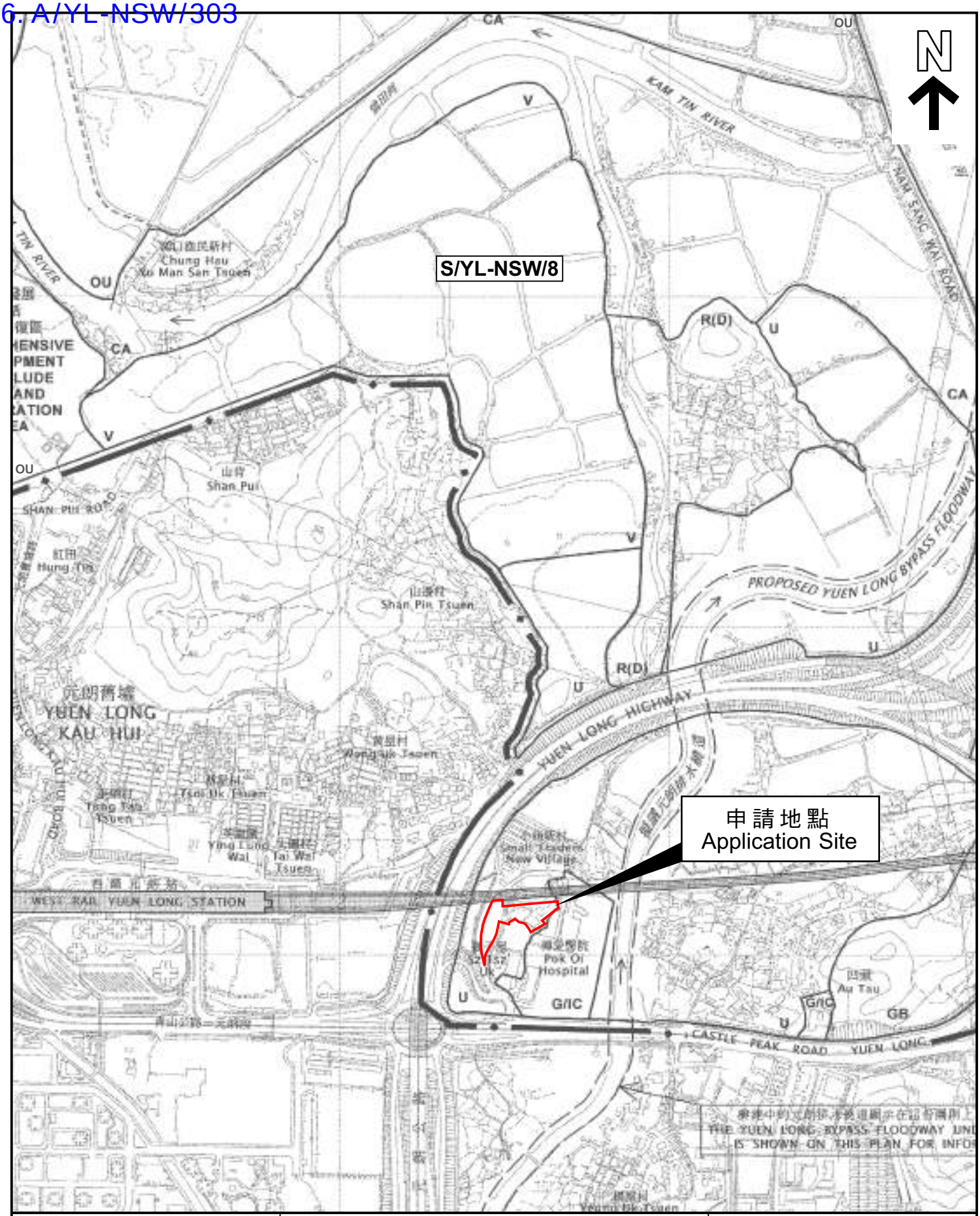
Application No. 申請編號	A/YL-NSW/303		
Location/address 位置／地址	Lots 870 S.A, 870 RP, 877 RP, 878 S.A, 878 S.B, 878 S.C, 878 S.D, 878 S.E, 878 S.F, 878 RP and 892 in D.D. 115 and Adjoining Government Land, Tung Shing Lei, Nam Sang Wai, Yuen Long 元朗南生圍東成里丈量約份第 115 約地段第 870 號 A 分段、第 870 號餘段、第 877 號餘段、第 878 號 A 分段、第 878 號 B 分段、第 878 號 C 分段、第 878 號 D 分段、第 878 號 E 分段、第 878 號 F 分段、第 878 號餘段、第 892 號及毗連政府土地		
Site area 地盤面積	About 約 3,943.3 sq. m 平方米 (Includes Government Land of about 包括政府土地約 1,724.5 sq. m 平方米)		
Plan 圖則	Approved Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/8 南生圍分區計劃大綱核准圖編號 S/YL-NSW/8		
Zoning 地帶	"Undetermined" 「未決定用途」		
Applied use/ development 申請用途/發展	Proposed Social Welfare Facility (Residential Care Home for the Elderly) and Residential Institution (Senior Hostel) development 擬議社會福利設施(安老院舍)及住宿機構(長者住屋)發展		
Gross floor area and/or plot ratio 總樓面面積及／或地積比率		sq. m 平方米	Plot ratio 地積比率
	Domestic 住用	About 約 5,914.95 for senior hostel 長者住屋	About 約 1.5
	Non-domestic 非住用	About 約 5,400 for residential care home for the elderly 安老院舍	About 約 1.37
No. of block 幢數	Domestic 住用	-	
	Non-domestic 非住用	-	
	Composite 綜合用途	1	

Building height/No. of storeys 建築物高度／層數	Domestic 住用	-	m 米
		-	mPD 米(主水平基準上)
		-	Storey(s) 層
	Non-domestic 非住用	-	m 米
		-	mPD 米(主水平基準上)
		-	Storey(s) 層
	Composite 綜合用途	About 約 64.3	m 米
		About 約 69.3	mPD 米(主水平基準上)
		17 *1*	Storey(s) 層 *Exclude 不包括* *Basement 地庫*
Site coverage 上蓋面積	Below 23m 米以下: Not exceeding 不超過 92 % Above 23m 米以上: Not exceeding 不超過 33.33 %		
No. of units 單位數目	Residential care home for the elderly 安老院舍	About 約 83 units 單位 (127 Beds 床位)	
	Senior hostel 長者住屋	About 約 90 units 單位 (100 Beds 床位)	
Open space 休憩用地	Private 私人	Not less than 不少於 227	sq. m 平方米
	Public 公眾	-	sq. m 平方米
No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle spaces 停車位總數		54
	Private Car Parking Spaces 私家車車位		52
	Motorcycle Parking Spaces 電單車車位		1
	Light Bus Parking Space 小巴車位		1
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數		3
	Light Goods Vehicle Spaces 輕型貨車車位		1
	Loading/Unloading Space for Medium /Heavy Goods Vehicle 中/重型上落客貨車位		1
	Lay-by for taxi or private vehicle 的士或私家車停車處		1

* 有關資料是為方便市民大眾參考而提供。對於所載資料在使用上的問題及文義上的歧異，城市規劃委員會概不負責。若有任何疑問，應查閱申請人提交的文件。

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16. A/YL-NSW/303



本摘要圖於2023年7月25日擬備，
所根據的資料為於2006年10月17日
核准的分區計劃大綱圖編號 S/YL-NSW/8
EXTRACT PLAN PREPARED ON 25.7.2023
BASED ON OUTLINE ZONING PLAN No.
S/YL-NSW/8 APPROVED ON 17.10.2006

位置圖 LOCATION PLAN

SCALE 1 : 7 500 比例尺

米 METRES 100 0 100 200 300 米 METRES

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.
A/YL-NSW/303

Broad Development Parameters of the Applied Use/Development in respect of Application No. A/YL-NSW/292
關乎申請編號 A/YL-NSW/292 的擬議用途/發展的概括發展規範

Revised broad development parameters in view of the further information received on 14.6.2022
因應於 2022 年 6 月 14 日接獲的進一步資料而修訂的概括發展規範

Application No. 申請編號	A/YL-NSW/292		
Location/address 位置／地址	Lots 879, 880 S.A ss.1, 880 S.B ss.1, 881 to 885, 889 RP (Part), 891 (Part), 1318, 1326 and 1344 in D.D. 115 and Adjoining Government Land, Au Tau, Nam Sang Wai, Yuen Long 元朗南生圍凹頭第 115 約地段第 879 號、第 880 號 A 分段第 1 小分段、第 880 號 B 分段第 1 小分段、第 881 號至第 885 號、第 889 號餘段(部分)、第 891 號(部分)、第 1318 號、第 1326 號、第 1344 號及毗連政府土地		
Site area 地盤面積	About 約 4,191.2 sq. m 平方米 (Includes Government Land of about 包括政府土地約 658.5 sq. m 平方米)		
Plan 圖則	Approved Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/8 南生圍分區計劃大綱核准圖編號 S/YL-NSW/8		
Zoning 地帶	"Undetermined" and "Government, Institution or Community" 「未決定用途」及「政府、機構或社區」		
Applied use/ development 申請用途/發展	Proposed Conservation of Historic Building (Pun Uk), Place of Recreation, Sports or Culture (Arts / Antique Gallery and Heritage Education) and Social Welfare Facility (Residential Care Homes for the Elderly) with Ancillary Eating Place 擬議保育歷史建築物（潘屋）、康體文娛場所（美術館、收藏品展館及保育教育）及社會福利設施（安老院舍）連附屬食肆		
Gross floor area and/or plot ratio 總樓面面積及／或地積比率		sq. m 平方米	Plot ratio 地積比率
	Domestic 住用	-	-
	Non-domestic 非住用	About 約 9,178.9(1)	About 約 2.19
No. of block 幢數	Domestic 住用	-	
	Non-domestic 非住用	3(2)	
	Composite 綜合用途	-	
Building height/No.	Domestic	-	m 米

of storeys 建築物高度／層數	住用	-	mPD 米(主水平基準上)
		-	Storey(s) 層
	Non-domestic 非住用	-	m 米
		Not more than 不多於 25.37	mPD 米(主水平基準上)
		Not more than 不多於 6 *1*	Storey(s) 層 *Exclude 不包括* *Basement at Northern Block* *位於北座的地庫*
	Composite 綜合用途	-	m 米
		-	mPD 米(主水平基準上)
		-	Storey(s) 層
Site coverage 上蓋面積	About 約 58.2 %(3)		
No. of units 單位數目	530 床位 Beds		
Open space 休憩用地	Private 私人	Not less than 不少於 535.2	sq. m 平方米
	Public 公眾	-	sq. m 平方米

No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle spaces 停車位總數	6
	Private Car Parking Spaces (Including 1 disabled parking space) 私家車車位（包括 1 個殘疾人士泊車位）	6
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數	5
	Taxi Spaces 的士車位	2
	Light Goods Vehicle Spaces 輕型貨車車位	2
	Light Bus Bay 小巴停車處	1

(1) Including the existing heritage Pun Uk of about 605.8m² and proposed Residential Care Homes for the Elderly (RCHEs) of about 8,573.1m² 包括現存潘屋歷史建築物總樓面面積約605.8平方米及擬議安老院舍總樓面面積約8,573.1平方米

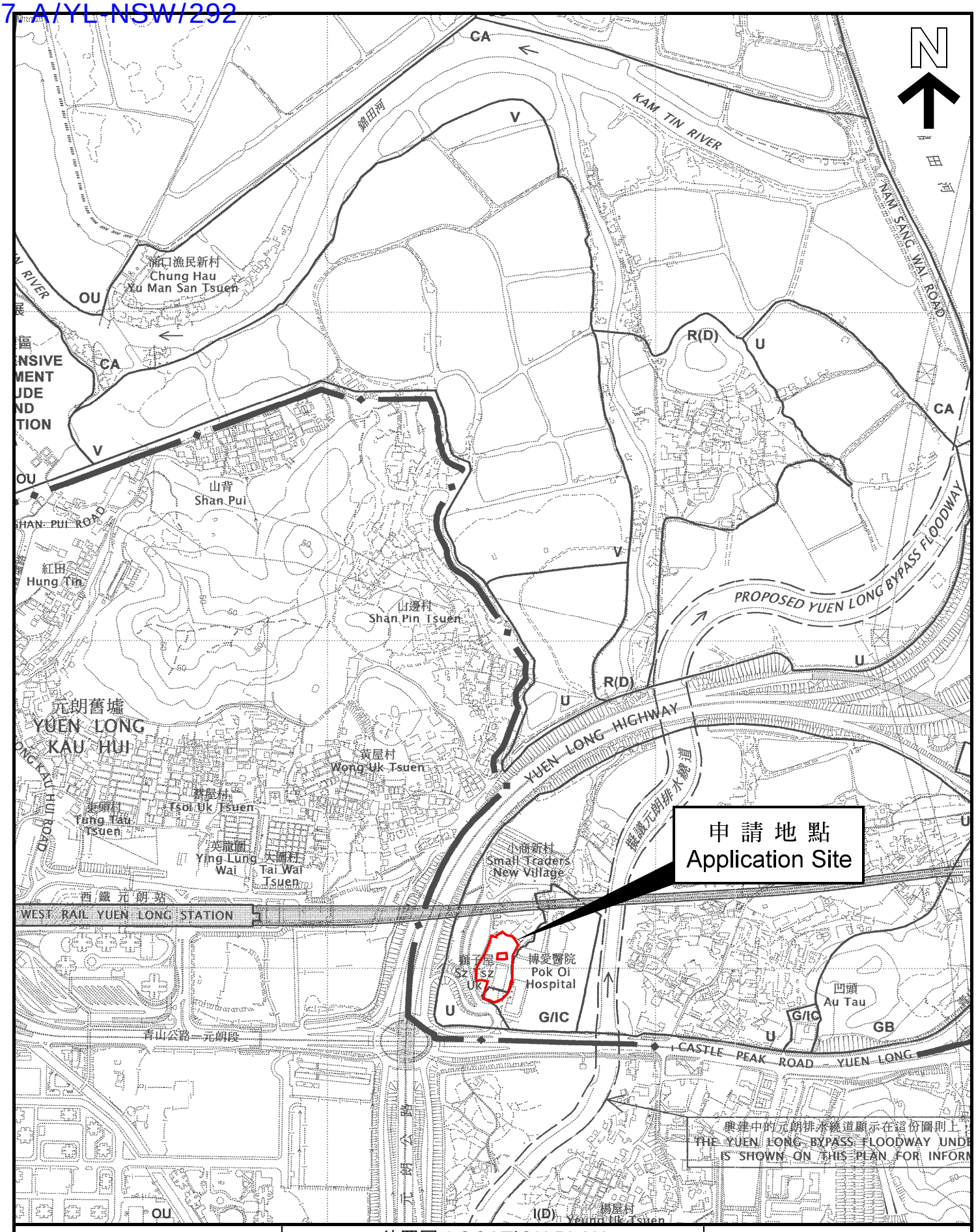
(2) Including the existing heritage Pun Uk and two proposed RCHEs 包括現存潘屋歷史建築物及兩幢擬議安老院舍

(3) Site coverage calculation includes the existing heritage Pun Uk portion 上蓋面積包括現存潘屋歷史建築物部分面積作計算

* 有關資料是為方便市民大眾參考而提供。對於所載資料在使用上的問題及文義上的歧異，城市規劃委員會概不負責。若有任何疑問，應查閱申請人提交的文件。

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17. A/YL-NSW/292



位置圖 LOCATION PLAN

本摘要圖於2022年6月21日擬備，
所根據的資料為於2006年10月17日
核准的分區計劃大綱圖編號 S/YL-NSW/8
EXTRACT PLAN PREPARED ON 21.6.2022
BASED ON OUTLINE ZONING PLAN No.
S/YL-NSW/8 APPROVED ON 17.10.2006

SCALE 1 : 7 500 比例尺

米 METRES 100 0 100 200 300 米 METRES

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.

A/YL-NSW/292

Broad Development Parameters of the Indicative Development Proposal in Respect of Application No. Y/YL-NTM/9
關乎申請編號 Y/YL-NTM/9 而只作指示用途的擬議發展計劃的概括發展規範

Revised broad development parameters in view of
the further information received on 8.8.2023
因應於 2023 年 8 月 8 日接獲的進一步資料而修訂的概括發展規範

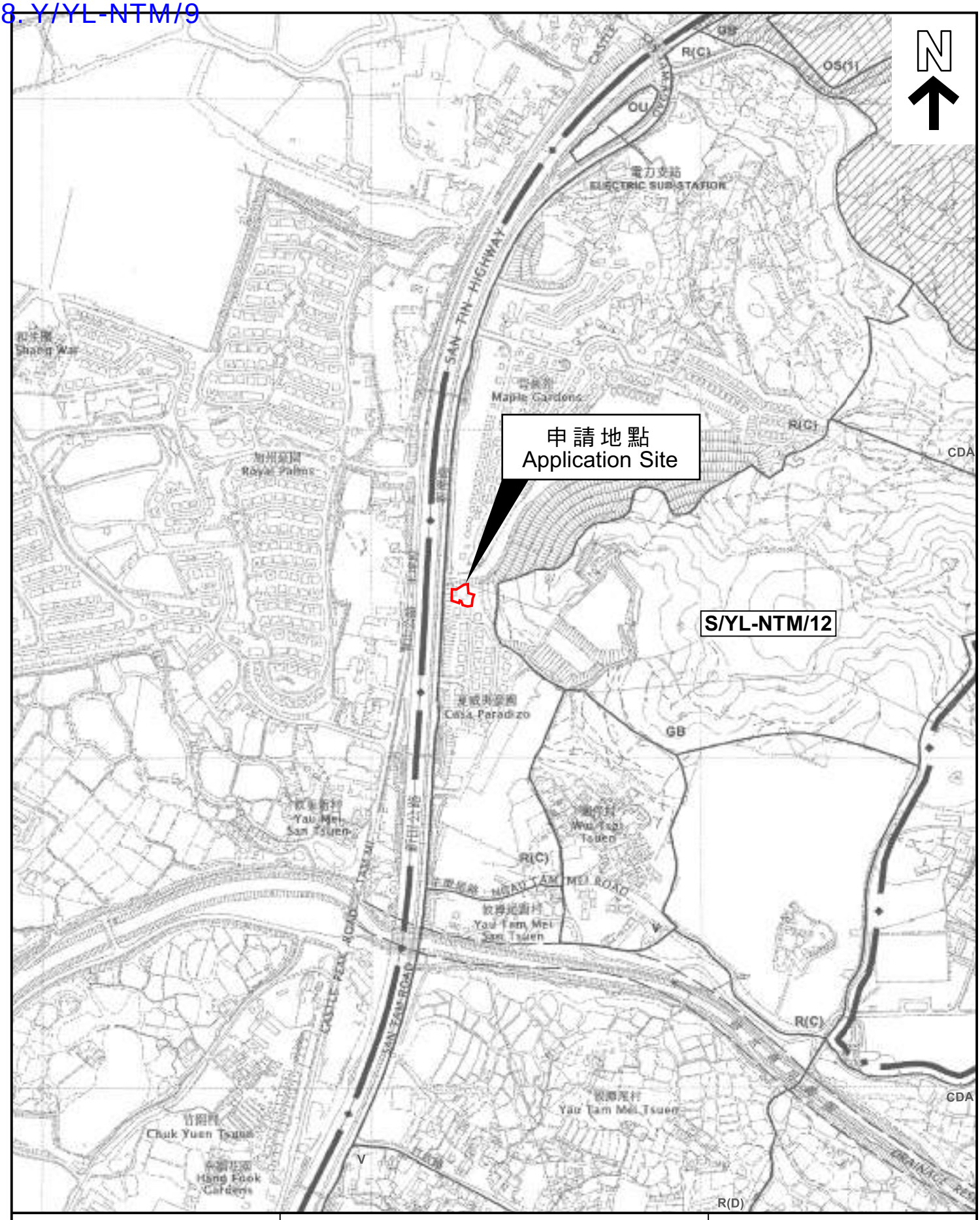
Application No. 申請編號	Y/YL-NTM/9		
Location/address 位置／地址	Lot 4823 in D.D. 104, Ngau Tam Mei, Yuen Long 元朗牛潭尾丈量約份第 104 約地段第 4823 號		
Site area 地盤面積	736.3 sq. m 平方米		
Plan 圖則	Approved Ngau Tam Mei Outline Zoning Plan No. S/YL-NTM/12 牛潭尾分區計劃大綱核准圖編號 S/YL-NTM/12		
Zoning 地帶	"Residential (Group C)" 「住宅(丙類)」		
Proposed Amendment(s) 擬議修訂	To rezone the application site from "Residential (Group C)" to "Government, Institution or Community" 把申請地點由「住宅(丙類)」地帶改劃為「政府、機構或社區」地帶		
Gross floor area and/or plot ratio 總樓面面積及／或地積比率		sq. m 平方米	Plot ratio 地積比率
	Domestic 住用	-	-
	Non-domestic 非住用	About 約 5,400	About 約 7.33
No. of block 幢數	Domestic 住用	-	
	Non-domestic 非住用	1	
	Composite 綜合用途	-	
Building height/No. of storeys 建築物高度／層數	Domestic 住用	-	m 米
		-	mPD 米(主水平基準上)
		-	Storey(s) 層
	Non-domestic 非住用	29.6	m 米
		36.93	mPD 米(主水平基準上)
		10	Storey(s) 層
	Composite 綜合用途	-	m 米
		-	mPD 米(主水平基準上)
		-	Storey(s) 層
Site coverage	About 約 75.56 %		

上蓋面積			
No. of units 單位數目	142 Beds 床位		
Open space 休憩用地	Private 私人	Not less than 不少於 183.62	sq. m 平方米
	Public 公眾	-	sq. m 平方米
No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle spaces 停車位總數		3
	Private Car Parking Spaces 私家車車位		2
	Motorcycle Parking Spaces 電單車車位		1
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數		2
	Light Goods Vehicle Spaces 輕型貨車車位		1
	Minibus 小型巴士		1

* 有關資料是為方便市民大眾參考而提供。對於所載資料在使用上的問題及文義上的歧異，城市規劃委員會概不負責。若有任何疑問，應查閱申請人提交的文件。

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18. Y/YL-NTM/9



本摘要圖於2023年8月16日擬備，
所根據的資料為於2006年12月5日
核准的分區計劃大綱圖編號S/YL-NTM/12
EXTRACT PLAN PREPARED ON 16.8.2023
BASED ON OUTLINE ZONING PLAN No.
S/YL-NTM/12 APPROVED ON 5.12.2006

位置圖 LOCATION PLAN

SCALE 1 : 7 500 比例尺

米 METRES 100 0 100 200 300 米 METRES

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.
Y/YL-NTM/9

Broad Development Parameters of the Applied Use/Development in respect of Application No. A/YL-MP/344

關乎申請編號 A/YL-MP/344 的擬議用途/發展的概括發展規範

Revised broad development parameters in view of the further information received on 9.1.2024

因應於 2024 年 1 月 9 日接獲的進一步資料而修訂的概括發展規範

Application No. 申請編號	A/YL-MP/344		
Location/address 位置／地址	Lots 50 S.A and 77 in D.D.101, Wo Shang Wai, Mai Po, Yuen Long 元朗米埔和生圍丈量約份第 101 約地段第 50 號 A 分段及第 77 號		
Site area 地盤面積	About 約 207,408 sq. m 平方米		
Plan 圖則	Approved Mai Po & Fairview Park Outline Zoning Plan No. S/YL-MP/6 米埔及錦綉花園分區計劃大綱核准圖編號 S/YL-MP/6		
Zoning 地帶	"Other Specified Uses" annotated "Comprehensive Development to include Wetland Restoration Area" 「其他指定用途」註明「綜合發展包括濕地修復區」		
Applied use/ development 申請用途/發展	Proposed Houses, Wetland Habitat, Filling and Excavation of Land for Site Formation (Amendments to an Approved Scheme) 擬議屋宇、濕地生境、填土及挖土工程以作土地平整（修訂已核准的發展計劃）		
Gross floor area and/or plot ratio 總樓面面積及／或地積比率		sq. m 平方米	Plot ratio 地積比率
	Domestic 住用	Not more than 不多於 82,693	Not more than 不多於 0.4
	Non-domestic 非住用	-	-
No. of block 幢數	Domestic 住用	789	
	Non-domestic 非住用	6 (1)	
	Composite 綜合用途	-	
Building height/No.	Domestic	9 – 13.5 m 米	

of storeys 建築物高度／層數	住用	16.8 – 21.3	mPD 米(主水平基準上)
		2 – 3 *1*	Storey(s) 層 *Exclude 不包括 Basement 地庫*
	Non-domestic 非住用	5.9 – 10.5	m 米
		13.6 – 17	mPD 米(主水平基準上)
		1 – 2	Storey(s) 層
	Composite 綜合用途	-	m 米
		-	mPD 米(主水平基準上)
		-	Storey(s) 層
Site coverage 上蓋面積	25 %		
No. of units 單位數目	789 Houses 屋宇數目		
Open space 休憩用地	Private 私人	62,048 (2)	sq. m 平方米
	Public 公眾	-	sq. m 平方米

No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle spaces 停車位總數	1620
	Private Car Parking Spaces 私家車車位	1578
	Motorcycle Parking Spaces 電單車車位	37
	Visitor's Car Parking Spaces 訪客泊車位	5
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數	1
	Heavy Goods Vehicle Spaces 重型貨車車位	1

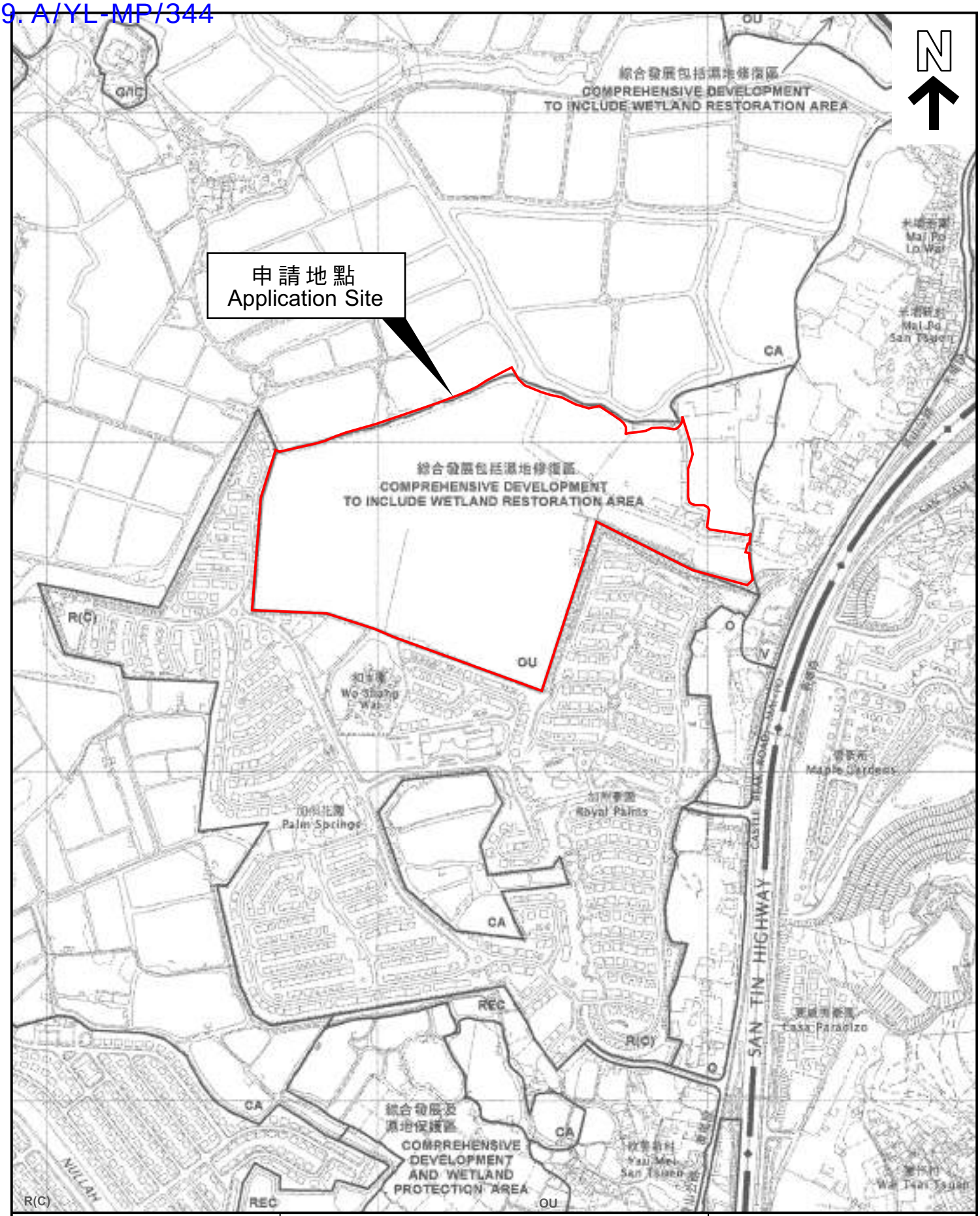
(1) Including 4 clubhouse buildings and 2 E&M facilities
包括 4 幢會所大樓及 2 幢機電設施

(2) Including 12,221 m^2 of communal open space and 49,827 m^2 of private garden
包括 12,221 平方米的公用休憩用地及 49,827 平方米的私人花園

* 有關資料是為方便市民大眾參考而提供。對於所載資料在使用上的問題及文義上的歧異，城市規劃委員會概不負責。若有任何疑問，應查閱申請人提交的文件。

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19. A/YL-MP/344



本摘要圖於2024年1月11日擬備，
所根據的資料為於2005年2月1日
核准的分區計劃大綱圖編號 S/YL-MP/6
EXTRACT PLAN PREPARED ON 11.1.2024
BASED ON OUTLINE ZONING PLAN No.
S/YL-MP/6 APPROVED ON 1.2.2005

位置圖 LOCATION PLAN

SCALE 1 : 7 500 比例尺

米 METRES 100 0 100 200 300 米 METRES

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.
A/YL-MP/344

關乎申請編號 A/YL-MP/247 的擬議用途/發展的概括發展規範
Broad Development Parameters of the Applied Use/Development in respect of Application No. A/YL-MP/247

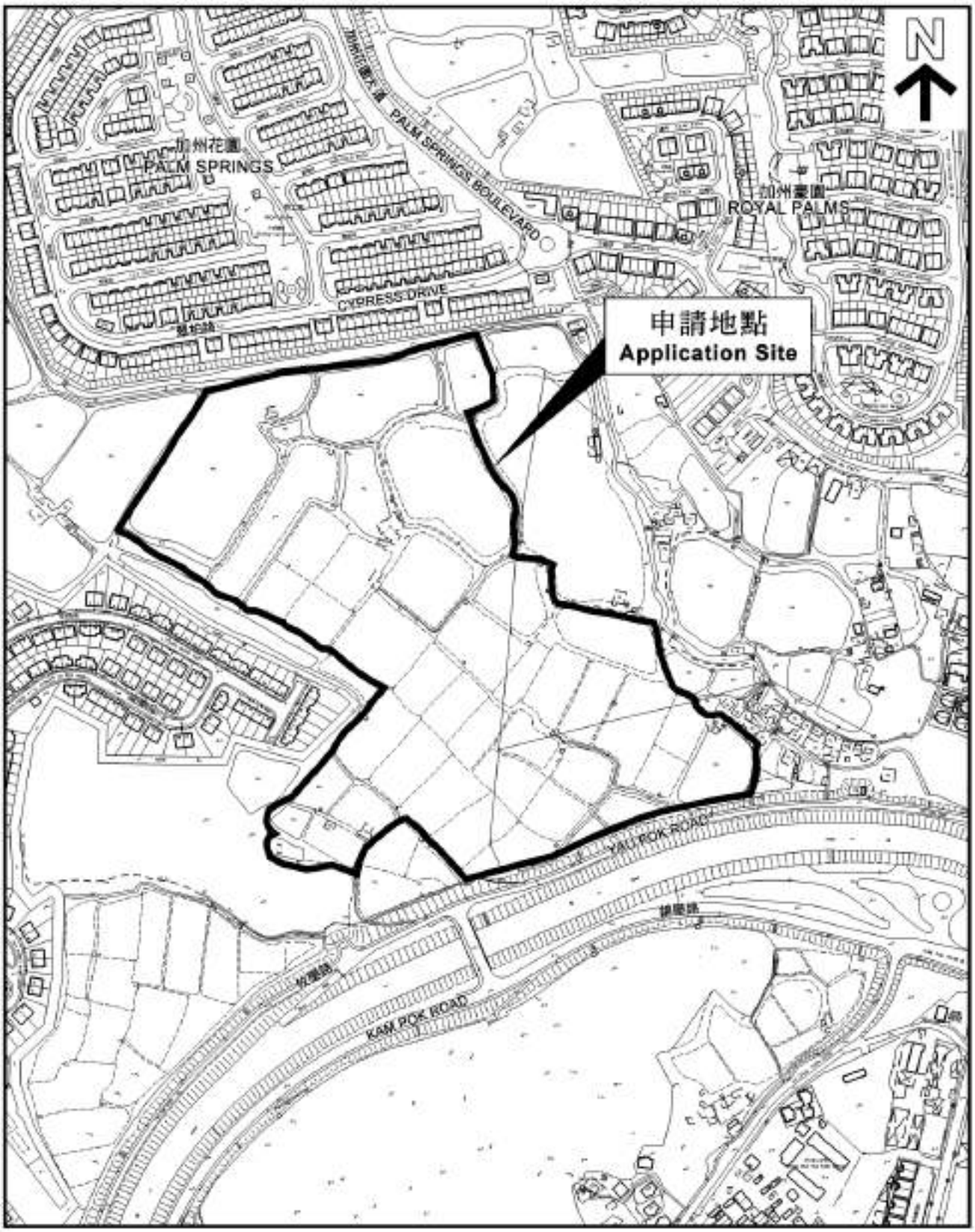
因應於 2016 年 9 月 15 日接獲的進一步資料而修訂的概括發展規範
Revised broad development parameters in view of the further information received on 15.9.2016

(a)	申請編號 Application no.	A/YL-MP/247		
(b)	位置／地址 Location/Address	元朗近攸美新村丈量約份第 104 約地段第 3054 號 B 分段餘段及第 3055 號 Lots 3054 S.B RP and 3055 in D.D.104, near Yau Mei San Tsuen, Yuen Long		
(c)	地盤面積 Site area	約 About 81,000 平方米 m^2		
(d)	圖則 Plan	米埔及錦綉花園分區計劃大綱核准圖編號 S/YL-MP/6 Approved Mai Po & Fairview Park Outline Zoning Plan No. S/YL-MP/6		
(e)	地帶 Zoning	「其他指定用途」註明「綜合發展及濕地保護區」 "Other Specified Uses" annotated "Comprehensive Development and Wetland Protection Area"		
(f)	申請用途／發展 Applied Use/ Development	擬議濕地修復區 (挖土作魚塘修復及"濕地生境"用途)及低密度住宅發展(填土作"屋宇"用途) Proposed Wetland Restoration Area [("Wetland Habitat" use with excavation (re-profiling of fish ponds)] cum Low Density Residential Development ("House" use with filling of land)		
(g)	總樓面面積及／或地積比率 Total floor area and/or plot ratio		平方米 m^2	地積比率 Plot ratio
		住用 Domestic	約 About 16,200	約 About 0.2
		會所 Club House	約 About 810	-
(h)	幢數 No. of block	住用 Domestic	105	
		會所 Club House	1	
		綜合用途 Composite	-	
(i)	建築物高度／層數 Building height/ No. of storeys	住用 Domestic	不超過 Not Exceeding 11.5米 m - 米(主水平基準以上)mPD 3 層 storey(s)	
		會所 Club House	不超過 Not Exceeding 22 米 m - 米(主水平基準以上)mPD 3 層 storey(s) 包括 including 1 地庫 Basement	
		綜合用途 Composite	- 米 m - 米(主水平基準以上)mPD - 層 storey(s)	
(j)	上蓋面積 Site coverage	約 About 16 %		
(k)	單位數目 No. of units	105 屋宇 Houses		

(l) 休憩用地 Open Space	- 私人 Private	不少於 Not less than 315 平方米 m^2
	- 公眾 Public	- 平方米 m^2
(m) 停車位及上落客貨車位數目 No. of parking spaces and loading/ unloading spaces	- 私家車車位 Private Car Parking Spaces	174
	- 訪客車位 Visitor Parking Spaces	6
	- 電單車車位 Motorcycle Parking Spaces	2
	- 單車車位 Bicycle Parking Spaces	4
	- 上落客貨車位 Loading/Unloading Spaces	2

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A/YL-MP/247


N
PALM SPRINGS
PALM SPRINGS BOULEVARD
ROYAL PALMS
CYPRESS DRIVE
申請地點
Application Site
YAU POK ROAD
KAM POK ROAD

Yau Pok Road, Yuen Long





Intake date: 1st quarter of 2025

Ancillary facilities

There are shops, launderettes, study/activity rooms, recreational and community services, etc. within the project. There are three floors in each block without lift installation

Public transport services

There are franchised bus and minibus stops within the project for providing public transport services, and it takes about 15 to 20 minutes to travel to Yuen Long Town Centre, Sheung Shui and Tai Lam Tunnel Bus Interchange respectively

Education facilities

Primary One Admission School Net (74), with 29 primary schools and 42 secondary schools within the district

Unit type	Unit size	Number of units	Monthly rent Note
1 to 2 persons	about 14 m²	about 1 760	about $880
3 to 4 persons	about 26 m²	about 390	about $1,630

Note: Rents vary depending on the unit size and the district. The rental level is preliminarily set at around 95% of the rent of newly completed traditional public rental housing in the same district and is estimated based on the current rent of traditional public rental housing. Having regard to the biennial rent review of the traditional public rental housing, the rent of Light Public Housing will also be adjusted accordingly.

Each unit equipped with

Self-contained toilet | Shower area | Open cooking space | Electric water heater | Exhaust fan



Choi Hing Road, Ngau Tau Kok





Intake date: 2nd quarter of 2025

Ancillary facilities

There are small shops, launderettes, study/activity rooms, community services, recreational facilities, etc. within the project. Lifts are provided in each block and in the connection between two phases. It takes about 5 to 10 minutes to walk to Choi Fook Estate Market, Choi Tak Shopping Centre and Choi Wan Shopping Centre respectively

Public transport services

There is a minibus stand within the project. Also, there are a number of minibus and franchised bus routes in the vicinity travelling between Choi Hing Road, Ngau Tau Kok and Choi Hung MTR station (about 15-minute journey) as well as different places in Hong Kong and Kowloon

Education facilities

Primary One Admission School Net (46), with 9 primary schools and 38 secondary schools within the district

Unit type	Unit size	Number of units	Monthly rent Note
1 to 2 persons	about 14 m²	about 1 530	about $1,290
3 to 4 persons	about 26 m²	about 440	about $2,400
4 to 5 persons	about 32 m²	about 320	about $2,990



The unit design, size and layout are for reference only and subject to the actual design of the contractor of each Light Public Housing project. The unit will provide and install only basic equipment like electric water heater and exhaust fan in the bathroom. Furniture, other electrical appliances and decorations as shown in the show flat will not be provided.

Broad Development Parameters of the Applied Use/Development in respect of Application No. A/YL-MP/287
關乎申請編號 A/YL-MP/287 的擬議用途/發展的概括發展規範

Revised broad development parameters in view of
the further information received on 14.2.2020
因應於 2020 年 2 月 14 日接獲的進一步資料而修訂的概括發展規範

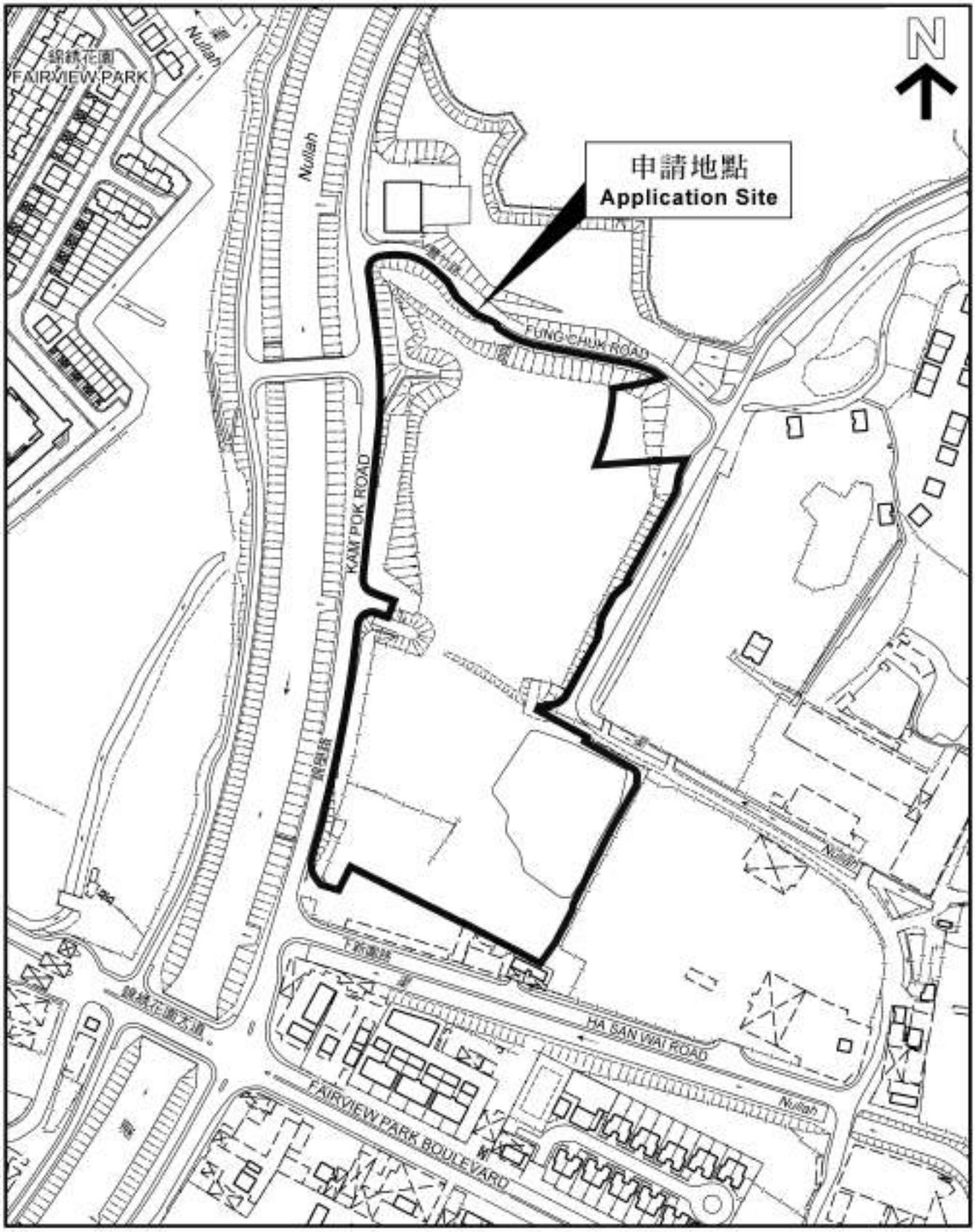
Application No. 申請編號	A/YL-MP/287		
Location/address 位置／地址	Lots 3207 RP, 3209 RP, 3220 RP, 3221 RP, 3224 RP, 3225 S.A RP, 3225 S.C RP, 3225 RP, 3226 S.A RP, 3226 RP, 3228, 3229, 3230 RP, 3250 S.B ss.21 RP, 3250 S.B ss.33 S.B, 3250 S.B ss.40 S.A RP, 3250 S.B ss.40 RP and 4658 RP in D.D. 104 and Adjoining Government Land, Mai Po, Yuen Long, New Territories 新界元朗米埔丈量約份第 104 約地段第 3207 號餘段、第 3209 號餘段、第 3220 號餘段、第 3221 號餘段、第 3224 號餘段、第 3225 號 A 分段餘段、第 3225 號 C 分段餘段、第 3225 號餘段、第 3226 號 A 分段餘段、第 3226 號餘段、第 3228 號、第 3229 號、第 3230 號餘段、第 3250 號 B 分段第 21 小分段餘段、第 3250 號 B 分段第 33 小分段 B 分段、第 3250 號 B 分段第 40 小分段 A 分段餘段、第 3250 號 B 分段第 40 小分段餘段及第 4658 號餘段和毗連政府土地		
Site area 地盤面積	About 約 37,702 sq. m 平方米 (Includes Government Land of about 包括政府土地約 7,277 sq. m 平方米)		
Plan 圖則	Approved Mai Po & Fairview Park Outline Zoning Plan No. S/YL-MP/6 米埔及錦綉花園分區計劃大綱核准圖編號 S/YL-MP/6		
Zoning 地帶	"Residential (Group D)" 「住宅(丁類)」		
Applied use/ development 申請用途/發展	Proposed House Development with Minor Relaxation of Building Height Restriction, Filling of Pond/Land, and Excavation of Land 擬議屋宇發展、略為放寬建築物高度限制、進行填塘/填土及挖土工程		
Gross floor area and/or plot ratio 總樓面面積及／或地積比率		sq. m 平方米	Plot ratio 地積比率
	Domestic 住用	About 約 7,540	About 約 0.2
	Non-domestic 非住用	About 約 377.02	-
No. of block 幢數	Domestic 住用	65	
	Non-domestic 非住用	1	
	Composite 綜合用途	-	
Building height/No.	Domestic	Not more than 不多於 6.6 m 米	

of storeys 建築物高度／層數	住用	-	mPD 米(主水平基準上)
		2	Storey(s) 層
	Non-domestic 非住用	Not more than 不多於 6.6	m 米
		-	mPD 米(主水平基準上)
		1	Storey(s) 層
	Composite 綜合用途	-	m 米
		-	mPD 米(主水平基準上)
		-	Storey(s) 層
Site coverage 上蓋面積	not more than 20 %		
No. of units 單位數目	65 Houses 獨立屋		
Open space 休憩用地	Private 私人	200	sq. m 平方米
	Public 公眾	-	sq. m 平方米
No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle spaces 停車位總數		88
	Private Car Parking Spaces 私家車車位		77
	Motorcycle Parking Spaces 電單車車位		8
	Visitor Parking Spaces 訪客車位		3

* 有關資料是為方便市民大眾參考而提供。對於所載資料在使用上的問題及文義上的歧異，城市規劃委員會概不負責。若有任何疑問，應查閱申請人提交的文件。

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A/YL-MP/287


N
申請地點
Application Site
FAIRVIEW PARK
Nullah
FUNG CHUK ROAD
KAM POK ROAD
HA SAN WAI ROAD
FAIRVIEW PARK BOULEVARD

23 & 24. Private House at Ha San Wai Road

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

824000 E

839000 N

838000 N

837000 N

LEGEND:

SITE BOUNDARY

APPLICATION SITE BOUNDARY

N

SUBJECT SITE
PROPOSED SCHEME
SITE AREA: 65,690 SQ. m

DPR 1.5
2,322 UNITS

23. Private House at
Ha San Wai Road
NO APPROVED SCHEME
(ASSUME 3 NEW HOUSES
CAN BE ACCOMMODATED WITHIN
THE SITE BASED ON THE TOTAL
GFA PERMISSIBLE FOR THE SITE)

SITE AREA:
2,508 SQ.m.

PR 0.2

25. Private House at
Ha San Wai Road
NO APPROVED SCHEME
(ASSUME 1 NEW HOUSE
CAN BE ACCOMMODATED WITHIN
THE SITE BASED ON THE TOTAL
GFA PERMISSIBLE FOR THE SITE)

SITE AREA:
898 SQ.m.

PR 0.2

FAIRVIEW PARK

YAU TAM MEI TSUEN

YAU POK ROAD

CASTLE PEAK ROAD – TAM MI

SAN TIN HIGHWAY

FAIRVIEW PARK BOULEVARD

NGAU TAM MEI

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AECOM

PROJECT
項目

S.12A PLANNING APPLICATION FOR REZONING VARIOUS LOTS & ADJACENT G.L. IN DD 104, "R(D)" SITE, KAM TIN, YUEN LONG

CLIENT
業主

CONSULTANT
工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核對

STATUS
階段

SCALE 比例
A3 1 : 10000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60607989

CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱
FUTURE ADJACENT DEVELOPMENTS

SHEET NUMBER
圖紙編號
FIGURE 4.1

Broad Development Parameters of the Indicative Development Proposal in Respect of Application No. Y/YL-NSW/8
關乎申請編號 Y/YL-NSW/8 而只作指示用途的擬議發展計劃的概括發展規範

Revised broad development parameters in view of
the further information received on 18.11.2024
因應於 2024 年 11 月 18 日接獲的進一步資料而修訂的概括發展規範

Application No. 申請編號	Y/YL-NSW/8		
Location/address 位置／地址	Lots 8 RP (Part), 8 S.A RP, 12, 13, 14 S.B ss.2, 14 S.B RP, 14 S.C RP, 16, 17, 31 S.B RP, 33 RP, 36 RP, 45, 55 S.A and 1740 S.A RP in D.D.107 and Adjoining Government Land, West of Castle Peak Road – Tam Mi, Yuen Long 元朗青山公路 – 潭尾段以西丈量約份第 107 約地段第 8 號餘段(部分)、第 8 號 A 分段餘段、第 12 號、第 13 號、第 14 號 B 分段第 2 小分段、第 14 號 B 分段餘段、第 14 號 C 分段餘段、第 16 號、第 17 號、第 31 號 B 分段餘段、第 33 號餘段、第 36 號餘段、第 45 號、第 55 號 A 分段及第 1740 號 A 分段餘段和毗連政府土地		
Site area 地盤面積	About 約 116,231 sq. m 平方米 (Includes Government land of about 包括政府土地約 23,864 sq. m 平方米)		
Plan 圖則	Section 12A application 第 12A 條申請 Approved Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/8 南生圍分區計劃大綱核准圖編號 S/YL-NSW/8		
	Further information received 接獲進一步資料 Draft Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/9 南生圍分區計劃大綱草圖編號 S/YL-NSW/9		
Zoning 地帶	Section 12A application 第 12A 條申請 “Other Specified Uses” annotated “Comprehensive Development to include Wetland Restoration Area” 「其他指定用途」註明「綜合發展包括濕地修復區」		
	Further information received 接獲進一步資料 “Other Specified Uses” annotated “Comprehensive Development to include Wetland Restoration Area” 「其他指定用途」註明「綜合發展包括濕地修復區」		
Proposed Amendment(s) 擬議修訂	To rezone the application site from “Other Specified Uses” annotated “Comprehensive Development to include Wetland Restoration Area” to “Other Specified Uses” annotated “Comprehensive Development to include Wetland Restoration Area 1” 把申請地點由「其他指定用途」註明「綜合發展包括濕地修復區」地帶改劃為「其他指定用途」註明「綜合發展包括濕地修復區 1」地帶		
Gross floor area and/or plot ratio 總樓面面積及／或地積比率		sq. m 平方米	Plot ratio 地積比率
	Domestic 住用	About 約 255,708	Not more than 不多於 2.2

	Non-domestic(1) (2) 非住用	Commercial use(1) 商業用途	About 約 4,950	Commercial use 商業用途	Not more than 不多於 0.05
		Residential care homes for the elderly (RCHE) 安老院舍	About 約 5,400	Residential care homes for the elderly (RCHE) 安老院舍	Not more than 不多於 0.05
No. of block 幢數	Domestic 住用	17			
	Non-domestic 非住用	3 (3)			
	Composite 綜合用途	7 (4)			
Building height/No. of storeys 建築物高度／層數	Domestic 住用	-		m 米	
		Not more than 不多於 110.5		mPD 米(主水平基準上)	
		Not more than 不多於 29(5)		Storey(s) 層 *Exclude 不包括 Basement 地庫*	
	Non-domestic 非住用	-		m 米	
		Not more than 不多於 14.7		mPD 米(主水平基準上)	
		Not more than 不多於 3		Storey(s) 層	
	Composite 綜合用途	-		m 米	
		Not more than 不多於 115		mPD 米(主水平基準上)	
		Not more than 不多於 29		Storey(s) 層 *Exclude 不包括 Basement 地庫*	
Site coverage 上蓋面積	Domestic 住用	Not more than 不多於 33.33 %			
	Non-domestic 非住用	Not more than 不多於 100 %			
No. of units 單位數目	About 約 6,825 Flats 住宅單位				
Open space 休憩用地	Private 私人	Not less than 不少於 17,745		sq. m 平方米	
	Public 公眾	-		sq. m 平方米	

No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle spaces 停車位總數	709
	Private Car Parking Spaces 私家車車位	652
	Motorcycle Parking Spaces 電單車車位	57
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數	35
	Light Goods Vehicle Spaces 輕型貨車車位 Medium Goods Vehicle Spaces 中型貨車車位 Heavy Goods Vehicle Spaces 重型貨車車位	28(6)
	Private Car / Taxi Lay-by 私家車/的士停車處	2
	Small Coach Lay-by 小型旅遊巴停車處	5

(1) Including commercial GFA for 'Shop and Services', 'Eating Place', 'School'(nursery/kindergarten/language, computer, commercial or tutorial schools/technical institutes/other types of schools providing interests and hobby related courses for subjects such as arts and ballet etc.), 'Place of Entertainment' and 'Place of Recreation, Sports or Culture' uses 包括商業用途的總樓面面積作商店及服務行業、食肆、學校(幼兒園/幼稚園/語言學校/電腦學校/商科學校/補習學校/工業學院/藝術學校/芭蕾舞學校/開辦興趣班或休閒課程的其他類型學校)、娛樂場所及康體文娛場所

(2) Excluding GFA of GIC facilities (i.e. a neighborhood elderly centre (with NOFA of about 328m2) from the plot ratio calculation 地積比率不包括總樓面面積作社會福利設施(即社區老人中心(淨作業樓面面積約 328 平方米) Including 2 clubhouse blocks and 1 GIC block 包括 2 幢作會所設施以及 1 幢作社會福利設施 a

(3) Including 2 clubhouse blocks and 1 GIC blocks 包括 2 幢作會所設施以及 1 幢作社會福利設施

(4) Including 7 residential towers above non-domestic podium 包括 7 幢坐落於非住用平台上的住宅樓宇

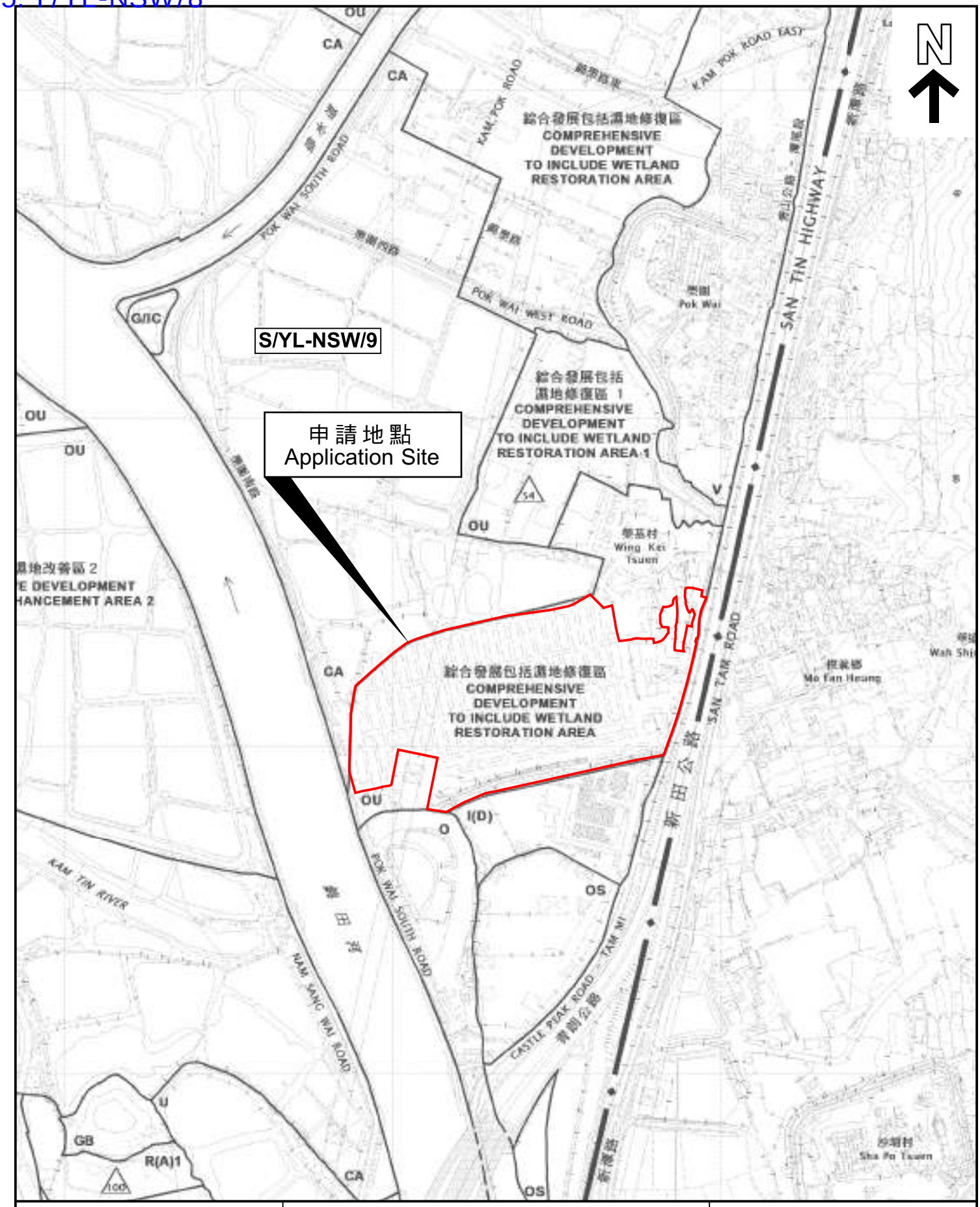
(5) Excluding the transfer plates 不包括結構轉換層

(6) Including light goods vehicle, medium goods vehicle and heavy goods vehicle loading/unloading spaces 包括輕型貨車、中型貨車及重型貨車的上落客貨車位

* 有關資料是為方便市民大眾參考而提供。對於所載資料在使用上的問題及文義上的歧異，城市規劃委員會概不負責。若有任何疑問，應查閱申請人提交的文件。

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25. Y/YL-NSW/8



本摘要圖於2024年11月22日擬備，
所根據的資料為於2024年7月12日
展示的分區計劃大綱圖編號 S/YL-NSW/9

EXTRACT PLAN PREPARED ON 22.11.2024
BASED ON OUTLINE ZONING PLAN No.
S/YL-NSW/9 EXHIBITED ON 12.7.2024

位置圖 LOCATION PLAN

SCALE 1 : 7 500 比例尺

米 METRES 100 0 100 200 300 米 METRES

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.
Y/YL-NSW/8

Broad Development Parameters of the Indicative Development Proposal in Respect of Application No. Y/YL-NSW/9
關乎申請編號 Y/YL-NSW/9 而只作指示用途的擬議發展計劃的概括發展規範

Revised broad development parameters in view of
the further information received on 18.11.2024
因應於 2024 年 11 月 18 日接獲的進一步資料而修訂的概括發展規範

Application No. 申請編號	Y/YL-NSW/9				
Location/address 位置／地址	Lots 1910 RP (Part) and 1743 S.C RP (Part) in D.D. 107 and Adjoining Government Land, West of Castle Peak Road – Tam Mi, Yuen Long 元朗青山公路－潭尾段以西丈量約份第 107 約地段第 1910 號餘段(部分)及第 1743 號 C 分段餘段(部分)和毗連政府土地				
Site area 地盤面積	About 約 81,550 sq. m 平方米 (Includes Government land of about 包括政府土地約 15,714 sq. m 平方米)				
Plan 圖則	Section 12A application 第 12A 條申請 Approved Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/8 南生圍分區計劃大綱核准圖編號 S/YL-NSW/8				
	Further information received 接獲進一步資料 Draft Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/9 南生圍分區計劃大綱草圖編號 S/YL-NSW/9				
Zoning 地帶	Section 12A application 第 12A 條申請 “Industrial (Group D)”, “Open Storage” and area shown as ‘Road’ 「工業 (丁類)」、「露天貯物」及顯示為「道路」的地方				
	Further information received 接獲進一步資料 “Industrial (Group D)”, “Open Storage” and area shown as ‘Road’ 「工業 (丁類)」、「露天貯物」及顯示為「道路」的地方				
Proposed Amendment(s) 擬議修訂	To rezone the application site from “Industrial (Group D)”, “Open Storage” and area shown as ‘Road’ to “Residential (Group E)” 把申請地點由「工業 (丁類)」地帶、「露天貯物」地帶及顯示為「道路」的地方改劃為「住宅（戊類）」地帶				
Gross floor area and/or plot ratio 總樓面面積及／或地積比率		sq. m 平方米		Plot ratio 地積比率	
	Domestic 住用	About 約 115,942		Not more than 不多於 2.5(1)	
	Non-domestic 非住用	Commercial use 商業用途	About 約 3,900 (2)	Commercial use 商業用途	Not more than 不多於 0.09(1) (2)
		Covered transport lay-by 有蓋交通停車處	About 約 6,400	Covered transport lay-by 有蓋交通停車處	Not more than 不多於 0.14

No. of block 幢數	Domestic 住用	3	
	Non-domestic 非住用	1[3]	
	Composite 綜合用途	8[4]	
Building height/No. of storeys 建築物高度／層數	Domestic 住用	-	m 米
		Not more than 不多於 75.5	mPD 米(主水平基準上)
		Not more than 不多於 19[5]	Storey(s) 層 *Exclude 不包括 Basement 地庫*
	Non-domestic 非住用	Relocated Soy Sauce Factory Portion 重置醬園部分 Not more than 不多於 15	mPD 米(主水平基準上)
	Composite 綜合用途	-	m 米
		Not more than 不多於 115	mPD 米(主水平基準上)
		Not more than 不多於 29	Storey(s) 層 *Exclude 不包括 Basement 地庫*
Site coverage 上蓋面積	Domestic 住用	Not more than 不多於 33.33 %	
	Non-domestic 非住用	Not more than 不多於 100 %	
No. of units 單位數目	About 約 3,115 Flats 住宅單位		
Open space 休憩用地	Private 私人	Not less than 不少於 8,099	sq. m 平方米
	Public 公眾	-	sq. m 平方米
No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle spaces 停車位總數		349
	Private Car Parking Spaces 私家車車位		321
	Motorcycle Parking Spaces 電單車車位		28
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數		39
	Heavy Goods Vehicle Spaces 重型貨車車位		
	Light Goods Vehicle Spaces 輕型貨車車位		32[6]
	Medium Goods Vehicle Spaces 中型貨車車位		
	Private Car / Taxi Lay-by 私家車/的士停車處		2
	Small Coach Lay-by 小型旅遊巴停車處		5
	Covered Transport Lay-by 有蓋交通停車處		1

(1) Calculation based on the residential portion of the development site area of 46,501m² 以發展地盤的住宅部份面積 46,501 平方米計算

(2) Including commercial GFA for 'Shop and Services', 'Eating Place', 'School'(nursery/kindergarten/language, computer, commercial or tutorial schools/technical institutes/other types of schools providing interests and hobby related courses for subjects such as arts and ballet etc.), 'Place of Entertainment' and 'Place of Recreation, Sports or Culture' uses 包括商業用途的總樓面面積作商店及服務行業、食肆、學校(幼兒園/幼稚園/語言學校/電腦學校/商科學校/補習學校/工業學院/藝術學校/芭蕾舞學校/開辦興趣班或休閒課程的其他類型學校)、娛樂場所及康體文娛場所

(3) Including the relocated soy sauce factory portion 包括重置醬園部分

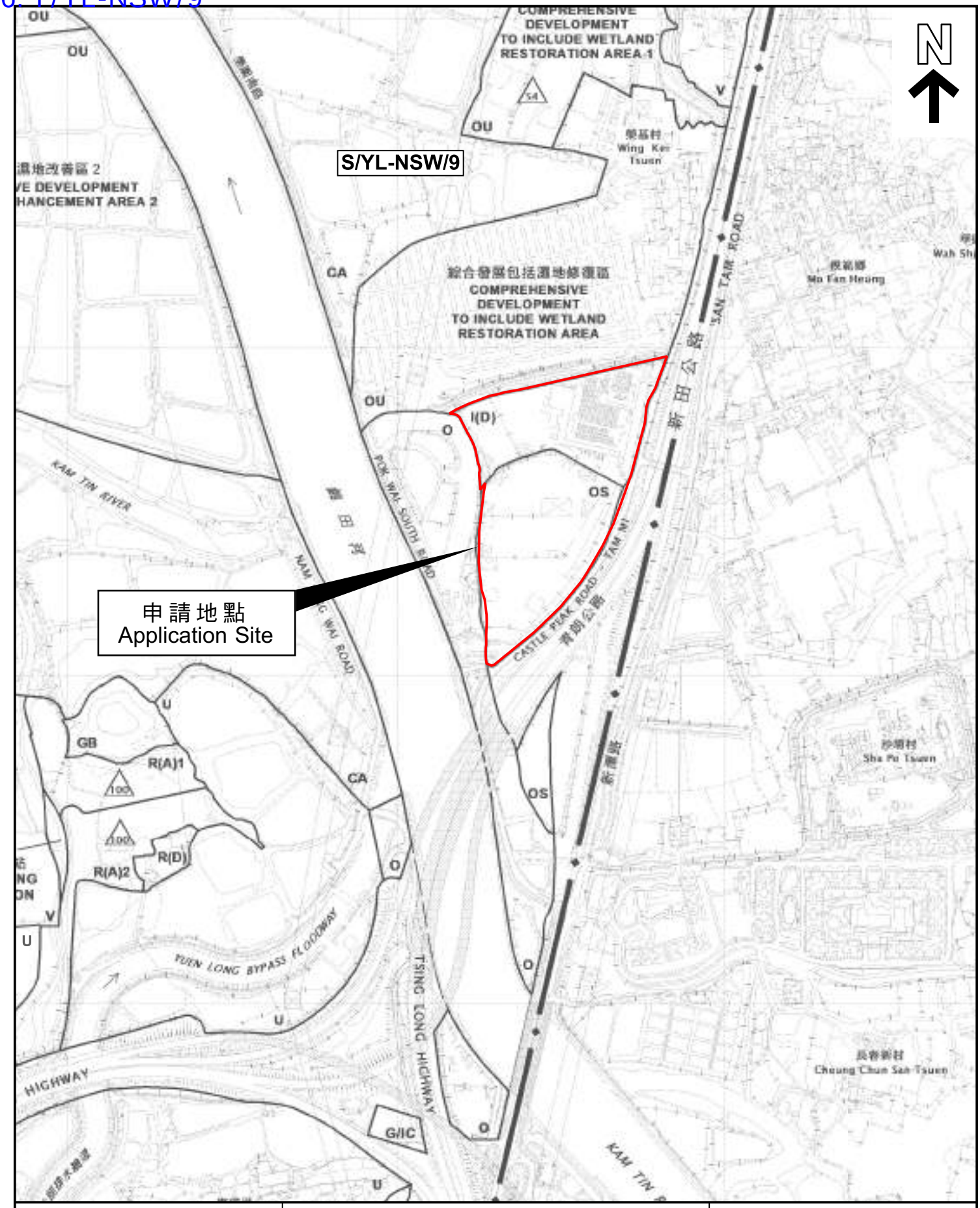
(4) Including 8 residential towers above non-domestic podium (including clubhouse) 包括 8 幢坐落於非住用平台上（包括會所）的住宅樓宇

(5) Excluding the transfer plates 不包括結構轉換層

(6) Including light goods vehicle, medium goods vehicle and heavy goods vehicle loading/unloading spaces 包括輕型貨車、中型貨車及重型貨車的上落客貨車位

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本摘要圖於2024年11月22日擬備，
所根據的資料為於2024年7月12日
展示的分區計劃大綱圖編號 S/YL-NSW/9
EXTRACT PLAN PREPARED ON 22.11.2024
BASED ON OUTLINE ZONING PLAN No.
S/YL-NSW/9 EXHIBITED ON 12.7.2024

位置圖 LOCATION PLAN

SCALE 1 : 7 500 比例尺

米 METRES 100 0 100 200 300 米 METRES

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.
Y/YL-NSW/9

Responses to Comments
(by emails)

寄件者: Gladys Ng
收件者: Jane Ching Kei LAU/PLAND
副本: Pak Him CHIU/PLAND
主旨: RE: Y/YL-MP/10 - Responses to Comments from TD
日期： 2025年6月19日 17:14:00

Dear Jane,

Further to the liaison between TD and our traffic consultant, please note that paras. 5.1.12 & 5.1.13 have been update in response to the latest comments from TD. You may download the updated TIA report from the link below:

https://we.tl/t-dUM9uZ6OMc

Best regards,

Gladys

Associate Director

KTA Planning Limited
[redacted]

From: Gladys Ng
Sent: Monday, June 16, 2025 6:38 PM
To: 'Jane Ching Kei LAU/PLAND' <j[redacted]
Cc: 'Pak Him CHIU/PLAND' <[redacted]>
Subject: RE: Y/YL-MP/10 - Responses to Comments from TD

Dear Jane,

Further to the liaison between TD and our traffic consultant, please note that we've made changes to item 8 (text being deleted) and 14 (changes highlighted in yellow) as well as para. 4.5.7 and 5.1.14 of the TIA report. Updated version of the R-to-C Table and link for the revised TIA report can be found below:

Updated TIA report: https://we.tl/t-g1X0f6FlOd

Comments	Response
Traffic Engineering Comments: 1. Para. 4.5.3 • Should be "except Junction 1 and Junction 2". Please revise.	Noted and revised.
2. Para. 4.5.4 • Please delete the sentence "The approach arms of Castle Peak Road - Tam Mi(northbound), ... to the commissioning."	Noted and revised.
3. • Please rewrite "The proposed layout is shown in Figure 4.6." to "The proposed improvement measures implemented by subject application is shown in red and presented in Figure 4.6."	Noted and revised.

4. • Please create a separate paragraph to mention the situation of programme mismatch of the junction improvement in J1 under CE10/2020(CE).	Noted and revised as Para. 4.5.5.
5. Para. 4.5.6: • There is no planned improvement measures proposed in Kam Pok Road / Vehicular Bridge - North (J11) in Section 4.4. Please revise.	Noted and revised Para. 4.5.7.
6. • Apparently the proposed works in J11 is derived from the proposed development instead of junction improvement purposes. This junction modification works should not be treated as junction improvement measures. Please rewrite this paragraph.	The proposed works are revised as junction modification works.
7. Para. 4.5.8: • The V/C ratio of San Tin Highway mentioned here does not tally with Table 4.7. Please revise.	Noted and revised.
8. • Please explain how does the opening of Route 11 would be related to the performance of San Tin Highway.	Para. 4.5.8 has been revised accordingly.
9. Para. 5.1.1: • This site should be sandwiched by Kam Pok Road and Castle Peak Road - Tam Mi instead of San Tin Highway. Please revise.	Noted and revised.
10. Para. 5.1.3: • Provision of bicycle parking spaces should be mentioned.	Noted and revised.
11. Para 5.1.4: • The content of transport laybys does not tally with para. 2.4.8. Please revise.	Noted and revised.
12. Para. 5.1.6: • The additional trips induced by the proposed development mentioned here does not tally with para. 4.1.2. Please revise.	Noted and revised.
13. Traffic flow diagram for the sensitivity test II, including the net increase flow, are missing. Please supplement.	Noted and supplemented as Figure 4.12 and Figure 4.13.
14. Appendix A: • Please provide swept path analysis of 12.8m bus left turn to Kam Pok Road to demonstrate that no vehicles would encroach into the opposite when turning.	The proposed routing of the 12.8m bus would travel to / from Fairview Park Interchange <-> Castle Peak Road – Tam Mi <-> Kam Pok Road <-> Subject Development. The use of Fairview Park

	Boulevard would be avoided and left turn to Kam Pok Road would not be anticipated. Therefore, the concerned swept path analysis (i.e. left turn to Kam Pok Road) should not be required.
15. Appendix D: • Please review and update the junction calculation of J1 under all scenario.	Noted and revised.
16. • The results of junction calculation of J6 under sensitivity test II with junction improvement works does not tally with Table 4.14. Please update.	Noted and revised.

Best regards,

Gladys

Associate Director

KTA Planning Limited

[redacted]