Appendix III

Traffic Impact Assessment

Document Status Control Record

Proposed SCAA Sports Link
at South China Athletic Association
88 Caroline Hill Road in Wong Nai Chung

Traffic Impact Assessment Study

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1 INTRODUCTION

1.1 Background

1.1.1 The South China Athletic Association ("SCAA") intends to develop a comprehensive sports and recreation centre ("the proposed development") at the northern part of SCAA site in Caroline Hill Road, Causeway Bay ("the Site"). A S16 planning application will be required for taking forward the implementation of the proposed development. In this regard, a traffic impact assessment ("TIA") study is required to support the S16 planning application.

1.1.2 LLA Consultancy Limited was commissioned to conduct the TIA study for the proposed development. This report presents the findings of this study.

1.2 Objectives

1.2.1 The objectives of this study are as follows:

- to review the existing traffic conditions in the vicinity of the Site;
- to estimate the traffic generation of the proposed development;
- to project the future traffic flows in the surrounding road network;
- to appraise the potential traffic impact of the proposed development, and to propose road improvement proposals, if required;
- to recommend the internal transport facilities for the proposed development; and
- to review the pedestrian traffic arrangement of the proposed development.

2 THE PROPOSED DEVELOPMENT

2.1 The Site

2.1.1 As shown in **Figure 2.1**, the Site is situated on the northside of the SCAA site in Caroline Hill Road, Causeway Bay and the site area is about 6,132 m^2.

2.2 Development Schedule

2.2.1 The proposed development will provide tennis courts, 5-a-side artificial turf pitches, activities rooms, muti-purposes rooms and ancillary facilities. The key development parameters are summarised in **Table 2.1**.

Table 2.1 Proposed Development Schedule

Item	Parameter
Site Area	About 6,132 m^2
Total GFA	About 31,327.12 m^2
No. of Storeys	G/F, 1/F, 2/F and 3/F
Tennis Count	6 Nos.
5-a-side Artificial Turf Pitch	2 Nos.
Activities rooms, muti-purposes rooms and ancillary facilities	1/F: Activities Rooms + Multi-purposed Rooms + WC + Corridor = about 1840m^2
Internal transport facilities	63 private car parking spaces, 9 Motorcycle parking spaces, 1 pick-up/drop-off lay-by and 1 MGV loading/unloading bay

2.3 Vehicular Access Arrangement

2.3.1 The Site has a single frontage at Caroline Hill Road only and the proposed vehicular access for the proposed development must be located at Caroline Hill Road. Taking into consideration of the location of the Disciplined Services Sports & Recreation Club vehicular access at the opposite side, the proposed vehicular access is being positioned to stagger with the opposite vehicular access.

2.4 Proposed Transport Facilities

2.4.1 The internal transport facilities for the proposed development use should be provided in accordance with the Hong Kong Planning Standards and Guidelines (HKPSG) or the land grant. As there is no specific guideline set in the HKPSG or land grant for the proposed sports and recreation uses, the design objective is to provide maximum parking space numbers on ground floor in formulating the carpark layout because there will be neither basement floor nor upper floor for carparks. The proposed ground floor plan is enclosed in **Appendix A** and a total of 63 car parking spaces, 9 motorcycle parking spaces, 1 pick-up/drop-off layby and 1 goods vehicle loading/unloading space can be provided. The car parking provision is equivalent to 1 car parking space per 124 m^2 and the provision level can meet the proposed operational needs.

2.4.2 **Table 2.2** lists out the details of the transport facilities provided within the proposed development.

Table 2.2 Summary of Overall Transport Facilities Provision

Facilities	Dimensions	Proposed Provision	
Car Parking Space	2.5m (W) x 5.0m (L) x 2.4 (H)	61	63
Disabled Car Parking Space	3.5m (W) x 5.0m (L) x 2.4 (H)	2	
Motorcycle Parking Space	1.0m (W) x 2.5m (L) x 2.4 (H)	9	
Pick-up/drop-off Lay-by	-	1	
Goods Vehicle Loading / Unloading Bay	HGV: 3.5m (W) x 11.0m (L) x 4.7m (H)	1	

3 EXISTING TRAFFIC SITUATION

3.1 Existing Road Network

3.1.1 Caroline Hill Road connects the local areas of Caroline Hill and So Kon Po with the district distributor Leighton Road in the area. The eastern end of Leighton Road intersects with Causeway Road and Tung Lo Wan Road that leads to the Tin Hau and Tai Hang areas respectively. The western end of Leighton Road links to Morrison Hill Road that leads to the local road network in Wan Chai and Canal Road Flyover.

3.1.2 Caroline Hill Road is a single 2-lane road with a short section adjoining the Disciplined Services Sports and Recreation Club near Cotton Path operating as one-way northbound. According to the 2023 Annual Traffic Census published by the Transport Department ("TD"), the section of Caroline Hill Road between Leighton Road and Yun Ping Road carried an annual average daily traffic ("AADT") of 5,330 vehicles per day.

3.2 Traffic Count Surveys

3.2.1 Having considered that the proposed development will have different traffic generation patterns during weekdays and weekends. For assessment purpose, both weekday and weekend are being considered.

3.2.2 Classified vehicles count surveys were carried out at the following locations in the vicinity of the Site on 17 June 2025 (Tuesday) for the time period of 08:00 – 10:00, 17:30 – 19:30 and 14 June 2025 (Saturday) for the time period of 11:30 to 13:30. The locations of the surveyed junctions are presented in **Figure 3.1**.

J1 – Caroline Hill Road (West) / Link Road

J2 – Leighton Road / Caroline Hill Road (West) / Hoi Ping Road

J3 – Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street

J4 – Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road

J5 – Tung Lo Wan Road / Eastern Hospital Road

J6 – Eastern Hospital Road / Cotton Path

J7 – Caroline Hill Road/Cotton Path

J8 – Tung Lo Wan Road / Moreton Terrace

J9 – Moreton Terrace / Causeway Road

J10 – Leighton Road / Hysan Avenue / Leighton Lane

J11 – Leighton Road / Percival Street / Hysan Avenue

3.2.3 The identified weekday AM, weekday PM and weekend peak hours were 08:15 – 09:15, 17:45 – 18:45 and 11:30 – 12:30, respectively and the surveyed traffic flows are presented in **Figure 3.2**.

3.3 Existing Junction Capacity Assessment

3.3.1 Based on the existing traffic flows, the performance of key junctions adjacent to the proposed development was assessed. The assessment results are in **Table 3.1**, and the detailed calculation sheets are attached in **Appendix B**.

Table 3.1 Existing Junction Performance

No.	Junction Location	Type/Capacity Index(1)	Identified Peak Hour		
			AM	PM	Weekend
J1	Caroline Hill Road (West) / Link Road	Priority/DFC	0.32	0.41	0.51
J2	Leighton Road / Caroline Hill Road (West) / Hoi Ping Road	Signalised/RC	26%	32%	27%
J3	Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street	Signalised/RC	50%	33%	31%
J4	Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road	Signalised/RC	71%	52%	49%
J5	Tung Lo Wan Road / Eastern Hospital Road	Signalised/RC	63%	83%	74%
J6	Eastern Hospital Road / Cotton Path	Priority/DFC	0.27	0.22	0.30
J7	Caroline Hill Road/Cotton Path	Priority/DFC	0.10	0.06	0.11
J8	Tung Lo Wan Road / Moreton Terrace	Signalised/RC	44%	31%	72%
J9	Moreton Terrace / Causeway Road	Signalised/RC	45%	25%	28%
J10	Leighton Road / Hysan Avenue / Leighton Lane	Signalised/RC	313%	267%	164%
J11	Leighton Road / Percival Street / Hysan Avenue	Signalised/RC	68%	62%	40%

Note: (1) RC = Reserve Capacity; DFC = Design Flow to Capacity ratio.

3.3.2 It can be seen from **Table 3.1** that all of the key junctions performed satisfactorily during the peak hours.

3.4 Existing Footpath Capacity Assessment

3.4.1 To ascertain the adequacy of footpath width for walking between the proposed development, bus/GMB stops and the MTR Causeway Bay Station, a pedestrian count survey was conducted on 17 June 2025 (Tuesday) for the time period of 08:00 – 10:00, 17:30 – 19:30 and 14 June 2025 (Saturday) for the time period of 11:30 to 13:30. The locations of surveyed footpaths are shown in **Figure 3.3** and the assessment results are shown in **Table 3.2**.

Table 3.2 Capacity Analysis of Existing Footpaths

Ref.	Location	Actual Width (m)	Effective Width (m)(1)	Peak Hour flow (ped/hr)			Flow Rate(2) ped/m/min [LOS]		
				AM	PM	WE	AM	PM	WE
P1	Southern footpath of Caroline Hill Road (between Eastern Hospital Road and Cotton Path)	3.0	2.0	90	38	41	0.8 [A]	0.3 [A]	0.3 [A]
P2	Eastern footpath of Cotton Path (between Caroline Hill Road and Eastern Hospital Road)	4.0	2.0	116	190	204	0.6 [A]	1.1 [A]	1.1 [A]
P3	Northern footpath of Caroline Hill Road (between Cotton Path and Leighton Road)	3.0	2.0	490	724	867	4.1 [A]	6.0 [A]	7.2 [A]
P4	Eastern footpath of Yun Ping Road(between Leighton Road and Hysan Avenue)	2.5	1.5	337	694	653	3.7 [A]	7.7 [A]	7.3 [A]
P5	Western footpath of Pennington Street (between Leighton Road and Keswick Street)	2.2	1.2	867	1,071	1,092	12.0 [A]	14.9 [A]	15.2 [A]
P6	Eastern footpath of Leighton Road (between Caroline Hill Road and Haven Street)	3.3	2.3	908	1,336	1,377	6.6 [A]	9.7 [A]	10.0 [A]
C1	Signalised Crossing	6.4	6.4	1,234	1,785	1,989	3.8 [A]	5.5 [A]	6.1 [A]
C2	Signalised Crossing	4.2	4.2	1,336	1,765	1,979	7.0 [A]	9.2 [A]	10.3 [A]
C3	Signalised Crossing	4.0	4.0	1,020	1,275	1,326	5.7 [A]	7.1 [A]	7.4 [A]

Notes: (1) Clearances of 0.5m on either side were subtracted from the actual widths to produce effective widths, and clearance was increased to 1m for shopping frontage.
(2) For LOS "C" or above, flow rates should be less than 33 pedestrians/metre/minute.

3.4.2 The assessment results indicate that the existing footpath condition is satisfactory during the identified peak hours on weekday and weekend with LOS "C" or above.

3.5 Existing Public Transport Facilities

3.5.1 There are various franchised bus and scheduled minibus ("GMB") services running in the vicinity of the Site along Leighton Road and Caroline Hill Road and the walking distance to the MTR Causeway Bay Station is about 650m. **Table 3.3** and **Figure 3.4** show the public transport services operated in the vicinity of the Site.

Table 3.3 Existing Public Transport Services near the Proposed Development

Mode	Route No.	Origin-Destination	Frequency (min)
Bus	1	Central (Macau Ferry) – Happy Valley (Upper)	12 – 25
	1M	Exhibition Centre Station – Wong Nai Chung Gap (Circular)	15 – 30
	1P	Wong Nai Chung Road (Broadwood Road) – Central	4 trips per day
	2	Grand Promenade – Central (Macau Ferry)	20 – 30
	2A	Yiu Tung Estate – Exhibition Centre Station	5 – 20
	2X	Grand Promenade – Exhibition Centre Station	6 – 20
	5B	Felix Villas – Hong Kong Stadium	7 – 30
	5X	Causeway Bay (Whitfield Road) – Kennedy Town	20 – 30
	8	Heng Fa Chuen – Exhibition Centre Station	12 – 25
	8H	Siu Sai Wan (Island Resort) – Tung Wah Eastern Hospital	30
	8P	Siu Sai Wan (Island Resort) – Exhibition Centre Station	5 – 20
	8X	Siu Sai Wan (Island Resort) – Happy Valley (Upper)	6 – 20
	10	North Point Ferry Pier – Kennedy Town	8 – 25
	11	Central (Ferry Piers) – Jardine's Lookout (Circular)	15 – 30
	15B	The Peak – Wan Chai (Convention Centre)	2 trips per day
	19P	Shau Kei Wan – Tai Hang Road	1 trip per day
	23	North Point Ferry – Pokfield Road	7 – 20
	23B	Braemar Hill – Park Road / Robinson Road	7 trips per day
	25	Central (Piers 3) – Braemar Hill (Circular)	10 – 20
	25A	Exhibition Centre Station – Braemar Hill (Circular)	12 – 25
	26	Lai Tak Tsuen – Hollywood Road (Circular)	10 – 25
	38	Chi Fu Fa Yuen – North Point Ferry (Omit Wai Fu)	6 – 15
	42	Wah Fu (South) – North Point Ferry	10 – 20
	42C	Cyberport – North Point Ferry	4 trips per day
	63	North Point Ferry – Stanley Market	30
	65	North Point Ferry – Stanley Market	12 – 20
	72	Wah Kwai – Causeway Bay (Moreton Terrace)	6 – 20
	72A	Shum Wan Public Transport Terminus – Causeway Bay (Moreton Terrace)	20 – 30
	76	Shek Pai Wan – Causeway Bay (Pennington Street)(Circular)	30
	77	Tin Wan Estate – Shau Kei Wan	12 – 25
	81	Hing Wah Estate – Lai Tak Tsuen	15 – 20
	99	South Horizons – Shau Kei Wan	12 – 25
	102	Shau Kei Wan – Mei Foo	5 – 20

Mode	Route No.	Origin-Destination	Frequency (min)
	103	Chuk Yuen Estate – Pokfield Rd	15 – 30
	106	Wong Tai Sin – Siu Sai Wan (Island Resort)	6 – 24
	108	Kai Yip – Braemar Hill	10 – 30
	112	North Point – So Uk	5 – 30
	116	Tsz Wan Shan (Central) – Quarry Bay	4 – 20
	117	Sham Shui Po (Yen Chow St) – Happy Valley (Lower)	12 – 23
	170	Shatin Station – Wah Fu (Central)	15 – 30
	307	Tai Po Central – Central (Central Ferry Piers)	8 – 30
	511	Tai Hang Drive – Central (Central Ferry Piers)	4 trips per day
	592	South Horizons – Causeway Bay (Moreton Terrace)	8 – 30
	600	Anderson – Central (Rumsey Street)	20 – 30
	601	Po Tat – Admiralty Station (East)	7 – 23
	601P	Sheung Wan – Po Tat	4 – 10
	603	Ping Tin – Central Ferry Piers	10 – 30
	603A	Ping Tin – Central Market	4 trips per day
	619	Shun Lee – Central (Macau Ferry)	7 – 27
	619X	Shun Lee – Central (Macau Ferry)	7 trips per day
	621	Laguna City – Central (Hong Kong Station)	10 trips per day
	671	Diamond Hill Station – Ap Lei Chau Lee Lok St	15 – 30
	673	Sheung Shui – Central (Hong Kong Station)	20 – 30
	673A	Central (Hong Kong Station) – Sheung Shui	2 trips per day
	678	Sheung Shui – Causeway Bay	16 trips per day
	679	Queen'S Hill Fanling – Central (Hong Kong Station)	3 trips per day
	680	Lee On – Admiralty Station (East) (Via Chung On Estate)	12 – 30
	680B	Chevalier Garden Bus Terminus – Admiralty Station (East)	2 trips per day
	680P	Wu Kai Sha Station – Admiralty Station (East)	3 trips per day
	680X	Wu Kai Sha Station – Central (Macau Ferry)	8 trips per day
	681	Central (Hong Kong Station) – Ma On Shan Town Centre	9 – 30
	681P	Yiu On – Sheung Wan	5 trips per day
	690	Hong Sing Garden – Central (Exchange Square) (Via Leighton Road)	20 – 30
	690S	Hang Hau – Central (Exchange Square) (Via Lohas Park)	14 trips per day
	914	Hoi Lai Estate – Causeway Bay (Tin Hau)	13 – 30
	914P	Hoi Lai Estate – Causeway Bay (Tin Hau)	1 trip per day
	914X	Hoi Lai Estate – Causeway Bay (Tin Hau)	3 trips per day
	930B	Kwai Shing Circuit – Causeway Bay (Moreton Terrace)	1 trip per day
	930X	Causeway Bay (Moreton Terrace) – Tsuen Wan (Discovery Park) (Via Nina Tower On Journey To Causeway Bay)	8 – 25
	936	Tsuen Wan (Shek Wai Kok) – Causeway Bay (Cotton Path)	15 – 30
	936A	Tsuen Wan (Shek Wai Kok) – Causeway Bay (Cotton Path)	7 trips per day

Mode	Route No.	Origin-Destination	Frequency (min)
	948	Tsing Yi (Cheung On Estate) – Causeway Bay (Tin Hau)	8 – 30
	948A	Cheung On Estate – Causeway Bay (Tin Hau)	5 – 7
	948B	Greenfield Garden – Causeway Bay (Tin Hau)	2 trips per day
	948P	Cheung On Estate – Causeway Bay (Tin Hau)	5 trips per day
	948X	Cheung Wang – Causeway Bay (Tin Hau)	5 trips per day
	952	Tuen Mun (Chi Lok Fa Yuen) – Causeway Bay (Moreton Terrace)	10 – 30
	952P	Tuen Mun (Chi Lok Fa Yuen) – Causeway Bay (Moreton Terrace)	8 – 15
	960C	Causeway Bay – Fu Tai Estate	3 trips per day
	960P	Causeway Bay – Hung Shui Kiu	10 – 35
	960S	Tuen Mun (Fu Tai Estate) – Causeway Bay (Victoria Park)	10
	961	Tuen Mun (Shan King Estate) – Wan Chai (Hkcece)	7 – 25
	962	Tuen Mun (Lung Mun Oasis) – Causeway Bay (Moreton Terrace)	8 – 25
	962G	Causeway Bay (Moreton Terrace) – Tuen Mun (Yuet Wu Villa)	3 trips per day
	962P	Tuen Mun (Lung Mun Oasis) – Causeway Bay (Moreton Terrace)	4 – 9
	962X	Tuen Mun (Lung Mun Oasis) – Causeway Bay (Moreton Terrace)	12 – 30
	967X	Tin Shui Wai (Tin Yan Estate) – Causeway Bay (Via Tin Shui Wai North)	12 – 20
	968	Yuen Long (West) – Causeway Bay (Tin Hau)	5 – 25
	968A	Yuen Long (West) – Causeway Bay (Tin Hau)	2 trips per day
	969	Tin Shui Wai Town Center – Causeway Bay (Moreton Terrace)	7 – 30
	969N	Tin Shui Wai Town Center – Causeway Bay (Moreton Terrace)	1 trip per day
	969P	Tin Shui Wai Town Centre – Causeway Bay (Moreton Terrace)	7 – 13
	A11	North Point Ferry Pier – Airport (Ground Transportation Centre)	15 – 60
	A17	Sham Wan – Airport	6 trips per day
	E11	Tin Hau Station – SKYCITY	20 – 40
	E11A	Tin Hau Station – SKYCITY	40
	E11B	Tin Hau Station – Tung Chung (Mun Tung Estate)	40
	E11S	Tung Chung (Mun Tung Estate) – Tin Hau Station	5 – 7
	N8P	Siu Sai Wan (Island Resort) – Wan Chai (Harbour Road) (Circular)	15 – 20
	N8X	Siu Sai Wan (Island Resort) – Kennedy Town	30
	N11	Central (Macau Ferry) – Airport (Ground Transportation Centre)	60
	N72	Wah Kwai – Quarry Bay (Hoi Chak Street)	25 – 30
	N122	Mei Foo – Shau Kei Wan	17 – 30
	N170	Shatin Central – Wah Fu (Central)	22 – 30
	N182	Kwong Yuen – Central (Macau Ferry)	20 – 30
	N307	Tai Wo – Sheung Wan	20 – 30
	N368	Yuen Long (West) – Central (Macau Ferry)	20 – 30
	N373	Fanling (Luen Wo Hui) – Central (Macau Ferry)	20 – 30
	N619	Shun Lee – Central (Macau Ferry)	20 – 30
	N680	Kam Ying Court – Central (Macau Ferry)	20 – 30

Mode	Route No.	Origin-Destination	Frequency (min)
	N691	Tiu Keng Leng – Central (Macau Ferry)	20 – 35
	N930	Tsuen Wan (Discovery Park) – Causeway Bay (Moreton Terrace)	3 trips per day
	N952	Tuen Mun (Chi Lok Fa Yuen) – Causeway Bay (Moreton Terrace)	4 trips per day
	N962	Tuen Mun (Lung Mun Oasis) – Causeway Bay (Moreton Terrace)	25 – 45
	N969	Tin Shui Wai Town Centre – Causeway Bay (Moreton Terrace)	20 – 45
	P968	Yuen Long (West) – Causeway Bay (Tin Hau)	16 trips per day
	NA11	North Point Ferry Pier – HZMB Hong Kong Port	3 trips per day
GMB	14M	Causeway Bay (Lan Fong Road) – Moorsom Road (Circular route)	4 – 12
	21A	Causeway Bay (Lan Fong Road) – Lai Tak Tsuen (Circular route)	4 – 12
	21M	Causeway Bay (Lan Fong Road) – Tai Hang Drive (Circular route)	4 – 12
	26	Causeway Bay (Lee Garden Road) – Stubbs Road (Hong Kong Adventist Hospital) (Circular route)	15 – 30
	28	Baguio Villa (Upper) – Causeway Bay (Sun Wui Road)	15 – 20
	28S	Baguio Villa (Upper) – Causeway Bay (Sun Wui Road)	15 – 20
	30	Happy Valley (Holly Road) – Causeway Bay (Lan Fong Road)	6 – 10
	36X	Ap Lei Chau (Ping Lan Street) – Causeway Bay (Jardine's Bazaar)	15 – 20
	39M	Yue On Court (Ap Lei Chau) – Tin Hau Station	60
	40	Stanley Village – Causeway Bay	10 – 20
	40X	Stanley (Stanley Prison) – Causeway Bay	3 – 9
	49S	Tuen Mun Siu Hong Court – Wan Chai	30
	56	Mid-Levels (Robinson Road) – North Point (Marble Road)	20
	56A	Mid-Levels (Robinson Road) – Tin Hau Station	8 – 15
	56B	Mid-levels (Robinson Road) – Wan Chai (Circular route)	20 – 25
	N40	Stanley – Causeway Bay	20

4 FUTURE TRAFFIC SITUATION

4.1 Design Year for Traffic Forecast

4.1.1 The completion year of the proposed development is expected to be 2030. As a result, the design year of the traffic impact assessment should be three years after the completion year, i.e., 2033.

4.2 Traffic Generation of the Proposed Development

Tennis Court

4.2.1 6 tennis courts are provided and the users will be 15 persons/court during a one-hour period. As a result, a total of 60 persons one-way trips will be generated.

5-a-side Artificial Turf Pitch

4.2.2 2 pitches are provided and the users will be 80 persons/court during a 1.5-hour period. As a result, a total of 160 persons one-way trips will be generated.

Activities rooms, Muti-purposes Rooms and Ancillary Facilities

4.2.3 According to the architectural layout, the holding capacity of all these facilities will be about 455 persons. As a result, a total of 455 persons one-way trips will be generated.

4.2.4 The total trips generated from the proposed development is summarized in **Table 4.1**.

Table 4.1 Number of Visitors of the Proposed Development

Use	Generation (in persons)			Attraction (in persons)		
	AM	PM	Weekend	AM	PM	Weekend
Tennis Court	60	60	60	60	60	60
5-a-side Artificial Turf Pitch	160	160	160	160	160	160
Activities rooms, Muti-purposes Rooms and Ancillary Facilities	0	455	228	455	0	227
Total	**220**	**675**	**448**	**675**	**220**	**447**

4.2.5 As there is no established trip rate published in Transport Planning and Design Manual (TPDM) for the proposed use, therefore, the traffic generation of the proposed development will be derived from basic principles and assumptions as described in the ensuing paragraphs.

4.2.6 The following assumptions were made in estimating the traffic and pedestrian movements generated by the proposed development:

- Having considered the good accessibility of the Site, most visitors are anticipated to use public transport services in the vicinity.
- The operation hour of the proposed development would be from 07:00 to 22:00.

4.2.7 In order to establish the pedestrian flow pattern to the different public transport facilities, reference was made to the number of passenger journeys by public transport operators recorded in the Monthly Traffic and Transport Digest (MTTD) 2025. The modal split of the public transport for the proposed development was estimated as shown in **Table 4.2**.

Table 4.2 Estimated Modal Split for the Proposed Development

Mode	Distribution of Average Daily Public Transport Passenger Journeys by Mode [1]	Adjusted Modal Split for the Proposed Development
Rail-based PT	45.00%	45.50%
Road-based PT (excluding Taxi)	48.30%	48.80%
Taxi	5.70%	5.80%
Total	**99.0% [2]**	**100.0%**

Notes: (1) Source: Chart 2.7 in Monthly Traffic and Transport Digest (May 2025).
(2) Marine transport is omitted.

4.2.8 The passenger generation to / from the MTR Stations, the bus / mini-bus stops and the taxi stands / the roadside available for taxi passenger pick-up & drop-off in the vicinity of the proposed development in the AM and PM peak hours is estimated in **Table 4.3**.

Table 4.3 Estimated Pedestrian Generation to the Public Transport Facilities

Public Transport Facilities[1]	Adjusted Modal Split	Estimated Peak Hour Pedestrian Flows (person / hr)								
		Weekday AM			Weekday PM			Weekend		
		Gen.	Att.	Total	Gen.	Att.	Total	Gen.	Att.	Total
MTR Station	45.50%	100	307	407	307	100	407	203	203	406
Bus / Mini-bus Stops	48.80%	107	329	436	329	107	436	219	218	437
Taxi Stand / Roadside	5.80%	13	39	52	39	13	52	26	26	52
Total	**100.0%**	**220**	**675**	**895**	**675**	**220**	**895**	**448**	**447**	**895**

Note: Gen. – Generation; Att. - Attraction

4.2.9 Since most visitors are anticipated to use public transport services, only those who use taxis will be considered as the vehicular traffic generation of the proposed development. The vehicular traffic generated and attracted by the proposed development are estimated based on the above presented in **Table 4.4**.

Table 4.4 Estimated Traffic Generation and Attraction of the Proposed Development

Mode of Transport	Modal Split	Vehicle Capacity	Estimated No. of Vehicle (veh/hr[pcu/hr[2]])								
			Weekday AM			Weekday PM			Weekend		
			Gen.	Att.	Total	Gen.	Att.	Total	Gen.	Att.	Total
Taxi Stand / Roadside	5.8%	2.5[1]	6 [6]	16 [16]	22 [22]	16 [16]	6 [6]	22 [22]	11 [11]	11 [11]	22 [22]

Notes: Gen. – Generation; Att. – Attraction.
(1) According to the traffic survey, the average occupancy of taxis to the Existing SCAA is 2.5 passengers per vehicle and is adopted for estimating the future traffic generation and attraction.
(2) 1 pcu is adopted for each taxi.

4.2.10 As shown in **Table 4.4**, the proposed development would generate two-way traffic flows of 22 pcu/hr during the weekday AM, weekday PM and weekend peak hours. The development traffic was distributed onto the road work with reference to surveyed traffic flows and presented in **Figure 4.1**.

4.3 Traffic Generation of the Planned Developments

4.3.1 To estimate the future traffic flows, updated information has been obtained from various sources regarding the planned developments in the vicinity of the study area. Although peak hours of the planned developments are not anticipated to coincide with the identified peak hours, for conservative assessment purposes, the traffic generations and attractions induced by these developments during highway peaks are assumed to occur in the identified peak hours.

4.3.2 The corresponding traffic generations and attractions by these adjacent developments are summarised in **Table 4.5,** and these generations and attractions will be considered in the junction capacity analysis for the design year.

Table 4.5 Traffic Generation by Planned Developments in the Vicinity

Proposed Use	Unit / Content	Event Start Peak Hour			Event End Peak Hour		
		Gen.	Att.	Total	Gen.	Att.	Total
Mean Trip rates from TPDM(1)							
Retail	pcu/hr/ 100m^2	0.2296	0.2434	-	0.3100	0.3563	-
Office	pcu/hr/flat	0.1703	0.2452	-	0.1573	0.1175	-
Traffic Generation/Attraction							
Redevelopment at Po Leung Kuk Headquarter	37,725 m^2 GFA for G/IC use	14(2)	15(2)	29(2)	7(2)	6(2)	13(2)
Redevelopment at 5-19 Jardine's Bazaar	4,756 m^2 GFA for retail use	11	12	23	15	17	32
Redevelopment at 36 Jardine's Bazaar	979m^2 GFA for office use	2	3	5	2	2	4
Redevelopment of the Ex-EMSD headquarter at Caroline Hill Road, Causeway Bay	102,000 m^2 GFA for commercial and G/IC use	272(3)	398(3)	670(3)	308(3)	239(3)	547(3)
District Court Site	70,000 m^2 GFA	42(3)	64(3)	106(3)	33(3)	31(3)	64(3)
Commercial Development in 1- 5 Irving Street and 14 Pennington Street	7,548.8 m^2 GFA for office use	13	19	32	12	9	21
Total		**394**	**551**	**945**	**417**	**344**	**761**

Notes: (1) For conservative assessment purpose, AM peak hour trip rates are adopted for event start peak hour and PM peak hour trip rates are adopted for event end peak hour.
(2) Figures extracted from the TIA report enclosed in the Metro Planning Committee paper no. 1/19.

4.4 Future Road Network

4.4.1 According to the approved planning application no. A/H7/181, it is understood that two junction improvement schemes will be implemented at the junctions of Caroline Hill Road / Link Road and Leighton Road / Caroline Hill Road / Hoi Ping Road as part of the development of the adjoining Site. The junction improvements are expected to be completed by 2026 and therefore included in the traffic assessment of the proposed development. The proposed junction improvement schemes are enclosed in **Appendix C**.

4.5 Traffic Growth

ATC Data

4.5.1 Reference was made to the ATC reports published by the TD for the years from 2019 to 2023 (5 years) to determine the traffic growth rate of the local road network in the vicinity of the proposed development. The annual average daily traffic flow ("AADT") recorded at the counting stations in the vicinity of the Site are set out in **Table 4.6**.

Table 4.6 Annual Traffic Census Data

Stn. No.	Road Section			AADT(1)					Avg Growth %
	Road	From	To	2019	2020	2021	2022	2023	
1212	Irving St & Pennington St	Leighton Rd	Yee Wo St	12,290	11,730 (-4.6%)	12,250 (4.4%)	11,690 (-4.6%)	10,590 (-9.4%)	-3.7%
1213	Causeway Rd	Tung Lo Wan Rd	Shelter St	30,490	29,090 (-4.6%)	30,410 (4.5%)	29,010 (-4.6%)	29,000 (0%)	-1.2%
1414	Leighton Rd	Tung Lo Wan Rd	Irving St	22,970	21,040 (-8.4%)	21,990 (4.5%)	20,980 (-4.6%)	21,590 (2.9%)	-1.5%
1436	Percival St	Hennessy Rd	Leighton Rd	12,180	12,170 (-0.1%)	12,410 (2%)	11,760 (-5.2%)	12,340 (4.9%)	0.3%
1438	Tung Lo Wan Rd & Tai Hang Rd	Causeway Rd	Ka Ning Path	11,000	10,130 (-7.9%)	10,340 (2.1%)	9,740 (-5.8%)	9,950 (2.2%)	-2.5%
1612	Tai Hang Rd FO <H134>	St. John Ambulance Brigate Wan Rd Headquarters	Ramp to Tung Lo Wan Rd	19,140	19,280 (0.7%)	17,750 (-7.9%)	16,930 (-4.6%)	17,430 (3%)	-2.3%
2035	Leighton Rd	Wong Nai Chung Rd	Percival St	27,830	26,470 (-4.9%)	27,000 (2%)	21,860 (-19%)	23,770 (8.7%)	-3.9%
2036	Leighton Rd	Irving St	Percival St	14,950	14,220 (-4.9%)	14,510 (2%)	13,940 (-3.9%)	16,170 (16%)	2.0%
2214	Causeway Rd	Shelter St	Hing Fat St	33,760	31,440 (-6.9%)	34,000 (8.1%)	34,190 (0.6%)	33,940 (-0.7%)	0.1%
2608	Caroline Hill Rd	Leighton Rd	Yun Ping Rd	4,550	4,800 (5.5%)	4,610 (-4%)	4,890 (6.1%)	5,330 (9%)	4.0%
			Total	**189,160**	**180,370 (-4.6%)**	**185,270 (2.7%)**	**174,990 (-5.5%)**	**180,110 (2.9%)**	**-1.2%**

Note: (1) Figures in bracket indicated the % increase between two years.

4.5.2 **Table 4.6** shows that the AADT at the concerned ATC stations has an overall annual growth of negative 1.2% in between the years 2019 to 2023.

TPEDM Data

4.5.3 Reference was also made to the 2021–based Territorial Population and Employment Data Matrix ("TPEDM") released by the Planning Department. The population and employment data of year 2021 and 2031 in Wan Chai District are summarised in **Table 4.7**.

Table 4.7 Population and Employment Data in Wan Chai District

Year	2021	2026	2031
Population	166,700	156,000	145,700
Employment	299,700	301,700	287,250
Total	466,400	457,700	432,950
Average Growth per annum (%)		-0.4% (2021 to 2026)	-1.1% (2026 to 2031)

4.5.4 As shown in **Table 4.7**, the average annual growth rates for the population and the employment total between 2021–2026 and 2026–2031 are -0.4% and -1.1%, respectively. Having considered the ATC and TPEDM data, a nominal growth rate of +0.5% is adopted for subsequent assessments.

4.6 Reference and Design Flows

4.6.1 The 2033 Reference Flows, i.e., the traffic flows in the vicinity **without** the traffic flows generated by the proposed development, were estimated based on the following equation.

2033 Reference Flows = 2025 Existing Flows x $(1 + 0.5\%)^8$ + Traffic Flows Generated by the Planned/Committed Developments

4.6.2 The 2033 Design Flows, i.e., the traffic flows in the vicinity **with** the traffic flows generated by the proposed development, were estimated based on the following equation:

2033 Design Flows = 2033 Reference Flows + Traffic Flows Generated by the Proposed Development

4.6.3 The 2033 Reference and Design Flows are shown in **Figures 4.2** and **4.3**, respectively.

4.7 Junction Capacity Assessment

4.7.1 Capacity assessments were carried out for the major junctions in the local road network for both the Reference and Design scenarios. The results are summarised and presented in **Table 4.8** with detailed calculation sheets attached in **Appendix D**.

Table 4.8 Year 2033 Junction Capacity Assessment

No.	Junction Location	Type /Capacity Index(1)	2033 Reference			2033 Design		
			AM	PM	WE	AM	PM	WE
J1	Caroline Hill Road (West) / Link Road (2)	Signalised/ RC	36%	39%	38%	36%	39%	38%
J2	Leighton Road / Caroline Hill Road (West) / Hoi Ping Road	Signalised/ RC	24%	33%	25%	22%	32%	25%
J3	Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street	Signalised/ RC	29%	17%	16%	29%	17%	16%
J4	Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road	Signalised/ RC	49%	37%	35%	48%	37%	35%
J5	Tung Lo Wan Road / Eastern Hospital Road	Signalised/ RC	39%	59%	52%	39%	58%	51%
J6	Eastern Hospital Road / Cotton Path	Priority/DFC	0.41	0.31	0.40	0.41	0.31	0.40
J7	Caroline Hill Road/Cotton Path	Priority/DFC	0.35	0.21	0.27	0.35	0.21	0.27
J8	Tung Lo Wan Road / Moreton Terrace	Signalised/ RC	32%	21%	58%	32%	21%	57%
J9	Moreton Terrace / Causeway Road	Signalised/ RC	34%	16%	19%	34%	16%	19%
J10	Leighton Road / Hysan Avenue / Leighton Lane	Signalised/ RC	289%	245%	149%	289%	245%	149%
J11	Leighton Road / Percival Street / Hysan Avenue	Signalised/ RC	43%	33%	20%	42%	32%	19%

Notes: AM – Weekday AM; PM – Weekday PM; WE - Weekend
(1) RC = Reserve Capacity; DFC = Design Flow to Capacity ratio.
(2) Junction improvement scheme to be implemented under planning application A/H7/181 is incorporated.

4.7.2 **Table 4.8** shows that all junctions will operate with positive RCs and DFCs<1.0 for both the reference and design scenarios. Therefore, it is anticipated that the proposed development will not induce any adverse traffic impact to its surrounding road network.

4.8 Pedestrian Traffic Generation of the Other Planned Developments

4.8.1 It is understood that there are some planned and committed developments in vicinity of the Site. The pedestrian flows that would be induced by these developments have been considered. The pedestrian flows of these planned development are estimated by adopting the in-house pedestrian trip rates and presented in **Table 4.9**.

Table 4.9 Estimated Pedestrian Generation/Attraction of Planned Developments

Use	Unit	AM Peak Hour			PM Peak Hour		
		GEN	ATT	Total	GEN	ATT	Total
Adopted Pedestrian Trip Rates(1)							
Headquarter	ped/hr/quota	0.31	0.52	-	0.59	0.08	-
Court	ped/hr/100 m^2	0.25	0.71	-	1.22	0.43	-
Office	ped/hr/100 m^2	0.27	2.74	-	2.66	0.33	-
Estimated Pedestrian Generation							
Redevelopment at Po Leung Kuk Headquarter	322 quotas	100	168	268	190	26	216
Redevelopment of the Ex-EMSD headquarter at Caroline Hill Road, Causeway Bay(2)	102,000 m^2 GFA	549	2,727	3,276	2,844	1,064	3,908
District Court Site	70,000 m^2 GFA	175	1,897	2,072	854	301	1,155
Commercial Development in 1- 5 Irving Street and 14 Pennington Street	7,548.8 m^2 GFA	21	207	228	201	25	226
	Total	**845**	**4,999**	**5,844**	**4,089**	**1,416**	**5,505**

Notes: (1) In house pedestrian trip rates are adopted.
(2) Pedestrian generation and attraction were abstracted from the approved TIA report of the development.

4.8.2 The planned developments are estimated to generate 2-way pedestrian flows of 5,844 and 5,505 person/ hour during AM and PM peak hours respectively.

4.9 Reference and Design Pedestrian Flows

4.9.1 The 2033 Reference Pedestrian Flows, i.e., the pedestrian flows in the local pedestrian network, based on future walkway network **without** the proposed development pedestrian flows, were estimated based on the following equation.

2033 Reference Pedestrian Flows = 2025 Existing Flows x $(1 + 0.5\%)^8$ + Pedestrian Flows Generated by the Planned/Committed Developments

4.9.2 The 2033 Design Pedestrian Flows, i.e., the pedestrian flows in the local pedestrian network, based on future walkway network **with** the proposed development pedestrian flows, were estimated based on the following equation.

2033 Design Pedestrian Flows = 2033 Reference Flows + Pedestrian Flows Generated by the Proposed Development

4.9.3 The future walkway serviceability is assessed, and the results are shown in **Table 4.10**. The results showed that all of the concerned footpaths will operate satisfactorily with LOS level "C" or above.

Table 4.10 Future Capacity Analysis of Footpaths

Ref.	Location	Actual Width (m)	Effective Width (m)(1)	Peak Hour flow (ped/hr)			Flow Rate(2) ped/m/min [LOS]		
				AM	PM	WE	AM	PM	WE
2033 Reference Scenario									
P1	Southern footpath of Caroline Hill Road	3.0	2.0	94	40	43	0.8 [A]	0.3 [A]	0.4 [A]
P2	Eastern footpath of Cotton Path	4.0	2.0	121	198	212	0.7 [A]	1.1 [A]	1.2 [A]
P3	Northern footpath of Caroline Hill Road	3.0	2.0	2,055	2,215	2,364	17.1 [B]	18.5 [B]	19.7 [B]
P4	Eastern footpath of Yun Ping Road	2.5	1.5	1,007	1,335	1,293	11.2 [A]	14.8 [A]	14.4 [A]
P5	Western footpath of Pennington Street	2.2	1.2	1,513	1,694	1,715	21.0 [B]	23.5 [C]	23.8 [C]
P6	Eastern footpath of Leighton Road	3.3	2.3	946	1,396	1,439	6.9 [A]	10.1 [A]	10.4 [A]
C1	Signalised Crossing	6.4	6.4	2,829	3,320	3,532	8.7 [A]	10.2 [A]	10.9 [A]
C2	Signalised Crossing	4.2	4.2	3,607	3,939	4,162	18.8 [B]	20.5 [B]	21.7 [B]
C3	Signalised Crossing	4.0	4.0	2,918	3,079	3,132	16.2 [B]	17.1 [B]	17.4 [B]
2033 Design Scenario									
P1	Southern footpath of Caroline Hill Road	3.0	2.0	937	883	886	7.8 [A]	7.4 [A]	7.4 [A]
P2	Eastern footpath of Cotton Path	4.0	3.0	339	416	431	1.9 [A]	2.3 [A]	2.4 [A]
P3	Northern footpath of Caroline Hill Road	3.0	2.0	2,680	2,840	2,989	22.3 [B]	23.7 [C]	24.9 [C]
P4	Eastern footpath of Yun Ping Road	2.5	1.5	1,211	1,539	1,496	13.5 [A]	17.1 [B]	16.6 [B]
P5	Western footpath of Pennington Street	2.2	1.2	1,717	1,898	1,918	23.8 [C]	26.4 [C]	26.6 [C]
P6	Eastern footpath of Leighton Road	3.3	2.3	1,164	1,614	1,658	8.4 [A]	11.7 [A]	12.0 [A]
C1	Signalised Crossing	6.4	5.4	3,236	3,727	3,938	10.0 [A]	11.5 [A]	12.2 [A]
C2	Signalised Crossing	4.2	3.2	4,014	4,346	4,568	20.9 [B]	22.6 [B]	23.8 [C]
C3	Signalised Crossing	4.0	3.0	3,325	3,486	3,538	18.5 [B]	19.4 [B]	19.7 [B]

Notes: AM – Weekday AM; PM – Weekday PM; WE – Weekend
(1) Clearances of 0.5m on either side were subtracted from the actual widths to produce effective widths, and clearance was increased to 1m for shopping frontage.
(2) For LOS "C" or above, flow rates should be less than 33 pedestrians/metre/minute.

4.9.4 **Table 4.10** shows that all of the concerned footpaths and walkway will operate satisfactorily with LOS level “C” or above.

4.9.5 Having considered that the MTR is one of the main modes of transport of the proposed development, to facilitate the visitors travelling between the site and the Causeway Bay MTR Station, the applicant has liaised with the adjacent commercial development for the feasibility of establishing a footbridge between the proposed development and the adjacent commercial development. With this footbridge proposal, visitors can reach the proposed development more conveniently and comfortably and relieve the burden of the at-grade walkway network.

5 SUMMARY AND CONCLUSION

5.1 Summary

5.1.1 The South China Athletic Association intends to develop a comprehensive sports and recreation centre at the northern part of SCAA site in Caroline Hill Road, Causeway Bay.

5.1.2 As there is no specific guideline set in the HKPSG or land grant for the proposed uses, the proposed car parking provisions is based on the proposed operational needs. The proposed development will provide a total of 66 private car parking spaces (including 2 nos. of parking space for disabled users), 9 motorcycle parking spaces, 1 pick-up/drop-off layby and 1 goods vehicle loading/unloading bay.

5.1.3 Existing junction capacity assessments were carried out for the identified peak hours and the results show that all of the key junctions performed satisfactorily during the surveyed peak hours.

5.1.4 The proposed development would generate two-way traffic flows of 22 pcu/hr in the weekday AM, weekday PM and weekend peak hours. By assigning the additional development traffic to the 2033 Reference Flows, the 2033 Design Flows were obtained.

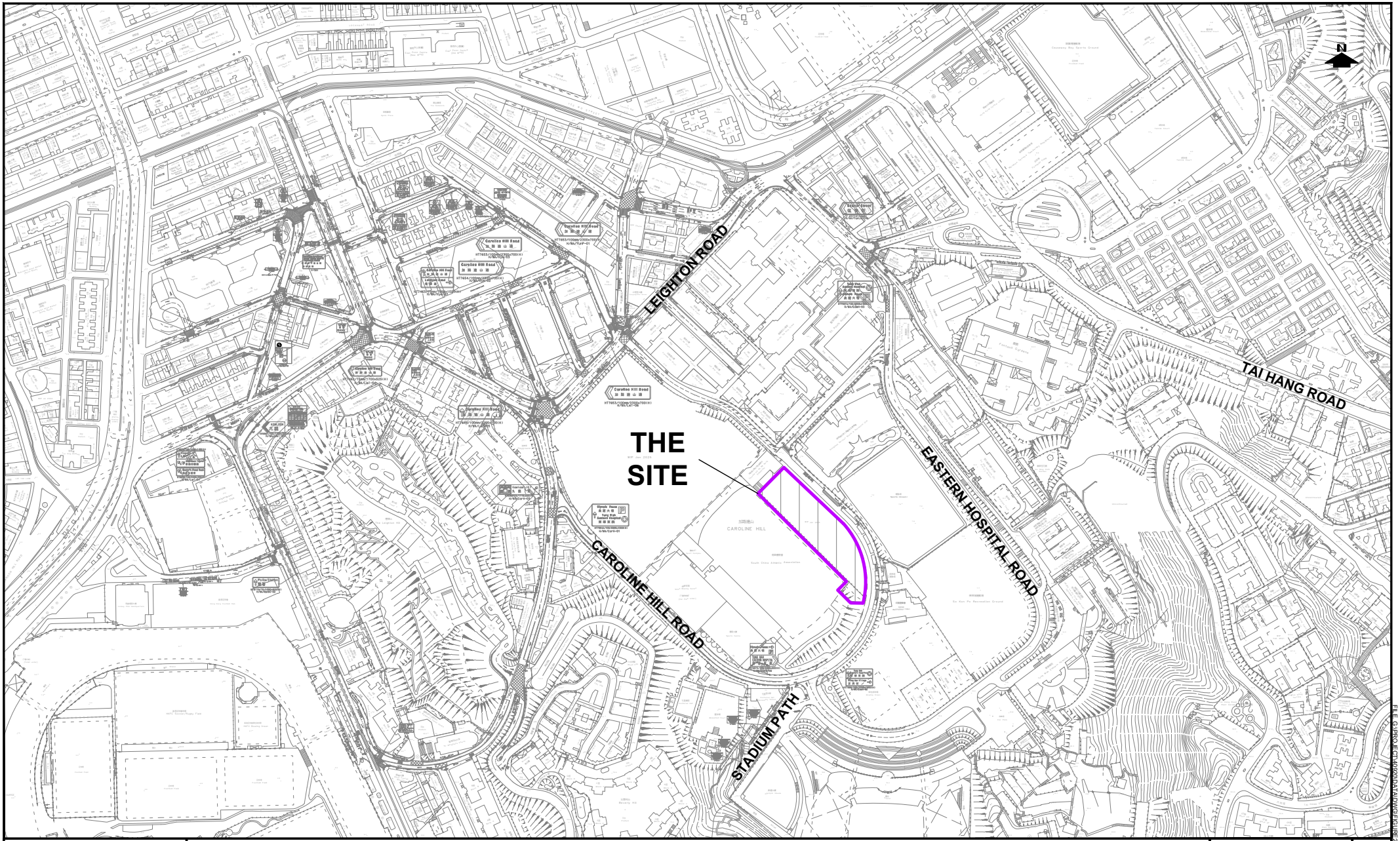
5.1.5 Junction capacity assessments were carried out at the key junctions in the vicinity for the year 2033. The results have indicated that all junctions will operate satisfactorily for both reference and design scenarios. Therefore, it is anticipated that the proposed development will not induce significant traffic impact to the surrounding road network.

5.1.6 The proposed development is estimated to generate 2-way pedestrian flows of 895 person/ hour during weekday AM, weekday PM and weekend peak hours. The condition of the key footpaths will be satisfactory after accommodating the pedestrians generated and attracted by the proposed development in all scenarios with LOS “C” or above.

5.1.7 Having considered that MTR is one of the main modes of transport of the proposed development to facilitate the visitors travelling between the Site and the Causeway Bay MTR Station, the applicant has liaised with the adjacent commercial development for the feasibility of establishing a footbridge between the proposed development and the adjacent commercial development. With this footbridge proposal, visitors can reach the proposed development more conveniently and comfortably and relieve the burden of the at-grade walkway network.

5.2 Conclusion

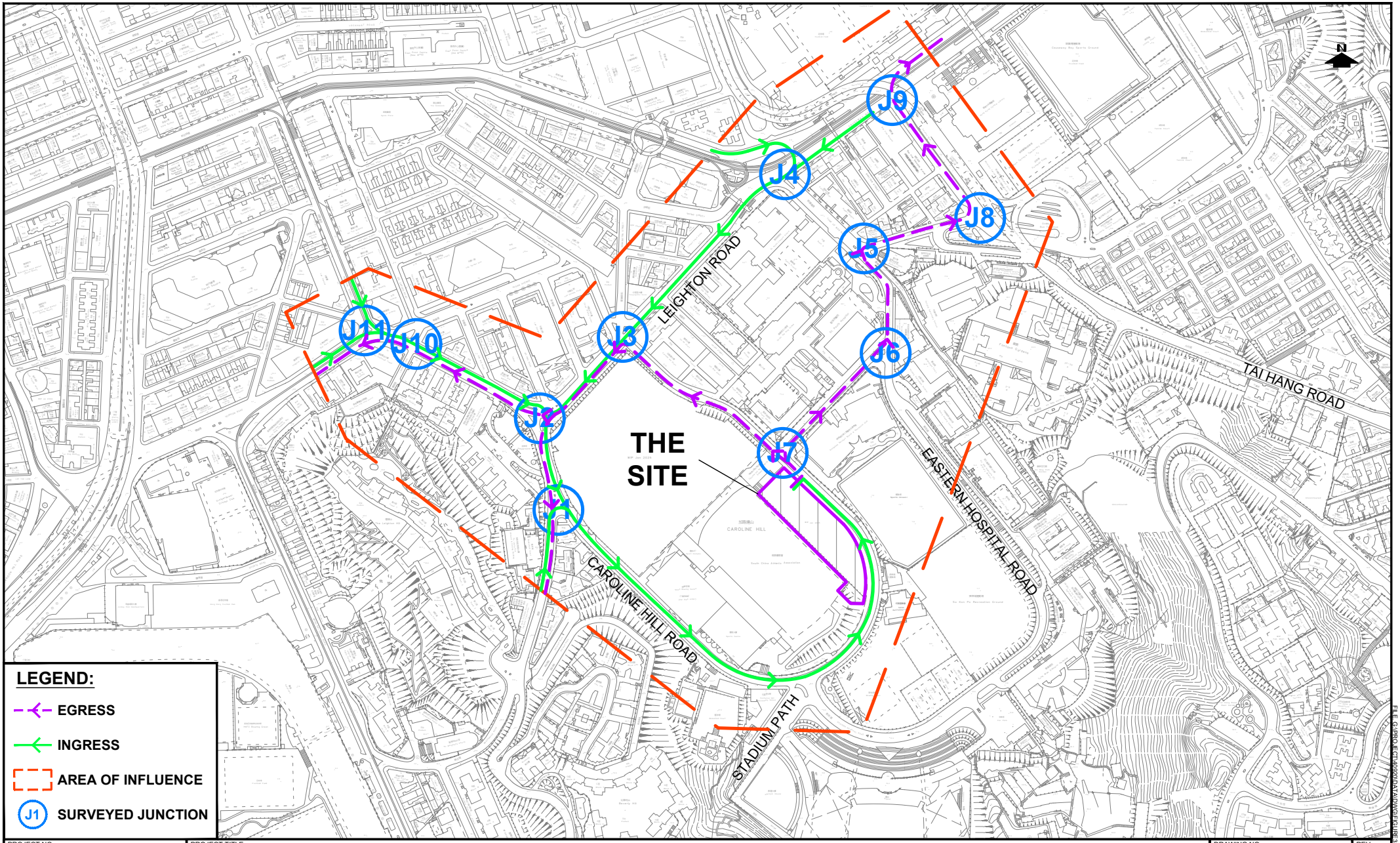
5.2.1 From the assessment results, it can be concluded that the proposed development will not induce significant traffic impact on the surrounding road network and the development proposal is considered acceptable from traffic engineering point of view.



PROJECT NO. 40920	PROJECT TITLE: PROPOSED SCAA SPORTS LINK AT SOUTH CHINA ATHLETIC ASSOCIATION 88 CAROLINE HILL ROAD IN WONG NAI CHUNG	DRAWING NO. FIGURE 2.1	REV. ·
DESIGNED SLN / DRAWN CLL / CHECKED SLN	DATE SEP 2025 / SCALE 1:5000	DRAWING TITLE: LOCATION PLAN	LLA 顧問有限公司 Consultancy Limited

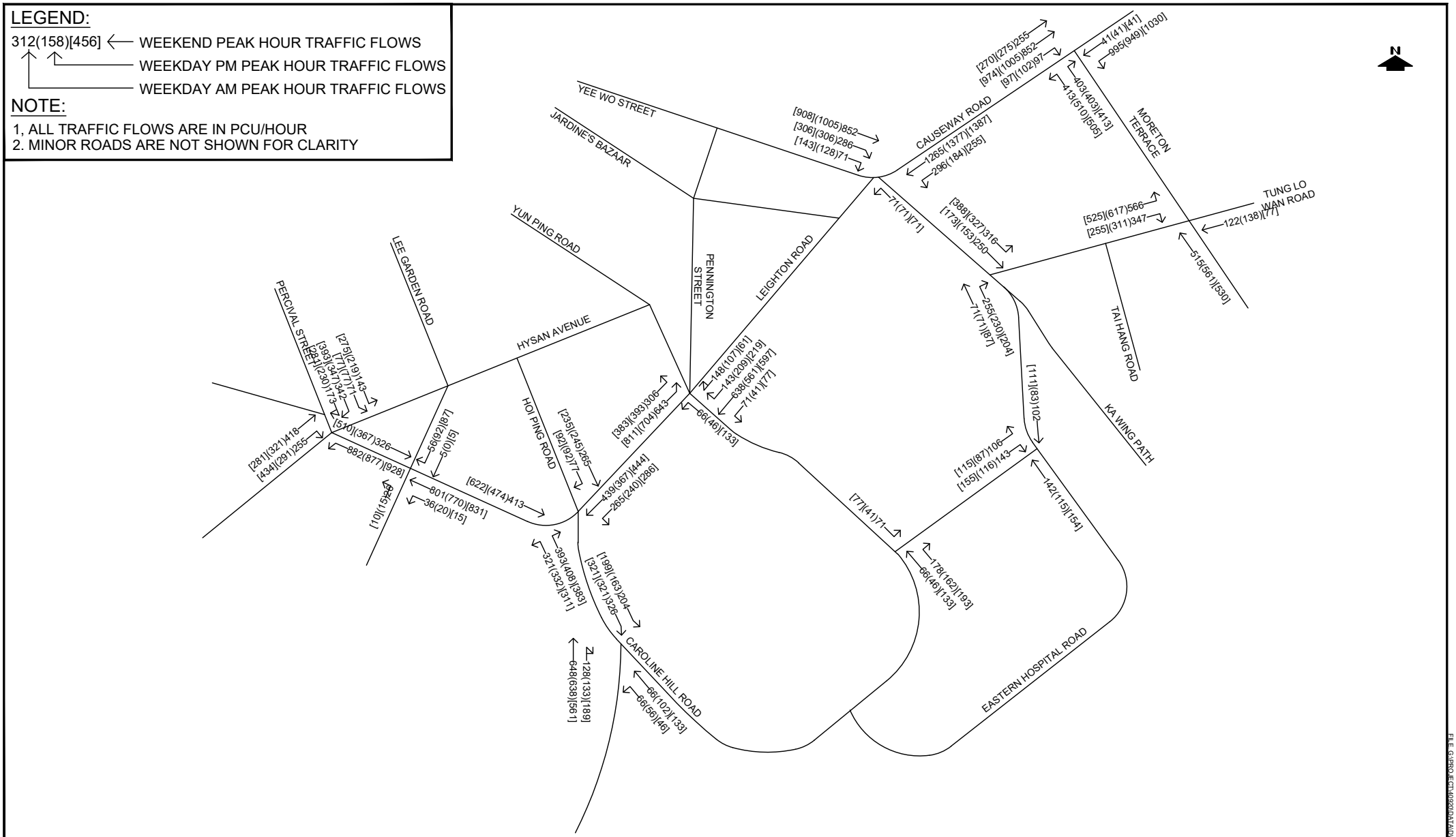
FILE: G:\PROJECT\40920\DATA\DWG\FIGURE2.1.DWG PLOT SCALE : 1 = 1

FILE: G:\PROJECT\40920\DATA\DWG\FIGURE2.1.DWG PLOT SCALE : 1 = 1



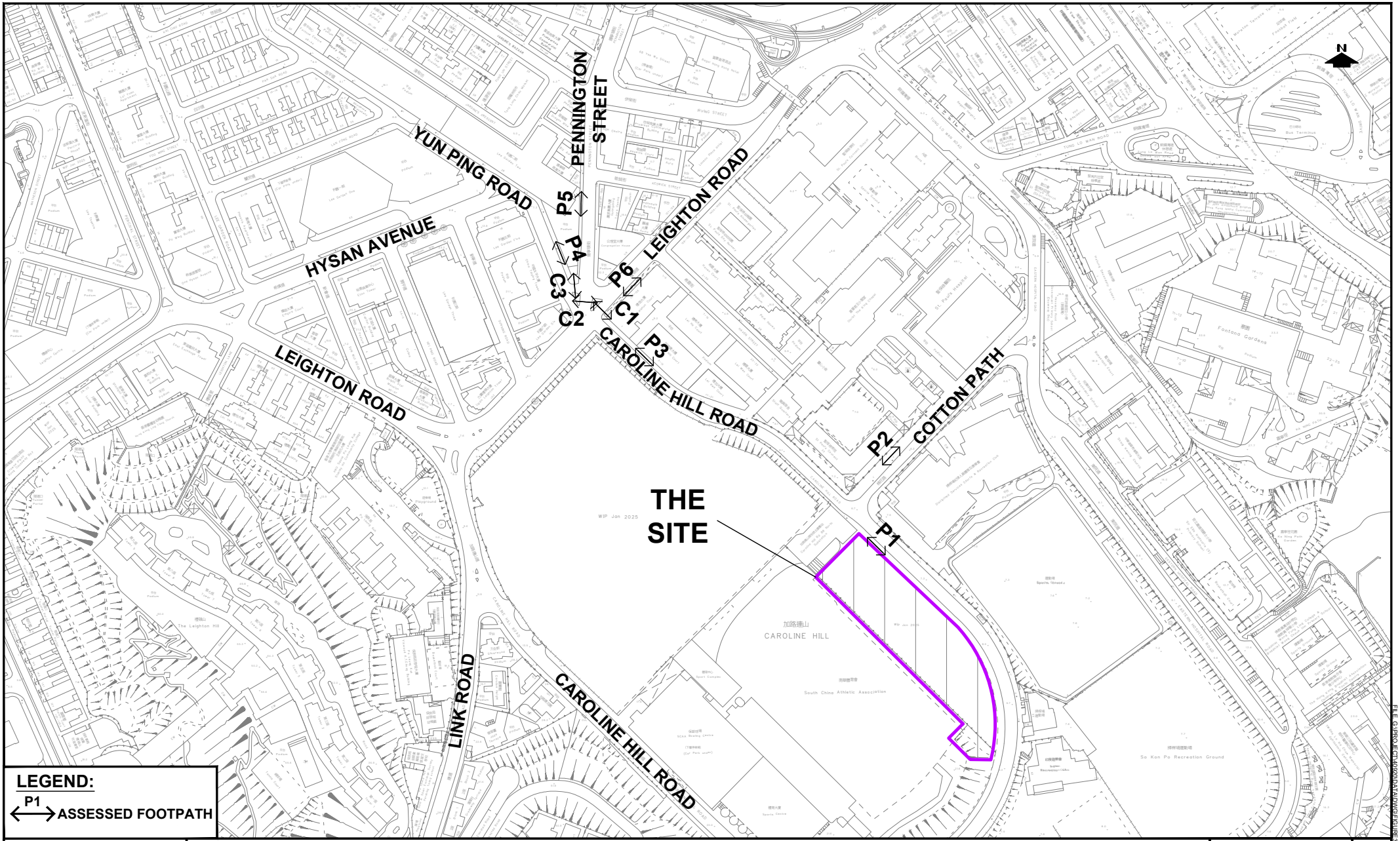
PROJECT NO. 40920	PROJECT TITLE: PROPOSED SCAA SPORTS LINK AT SOUTH CHINA ATHLETIC ASSOCIATION 88 CAROLINE HILL ROAD IN WONG NAI CHUNG	DRAWING NO. FIGURE 3.1	REV. -
DESIGNED SLN / DRAWN CLL / CHECKED SLN	DATE SEP 2025 / SCALE 1:5000	DRAWING TITLE: LOCATION OF SURVEYED JUNCTIONS AND AREA OF INFLUENCE	LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\40920\DATA\DWG\FIGURE3.1.DWG PLOT SCALE : 1 = 1



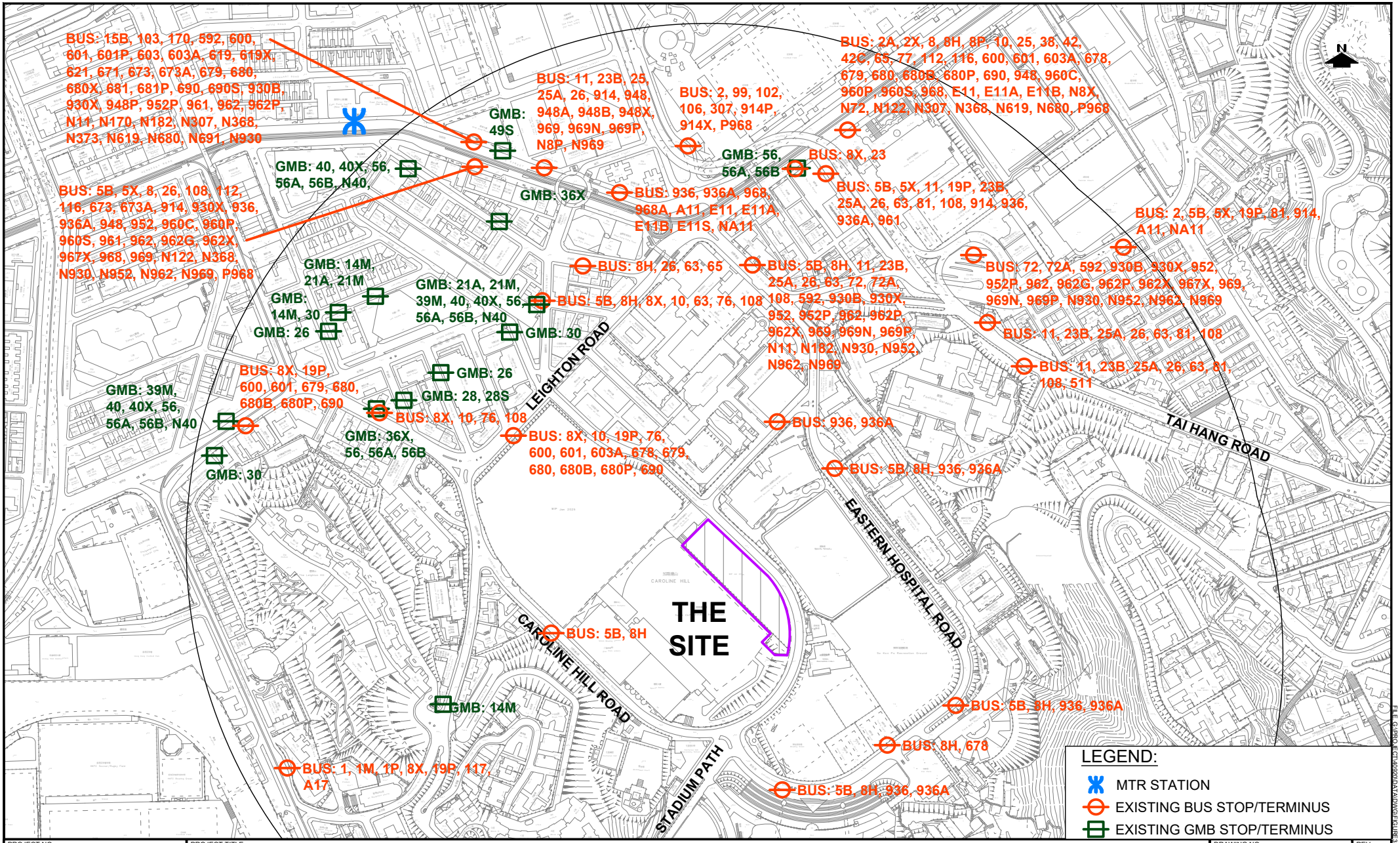
PROJECT NO. 40920	PROJECT TITLE: PROPOSED SCAA SPORTS LINK AT SOUTH CHINA ATHLETIC ASSOCIATION 88 CAROLINE HILL ROAD IN WONG NAI CHUNG	DRAWING NO. FIGURE 3.2	REV. -
DESIGNED SLN / DATE SEP 2025	DRAWING TITLE: **2025 EXISTING TRAFFIC FLOWS**	LLA 顧問有限公司 Consultancy Limited	
DRAWN CLL / SCALE N.T.S.			
CHECKED SLN			

FILE: G:\PROJECT\40920\DATA\DWG\FIGURE3.2.DWG PLOT SCALE : 1 = 1



PROJECT NO. 40920	PROJECT TITLE: PROPOSED SCAA SPORTS LINK AT SOUTH CHINA ATHLETIC ASSOCIATION 88 CAROLINE HILL ROAD IN WONG NAI CHUNG	DRAWING NO. FIGURE 3.3	REV. -
DESIGNED SLN / DRAWN CLL / CHECKED SLN; DATE SEP 2025; SCALE 1:3000	DRAWING TITLE: LOCATION OF SURVEYED FOOTPATHS	LLA 顧問有限公司 Consultancy Limited	

FILE: G:\PROJECT\40920\DATA\DWG\FIGURE3.3.DWG PLOT SCALE : 1 = 1



PROJECT NO. 40920	PROJECT TITLE: PROPOSED SCAA SPORTS LINK AT SOUTH CHINA ATHLETIC ASSOCIATION 88 CAROLINE HILL ROAD IN WONG NAI CHUNG	DRAWING NO. FIGURE 3.4	REV. ·
DESIGNED SLN / DRAWN CLL / CHECKED SLN	DATE SEP 2025 / SCALE 1:5000	DRAWING TITLE: EXISTING PUBLIC TRANSPORT FACILITIES	LLA 顧問有限公司 Consultancy Limited

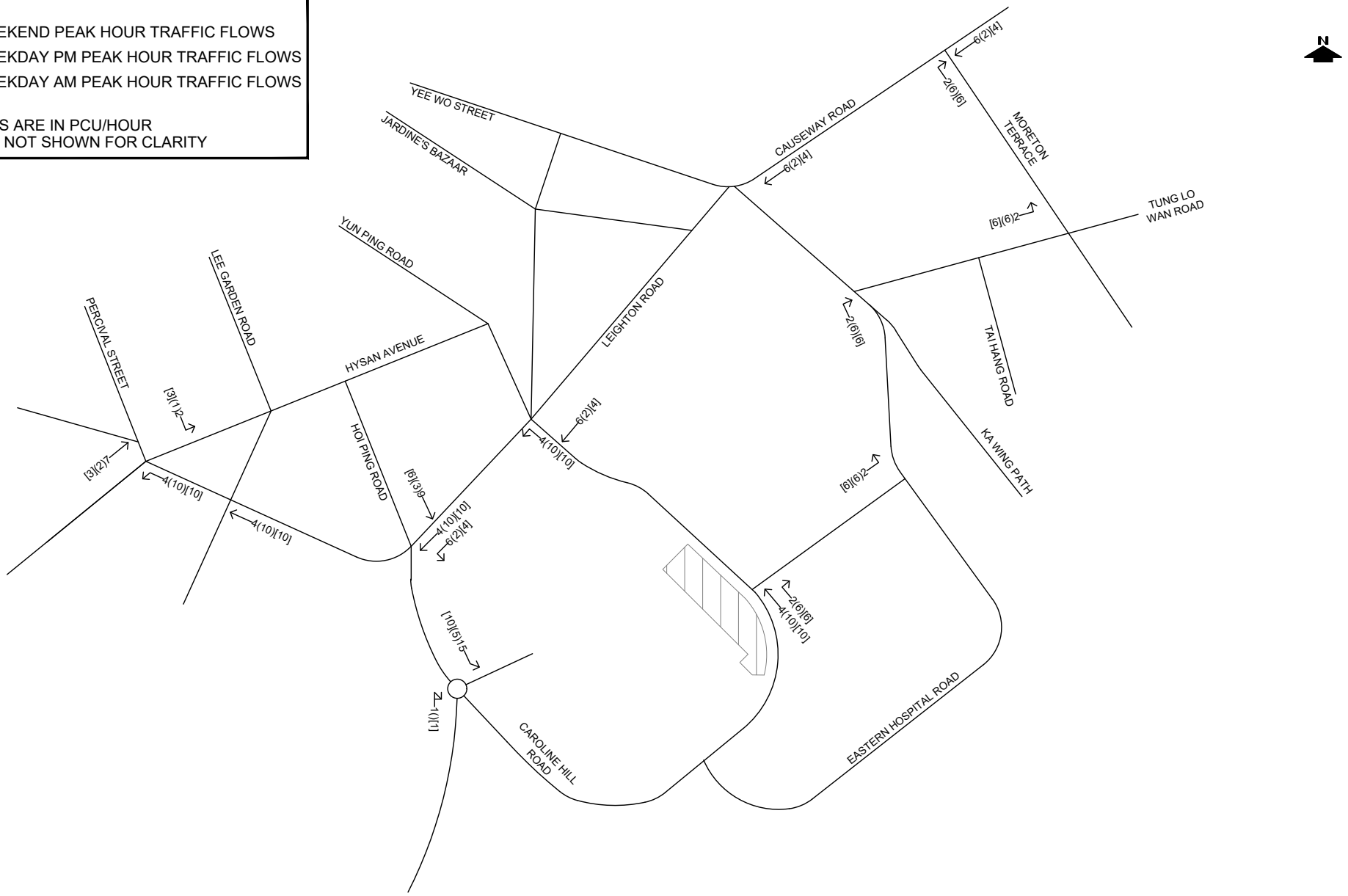
FILE: G:\PROJECT\40920\DATA\DWG\FIGURE3.4.DWG PLOT SCALE : 1 = 1

LEGEND:

312(158)[456] ← WEEKEND PEAK HOUR TRAFFIC FLOWS
WEEKDAY PM PEAK HOUR TRAFFIC FLOWS
WEEKDAY AM PEAK HOUR TRAFFIC FLOWS

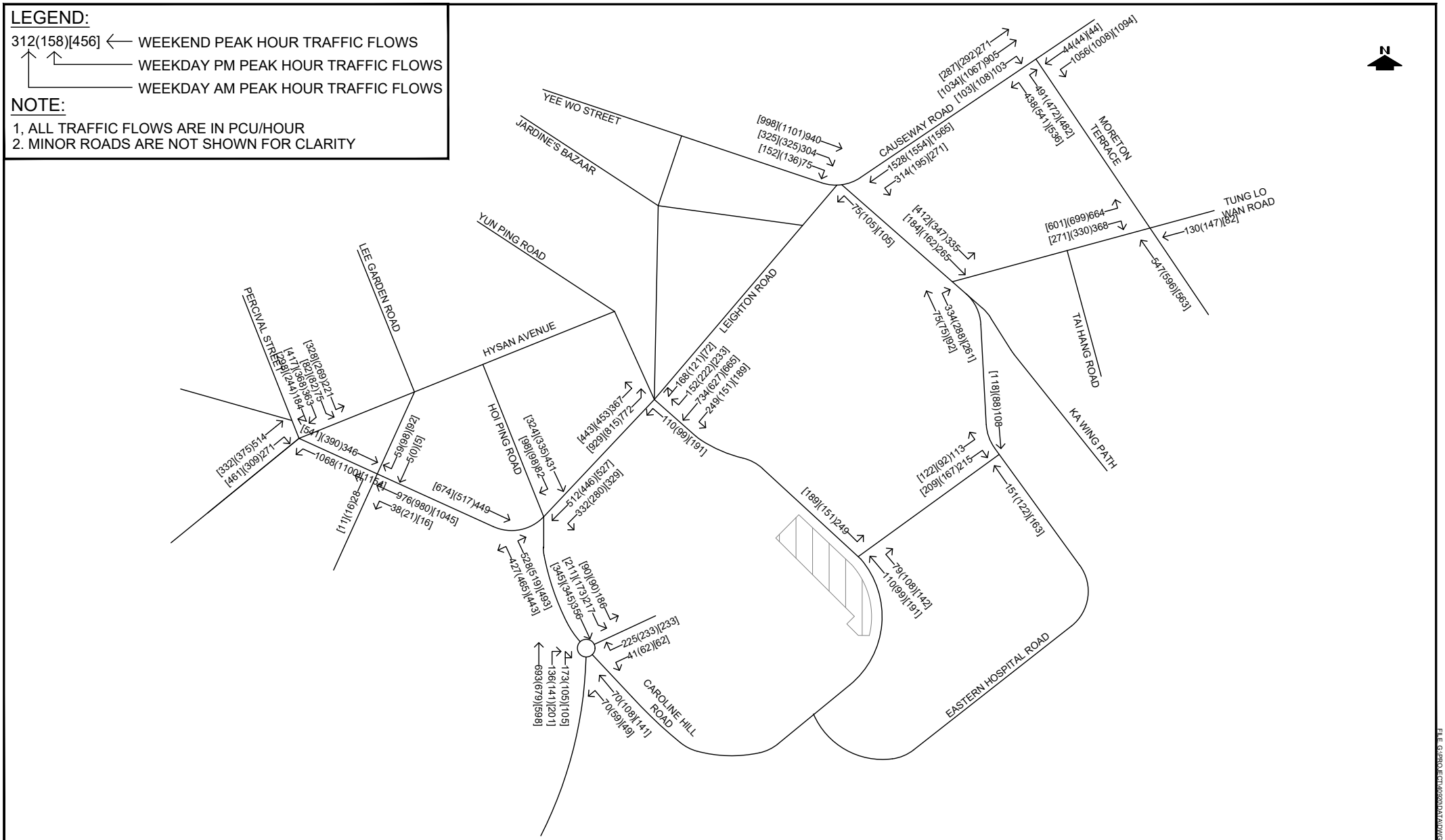
NOTE:

1, ALL TRAFFIC FLOWS ARE IN PCU/HOUR
2. MINOR ROADS ARE NOT SHOWN FOR CLARITY



PROJECT NO. 40920	PROJECT TITLE: PROPOSED SCAA SPORTS LINK AT SOUTH CHINA ATHLETIC ASSOCIATION 88 CAROLINE HILL ROAD IN WONG NAI CHUNG	DRAWING NO. FIGURE 4.1	REV. -
DESIGNED SLN / DATE SEP 2025	DRAWING TITLE: **DEVELOPMENT TRAFFIC FLOWS**	LLA 顧問有限公司 Consultancy Limited	
DRAWN CLL / SCALE N.T.S.			
CHECKED SLN			

FILE: G:\PROJECT\40920\DATA\DWG\FIGURE4.1.DWG PLOT SCALE : 1 = 1



PROJECT NO. 40920	PROJECT TITLE: PROPOSED SCAA SPORTS LINK AT SOUTH CHINA ATHLETIC ASSOCIATION 88 CAROLINE HILL ROAD IN WONG NAI CHUNG	DRAWING NO. FIGURE 4.2	REV. -
DESIGNED SLN / DATE SEP 2025	DRAWING TITLE: **2033 REFERENCE TRAFFIC FLOWS**	LLA 顧問有限公司 Consultancy Limited	
DRAWN CLL / SCALE N.T.S.			
CHECKED SLN			

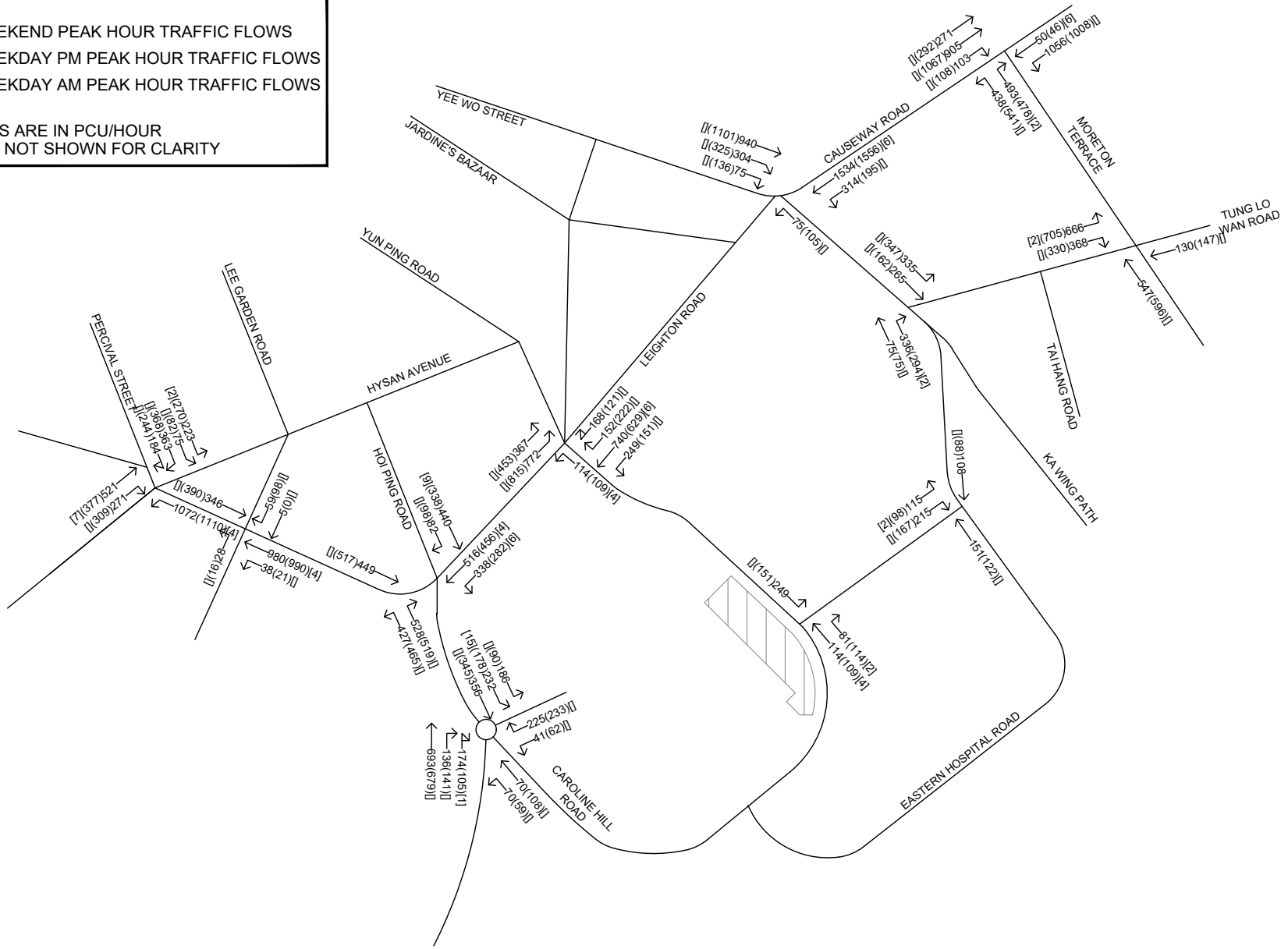
FILE: G:\PROJECT\40920\DATA\DWG\FIGURE4.2.DWG PLOT SCALE : 1 = 1

LEGEND:

312(158)[456] ← WEEKEND PEAK HOUR TRAFFIC FLOWS
← WEEKDAY PM PEAK HOUR TRAFFIC FLOWS
← WEEKDAY AM PEAK HOUR TRAFFIC FLOWS

NOTE:

1, ALL TRAFFIC FLOWS ARE IN PCU/HOUR
2. MINOR ROADS ARE NOT SHOWN FOR CLARITY

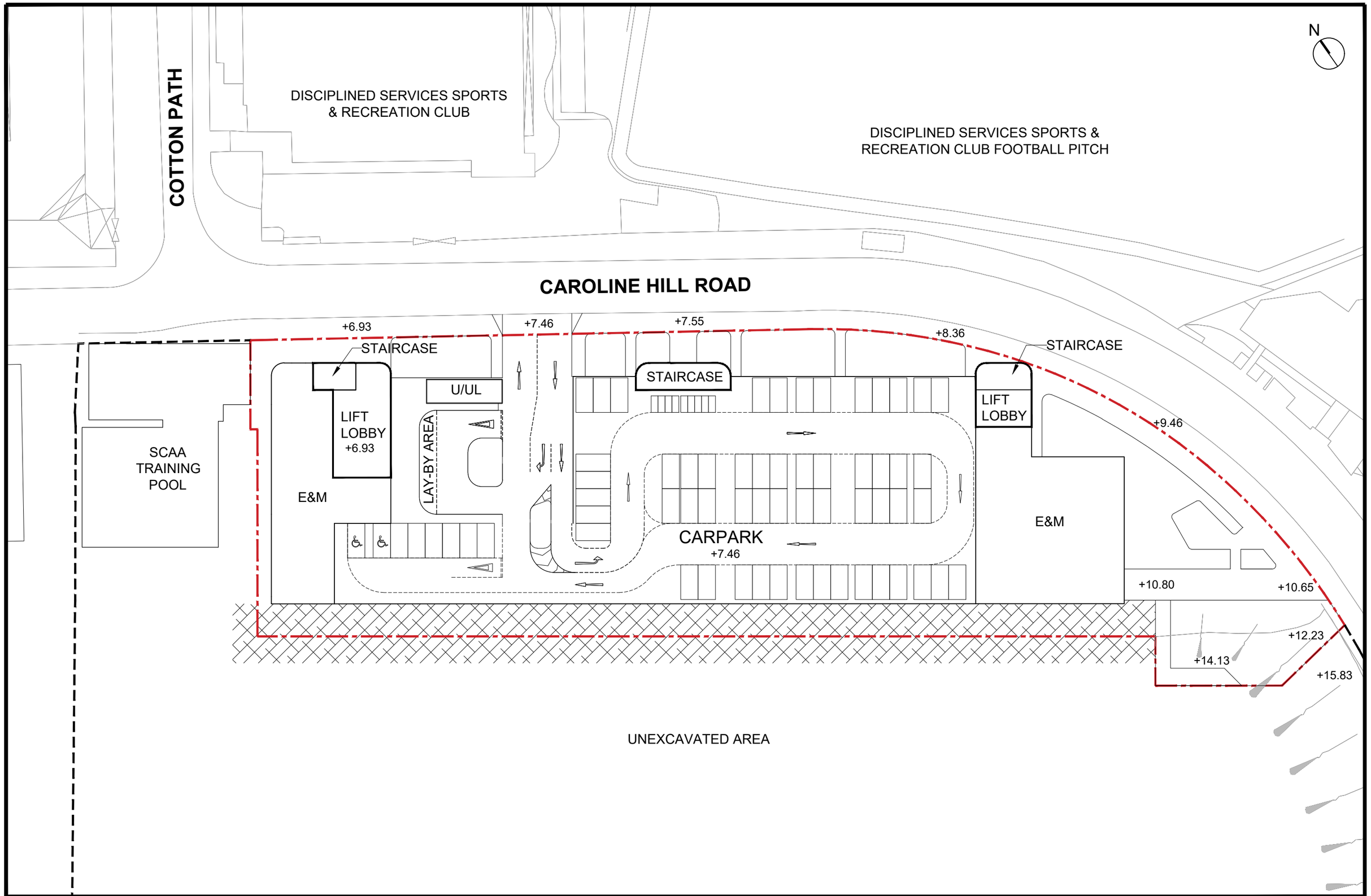


PROJECT NO. 40920	PROJECT TITLE: PROPOSED SCAA SPORTS LINK AT SOUTH CHINA ATHLETIC ASSOCIATION 88 CAROLINE HILL ROAD IN WONG NAI CHUNG	DRAWING NO. FIGURE 4.3	REV. -
DESIGNED SLN / DATE SEP 2025	DRAWING TITLE: **2033 DESIGN TRAFFIC FLOWS**	LLA 顧問有限公司 Consultancy Limited	
DRAWN CLL / SCALE N.T.S.			
CHECKED SLN			

FILE: G:\PROJECT\40920\DATA\DWG\FIGURE4.3.DWG PLOT SCALE : 1 = 1

APPENDIX A

Proposed Car Park Layout



Proposed SCAA Sports Link at South China Athletic Association, 88 Caroline Hill Road, Hong Kong

Car Park Layout ○ 1 : 500 (A3) ○ 13 Oct 2025

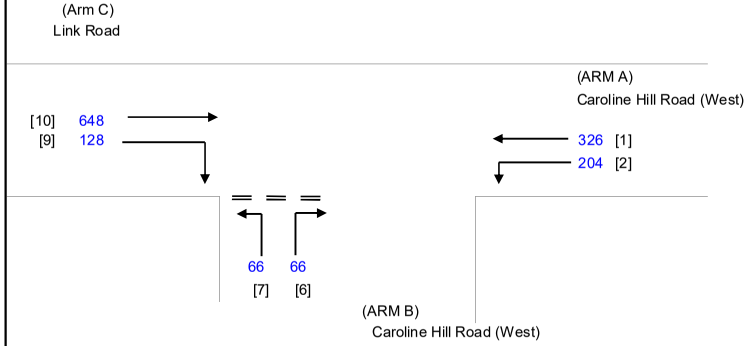
Design 2 (HK) Limited

APPENDIX B

Detail Calculation Sheets

- Existing Scenario

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing AM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J1_CHRW_LR	CHECKED BY:	SLN	Oct-25
J1 Caroline Hill Road (West) / Link Road		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.30	(metres)
W cr	=	1.5	(metres)
q a-b	=	204	(pcu/hr)
q a-c	=	326	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.60	(metres)
Vr c-b	=	40	(metres)
q c-a	=	648	(pcu/hr)
q c-b	=	128	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.00	(metres)
W b-c	=	3.00	(metres)
Vl b-a	=	29	(metres)
Vr b-a	=	80	(metres)
Vr b-c	=	80	(metres)
q b-a	=	66	(pcu/hr)
q b-c	=	66	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.83939
E	=	0.90510
F	=	0.83641
Y	=	0.74815
F for (Qb-ac)	=	0.5

THE CAPACITY OF MOVEMENT :

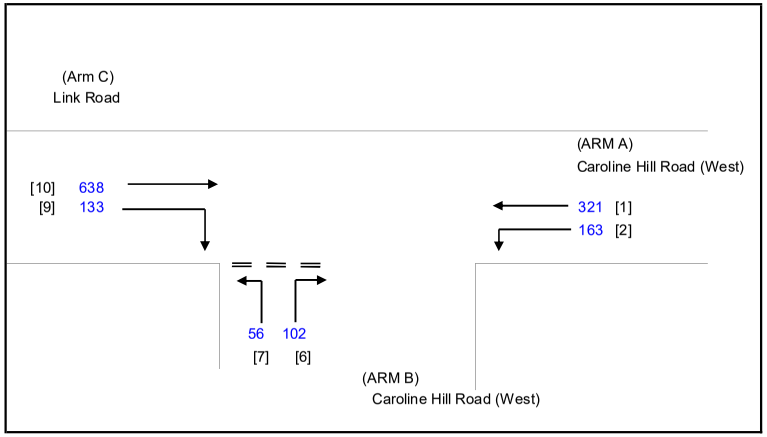
Q b-a	=	316			
Q b-c	=	574	Q b-c (O) =	544	
Q c-b	=	502			
Q b-ac	=	408			
TOTAL FLOW	=	1438	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.2089
DFC b-c	=	0.1150
DFC c-b	=	0.2550
DFC b-c (share lane)	=	0.3238

CRITICAL DFC = 0.32

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing PM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J1_CHRW_LF	CHECKED BY:	SLN	Oct-25
J1 Caroline Hill Road (West) / Link Road		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.30	(metres)
W cr	=	1.5	(metres)
q a-b	=	163	(pcu/hr)
q a-c	=	321	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.60	(metres)
Vr c-b	=	40	(metres)
q c-a	=	638	(pcu/hr)
q c-b	=	133	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.00	(metres)
W b-c	=	3.00	(metres)
Vl b-a	=	29	(metres)
Vr b-a	=	80	(metres)
Vr b-c	=	80	(metres)
q b-a	=	102	(pcu/hr)
q b-c	=	56	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.83939
E	=	0.90510
F	=	0.83641
Y	=	0.74815
F for (Qb-ac)	=	0.35443038

THE CAPACITY OF MOVEMENT :

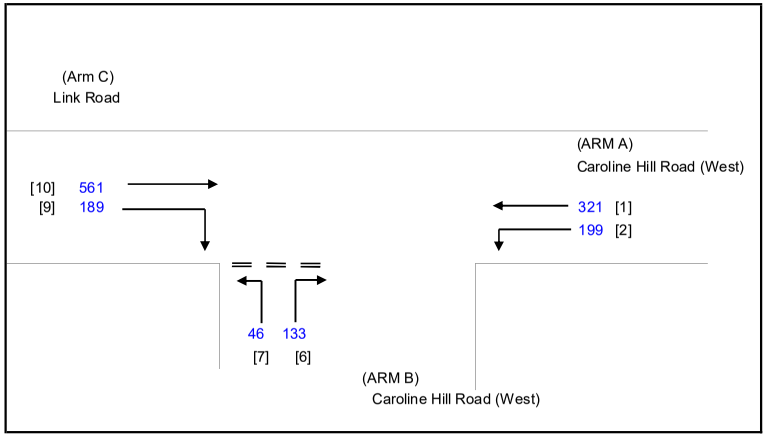
Q b-a	=	321			
Q b-c	=	579	Q b-c (O) =	533	
Q c-b	=	513			
Q b-ac	=	381			
TOTAL FLOW	=	1413	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.3178
DFC b-c	=	0.0967
DFC c-b	=	0.2593
DFC b-c (share lane)	=	0.4145

CRITICAL DFC = 0.41

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing Weekend**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J1_CHRW_LF	CHECKED BY:	SLN	Oct-25
J1 Caroline Hill Road (West) / Link Road		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.30	(metres)
W cr	=	1.5	(metres)
q a-b	=	199	(pcu/hr)
q a-c	=	321	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	2.60	(metres)
Vr c-b	=	40	(metres)
q c-a	=	561	(pcu/hr)
q c-b	=	189	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.00	(metres)
W b-c	=	3.00	(metres)
Vl b-a	=	29	(metres)
Vr b-a	=	80	(metres)
Vr b-c	=	80	(metres)
q b-a	=	133	(pcu/hr)
q b-c	=	46	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.83939
E	=	0.90510
F	=	0.83641
Y	=	0.74815
F for (Qb-ac)	=	0.25698324

THE CAPACITY OF MOVEMENT :

Q b-a	=	310		
Q b-c	=	576	Q b-c (O) =	514.2
Q c-b	=	505		
Q b-ac	=	352		
TOTAL FLOW	=	1449	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.4290
DFC b-c	=	0.0799
DFC c-b	=	0.3743
DFC b-c (share lane)	=	0.5089

CRITICAL DFC = 0.51

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

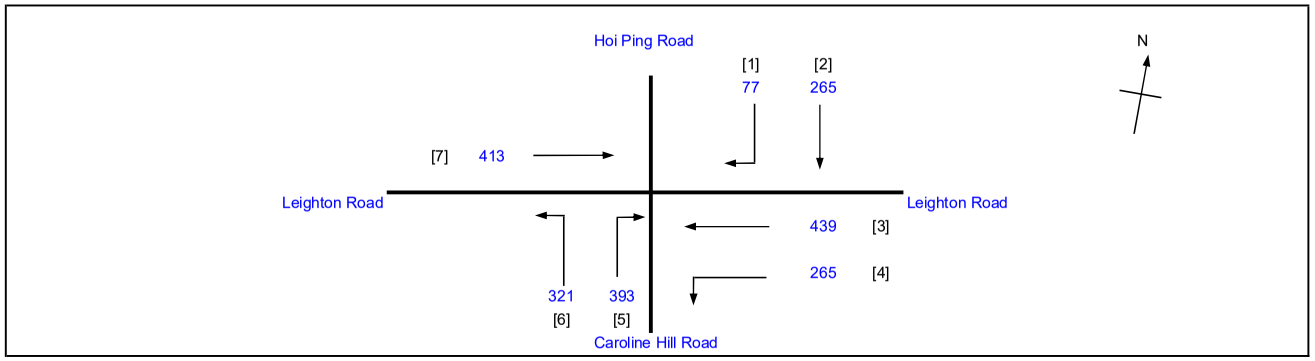
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J2 Leighton Road / Caroline Hill Road (West) / Hoi Ping Road

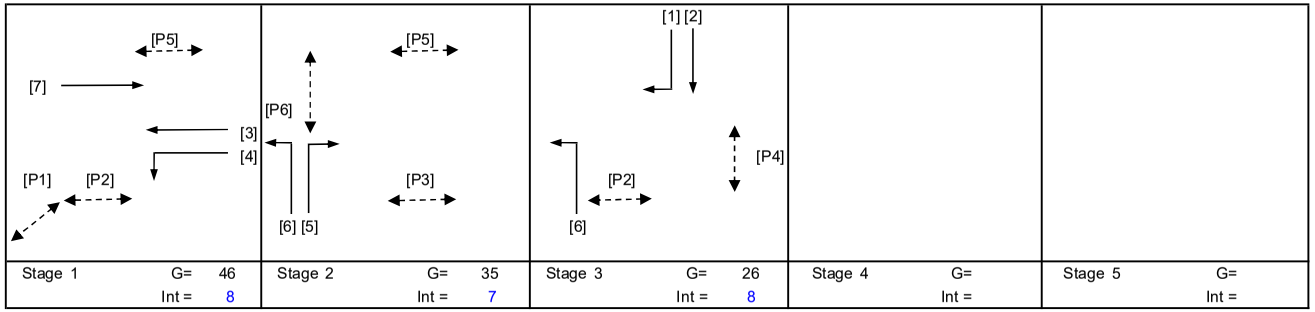
2025 Existing AM

PROJECT NO.: 40920

FILENAME : J2_LR_CHR_HPR.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.602
Loss time		L =	20 sec
Total Flow		=	2173 pcu
Co	= (1.5*L+5)/(1-Y)	=	88.0 sec
Cm	= L/(1-Y)	=	50.3 sec
Yult		=	0.750
R.C.ult	= (Yult-Y)/Y*100%	=	24.5 %
Cp	= 0.9*L/(0.9-Y)	=	60.5 sec
Ymax	= 1-L/C	=	0.846
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**26 %**



Stage 1	G= 46	Int = 8
Stage 2	G= 35	Int = 7
Stage 3	G= 26	Int = 8
Stage 4	G=	Int =
Stage 5	G=	Int =

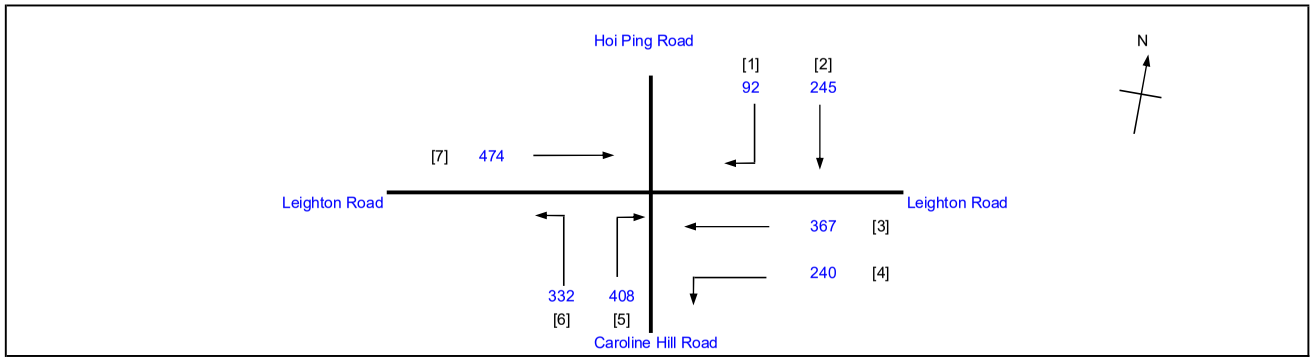
Pedestrian Phase	Stage	Width (m)	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	4.5	10	5	2	47	5
P2	1,3	4	14	5	0	83	5
P3	2	4.5	14	5	3	34	5
P4	3	15	10	7	4	23	7
P5	1,2	7	11	6	1	89	6
P6	2	15	10	7	4	31	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
7	1	3.25	2			N	4020		413		413	0.00	4020							4020	0.103			19	47	0.712	36	55
3*	1	3.00	1				2055		370		370	0.00	2055			0.7	-617			1438	0.257	0.257		47	47	0.712	48	40
3,4*	1	3.50	1	20		N	1965	265	69		334	0.79	1855			0.7	-556			1299	0.257			47	47	0.712	42	41
6	2,3	3.00	1	30		N	1915	321			321	1.00	1824							1824	0.176			32	42	0.712	48	49
5	2	4.00	1	20			2155			393	393	1.00	2005							2005	0.196	0.196		36	36	0.712	60	45
1,2	3	3.00	1	10		N	1915		265	77	342	0.23	1852	20	444					2297	0.149	0.149		27	27	0.712	54	51

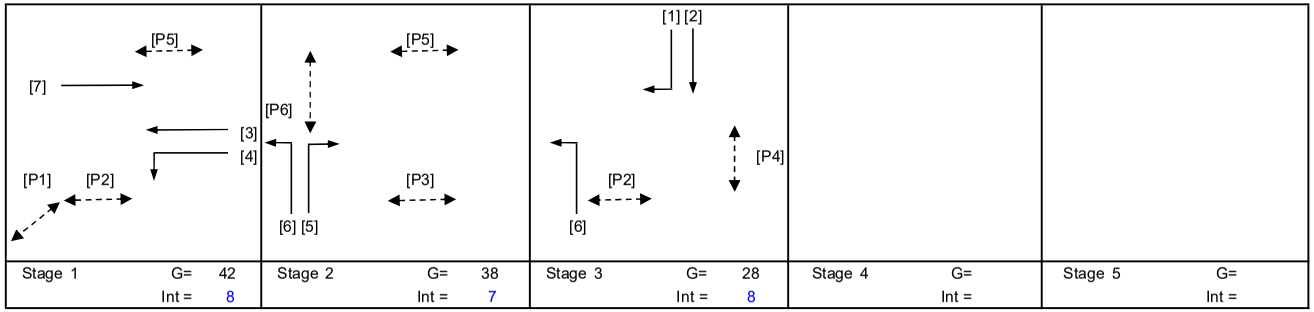
* Site factor is applied to Leighton Road westbound, in view of the short weaving distance at the exit arm of the junction.

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

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing PM**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J2 Leighton Road / Caroline Hill Road (West) / Hoi Ping Road		FILENAME : J2_LR_CHR_HPR.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	3
Cycle time	C =	130 sec
Sum(y)	Y =	0.576
Loss time	L =	20 sec
Total Flow	=	2158 pcu
Co = (1.5*L+5)/(1-Y)	=	82.5 sec
Cm = L/(1-Y)	=	47.1 sec
Yult	=	0.750
R.C.ult = (Yult-Y)/Y*100%	=	30.3 %
Cp = 0.9*L/(0.9-Y)	=	55.5 sec
Ymax = 1-L/C	=	0.846
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**32 %**



Stage 1	G= 42	Int = 8
Stage 2	G= 38	Int = 7
Stage 3	G= 28	Int = 8
Stage 4	G=	Int =
Stage 5	G=	Int =

Pedestrian Phase	Stage	Width (m)	Green Time Required SG	Green Time Required FG	Green Time Required Delay	Green Time Provided SG	Green Time Provided FG
P1	1	4.5	10	5	2	43	5
P2	1,3	4	14	5	0	80	5
P3	2	4.5	14	5	3	37	5
P4	3	15	10	7	4	25	7
P5	1,2	7	11	6	1	87	6
P6	2	15	10	7	4	34	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Movement Straight pcu/h	Movement Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
7	1	3.25	2			N	4020		474		474	0.00	4020							4020	0.118			23	43	0.680	42	50
3*	1	3.00	1				2055		319		319	0.00	2055			0.7	-617			1438	0.222			42	43	0.680	42	41
3,4*	1	3.50	1	20		N	1965	240	48		288	0.83	1849			0.7	-555			1294	0.222	0.222		43	43	0.680	36	42
6	2,3	3.00	1	30		N	1915	332			332	1.00	1824							1824	0.182			35	45	0.680	48	45
5	2	4.00	1	20			2155			408	408	1.00	2005							2005	0.204	0.204		39	39	0.680	60	42
1,2	3	3.00	1	10		N	1915		245	92	337	0.27	1840	20	414					2253	0.150	0.150		29	29	0.680	54	49

* Site factor is applied to Leighton Road westbound, in view of the short weaving distance at the exit arm of the junction.

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

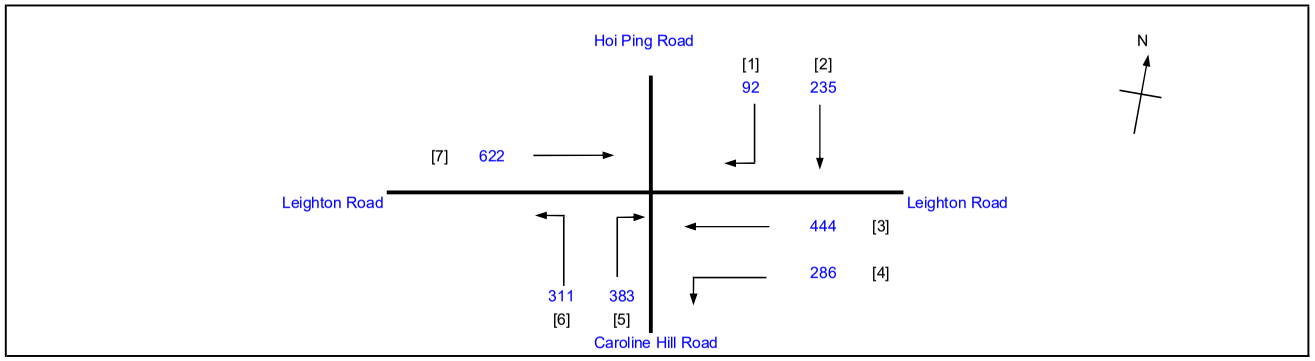
	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

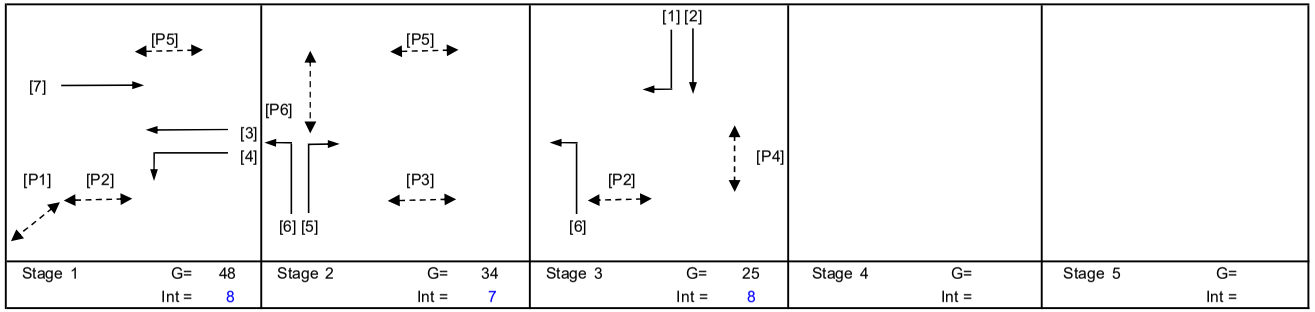
J2 Leighton Road / Caroline Hill Road (West) / Hoi Ping Road

2025 Existing Weekend

PROJECT NO.: 40920
FILENAME : J2_LR_CHR_HPR.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.600
Loss time		L =	20 sec
Total Flow		=	2373 pcu
Co	= (1.5*L+5)/(1-Y)	=	87.6 sec
Cm	= L/(1-Y)	=	50.1 sec
Yult		=	0.750
R.C.ult	= (Yult-Y)/Y*100%	=	24.9 %
Cp	= 0.9*L/(0.9-Y)	=	60.1 sec
Ymax	= 1-L/C	=	0.846
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**27 %**



Pedestrian Phase	Stage	Width (m)	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	4.5	10	5	2	49	5
P2	1,3	4	14	5	0	84	5
P3	2	4.5	14	5	3	33	5
P4	3	15	10	7	4	22	7
P5	1,2	7	11	6	1	90	6
P6	2	15	10	7	4	30	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
7	1	3.25	2			N	4020		622		622	0.00	4020							4020	0.155			28	49	0.710	51	47
3*	1	3.00	1				2055		384		384	0.00	2055			0.7	-617			1438	0.267			49	49	0.710	48	38
3,4*	1	3.50	1	20		N	1965	286	60		346	0.83	1850			0.7	-555			1295	0.267	0.267		49	49	0.710	42	39
6	2,3	3.00	1	30		N	1915	311			311	1.00	1824							1824	0.171			31	41	0.710	48	50
5	2	4.00	1	20			2155			383	383	1.00	2005							2005	0.191	0.191		35	35	0.710	60	46
1,2	3	3.00	1	10		N	1915		235	92	327	0.28	1837	20	462					2299	0.142	0.142		26	26	0.710	54	52

* Site factor is applied to Leighton Road westbound, in view of the short weaving distance at the exit arm of the junction.

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

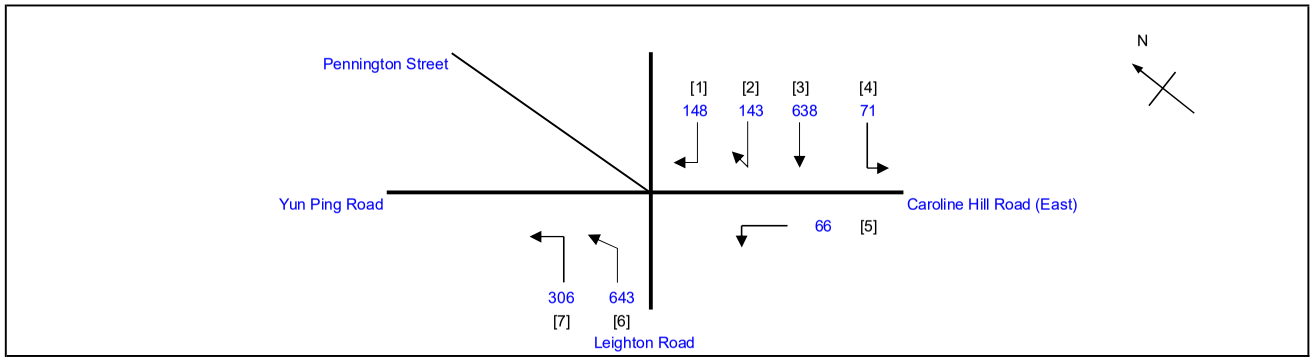
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J3 Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street

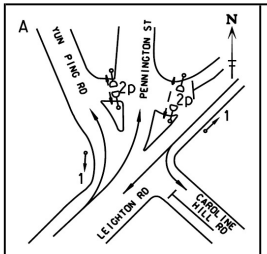
2025 Existing AM

PROJECT NO.: 40920

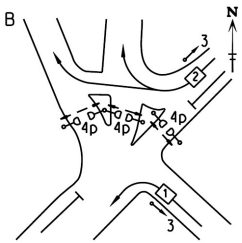
FILENAME : J3_LR_CHRE_YPR_PS.xlsx



No. of stages per cycle		N =	2
Cycle time		C =	130 sec
Sum(y)		Y =	0.550
Loss time		L =	11 sec
Total Flow		=	2015 pcu
Co	= (1.5*L+5)/(1-Y)	=	47.8 sec
Cm	= L/(1-Y)	=	24.4 sec
Yult		=	0.818
R.C.ult	= (Yult-Y)/Y*100%	=	48.6 %
Cp	= 0.9*L/(0.9-Y)	=	28.3 sec
Ymax	= 1-L/C	=	0.915
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**50 %**



Stage 1 G= 71 Int = 6



Stage 2 G= 46 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
2P	1		5	8	2	67	8
4P	2		10	8	2	43	8

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																							11		
3	1	2.50	1				2005		461		461	0.00	2005							2005	0.230			50	72
3,4	1	3.00	1	7		N	1915	71	177		248	0.29	1804			0.6	-722			1082	0.229			50	72
6	1	3.00	1				2055		508		508	0.00	2055			0.7	-534			1521	0.334	0.334		72	72
6,7	1	3.00	1	15		N	1915	306	135		441	0.69	1791			0.7	-466			1325	0.333			72	72
1,2	2	3.50	1	9		N	1965			291	291	1.00	1684			0.8	-337			1347	0.216	0.216		47	47
5	2	4.00	1	5		N	2015	66			66	1.00	1550			0.6	-620			930	0.071			15	47

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

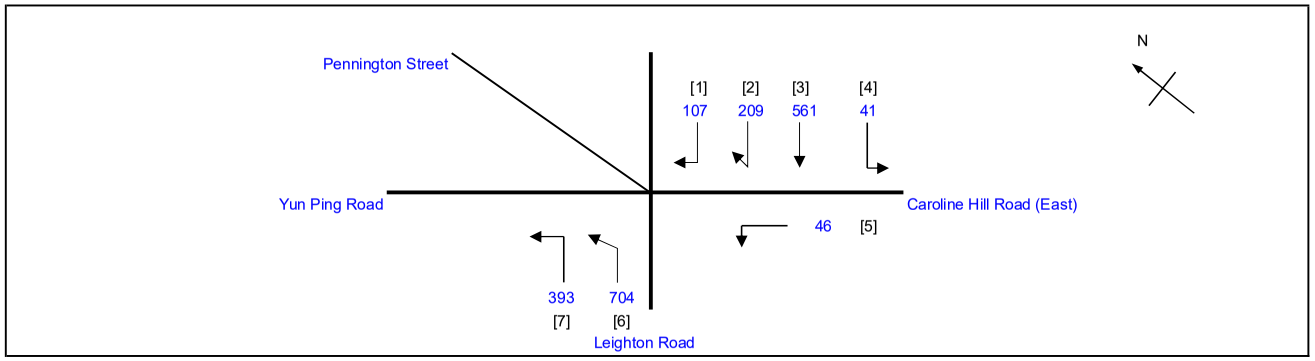
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J3 Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street

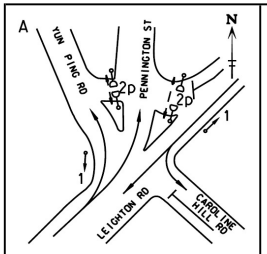
2025 Existing PM

PROJECT NO.: 40920

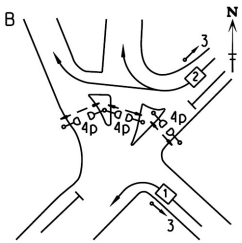
FILENAME : J3_LR_CHRE_YPR_PS.xlsx



No. of stages per cycle		N =	2
Cycle time		C =	130 sec
Sum(y)		Y =	0.621
Loss time		L =	11 sec
Total Flow		=	2061 pcu
Co	= (1.5*L+5)/(1-Y)	=	56.8 sec
Cm	= L/(1-Y)	=	29.1 sec
Yult		=	0.818
R.C.ult	= (Yult-Y)/Y*100%	=	31.6 %
Cp	= 0.9*L/(0.9-Y)	=	35.5 sec
Ymax	= 1-L/C	=	0.915
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**33 %**



Stage 1 G= 73 Int = 6



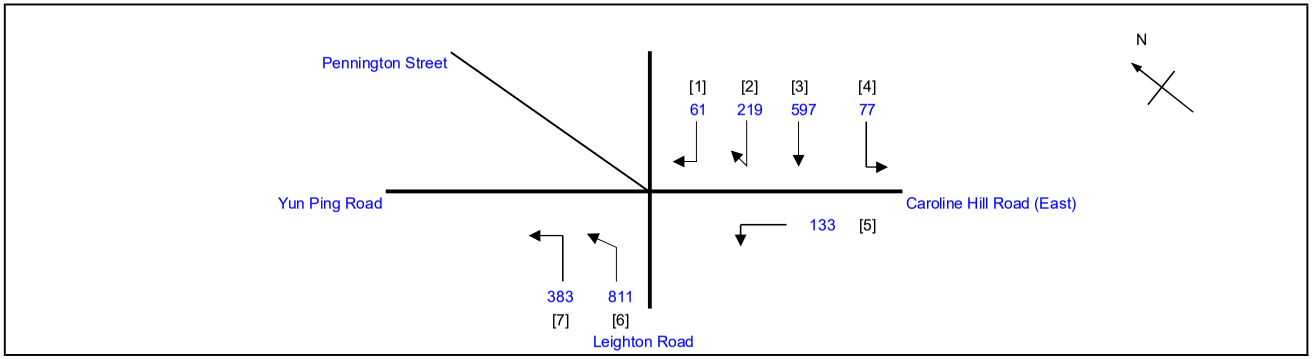
Stage 2 G= 44 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
2P	1		5	8	2	69	8
4P	2		10	8	2	41	8

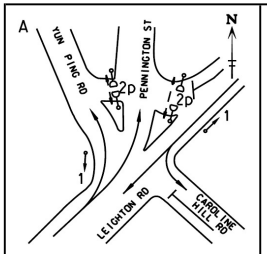
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						11		
3	1	2.50	1				2005		388		388	0.00	2005							2005	0.194			37	74
3,4	1	3.00	1	7		N	1915	41	173		214	0.19	1839			0.6	-736			1103	0.194			37	74
6	1	3.00	1				2055		588		588	0.00	2055			0.7	-534			1521	0.387			74	74
6,7	1	3.00	1	15		N	1915	393	116		509	0.77	1778			0.7	-462			1316	0.387	0.387		74	74
1,2	2	3.50	1	9		N	1965			316	316	1.00	1684			0.8	-337			1347	0.235	0.235		45	45
5	2	4.00	1	5		N	2015	46			46	1.00	1550			0.6	-620			930	0.049			9	45

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

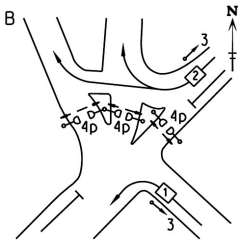
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing Weekend**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J3 Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street		FILENAME : J3_LR_CHRE_YPR_PS.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.627
Loss time	L =	11 sec
Total Flow	=	2281 pcu
Co = (1.5*L+5)/(1-Y)	=	57.7 sec
Cm = L/(1-Y)	=	29.5 sec
Yult	=	0.818
R.C.ult = (Yult-Y)/Y*100%	=	30.3 %
Cp = 0.9*L/(0.9-Y)	=	36.3 sec
Ymax = 1-L/C	=	0.915
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**31 %**



Stage 1 G= 79 Int = 6



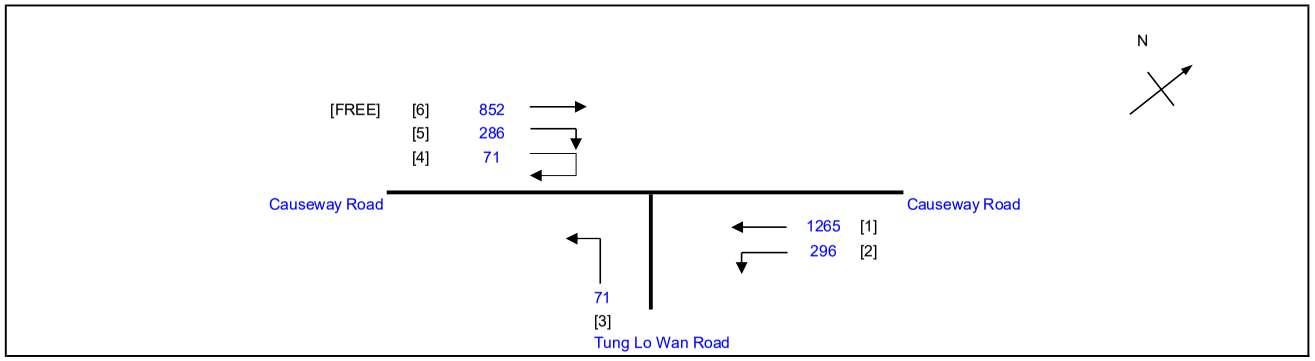
Stage 2 G= 38 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
2P	1		5	8	2	75	8
4P	2		10	8	2	35	8

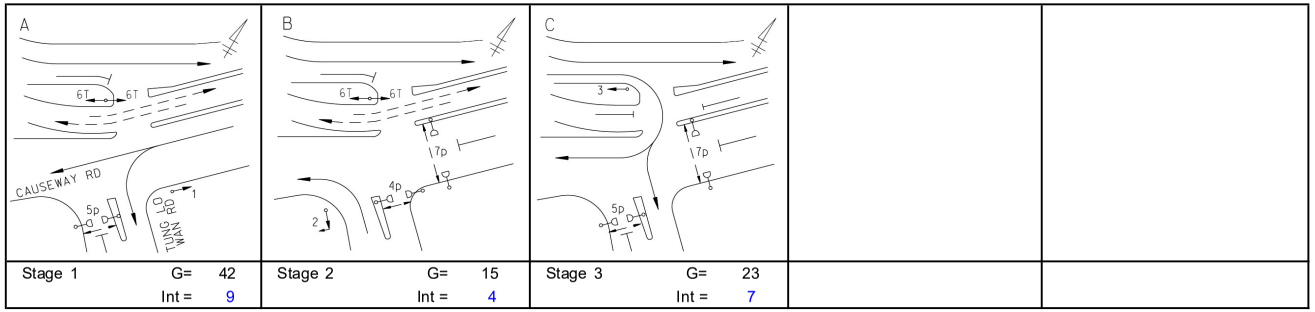
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						11		
3	1	2.50	1				2005		439		439	0.00	2005							2005	0.219			42	80
3,4	1	3.00	1	7		N	1915	77	158		235	0.33	1789			0.6	-716			1073	0.219			42	80
6	1	3.00	1				2055		638		638	0.00	2055			0.7	-534			1521	0.419	0.419		80	80
6,7	1	3.00	1	15		N	1915	383	173		556	0.69	1792			0.7	-466			1326	0.419			80	80
1,2	2	3.50	1	9		N	1965			280	280	1.00	1684			0.8	-337			1347	0.208	0.208		39	39
5	2	4.00	1	5		N	2015	133			133	1.00	1550			0.6	-620			930	0.143			27	39

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

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing AM**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road		FILENAME : J4_CR_LR_IS.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	3
Cycle time	C =	100 sec
Sum(y)	Y =	0.352
Loss time	L =	33 sec
Total Flow	=	1989 pcu
Co = (1.5*L+5)/(1-Y)	=	84.2 sec
Cm = L/(1-Y)	=	51.0 sec
Yult	=	0.653
R.C.ult = (Yult-Y)/Y*100%	=	85.2 %
Cp = 0.9*L/(0.9-Y)	=	54.2 sec
Ymax = 1-L/C	=	0.670
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**71 %**



Stage 1	G= 42	Stage 2	G= 15	Stage 3	G= 23
	Int = 9		Int = 4		Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
4P	2		7	8		11	8
5P	1,3		10	5		76	5
7P	2,3		9	11		38	11

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						18		
1	1	3.00	1			N	1915		343		343	0.00	1915			0.8	-383			1532	0.224			43	43
1	1	3.00	2				4110		922		922	0.00	4110							4110	0.224			43	43
2	1	3.00	1	9		N	1915	296			296	1.00	1641			0.8	-328			1313	0.225	0.225		43	43
3	2	4.00	1	25		N	2015	71			71	1.00	1901			0.8	-380			1521	0.047			9	15
4,5	3	4.00	1	12		N	2015			182	182	1.00	1791			0.8	-358			1433	0.127	0.127		24	24
4,5	3	4.50	1	8		N	2065			175	175	1.00	1739			0.8	-348			1391	0.126			24	24
PED	2																						15		

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

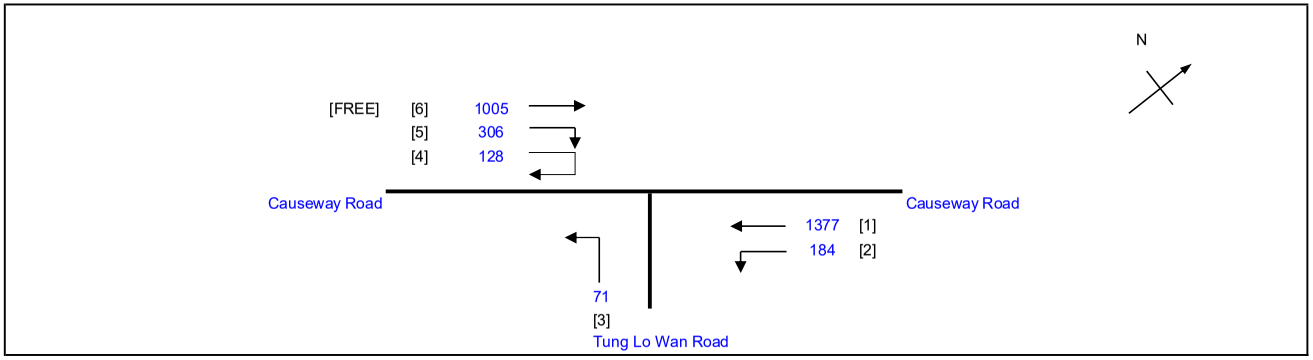
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road

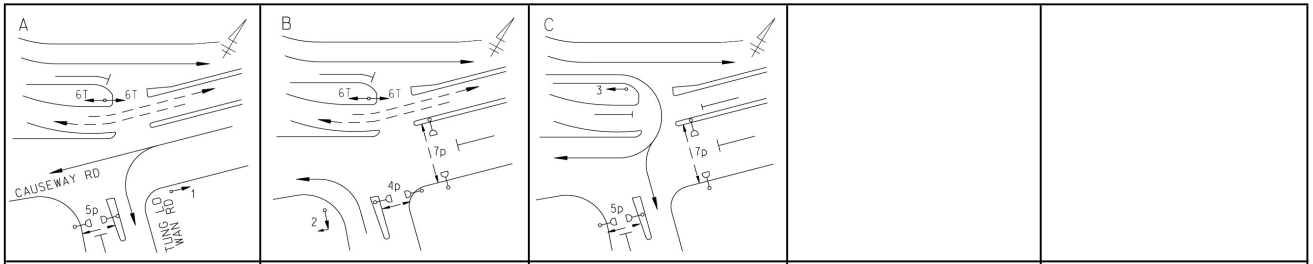
2025 Existing PM

PROJECT NO.: 40920

FILENAME : J4_CR_LR_IS.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	100 sec
Sum(y)		Y =	0.398
Loss time		L =	33 sec
Total Flow		=	2066 pcu
Co	= (1.5*L+5)/(1-Y)	=	90.5 sec
Cm	= L/(1-Y)	=	54.8 sec
Yult		=	0.653
R.C.ult	= (Yult-Y)/Y*100%	=	64.0 %
Cp	= 0.9*L/(0.9-Y)	=	59.2 sec
Ymax	= 1-L/C	=	0.670
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**52 %**



Stage 1	G= 40	Int = 9
Stage 2	G= 15	Int = 4
Stage 3	G= 25	Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
4P	2		7	8		11	8
5P	1,3		10	5		76	5
7P	2,3		9	11		40	11

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						18		
1	1	3.00	1			N	1915		374		374	0.00	1915			0.8	-383			1532	0.244	0.244		41	41
1	1	3.00	2				4110		1003		1003	0.00	4110							4110	0.244			41	41
2	1	3.00	1	9		N	1915	184			184	1.00	1641			0.8	-328			1313	0.140			24	41
3	2	4.00	1	25		N	2015	71			71	1.00	1901			0.8	-380			1521	0.047			8	15
4,5	3	4.00	1	12		N	2015			220	220	1.00	1791			0.8	-358			1433	0.154			26	26
4,5	3	4.50	1	8		N	2065			214	214	1.00	1739			0.8	-348			1391	0.154	0.154		26	26
PED	2																						15		

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

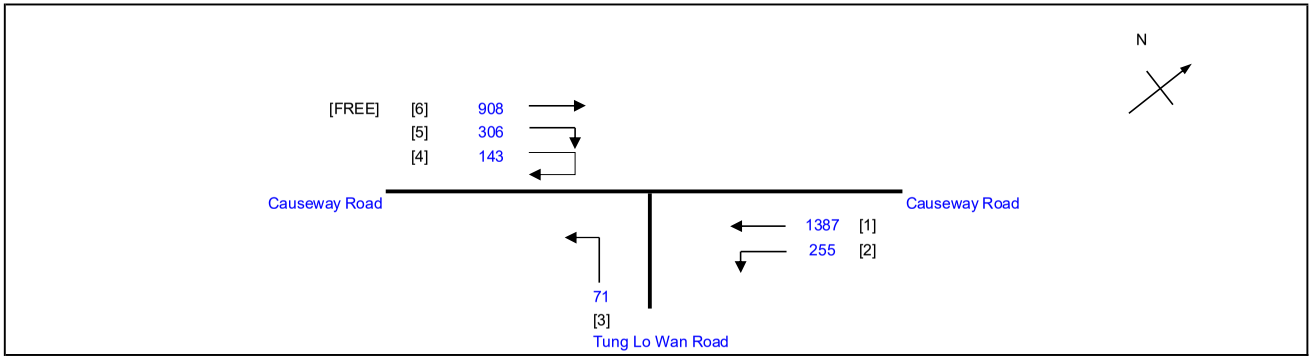
	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

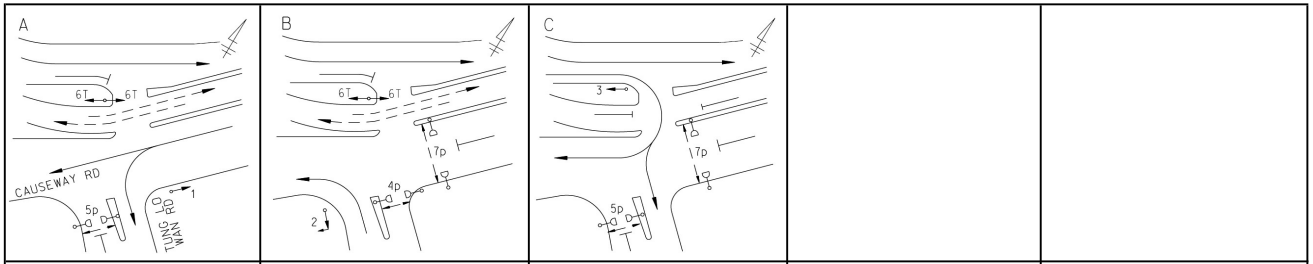
J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road

2025 Existing Weekend

PROJECT NO.: 40920
FILENAME : J4_CR_LR_IS.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	100 sec
Sum(y)		Y =	0.405
Loss time		L =	33 sec
Total Flow		=	2162 pcu
Co	= (1.5*L+5)/(1-Y)	=	91.6 sec
Cm	= L/(1-Y)	=	55.5 sec
Yult		=	0.653
R.C.ult	= (Yult-Y)/Y*100%	=	61.0 %
Cp	= 0.9*L/(0.9-Y)	=	60.0 sec
Ymax	= 1-L/C	=	0.670
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**49 %**



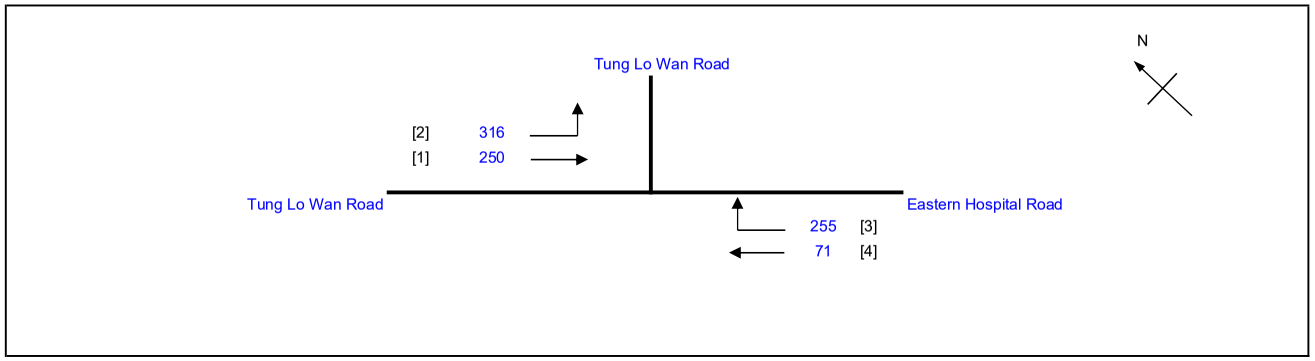
Stage 1	G=	40	
	Int =	9	
Stage 2	G=	15	
	Int =	4	
Stage 3	G=	25	
	Int =	7	

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
4P	2		7	8		11	8
5P	1,3		10	5		76	5
7P	2,3		9	11		40	11

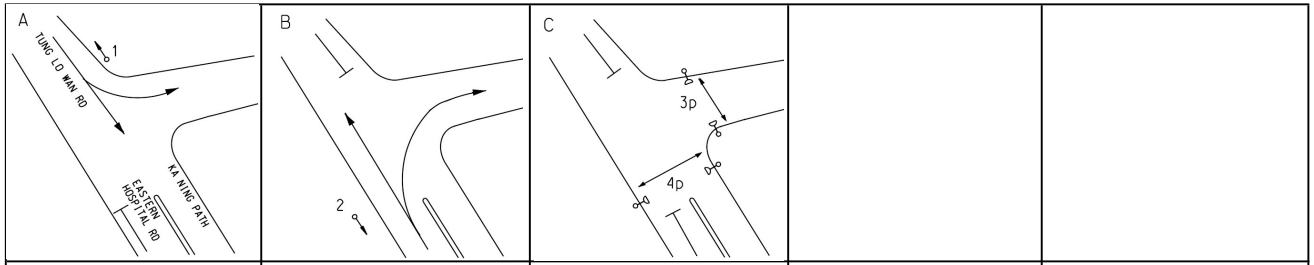
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						18		
1	1	3.00	1			N	1915		377		377	0.00	1915			0.8	-383			1532	0.246	0.246		41	41
1	1	3.00	2				4110		1010		1010	0.00	4110							4110	0.246			41	41
2	1	3.00	1	9		N	1915	255			255	1.00	1641			0.8	-328			1313	0.194			32	41
3	2	4.00	1	25		N	2015	71			71	1.00	1901			0.8	-380			1521	0.047			8	15
4,5	3	4.00	1	12		N	2015			228	228	1.00	1791			0.8	-358			1433	0.159	0.159		26	26
4,5	3	4.50	1	8		N	2065			221	221	1.00	1739			0.8	-348			1391	0.159			26	26
PED	2																						15		

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

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing AM**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J5 Tung Lo Wan Road / Eastern Hospital Road		FILENAME : J5_TLWR_EHR.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	3
Cycle time	C =	100 sec
Sum(y)	Y =	0.326
Loss time	L =	41 sec
Total Flow	=	892 pcu
Co = (1.5*L+5)/(1-Y)	=	98.7 sec
Cm = L/(1-Y)	=	60.8 sec
Yult	=	0.593
R.C.ult = (Yult-Y)/Y*100%	=	81.7 %
Cp = 0.9*L/(0.9-Y)	=	64.3 sec
Ymax = 1-L/C	=	0.590
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**63 %**



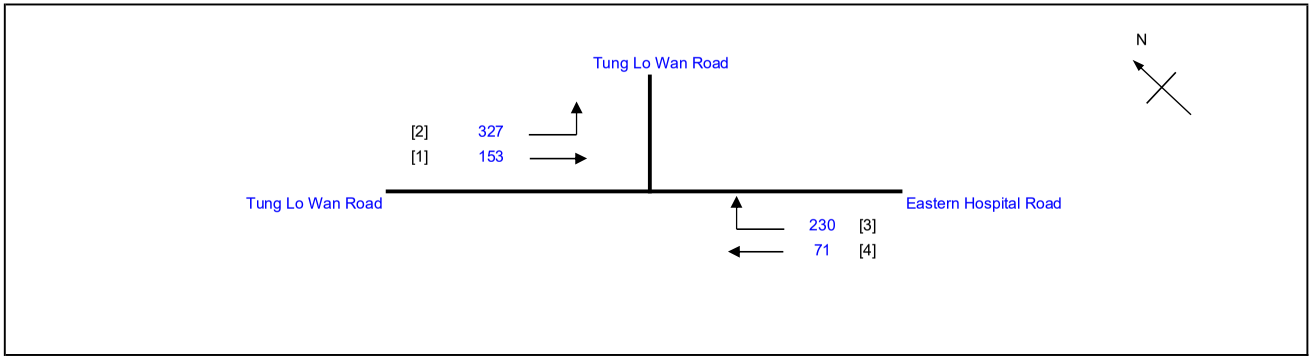
Stage 1	G= 25	Int = 5
Stage 2	G= 32	Int = 3
Stage 3	G= 33	Int = 2

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
3P	3		7	8	6	21	8
4P	3		8	14	2	19	14

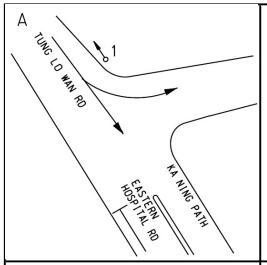
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																							8		
3,4	1	3.30	1	25			2085	50	250		300	0.17	2064							2064	0.145	0.145		26	26
4	1	3.30	1	25		N	1945	266			266	1.00	1835							1835	0.145			26	26
1,2	2	3.65	1	12		N	1980		71	255	326	0.78	1804							1804	0.181	0.181		33	33
PED	3																						33		

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

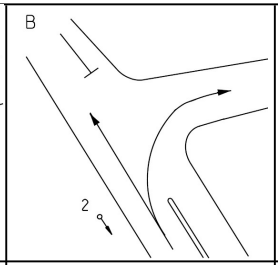
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing PM**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
		FILENAME : J5_TLWR_EHR.xlsx	Checked By:	SLN	Oct-25
J5 Tung Lo Wan Road / Eastern Hospital Road			Reviewed By:	SLN	Oct-25



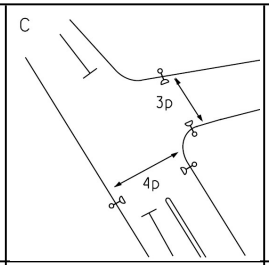
No. of stages per cycle	N =	3
Cycle time	C =	100 sec
Sum(y)	Y =	0.291
Loss time	L =	41 sec
Total Flow	=	781 pcu
Co = (1.5*L+5)/(1-Y)	=	93.8 sec
Cm = L/(1-Y)	=	57.8 sec
Yult	=	0.593
R.C.ult = (Yult-Y)/Y*100%	=	103.8 %
Cp = 0.9*L/(0.9-Y)	=	60.6 sec
Ymax = 1-L/C	=	0.590
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**83 %**



Stage 1 G= 24 Int = 5



Stage 2 G= 33 Int = 3



Stage 3 G= 33 Int = 2

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
3P	3		7	8	6	21	8
4P	3		8	14	2	19	14

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec			
																							8					
3,4	1	3.30	1	25			2085	99	153		252	0.39	2037							2037	0.124			25	25			
4	1	3.30	1	25		N	1945	228			228	1.00	1835							1835	0.124	0.124		25	25			
1,2	2	3.65	1	12		N	1980		71	230	301	0.76	1807							1807	0.167	0.167		34	34			
PED	3																						33					

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

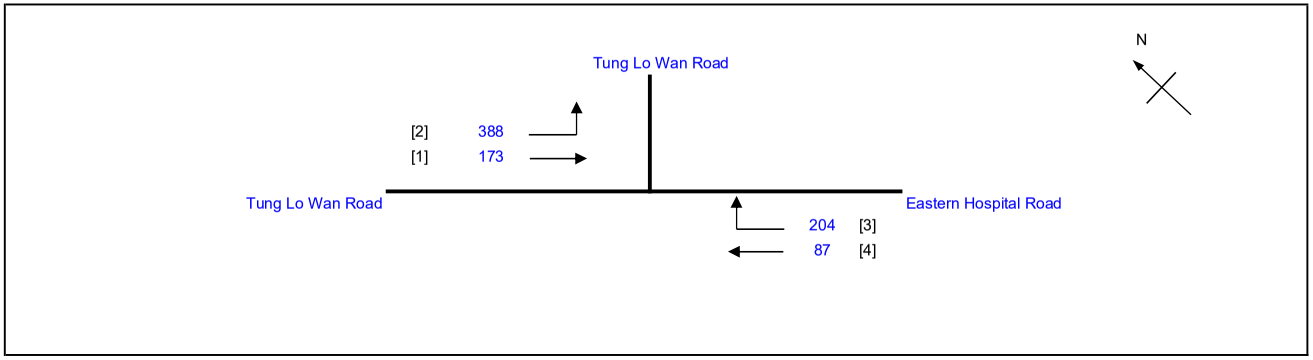
	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

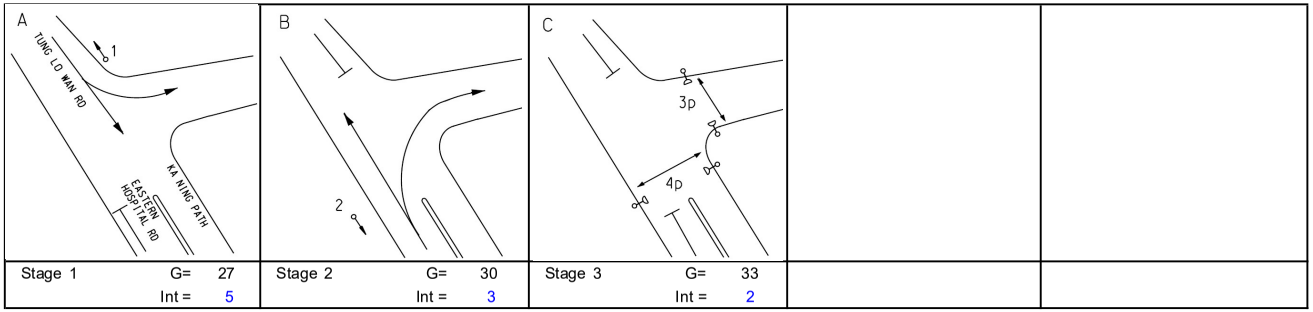
J5 Tung Lo Wan Road / Eastern Hospital Road

2025 Existing Weekend

PROJECT NO.: 40920
FILENAME : J5_TLWR_EHR.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	100 sec
Sum(y)		Y =	0.305
Loss time		L =	41 sec
Total Flow		=	852 pcu
Co	= (1.5*L+5)/(1-Y)	=	95.7 sec
Cm	= L/(1-Y)	=	59.0 sec
Yult		=	0.593
R.C.ult	= (Yult-Y)/Y*100%	=	94.4 %
Cp	= 0.9*L/(0.9-Y)	=	62.0 sec
Ymax	= 1-L/C	=	0.590
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**74 %**



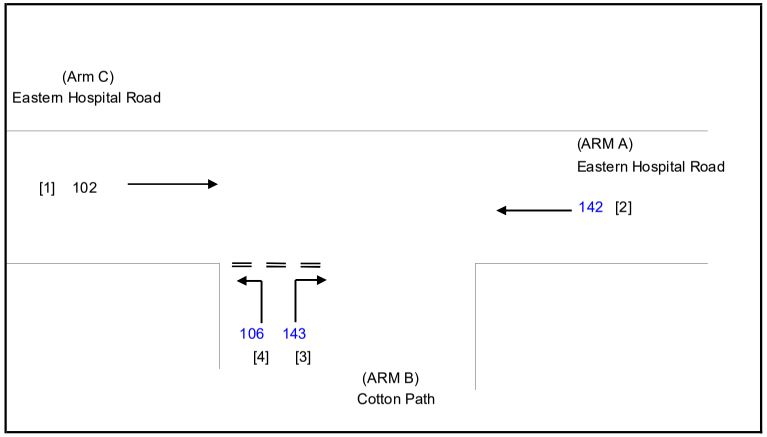
Stage 1	G=	27	
	Int =	5	
Stage 2	G=	30	
	Int =	3	
Stage 3	G=	33	
	Int =	2	

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
3P	3		7	8	6	21	8
4P	3		8	14	2	19	14

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec			
																							8					
3,4	1	3.30	1	25			2085	122	173		295	0.41	2035							2035	0.145	0.145		28	28			
4	1	3.30	1	25		N	1945	266			266	1.00	1835							1835	0.145			28	28			
1,2	2	3.65	1	12		N	1980		87	204	291	0.70	1820							1820	0.160	0.160		31	31			
PED	3																						33					

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

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing AM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Oct-25
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.30	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	142	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	102	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.70	(metres)
W b-c	=	4.30	(metres)
Vl b-a	=	53	(metres)
Vr b-a	=	95	(metres)
Vr b-c	=	88	(metres)
q b-a	=	143	(pcu/hr)
q b-c	=	106	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.42570281

THE CAPACITY OF MOVEMENT :

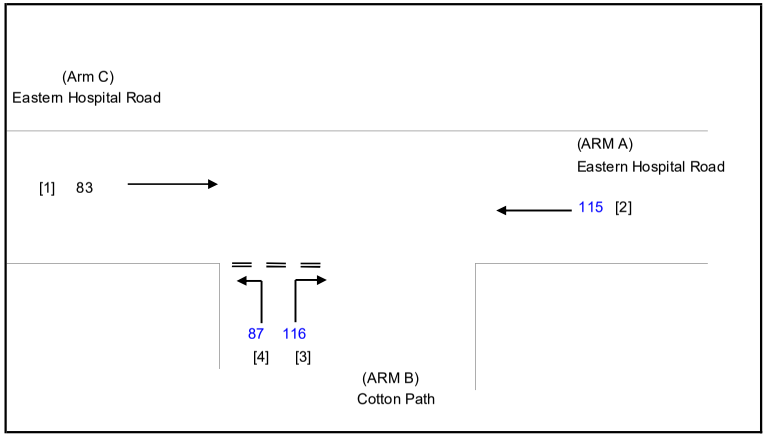
Q b-a	=	528		
Q b-c	=	728	Q b-c (O) =	678.7
Q c-b	=	414		
Q b-ac	=	598		
TOTAL FLOW	=	493	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.2708
DFC b-c	=	0.1456
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1773

CRITICAL DFC = 0.27

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing PM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Oct-25
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.30	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	115	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	83	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.70	(metres)
W b-c	=	4.30	(metres)
Vl b-a	=	53	(metres)
Vr b-a	=	95	(metres)
Vr b-c	=	88	(metres)
q b-a	=	116	(pcu/hr)
q b-c	=	87	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.42857143

THE CAPACITY OF MOVEMENT :

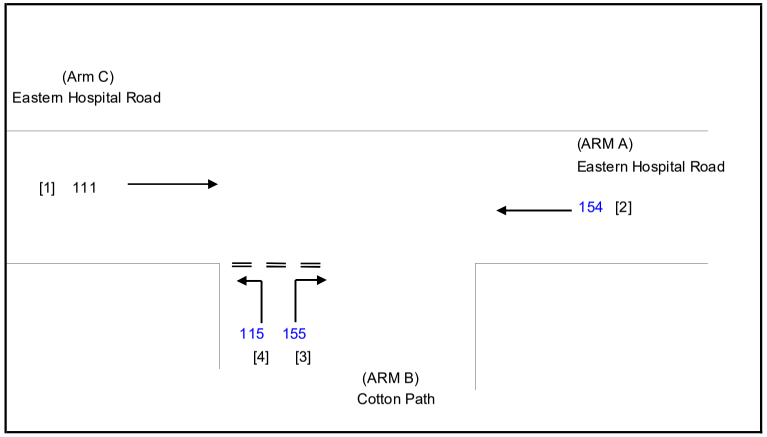
Q b-a	=	538		
Q b-c	=	735	Q b-c (O) =	695.4
Q c-b	=	418		
Q b-ac	=	608		
TOTAL FLOW	=	401	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.2156
DFC b-c	=	0.1184
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1431

CRITICAL DFC = 0.22

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing Weekend**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Oct-25
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.30	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	154	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	111	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.70	(metres)
W b-c	=	4.30	(metres)
Vl b-a	=	53	(metres)
Vr b-a	=	95	(metres)
Vr b-c	=	88	(metres)
q b-a	=	155	(pcu/hr)
q b-c	=	115	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.42592593

THE CAPACITY OF MOVEMENT :

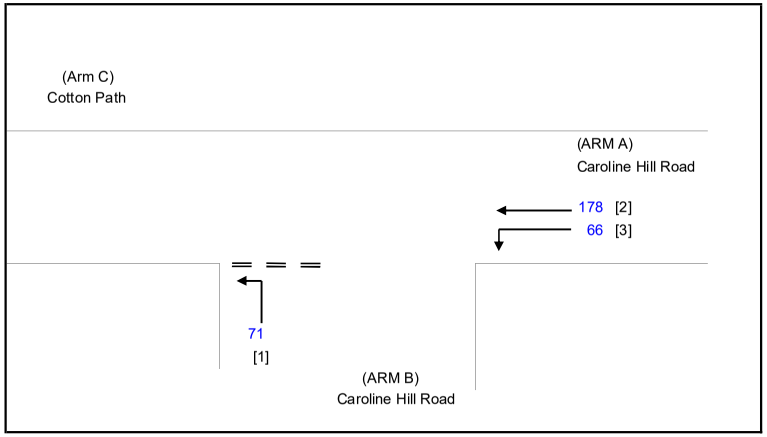
Q b-a	=	524		
Q b-c	=	725	Q b-c (O) =	671.4
Q c-b	=	412		
Q b-ac	=	594		
TOTAL FLOW	=	535	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.2958
DFC b-c	=	0.1586
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1936

CRITICAL DFC = 0.30

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing AM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Oct-25
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	6.00	(metres)
W cr	=	0	(metres)
q a-b	=	66	(pcu/hr)
q a-c	=	178	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	0	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.00	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	100	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	71	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.01431
F	=	0.58595
Y	=	0.79300
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

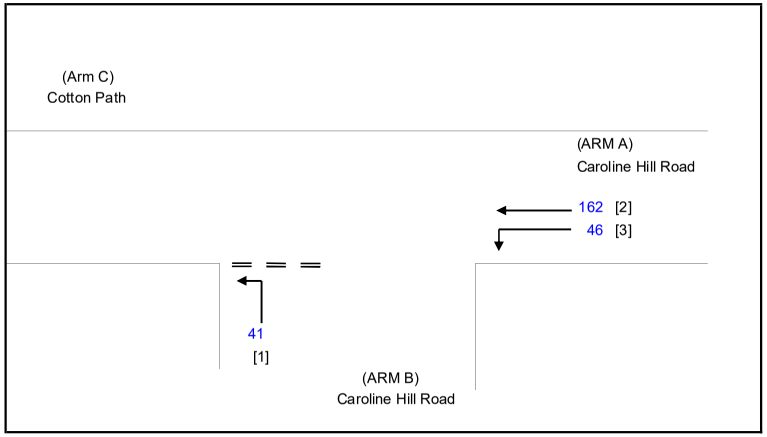
Q b-a	=	303			
Q b-c	=	696	Q b-c (O) =	696	
Q c-b	=	395			
Q b-ac	=	696			
TOTAL FLOW	=	315	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.1020
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1020

CRITICAL DFC = 0.10

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing PM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Oct-25
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	6.00	(metres)
W cr	=	0	(metres)
q a-b	=	46	(pcu/hr)
q a-c	=	162	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	0	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.00	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	100	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	41	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.01431
F	=	0.58595
Y	=	0.79300
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

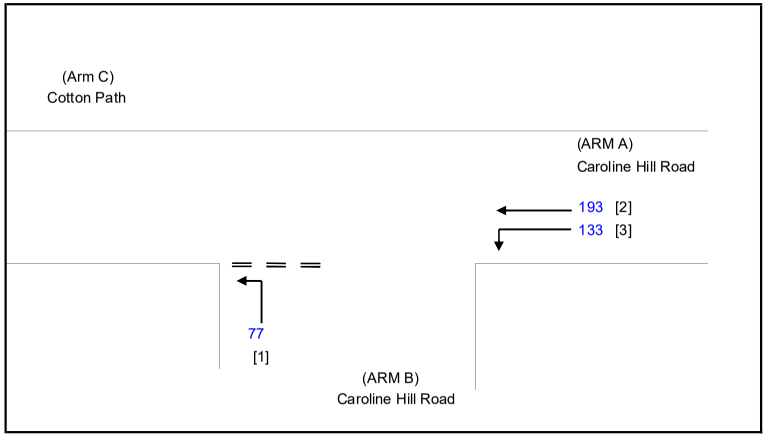
Q b-a	=	307			
Q b-c	=	703	Q b-c (O) =	703	
Q c-b	=	401			
Q b-ac	=	703			
TOTAL FLOW	=	249	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0583
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.0583

CRITICAL DFC = 0.06

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing Weekend**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Oct-25
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	6.00	(metres)
W cr	=	0	(metres)
q a-b	=	133	(pcu/hr)
q a-c	=	193	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	0	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.00	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	100	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	77	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.01431
F	=	0.58595
Y	=	0.79300
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

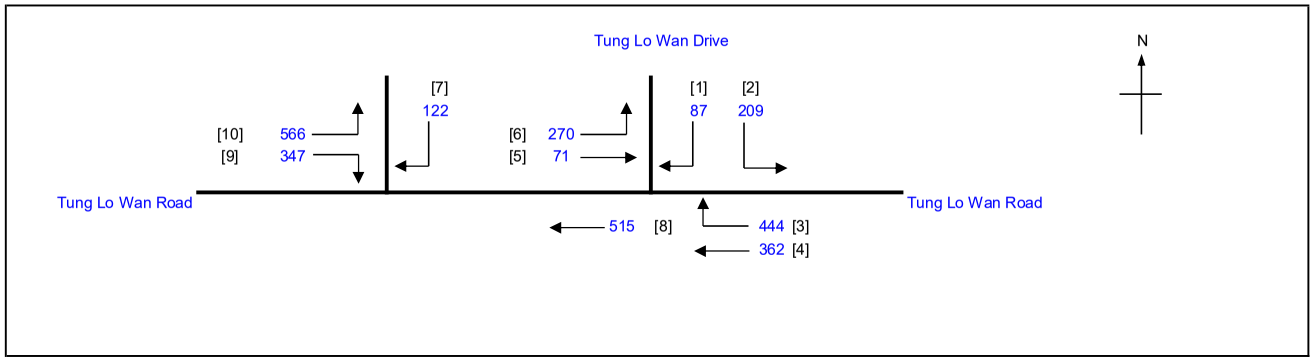
Q b-a	=	297			
Q b-c	=	684	Q b-c (O) =	684	
Q c-b	=	381			
Q b-ac	=	684			
TOTAL FLOW	=	403	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

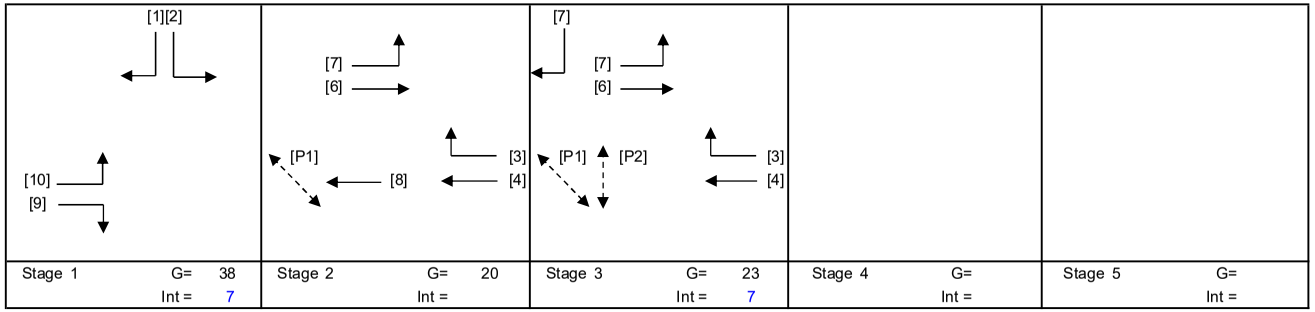
DFC b-a	=	0.0000
DFC b-c	=	0.1126
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1126

CRITICAL DFC = 0.11

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing AM**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J8 Tung Lo Wan Road / Moreton Terrace		FILENAME : J8_TLWR_MT.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	3
Cycle time	C =	95 sec
Sum(y)	Y =	0.546
Loss time	L =	12 sec
Total Flow	=	2993 pcu
Co = (1.5*L+5)/(1-Y)	=	50.6 sec
Cm = L/(1-Y)	=	26.4 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	48.5 %
Cp = 0.9*L/(0.9-Y)	=	30.5 sec
Ymax = 1-L/C	=	0.874
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**44 %**



Stage 1	G= 38	Stage 2	G= 20	Stage 3	G= 23	Stage 4	G=	Stage 5	G=
	Int = 7		Int =		Int = 7		Int =		Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2,3		8	8		42	8
P2	3		9	8		22	8

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							12					
8	2	3.00	2			N	3970		515		515	0.00	3970							3970	0.130			20	20	0.624	30	34
10	1	3.70	1	8		N	1985	429			429	1.00	1672							1672	0.257	0.257		39	39	0.624	36	24
9,10	1	3.50	1	13			2105	137		347	484	1.00	1887							1887	0.256			39	39	0.624	42	23
7	3	5.00	1	27		N	2115			122	122	1.00	2004							2004	0.061			9	24	0.624	18	51
4	2,3	3.70	1			N	1985		362		362	0.00	1985							1985	0.182			28	44	0.624	36	31
3,4	2,3	3.00	1	8	O		2055			444	444	1.00	1537							1537	0.289	0.289		44	44	0.624	36	21
5,6	2,3	5.00	1	13		N	2115	270	71		341	0.79	1938							1938	0.176			27	44	0.624	36	32
1,2	1	3.50	1	8		N	1965	209		87	296	1.00	1655							1655	0.179			27	39	0.624	30	32

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

LLA CONSULTANCY LIMITED

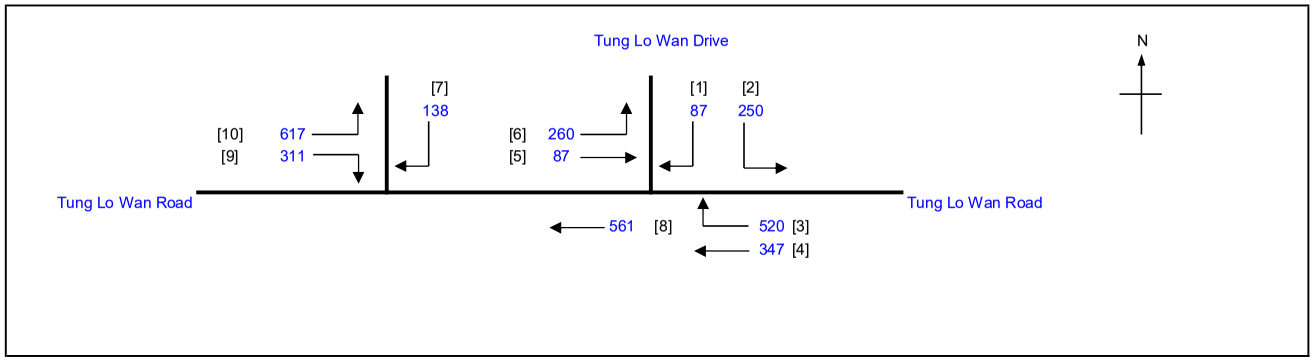
TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
PROJECT NO.:	40920	Prepared By:	SKL	Oct-25
FILENAME :	J8_TLWR_MT.xlsx	Checked By:	SLN	Oct-25
		Reviewed By:	SLN	Oct-25

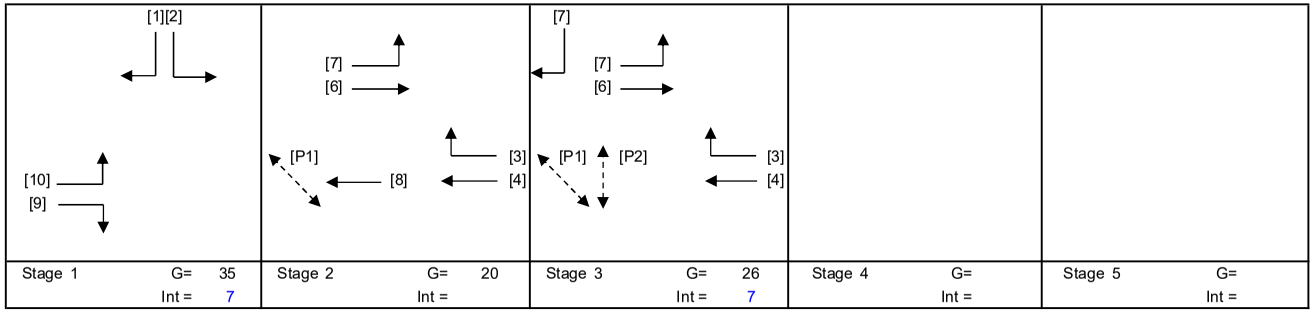
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J8 Tung Lo Wan Road / Moreton Terrace

2025 Existing PM



No. of stages per cycle	N =	3
Cycle time	C =	95 sec
Sum(y)	Y =	0.599
Loss time	L =	12 sec
Total Flow	=	3178 pcu
Co = (1.5*L+5)/(1-Y)	=	57.4 sec
Cm = L/(1-Y)	=	29.9 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	35.2 %
Cp = 0.9*L/(0.9-Y)	=	35.9 sec
Ymax = 1-L/C	=	0.874
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**31 %**



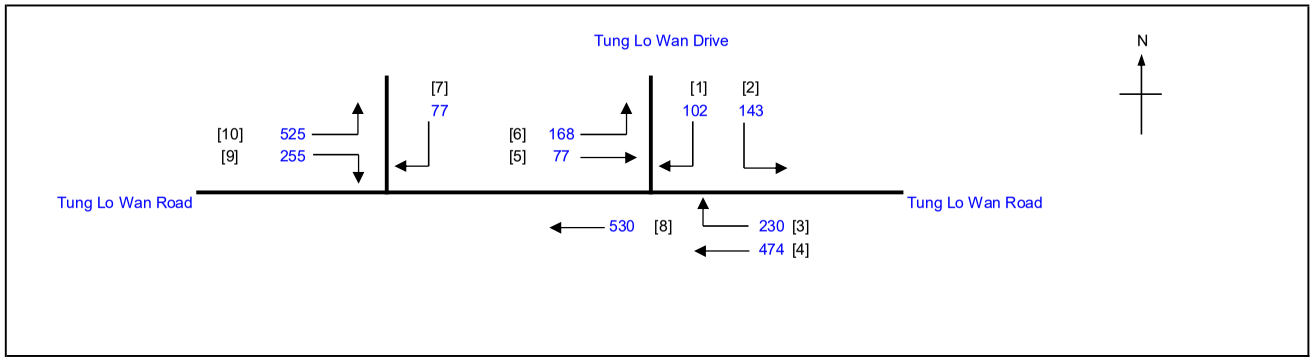
Stage 1	G= 35	Stage 2	G= 20	Stage 3	G= 26	Stage 4	G=	Stage 5	G=
	Int = 7		Int =		Int = 7		Int =		Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2,3		8	8		45	8
P2	3		9	8		25	8

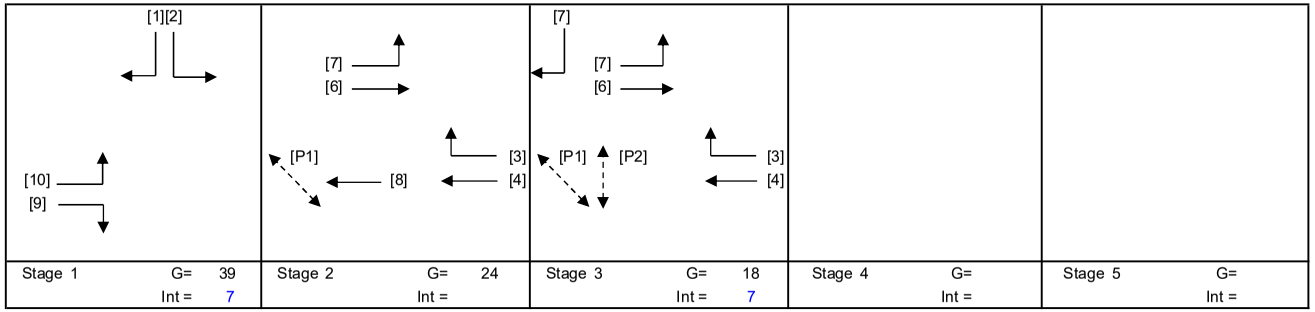
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							12					
8	2	3.00	2			N	3970		561		561	0.00	3970							3970	0.141			20	20	0.686	33	36
10	1	3.70	1	8		N	1985	436			436	1.00	1672							1672	0.261	0.261		36	36	0.686	42	28
9,10	1	3.50	1	13			2105	181		311	492	1.00	1887							1887	0.261			36	36	0.686	48	27
7	3	5.00	1	27		N	2115			138	138	1.00	2004							2004	0.069			10	27	0.686	18	55
4	2,3	3.70	1			N	1985		347		347	0.00	1985							1985	0.175			24	47	0.686	36	36
3,4	2,3	3.00	1	8	O		2055			520	520	1.00	1537							1537	0.338	0.338		47	47	0.686	36	21
5,6	2,3	5.00	1	13		N	2115	260	87		347	0.75	1947							1947	0.178			25	47	0.686	36	35
1,2	1	3.50	1	8		N	1965	250		87	337	1.00	1655							1655	0.204			28	36	0.686	36	34

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

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing Weekend**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
		FILENAME : J8_TLWR_MT.xlsx	Checked By:	SLN	Oct-25
J8 Tung Lo Wan Road / Moreton Terrace			Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	3
Cycle time	C =	95 sec
Sum(y)	Y =	0.458
Loss time	L =	12 sec
Total Flow	=	2581 pcu
Co = (1.5*L+5)/(1-Y)	=	42.4 sec
Cm = L/(1-Y)	=	22.1 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	76.8 %
Cp = 0.9*L/(0.9-Y)	=	24.4 sec
Ymax = 1-L/C	=	0.874
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**72 %**



Stage 1	G= 39	Stage 2	G= 24	Stage 3	G= 18	Stage 4	G=	Stage 5	G=
	Int = 7		Int =		Int = 7		Int =		Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2,3		8	8		41	8
P2	3		9	8		17	8

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							12					
8	2	3.00	2			N	3970		530		530	0.00	3970							3970	0.134			24	24	0.524	30	29
10	1	3.70	1	8		N	1985	366			366	1.00	1672							1672	0.219			40	40	0.524	30	21
9,10	1	3.50	1	13			2105	159		255	414	1.00	1887							1887	0.219	0.219		40	40	0.524	36	21
7	3	5.00	1	27		N	2115			77	77	1.00	2004							2004	0.038			7	19	0.524	12	50
4	2,3	3.70	1			N	1985		474		474	0.00	1985							1985	0.239	0.239		43	43	0.524	36	19
3,4	2,3	3.00	1	8	O		2055			230	230	1.00	1537							1537	0.150			27	43	0.524	24	30
5,6	2,3	5.00	1	13		N	2115	168	77		245	0.69	1960							1960	0.125			23	43	0.524	24	32
1,2	1	3.50	1	8		N	1965	143		102	245	1.00	1655							1655	0.148			27	40	0.524	24	30

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

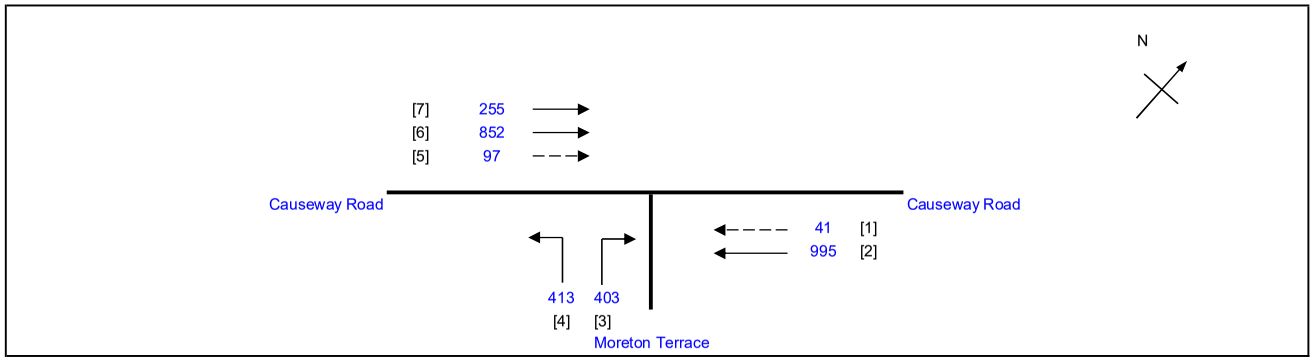
	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

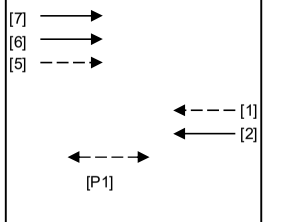
J9 Moreton Terrace / Causeway Road

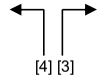
2025 Existing AM

PROJECT NO.: 40920
FILENAME : J9_MT_CR.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	95 sec
Sum(y)	Y =	0.554
Loss time	L =	10 sec
Total Flow	=	3056 pcu
Co = (1.5*L+5)/(1-Y)	=	44.8 sec
Cm = L/(1-Y)	=	22.4 sec
Yult	=	0.825
R.C.ult = (Yult-Y)/Y*100%	=	49.0 %
Cp = 0.9*L/(0.9-Y)	=	26.0 sec
Ymax = 1-L/C	=	0.895
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**45 %**





Stage 1 G= 61 Int = 5

Stage 2 G= 22 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		8	10		56	10

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
2	1	3.70	1			N	1985		268		268	0.00	1985			0.4	-1191			794	0.338			52	62	0.619	18	19
2	1	4.00	1				2155		727		727	0.00	2155							2155	0.337			52	62	0.619	48	16
1	1	3.00	1			N	1915		41		41	0.00	1915							1915	0.021			3	62	0.619	6	80
4	2	3.50	1	9		N	1965	251			251	1.00	1684							1684	0.149	0.149		23	23	0.619	30	35
3,4	2	3.30	1	15			2085	162		119	281	1.00	1895							1895	0.148			23	23	0.619	30	35
3	2	3.50	1	15			2105			284	284	1.00	1914							1914	0.148			23	23	0.619	30	35
7	1	3.50	1			N	1965		255		255	0.00	1965							1965	0.130			20	62	0.619	30	37
6	1	3.50	1				2105		852		852	0.00	2105							2105	0.405	0.405		62	62	0.619	42	11
5	1	3.00	1				2055		97		97	0.00	2055							2055	0.047			7	62	0.619	12	55

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

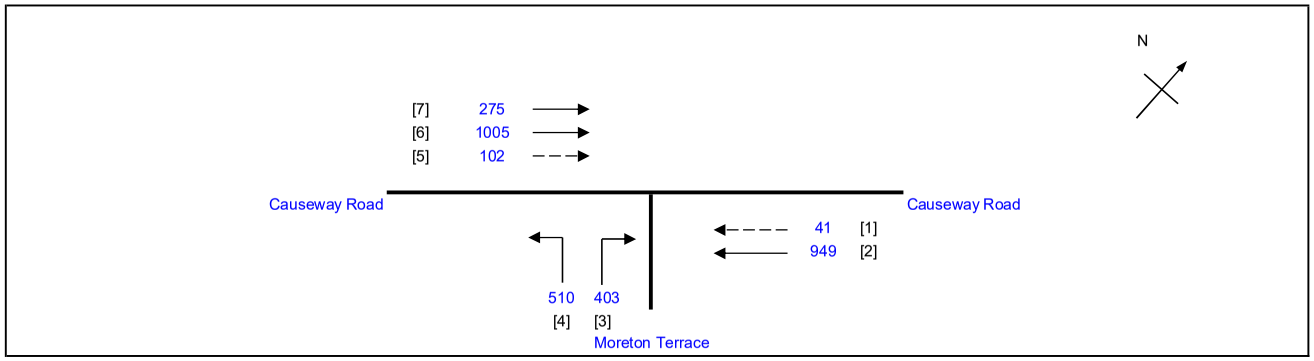
	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

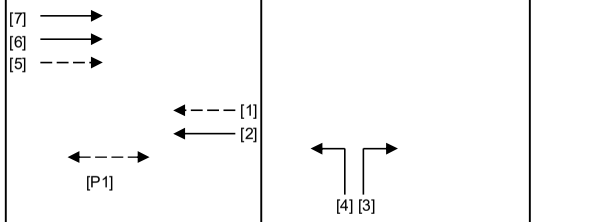
J9 Moreton Terrace / Causeway Road

2025 Existing PM

PROJECT NO.: 40920
FILENAME : J9_MT_CR.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	95 sec
Sum(y)	Y =	0.644
Loss time	L =	10 sec
Total Flow	=	3285 pcu
Co = (1.5*L+5)/(1-Y)	=	56.1 sec
Cm = L/(1-Y)	=	28.1 sec
Yult	=	0.825
R.C.ult = (Yult-Y)/Y*100%	=	28.2 %
Cp = 0.9*L/(0.9-Y)	=	35.1 sec
Ymax = 1-L/C	=	0.895
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**25 %**



Stage 1 G= 62 Int = 5
Stage 2 G= 21 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		8	10		57	10

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
2	1	3.70	1			N	1985		256		256	0.00	1985			0.4	-1191			794	0.322			43	63	0.719	24	31
2	1	4.00	1				2155		693		693	0.00	2155							2155	0.322			42	63	0.719	60	24
1	1	3.00	1			N	1915		41		41	0.00	1915							1915	0.021			3	63	0.719	6	114
4	2	3.50	1	9		N	1965	280			280	1.00	1684							1684	0.166	0.166		22	22	0.719	36	41
3,4	2	3.30	1	15			2085	230		85	315	1.00	1895							1895	0.166			22	22	0.719	36	40
3	2	3.50	1	15			2105			318	318	1.00	1914							1914	0.166			22	22	0.719	36	40
7	1	3.50	1			N	1965		275		275	0.00	1965							1965	0.140			18	63	0.719	36	43
6	1	3.50	1				2105		1005		1005	0.00	2105							2105	0.477	0.477		63	63	0.719	48	12
5	1	3.00	1				2055		102		102	0.00	2055							2055	0.050			7	63	0.719	18	68

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

LLA CONSULTANCY LIMITED

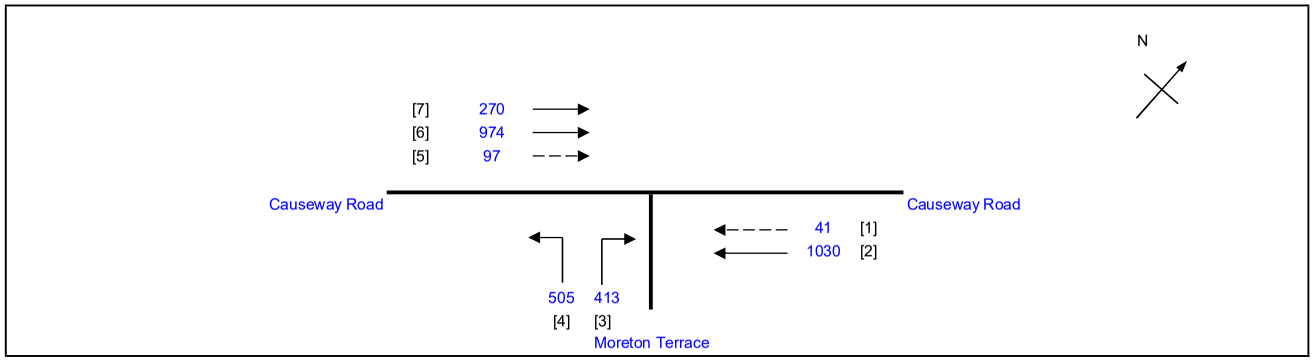
TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
FILENAME : J9_MT_CR.xlsx	Checked By:	SLN	Oct-25
	Reviewed By:	SLN	Oct-25

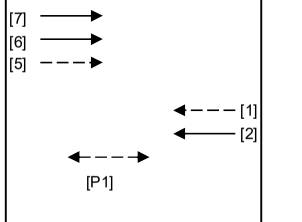
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

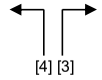
J9 Moreton Terrace / Causeway Road

2025 Existing Weekend



No. of stages per cycle	N =	2
Cycle time	C =	95 sec
Sum(y)	Y =	0.630
Loss time	L =	10 sec
Total Flow	=	3330 pcu
Co = (1.5*L+5)/(1-Y)	=	54.0 sec
Cm = L/(1-Y)	=	27.0 sec
Yult	=	0.825
R.C.ult = (Yult-Y)/Y*100%	=	31.0 %
Cp = 0.9*L/(0.9-Y)	=	33.3 sec
Ymax = 1-L/C	=	0.895
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**28 %**





Stage 1 G= 61 Int = 5

Stage 2 G= 22 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		8	10		56	10

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
2	1	3.70	1			N	1985		277		277	0.00	1985			0.4	-1191			794	0.349			47	62	0.704	18	27
2	1	4.00	1				2155		753		753	0.00	2155							2155	0.349			47	62	0.704	60	20
1	1	3.00	1			N	1915		41		41	0.00	1915							1915	0.021			3	62	0.704	6	107
4	2	3.50	1	9		N	1965	281			281	1.00	1684							1684	0.167			23	23	0.704	30	40
3,4	2	3.30	1	15			2085	224		93	317	1.00	1895							1895	0.167	0.167		23	23	0.704	36	38
3	2	3.50	1	15			2105			320	320	1.00	1914							1914	0.167			23	23	0.704	36	38
7	1	3.50	1			N	1965		270		270	0.00	1965							1965	0.137			19	62	0.704	36	42
6	1	3.50	1				2105		974		974	0.00	2105							2105	0.463	0.463		62	62	0.704	48	12
5	1	3.00	1				2055		97		97	0.00	2055							2055	0.047			6	62	0.704	18	67

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

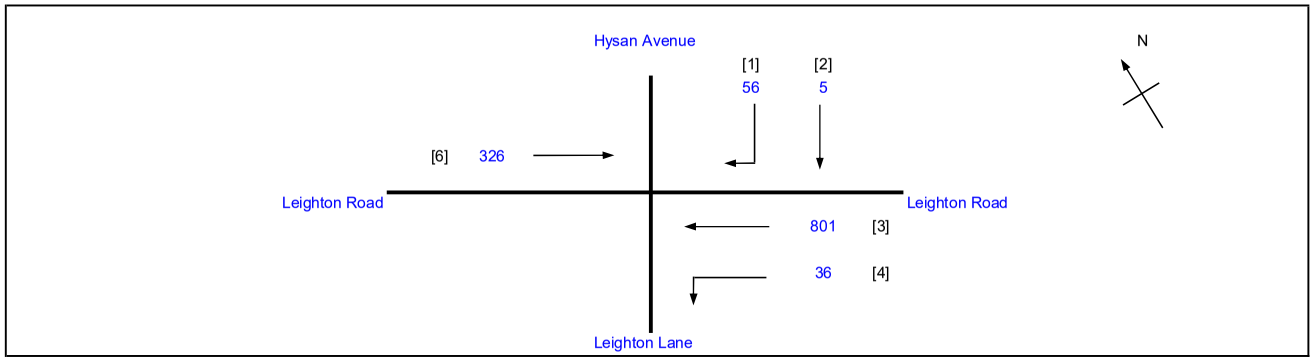
		INITIALS	DATE
Prepared By:		SKL	Oct-25
Checked By:		SLN	Oct-25
Reviewed By:		SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

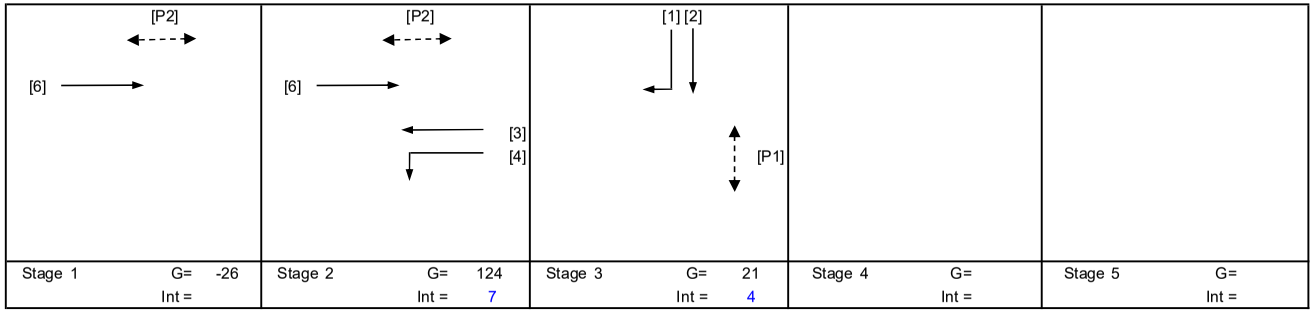
J10 Leighton Road / Hysan Avenue / Leighton Lane

2025 Existing AM

PROJECT NO.: 40920
FILENAME : J10_LR_HA_LL.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.166
Loss time		L =	31 sec
Total Flow		=	1224 pcu
Co	= (1.5*L+5)/(1-Y)	=	61.7 sec
Cm	= L/(1-Y)	=	37.2 sec
Yult		=	0.668
R.C.ult	= (Yult-Y)/Y*100%	=	302.3 %
Cp	= 0.9*L/(0.9-Y)	=	38.0 sec
Ymax	= 1-L/C	=	0.762
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**313 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		11	10		15	10
P2	1,2		6	7		98	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
3,4	2	3.50	1	5		N	1965	36	365		401	0.09	1913							1913	0.210			125	125	0.218	0	0
3	2	3.20	1				2075		436		436	0.00	2075							2075	0.210			125	125	0.218	0	0
6	1,2	3.50	1			N	1965		326		326	0.00	1965							1965	0.166	0.166		99	99	0.218	12	4
1,2	3	3.30	1	17		N	1945		5	27	32	0.84	1810							1810	0.018			11	21	0.218	6	53
1	3	3.00	1	10	O		2055			29	29	1.00	1587							1587	0.018			11	21	0.218	0	53
PED	3																						21					

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Prepared By:		SKL	Oct-25
Checked By:		SLN	Oct-25
Reviewed By:		SLN	Oct-25

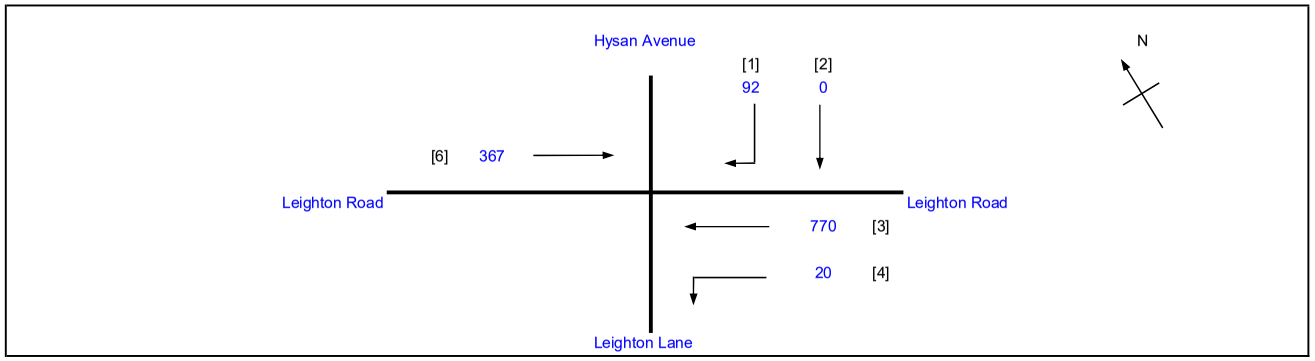
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J10 Leighton Road / Hysan Avenue / Leighton Lane

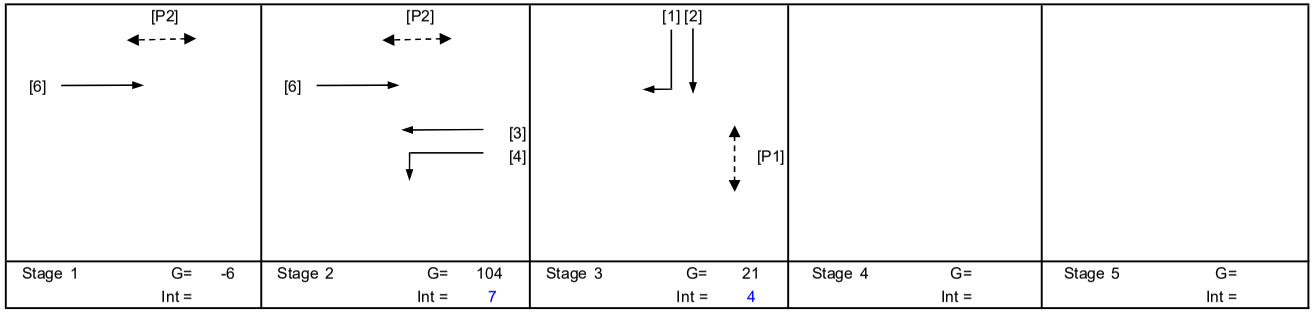
2025 Existing PM

PROJECT NO.: 40920

FILENAME : J10_LR_HA_LL.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.187
Loss time		L =	31 sec
Total Flow		=	1249 pcu
Co	= (1.5*L+5)/(1-Y)	=	63.3 sec
Cm	= L/(1-Y)	=	38.1 sec
Yult		=	0.668
R.C.ult	= (Yult-Y)/Y*100%	=	257.4 %
Cp	= 0.9*L/(0.9-Y)	=	39.1 sec
Ymax	= 1-L/C	=	0.762
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**267 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		11	10		15	10
P2	1,2		6	7		98	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
3,4	2	3.50	1	5		N	1965	20	362		382	0.05	1935							1935	0.197			105	105	0.245	12	3
3	2	3.20	1				2075		408		408	0.00	2075							2075	0.197			104	105	0.245	12	3
6	1,2	3.50	1			N	1965		367		367	0.00	1965							1965	0.187	0.187		99	99	0.245	18	4
1,2	3	3.30	1	17		N	1945		0	48	48	1.00	1787							1787	0.027			14	21	0.245	6	50
1	3	3.00	1	10	O		2055			44	44	1.00	1587							1587	0.028			15	21	0.245	6	50
PED	3																						21					

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

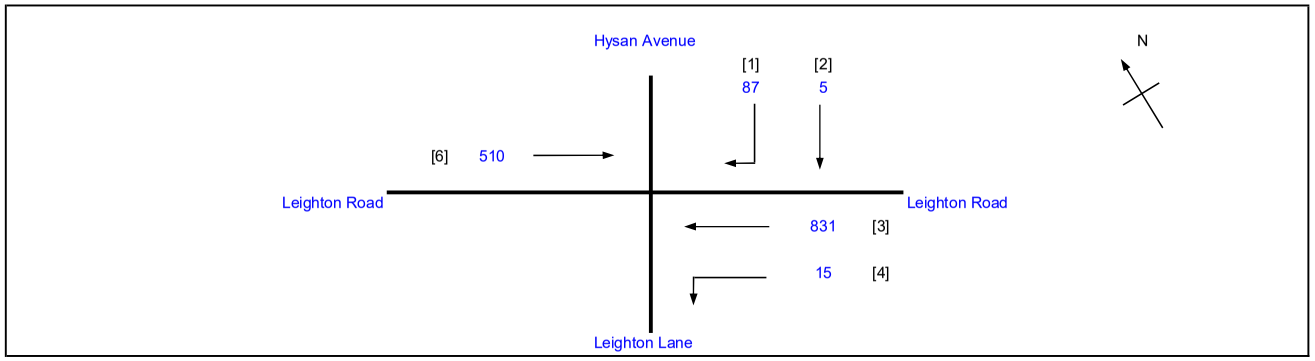
	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

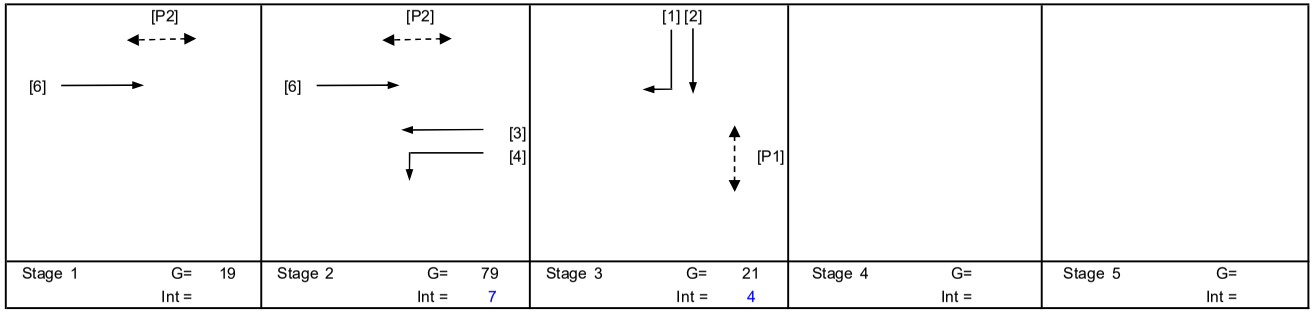
J10 Leighton Road / Hysan Avenue / Leighton Lane

2025 Existing Weekend

PROJECT NO.: 40920
FILENAME : J10_LR_HA_LL.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.260
Loss time		L =	31 sec
Total Flow		=	1448 pcu
Co	= (1.5*L+5)/(1-Y)	=	69.6 sec
Cm	= L/(1-Y)	=	41.9 sec
Yult		=	0.668
R.C.ult	= (Yult-Y)/Y*100%	=	157.2 %
Cp	= 0.9*L/(0.9-Y)	=	43.6 sec
Ymax	= 1-L/C	=	0.762
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**164 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		11	10		15	10
P2	1,2		6	7		98	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
3,4	2	3.50	1	5		N	1965	15	395		410	0.04	1944							1944	0.211			80	80	0.341	30	11
3	2	3.20	1				2075		436		436	0.00	2075							2075	0.210			80	80	0.341	36	12
6	1,2	3.50	1			N	1965		510		510	0.00	1965							1965	0.260	0.260		99	99	0.341	24	5
1,2	3	3.30	1	17		N	1945		5	44	49	0.90	1802							1802	0.027			10	21	0.341	6	57
1	3	3.00	1	10	O		2055			43	43	1.00	1587							1587	0.027			10	21	0.341	6	58
PED	3																						21					

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

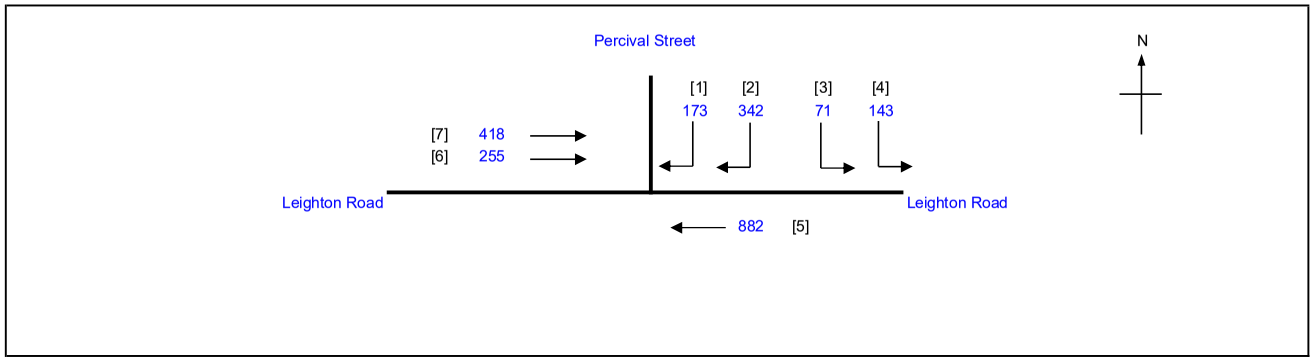
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J11 Leighton Road / Percival Street / Hysan Avenue

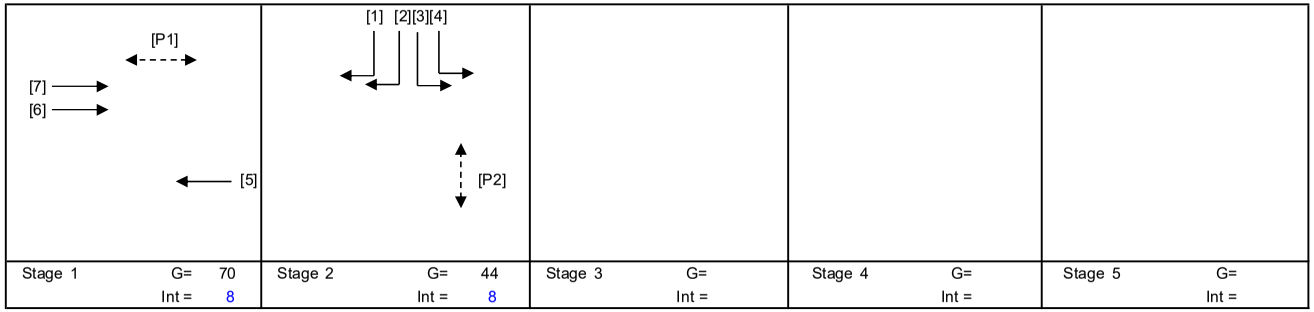
2025 Existing AM

PROJECT NO.: 40920

FILENAME : J11_LR_PS_HA.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.477
Loss time	L =	14 sec
Total Flow	=	2284 pcu
Co = (1.5*L+5)/(1-Y)	=	49.7 sec
Cm = L/(1-Y)	=	26.8 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	66.7 %
Cp = 0.9*L/(0.9-Y)	=	29.8 sec
Ymax = 1-L/C	=	0.892
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**68 %**



Stage 1	G= 70	Int = 8
Stage 2	G= 44	Int = 8
Stage 3	G=	Int =
Stage 4	G=	Int =
Stage 5	G=	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		16	7		71	7
P2	2		5	12		40	12

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							14					
5	1	3.50	1			N	1965		431		431	0.00	1965			0.8	-393			1572	0.274			67	71	0.534	42	21
5	1	3.00	1				2055		451		451	0.00	2055			0.8	-411			1644	0.274			67	71	0.534	42	21
6,7	1	2.50	1			N	1865		324		324	0.00	1865			0.6	-746			1119	0.290			70	71	0.534	30	20
6,7	1	2.50	1				2005		349		349	0.00	2005			0.6	-802			1203	0.290	0.290		71	71	0.534	30	20
3,4	2	4.00	1	25		N	2015	214			214	1.00	1901			0.7	-570			1331	0.161			39	45	0.534	30	39
1,2	2	5.00	1	25		N	2115			298	298	1.00	1995			0.8	-399			1596	0.187	0.187		45	45	0.534	42	34
1,2	2	3.30	1	20			2085			217	217	1.00	1940			0.6	-776			1164	0.187			45	45	0.534	30	35

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

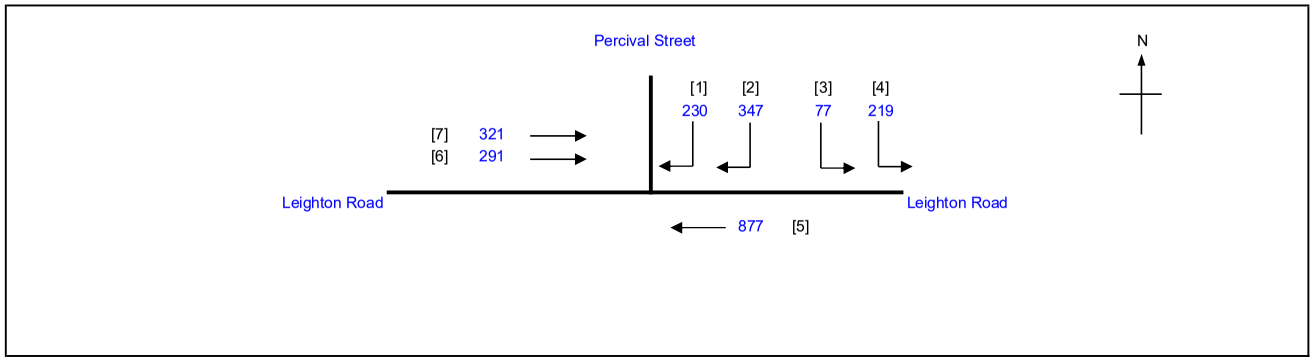
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J11 Leighton Road / Percival Street / Hysan Avenue

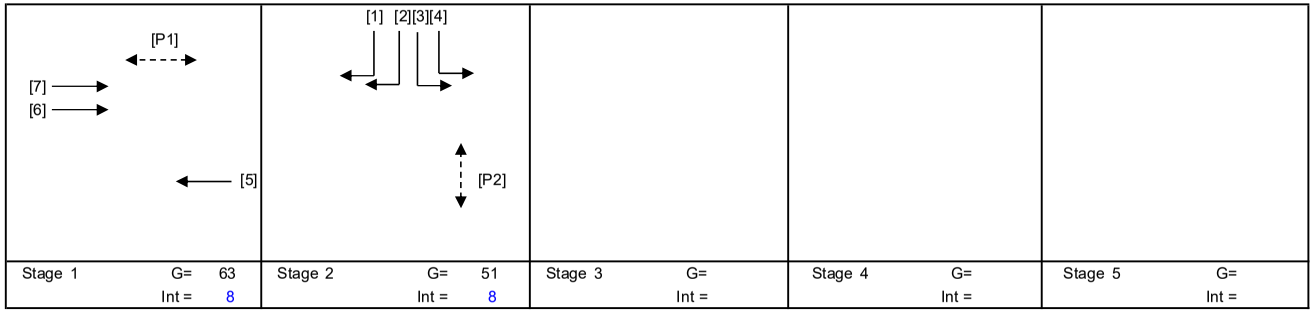
2025 Existing PM

PROJECT NO.: 40920

FILENAME : J11_LR_PS_HA.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.495
Loss time	L =	14 sec
Total Flow	=	2362 pcu
Co = (1.5*L+5)/(1-Y)	=	51.5 sec
Cm = L/(1-Y)	=	27.7 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	60.5 %
Cp = 0.9*L/(0.9-Y)	=	31.1 sec
Ymax = 1-L/C	=	0.892
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**62 %**



Stage 1	G= 63	Int = 8
Stage 2	G= 51	Int = 8
Stage 3	G=	Int =
Stage 4	G=	Int =
Stage 5	G=	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		16	7		64	7
P2	2		5	12		47	12

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							14					
5	1	3.50	1			N	1965		429		429	0.00	1965			0.8	-393			1572	0.273	0.273		64	64	0.555	42	23
5	1	3.00	1				2055		448		448	0.00	2055			0.8	-411			1644	0.273			64	64	0.555	48	23
6,7	1	2.50	1			N	1865		295		295	0.00	1865			0.6	-746			1119	0.264			62	64	0.555	30	26
6,7	1	2.50	1				2005		317		317	0.00	2005			0.6	-802			1203	0.264			62	64	0.555	36	25
3,4	2	4.00	1	25		N	2015	296			296	1.00	1901			0.7	-570			1331	0.222	0.222		52	52	0.555	36	31
1,2	2	5.00	1	25		N	2115			334	334	1.00	1995			0.8	-399			1596	0.209			49	52	0.555	42	32
1,2	2	3.30	1	20			2085			243	243	1.00	1940			0.6	-776			1164	0.209			49	52	0.555	30	33

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

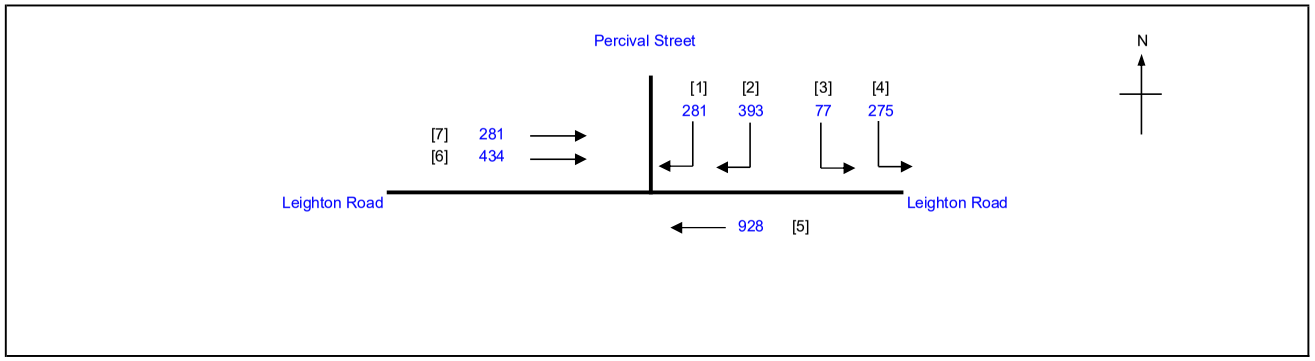
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J11 Leighton Road / Percival Street / Hysan Avenue

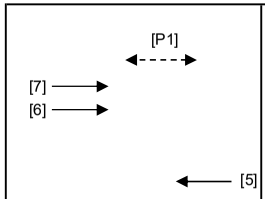
2025 Existing Weekend

PROJECT NO.: 40920

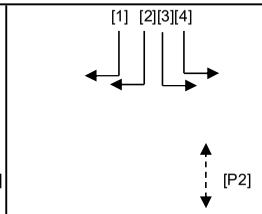
FILENAME : J11_LR_PS_HA.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.573
Loss time	L =	14 sec
Total Flow	=	2669 pcu
Co = (1.5*L+5)/(1-Y)	=	60.9 sec
Cm = L/(1-Y)	=	32.8 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	38.8 %
Cp = 0.9*L/(0.9-Y)	=	38.5 sec
Ymax = 1-L/C	=	0.892
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**40 %**



Stage 1 G= 61 Int = 8



Stage 2 G= 53 Int = 8

Stage 3 G= Int =

Stage 4 G= Int =

Stage 5 G= Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		16	7		62	7
P2	2		5	12		49	12

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							14					
5	1	3.50	1			N	1965		454		454	0.00	1965			0.8	-393			1572	0.289			58	62	0.642	54	29
5	1	3.00	1				2055		474		474	0.00	2055			0.8	-411			1644	0.288			58	62	0.642	54	29
6,7	1	2.50	1			N	1865		345		345	0.00	1865			0.6	-746			1119	0.308	0.308		62	62	0.642	36	28
6,7	1	2.50	1				2005		370		370	0.00	2005			0.6	-802			1203	0.308			62	62	0.642	36	28
3,4	2	4.00	1	25		N	2015	352			352	1.00	1901			0.7	-570			1331	0.264	0.264		54	54	0.642	42	33
1,2	2	5.00	1	25		N	2115			390	390	1.00	1995			0.8	-399			1596	0.244			49	54	0.642	48	34
1,2	2	3.30	1	20			2085			284	284	1.00	1940			0.6	-776			1164	0.244			49	54	0.642	36	36

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

APPENDIX C

Proposed Road Schemes

at Adjacent Junctions

HOI PING ROAD

SUNNING ROAD

LEIGHTON ROAD

CAROLINE HILL ROAD

Caroline Hill Road
加路連山道

649/100mm/3200×700(H)
H/WA/Lei/705

24-HR COVERED PEDESTRIAN WALKWAY

TO 1/F

PEDESTRIAN LINK TO B1/F

COMMERCIAL / E&M +8.25

TO LOADING / & LIGHT LAYE

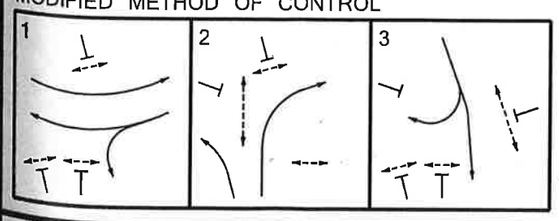
DROP-OFF

PRIVATE L/UL

TO CARPARK

Except goods vehicles loading/unloading
貨車上落貨除外

MODIFIED METHOD OF CONTROL



Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
B	MINOR AMENDMENT	CHC	14APR22
A	TD'S COMMENTS INCORPORATED	CHC	25FEB22

CHK50603110/TIA/F61-B.DWG/KCM/14APR22

Project Title

PROPOSED COMMERCIAL DEVELOPMENT ON
INLAND LOT NO. 8945, CAUSEWAY BAY, HONG KONG
TRAFFIC REVIEW REPORT

Drawing Title

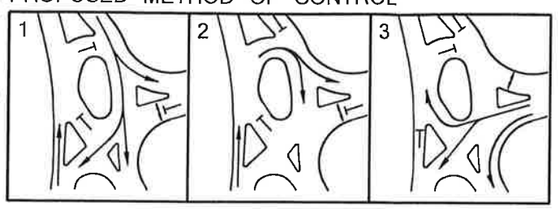
FUTURE JUNCTION LAYOUT OF LEIGHTON ROAD / CAROLINE HILL ROAD (WEST) (J5)

Designed	Checked	Scale	Date	Drawing No.	Rev.
TCW	CHC	1:500(A3)	DEC 2021	6.1	B

SYSTRA MVA

Original Size : A3

PROPOSED METHOD OF CONTROL



NOTE:

THE LAYOUT, MOC, ROAD MARKING AND SIGNAGE ARRANGEMENTS ARE SUBJECT TO FURTHER REFINEMENT/ADJUSTMENT IN THE DETAIL DESIGN STAGE

Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
B	MINOR AMENDMENT	CHC	12APR22
A	TD'S COMMENTS INCORPORATED	CHC	25FEB22

Project Title

PROPOSED COMMERCIAL DEVELOPMENT ON INLAND LOT NO. 8945, CAUSEWAY BAY, HONG KONG TRAFFIC REVIEW REPORT

Drawing Title

PROPOSED LAYOUT AND ARRANGEMENT FOR JUNCTION OF CAROLINE HILL ROAD (WEST) / LINK ROAD / NEW ACCESS ROAD (J6)

Designed	Checked	Scale	Date	Drawing No.	Rev.
TCW	CHC	1:500(A3)	DEC 2021	6.2	B

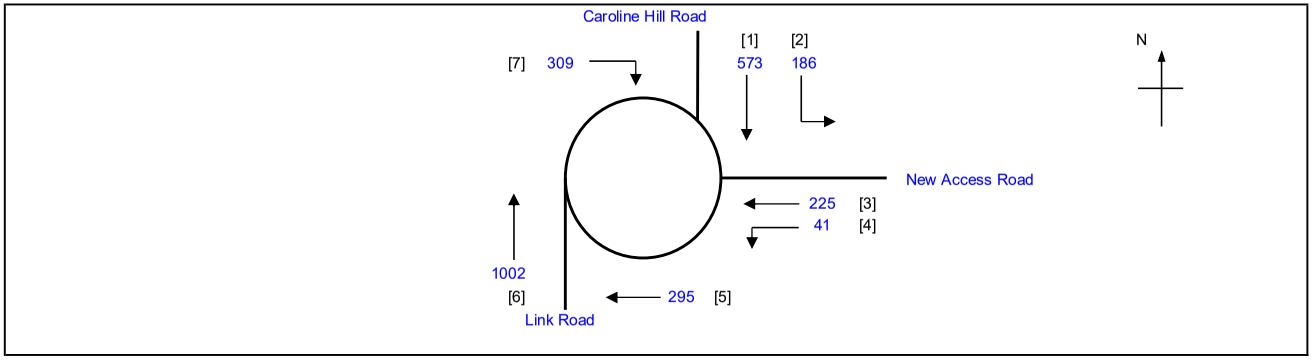
CHK50603110/TIA/F62-B.DWG/KCM/12APR22

APPENDIX D

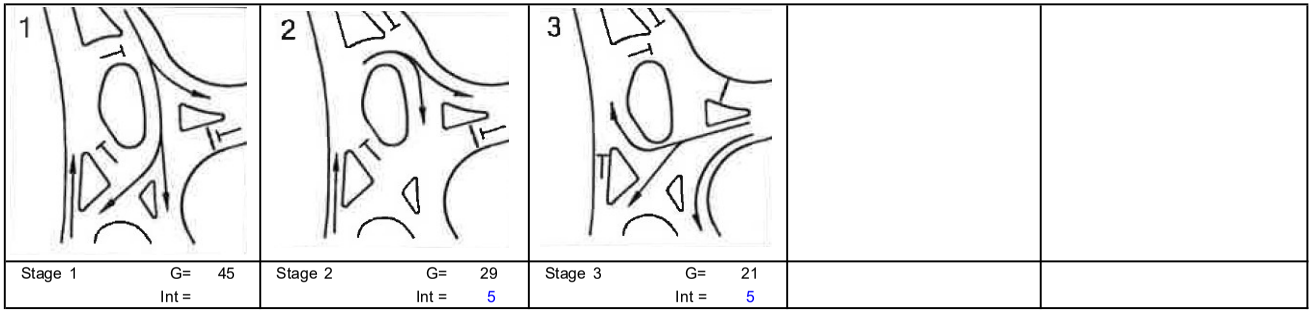
Detail Calculation Sheets

- Reference & Design Scenarios

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference AM**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J1 Caroline Hill Road (West) / Link Road		FILENAME : J1_CHRW_LR_IMP.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	3
Cycle time	C =	105 sec
Sum(y)	Y =	0.612
Loss time	L =	8 sec
Total Flow	=	2631 pcu
Co = (1.5*L+5)/(1-Y)	=	43.8 sec
Cm = L/(1-Y)	=	20.6 sec
Yult	=	0.840
R.C.ult = (Yult-Y)/Y*100%	=	37.2 %
Cp = 0.9*L/(0.9-Y)	=	25.0 sec
Ymax = 1-L/C	=	0.924
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**36 %**

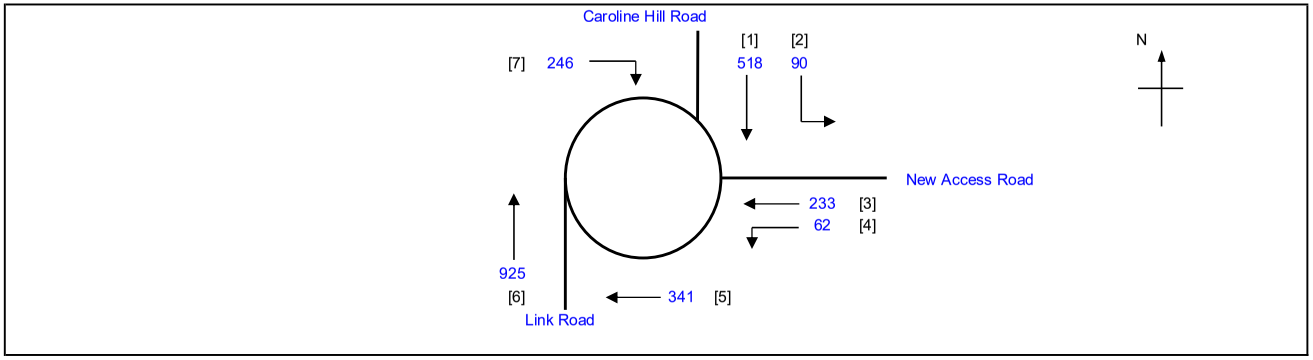


Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		11	5		21	5
P2	1,2		9	5		74	5

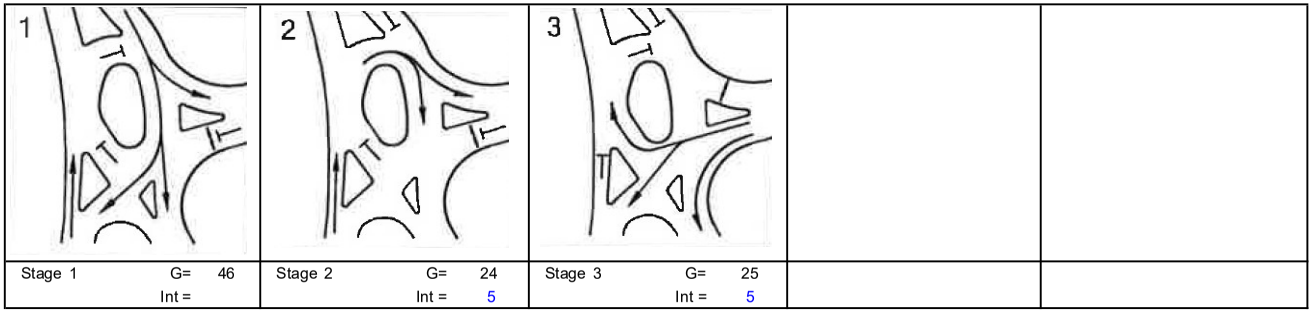
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							8					
6	1,2	3.65	1				2120		1002		1002	0.00	2120							2120	0.473	0.473		75	75	0.663	48	9
7	2	5.00	1	5		N	2115			309	309	1.00	1627							1627	0.190			30	30	0.663	36	37
3	3	3.65	1				2120		225		225	0.00	2120							2120	0.106			17	22	0.663	30	47
4	3	3.65	1	15		N	1980	41			41	1.00	1800							1800	0.023			4	22	0.663	6	97
1,2	1	3.65	1	20		N	1980	186	174		360	0.52	1906							1906	0.189			30	45	0.663	42	36
1	1	3.65	1				2120		399		399	0.00	2120							2120	0.188			30	45	0.663	48	35
5	3	5.00	1			N	2115		295		295	0.00	2115							2115	0.139	0.139		22	22	0.663	36	41

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

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference PM**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J1 Caroline Hill Road (West) / Link Road		FILENAME : J1_CHRW_LR_IMP.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



No. of stages per cycle		N =	3
Cycle time		C =	105 sec
Sum(y)		Y =	0.598
Loss time		L =	8 sec
Total Flow		=	2415 pcu
Co	= (1.5*L+5)/(1-Y)	=	42.2 sec
Cm	= L/(1-Y)	=	19.9 sec
Yult		=	0.840
R.C.ult	= (Yult-Y)/Y*100%	=	40.6 %
Cp	= 0.9*L/(0.9-Y)	=	23.8 sec
Ymax	= 1-L/C	=	0.924
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**39 %**

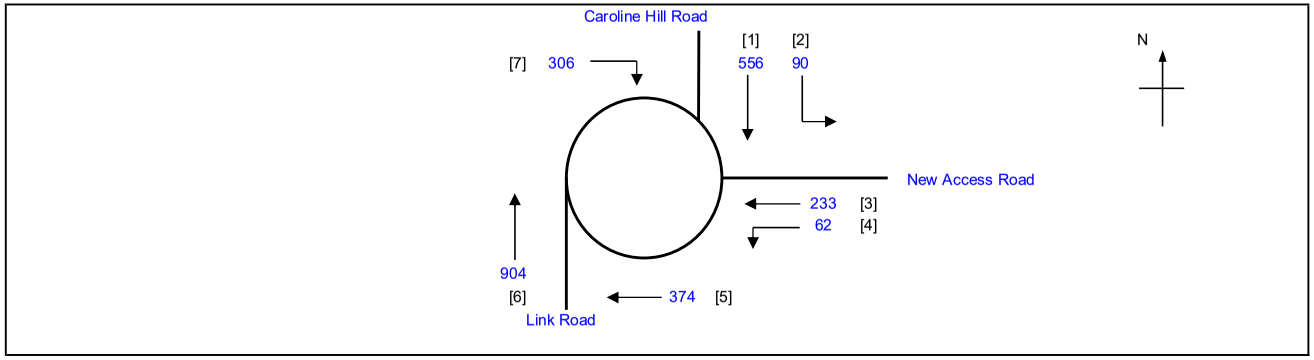


Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		11	5		25	5
P2	1,2		9	5		70	5

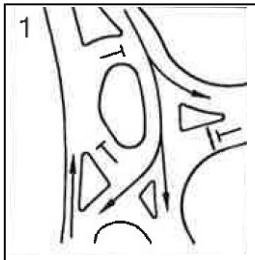
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							8					
6	1,2	3.65	1				2120		925		925	0.00	2120							2120	0.436	0.436		71	71	0.647	48	11
7	2	5.00	1	5		N	2115			246	246	1.00	1627							1627	0.151			25	25	0.647	30	40
3	3	3.65	1				2120		233		233	0.00	2120							2120	0.110			18	26	0.647	30	45
4	3	3.65	1	15		N	1980	62			62	1.00	1800							1800	0.034			6	26	0.647	12	75
1,2	1	3.65	1	20		N	1980	90	200		290	0.31	1935							1935	0.150			24	46	0.647	36	39
1	1	3.65	1				2120		318		318	0.00	2120							2120	0.150			24	46	0.647	42	39
5	3	5.00	1			N	2115		341		341	0.00	2115							2115	0.161	0.161		26	26	0.647	42	37

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

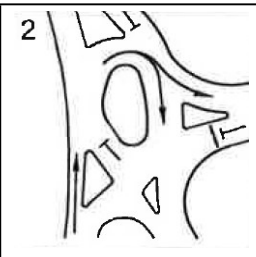
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference Weekend**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J1 Caroline Hill Road (West) / Link Road		FILENAME : J1_CHRW_LR_IMP.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



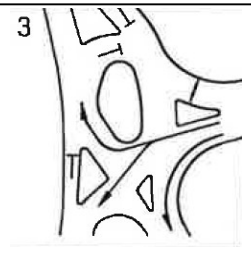
No. of stages per cycle	N =	3
Cycle time	C =	105 sec
Sum(y)	Y =	0.603
Loss time	L =	8 sec
Total Flow	=	2525 pcu
Co = (1.5*L+5)/(1-Y)	=	42.8 sec
Cm = L/(1-Y)	=	20.2 sec
Yult	=	0.840
R.C.ult = (Yult-Y)/Y*100%	=	39.2 %
Cp = 0.9*L/(0.9-Y)	=	24.3 sec
Ymax = 1-L/C	=	0.924
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**38 %**



Stage 1 G= 38
Int =



Stage 2 G= 29
Int = 5



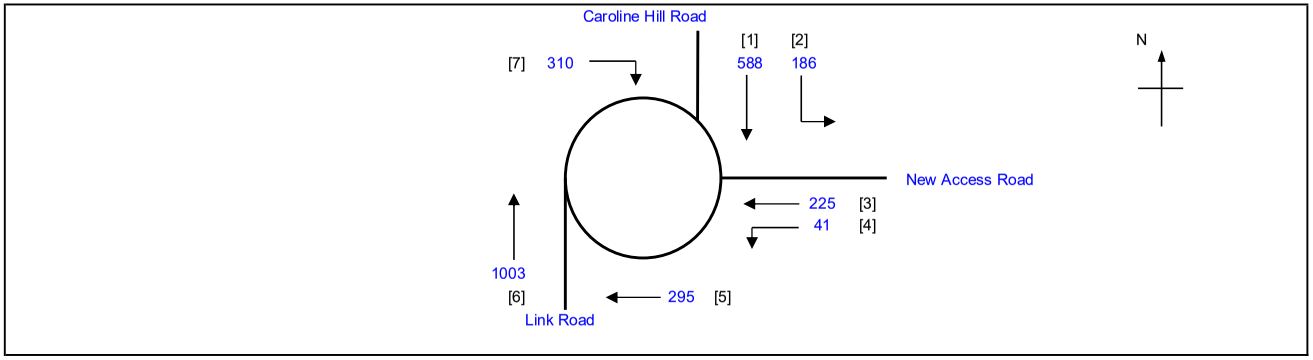
Stage 3 G= 27
Int = 5

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		11	5		27	5
P2	1,2		9	5		68	5

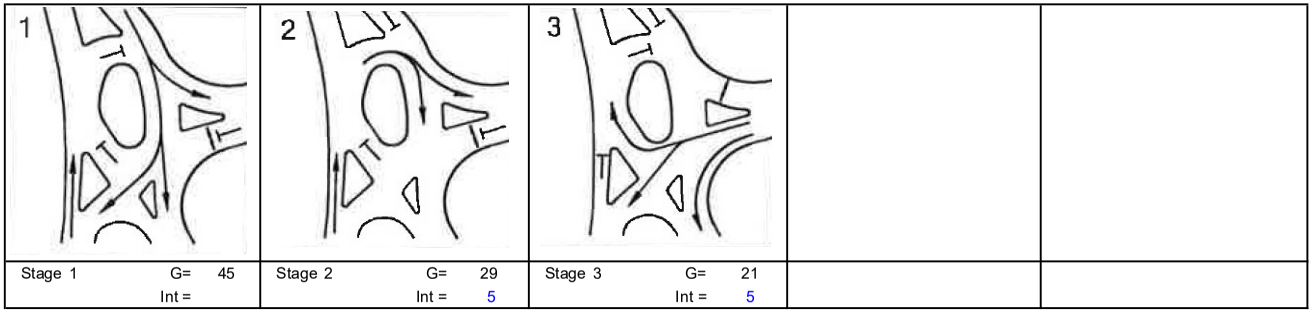
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							8					
6	1,2	3.65	1				2120		904		904	0.00	2120							2120	0.426	0.426		69	69	0.653	54	12
7	2	5.00	1	5		N	2115			306	306	1.00	1627							1627	0.188			30	30	0.653	36	36
3	3	3.65	1				2120		233		233	0.00	2120							2120	0.110			18	28	0.653	30	45
4	3	3.65	1	15		N	1980	62			62	1.00	1800							1800	0.034			6	28	0.653	12	76
1,2	1	3.65	1	20		N	1980	90	219		309	0.29	1938							1938	0.159			26	38	0.653	36	39
1	1	3.65	1				2120		337		337	0.00	2120							2120	0.159			26	38	0.653	42	38
5	3	5.00	1			N	2115		374		374	0.00	2115							2115	0.177	0.177		28	28	0.653	42	36

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

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design AM**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J1 Caroline Hill Road (West) / Link Road		FILENAME : J1_CHRW_LR_IMP.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	3
Cycle time	C =	105 sec
Sum(y)	Y =	0.613
Loss time	L =	8 sec
Total Flow	=	2648 pcu
Co = (1.5*L+5)/(1-Y)	=	43.9 sec
Cm = L/(1-Y)	=	20.7 sec
Yult	=	0.840
R.C.ult = (Yult-Y)/Y*100%	=	37.1 %
Cp = 0.9*L/(0.9-Y)	=	25.1 sec
Ymax = 1-L/C	=	0.924
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**36 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		11	5		21	5
P2	1,2		9	5		74	5

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							8					
6	1,2	3.65	1				2120		1003		1003	0.00	2120							2120	0.473	0.473		75	75	0.663	48	9
7	2	5.00	1	5		N	2115			310	310	1.00	1627							1627	0.191			30	30	0.663	36	36
3	3	3.65	1				2120		225		225	0.00	2120							2120	0.106			17	22	0.663	30	47
4	3	3.65	1	15		N	1980	41			41	1.00	1800							1800	0.023			4	22	0.663	6	97
1,2	1	3.65	1	20		N	1980	186	181		367	0.51	1907							1907	0.192			30	45	0.663	42	35
1	1	3.65	1				2120		407		407	0.00	2120							2120	0.192			30	45	0.663	48	35
5	3	5.00	1			N	2115		295		295	0.00	2115							2115	0.139	0.139		22	22	0.663	36	41

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

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design PM**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J1 Caroline Hill Road (West) / Link Road		FILENAME : J1_CHRW_LR_IMP.xlsx	Checked By:	SLN	Oct-25
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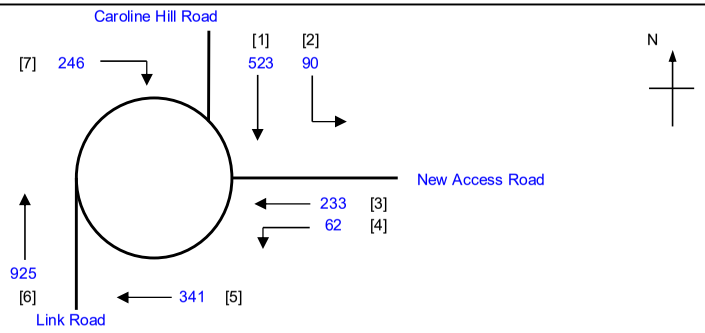
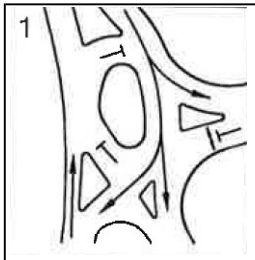
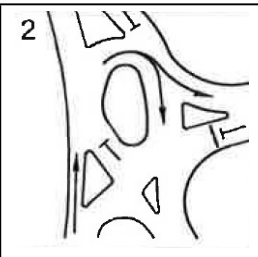


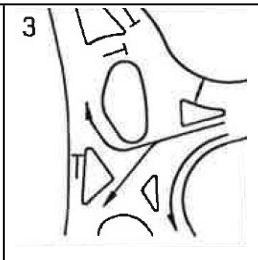
No. of stages per cycle		N =	3
Cycle time		C =	105 sec
Sum(y)		Y =	0.598
Loss time		L =	8 sec
Total Flow		=	2420 pcu
Co	= (1.5*L+5)/(1-Y)	=	42.2 sec
Cm	= L/(1-Y)	=	19.9 sec
Yult		=	0.840
R.C.ult	= (Yult-Y)/Y*100%	=	40.6 %
Cp	= 0.9*L/(0.9-Y)	=	23.8 sec
Ymax	= 1-L/C	=	0.924
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**39 %**



Stage 1 G= 46 Int =



Stage 2 G= 24 Int = 5



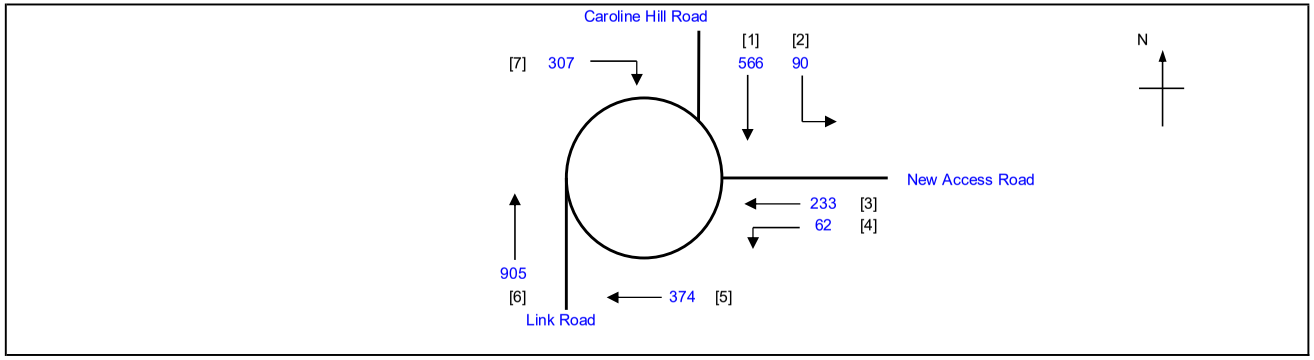
Stage 3 G= 25 Int = 5

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		11	5		25	5
P2	1,2		9	5		70	5

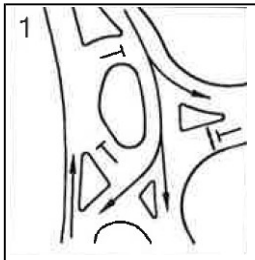
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							8					
6	1,2	3.65	1				2120		925		925	0.00	2120							2120	0.436	0.436		71	71	0.647	48	11
7	2	5.00	1	5		N	2115			246	246	1.00	1627							1627	0.151			25	25	0.647	30	40
3	3	3.65	1				2120		233		233	0.00	2120							2120	0.110			18	26	0.647	30	45
4	3	3.65	1	15		N	1980	62			62	1.00	1800							1800	0.034			6	26	0.647	12	75
1,2	1	3.65	1	20		N	1980	90	203		293	0.31	1935							1935	0.151			25	46	0.647	36	39
1	1	3.65	1				2120		320		320	0.00	2120							2120	0.151			25	46	0.647	42	39
5	3	5.00	1			N	2115		341		341	0.00	2115							2115	0.161	0.161		26	26	0.647	42	37

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

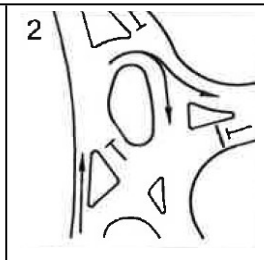
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design Weekend**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J1 Caroline Hill Road (West) / Link Road		FILENAME : J1_CHRW_LR_IMP.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



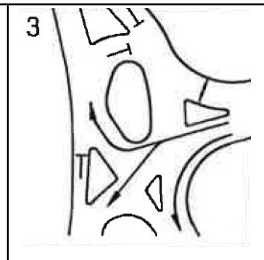
No. of stages per cycle		N =	3
Cycle time		C =	105 sec
Sum(y)		Y =	0.604
Loss time		L =	8 sec
Total Flow		=	2537 pcu
Co	= (1.5*L+5)/(1-Y)	=	42.9 sec
Cm	= L/(1-Y)	=	20.2 sec
Yult		=	0.840
R.C.ult	= (Yult-Y)/Y*100%	=	39.1 %
Cp	= 0.9*L/(0.9-Y)	=	24.3 sec
Ymax	= 1-L/C	=	0.924
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**38 %**



Stage 1 G= 38 Int =



Stage 2 G= 29 Int = 5



Stage 3 G= 27 Int = 5

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		11	5		27	5
P2	1,2		9	5		68	5

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							8					
6	1,2	3.65	1				2120		905		905	0.00	2120							2120	0.427	0.427		69	69	0.654	54	12
7	2	5.00	1	5		N	2115			307	307	1.00	1627							1627	0.189			30	30	0.654	36	36
3	3	3.65	1				2120		233		233	0.00	2120							2120	0.110			18	28	0.654	30	45
4	3	3.65	1	15		N	1980	62			62	1.00	1800							1800	0.034			6	28	0.654	12	76
1,2	1	3.65	1	20		N	1980	90	224		314	0.29	1938							1938	0.162			26	38	0.654	36	38
1	1	3.65	1				2120		342		342	0.00	2120							2120	0.161			26	38	0.654	42	38
5	3	5.00	1			N	2115		374		374	0.00	2115							2115	0.177	0.177		28	28	0.654	42	36

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

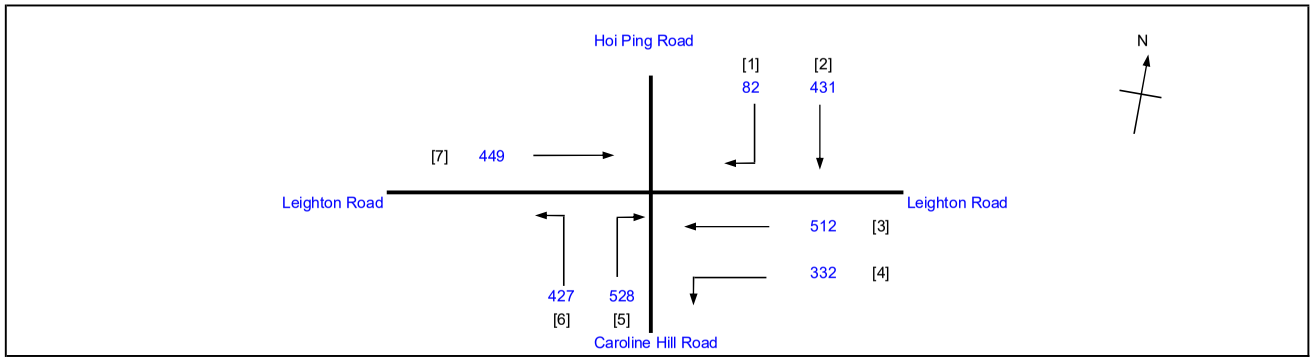
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J2 Leighton Road / Caroline Hill Road (West) / Hoi Ping Road

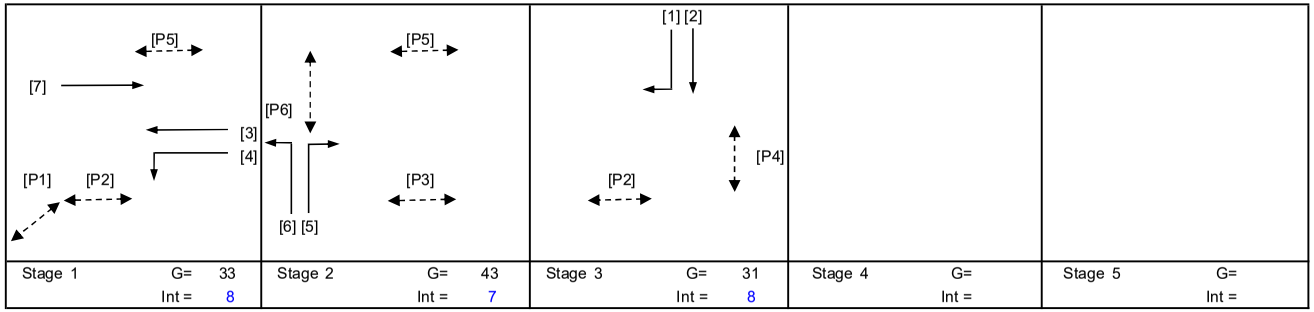
2033 Reference AM

PROJECT NO.: 40920

FILENAME : J2_LR_CHR_HPR.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.616
Loss time		L =	20 sec
Total Flow		=	2761 pcu
Co	= (1.5*L+5)/(1-Y)	=	91.2 sec
Cm	= L/(1-Y)	=	52.1 sec
Yult		=	0.750
R.C.ult	= (Yult-Y)/Y*100%	=	21.7 %
Cp	= 0.9*L/(0.9-Y)	=	63.4 sec
Ymax	= 1-L/C	=	0.846
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**24 %**



Pedestrian Phase	Stage	Width (m)	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	4.5	10	5	2	34	5
P2	1,3	4	14	5	0	75	5
P3	2	4.5	14	5	3	42	5
P4	3	15	10	7	4	28	7
P5	1,2	7	11	6	1	84	6
P6	2	15	10	7	4	39	7

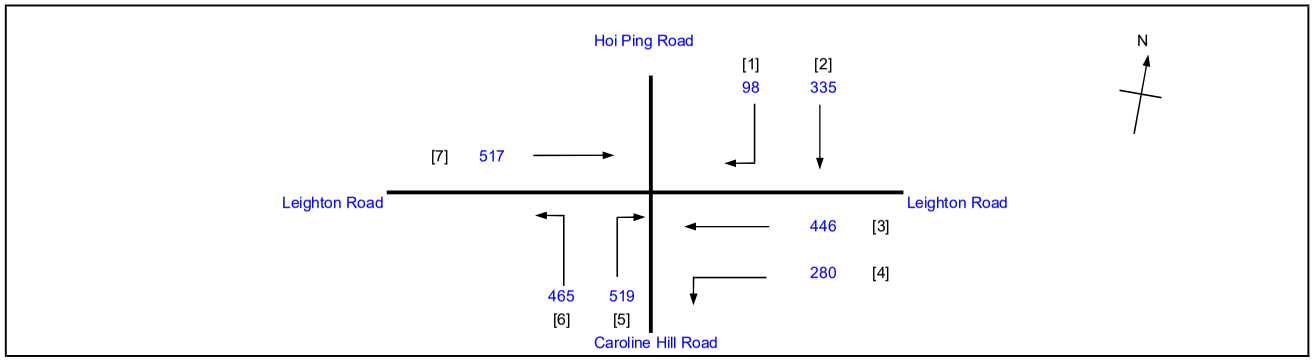
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
4	1	3.50	1	20		N	1965	175			175	1.00	1828			0.5	-914			914	0.191			34	34	0.728	30	57
3,4	1	3.50	1	25			2105	157	117		274	0.57	2035			0.7	-611			1424	0.192	0.192		34	34	0.728	42	51
3	1	3.00	1				2055		395		395	0.00	2055							2055	0.192			34	34	0.728	60	47
5,6	2	3.50	1	65		N	1965	427		46	473	1.00	1921							1921	0.246	0.246		44	44	0.728	66	41
5	2	3.50	1	20			2105			482	482	1.00	1958							1958	0.246			44	44	0.728	66	41
7	1	3.50	1			N	1965		144		144	0.00	1965			0.5	-983			982	0.147			26	34	0.728	24	66
7	1	3.30	1				2085		305		305	0.00	2085							2085	0.146			26	34	0.728	48	54
2	3	3.50	1			N	1965		349		349	0.00	1965							1965	0.178	0.178		32	32	0.728	54	50
1,2	3	3.50	1	12		N	1965		82	82	164	0.50	1849			0.5	-925			924	0.177			32	32	0.728	24	60

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

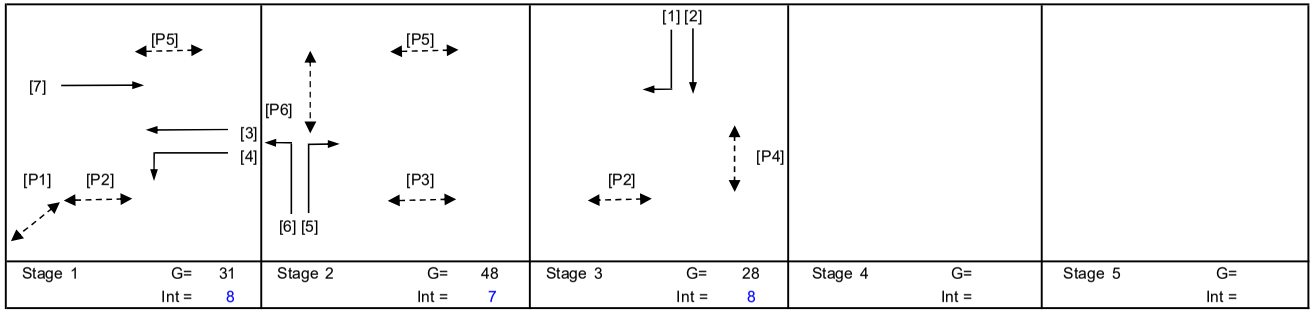
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung			
J2 Leighton Road / Caroline Hill Road (West) / Hoi Ping Road	**2033 Reference PM**		
	PROJECT NO.: 40920	Prepared By:	SKL Oct-25
	FILENAME : J2_LR_CHR_HPR.xlsx	Checked By:	SLN Oct-25
		Reviewed By:	SLN Oct-25



No. of stages per cycle	N =	3
Cycle time	C =	130 sec
Sum(y)	Y =	0.574
Loss time	L =	20 sec
Total Flow	=	2660 pcu
Co = (1.5*L+5)/(1-Y)	=	82.2 sec
Cm = L/(1-Y)	=	46.9 sec
Yult	=	0.750
R.C.ult = (Yult-Y)/Y*100%	=	30.7 %
Cp = 0.9*L/(0.9-Y)	=	55.2 sec
Ymax = 1-L/C	=	0.846
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**33 %**



Stage 1	G= 31	Int = 8
Stage 2	G= 48	Int = 7
Stage 3	G= 28	Int = 8
Stage 4	G=	Int =
Stage 5	G=	Int =

Pedestrian Phase	Stage	Width (m)	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	4.5	10	5	2	32	5
P2	1,3	4	14	5	0	70	5
P3	2	4.5	14	5	3	47	5
P4	3	15	10	7	4	25	7
P5	1,2	7	11	6	1	87	6
P6	2	15	10	7	4	44	7

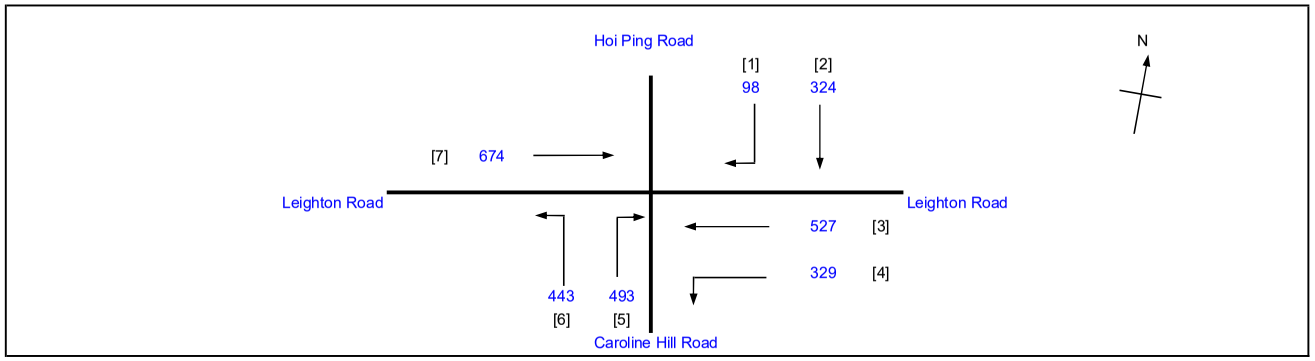
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
4	1	3.50	1	20		N	1965	151			151	1.00	1828			0.5	-914			914	0.165			32	32	0.678	24	55
3,4	1	3.50	1	25			2105	129	107		236	0.55	2038			0.7	-611			1427	0.165			32	32	0.678	36	50
3	1	3.00	1				2055		339		339	0.00	2055							2055	0.165			32	32	0.678	54	47
5,6	2	3.50	1	65		N	1965	465		22	487	1.00	1921							1921	0.254			49	49	0.678	66	35
5	2	3.50	1	20			2105			497	497	1.00	1958							1958	0.254	0.254		49	49	0.678	66	35
7	1	3.50	1			N	1965		166		166	0.00	1965			0.5	-983			982	0.169	0.169		32	32	0.678	24	54
7	1	3.30	1				2085		351		351	0.00	2085							2085	0.168			32	32	0.678	54	46
2	3	3.50	1			N	1965		297		297	0.00	1965							1965	0.151	0.151		29	29	0.678	48	49
1,2	3	3.50	1	12		N	1965		38	98	136	0.72	1803			0.5	-901			902	0.151			29	29	0.678	24	59

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

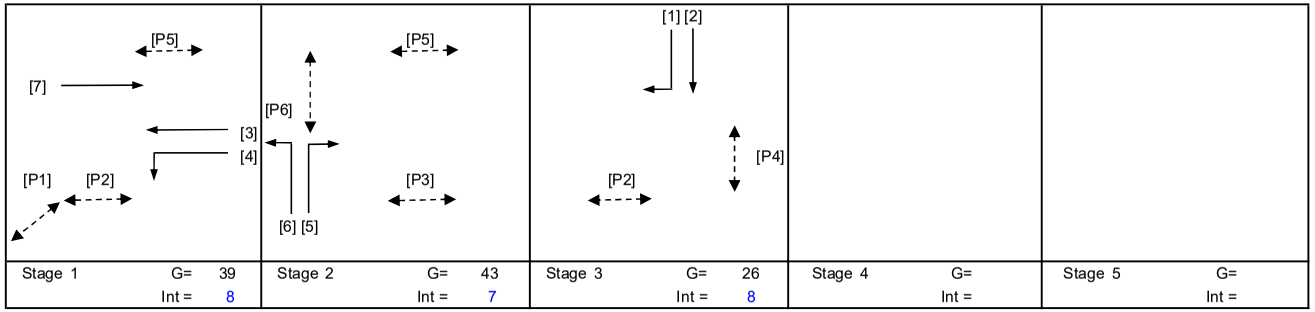
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung			
2033 Reference Weekend	PROJECT NO.: 40920 — Prepared By:	SKL	Oct-25
	FILENAME : J2_LR_CHR_HPR.xlsx — Checked By:	SLN	Oct-25
J2 Leighton Road / Caroline Hill Road (West) / Hoi Ping Road	Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	3
Cycle time	C =	130 sec
Sum(y)	Y =	0.609
Loss time	L =	20 sec
Total Flow	=	2888 pcu
Co = (1.5*L+5)/(1-Y)	=	89.5 sec
Cm = L/(1-Y)	=	51.2 sec
Yult	=	0.750
R.C.ult = (Yult-Y)/Y*100%	=	23.1 %
Cp = 0.9*L/(0.9-Y)	=	61.9 sec
Ymax = 1-L/C	=	0.846
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**25 %**



Stage 1	G= 39	Int = 8
Stage 2	G= 43	Int = 7
Stage 3	G= 26	Int = 8
Stage 4	G=	Int =
Stage 5	G=	Int =

Pedestrian Phase	Stage	Width (m)	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	4.5	10	5	2	40	5
P2	1,3	4	14	5	0	75	5
P3	2	4.5	14	5	3	42	5
P4	3	15	10	7	4	23	7
P5	1,2	7	11	6	1	89	6
P6	2	15	10	7	4	39	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
4	1	3.50	1	20		N	1965	178			178	1.00	1828			0.5	-914			914	0.195			35	40	0.720	30	55
3,4	1	3.50	1	25			2105	151	127		278	0.54	2039			0.7	-612			1427	0.195			35	40	0.720	42	49
3	1	3.00	1				2055		400		400	0.00	2055							2055	0.195			35	40	0.720	60	46
5,6	2	3.50	1	65		N	1965	443		21	464	1.00	1921							1921	0.242	0.242		44	44	0.720	66	41
5	2	3.50	1	20			2105			472	472	1.00	1958							1958	0.241			44	44	0.720	66	40
7	1	3.50	1			N	1965		216		216	0.00	1965			0.5	-983			982	0.220	0.220		40	40	0.720	30	50
7	1	3.30	1				2085		458		458	0.00	2085							2085	0.220			40	40	0.720	66	43
2	3	3.50	1			N	1965		290		290	0.00	1965							1965	0.148	0.148		27	27	0.720	48	54
1,2	3	3.50	1	12		N	1965		34	98	132	0.74	1798			0.5	-899			899	0.147			27	27	0.720	24	66

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

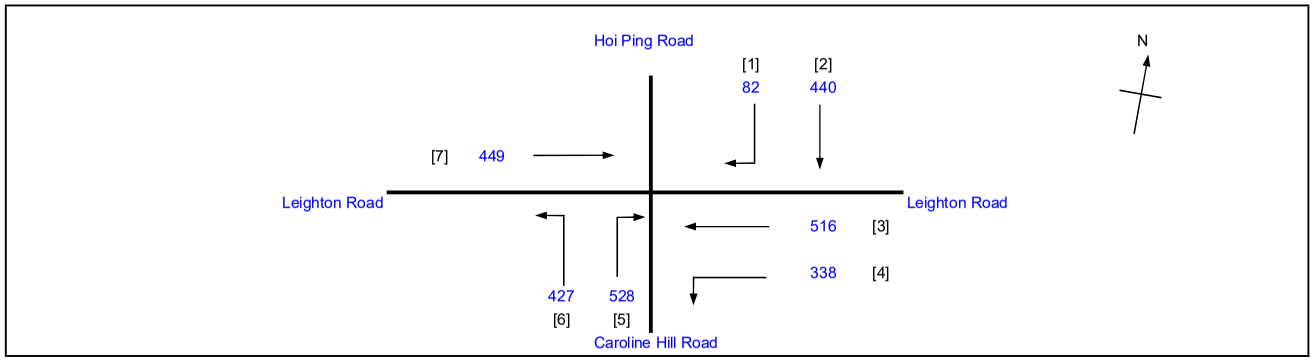
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J2 Leighton Road / Caroline Hill Road (West) / Hoi Ping Road

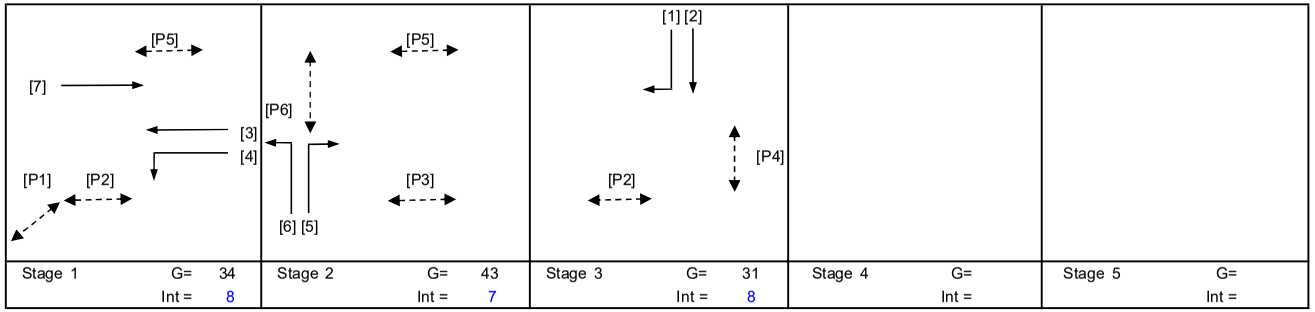
2033 Design AM

PROJECT NO.: 40920

FILENAME : J2_LR_CHR_HPR.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.622
Loss time		L =	20 sec
Total Flow		=	2780 pcu
Co	= (1.5*L+5)/(1-Y)	=	92.6 sec
Cm	= L/(1-Y)	=	52.9 sec
Yult		=	0.750
R.C.ult	= (Yult-Y)/Y*100%	=	20.6 %
Cp	= 0.9*L/(0.9-Y)	=	64.8 sec
Ymax	= 1-L/C	=	0.846
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**22 %**



Stage 1	G= 34	Int = 8
Stage 2	G= 43	Int = 7
Stage 3	G= 31	Int = 8
Stage 4	G=	Int =
Stage 5	G=	Int =

Pedestrian Phase	Stage	Width (m)	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	4.5	10	5	2	35	5
P2	1,3	4	14	5	0	75	5
P3	2	4.5	14	5	3	42	5
P4	3	15	10	7	4	28	7
P5	1,2	7	11	6	1	84	6
P6	2	15	10	7	4	39	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
4	1	3.50	1	20		N	1965	177			177	1.00	1828			0.5	-914			914	0.194			34	35	0.735	30	58
3,4	1	3.50	1	25			2105	161	117		278	0.58	2034			0.7	-610			1424	0.195	0.195		35	35	0.735	42	51
3	1	3.00	1				2055		399		399	0.00	2055							2055	0.194			34	35	0.735	60	48
5,6	2	3.50	1	65		N	1965	427		46	473	1.00	1921							1921	0.246	0.246		44	44	0.735	66	41
5	2	3.50	1	20			2105			482	482	1.00	1958							1958	0.246			44	44	0.735	66	41
7	1	3.50	1			N	1965		144		144	0.00	1965			0.5	-983			982	0.147			26	35	0.735	24	67
7	1	3.30	1				2085		305		305	0.00	2085							2085	0.146			26	35	0.735	54	55
2	3	3.50	1			N	1965		355		355	0.00	1965							1965	0.181	0.181		32	32	0.735	54	50
1,2	3	3.50	1	12		N	1965		85	82	167	0.49	1851			0.5	-926			925	0.180			32	32	0.735	30	60

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

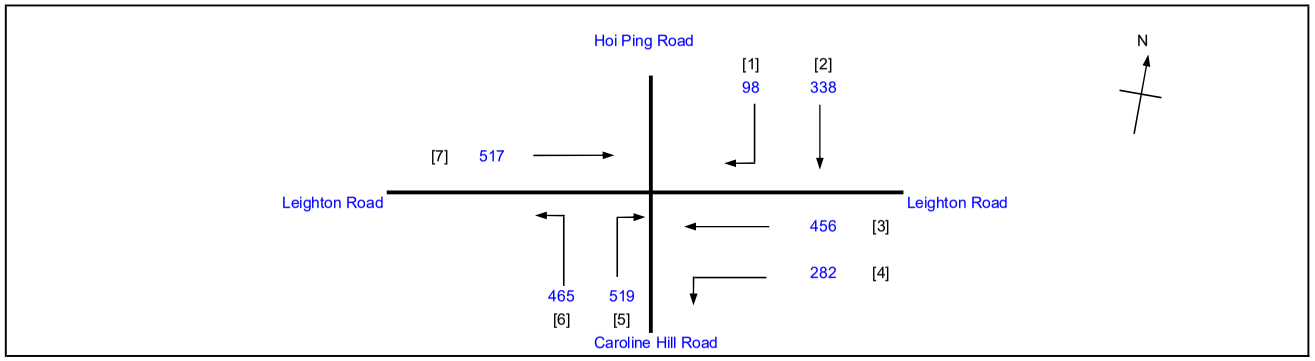
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J2 Leighton Road / Caroline Hill Road (West) / Hoi Ping Road

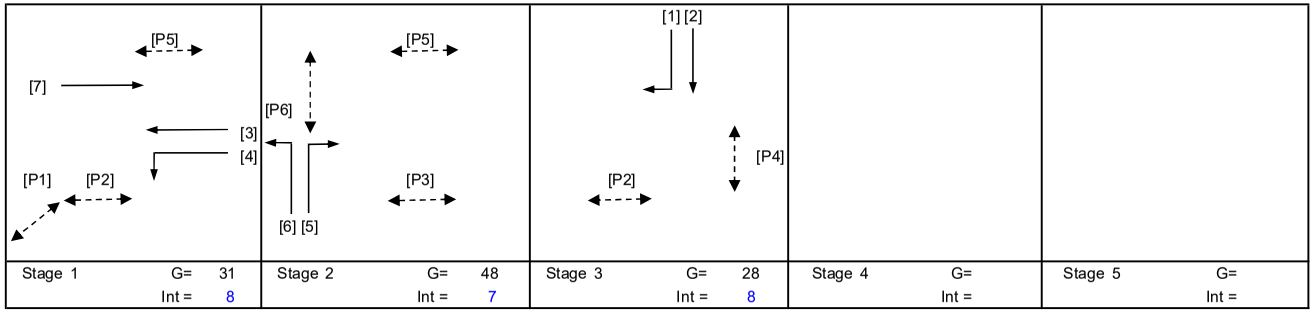
2033 Design PM

PROJECT NO.: 40920

FILENAME : J2_LR_CHR_HPR.xlsx



No. of stages per cycle	N =	3
Cycle time	C =	130 sec
Sum(y)	Y =	0.575
Loss time	L =	20 sec
Total Flow	=	2675 pcu
Co = (1.5*L+5)/(1-Y)	=	82.4 sec
Cm = L/(1-Y)	=	47.1 sec
Yult	=	0.750
R.C.ult = (Yult-Y)/Y*100%	=	30.4 %
Cp = 0.9*L/(0.9-Y)	=	55.4 sec
Ymax = 1-L/C	=	0.846
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**32 %**



Stage 1	G= 31	Int = 8
Stage 2	G= 48	Int = 7
Stage 3	G= 28	Int = 8
Stage 4	G=	Int =
Stage 5	G=	Int =

Pedestrian Phase	Stage	Width (m)	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	4.5	10	5	2	32	5
P2	1,3	4	14	5	0	70	5
P3	2	4.5	14	5	3	47	5
P4	3	15	10	7	4	25	7
P5	1,2	7	11	6	1	87	6
P6	2	15	10	7	4	44	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
4	1	3.50	1	20		N	1965	153			153	1.00	1828			0.5	-914			914	0.167			32	32	0.680	24	55
3,4	1	3.50	1	25			2105	129	111		240	0.54	2039			0.7	-612			1427	0.168			32	32	0.680	36	50
3	1	3.00	1				2055		345		345	0.00	2055							2055	0.168			32	32	0.680	54	47
5,6	2	3.50	1	65		N	1965	465		22	487	1.00	1921							1921	0.254			49	49	0.680	66	36
5	2	3.50	1	20			2105			497	497	1.00	1958							1958	0.254	0.254		49	49	0.680	66	35
7	1	3.50	1			N	1965		166		166	0.00	1965			0.5	-983			982	0.169	0.169		32	32	0.680	24	54
7	1	3.30	1				2085		351		351	0.00	2085							2085	0.168			32	32	0.680	54	46
2	3	3.50	1			N	1965		299		299	0.00	1965							1965	0.152	0.152		29	29	0.680	48	49
1,2	3	3.50	1	12		N	1965		39	98	137	0.72	1804			0.5	-902			902	0.152			29	29	0.680	24	59

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

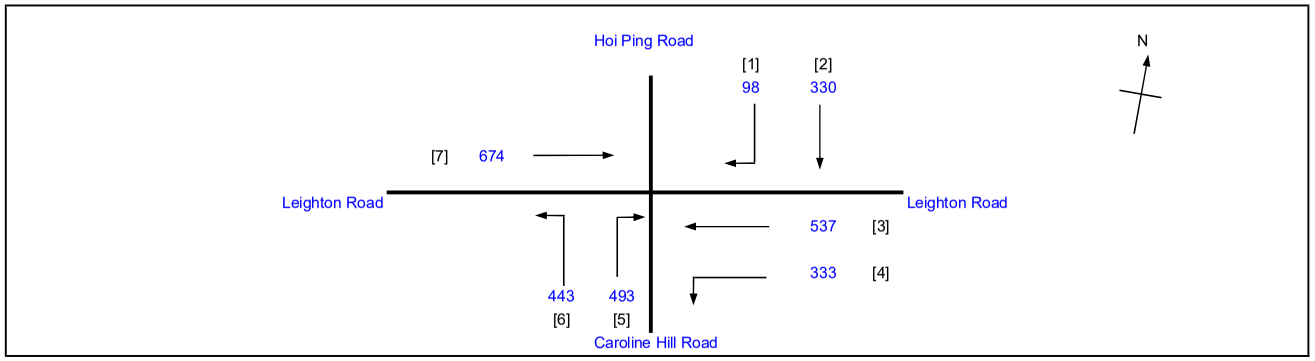
	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

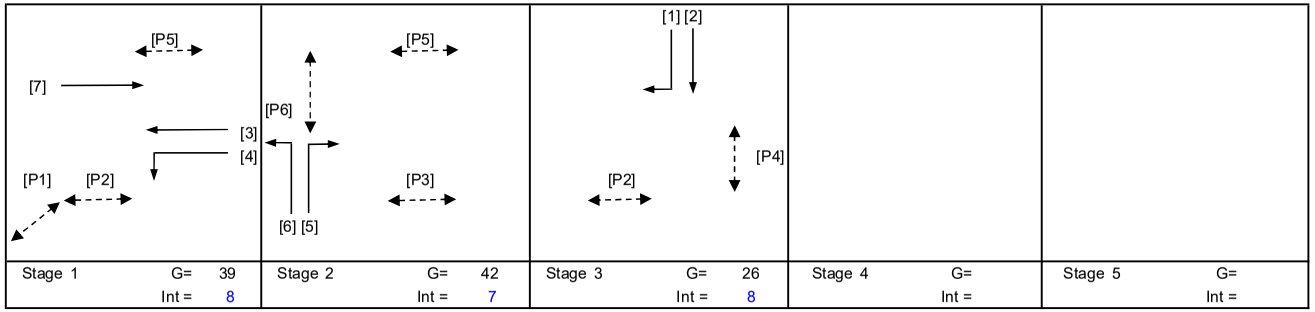
J2 Leighton Road / Caroline Hill Road (West) / Hoi Ping Road

2033 Design Weekend

PROJECT NO.: 40920
FILENAME : J2_LR_CHR_HPR.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.611
Loss time		L =	20 sec
Total Flow		=	2908 pcu
Co	= (1.5*L+5)/(1-Y)	=	90.0 sec
Cm	= L/(1-Y)	=	51.4 sec
Yult		=	0.750
R.C.ult	= (Yult-Y)/Y*100%	=	22.7 %
Cp	= 0.9*L/(0.9-Y)	=	62.3 sec
Ymax	= 1-L/C	=	0.846
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**25 %**



Stage 1	G= 39	Int = 8
Stage 2	G= 42	Int = 7
Stage 3	G= 26	Int = 8
Stage 4	G=	Int =
Stage 5	G=	Int =

Pedestrian Phase	Stage	Width (m)	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	4.5	10	5	2	40	5
P2	1,3	4	14	5	0	76	5
P3	2	4.5	14	5	3	41	5
P4	3	15	10	7	4	23	7
P5	1,2	7	11	6	1	89	6
P6	2	15	10	7	4	38	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
4	1	3.50	1	20		N	1965	181			181	1.00	1828			0.5	-914			914	0.198			36	40	0.722	30	55
3,4	1	3.50	1	25			2105	152	131		283	0.54	2039			0.7	-612			1427	0.198			36	40	0.722	42	49
3	1	3.00	1				2055		406		406	0.00	2055							2055	0.198			36	40	0.722	60	46
5,6	2	3.50	1	65		N	1965	443		21	464	1.00	1921							1921	0.242	0.242		43	43	0.722	66	41
5	2	3.50	1	20			2105			472	472	1.00	1958							1958	0.241			43	43	0.722	66	41
7	1	3.50	1			N	1965		216		216	0.00	1965			0.5	-983			982	0.220	0.220		40	40	0.722	30	50
7	1	3.30	1				2085		458		458	0.00	2085							2085	0.220			40	40	0.722	66	43
2	3	3.50	1			N	1965		294		294	0.00	1965							1965	0.150	0.150		27	27	0.722	48	54
1,2	3	3.50	1	12		N	1965		36	98	134	0.73	1800			0.5	-900			900	0.149			27	27	0.722	24	66

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

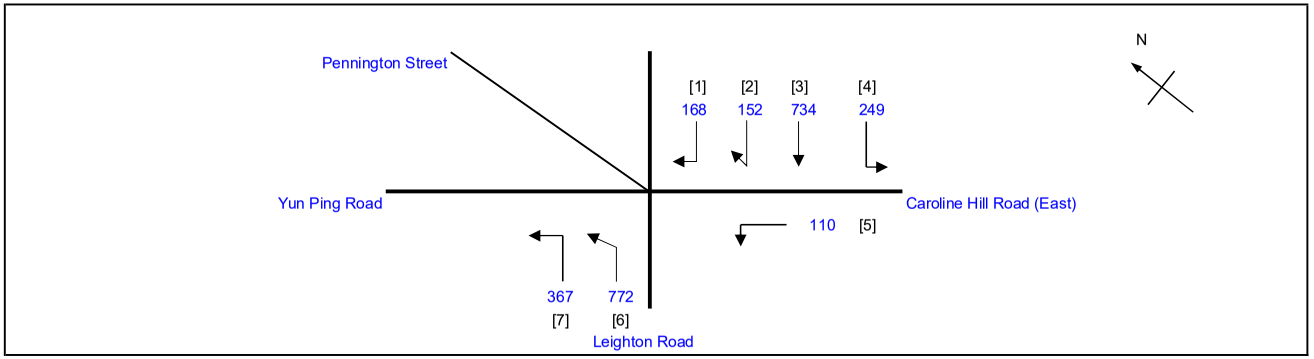
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J3 Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street

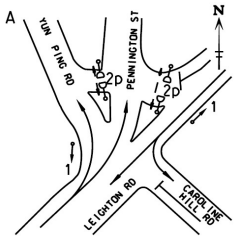
2033 Reference AM

PROJECT NO.: 40920

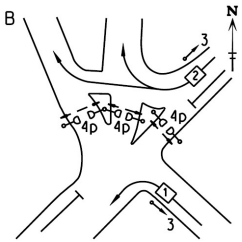
FILENAME : J3_LR_CHRE_YPR_PS.xlsx



No. of stages per cycle		N =	2
Cycle time		C =	130 sec
Sum(y)		Y =	0.638
Loss time		L =	11 sec
Total Flow		=	2552 pcu
Co	= (1.5*L+5)/(1-Y)	=	59.4 sec
Cm	= L/(1-Y)	=	30.4 sec
Yult		=	0.818
R.C.ult	= (Yult-Y)/Y*100%	=	28.2 %
Cp	= 0.9*L/(0.9-Y)	=	37.8 sec
Ymax	= 1-L/C	=	0.915
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**29 %**



Stage 1 G= 74 Int = 6



Stage 2 G= 43 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
2P	1		5	8	2	70	8
4P	2		10	8	2	40	8

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						11		
3	1	2.50	1				2005		659		659	0.00	2005							2005	0.329			61	75
3,4	1	3.00	1	7		N	1915	249	75		324	0.77	1644			0.6	-658			986	0.329			61	75
6	1	3.00	1				2055		609		609	0.00	2055			0.7	-534			1521	0.400	0.400		75	75
6,7	1	3.00	1	15		N	1915	367	163		530	0.69	1791			0.7	-466			1325	0.400			75	75
1,2	2	3.50	1	9		N	1965			320	320	1.00	1684			0.8	-337			1347	0.238	0.238		44	44
5	2	4.00	1	5		N	2015	110			110	1.00	1550			0.6	-620			930	0.118			22	44

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

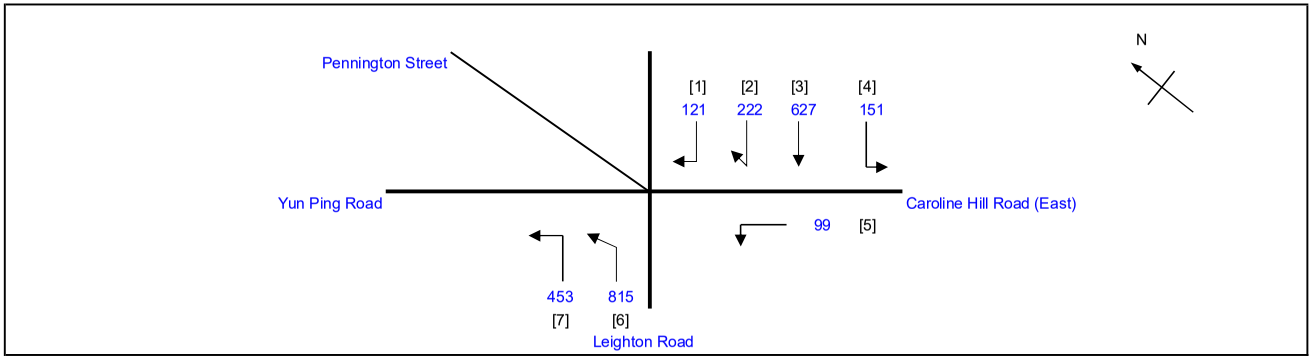
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J3 Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street

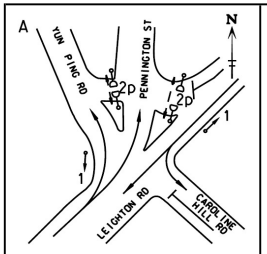
2033 Reference PM

PROJECT NO.: 40920

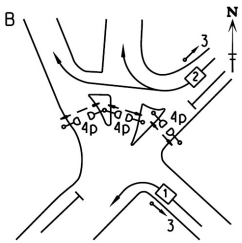
FILENAME : J3_LR_CHRE_YPR_PS.xlsx



No. of stages per cycle		N =	2
Cycle time		C =	130 sec
Sum(y)		Y =	0.702
Loss time		L =	11 sec
Total Flow		=	2488 pcu
Co	= (1.5*L+5)/(1-Y)	=	72.1 sec
Cm	= L/(1-Y)	=	36.9 sec
Yult		=	0.818
R.C.ult	= (Yult-Y)/Y*100%	=	16.5 %
Cp	= 0.9*L/(0.9-Y)	=	49.9 sec
Ymax	= 1-L/C	=	0.915
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**17 %**



Stage 1 G= 75 Int = 6



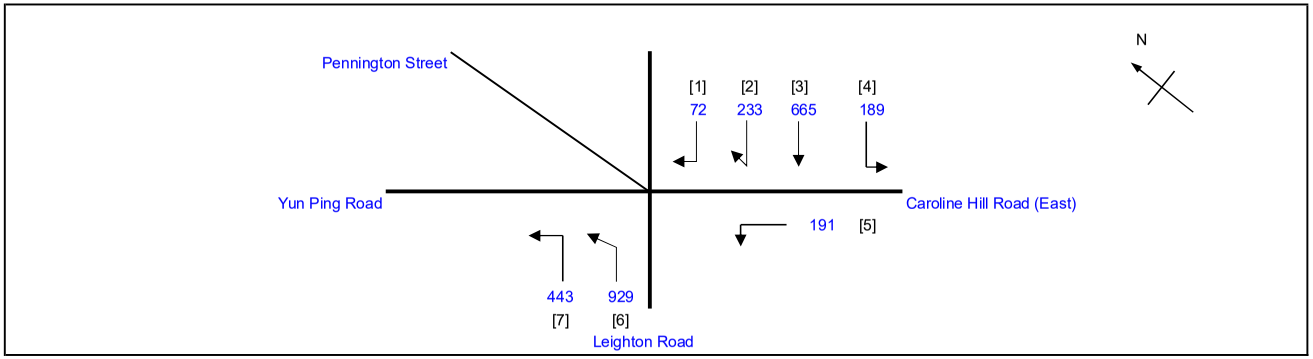
Stage 2 G= 42 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
2P	1		5	8	2	71	8
4P	2		10	8	2	39	8

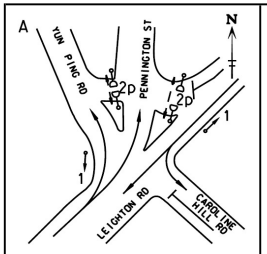
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						11		
3	1	2.50	1				2005		515		515	0.00	2005							2005	0.257			44	76
3,4	1	3.00	1	7		N	1915	151	112		263	0.57	1705			0.6	-682			1023	0.257			44	76
6	1	3.00	1				2055		680		680	0.00	2055			0.7	-534			1521	0.447	0.447		76	76
6,7	1	3.00	1	15		N	1915	453	135		588	0.77	1778			0.7	-462			1316	0.447			76	76
1,2	2	3.50	1	9		N	1965			343	343	1.00	1684			0.8	-337			1347	0.255	0.255		43	43
5	2	4.00	1	5		N	2015	99			99	1.00	1550			0.6	-620			930	0.106			18	43

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

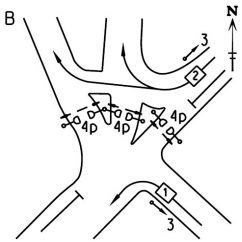
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference Weekend**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J3 Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street		FILENAME : J3_LR_CHRE_YPR_PS.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.709
Loss time	L =	11 sec
Total Flow	=	2722 pcu
Co = (1.5*L+5)/(1-Y)	=	73.8 sec
Cm = L/(1-Y)	=	37.8 sec
Yult	=	0.818
R.C.ult = (Yult-Y)/Y*100%	=	15.4 %
Cp = 0.9*L/(0.9-Y)	=	51.8 sec
Ymax = 1-L/C	=	0.915
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**16 %**



Stage 1 G= 80 Int = 6



Stage 2 G= 37 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
2P	1		5	8	2	76	8
4P	2		10	8	2	34	8

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						11		
3	1	2.50	1				2005		569		569	0.00	2005							2005	0.284			48	81
3,4	1	3.00	1	7		N	1915	189	96		285	0.66	1677			0.6	-671			1006	0.283			48	81
6	1	3.00	1				2055		733		733	0.00	2055			0.7	-534			1521	0.482			81	81
6,7	1	3.00	1	15		N	1915	443	196		639	0.69	1791			0.7	-466			1325	0.482	0.482		81	81
1,2	2	3.50	1	9		N	1965			305	305	1.00	1684			0.8	-337			1347	0.226	0.226		38	38
5	2	4.00	1	5		N	2015	191			191	1.00	1550			0.6	-620			930	0.205			34	38

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

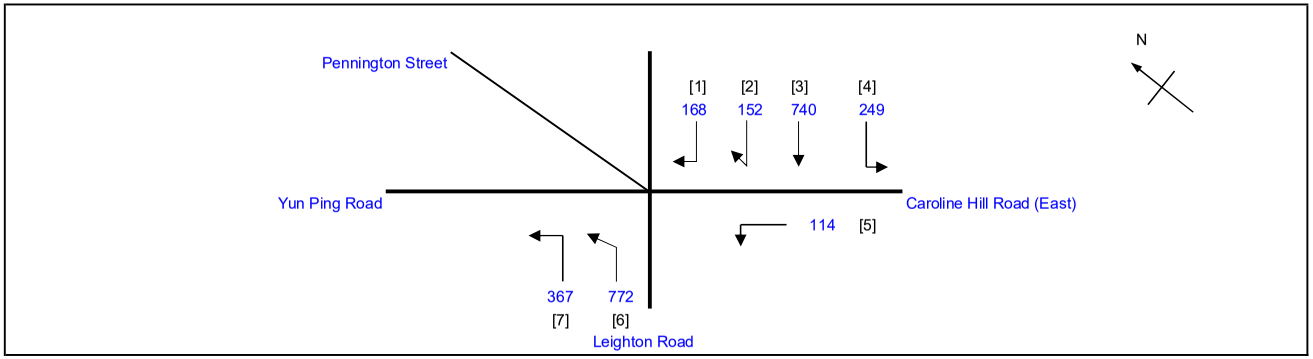
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J3 Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street

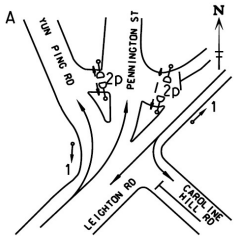
2033 Design AM

PROJECT NO.: 40920

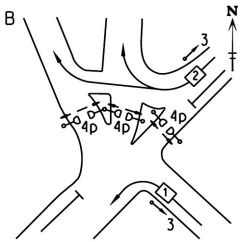
FILENAME : J3_LR_CHRE_YPR_PS.xlsx



No. of stages per cycle		N =	2
Cycle time		C =	130 sec
Sum(y)		Y =	0.638
Loss time		L =	11 sec
Total Flow		=	2562 pcu
Co	= (1.5*L+5)/(1-Y)	=	59.4 sec
Cm	= L/(1-Y)	=	30.4 sec
Yult		=	0.818
R.C.ult	= (Yult-Y)/Y*100%	=	28.2 %
Cp	= 0.9*L/(0.9-Y)	=	37.8 sec
Ymax	= 1-L/C	=	0.915
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**29 %**



Stage 1 G= 74 Int = 6



Stage 2 G= 43 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
2P	1		5	8	2	70	8
4P	2		10	8	2	40	8

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						11		
3	1	2.50	1				2005		663		663	0.00	2005							2005	0.331			62	75
3,4	1	3.00	1	7		N	1915	249	77		326	0.76	1646			0.6	-658			988	0.330			62	75
6	1	3.00	1				2055		609		609	0.00	2055			0.7	-534			1521	0.400	0.400		75	75
6,7	1	3.00	1	15		N	1915	367	163		530	0.69	1791			0.7	-466			1325	0.400			75	75
1,2	2	3.50	1	9		N	1965			320	320	1.00	1684			0.8	-337			1347	0.238	0.238		44	44
5	2	4.00	1	5		N	2015	114			114	1.00	1550			0.6	-620			930	0.123			23	44

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

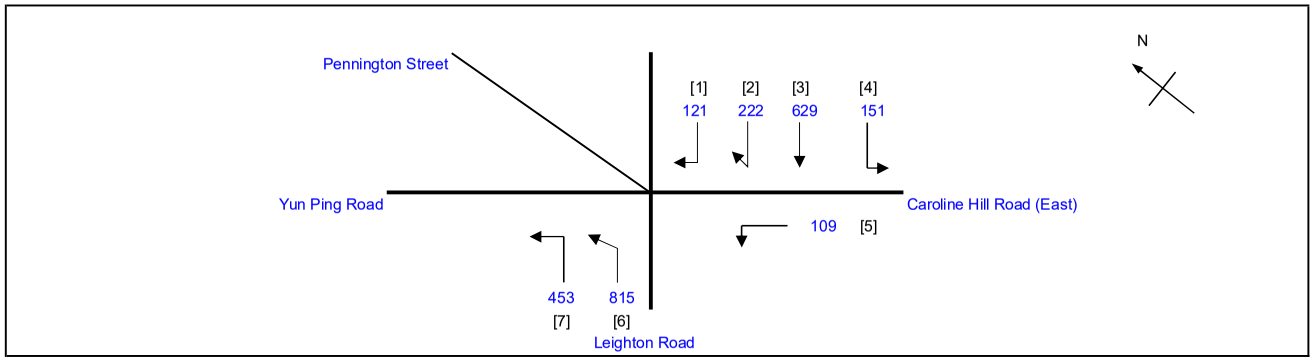
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J3 Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street

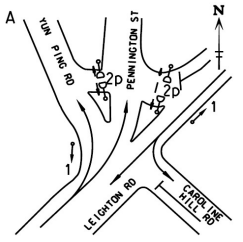
2033 Design PM

PROJECT NO.: 40920

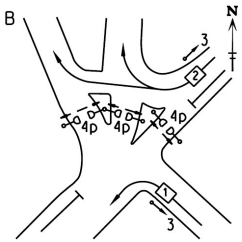
FILENAME : J3_LR_CHRE_YPR_PS.xlsx



No. of stages per cycle		N =	2
Cycle time		C =	130 sec
Sum(y)		Y =	0.702
Loss time		L =	11 sec
Total Flow		=	2500 pcu
Co	= (1.5*L+5)/(1-Y)	=	72.1 sec
Cm	= L/(1-Y)	=	36.9 sec
Yult		=	0.818
R.C.ult	= (Yult-Y)/Y*100%	=	16.5 %
Cp	= 0.9*L/(0.9-Y)	=	49.9 sec
Ymax	= 1-L/C	=	0.915
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**17 %**



Stage 1 G= 75 Int = 6



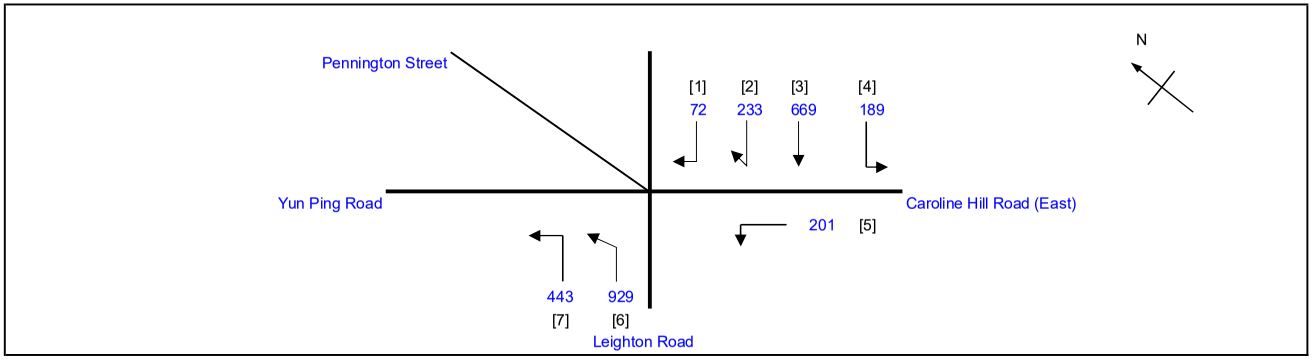
Stage 2 G= 42 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
2P	1		5	8	2	71	8
4P	2		10	8	2	39	8

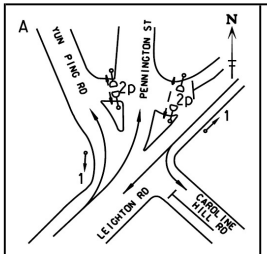
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						11		
3	1	2.50	1				2005		517		517	0.00	2005							2005	0.258			44	76
3,4	1	3.00	1	7		N	1915	151	112		263	0.57	1705			0.6	-682			1023	0.257			44	76
6	1	3.00	1				2055		680		680	0.00	2055			0.7	-534			1521	0.447	0.447		76	76
6,7	1	3.00	1	15		N	1915	453	135		588	0.77	1778			0.7	-462			1316	0.447			76	76
1,2	2	3.50	1	9		N	1965			343	343	1.00	1684			0.8	-337			1347	0.255	0.255		43	43
5	2	4.00	1	5		N	2015	109			109	1.00	1550			0.6	-620			930	0.117			20	43

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

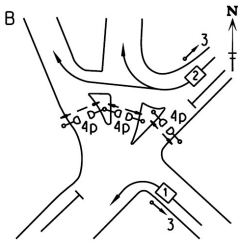
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design Weekend**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J3 Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street		FILENAME : J3_LR_CHRE_YPR_PS.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



No. of stages per cycle		N =	2
Cycle time		C =	130 sec
Sum(y)		Y =	0.709
Loss time		L =	11 sec
Total Flow		=	2736 pcu
Co	= (1.5*L+5)/(1-Y)	=	73.8 sec
Cm	= L/(1-Y)	=	37.8 sec
Yult		=	0.818
R.C.ult	= (Yult-Y)/Y*100%	=	15.4 %
Cp	= 0.9*L/(0.9-Y)	=	51.8 sec
Ymax	= 1-L/C	=	0.915
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**16 %**



Stage 1 G= 80
Int = 6



Stage 2 G= 37
Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
2P	1		5	8	2	76	8
4P	2		10	8	2	34	8

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						11		
3	1	2.50	1				2005		571		571	0.00	2005							2005	0.285			48	81
3,4	1	3.00	1	7		N	1915	189	98		287	0.66	1678			0.6	-671			1007	0.285			48	81
6	1	3.00	1				2055		733		733	0.00	2055			0.7	-534			1521	0.482			81	81
6,7	1	3.00	1	15		N	1915	443	196		639	0.69	1791			0.7	-466			1325	0.482	0.482		81	81
1,2	2	3.50	1	9		N	1965			305	305	1.00	1684			0.8	-337			1347	0.226	0.226		38	38
5	2	4.00	1	5		N	2015	201			201	1.00	1550			0.6	-620			930	0.216			36	38

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

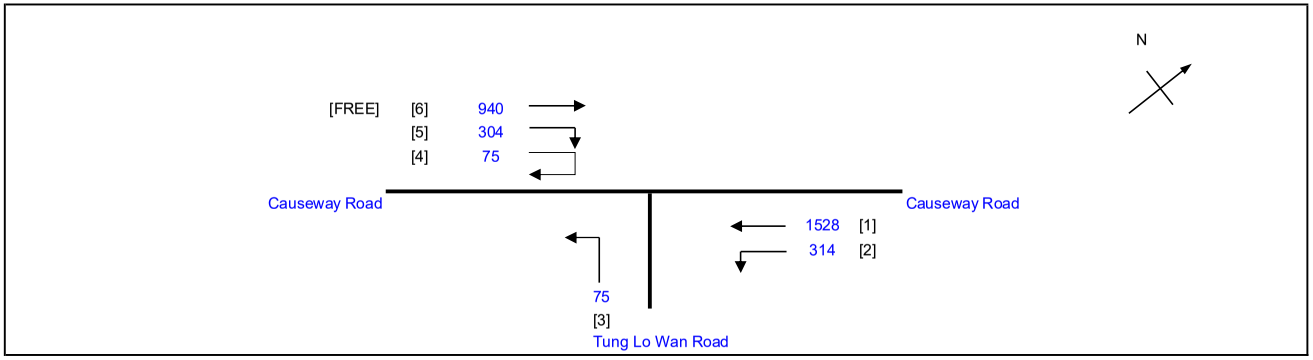
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road

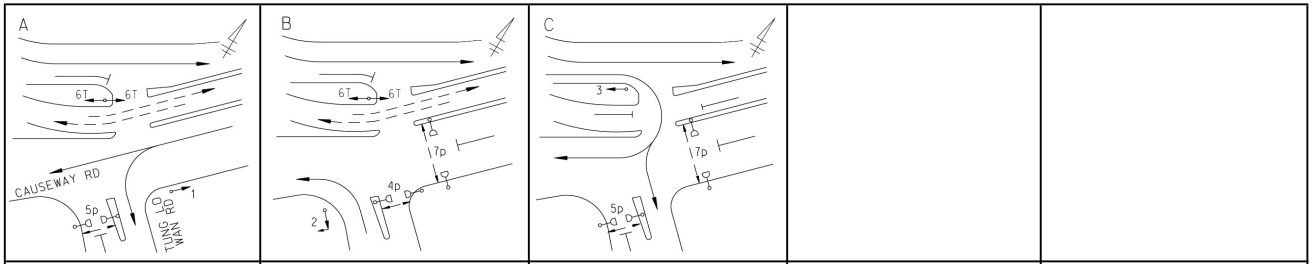
2033 Reference AM

PROJECT NO.: 40920

FILENAME : J4_CR_LR_IS.xlsx



No. of stages per cycle	N =	3
Cycle time	C =	100 sec
Sum(y)	Y =	0.405
Loss time	L =	33 sec
Total Flow	=	2296 pcu
Co = (1.5*L+5)/(1-Y)	=	91.6 sec
Cm = L/(1-Y)	=	55.5 sec
Yult	=	0.653
R.C.ult = (Yult-Y)/Y*100%	=	61.0 %
Cp = 0.9*L/(0.9-Y)	=	60.0 sec
Ymax = 1-L/C	=	0.670
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**49 %**



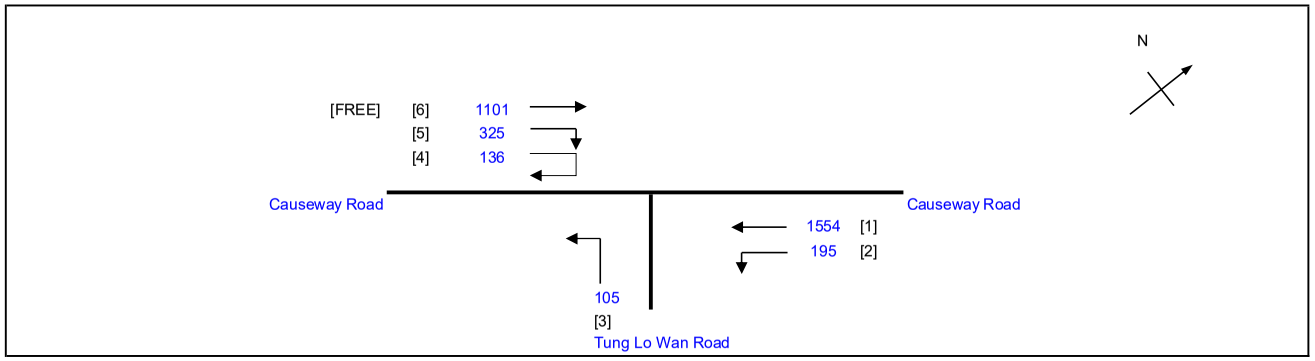
Stage 1	G= 44	Int = 9	
Stage 2	G= 15	Int = 4	
Stage 3	G= 21	Int = 7	

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
4P	2		7	8		11	8
5P	1,3		10	5		76	5
7P	2,3		9	11		36	11

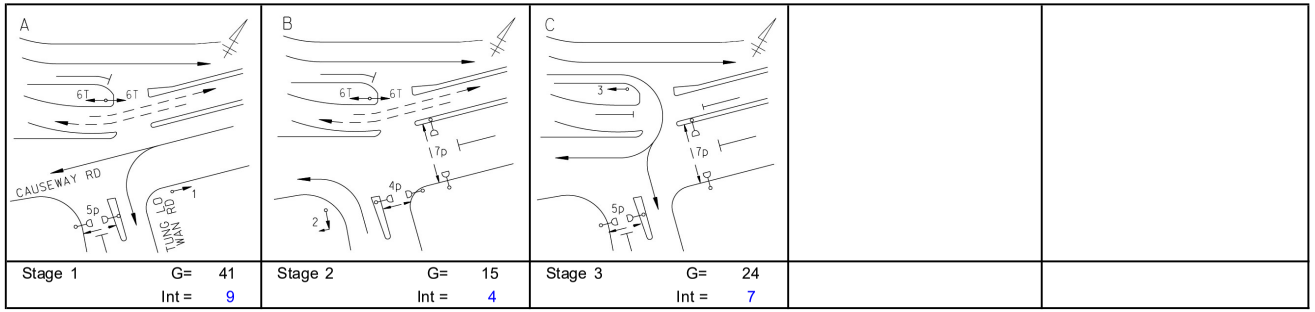
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						18		
1	1	3.00	1			N	1915		415		415	0.00	1915			0.8	-383			1532	0.271	0.271		45	45
1	1	3.00	2				4110		1113		1113	0.00	4110							4110	0.271			45	45
2	1	3.00	1	9		N	1915	314			314	1.00	1641			0.8	-328			1313	0.239			40	45
3	2	4.00	1	25		N	2015	75			75	1.00	1901			0.8	-380			1521	0.049			8	15
4,5	3	4.00	1	12		N	2015			192	192	1.00	1791			0.8	-358			1433	0.134			22	22
4,5	3	4.50	1	8		N	2065			187	187	1.00	1739			0.8	-348			1391	0.134	0.134		22	22
PED	2																						15		

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

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference PM**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road		FILENAME : J4_CR_LR_IS.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	3
Cycle time	C =	100 sec
Sum(y)	Y =	0.439
Loss time	L =	33 sec
Total Flow	=	2315 pcu
Co = (1.5*L+5)/(1-Y)	=	97.1 sec
Cm = L/(1-Y)	=	58.8 sec
Yult	=	0.653
R.C.ult = (Yult-Y)/Y*100%	=	48.7 %
Cp = 0.9*L/(0.9-Y)	=	64.4 sec
Ymax = 1-L/C	=	0.670
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**37 %**

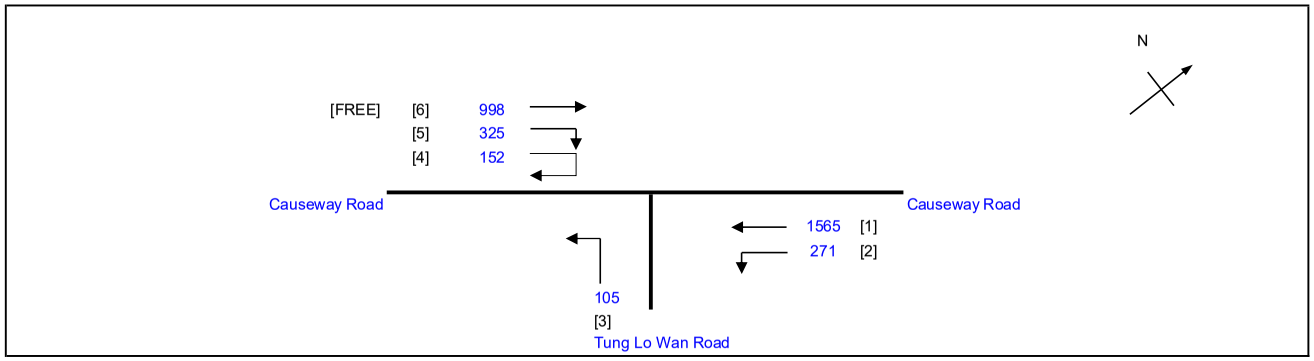


Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
4P	2		7	8		11	8
5P	1,3		10	5		76	5
7P	2,3		9	11		39	11

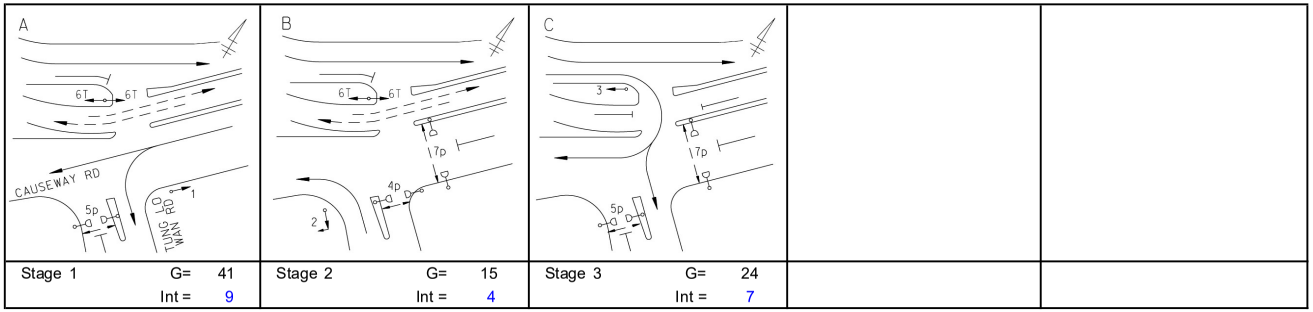
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						18		
1	1	3.00	1			N	1915		422		422	0.00	1915			0.8	-383			1532	0.275	0.275		42	42
1	1	3.00	2				4110		1132		1132	0.00	4110							4110	0.275			42	42
2	1	3.00	1	9		N	1915	195			195	1.00	1641			0.8	-328			1313	0.148			23	42
3	2	4.00	1	25		N	2015	105			105	1.00	1901			0.8	-380			1521	0.069			11	15
4,5	3	4.00	1	12		N	2015			234	234	1.00	1791			0.8	-358			1433	0.163	0.163		25	25
4,5	3	4.50	1	8		N	2065			227	227	1.00	1739			0.8	-348			1391	0.163			25	25
PED	2																						15		

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

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference Weekend**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road		FILENAME : J4_CR_LR_IS.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	3
Cycle time	C =	100 sec
Sum(y)	Y =	0.446
Loss time	L =	33 sec
Total Flow	=	2418 pcu
Co = (1.5*L+5)/(1-Y)	=	98.4 sec
Cm = L/(1-Y)	=	59.6 sec
Yult	=	0.653
R.C.ult = (Yult-Y)/Y*100%	=	46.2 %
Cp = 0.9*L/(0.9-Y)	=	65.5 sec
Ymax = 1-L/C	=	0.670
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**35 %**



Stage 1	G= 41	Int = 9
Stage 2	G= 15	Int = 4
Stage 3	G= 24	Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
4P	2		7	8		11	8
5P	1,3		10	5		76	5
7P	2,3		9	11		39	11

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						18		
1	1	3.00	1			N	1915		425		425	0.00	1915			0.8	-383			1532	0.277	0.277		42	42
1	1	3.00	2				4110		1140		1140	0.00	4110							4110	0.277			42	42
2	1	3.00	1	9		N	1915	271			271	1.00	1641			0.8	-328			1313	0.206			31	42
3	2	4.00	1	25		N	2015	105			105	1.00	1901			0.8	-380			1521	0.069			10	15
4,5	3	4.00	1	12		N	2015			242	242	1.00	1791			0.8	-358			1433	0.169			25	25
4,5	3	4.50	1	8		N	2065			235	235	1.00	1739			0.8	-348			1391	0.169	0.169		25	25
PED	2																						15		

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

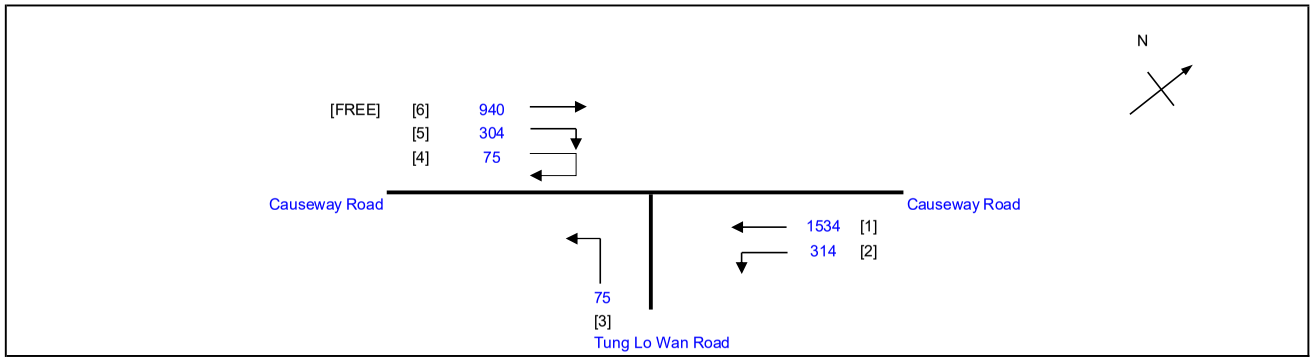
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road

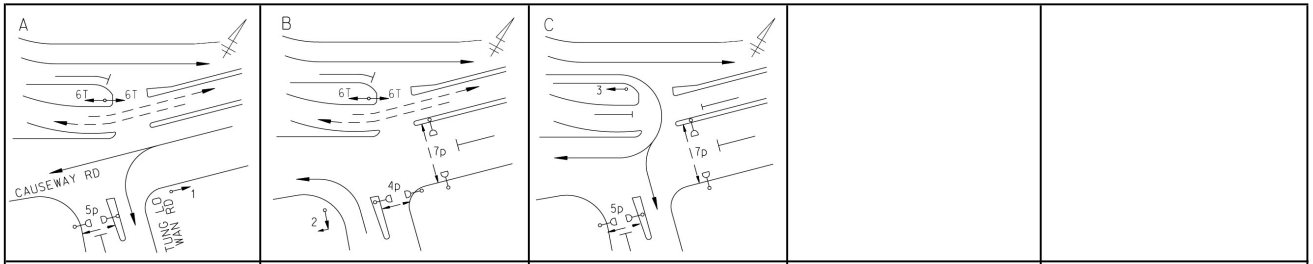
2033 Design AM

PROJECT NO.: 40920

FILENAME : J4_CR_LR_IS.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	100 sec
Sum(y)		Y =	0.407
Loss time		L =	33 sec
Total Flow		=	2302 pcu
Co	= (1.5*L+5)/(1-Y)	=	91.8 sec
Cm	= L/(1-Y)	=	55.6 sec
Yult		=	0.653
R.C.ult	= (Yult-Y)/Y*100%	=	60.5 %
Cp	= 0.9*L/(0.9-Y)	=	60.2 sec
Ymax	= 1-L/C	=	0.670
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**48 %**



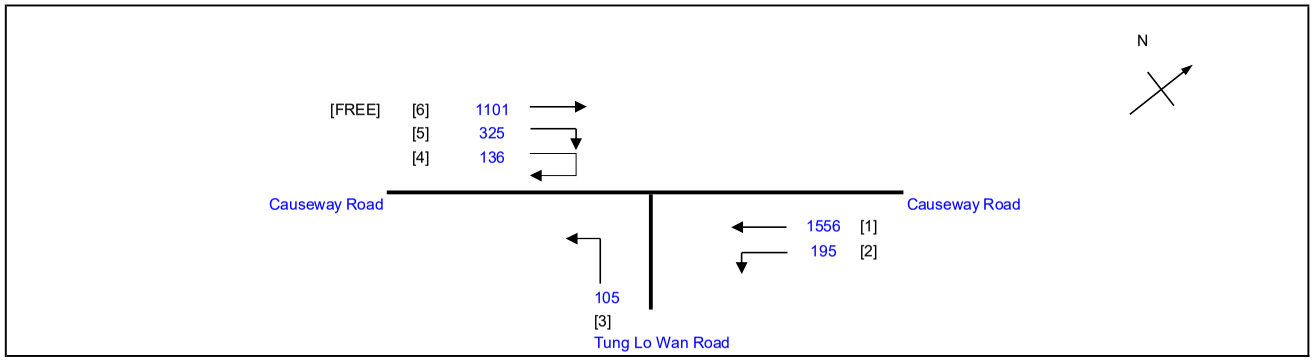
Stage 1	G= 44	Int = 9
Stage 2	G= 15	Int = 4
Stage 3	G= 21	Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
4P	2		7	8		11	8
5P	1,3		10	5		76	5
7P	2,3		9	11		36	11

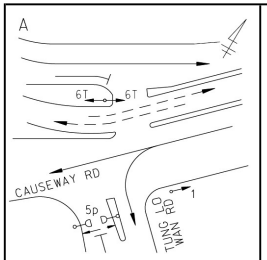
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						18		
1	1	3.00	1			N	1915		417		417	0.00	1915			0.8	-383			1532	0.272	0.272		45	45
1	1	3.00	2				4110		1117		1117	0.00	4110							4110	0.272			45	45
2	1	3.00	1	9		N	1915	314			314	1.00	1641			0.8	-328			1313	0.239			39	45
3	2	4.00	1	25		N	2015	75			75	1.00	1901			0.8	-380			1521	0.049			8	15
4,5	3	4.00	1	12		N	2015			192	192	1.00	1791			0.8	-358			1433	0.134			22	22
4,5	3	4.50	1	8		N	2065			187	187	1.00	1739			0.8	-348			1391	0.134	0.134		22	22
PED	2																						15		

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

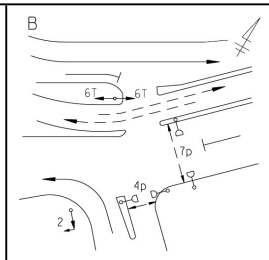
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design PM**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road		FILENAME : J4_CR_LR_IS.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



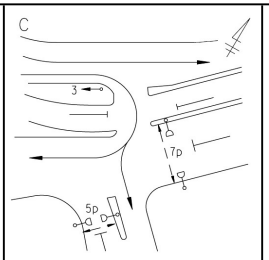
No. of stages per cycle	N =	3
Cycle time	C =	100 sec
Sum(y)	Y =	0.439
Loss time	L =	33 sec
Total Flow	=	2317 pcu
Co = (1.5*L+5)/(1-Y)	=	97.2 sec
Cm = L/(1-Y)	=	58.9 sec
Yult	=	0.653
R.C.ult = (Yult-Y)/Y*100%	=	48.5 %
Cp = 0.9*L/(0.9-Y)	=	64.5 sec
Ymax = 1-L/C	=	0.670
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**37 %**



Stage 1 G= 41 Int = 9



Stage 2 G= 15 Int = 4



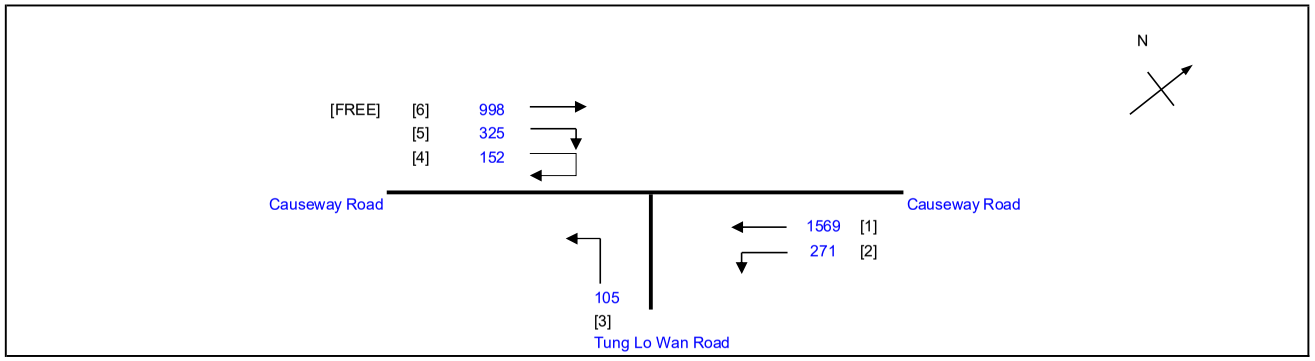
Stage 3 G= 24 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
4P	2		7	8		11	8
5P	1,3		10	5		76	5
7P	2,3		9	11		39	11

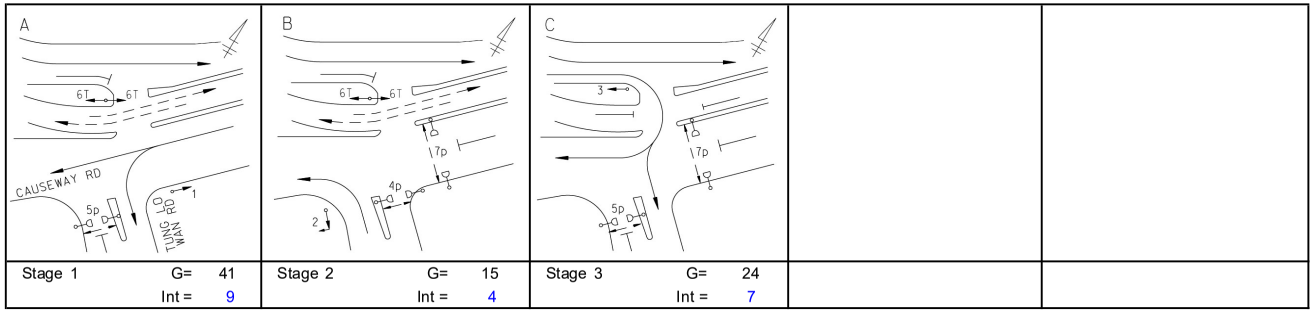
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						18		
1	1	3.00	1			N	1915		423		423	0.00	1915			0.8	-383			1532	0.276	0.276		42	42
1	1	3.00	2				4110		1133		1133	0.00	4110							4110	0.276			42	42
2	1	3.00	1	9		N	1915	195			195	1.00	1641			0.8	-328			1313	0.148			23	42
3	2	4.00	1	25		N	2015	105			105	1.00	1901			0.8	-380			1521	0.069			11	15
4,5	3	4.00	1	12		N	2015			234	234	1.00	1791			0.8	-358			1433	0.163	0.163		25	25
4,5	3	4.50	1	8		N	2065			227	227	1.00	1739			0.8	-348			1391	0.163			25	25
PED	2																						15		

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

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design Weekend**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road		FILENAME : J4_CR_LR_IS.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	3
Cycle time	C =	100 sec
Sum(y)	Y =	0.447
Loss time	L =	33 sec
Total Flow	=	2422 pcu
Co = (1.5*L+5)/(1-Y)	=	98.6 sec
Cm = L/(1-Y)	=	59.7 sec
Yult	=	0.653
R.C.ult = (Yult-Y)/Y*100%	=	46.0 %
Cp = 0.9*L/(0.9-Y)	=	65.6 sec
Ymax = 1-L/C	=	0.670
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**35 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
4P	2		7	8		11	8
5P	1,3		10	5		76	5
7P	2,3		9	11		39	11

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						18		
1	1	3.00	1			N	1915		426		426	0.00	1915			0.8	-383			1532	0.278			42	42
1	1	3.00	2				4110		1143		1143	0.00	4110							4110	0.278	0.278		42	42
2	1	3.00	1	9		N	1915	271			271	1.00	1641			0.8	-328			1313	0.206			31	42
3	2	4.00	1	25		N	2015	105			105	1.00	1901			0.8	-380			1521	0.069			10	15
4,5	3	4.00	1	12		N	2015			242	242	1.00	1791			0.8	-358			1433	0.169			25	25
4,5	3	4.50	1	8		N	2065			235	235	1.00	1739			0.8	-348			1391	0.169	0.169		25	25
PED	2																						15		

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

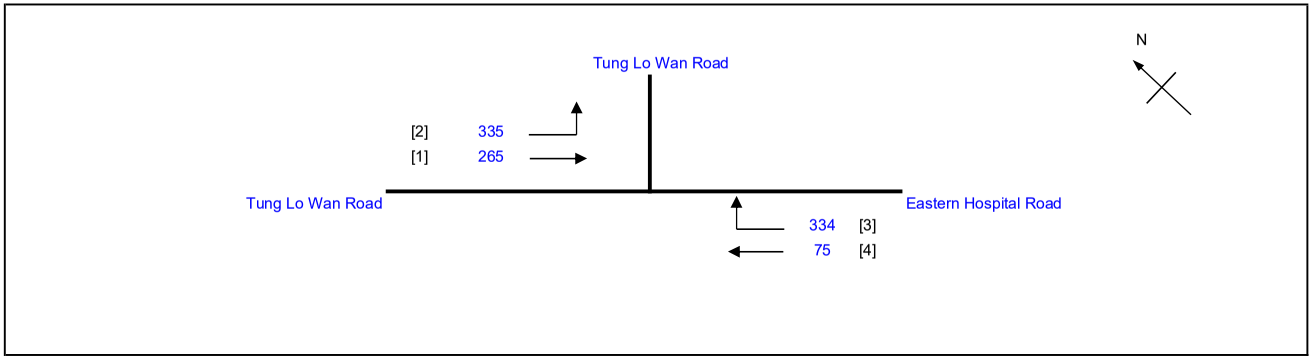
	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

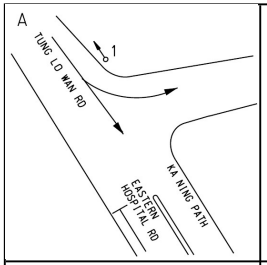
J5 Tung Lo Wan Road / Eastern Hospital Road

2033 Reference AM

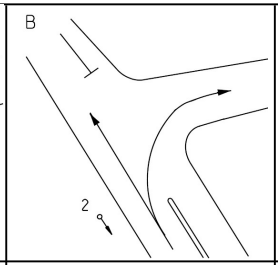
PROJECT NO.: 40920
FILENAME : J5_TLWR_EHR.xlsx



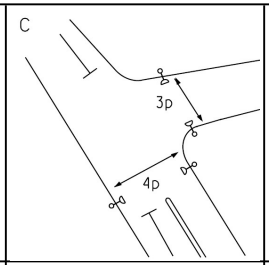
No. of stages per cycle		N =	3
Cycle time		C =	100 sec
Sum(y)		Y =	0.382
Loss time		L =	41 sec
Total Flow		=	1009 pcu
Co	= (1.5*L+5)/(1-Y)	=	107.6 sec
Cm	= L/(1-Y)	=	66.3 sec
Yult		=	0.593
R.C.ult	= (Yult-Y)/Y*100%	=	55.2 %
Cp	= 0.9*L/(0.9-Y)	=	71.2 sec
Ymax	= 1-L/C	=	0.590
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**39 %**



Stage 1 G= 23 Int = 5



Stage 2 G= 34 Int = 3



Stage 3 G= 33 Int = 2

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
3P	3		7	8	6	21	8
4P	3		8	14	2	19	14

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																							8		
3,4	1	3.30	1	25			2085	53	265		318	0.17	2064							2064	0.154	0.154		24	24
4	1	3.30	1	25		N	1945	282			282	1.00	1835							1835	0.154			24	24
1,2	2	3.65	1	12		N	1980		75	334	409	0.82	1797							1797	0.228	0.228		35	35
PED	3																						33		

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

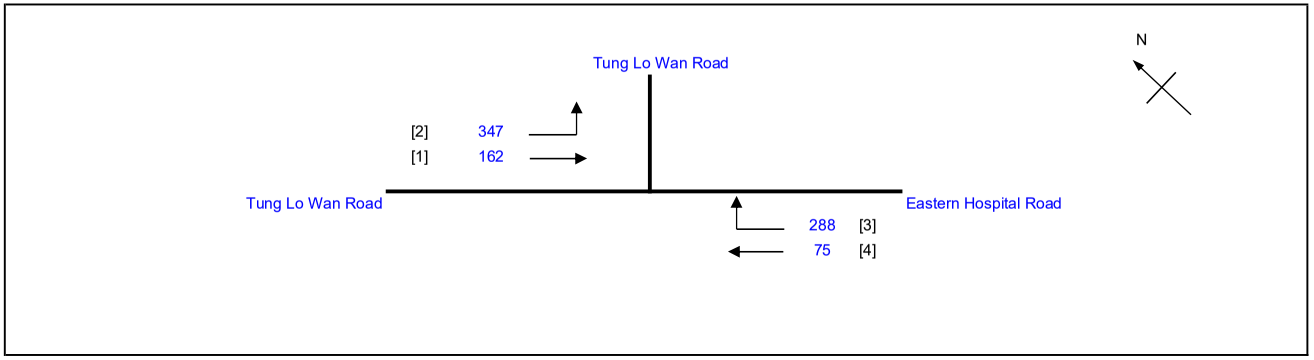
		INITIALS	DATE
Prepared By:		SKL	Oct-25
Checked By:		SLN	Oct-25
Reviewed By:		SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

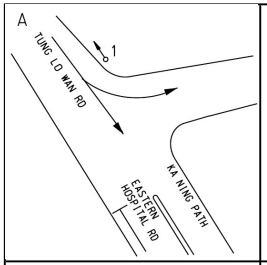
J5 Tung Lo Wan Road / Eastern Hospital Road

2033 Reference PM

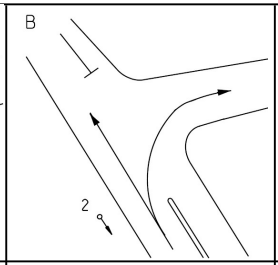
PROJECT NO.: 40920
FILENAME : J5_TLWR_EHR.xlsx



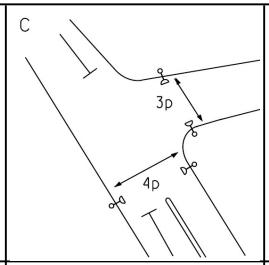
No. of stages per cycle		N =	3
Cycle time		C =	100 sec
Sum(y)		Y =	0.333
Loss time		L =	41 sec
Total Flow		=	872 pcu
Co	= (1.5*L+5)/(1-Y)	=	99.7 sec
Cm	= L/(1-Y)	=	61.5 sec
Yult		=	0.593
R.C.ult	= (Yult-Y)/Y*100%	=	77.9 %
Cp	= 0.9*L/(0.9-Y)	=	65.1 sec
Ymax	= 1-L/C	=	0.590
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**59 %**



Stage 1 G= 22 Int = 5



Stage 2 G= 35 Int = 3



Stage 3 G= 33 Int = 2

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
3P	3		7	8	6	21	8
4P	3		8	14	2	19	14

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec			
																							8					
3,4	1	3.30	1	25			2085	106	162		268	0.40	2037							2037	0.132	0.132		23	23			
4	1	3.30	1	25		N	1945	241			241	1.00	1835							1835	0.131			23	23			
1,2	2	3.65	1	12		N	1980		75	288	363	0.79	1801							1801	0.202	0.202		36	36			
PED	3																						33					

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

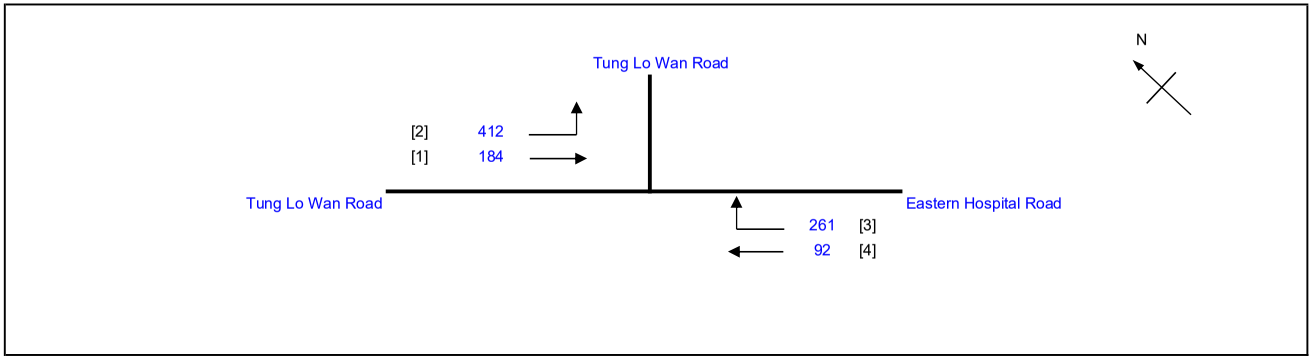
	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

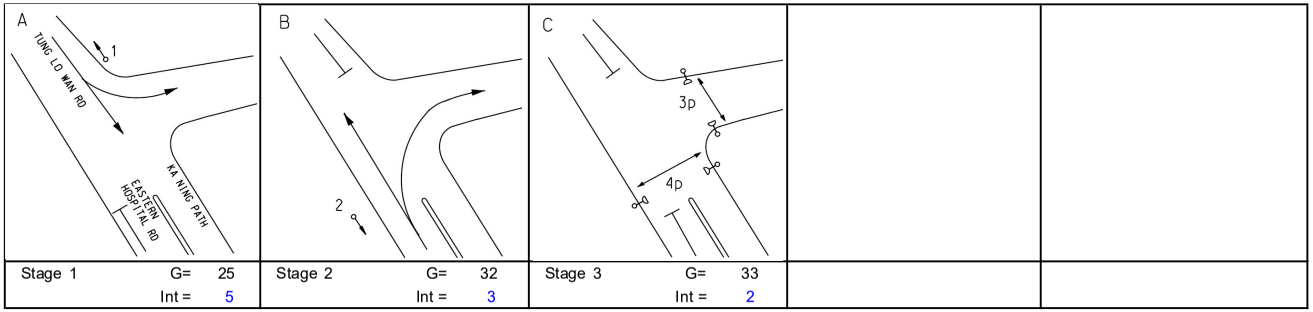
J5 Tung Lo Wan Road / Eastern Hospital Road

2033 Reference Weekend

PROJECT NO.: 40920
FILENAME : J5_TLWR_EHR.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	100 sec
Sum(y)		Y =	0.349
Loss time		L =	41 sec
Total Flow		=	949 pcu
Co	= (1.5*L+5)/(1-Y)	=	102.2 sec
Cm	= L/(1-Y)	=	63.0 sec
Yult		=	0.593
R.C.ult	= (Yult-Y)/Y*100%	=	69.7 %
Cp	= 0.9*L/(0.9-Y)	=	67.0 sec
Ymax	= 1-L/C	=	0.590
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**52 %**



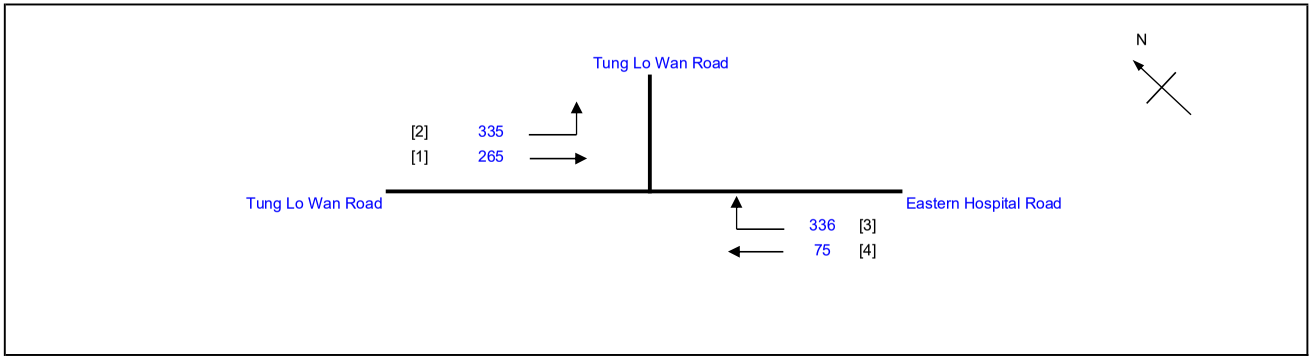
Stage 1 G= 25 Int = 5
Stage 2 G= 32 Int = 3
Stage 3 G= 33 Int = 2

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
3P	3		7	8	6	21	8
4P	3		8	14	2	19	14

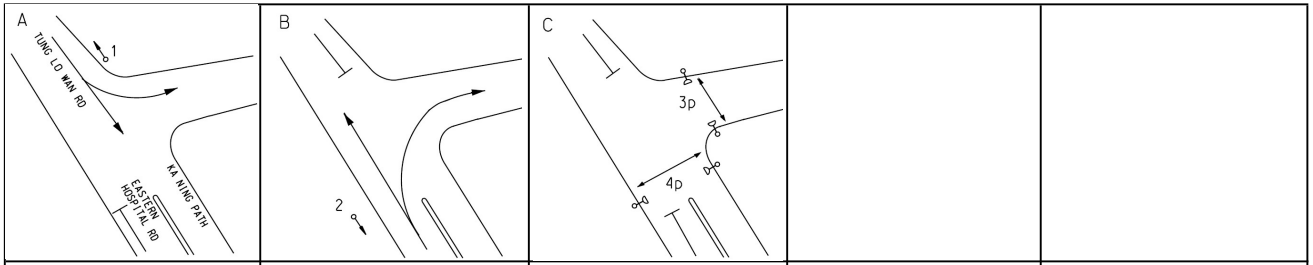
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																							8		
3,4	1	3.30	1	25			2085	130	184		314	0.41	2034							2034	0.154	0.154		26	26
4	1	3.30	1	25		N	1945	282			282	1.00	1835							1835	0.154			26	26
1,2	2	3.65	1	12		N	1980		92	261	353	0.74	1812							1812	0.195	0.195		33	33
PED	3																						33		

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

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design AM**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J5 Tung Lo Wan Road / Eastern Hospital Road		FILENAME : J5_TLWR_EHR.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



No. of stages per cycle		N =	3
Cycle time		C =	100 sec
Sum(y)		Y =	0.383
Loss time		L =	41 sec
Total Flow		=	1011 pcu
Co	= (1.5*L+5)/(1-Y)	=	107.8 sec
Cm	= L/(1-Y)	=	66.5 sec
Yult		=	0.593
R.C.ult	= (Yult-Y)/Y*100%	=	54.7 %
Cp	= 0.9*L/(0.9-Y)	=	71.4 sec
Ymax	= 1-L/C	=	0.590
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**39 %**



Stage 1	G= 23	Int = 5
Stage 2	G= 34	Int = 3
Stage 3	G= 33	Int = 2

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
3P	3		7	8	6	21	8
4P	3		8	14	2	19	14

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						8		
3,4	1	3.30	1	25			2085	52	265		317	0.16	2065							2065	0.154			24	24
4	1	3.30	1	25		N	1945	283			283	1.00	1835							1835	0.154	0.154		24	24
1,2	2	3.65	1	12		N	1980		75	336	411	0.82	1796							1796	0.229	0.229		35	35
PED	3																						33		

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

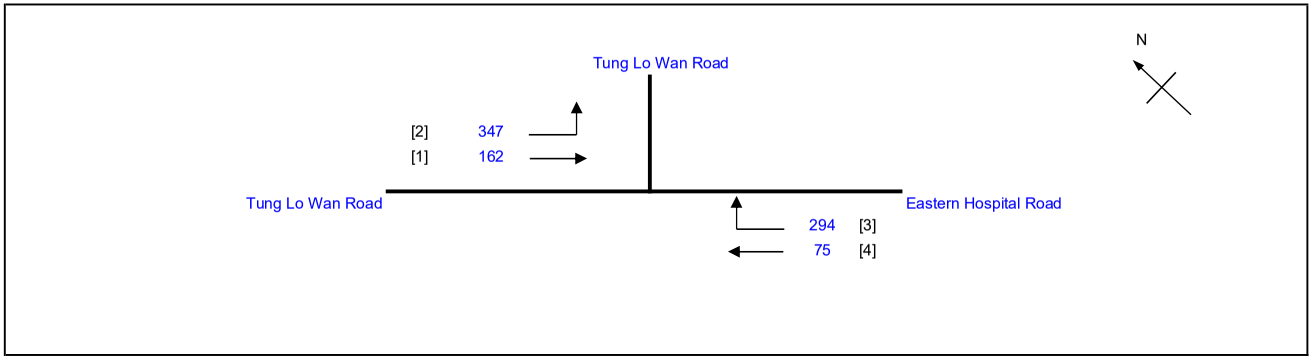
	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

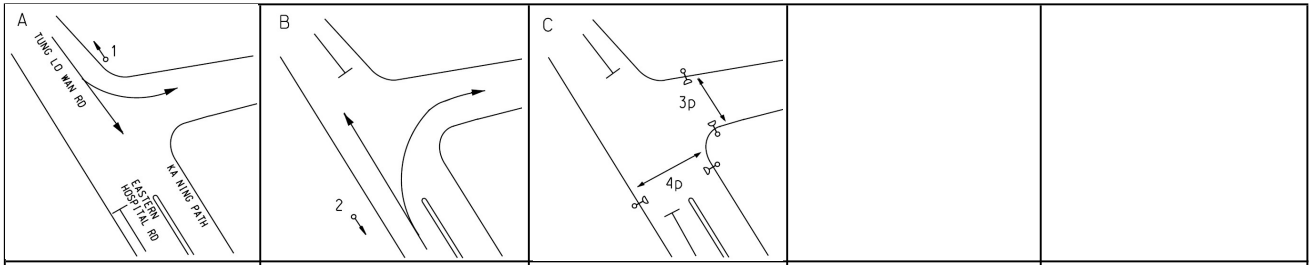
J5 Tung Lo Wan Road / Eastern Hospital Road

2033 Design PM

PROJECT NO.:	40920
FILENAME :	J5_TLWR_EHR.xlsx



No. of stages per cycle	N =	3
Cycle time	C =	100 sec
Sum(y)	Y =	0.337
Loss time	L =	41 sec
Total Flow	=	878 pcu
Co = (1.5*L+5)/(1-Y)	=	100.2 sec
Cm = L/(1-Y)	=	61.8 sec
Yult	=	0.593
R.C.ult = (Yult-Y)/Y*100%	=	76.1 %
Cp = 0.9*L/(0.9-Y)	=	65.5 sec
Ymax = 1-L/C	=	0.590
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**58 %**



Stage 1	G=	22	Int =	5	
Stage 2	G=	35	Int =	3	
Stage 3	G=	33	Int =	2	

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
3P	3		7	8	6	21	8
4P	3		8	14	2	19	14

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																							8		
3,4	1	3.30	1	25			2085	106	162		268	0.40	2037							2037	0.132	0.132		23	23
4	1	3.30	1	25		N	1945	241			241	1.00	1835							1835	0.131			23	23
1,2	2	3.65	1	12		N	1980		75	294	369	0.80	1801							1801	0.205	0.205		36	36
PED	3																						33		

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

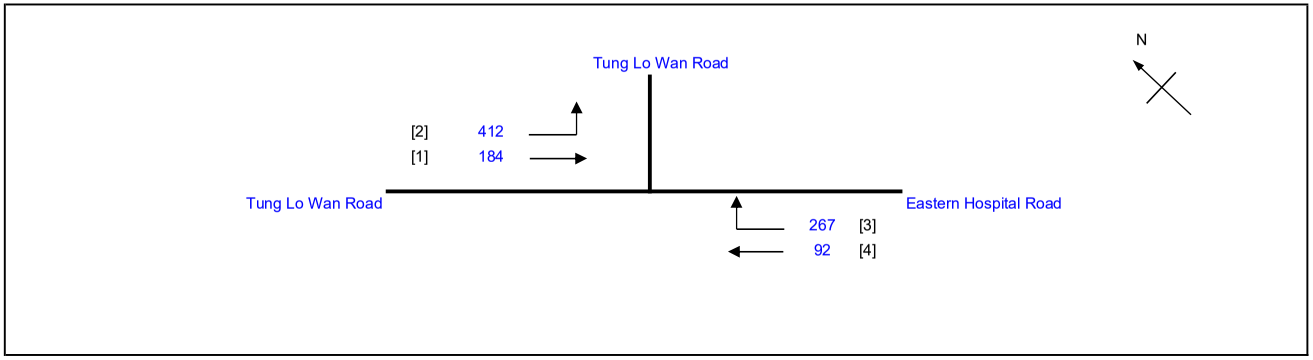
	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

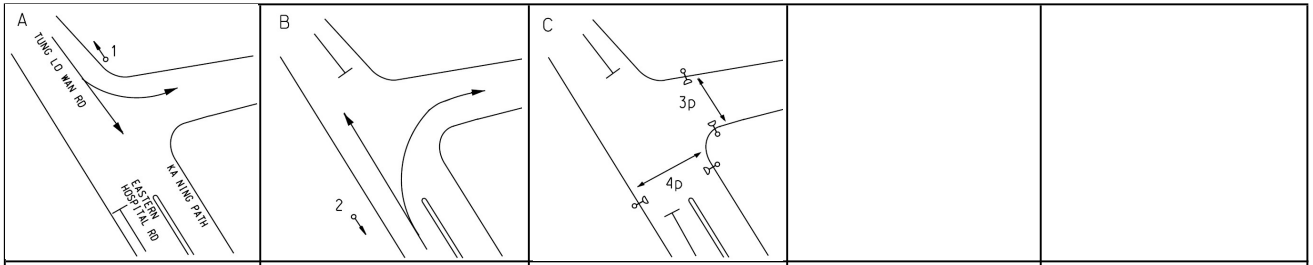
J5 Tung Lo Wan Road / Eastern Hospital Road

2033 Design Weekend

PROJECT NO.: 40920
FILENAME : J5_TLWR_EHR.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	100 sec
Sum(y)		Y =	0.353
Loss time		L =	41 sec
Total Flow		=	955 pcu
Co	= (1.5*L+5)/(1-Y)	=	102.7 sec
Cm	= L/(1-Y)	=	63.3 sec
Yult		=	0.593
R.C.ult	= (Yult-Y)/Y*100%	=	68.1 %
Cp	= 0.9*L/(0.9-Y)	=	67.4 sec
Ymax	= 1-L/C	=	0.590
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**51 %**



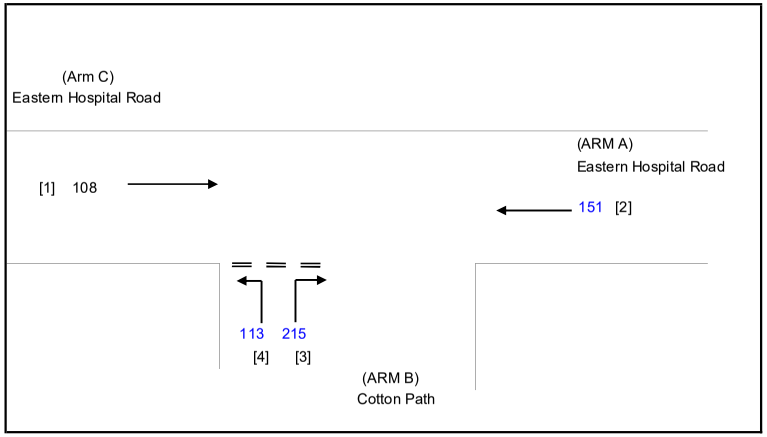
Stage 1	G=	25	Stage 2	G=	32
	Int =	5		Int =	3
Stage 3	G=	33			
	Int =	2			

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
3P	3		7	8	6	21	8
4P	3		8	14	2	19	14

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																							8		
3,4	1	3.30	1	25			2085	130	184		314	0.41	2034							2034	0.154	0.154		26	26
4	1	3.30	1	25		N	1945	282			282	1.00	1835							1835	0.154			26	26
1,2	2	3.65	1	12		N	1980		92	267	359	0.74	1812							1812	0.198	0.198		33	33
PED	3																						33		

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

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference AM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Oct-25
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.30	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	151	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	108	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.70	(metres)
W b-c	=	4.30	(metres)
Vl b-a	=	53	(metres)
Vr b-a	=	95	(metres)
Vr b-c	=	88	(metres)
q b-a	=	215	(pcu/hr)
q b-c	=	113	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.3445122

THE CAPACITY OF MOVEMENT :

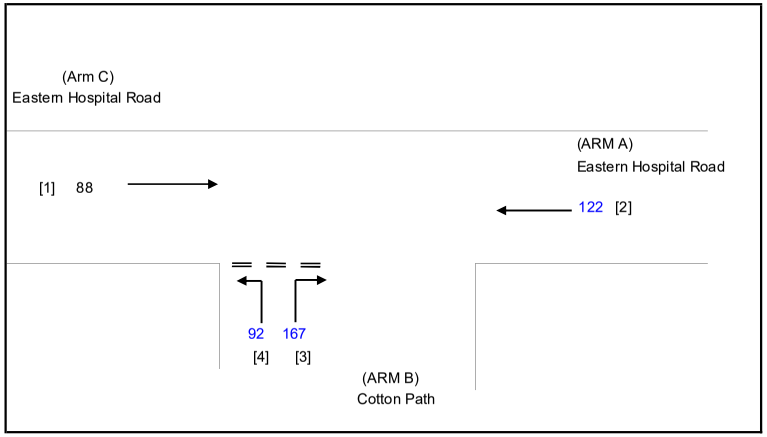
Q b-a	=	525		
Q b-c	=	725	Q b-c (O) =	650.8
Q c-b	=	412		
Q b-ac	=	580		
TOTAL FLOW	=	587	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.4095
DFC b-c	=	0.1559
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1948

CRITICAL DFC = 0.41

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference PM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Oct-25
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.30	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	122	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	88	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.70	(metres)
W b-c	=	4.30	(metres)
Vl b-a	=	53	(metres)
Vr b-a	=	95	(metres)
Vr b-c	=	88	(metres)
q b-a	=	167	(pcu/hr)
q b-c	=	92	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.35521236

THE CAPACITY OF MOVEMENT :

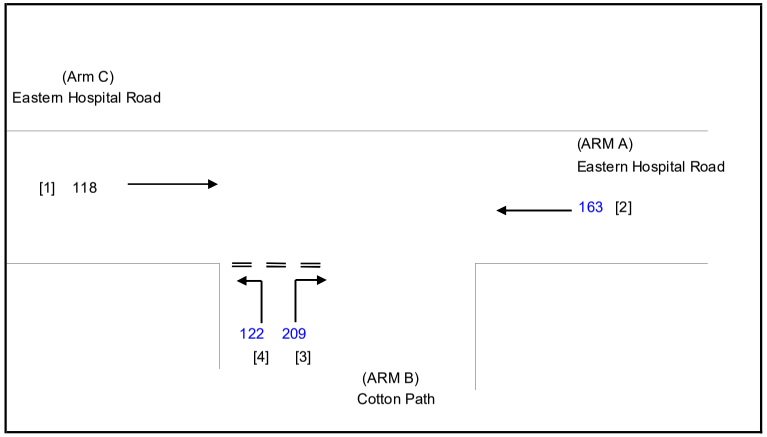
Q b-a	=	535		
Q b-c	=	734	Q b-c (O) =	676.7
Q c-b	=	417		
Q b-ac	=	592		
TOTAL FLOW	=	469	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.3121
DFC b-c	=	0.1253
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1554

CRITICAL DFC = 0.31

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference Weekend**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Oct-25
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.30	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	163	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	118	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.70	(metres)
W b-c	=	4.30	(metres)
Vl b-a	=	53	(metres)
Vr b-a	=	95	(metres)
Vr b-c	=	88	(metres)
q b-a	=	209	(pcu/hr)
q b-c	=	122	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.36858006

THE CAPACITY OF MOVEMENT :

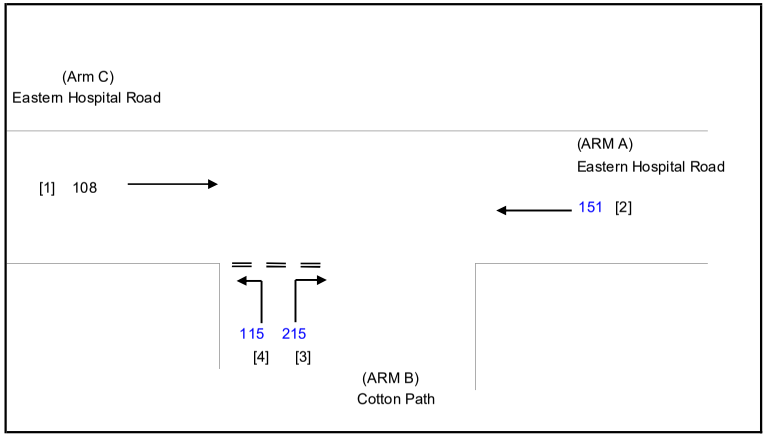
Q b-a	=	520		
Q b-c	=	722	Q b-c (O) =	649.5
Q c-b	=	411		
Q b-ac	=	580		
TOTAL FLOW	=	612	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.4019
DFC b-c	=	0.1690
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.2104

CRITICAL DFC = 0.40

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design AM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Oct-25
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.30	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	151	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	108	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.70	(metres)
W b-c	=	4.30	(metres)
Vl b-a	=	53	(metres)
Vr b-a	=	95	(metres)
Vr b-c	=	88	(metres)
q b-a	=	215	(pcu/hr)
q b-c	=	115	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.34848485

THE CAPACITY OF MOVEMENT :

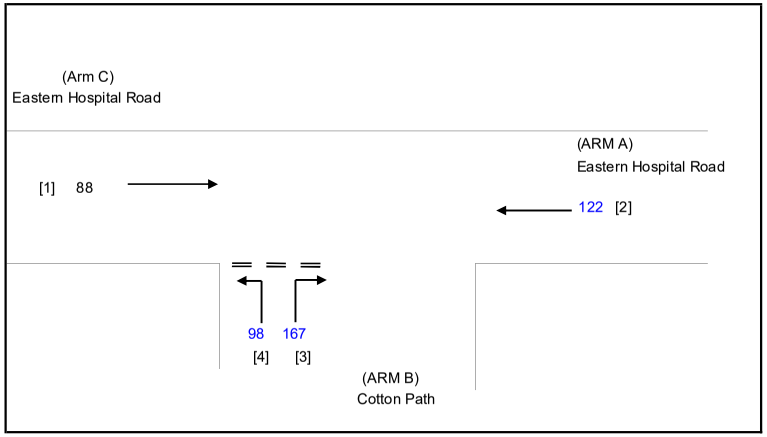
Q b-a	=	525		
Q b-c	=	725	Q b-c (O) =	650.8
Q c-b	=	412		
Q b-ac	=	581		
TOTAL FLOW	=	589	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.4095
DFC b-c	=	0.1586
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1980

CRITICAL DFC = 0.41

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design PM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Oct-25
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.30	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	122	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	88	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.70	(metres)
W b-c	=	4.30	(metres)
Vl b-a	=	53	(metres)
Vr b-a	=	95	(metres)
Vr b-c	=	88	(metres)
q b-a	=	167	(pcu/hr)
q b-c	=	98	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.36981132

THE CAPACITY OF MOVEMENT :

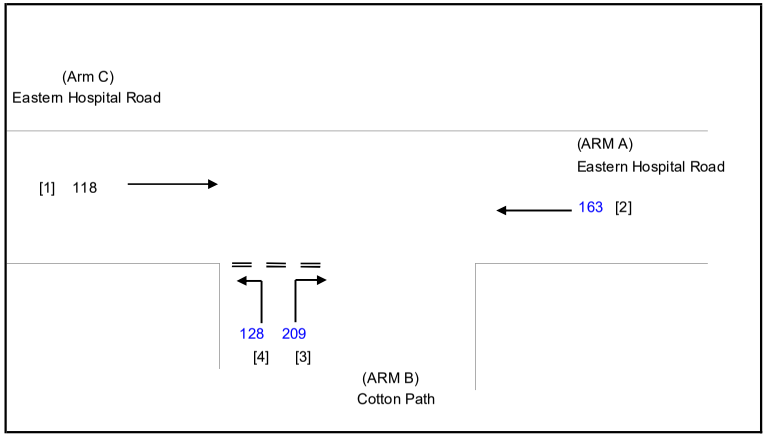
Q b-a	=	535		
Q b-c	=	734	Q b-c (O) =	676.7
Q c-b	=	417		
Q b-ac	=	595		
TOTAL FLOW	=	475	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.3121
DFC b-c	=	0.1335
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1648

CRITICAL DFC = 0.31

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design Weekend**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Oct-25
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.30	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	163	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	118	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.70	(metres)
W b-c	=	4.30	(metres)
Vl b-a	=	53	(metres)
Vr b-a	=	95	(metres)
Vr b-c	=	88	(metres)
q b-a	=	209	(pcu/hr)
q b-c	=	128	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.37982196

THE CAPACITY OF MOVEMENT :

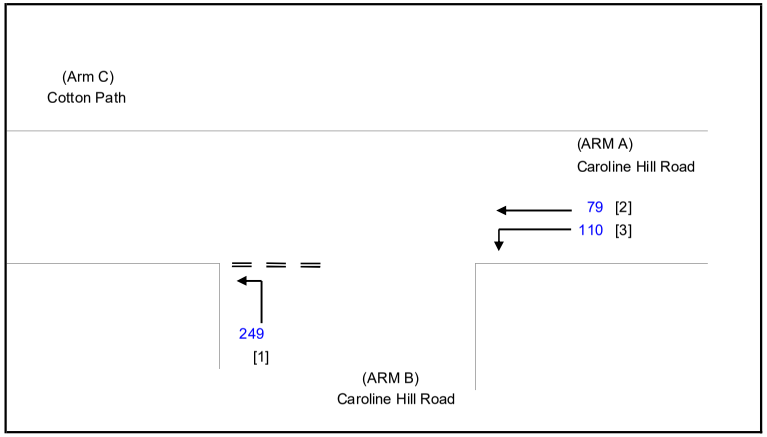
Q b-a	=	520		
Q b-c	=	722	Q b-c (O) =	649.5
Q c-b	=	411		
Q b-ac	=	582		
TOTAL FLOW	=	618	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.4019
DFC b-c	=	0.1773
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.2200

CRITICAL DFC = 0.40

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference AM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Oct-25
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	6.00	(metres)
W cr	=	0	(metres)
q a-b	=	110	(pcu/hr)
q a-c	=	79	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	0	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.00	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	100	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	249	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.01431
F	=	0.58595
Y	=	0.79300
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

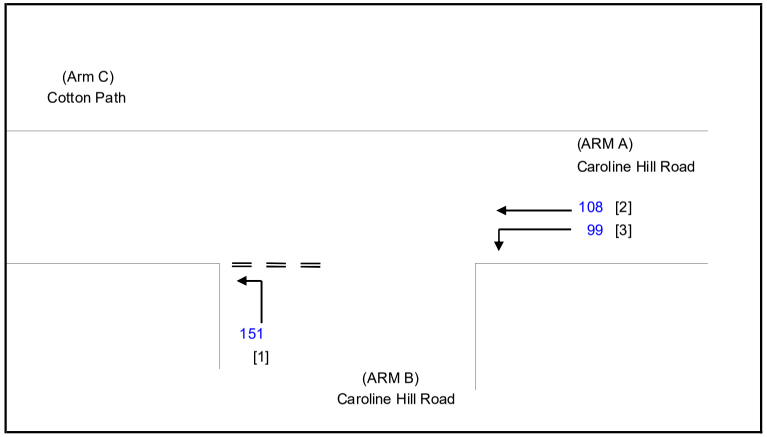
Q b-a	=	315			
Q b-c	=	720	Q b-c (O) =	720	
Q c-b	=	405			
Q b-ac	=	720			
TOTAL FLOW	=	438	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.3458
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.3458

CRITICAL DFC = 0.35

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference PM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Oct-25
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	6.00	(metres)
W cr	=	0	(metres)
q a-b	=	99	(pcu/hr)
q a-c	=	108	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	0	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.00	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	100	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	151	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.01431
F	=	0.58595
Y	=	0.79300
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

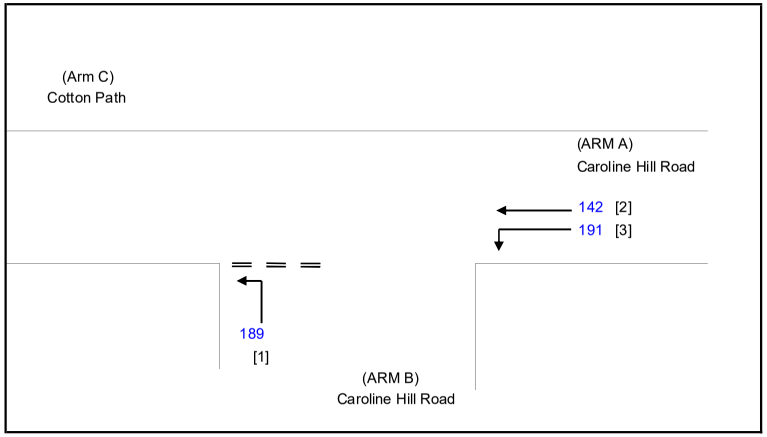
Q b-a	=	312			
Q b-c	=	713	Q b-c (O) =	713	
Q c-b	=	402			
Q b-ac	=	713			
TOTAL FLOW	=	358	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.2118
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.2118

CRITICAL DFC = 0.21

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference Weekend**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Oct-25
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	6.00	(metres)
W cr	=	0	(metres)
q a-b	=	191	(pcu/hr)
q a-c	=	142	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	0	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.00	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	100	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	189	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.01431
F	=	0.58595
Y	=	0.79300
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

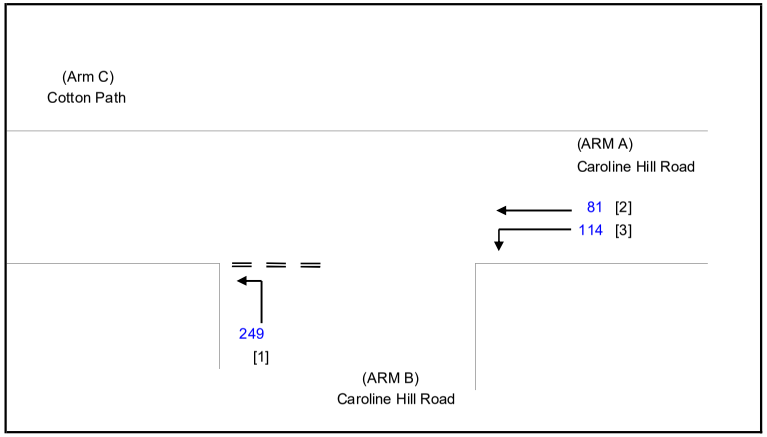
Q b-a	=	301		
Q b-c	=	692	Q b-c (O) =	692
Q c-b	=	380		
Q b-ac	=	692		
TOTAL FLOW	=	522	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.2731
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.2731

CRITICAL DFC = 0.27

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design AM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Oct-25
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	6.00	(metres)
W cr	=	0	(metres)
q a-b	=	114	(pcu/hr)
q a-c	=	81	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	0	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.00	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	100	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	249	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.01431
F	=	0.58595
Y	=	0.79300
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

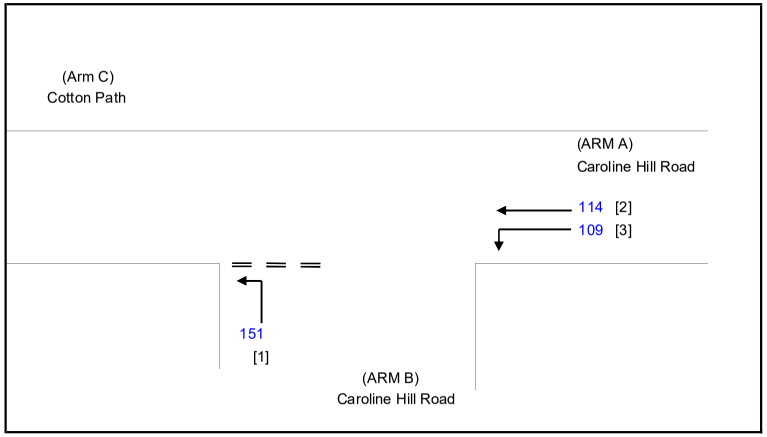
Q b-a	=	315		
Q b-c	=	719	Q b-c (O) =	719
Q c-b	=	404		
Q b-ac	=	719		
TOTAL FLOW	=	444	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.3463
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.3463

CRITICAL DFC = 0.35

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design PM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Oct-25
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	6.00	(metres)
W cr	=	0	(metres)
q a-b	=	109	(pcu/hr)
q a-c	=	114	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	0	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.00	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	100	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	151	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.01431
F	=	0.58595
Y	=	0.79300
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

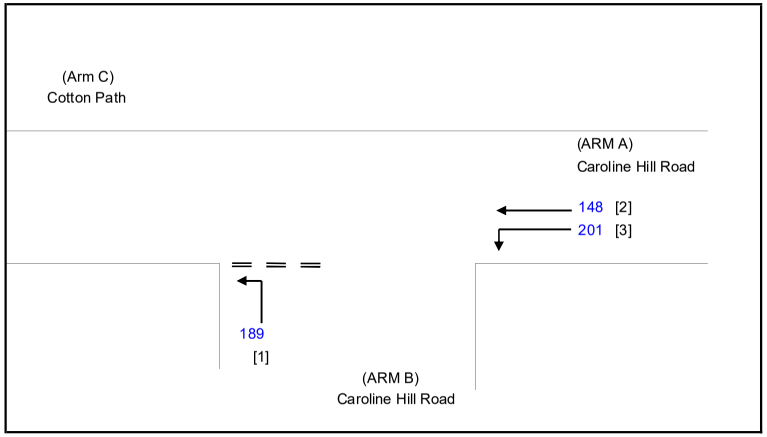
Q b-a	=	310			
Q b-c	=	710	Q b-c (O) =	710	
Q c-b	=	399			
Q b-ac	=	710			
TOTAL FLOW	=	374	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.2127
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.2127

CRITICAL DFC = 0.21

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design Weekend**	PROJECT NO.: 40920	PREPARED BY:	SKL	Oct-25
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Oct-25
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Oct-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	6.00	(metres)
W cr	=	0	(metres)
q a-b	=	201	(pcu/hr)
q a-c	=	148	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	0	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.00	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	100	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	189	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.01431
F	=	0.58595
Y	=	0.79300
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

Q b-a	=	299			
Q b-c	=	689	Q b-c (O) =	689	
Q c-b	=	378			
Q b-ac	=	689			
TOTAL FLOW	=	538	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.2743
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.2743

CRITICAL DFC = 0.27

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Prepared By:		SKL	Oct-25
Checked By:		SLN	Oct-25
Reviewed By:		SLN	Oct-25

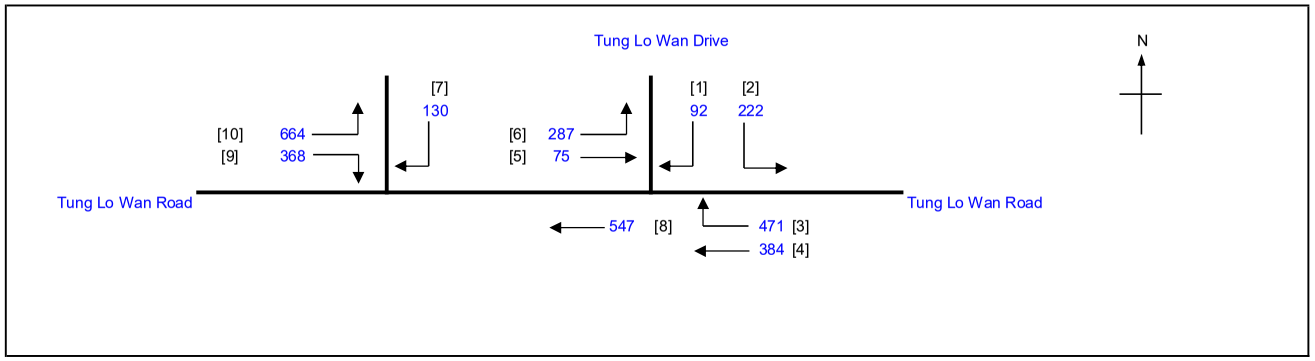
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J8 Tung Lo Wan Road / Moreton Terrace

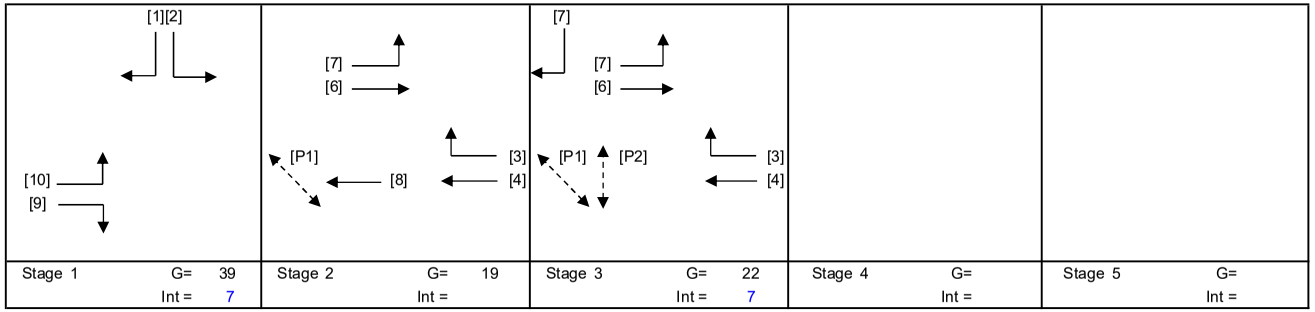
2033 Reference AM

PROJECT NO.: 40920

FILENAME : J8_TLWR_MT.xlsx



No. of stages per cycle	N =	3
Cycle time	C =	95 sec
Sum(y)	Y =	0.597
Loss time	L =	12 sec
Total Flow	=	3240 pcu
Co = (1.5*L+5)/(1-Y)	=	57.0 sec
Cm = L/(1-Y)	=	29.7 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	35.8 %
Cp = 0.9*L/(0.9-Y)	=	35.6 sec
Ymax = 1-L/C	=	0.874
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**32 %**



Stage 1	G= 39	Stage 2	G= 19	Stage 3	G= 22	Stage 4	G=	Stage 5	G=
	Int = 7		Int =		Int = 7		Int =		Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2,3		8	8		41	8
P2	3		9	8		21	8

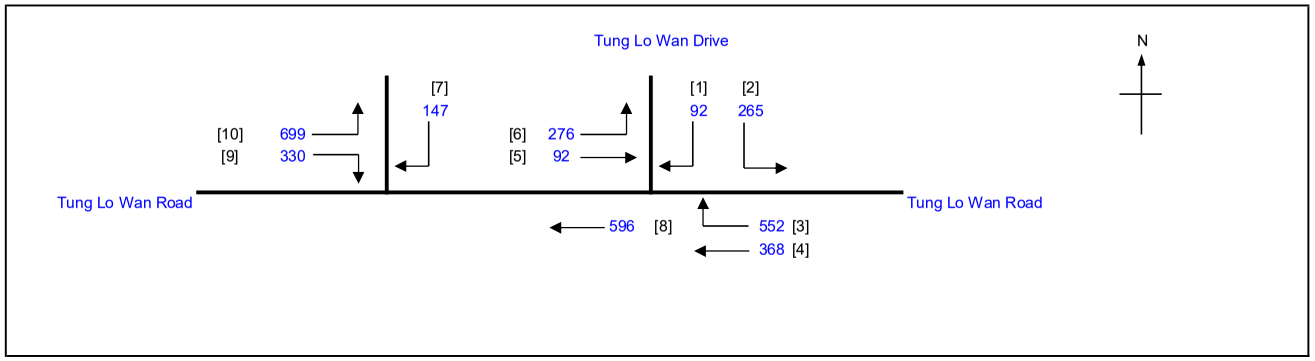
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							12					
8	2	3.00	2			N	3970		547		547	0.00	3970							3970	0.138			19	19	0.683	33	36
10	1	3.70	1	8		N	1985	485			485	1.00	1672							1672	0.290	0.290		40	40	0.683	42	25
9,10	1	3.50	1	13			2105	179		368	547	1.00	1887							1887	0.290			40	40	0.683	48	24
7	3	5.00	1	27		N	2115			130	130	1.00	2004							2004	0.065			9	23	0.683	18	56
4	2,3	3.70	1			N	1985		384		384	0.00	1985							1985	0.193			27	43	0.683	42	33
3,4	2,3	3.00	1	8	O		2055			471	471	1.00	1537							1537	0.306	0.306		43	43	0.683	36	24
5,6	2,3	5.00	1	13		N	2115	287	75		362	0.79	1938							1938	0.187			26	43	0.683	36	34
1,2	1	3.50	1	8		N	1965	222		92	314	1.00	1655							1655	0.190			26	40	0.683	36	35

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

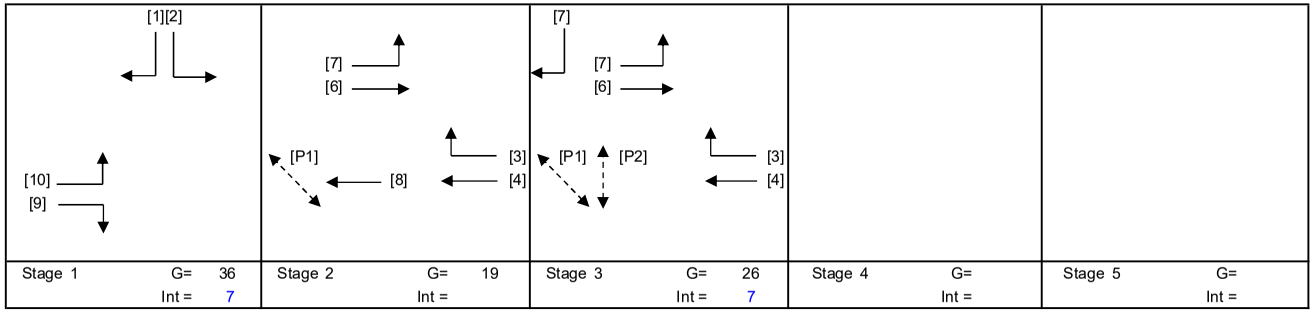
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung			
J8 Tung Lo Wan Road / Moreton Terrace	**2033 Reference PM**		
PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
FILENAME : J8_TLWR_MT.xlsx	Checked By:	SLN	Oct-25
	Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	3
Cycle time	C =	95 sec
Sum(y)	Y =	0.648
Loss time	L =	12 sec
Total Flow	=	3417 pcu
Co = (1.5*L+5)/(1-Y)	=	65.4 sec
Cm = L/(1-Y)	=	34.1 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	24.9 %
Cp = 0.9*L/(0.9-Y)	=	42.9 sec
Ymax = 1-L/C	=	0.874
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**21 %**



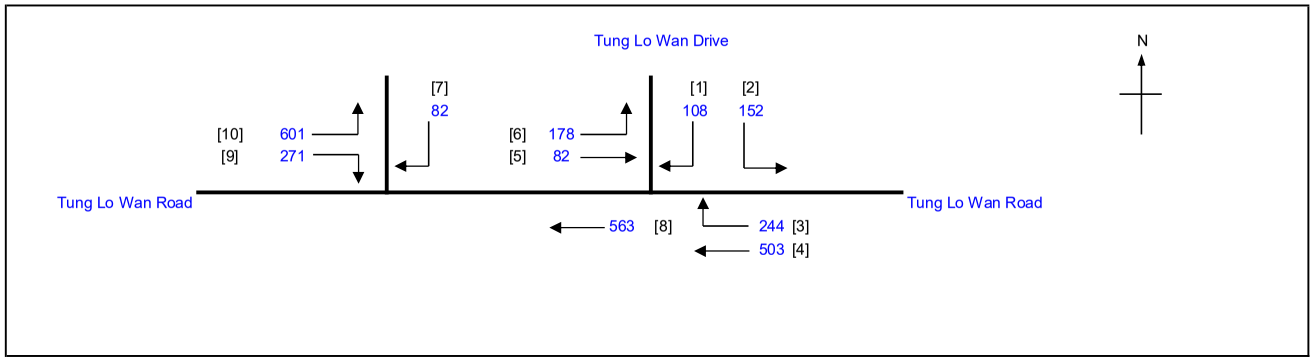
Stage 1	G= 36	Stage 2	G= 19	Stage 3	G= 26	Stage 4	G=	Stage 5	G=
	Int = 7		Int =		Int = 7		Int =		Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2,3		8	8		44	8
P2	3		9	8		25	8

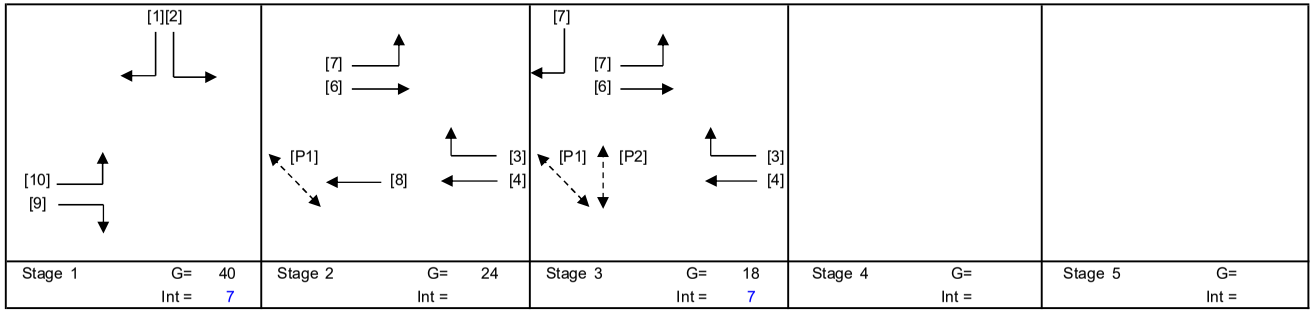
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							12					
8	2	3.00	2			N	3970		596		596	0.00	3970							3970	0.150			19	19	0.742	36	38
10	1	3.70	1	8		N	1985	483			483	1.00	1672							1672	0.289			37	37	0.742	42	30
9,10	1	3.50	1	13			2105	216		330	546	1.00	1887							1887	0.289	0.289		37	37	0.742	48	29
7	3	5.00	1	27		N	2115			147	147	1.00	2004							2004	0.073			9	27	0.742	24	61
4	2,3	3.70	1			N	1985		368		368	0.00	1985							1985	0.185			24	46	0.742	42	39
3,4	2,3	3.00	1	8	O		2055			552	552	1.00	1537							1537	0.359	0.359		46	46	0.742	42	24
5,6	2,3	5.00	1	13		N	2115	276	92		368	0.75	1947							1947	0.189			24	46	0.742	42	39
1,2	1	3.50	1	8		N	1965	265		92	357	1.00	1655							1655	0.216			28	37	0.742	42	37

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

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference Weekend**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
		FILENAME : J8_TLWR_MT.xlsx	Checked By:	SLN	Oct-25
J8 Tung Lo Wan Road / Moreton Terrace			Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	3
Cycle time	C =	95 sec
Sum(y)	Y =	0.499
Loss time	L =	12 sec
Total Flow	=	2784 pcu
Co = (1.5*L+5)/(1-Y)	=	45.9 sec
Cm = L/(1-Y)	=	23.9 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	62.4 %
Cp = 0.9*L/(0.9-Y)	=	26.9 sec
Ymax = 1-L/C	=	0.874
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**58 %**



Stage 1	G= 40	Stage 2	G= 24	Stage 3	G= 18	Stage 4	G=	Stage 5	G=
	Int = 7		Int =		Int = 7		Int =		Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2,3		8	8		40	8
P2	3		9	8		17	8

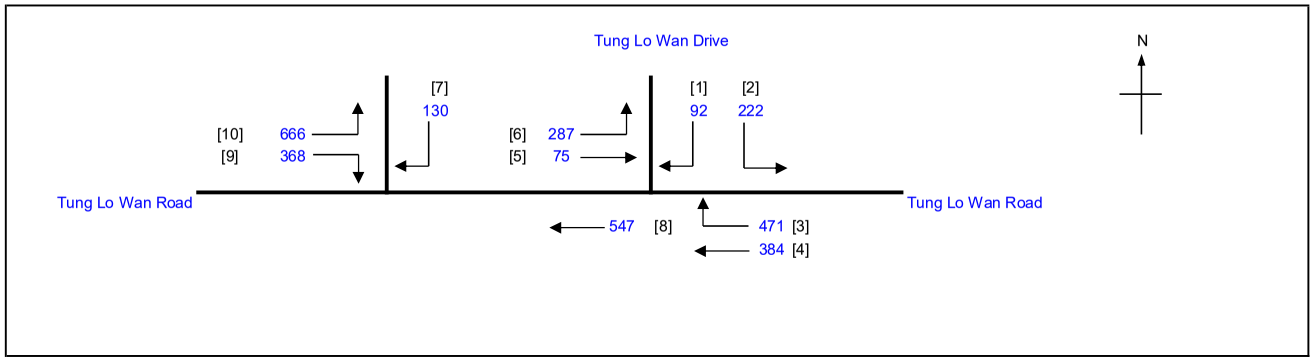
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							12					
8	2	3.00	2			N	3970		563		563	0.00	3970							3970	0.142			24	24	0.571	33	30
10	1	3.70	1	8		N	1985	410			410	1.00	1672							1672	0.245	0.245		41	41	0.571	36	21
9,10	1	3.50	1	13			2105	191		271	462	1.00	1887							1887	0.245			41	41	0.571	36	21
7	3	5.00	1	27		N	2115			82	82	1.00	2004							2004	0.041			7	19	0.571	12	53
4	2,3	3.70	1			N	1985		503		503	0.00	1985							1985	0.253	0.253		42	42	0.571	42	20
3,4	2,3	3.00	1	8	O		2055			244	244	1.00	1537							1537	0.159			26	42	0.571	24	32
5,6	2,3	5.00	1	13		N	2115	178	82		260	0.68	1960							1960	0.133			22	42	0.571	30	34
1,2	1	3.50	1	8		N	1965	152		108	260	1.00	1655							1655	0.157			26	41	0.571	24	31

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

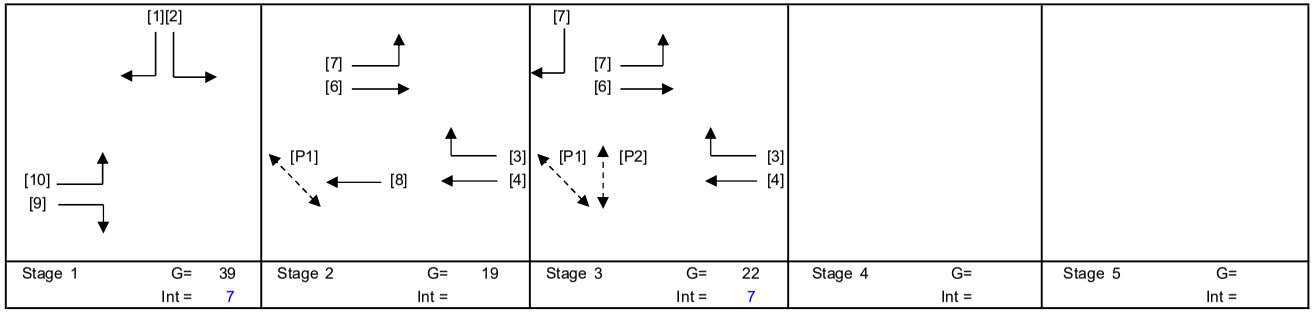
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design AM**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
		FILENAME : J8_TLWR_MT.xlsx	Checked By:	SLN	Oct-25
J8 Tung Lo Wan Road / Moreton Terrace			Reviewed By:	SLN	Oct-25



No. of stages per cycle		N =	3
Cycle time		C =	95 sec
Sum(y)		Y =	0.597
Loss time		L =	12 sec
Total Flow		=	3242 pcu
Co	= (1.5*L+5)/(1-Y)	=	57.1 sec
Cm	= L/(1-Y)	=	29.8 sec
Yult		=	0.810
R.C.ult	= (Yult-Y)/Y*100%	=	35.6 %
Cp	= 0.9*L/(0.9-Y)	=	35.7 sec
Ymax	= 1-L/C	=	0.874
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**32 %**



Stage 1	G= 39	Stage 2	G= 19	Stage 3	G= 22	Stage 4	G=	Stage 5	G=
	Int = 7		Int =		Int = 7		Int =		Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2,3		8	8		41	8
P2	3		9	8		21	8

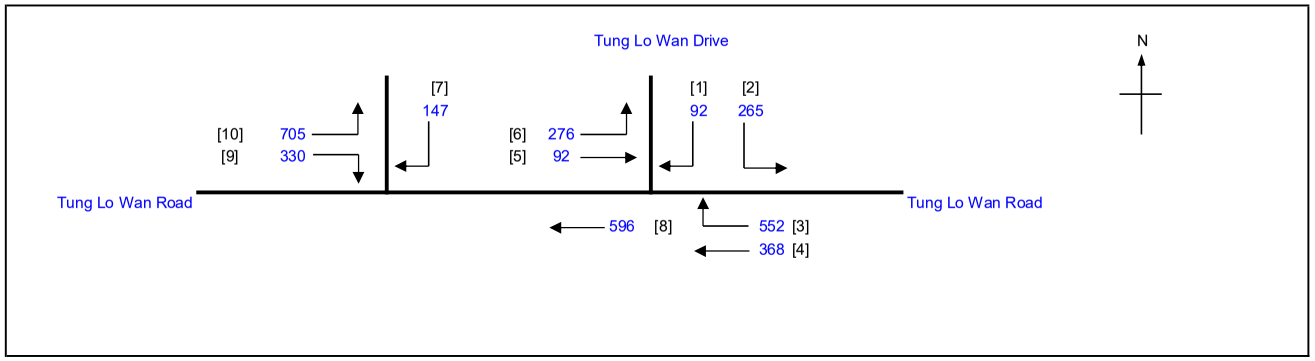
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							12					
8	2	3.00	2			N	3970		547		547	0.00	3970							3970	0.138			19	19	0.684	33	36
10	1	3.70	1	8		N	1985	486			486	1.00	1672							1672	0.291	0.291		40	40	0.684	42	25
9,10	1	3.50	1	13			2105	180		368	548	1.00	1887							1887	0.290			40	40	0.684	48	24
7	3	5.00	1	27		N	2115			130	130	1.00	2004							2004	0.065			9	23	0.684	18	56
4	2,3	3.70	1			N	1985		384		384	0.00	1985							1985	0.193			27	43	0.684	42	33
3,4	2,3	3.00	1	8	O		2055			471	471	1.00	1537							1537	0.306	0.306		43	43	0.684	36	24
5,6	2,3	5.00	1	13		N	2115	287	75		362	0.79	1938							1938	0.187			26	43	0.684	36	34
1,2	1	3.50	1	8		N	1965	222		92	314	1.00	1655							1655	0.190			26	40	0.684	36	35

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

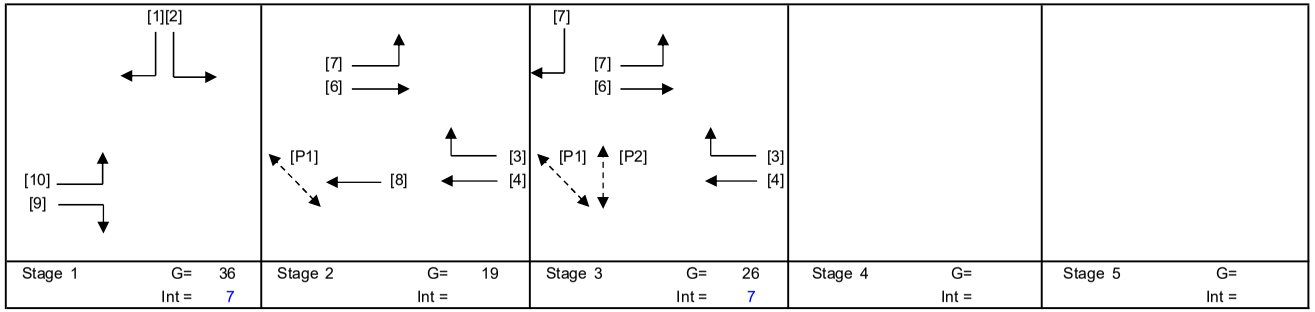
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design PM**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
		FILENAME : J8_TLWR_MT.xlsx	Checked By:	SLN	Oct-25
J8 Tung Lo Wan Road / Moreton Terrace			Reviewed By:	SLN	Oct-25



No. of stages per cycle		N =	3
Cycle time		C =	95 sec
Sum(y)		Y =	0.650
Loss time		L =	12 sec
Total Flow		=	3423 pcu
Co	= (1.5*L+5)/(1-Y)	=	65.7 sec
Cm	= L/(1-Y)	=	34.3 sec
Yult		=	0.810
R.C.ult	= (Yult-Y)/Y*100%	=	24.6 %
Cp	= 0.9*L/(0.9-Y)	=	43.2 sec
Ymax	= 1-L/C	=	0.874
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**21 %**



Stage 1	G= 36	Stage 2	G= 19	Stage 3	G= 26	Stage 4	G=	Stage 5	G=
	Int = 7		Int =		Int = 7		Int =		Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2,3		8	8		44	8
P2	3		9	8		25	8

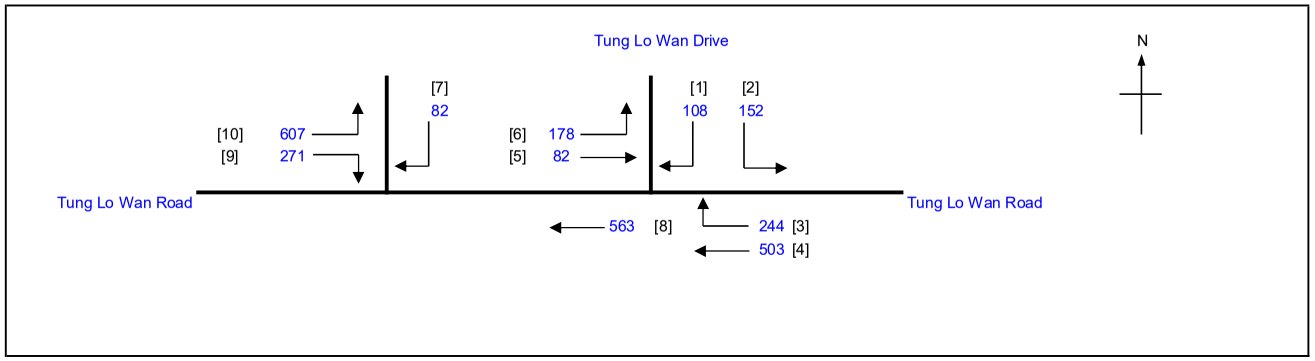
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							12					
8	2	3.00	2			N	3970		596		596	0.00	3970							3970	0.150			19	19	0.744	36	38
10	1	3.70	1	8		N	1985	486			486	1.00	1672							1672	0.291			37	37	0.744	42	30
9,10	1	3.50	1	13			2105	219		330	549	1.00	1887							1887	0.291	0.291		37	37	0.744	48	29
7	3	5.00	1	27		N	2115			147	147	1.00	2004							2004	0.073			9	27	0.744	24	61
4	2,3	3.70	1			N	1985		368		368	0.00	1985							1985	0.185			24	46	0.744	42	39
3,4	2,3	3.00	1	8	O		2055			552	552	1.00	1537							1537	0.359	0.359		46	46	0.744	42	24
5,6	2,3	5.00	1	13		N	2115	276	92		368	0.75	1947							1947	0.189			24	46	0.744	42	39
1,2	1	3.50	1	8		N	1965	265		92	357	1.00	1655							1655	0.216			28	37	0.744	42	37

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

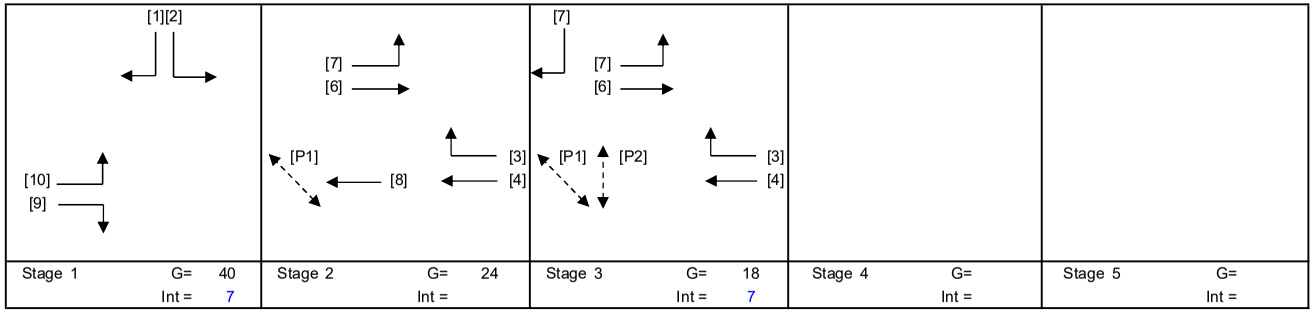
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design Weekend**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
		FILENAME : J8_TLWR_MT.xlsx	Checked By:	SLN	Oct-25
J8 Tung Lo Wan Road / Moreton Terrace			Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	3
Cycle time	C =	95 sec
Sum(y)	Y =	0.500
Loss time	L =	12 sec
Total Flow	=	2790 pcu
Co = (1.5*L+5)/(1-Y)	=	46.0 sec
Cm = L/(1-Y)	=	24.0 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	61.8 %
Cp = 0.9*L/(0.9-Y)	=	27.0 sec
Ymax = 1-L/C	=	0.874
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**57 %**



Stage 1	G= 40	Stage 2	G= 24	Stage 3	G= 18	Stage 4	G=	Stage 5	G=
	Int = 7		Int =		Int = 7		Int =		Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2,3		8	8		40	8
P2	3		9	8		17	8

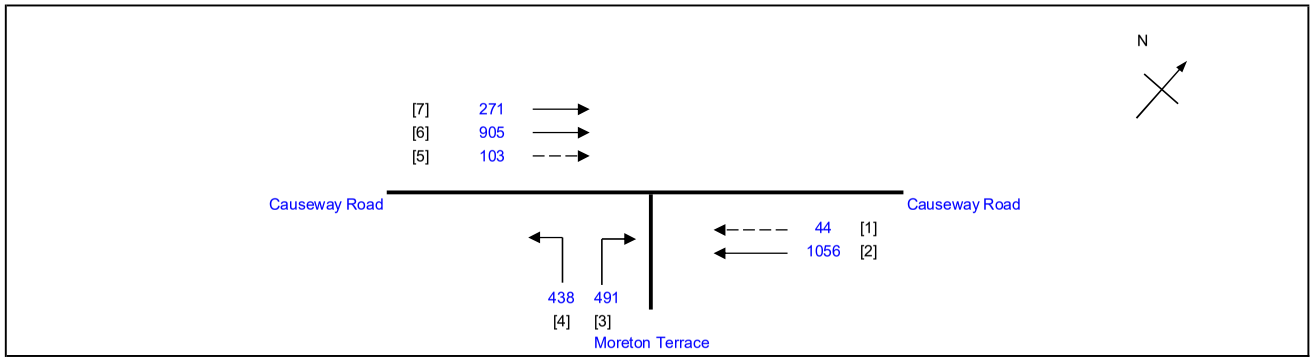
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							12					
8	2	3.00	2			N	3970		563		563	0.00	3970							3970	0.142			24	24	0.573	33	30
10	1	3.70	1	8		N	1985	413			413	1.00	1672							1672	0.247	0.247		41	41	0.573	36	21
9,10	1	3.50	1	13			2105	194		271	465	1.00	1887							1887	0.246			41	41	0.573	36	21
7	3	5.00	1	27		N	2115			82	82	1.00	2004							2004	0.041			7	19	0.573	12	54
4	2,3	3.70	1			N	1985		503		503	0.00	1985							1985	0.253	0.253		42	42	0.573	42	20
3,4	2,3	3.00	1	8	O		2055			244	244	1.00	1537							1537	0.159			26	42	0.573	24	32
5,6	2,3	5.00	1	13		N	2115	178	82		260	0.68	1960							1960	0.133			22	42	0.573	30	34
1,2	1	3.50	1	8		N	1965	152		108	260	1.00	1655							1655	0.157			26	41	0.573	24	31

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

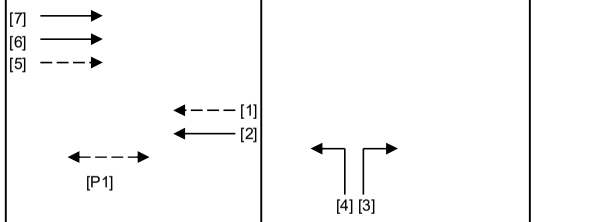
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung			
J9 Moreton Terrace / Causeway Road	**2033 Reference AM**		
PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
FILENAME : J9_MT_CR.xlsx	Checked By:	SLN	Oct-25
	Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	2
Cycle time	C =	95 sec
Sum(y)	Y =	0.599
Loss time	L =	10 sec
Total Flow	=	3308 pcu
Co = (1.5*L+5)/(1-Y)	=	49.9 sec
Cm = L/(1-Y)	=	25.0 sec
Yult	=	0.825
R.C.ult = (Yult-Y)/Y*100%	=	37.7 %
Cp = 0.9*L/(0.9-Y)	=	29.9 sec
Ymax = 1-L/C	=	0.895
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**34 %**



Stage 1	G= 60	Stage 2	G= 23
	Int = 5		Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		8	10		55	10

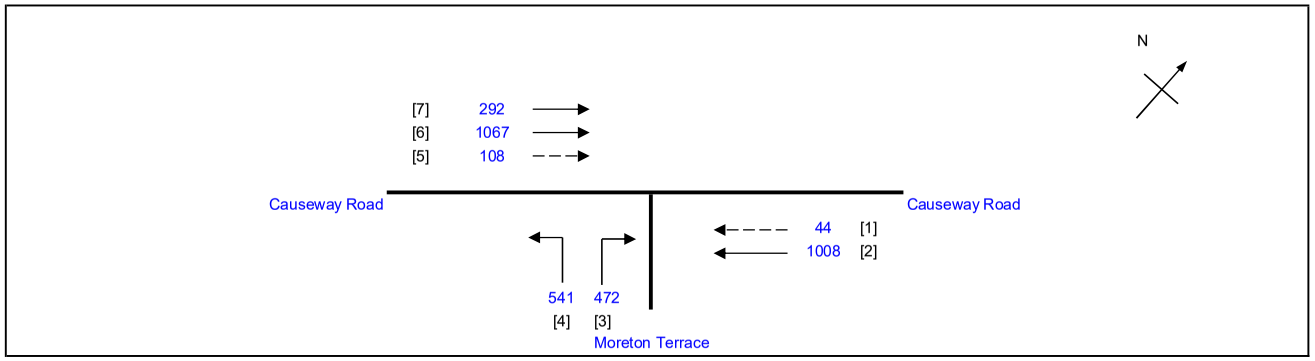
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
2	1	3.70	1			N	1985		284		284	0.00	1985			0.4	-1191			794	0.358			51	61	0.670	18	22
2	1	4.00	1				2155		772		772	0.00	2155							2155	0.358			51	61	0.670	54	17
1	1	3.00	1			N	1915		44		44	0.00	1915							1915	0.023			3	61	0.670	6	91
4	2	3.50	1	9		N	1965	284			284	1.00	1684							1684	0.169			24	24	0.670	30	37
3,4	2	3.30	1	15			2085	154		167	321	1.00	1895							1895	0.169	0.169		24	24	0.670	36	36
3	2	3.50	1	15			2105			324	324	1.00	1914							1914	0.169			24	24	0.670	36	36
7	1	3.50	1			N	1965		271		271	0.00	1965							1965	0.138			20	61	0.670	30	39
6	1	3.50	1				2105		905		905	0.00	2105							2105	0.430	0.430		61	61	0.670	48	12
5	1	3.00	1				2055		103		103	0.00	2055							2055	0.050			7	61	0.670	12	60

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung			
J9 Moreton Terrace / Causeway Road	**2033 Reference PM**		
PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
FILENAME : J9_MT_CR.xlsx	Checked By:	SLN	Oct-25
	Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	2
Cycle time	C =	95 sec
Sum(y)	Y =	0.692
Loss time	L =	10 sec
Total Flow	=	3532 pcu
Co = (1.5*L+5)/(1-Y)	=	64.8 sec
Cm = L/(1-Y)	=	32.4 sec
Yult	=	0.825
R.C.ult = (Yult-Y)/Y*100%	=	19.3 %
Cp = 0.9*L/(0.9-Y)	=	43.2 sec
Ymax = 1-L/C	=	0.895
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**16 %**

Stage 1	G= 61	Stage 2	G= 22
	Int = 5		Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		8	10		56	10

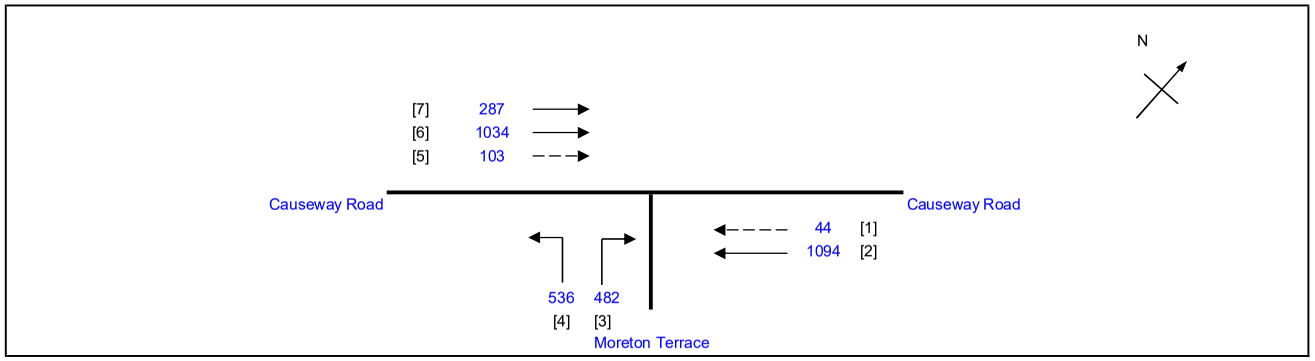
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
2	1	3.70	1			N	1985		271		271	0.00	1985			0.4	-1191			794	0.341			42	62	0.773	24	36
2	1	4.00	1				2155		737		737	0.00	2155							2155	0.342			42	62	0.773	60	26
1	1	3.00	1			N	1915		44		44	0.00	1915							1915	0.023			3	62	0.773	12	138
4	2	3.50	1	9		N	1965	311			311	1.00	1684							1684	0.185	0.185		23	23	0.773	36	44
3,4	2	3.30	1	15			2085	230		119	349	1.00	1895							1895	0.184			23	23	0.773	42	43
3	2	3.50	1	15			2105			353	353	1.00	1914							1914	0.184			23	23	0.773	42	42
7	1	3.50	1			N	1965		292		292	0.00	1965							1965	0.149			18	62	0.773	36	47
6	1	3.50	1				2105		1067		1067	0.00	2105							2105	0.507	0.507		62	62	0.773	54	14
5	1	3.00	1				2055		108		108	0.00	2055							2055	0.053			6	62	0.773	18	79

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

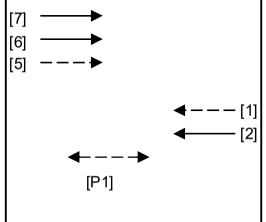
LLA CONSULTANCY LIMITED

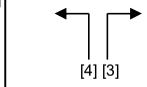
TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung			
2033 Reference Weekend	PROJECT NO.: 40920 — Prepared By:	SKL	Oct-25
	FILENAME : J9_MT_CR.xlsx — Checked By:	SLN	Oct-25
J9 Moreton Terrace / Causeway Road	Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	2
Cycle time	C =	95 sec
Sum(y)	Y =	0.677
Loss time	L =	10 sec
Total Flow	=	3580 pcu
Co = (1.5*L+5)/(1-Y)	=	61.9 sec
Cm = L/(1-Y)	=	31.0 sec
Yult	=	0.825
R.C.ult = (Yult-Y)/Y*100%	=	21.9 %
Cp = 0.9*L/(0.9-Y)	=	40.3 sec
Ymax = 1-L/C	=	0.895
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**19 %**





Stage 1 G= 61 Int = 5

Stage 2 G= 22 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		8	10		56	10

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
2	1	3.70	1			N	1985		294		294	0.00	1985			0.4	-1191			794	0.370			46	62	0.757	24	31
2	1	4.00	1				2155		800		800	0.00	2155							2155	0.371			47	62	0.757	60	22
1	1	3.00	1			N	1915		44		44	0.00	1915							1915	0.023			3	62	0.757	12	128
4	2	3.50	1	9		N	1965	312			312	1.00	1684							1684	0.185			23	23	0.757	36	42
3,4	2	3.30	1	15			2085	224		128	352	1.00	1895							1895	0.186	0.186		23	23	0.757	42	41
3	2	3.50	1	15			2105			354	354	1.00	1914							1914	0.185			23	23	0.757	42	41
7	1	3.50	1			N	1965		287		287	0.00	1965							1965	0.146			18	62	0.757	36	46
6	1	3.50	1				2105		1034		1034	0.00	2105							2105	0.491	0.491		62	62	0.757	54	14
5	1	3.00	1				2055		103		103	0.00	2055							2055	0.050			6	62	0.757	18	76

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

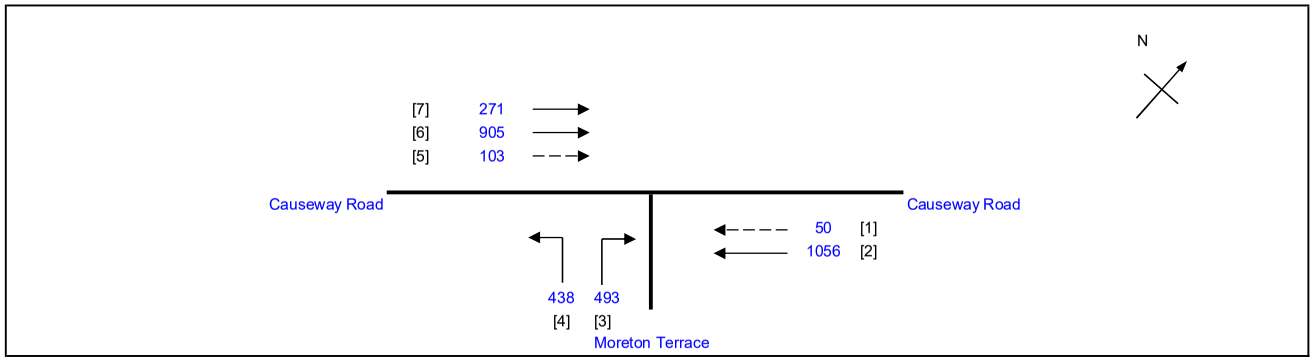
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J9 Moreton Terrace / Causeway Road

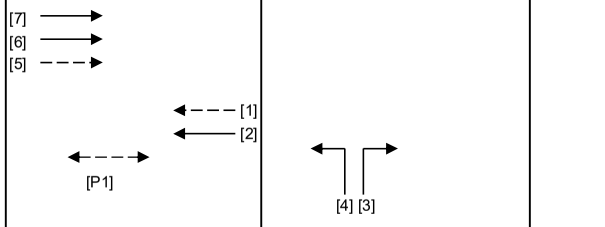
2033 Design AM

PROJECT NO.: 40920

FILENAME : J9_MT_CR.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	95 sec
Sum(y)	Y =	0.600
Loss time	L =	10 sec
Total Flow	=	3316 pcu
Co = (1.5*L+5)/(1-Y)	=	50.0 sec
Cm = L/(1-Y)	=	25.0 sec
Yult	=	0.825
R.C.ult = (Yult-Y)/Y*100%	=	37.6 %
Cp = 0.9*L/(0.9-Y)	=	30.0 sec
Ymax = 1-L/C	=	0.895
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**34 %**



Stage 1 G= 60 Int = 5

Stage 2 G= 23 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		8	10		55	10

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
2	1	3.70	1			N	1985		284		284	0.00	1985			0.4	-1191			794	0.358			51	61	0.670	18	22
2	1	4.00	1				2155		772		772	0.00	2155							2155	0.358			51	61	0.670	54	17
1	1	3.00	1			N	1915		50		50	0.00	1915							1915	0.026			4	61	0.670	6	85
4	2	3.50	1	9		N	1965	286			286	1.00	1684							1684	0.170	0.170		24	24	0.670	30	36
3,4	2	3.30	1	15			2085	152		169	321	1.00	1895							1895	0.169			24	24	0.670	36	36
3	2	3.50	1	15			2105			324	324	1.00	1914							1914	0.169			24	24	0.670	36	36
7	1	3.50	1			N	1965		271		271	0.00	1965							1965	0.138			20	61	0.670	30	39
6	1	3.50	1				2105		905		905	0.00	2105							2105	0.430	0.430		61	61	0.670	48	12
5	1	3.00	1				2055		103		103	0.00	2055							2055	0.050			7	61	0.670	12	60

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Prepared By:		SKL	Oct-25
Checked By:		SLN	Oct-25
Reviewed By:		SLN	Oct-25

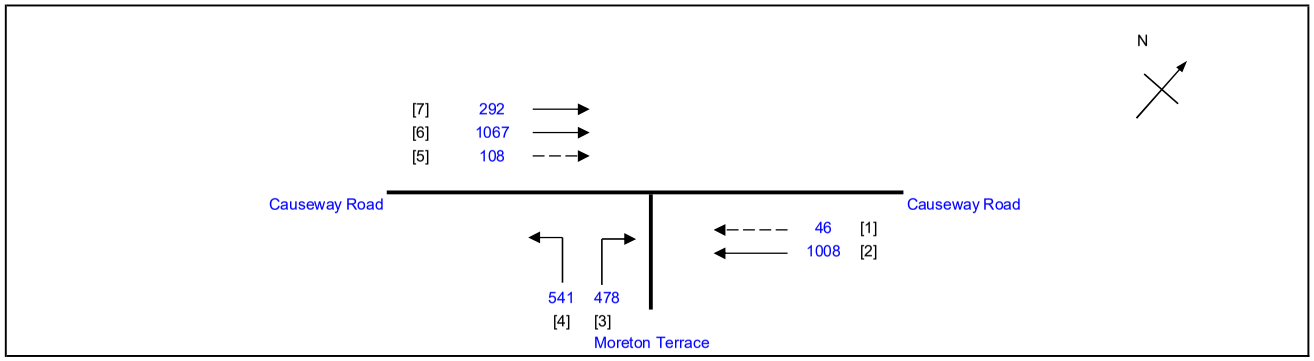
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J9 Moreton Terrace / Causeway Road

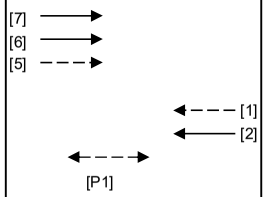
2033 Design PM

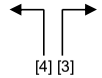
PROJECT NO.: 40920

FILENAME : J9_MT_CR.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	95 sec
Sum(y)	Y =	0.693
Loss time	L =	10 sec
Total Flow	=	3540 pcu
Co = (1.5*L+5)/(1-Y)	=	65.1 sec
Cm = L/(1-Y)	=	32.5 sec
Yult	=	0.825
R.C.ult = (Yult-Y)/Y*100%	=	19.1 %
Cp = 0.9*L/(0.9-Y)	=	43.4 sec
Ymax = 1-L/C	=	0.895
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**16 %**





Stage 1 G= 61 Int = 5

Stage 2 G= 22 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		8	10		56	10

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
2	1	3.70	1			N	1985		271		271	0.00	1985			0.4	-1191			794	0.341			42	62	0.774	24	36
2	1	4.00	1				2155		737		737	0.00	2155							2155	0.342			42	62	0.774	60	26
1	1	3.00	1			N	1915		46		46	0.00	1915							1915	0.024			3	62	0.774	12	135
4	2	3.50	1	9		N	1965	313			313	1.00	1684							1684	0.186	0.186		23	23	0.774	36	44
3,4	2	3.30	1	15			2085	228		123	351	1.00	1895							1895	0.185			23	23	0.774	42	43
3	2	3.50	1	15			2105			355	355	1.00	1914							1914	0.186			23	23	0.774	42	42
7	1	3.50	1			N	1965		292		292	0.00	1965							1965	0.149			18	62	0.774	36	48
6	1	3.50	1				2105		1067		1067	0.00	2105							2105	0.507	0.507		62	62	0.774	54	14
5	1	3.00	1				2055		108		108	0.00	2055							2055	0.053			6	62	0.774	18	79

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

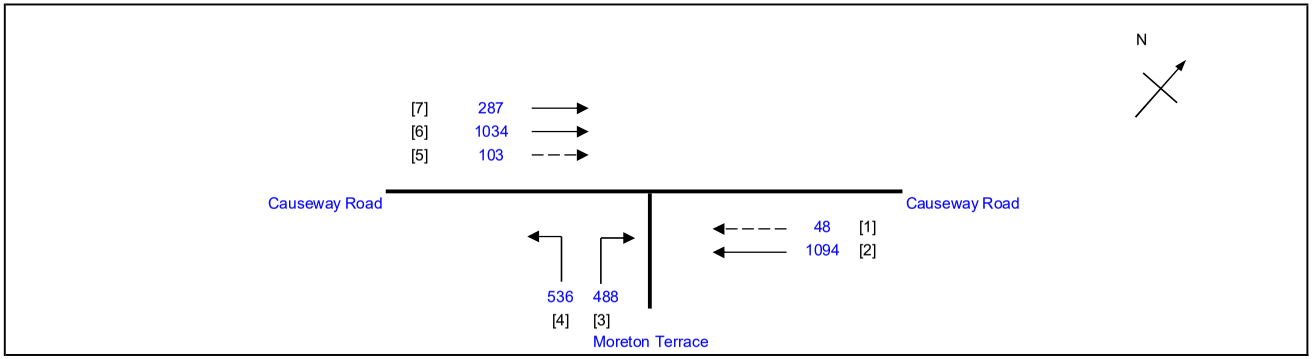
		INITIALS	DATE
Prepared By:		SKL	Oct-25
Checked By:		SLN	Oct-25
Reviewed By:		SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

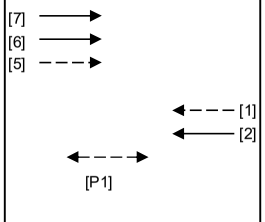
J9 Moreton Terrace / Causeway Road

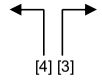
2033 Design Weekend

PROJECT NO.: 40920
FILENAME : J9_MT_CR.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	95 sec
Sum(y)	Y =	0.678
Loss time	L =	10 sec
Total Flow	=	3590 pcu
Co = (1.5*L+5)/(1-Y)	=	62.2 sec
Cm = L/(1-Y)	=	31.1 sec
Yult	=	0.825
R.C.ult = (Yult-Y)/Y*100%	=	21.6 %
Cp = 0.9*L/(0.9-Y)	=	40.6 sec
Ymax = 1-L/C	=	0.895
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**19 %**





Stage 1 G= 61 Int = 5

Stage 2 G= 22 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		8	10		56	10

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
2	1	3.70	1			N	1985		294		294	0.00	1985			0.4	-1191			794	0.370			46	62	0.758	24	31
2	1	4.00	1				2155		800		800	0.00	2155							2155	0.371			47	62	0.758	60	23
1	1	3.00	1			N	1915		48		48	0.00	1915							1915	0.025			3	62	0.758	12	121
4	2	3.50	1	9		N	1965	315			315	1.00	1684							1684	0.187	0.187		23	23	0.758	36	42
3,4	2	3.30	1	15			2085	221		132	353	1.00	1895							1895	0.186			23	23	0.758	42	41
3	2	3.50	1	15			2105			356	356	1.00	1914							1914	0.186			23	23	0.758	42	41
7	1	3.50	1			N	1965		287		287	0.00	1965							1965	0.146			18	62	0.758	36	46
6	1	3.50	1				2105		1034		1034	0.00	2105							2105	0.491	0.491		62	62	0.758	54	14
5	1	3.00	1				2055		103		103	0.00	2055							2055	0.050			6	62	0.758	18	77

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

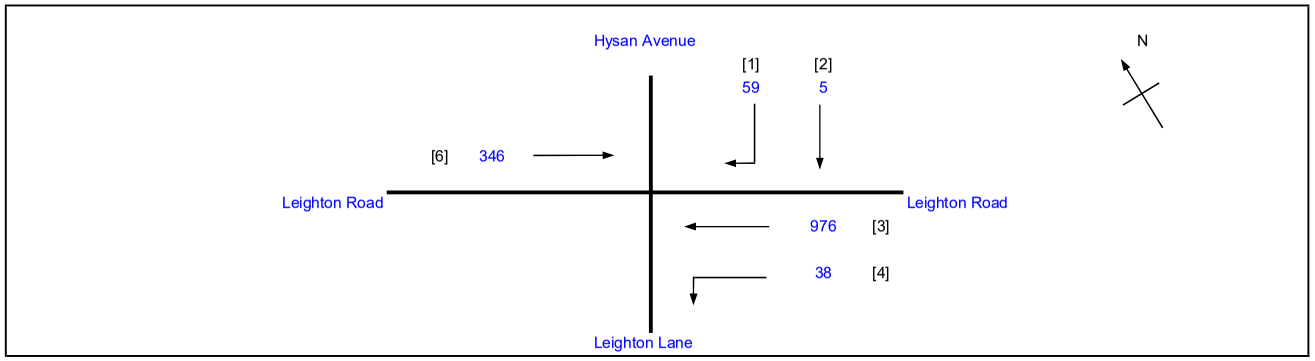
		INITIALS	DATE
Prepared By:		SKL	Oct-25
Checked By:		SLN	Oct-25
Reviewed By:		SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

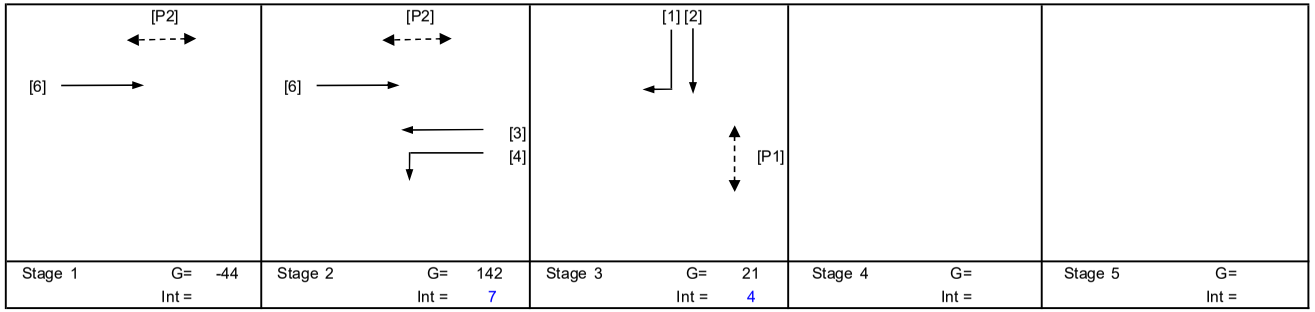
J10 Leighton Road / Hysan Avenue / Leighton Lane

2033 Reference AM

PROJECT NO.: 40920
FILENAME : J10_LR_HA_LL.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.176
Loss time		L =	31 sec
Total Flow		=	1424 pcu
Co	= (1.5*L+5)/(1-Y)	=	62.5 sec
Cm	= L/(1-Y)	=	37.6 sec
Yult		=	0.668
R.C.ult	= (Yult-Y)/Y*100%	=	279.1 %
Cp	= 0.9*L/(0.9-Y)	=	38.5 sec
Ymax	= 1-L/C	=	0.762
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**289 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		11	10		15	10
P2	1,2		6	7		98	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
3,4	2	3.50	1	5		N	1965	38	449		487	0.08	1920							1920	0.254			143	143	0.231	-6	1
3	2	3.20	1				2075		527		527	0.00	2075							2075	0.254			143	143	0.231	-6	1
6	1,2	3.50	1			N	1965		346		346	0.00	1965							1965	0.176	0.176		99	99	0.231	12	4
1,2	3	3.30	1	17		N	1945		5	29	34	0.85	1809							1809	0.019			11	21	0.231	6	54
1	3	3.00	1	10	O		2055			30	30	1.00	1587							1587	0.019			11	21	0.231	0	54
PED	3																						21					

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

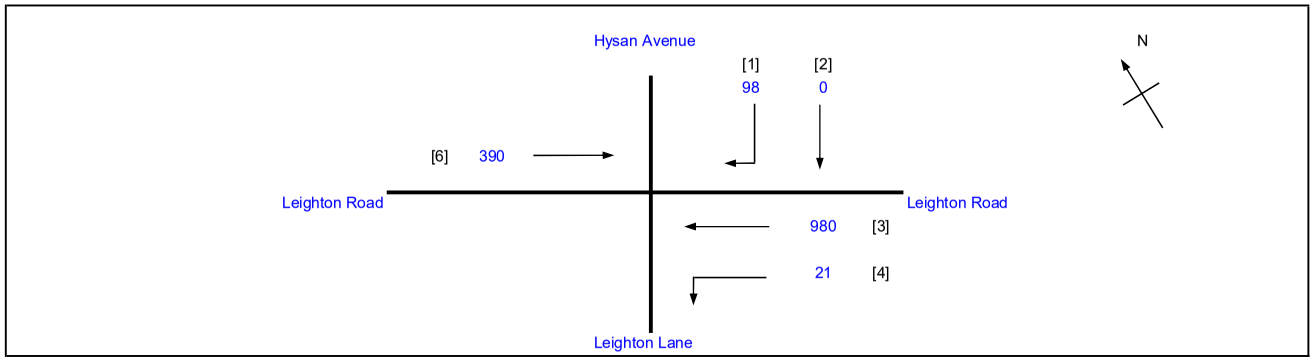
		INITIALS	DATE
Prepared By:		SKL	Oct-25
Checked By:		SLN	Oct-25
Reviewed By:		SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

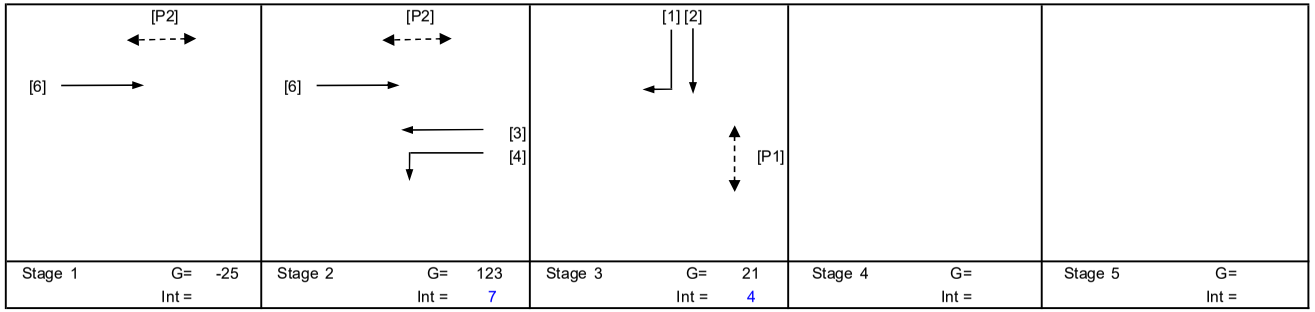
J10 Leighton Road / Hysan Avenue / Leighton Lane

2033 Reference PM

PROJECT NO.: 40920
FILENAME : J10_LR_HA_LL.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.198
Loss time		L =	31 sec
Total Flow		=	1489 pcu
Co	= (1.5*L+5)/(1-Y)	=	64.3 sec
Cm	= L/(1-Y)	=	38.7 sec
Yult		=	0.668
R.C.ult	= (Yult-Y)/Y*100%	=	236.3 %
Cp	= 0.9*L/(0.9-Y)	=	39.8 sec
Ymax	= 1-L/C	=	0.762
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**245 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		11	10		15	10
P2	1,2		6	7		98	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
3,4	2	3.50	1	5		N	1965	21	463		484	0.04	1940							1940	0.250			124	124	0.261	0	0
3	2	3.20	1				2075		517		517	0.00	2075							2075	0.249			124	124	0.261	0	0
6	1,2	3.50	1			N	1965		390		390	0.00	1965							1965	0.198	0.198		99	99	0.261	18	5
1,2	3	3.30	1	17		N	1945		0	51	51	1.00	1787							1787	0.029			14	21	0.261	6	51
1	3	3.00	1	10	O		2055			47	47	1.00	1587							1587	0.030			15	21	0.261	6	51
PED	3																						21					

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

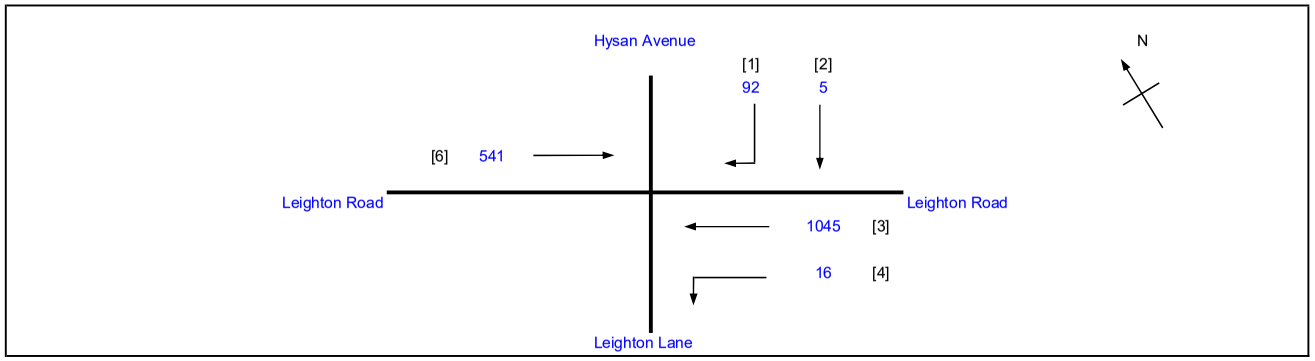
		INITIALS	DATE
Prepared By:		SKL	Oct-25
Checked By:		SLN	Oct-25
Reviewed By:		SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

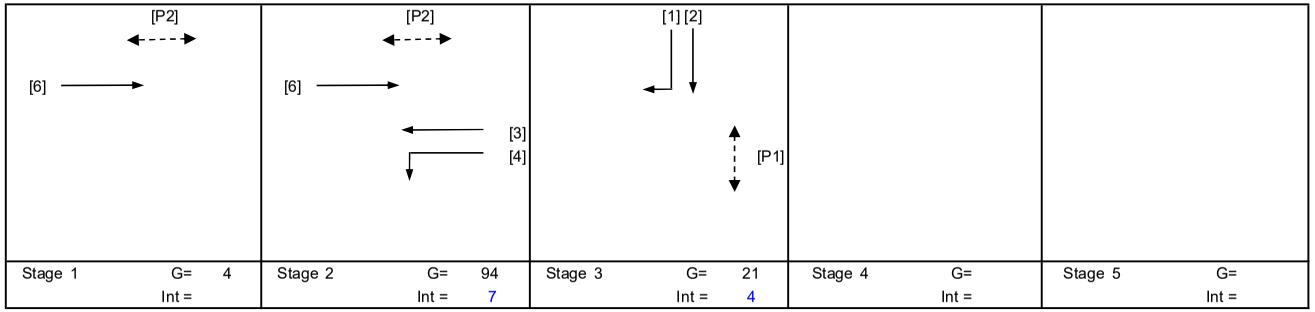
J10 Leighton Road / Hysan Avenue / Leighton Lane

2033 Reference Weekend

PROJECT NO.: 40920
FILENAME : J10_LR_HA_LL.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.275
Loss time		L =	31 sec
Total Flow		=	1699 pcu
Co	= (1.5*L+5)/(1-Y)	=	71.1 sec
Cm	= L/(1-Y)	=	42.8 sec
Yult		=	0.668
R.C.ult	= (Yult-Y)/Y*100%	=	142.4 %
Cp	= 0.9*L/(0.9-Y)	=	44.7 sec
Ymax	= 1-L/C	=	0.762
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**149 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		11	10		15	10
P2	1,2		6	7		98	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
3,4	2	3.50	1	5		N	1965	16	498		514	0.03	1947							1947	0.264			95	95	0.362	30	6
3	2	3.20	1				2075		547		547	0.00	2075							2075	0.264			95	95	0.362	30	6
6	1,2	3.50	1			N	1965		541		541	0.00	1965							1965	0.275	0.275		99	99	0.362	24	5
1,2	3	3.30	1	17		N	1945		5	47	52	0.90	1801							1801	0.029			10	21	0.362	6	57
1	3	3.00	1	10	O		2055			45	45	1.00	1587							1587	0.028			10	21	0.362	6	59
PED	3																						21					

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

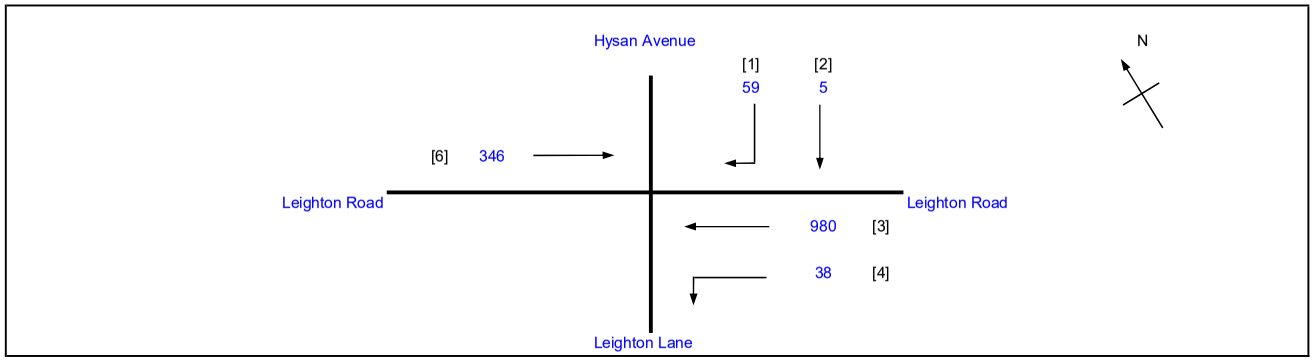
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J10 Leighton Road / Hysan Avenue / Leighton Lane

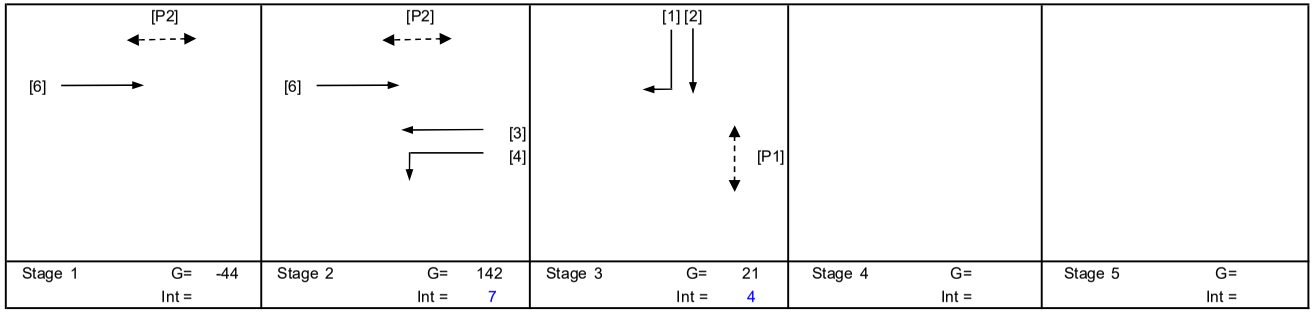
2033 Design AM

PROJECT NO.: 40920

FILENAME : J10_LR_HA_LL.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.176
Loss time		L =	31 sec
Total Flow		=	1428 pcu
Co	= (1.5*L+5)/(1-Y)	=	62.5 sec
Cm	= L/(1-Y)	=	37.6 sec
Yult		=	0.668
R.C.ult	= (Yult-Y)/Y*100%	=	279.1 %
Cp	= 0.9*L/(0.9-Y)	=	38.5 sec
Ymax	= 1-L/C	=	0.762
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**289 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		11	10		15	10
P2	1,2		6	7		98	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
3,4	2	3.50	1	5		N	1965	38	451		489	0.08	1920							1920	0.255			143	143	0.231	-6	1
3	2	3.20	1				2075		529		529	0.00	2075							2075	0.255			143	143	0.231	-6	1
6	1,2	3.50	1			N	1965		346		346	0.00	1965							1965	0.176	0.176		99	99	0.231	12	4
1,2	3	3.30	1	17		N	1945		5	29	34	0.85	1809							1809	0.019			11	21	0.231	6	54
1	3	3.00	1	10	O		2055			30	30	1.00	1587							1587	0.019			11	21	0.231	0	54
PED	3																						21					

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

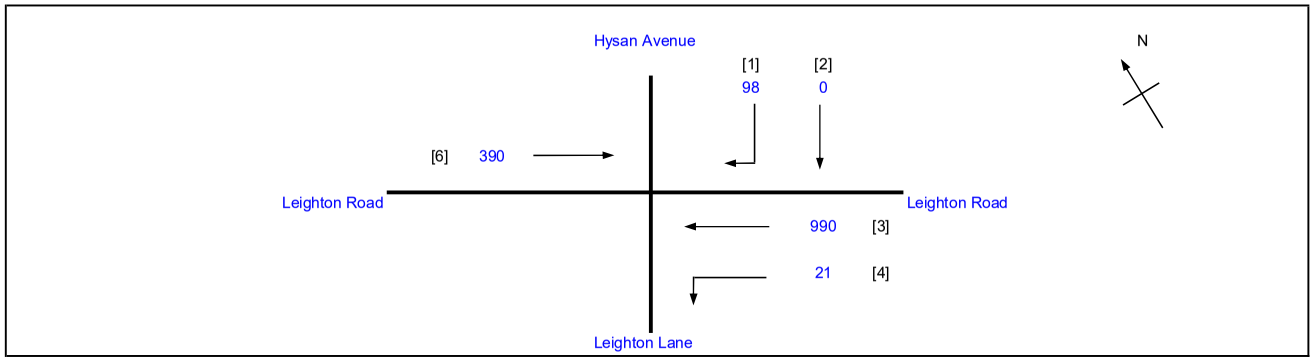
		INITIALS	DATE
Prepared By:		SKL	Oct-25
Checked By:		SLN	Oct-25
Reviewed By:		SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

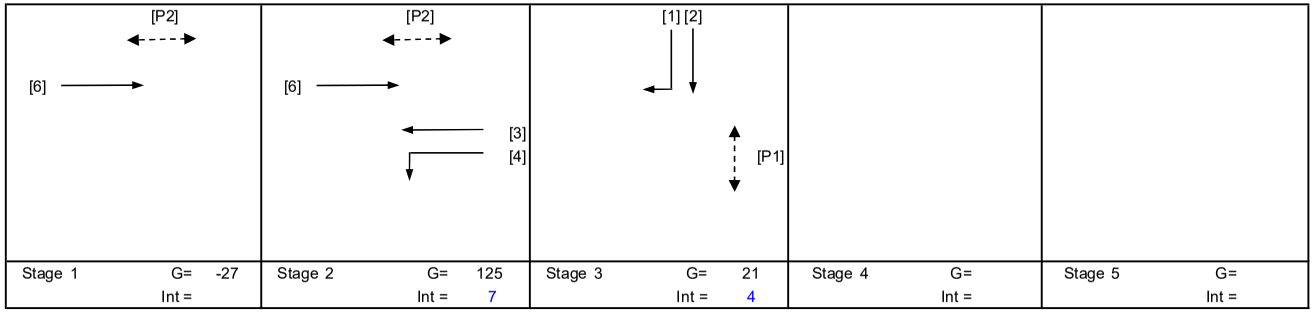
J10 Leighton Road / Hysan Avenue / Leighton Lane

2033 Design PM

PROJECT NO.: 40920
FILENAME : J10_LR_HA_LL.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.198
Loss time		L =	31 sec
Total Flow		=	1499 pcu
Co	= (1.5*L+5)/(1-Y)	=	64.3 sec
Cm	= L/(1-Y)	=	38.7 sec
Yult		=	0.668
R.C.ult	= (Yult-Y)/Y*100%	=	236.3 %
Cp	= 0.9*L/(0.9-Y)	=	39.8 sec
Ymax	= 1-L/C	=	0.762
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**245 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		11	10		15	10
P2	1,2		6	7		98	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
3,4	2	3.50	1	5		N	1965	21	467		488	0.04	1940							1940	0.252			125	126	0.261	0	0
3	2	3.20	1				2075		523		523	0.00	2075							2075	0.252			126	126	0.261	0	0
6	1,2	3.50	1			N	1965		390		390	0.00	1965							1965	0.198	0.198		99	99	0.261	18	5
1,2	3	3.30	1	17		N	1945		0	51	51	1.00	1787							1787	0.029			14	21	0.261	6	51
1	3	3.00	1	10	O		2055			47	47	1.00	1587							1587	0.030			15	21	0.261	6	51
PED	3																						21					

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

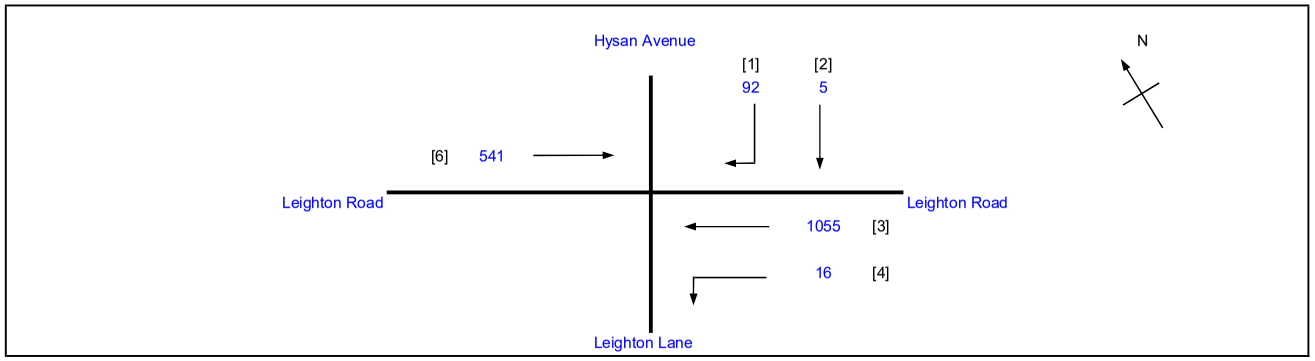
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J10 Leighton Road / Hysan Avenue / Leighton Lane

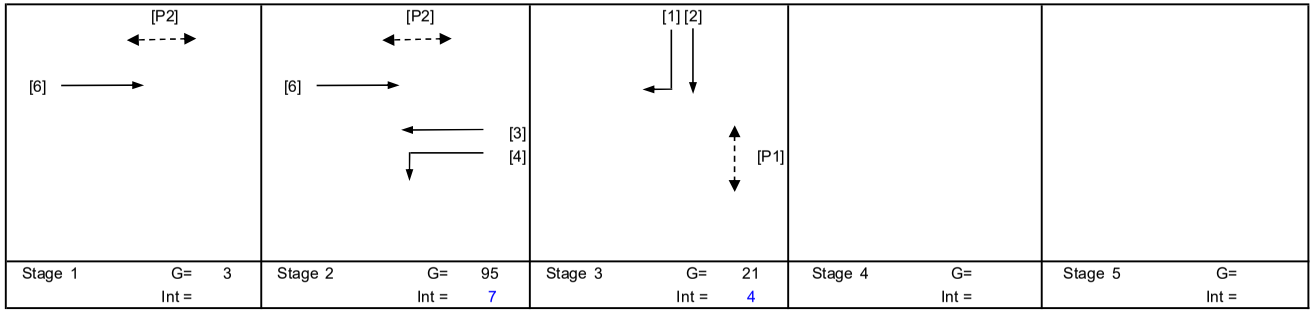
2033 Design Weekend

PROJECT NO.: 40920

FILENAME : J10_LR_HA_LL.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.275
Loss time		L =	31 sec
Total Flow		=	1709 pcu
Co	= (1.5*L+5)/(1-Y)	=	71.1 sec
Cm	= L/(1-Y)	=	42.8 sec
Yult		=	0.668
R.C.ult	= (Yult-Y)/Y*100%	=	142.4 %
Cp	= 0.9*L/(0.9-Y)	=	44.7 sec
Ymax	= 1-L/C	=	0.762
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**149 %**



Stage 1	G= 3	Int =	Stage 2	G= 95	Int = 7	Stage 3	G= 21	Int = 4	Stage 4	G=	Int =	Stage 5	G=	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3		11	10		15	10
P2	1,2		6	7		98	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							10					
3,4	2	3.50	1	5		N	1965	16	503		519	0.03	1947							1947	0.267			96	96	0.362	24	6
3	2	3.20	1				2075		552		552	0.00	2075							2075	0.266			96	96	0.362	30	6
6	1,2	3.50	1			N	1965		541		541	0.00	1965							1965	0.275	0.275		99	99	0.362	24	5
1,2	3	3.30	1	17		N	1945		5	47	52	0.90	1801							1801	0.029			10	21	0.362	6	57
1	3	3.00	1	10	O		2055			45	45	1.00	1587							1587	0.028			10	21	0.362	6	59
PED	3																						21					

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

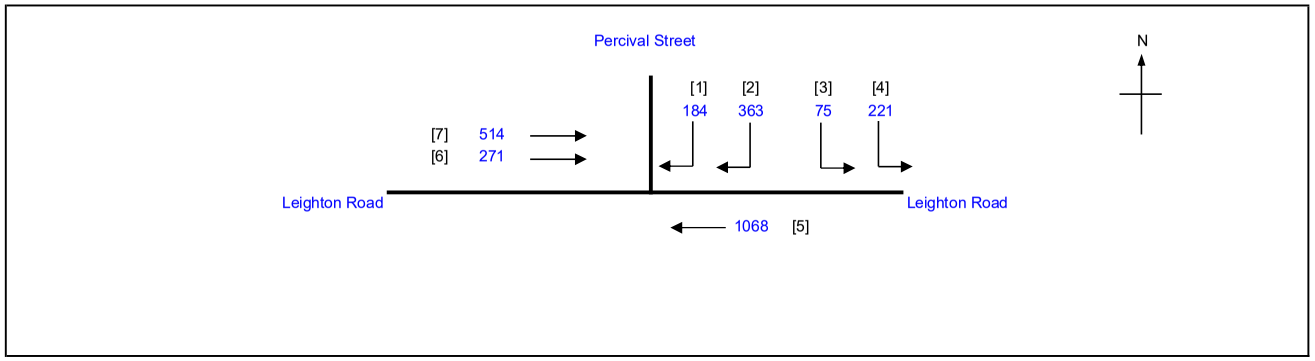
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J11 Leighton Road / Percival Street / Hysan Avenue

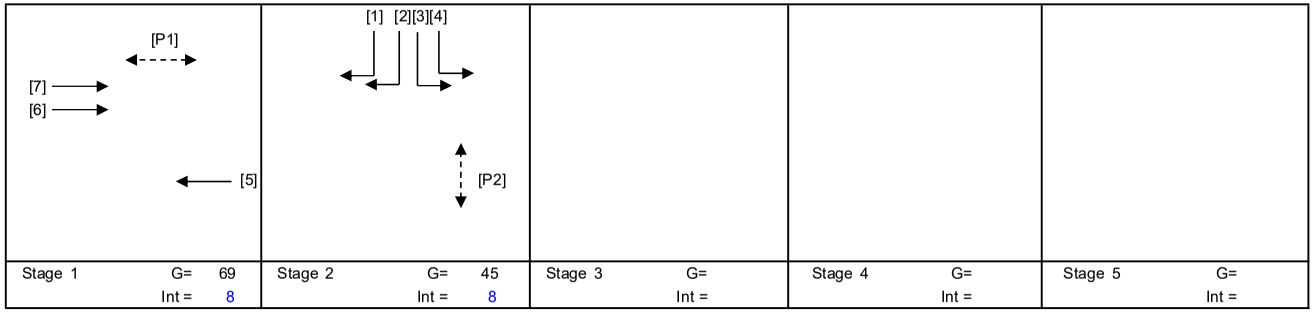
2033 Reference AM

PROJECT NO.: 40920

FILENAME : J11_LR_PS_HA.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.561
Loss time	L =	14 sec
Total Flow	=	2696 pcu
Co = (1.5*L+5)/(1-Y)	=	59.2 sec
Cm = L/(1-Y)	=	31.9 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	41.8 %
Cp = 0.9*L/(0.9-Y)	=	37.1 sec
Ymax = 1-L/C	=	0.892
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**43 %**



Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
G= 69	G= 45	G=	G=	G=
Int = 8	Int = 8	Int =	Int =	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		16	7		70	7
P2	2		5	12		41	12

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							14					
5	1	3.50	1			N	1965		522		522	0.00	1965			0.8	-393			1572	0.332			69	70	0.628	48	23
5	1	3.00	1				2055		546		546	0.00	2055			0.8	-411			1644	0.332			69	70	0.628	54	23
6,7	1	2.50	1			N	1865		378		378	0.00	1865			0.6	-746			1119	0.338			70	70	0.628	36	23
6,7	1	2.50	1				2005		407		407	0.00	2005			0.6	-802			1203	0.338	0.338		70	70	0.628	36	23
3,4	2	4.00	1	25		N	2015	296			296	1.00	1901			0.7	-570			1331	0.222	0.222		46	46	0.628	36	37
1,2	2	5.00	1	25		N	2115			317	317	1.00	1995			0.8	-399			1596	0.199			41	46	0.628	42	40
1,2	2	3.30	1	20			2085			230	230	1.00	1940			0.6	-776			1164	0.198			41	46	0.628	30	42

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

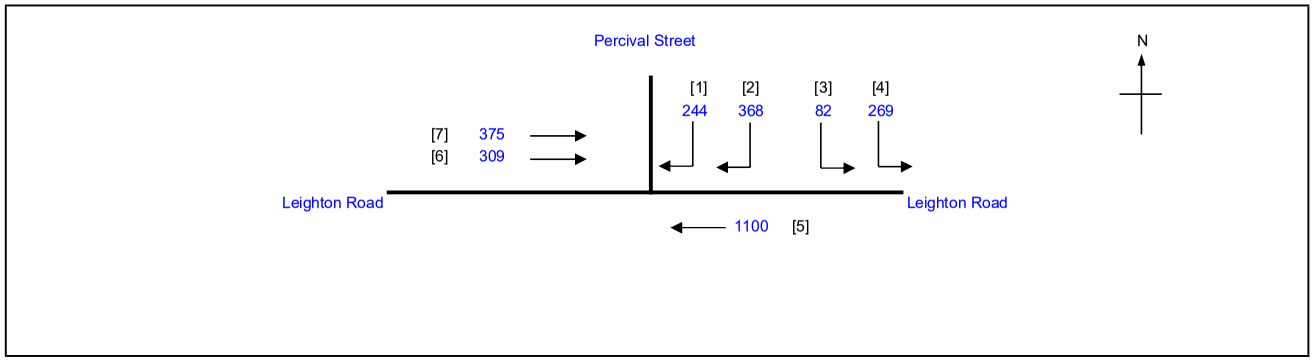
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J11 Leighton Road / Percival Street / Hysan Avenue

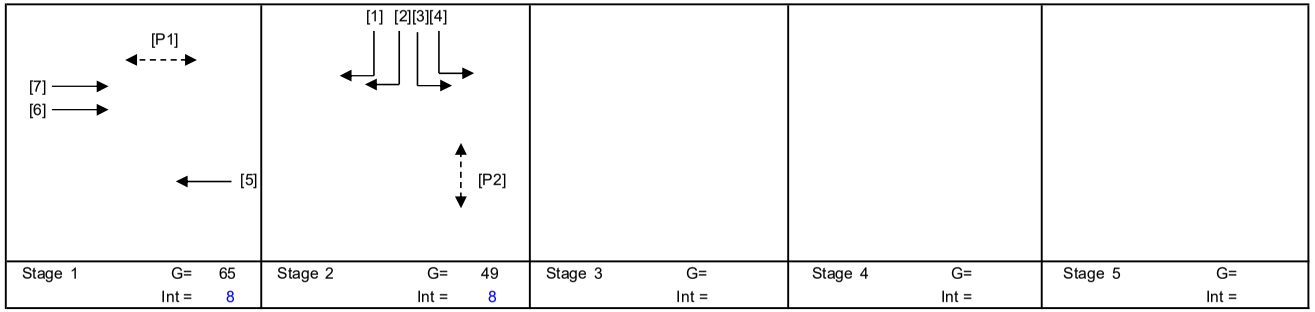
2033 Reference PM

PROJECT NO.: 40920

FILENAME : J11_LR_PS_HA.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.606
Loss time	L =	14 sec
Total Flow	=	2747 pcu
Co = (1.5*L+5)/(1-Y)	=	66.0 sec
Cm = L/(1-Y)	=	35.5 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	31.2 %
Cp = 0.9*L/(0.9-Y)	=	42.9 sec
Ymax = 1-L/C	=	0.892
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**33 %**



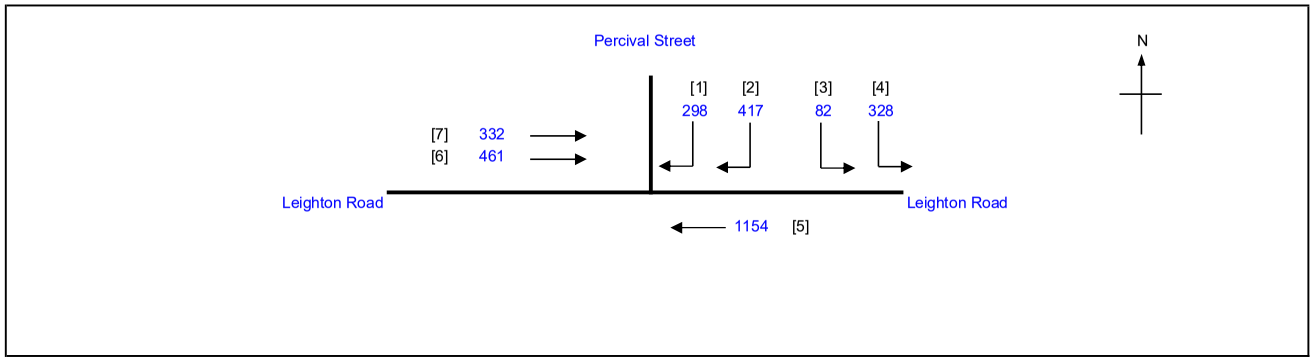
Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
G= 65	G= 49	G=	G=	G=
Int = 8	Int = 8	Int =	Int =	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		16	7		66	7
P2	2		5	12		45	12

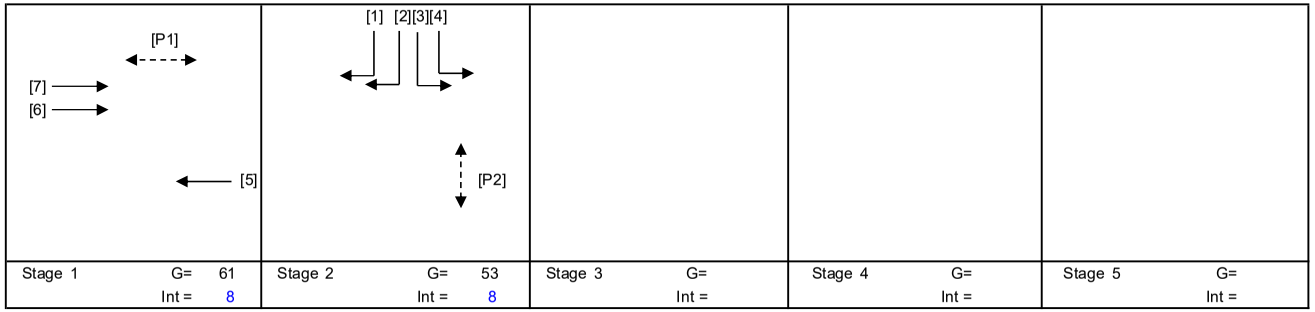
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							14					
5	1	3.50	1			N	1965		538		538	0.00	1965			0.8	-393			1572	0.342	0.342		66	66	0.679	54	26
5	1	3.00	1				2055		562		562	0.00	2055			0.8	-411			1644	0.342			65	66	0.679	60	26
6,7	1	2.50	1			N	1865		330		330	0.00	1865			0.6	-746			1119	0.295			56	66	0.679	36	34
6,7	1	2.50	1				2005		354		354	0.00	2005			0.6	-802			1203	0.294			56	66	0.679	42	33
3,4	2	4.00	1	25		N	2015	351			351	1.00	1901			0.7	-570			1331	0.264	0.264		50	50	0.679	42	36
1,2	2	5.00	1	25		N	2115			354	354	1.00	1995			0.8	-399			1596	0.222			42	50	0.679	48	41
1,2	2	3.30	1	20			2085			258	258	1.00	1940			0.6	-776			1164	0.222			42	50	0.679	36	43

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

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference Weekend**	PROJECT NO.: 40920	Prepared By:	SKL	Oct-25
J11 Leighton Road / Percival Street / Hysan Avenue		FILENAME : J11_LR_PS_HA.xlsx	Checked By:	SLN	Oct-25
			Reviewed By:	SLN	Oct-25



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.667
Loss time	L =	14 sec
Total Flow	=	3072 pcu
Co = (1.5*L+5)/(1-Y)	=	78.1 sec
Cm = L/(1-Y)	=	42.0 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	19.2 %
Cp = 0.9*L/(0.9-Y)	=	54.1 sec
Ymax = 1-L/C	=	0.892
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**20 %**



Stage 1	G= 61	Stage 2	G= 53	Stage 3	G=	Stage 4	G=	Stage 5	G=
	Int = 8		Int = 8		Int =		Int =		Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		16	7		62	7
P2	2		5	12		49	12

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							14					
5	1	3.50	1			N	1965		564		564	0.00	1965			0.8	-393			1572	0.359			62	62	0.747	60	31
5	1	3.00	1				2055		590		590	0.00	2055			0.8	-411			1644	0.359	0.359		62	62	0.747	66	31
6,7	1	2.50	1			N	1865		383		383	0.00	1865			0.6	-746			1119	0.342			60	62	0.747	42	35
6,7	1	2.50	1				2005		410		410	0.00	2005			0.6	-802			1203	0.341			59	62	0.747	48	35
3,4	2	4.00	1	25		N	2015	410			410	1.00	1901			0.7	-570			1331	0.308	0.308		54	54	0.747	48	38
1,2	2	5.00	1	25		N	2115			414	414	1.00	1995			0.8	-399			1596	0.259			45	54	0.747	54	42
1,2	2	3.30	1	20			2085			301	301	1.00	1940			0.6	-776			1164	0.259			45	54	0.747	42	46

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

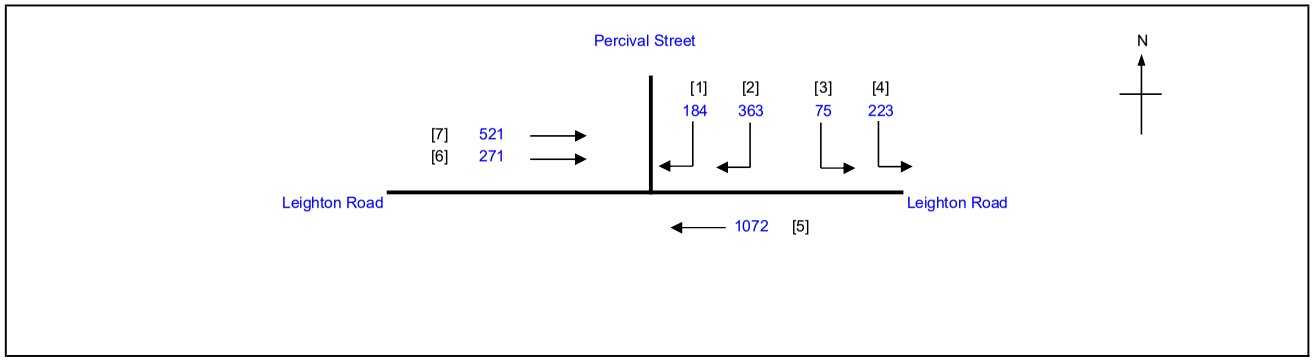
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J11 Leighton Road / Percival Street / Hysan Avenue

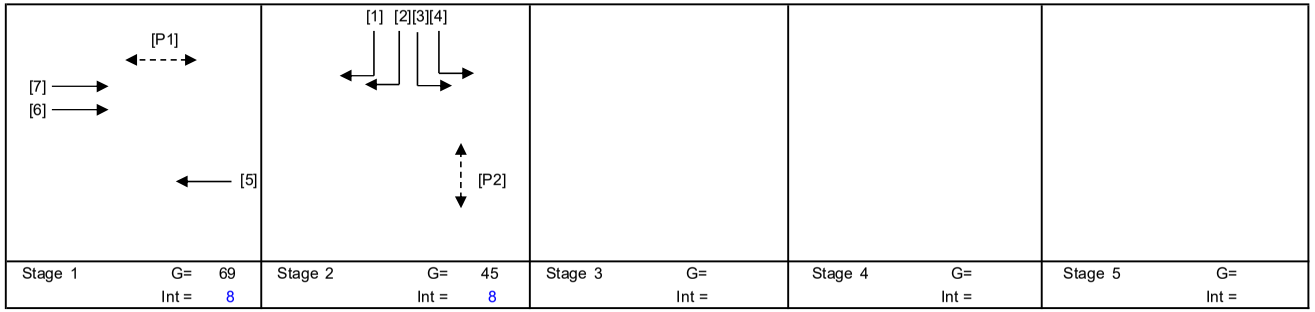
2033 Design AM

PROJECT NO.: 40920

FILENAME : J11_LR_PS_HA.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.565
Loss time	L =	14 sec
Total Flow	=	2709 pcu
Co = (1.5*L+5)/(1-Y)	=	59.8 sec
Cm = L/(1-Y)	=	32.2 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	40.6 %
Cp = 0.9*L/(0.9-Y)	=	37.6 sec
Ymax = 1-L/C	=	0.892
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**42 %**



Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
G= 69	G= 45	G=	G=	G=
Int = 8	Int = 8	Int =	Int =	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		16	7		70	7
P2	2		5	12		41	12

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							14					
5	1	3.50	1			N	1965		524		524	0.00	1965			0.8	-393			1572	0.333			68	70	0.634	48	23
5	1	3.00	1				2055		548		548	0.00	2055			0.8	-411			1644	0.333			68	70	0.634	54	23
6,7	1	2.50	1			N	1865		382		382	0.00	1865			0.6	-746			1119	0.341	0.341		70	70	0.634	36	24
6,7	1	2.50	1				2005		410		410	0.00	2005			0.6	-802			1203	0.341			70	70	0.634	36	23
3,4	2	4.00	1	25		N	2015	298			298	1.00	1901			0.7	-570			1331	0.224	0.224		46	46	0.634	36	37
1,2	2	5.00	1	25		N	2115			317	317	1.00	1995			0.8	-399			1596	0.199			41	46	0.634	42	40
1,2	2	3.30	1	20			2085			230	230	1.00	1940			0.6	-776			1164	0.198			41	46	0.634	30	42

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

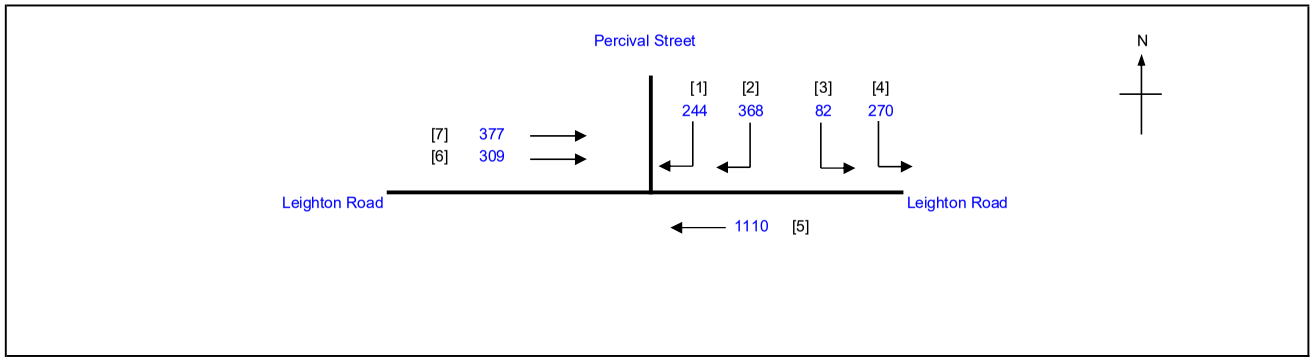
	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

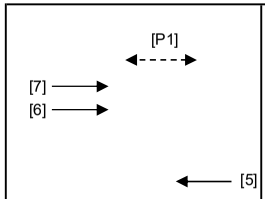
J11 Leighton Road / Percival Street / Hysan Avenue

2033 Design PM

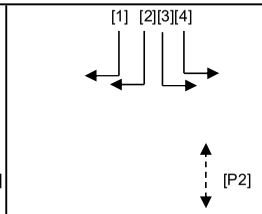
PROJECT NO.: 40920
FILENAME : J11_LR_PS_HA.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.610
Loss time	L =	14 sec
Total Flow	=	2760 pcu
Co = (1.5*L+5)/(1-Y)	=	66.7 sec
Cm = L/(1-Y)	=	35.9 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	30.3 %
Cp = 0.9*L/(0.9-Y)	=	43.4 sec
Ymax = 1-L/C	=	0.892
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**32 %**



Stage 1 G= 65 Int = 8



Stage 2 G= 49 Int = 8

Stage 3 G= Int =

Stage 4 G= Int =

Stage 5 G= Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		16	7		66	7
P2	2		5	12		45	12

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							14					
5	1	3.50	1			N	1965		542		542	0.00	1965			0.8	-393			1572	0.345			66	66	0.684	54	26
5	1	3.00	1				2055		568		568	0.00	2055			0.8	-411			1644	0.345	0.345		66	66	0.684	60	26
6,7	1	2.50	1			N	1865		331		331	0.00	1865			0.6	-746			1119	0.296			56	66	0.684	36	34
6,7	1	2.50	1				2005		355		355	0.00	2005			0.6	-802			1203	0.295			56	66	0.684	42	34
3,4	2	4.00	1	25		N	2015	352			352	1.00	1901			0.7	-570			1331	0.264	0.264		50	50	0.684	42	37
1,2	2	5.00	1	25		N	2115			354	354	1.00	1995			0.8	-399			1596	0.222			42	50	0.684	48	41
1,2	2	3.30	1	20			2085			258	258	1.00	1940			0.6	-776			1164	0.222			42	50	0.684	36	44

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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Oct-25
Checked By:	SLN	Oct-25
Reviewed By:	SLN	Oct-25

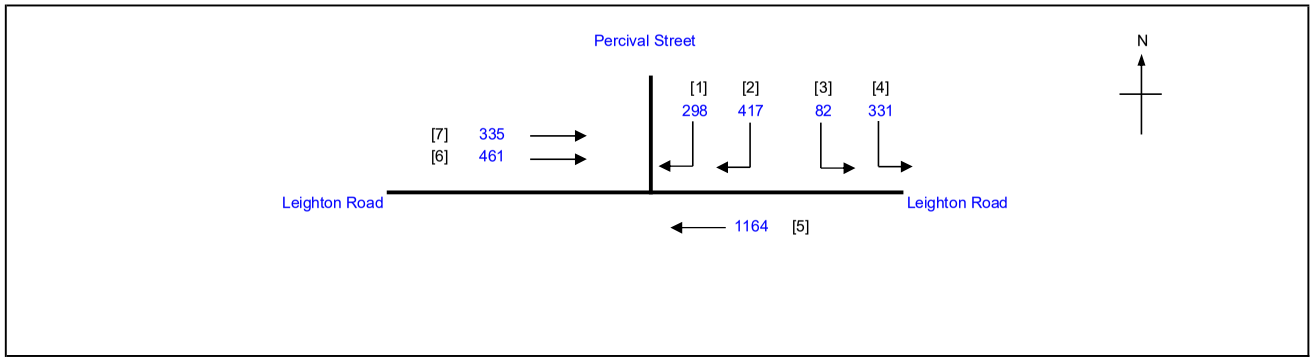
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J11 Leighton Road / Percival Street / Hysan Avenue

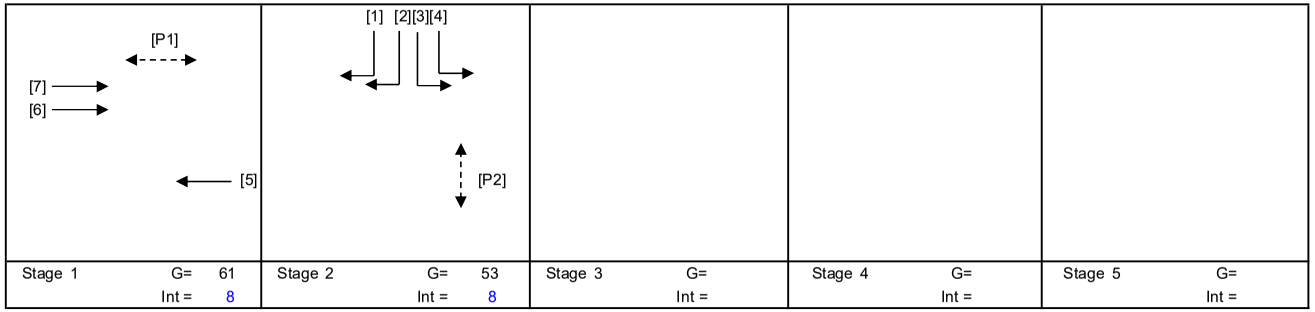
2033 Design Weekend

PROJECT NO.: 40920

FILENAME : J11_LR_PS_HA.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.672
Loss time	L =	14 sec
Total Flow	=	3088 pcu
Co = (1.5*L+5)/(1-Y)	=	79.3 sec
Cm = L/(1-Y)	=	42.7 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	18.3 %
Cp = 0.9*L/(0.9-Y)	=	55.3 sec
Ymax = 1-L/C	=	0.892
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**19 %**



Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
G= 61	G= 53	G=	G=	G=
Int = 8	Int = 8	Int =	Int =	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1		16	7		62	7
P2	2		5	12		49	12

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							14					
5	1	3.50	1			N	1965		569		569	0.00	1965			0.8	-393			1572	0.362	0.362		62	62	0.753	60	31
5	1	3.00	1				2055		595		595	0.00	2055			0.8	-411			1644	0.362			62	62	0.753	66	31
6,7	1	2.50	1			N	1865		384		384	0.00	1865			0.6	-746			1119	0.343			59	62	0.753	42	36
6,7	1	2.50	1				2005		412		412	0.00	2005			0.6	-802			1203	0.342			59	62	0.753	48	36
3,4	2	4.00	1	25		N	2015	413			413	1.00	1901			0.7	-570			1331	0.310	0.310		54	54	0.753	48	38
1,2	2	5.00	1	25		N	2115			414	414	1.00	1995			0.8	-399			1596	0.259			45	54	0.753	54	43
1,2	2	3.30	1	20			2085			301	301	1.00	1940			0.6	-776			1164	0.259			45	54	0.753	42	46

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