APPENDIX I

Updated 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

Originating Organisation : [redacted]	Prepared by: SKL	SKL	Date: 30 March 2026
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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 HGV 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.

2.4.2 Reference was also made to the parking provision of the adjoining SCAA. The parking ratio of the adjoining SCAA is 1 space per 340 m^2 GFA (total 64,728.113m^2 GFA with 191 spaces). According to the Applicant, the average carpark occupancy during the operation period is 65%, i.e. 124 occupied spaces, equivalent to a parking ratio of 1 space per 522 m^2 GFA. As compared with the adjoining SCAA, the parking ratio of the proposed sports and recreation centre is 1 space per 497 m^2 GFA (total 31,327.12m^2 GFA with 63 spaces) and therefore is considered appropriate and sufficient to meet the parking demand

2.4.3 At present, there is no designated HGV loading/unloading space provided at the adjoining SCAA. The loading/unloading activities are conducted by LGV within the carpark near the entrance area and the operation was found to be satisfactory. In the proposed development, it is proposed to provide 1 no. of HGV loading/unloading bay to better serve the loading/unloading demand.

2.4.4 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.

2.4.5 **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

J12 – Leighton Road / Wong Nai Chung Road

J13 – Broadwood Road / Link Road

J14 – Pennington Street / Irving Street / Jardine's Bazaar

J15 – Hysan Avenue / Hoi Ping Road

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		
			Weekday AM	Weekday PM	Weekend
J1	Caroline Hill Road (West) / Link Road	Priority/DFC	0.30	0.38	0.44
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	0.16	0.16	0.32
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%
J12	Leighton Road / Wong Nai Chung Road	Signalised/RC	44%	96%	108%
J13	Broadwood Road / Link Road	Signalised/RC	28%	86%	99%
J14	Pennington Street / Irving Street / Jardine's Bazaar	Signalised/RC	247%	308%	339%
J15	Hysan Avenue / Hoi Ping Road	Priority/DFC	0.42	0.31	0.25

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 and anticipated pedestrian routings 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)			Peak 15-minute flow (2) (ped/15-min)			Flow Rate(3) ped/m/min [LOS]		
				AM	PM	WE	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	27	12	13	0.9 [A]	0.4 [A]	0.4 [A]
P2	Eastern footpath of Cotton Path (between Caroline Hill Road and Eastern Hospital Road)	4.0	2.0	116	190	204	35	57	62	0.8 [A]	1.3 [A]	1.4 [A]
P3	Northern footpath of Caroline Hill Road (between Cotton Path and Leighton Road)	3.0	2.0	490	724	867	147	218	261	4.9 [A]	7.3 [A]	8.7 [A]
P4	Eastern footpath of Yun Ping Road(between Leighton Road and Hysan Avenue)	2.5	1.5	337	694	653	102	209	196	4.5 [A]	9.3 [A]	8.7 [A]
P5	Western footpath of Pennington Street (between Leighton Road and Keswick Street)	2.2	1.2	867	1,071	1,092	261	322	328	14.5 [A]	17.9 [B]	18.2 [B]
P6	Eastern footpath of Leighton Road (between Caroline Hill Road and Haven Street)	3.3	2.3	908	1,336	1,377	273	401	414	7.9 [A]	11.6 [A]	12.0 [A]
C1	Signalised Crossing	6.4	6.4	1,285	1,795	1,595	27	12	13	2.6 [A]	1.1 [A]	1.2 [A]
C2	Signalised Crossing	4.2	4.2	1,245	1,655	1,540	386	539	479	4.0 [A]	5.6 [A]	5.0 [A]
C3	Signalised Crossing	4.0	4.0	1,050	1,230	1,260	374	497	462	5.9 [A]	7.9 [A]	7.3 [A]
C4	Cautionary Crossing	3.3	3.3	90	38	41	315	369	378	5.3 [A]	6.2 [A]	6.3 [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) According to on-site observation, the peak 15-minute flows are about 30% of the peak hour flows.
(3) For LOS "C" or above, flow rates should be less than 33 pedestrians/metre/minute. The peak 15-minute flows are adopted for assessment.

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.

Taxi Traffic Generation and Attraction

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 Taxi 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.

Private Car Traffic Generation and Attraction

4.2.10 In order to establish private car traffic generation and attraction of the proposed development, reference was made to the existing SCAA car park. Trip generation survey at existing SCAA car park is arranged to collect trip rates. The trip generation survey was conducted on 27 December 2025 (Saturday) and 29 December 2025 (Monday) during the weekday AM, weekday PM peak and weekend hour period. The survey results and the trip rates derived are presented in **Table 4.5**.

Table 4.1 Surveyed Private Car Traffic Generation and Attraction of Existing SCAA

Name	Unit / Content	Weekday AM			Weekday PM			Weekend		
		Gen.	Att.	Total	Gen.	Att.	Total	Gen.	Att.	Total
Private Car Traffic Generation of Existing SCAA (pcu/hr)										
Existing SCAA	64,728.113 m^2 GFA	13	23	36	36	39	75	22	29	51
Derived Trip Rates (pcu/hr/100 m^2)										
Sports Centre		0.02	0.036	-	0.056	0.06	-	0.034	0.045	-
Private Car Traffic Generation of Proposed Development (pcu/hr)										
Proposed Development	31,327.12 m^2 GFA	7	12	19	18	19	37	11	15	26

Note: Gen. – Generation; Att. – Attraction.

4.2.11 Based on **Table 4.4** and **Table 4.5** above, the estimated total vehicular traffic generation and attraction of the proposed development is summarised in **Table 4.6**.

Table 4.6 Estimated Traffic Generation and Attraction of Proposed Development

Use	Weekday AM			Weekday PM			Weekend		
	Gen.	Att.	Total	Gen.	Att.	Total	Gen.	Att.	Total
Total Traffic Generation (pcu/hr)									
Taxi [a]	6	16	22	16	6	22	11	11	22
Private Car [b]	7	12	19	18	19	37	11	15	26
TOTAL [a] + [b]	**13**	**28**	**41**	**34**	**25**	**59**	**22**	**26**	**48**

Note: Gen. – Generation; Att. – Attraction.

4.2.12 As shown in **Table 4.6**, the proposed development would generate two-way traffic flows of 41 pcu/hr, 59 pcu/hr and 48 pcu/hr during the weekday AM, weekday PM and weekend peak hours, respectively. 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 4.7,** and these generations and attractions will be considered in the junction capacity analysis for the design year.

Table 4.7 Traffic Generation by Planned Developments in the Vicinity

Proposed Use	Unit / Content	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekend Peak Hour		
		Gen.	Att.	Total	Gen.	Att.	Total	Gen.	Att.	Total
Mean Trip rates from TPDM										
Retail	pcu/hr/ 100m^2	0.2296	0.2434	-	0.3100	0.3563	-	0.2821[(2)]	0.4817[(2)]	
Office	pcu/hr/ 100m^2	0.1703	0.2452	-	0.1573	0.1175	-	0.1431[(2)]	0.1589[(2)]	-
Traffic Generation/Attraction										
Redevelopment at Po Leung Kuk Headquarter	37,725 m^2 GFA for G/IC use	14[(1)]	15[(1)]	29[(1)]	7[(1)]	6[(1)]	13[(1)]	5[(2)]	6[(2)]	11
Redevelopment at 5-19 Jardine's Bazaar	4,756 m^2 GFA for retail use	11	12	23	15	17	32	14	23	37
Redevelopment at 36 Jardine's Bazaar	979m^2 GFA for office use	2	3	5	2	2	4	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[(2)]	398[(2)]	670[(2)]	308[(2)]	239[(2)]	547[(2)]	304[(2)]	303[(2)]	607[(2)]

Proposed Use	Unit / Content	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekend Peak Hour		
		Gen.	Att.	Total	Gen.	Att.	Total	Gen.	Att.	Total
District Court Site	70,000 m^2 GFA	42[2]	64[2]	106[2]	33[2]	31[2]	64[2]	5[2]	5[2]	10
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	11	12	23
Total		**354**	**511**	**865**	**377**	**304**	**681**	**341**	**351**	**692**

Notes: (1) Figures extracted from the TIA report enclosed in the Metro Planning Committee paper no. 1/19.
(2) Figures extracted from the TIA report of Planning Application A/H7/181.

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 4.8**.

Table 4.8 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%

Stn. No.	Road Section			AADT(1)					Avg Growth %
	Road	From	To	2019	2020	2021	2022	2023	
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 4.8** 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 4.9**.

Table 4.9 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 4.9**, 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 4.10** with detailed calculation sheets attached in **Appendix D**.

Table 4.10 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%	42%	36%	39%	42%
J2	Leighton Road / Caroline Hill Road (West) / Hoi Ping Road	Signalised /RC	24%	33%	25%	22%	31%	24%
J3	Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street	Signalised /RC	29%	17%	17%	29%	17%	17%
J4	Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road	Signalised/ RC	46%	35%	34%	45%	35%	33%
J5	Tung Lo Wan Road / Eastern Hospital Road	Signalised /RC	39%	59%	53%	38%	56%	49%
J6	Eastern Hospital Road / Cotton Path	Priority/DFC	0.25	0.24	0.34	0.26	0.26	0.34
J7	Caroline Hill Road/Cotton Path	Priority/DFC	0.22	0.14	0.19	0.23	0.14	0.19
J8	Tung Lo Wan Road / Moreton Terrace	Signalised /RC	32%	21%	56%	32%	21%	55%
J9	Moreton Terrace / Causeway Road	Signalised /RC	35%	17%	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%	21%	41%	30%	19%
J12	Leighton Road / Wong Nai Chung Road	Signalised /RC	22%	54%	67%	21%	51%	64%
J13	Broadwood Road / Link Road	Signalised /RC	16%	62%	76%	16%	62%	76%
J14	Pennington Street / Irving Street / Jardine's Bazaar	Signalised /RC	222%	275%	303%	222%	275%	303%
J15	Hysan Avenue / Hoi Ping Road	Priority/DFC	0.66	0.43	0.38	0.68	0.45	0.40
J16	Caroline Hill Road / New Road(2)	Priority/DFC	0.13	0.09	0.08	0.13	0.09	0.09

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 4.10** 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 4.11**.

Table 4.11 Estimated Pedestrian Generation/Attraction of Planned Developments

Use	Unit	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekend Peak Hour		
		Gen.	Att.	Total	Gen.	Att.	Total	Gen.	Att.	Total
Adopted Pedestrian Trip Rates (1)										
Headquarter	ped/hr/quota	0.31	0.52	-	0.59	0.08	-	0.17	0.05	-
Court	ped/hr /100 m^2	0.25	2.71	-	1.22	0.43	-	-	-	-
Office	ped/hr /100 m^2	0.27	2.74	-	2.66	0.33	-	0.27	0.37	-
Estimated Pedestrian Generation (2)										
Redevelopment at Po Leung Kuk Headquarter	322 quotas	99	166	265	191	25	216	56	16	72
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	1,011	1,183	2,194
District Court Site	70,000 m^2 GFA	175	1,898	2,073	855	303	1,158	20	20	40
Commercial Development in 1- 5 Irving Street and 14 Pennington Street	7,548.8 m^2 GFA	20	207	227	201	25	226	20	28	48
Total		**843**	**4,998**	**5,841**	**4,091**	**1,417**	**5,508**	**1,107**	**1,247**	**2,354**

Notes: Gen. – Generation; Att. – Attraction.
(1) Pedestrian trip rates from TIA report of Planning Application A/H7/181 are adopted.
(2) Figures were abstracted from the approved TIA report of planning application A/H7/181.

4.8.2 The planned developments are estimated to generate 2-way pedestrian flows of 5,841, 5,508 and 2,354 person/ hour during weekday AM, weekday PM and weekend peak hours respectively. The pedestrians flows are distributed onto the network based on the existing pattern and the future pedestrian connections planned under application A/H7/181.

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

4.10 Future Capacity of Pedestrian Facilities

4.10.1 The future walkway serviceability is assessed, and the results are shown in **Table 4.12**. The results showed that all of the concerned footpaths will operate satisfactorily with LOS level "C" or above.

Table 4.12 Future Capacity Analysis of Footpaths

Ref.	Location	Actual Width (m)	Effective Width (m)[1]	Peak Hour flow (ped/hr)			Peak 15-minute flow [2] (ped/15-min)			Flow Rate[3] ped/m/min [LOS]		
				AM	PM	WE	AM	PM	WE	AM	PM	WE
2033 Reference Scenario												
P1	Southern footpath of Caroline Hill Road	3.0	2.0	94	40	43	29	12	13	1.0 [A]	0.4 [A]	0.4 [A]
P2	Eastern footpath of Cotton Path	4.0	2.0	121	198	212	37	60	64	0.8 [A]	1.3 [A]	1.4 [A]
P3	Northern footpath of Caroline Hill Road	3.0	2.0	1,210	1,433	1,202	363	430	361	12.1 [A]	14.3 [A]	12.0 [A]
P4	Eastern footpath of Yun Ping Road	2.5	1.5	561	953	787	169	286	237	7.5 [A]	12.7 [A]	10.5 [A]
P5	Western footpath of Pennington Street	2.2	1.2	1,392	1,564	1,329	418	470	399	23.2 [C]	26.1 [C]	22.2 [B]
P6	Eastern footpath of Leighton Road	3.3	2.3	945	1,390	1,433	284	417	430	8.2 [A]	12.1 [A]	12.5 [A]
C1	Signalised Crossing	6.4	6.4	380	380	210	114	114	63	10.9 [A]	10.9 [A]	6.0 [A]
C2	Signalised Crossing	4.2	4.2	2,037	2,548	1,960	612	765	588	6.4 [A]	8.0 [A]	6.1 [A]
C3	Signalised Crossing	4.0	4.0	1,996	2,402	1,903	599	721	571	9.5 [A]	11.4 [A]	9.1 [A]
C4	Signalised Crossing	3.3	3.3	1,793	1,960	1,611	538	588	484	9.0 [A]	9.8 [A]	8.1 [A]
2033 Design Scenario												
P1	Southern footpath of Caroline Hill Road	3.0	2.0	937	883	886	282	265	266	9.4 [A]	8.8 [A]	8.9 [A]
P2	Eastern footpath of Cotton Path	4.0	3.0	339	416	431	102	125	130	2.3 [A]	2.8 [A]	2.9 [A]

Ref.	Location	Actual Width (m)	Effective Width (m)(1)	Peak Hour flow (ped/hr)			Peak 15-minute flow (2) (ped/15-min)			Flow Rate(3) ped/m/min [LOS]		
				AM	PM	WE	AM	PM	WE	AM	PM	WE
P3	Northern footpath of Caroline Hill Road	3.0	2.0	1,835	2,058	1,827	551	618	549	18.4 [B]	20.6 [B]	18.3 [B]
P4	Eastern footpath of Yun Ping Road	2.5	1.5	765	1,157	990	230	348	297	10.2 [A]	15.5 [A]	13.2 [A]
P5	Western footpath of Pennington Street	2.2	1.2	1,596	1,768	1,532	479	531	460	26.6 [C]	29.5 [C]	25.6 [C]
P6	Eastern footpath of Leighton Road	3.3	2.3	1,163	1,608	1,652	349	483	496	10.1 [A]	14.0 [A]	14.4 [A]
C1	Signalised Crossing	6.4	6.4	380	380	210	114	114	63	10.9 [A]	10.9 [A]	6.0 [A]
C2	Signalised Crossing	4.2	4.2	2,444	2,955	2,366	734	887	710	7.6 [A]	9.2 [A]	7.4 [A]
C3	Signalised Crossing	4.0	4.0	2,403	2,809	2,309	721	843	693	11.4 [A]	13.4 [A]	11.0 [A]
C4	Signalised Crossing	3.3	3.3	2,200	2,367	2,017	660	711	606	11.0 [A]	11.9 [A]	10.1 [A]

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) According to on-site observation, the peak 15-minute flows are about 30% of the peak hour flows.
(3) For LOS "C" or above, flow rates should be less than 33 pedestrians/metre/minute. The peak 15-minute flows are adopted for assessment.

4.10.2 **Table 4.12** shows that all of the concerned footpaths and walkway will operate satisfactorily with LOS level "C" or above.

4.10.3 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.

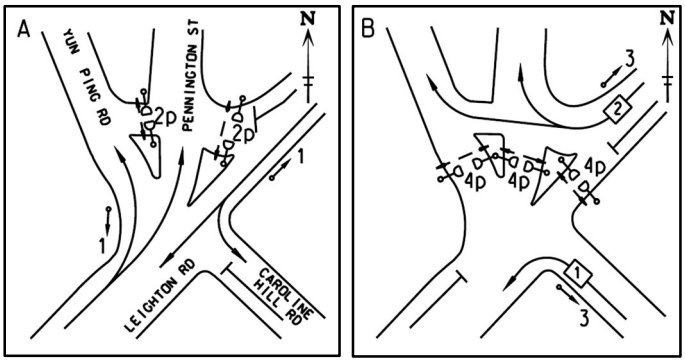
4.11 Future Operational Performance of Central Refuge Islands at J3

4.11.1 Apart from footpaths and pedestrian crossing facilities, LOS assessment on pedestrian waiting spaces provided at the two refuge islands at the junction of Leighton Road / Yun Ping Road / Pennington Street / Caroline Hill Road (East) (J3) are also conducted. The average number of pedestrians waiting at refuge island is estimated based on the pedestrian flows and green time for each stage, an example is shown below to demonstrate how the number is derived:

Taking northern refuge island in 2033 reference scenario AM peak hour as an example,

The northbound peak hour flow is 1,162 ped/hr which is equivalent to 0.323 pedestrian/second.

There are 2 stages in this signalized junction and the calculated optimum green time for stage A and B are 80 seconds and 50 seconds, respectively.



According to the method of control of this junction, northbound pedestrians can only cross the junction in stage A, which means they have to wait for 50 seconds.

At the end of stage B before the start of stage A, there will be 14 pedestrians waiting (0.323 ped/sec x 50 sec = 16.15, say 17 ped) at the island.

4.11.2 The assessment results are summarized in **Table 4.13**.

Table 4.13 Operational Performance of Central Refuge Islands at J3

Location	Effective Area (m^2)	Estimated Average Number of Pedestrian Waiting at Refuge Island(1)			Space (m^2/p) [Level-of-service (LOS)](2)		
		AM	PM	WE	AM	PM	WE
2033 Reference							
Northern Refuge Island	18	17	24	16	1.1 [B]	0.8 [C]	1.1 [B]
Southern Refuge Island	21	4	3	16	5.3 [A]	7.0 [A]	1.3 [A]
2033 Design							
Northern Refuge Island	18	21	26	16	0.9 [C]	0.7 [C]	1.1 [B]
Southern Refuge Island	21	4	3	16	5.3 [A]	7.0 [A]	1.3 [A]

Notes: AM – Weekday AM; PM – Weekday PM; WE – Weekend
(1) Estimated by the forecasted pedestrian crossing demand and MOC of the signal junction.
(2) Based on the criteria of LOS from Table 18-7 in Chapter 18 of HCM 2000 (see **Appendix E**), the LOS reflects the space per person which is computed by effective waiting area divided by waiting pedestrian. LOS is A for space > $1.2m^2$; B for space >0.9 – $1.2m^2$; C for space >0.6 – $0.9m^2$; D for space >0.3 – $0.6m^2$; E for space >0.2 – $0.3m^2$ and F for space $\leq$ $0.2m^2$.

4.11.3 As shown in **Table 4.13**, the assessment results suggested that the available waiting spaces provided on the refuge islands at junction J3 will still able to cater for the anticipated waiting pedestrian demand at acceptable LOS in both reference and design scenarios.

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 41 pcu/hr, 59 pcu/hr and 48 pcu/hr in the weekday AM, weekday PM and weekend peak hours, respectively. By assigning the additional development traffic to the 2033 Reference Flows, the 2033 Design Flows were obtained.

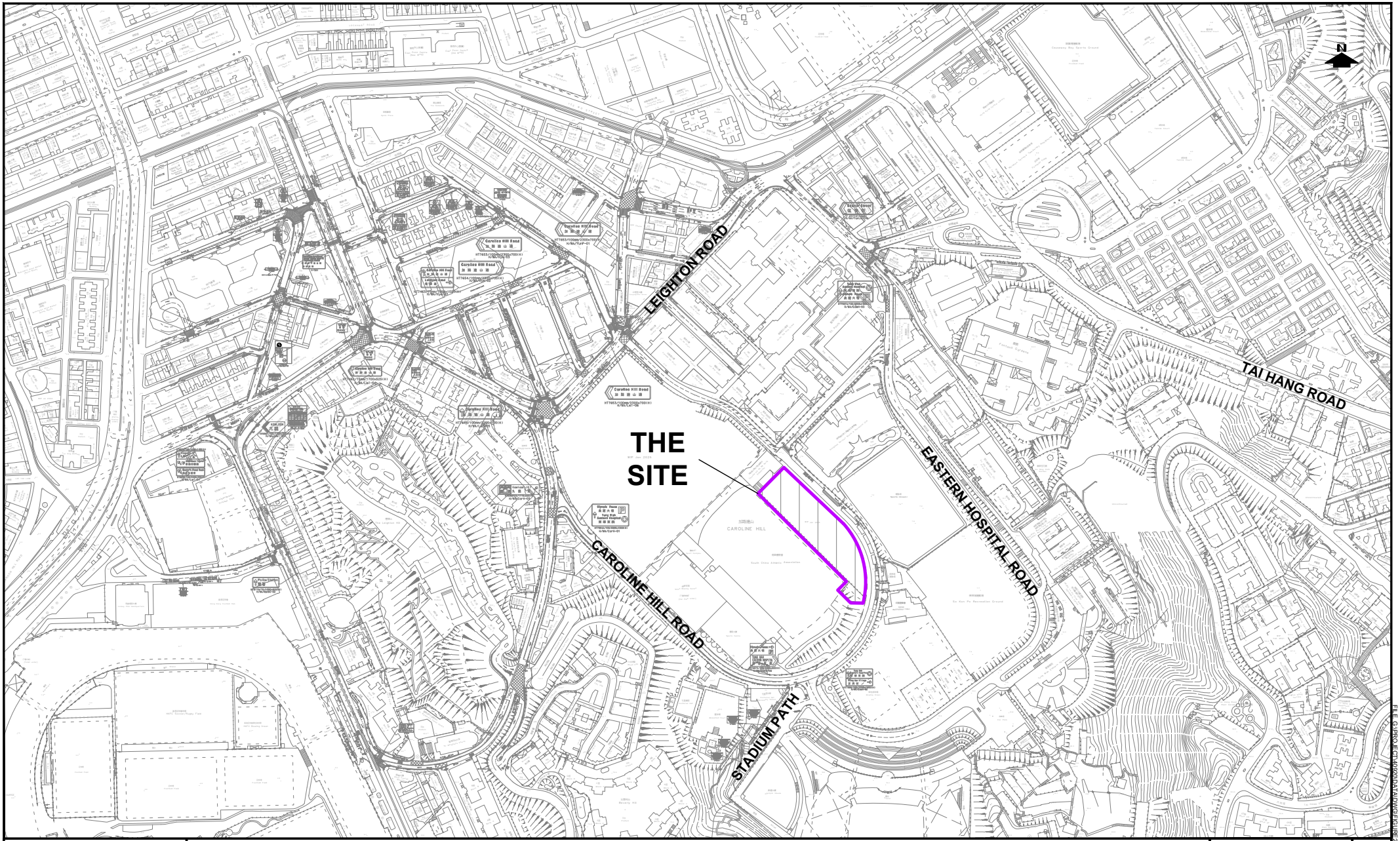
5.1.5 Junction capacity assessments were carried out at the key junctions in the vicinity for the year 2033. The results have indicated that all junctions will operate satisfactorily for both reference and design scenarios. Therefore, it is anticipated that the proposed development will not induce significant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

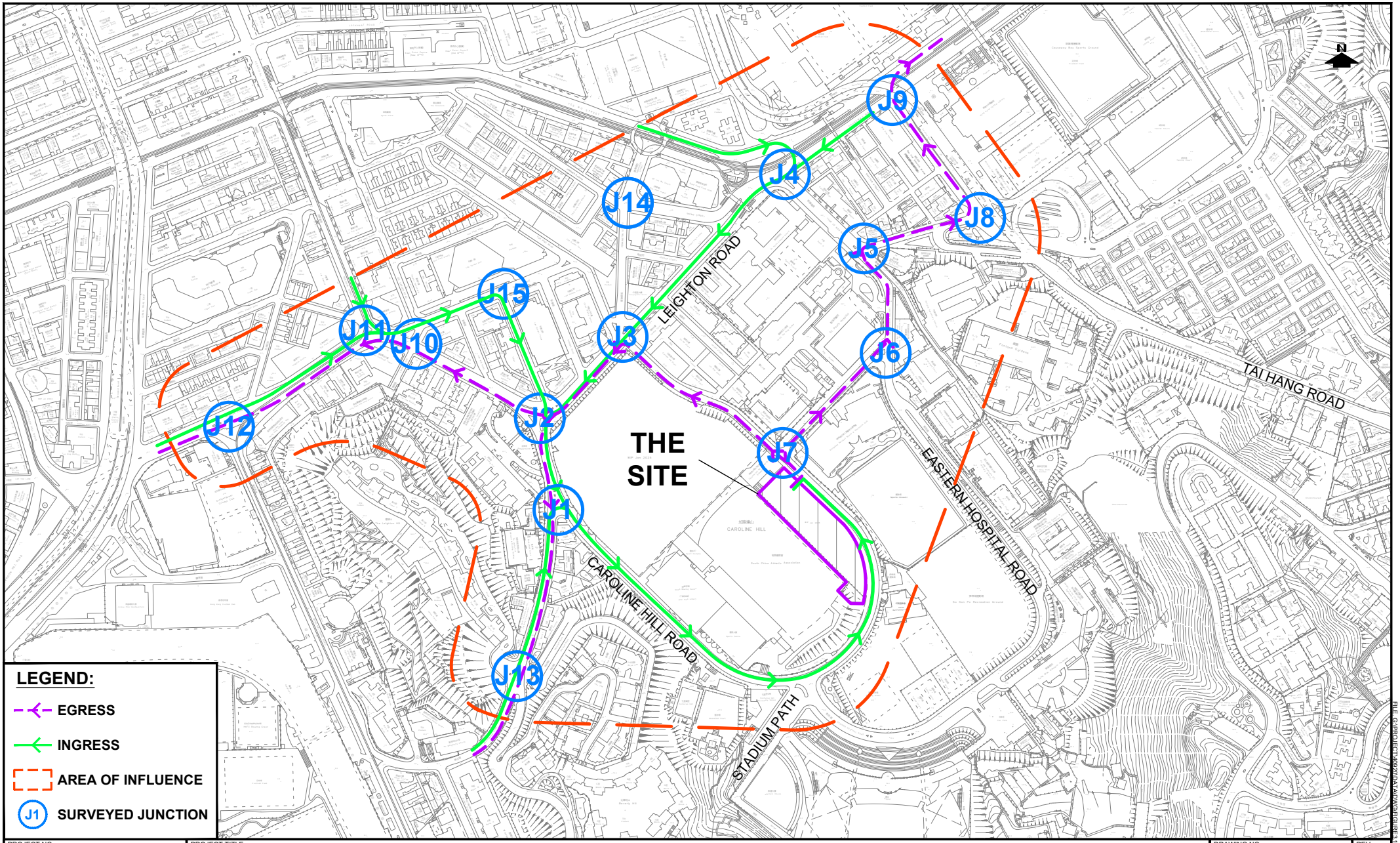
5.2.1 From the assessment results, it can be concluded that the proposed development will not induce significant traffic impact on the surrounding road network and the development proposal is considered acceptable from traffic engineering point of view.



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. A
DESIGNED SLN / DRAWN CLL / CHECKED SLN	DATE DEC 2025 / SCALE 1:5000	DRAWING TITLE: LOCATION OF SURVEYED JUNCTIONS AND AREA OF INFLUENCE	LLA 顧問有限公司 Consultancy Limited

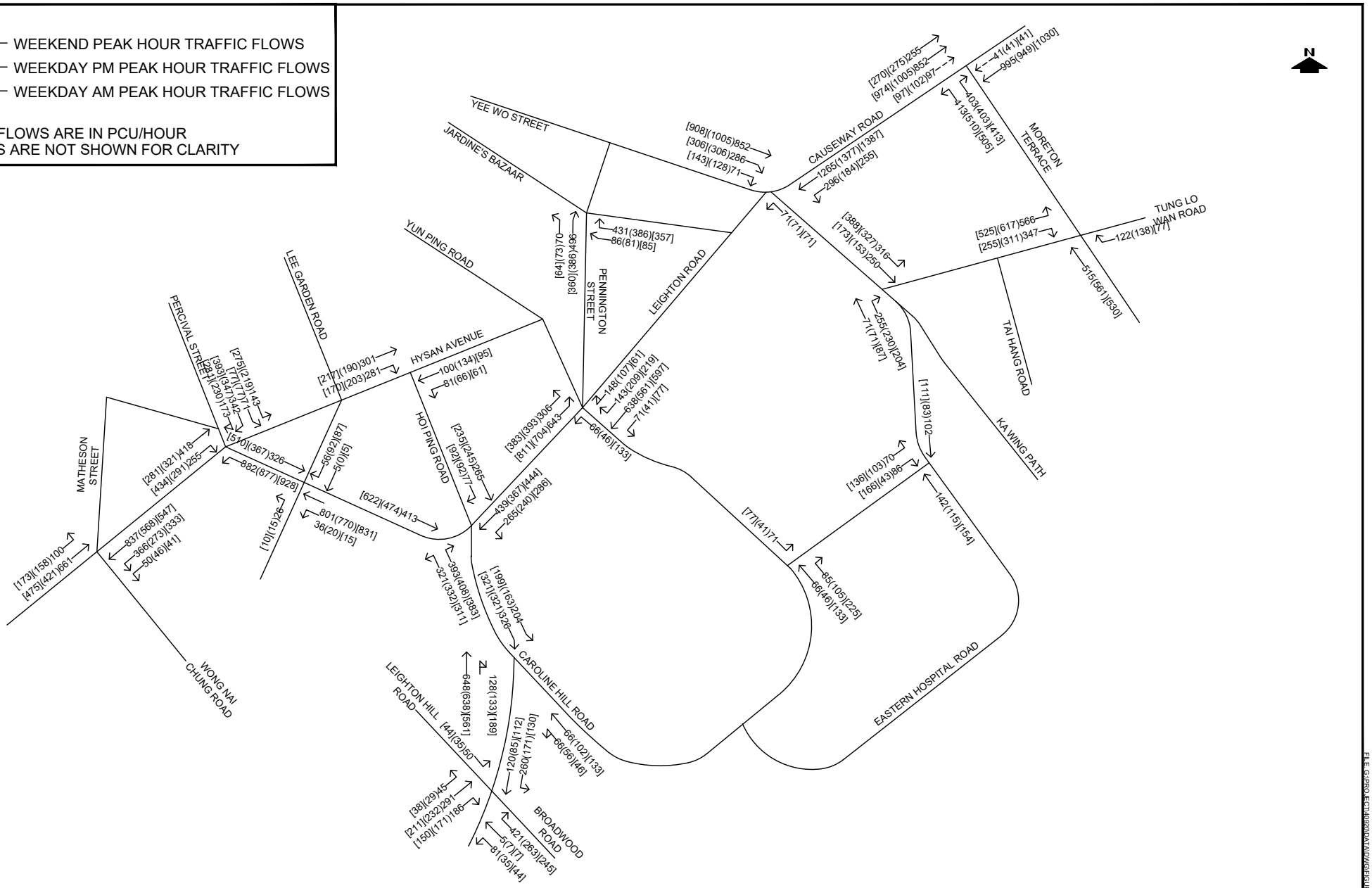
FILE: G:\PROJECT\40920\DATA\DWG\FIGURE3.1A.DWG PLOT SCALE : 1 = 1

LEGEND:

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

NOTE:

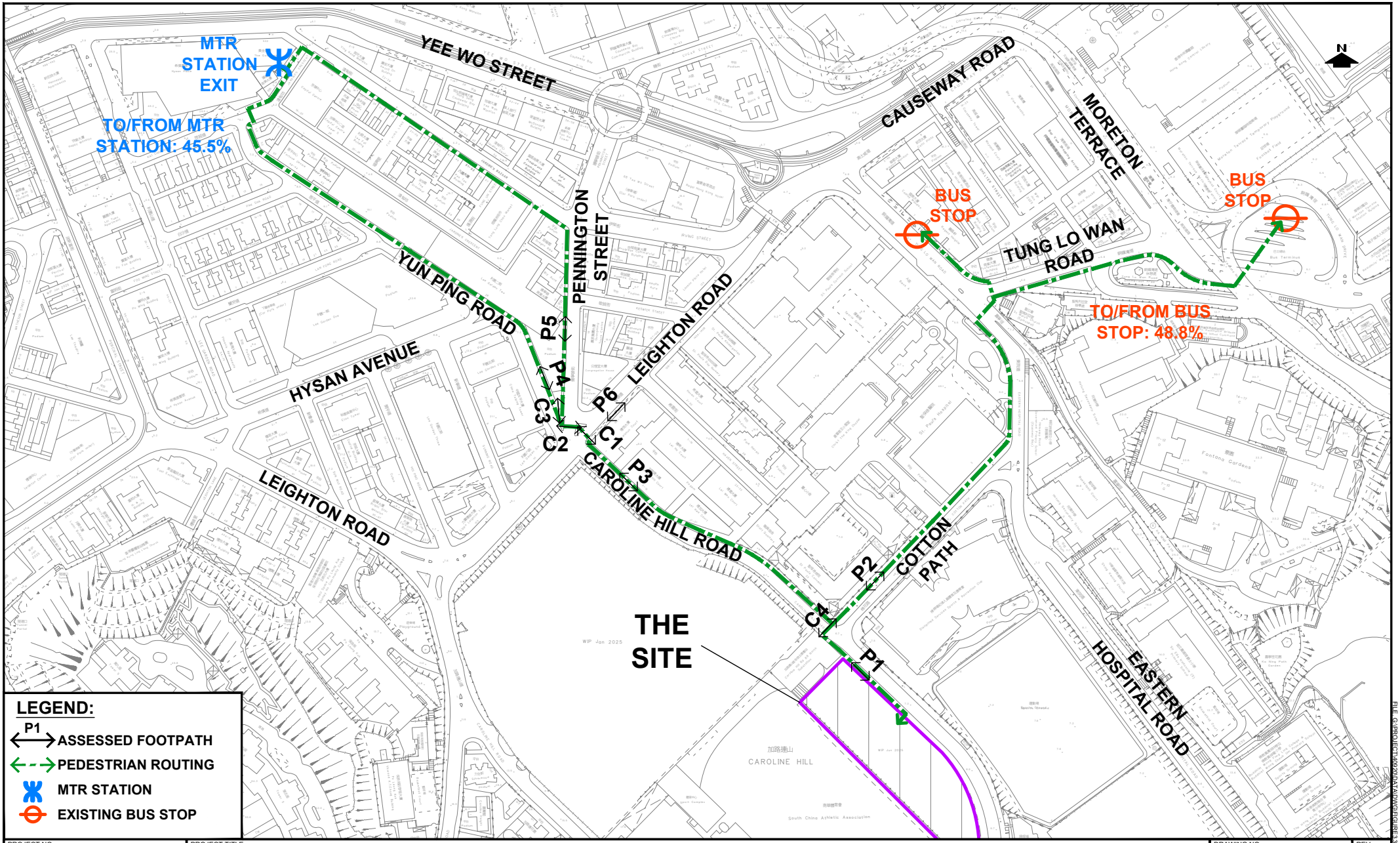
1, ALL TRAFFIC FLOWS ARE IN PCU/HOUR
2. MINOR ROADS ARE NOT SHOWN FOR CLARITY



PROJECT NO.	PROJECT TITLE	DRAWING NO.	REV.
40920	PROPOSED SCAA SPORTS LINK AT SOUTH CHINA ATHLETIC ASSOCIATION 88 CAROLINE HILL ROAD IN WONG NAI CHUNG	FIGURE 3.2	C

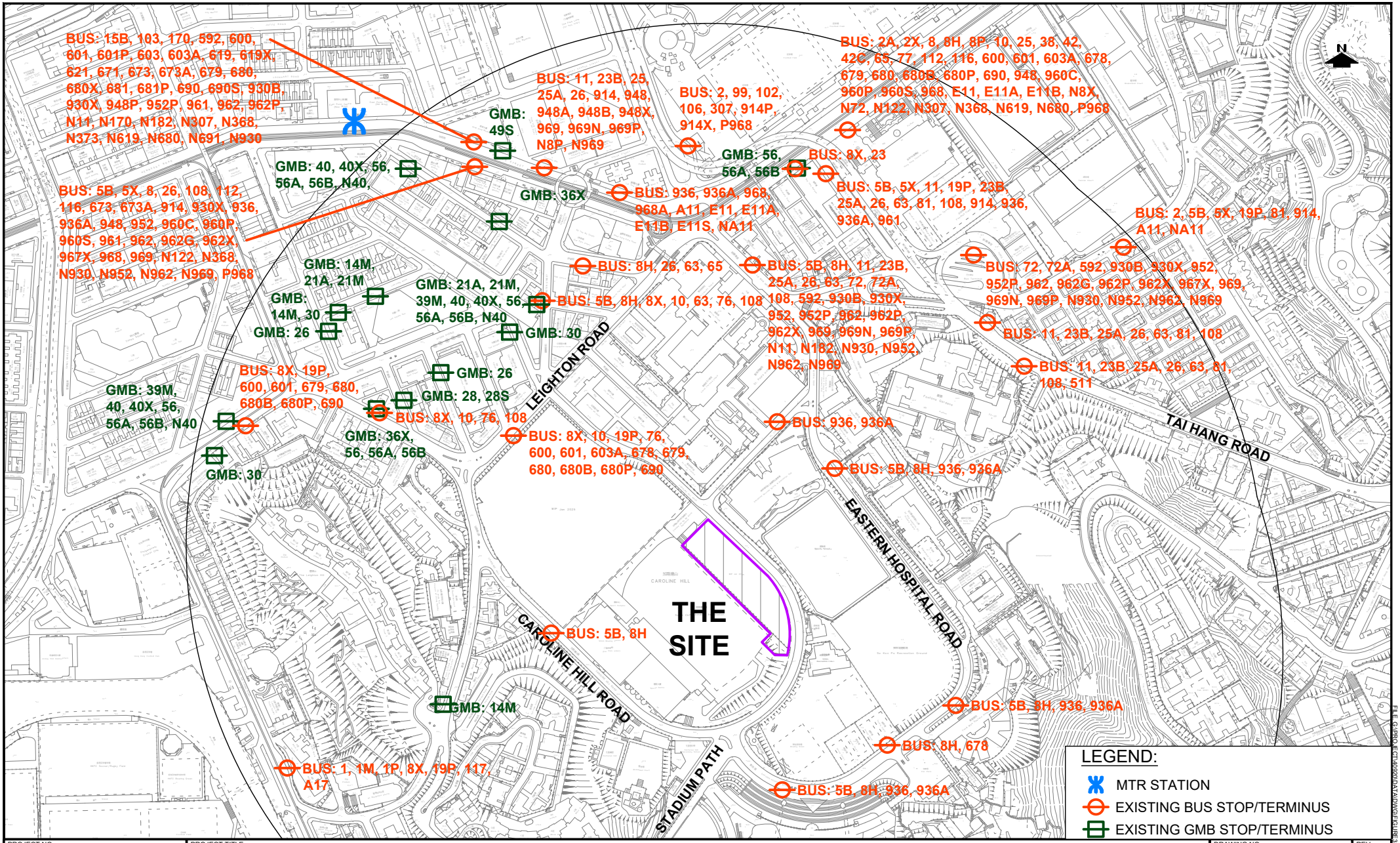
DESIGNED	DATE	DRAWING TITLE	
SLN	MAR 2026	2025 EXISTING TRAFFIC FLOWS	LLA 顧問有限公司 Consultancy Limited
DRAWN CLL	SCALE N.T.S.		
CHECKED SLN			

FILE: G:\PROJECT\40920\DATA\DWG\FIGURE3.2C.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. B
DESIGNED SLN / DRAWN CLL / CHECKED SLN	DATE FEB 2026 / SCALE 1:3000	DRAWING TITLE: ANTICIPATED PEDESTRIAN ROUTINGS AND LOCATION OF SURVEYED FOOTPATHS	LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\40920\DATA\DWG\FIGURE3.3B.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

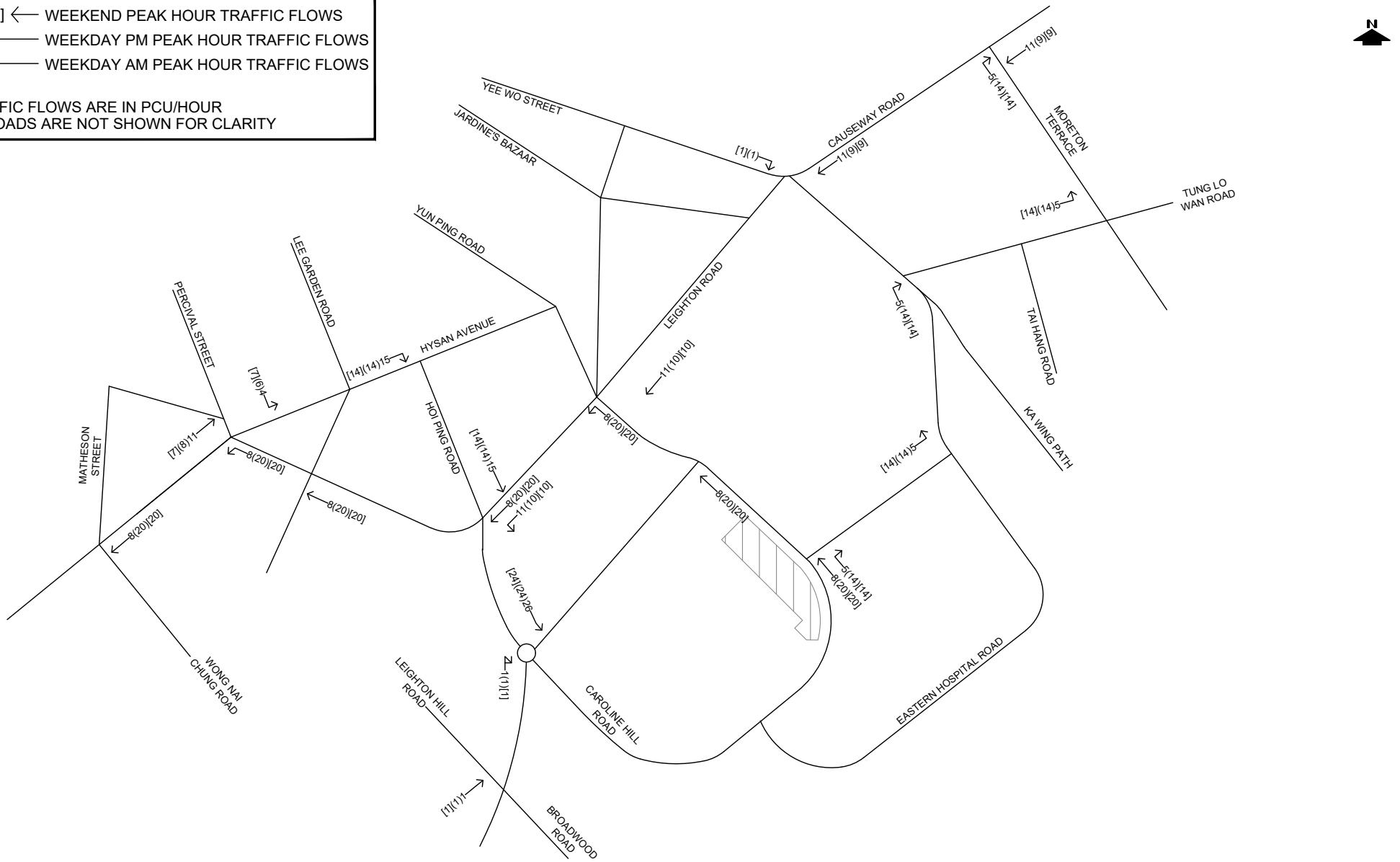
FILE: G:\PROJECT\40920\DATA\DWG\FIGURE3.4.DWG PLOT SCALE : 1 = 1

LEGEND:

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

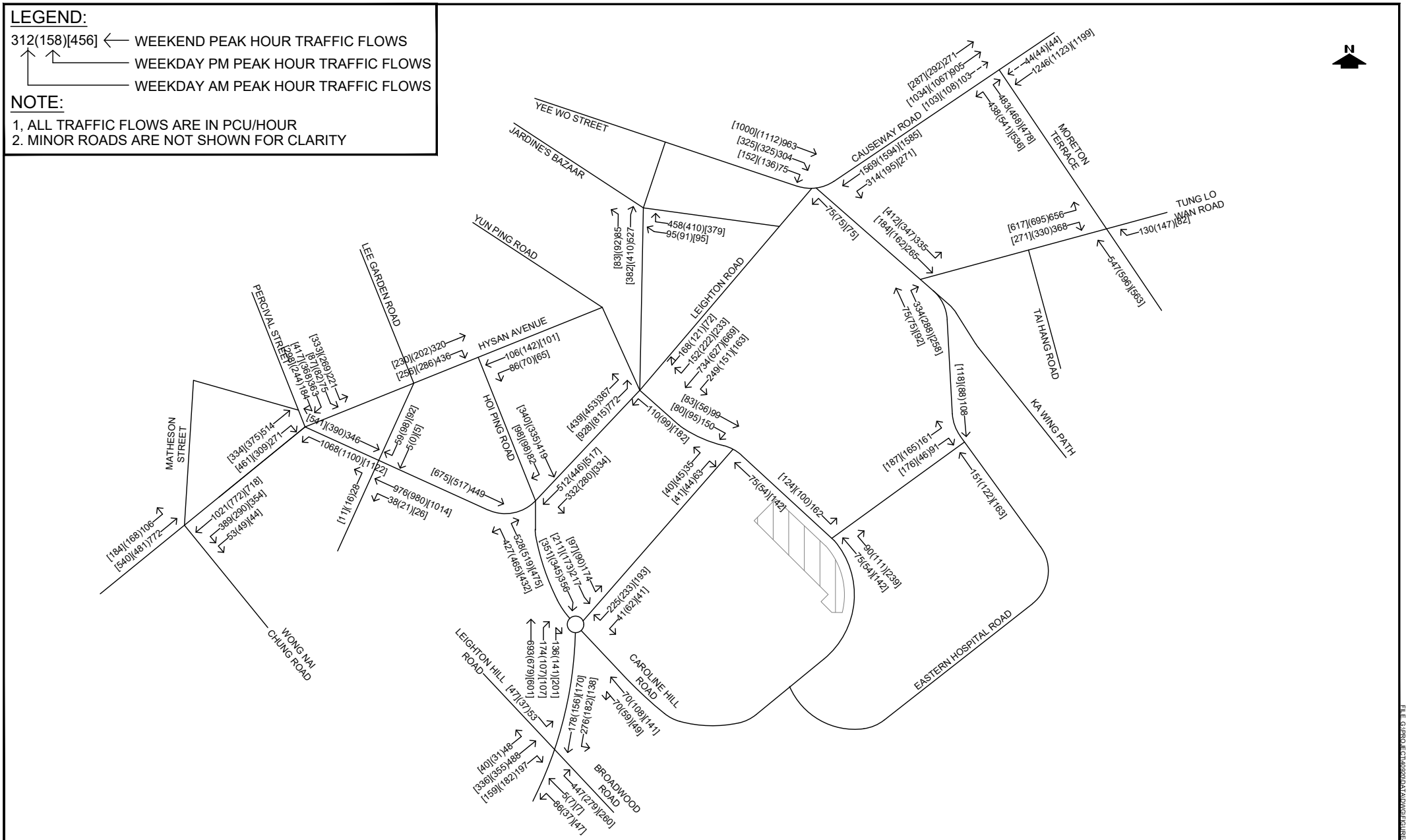
NOTE:

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



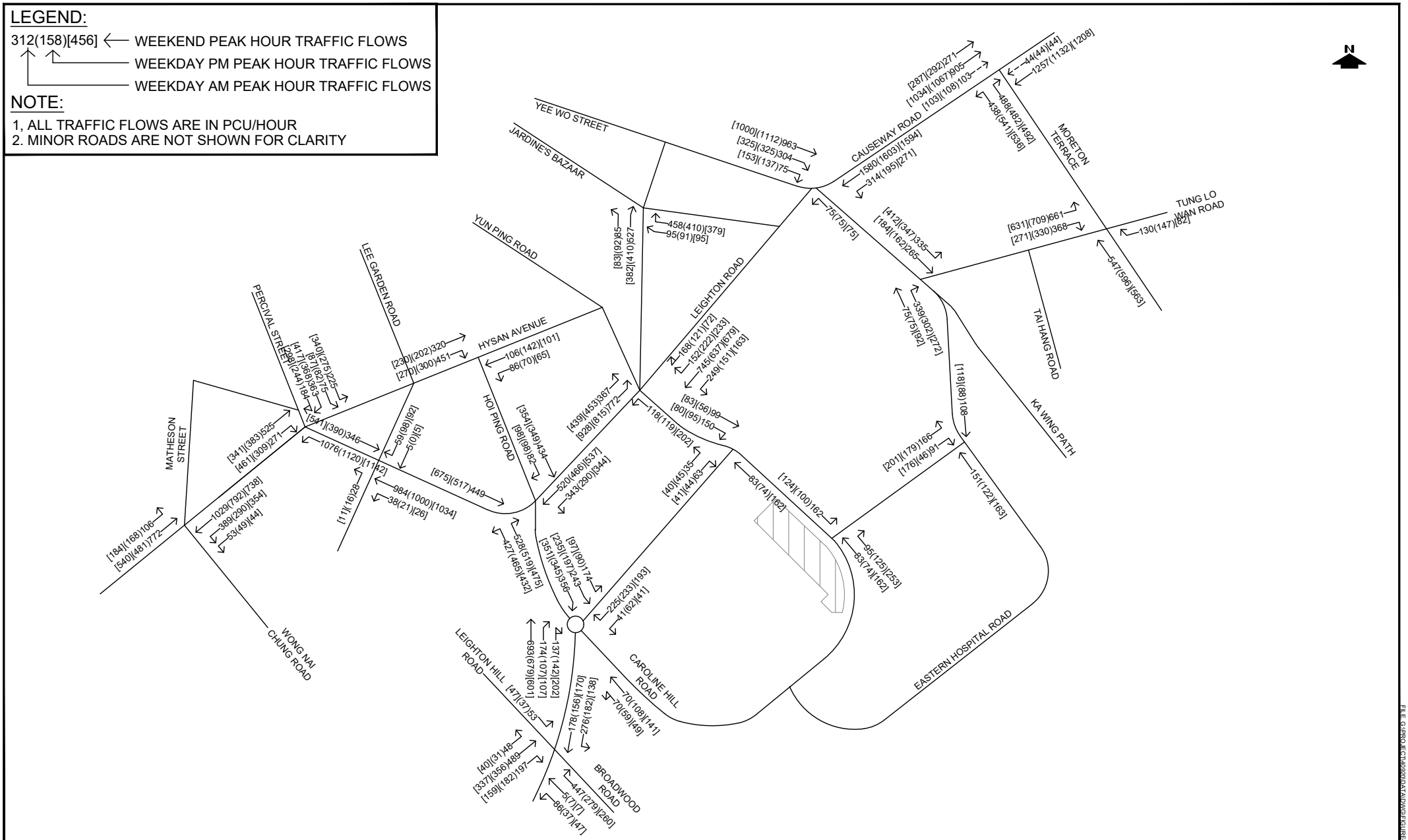
PROJECT NO. 40920	PROJECT TITLE: PROPOSED SCAA SPORTS LINK AT SOUTH CHINA ATHLETIC ASSOCIATION 88 CAROLINE HILL ROAD IN WONG NAI CHUNG	DRAWING NO. FIGURE 4.1	REV. B
DESIGNED SLN / DRAWN CLL / CHECKED SLN	DATE FEB 2026 / SCALE N.T.S.	DRAWING TITLE: DEVELOPMENT TRAFFIC FLOWS	LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\40920\DATA\DWG\FIGURE4.1B.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. C
DESIGNED SLN / DRAWN CLL / CHECKED SLN	DATE MAR 2026 / SCALE N.T.S.	DRAWING TITLE: 2033 REFERENCE TRAFFIC FLOWS	LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\40920\DATA\DWG\FIGURE4.2C.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 4.3	REV. C
DESIGNED SLN	DATE MAR 2026	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\FIGURE4.3C.DWG PLOT SCALE : 1 = 1

APPENDIX A

Proposed Car Park Layout

N

COTTON PATH

DISCIPLINED SERVICES SPORTS
& RECREATION CLUB

DISCIPLINED SERVICES SPORTS &
RECREATION CLUB FOOTBALL PITCH

CAROLINE HILL ROAD

+6.93
+7.46
+7.55
+8.36
+9.46
+10.80
+10.65
+12.23
+14.13
+15.83

STAIRCASE
STAIRCASE
STAIRCASE

L/UL

LIFT
LOBBY
+6.93

LIFT
LOBBY

LAY-BY AREA

SCAA
TRAINING
POOL

E&M

RAMP
DOWN

E&M

CARPARK
+7.46

5m
6m
6.43m

ACCESS GATE

UNEXCAVATED AREA

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

Car Park Layout ○ 1 : 500 (A3) ○ 07 Jan 2026

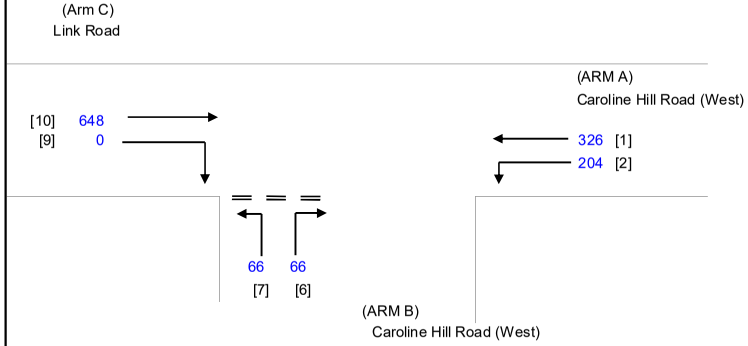
Design 2 (HK) Limited

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	Feb-26
		FILENAME : J1_CHRW_LR	CHECKED BY:	SLN	Feb-26
J1 Caroline Hill Road (West) / Link Road		REFERENCE NO.:	REVIEWED BY:	SLN	Feb-26



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	=	0	(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 :

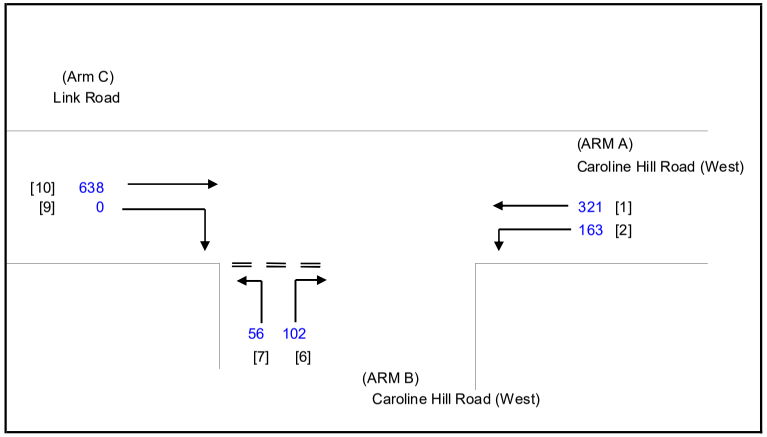
Q b-a	=	358		
Q b-c	=	574	Q b-c (O) =	547.5
Q c-b	=	502		
Q b-ac	=	441		
TOTAL FLOW	=	1310	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.1844
DFC b-c	=	0.1150
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.2993

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 PM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Feb-26
		FILENAME : J1_CHRW_LR	CHECKED BY:	SLN	Feb-26
J1 Caroline Hill Road (West) / Link Road		REFERENCE NO.:	REVIEWED BY:	SLN	Feb-26



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	=	0	(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 :

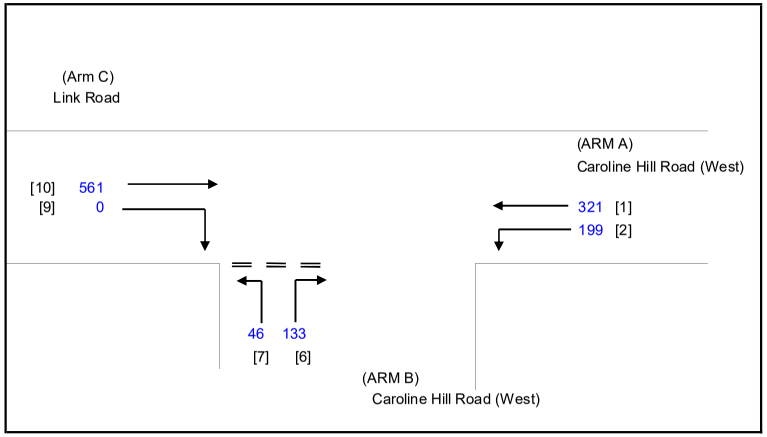
Q b-a	=	364		
Q b-c	=	579	Q b-c (O) =	538.4
Q c-b	=	513		
Q b-ac	=	419		
TOTAL FLOW	=	1280	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.2802
DFC b-c	=	0.0967
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.3769

CRITICAL DFC = 0.38

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	Feb-26
		FILENAME : J1_CHRW_LR	CHECKED BY:	SLN	Feb-26
J1 Caroline Hill Road (West) / Link Road		REFERENCE NO.:	REVIEWED BY:	SLN	Feb-26



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	=	0	(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 :

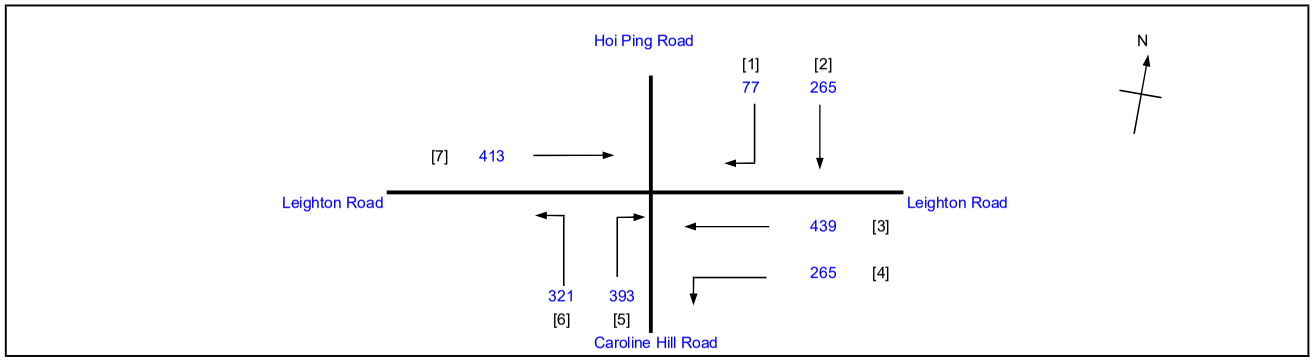
Q b-a	=	372		
Q b-c	=	576	Q b-c (O) =	524.5
Q c-b	=	505		
Q b-ac	=	409		
TOTAL FLOW	=	1260	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

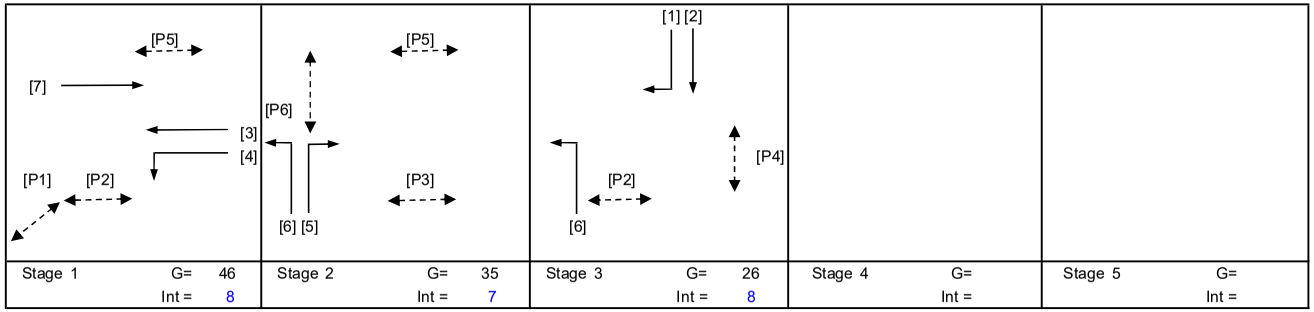
DFC b-a	=	0.3575
DFC b-c	=	0.0799
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.4374

CRITICAL DFC = 0.44

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	Feb-26
J2 Leighton Road / Caroline Hill Road (West) / Hoi Ping Road		FILENAME : J2_LR_CHR_HPR.xlsx	Checked By:	SLN	Feb-26
			Reviewed By:	SLN	Feb-26



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

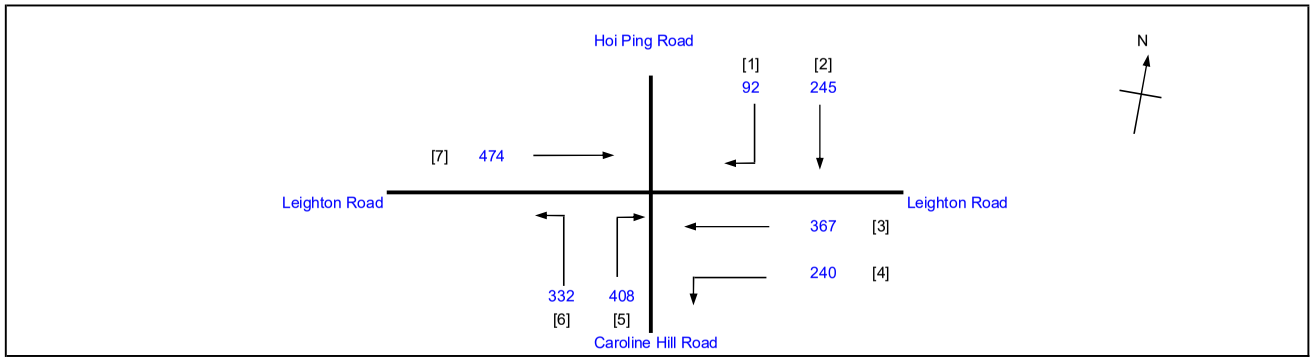
	INITIALS	DATE
Prepared By:	SKL	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

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

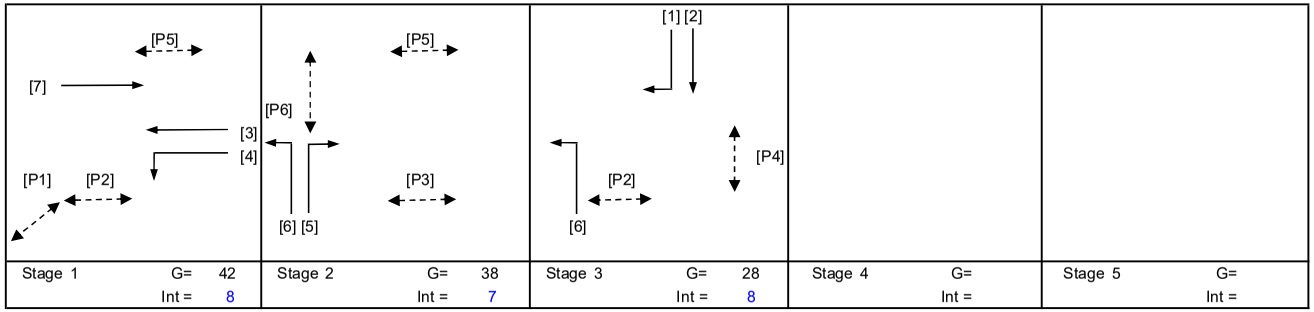
J2 Leighton Road / Caroline Hill Road (West) / Hoi Ping Road

2025 Existing 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 =	0.576
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	FG	Delay	Green Time Provided SG	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	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		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

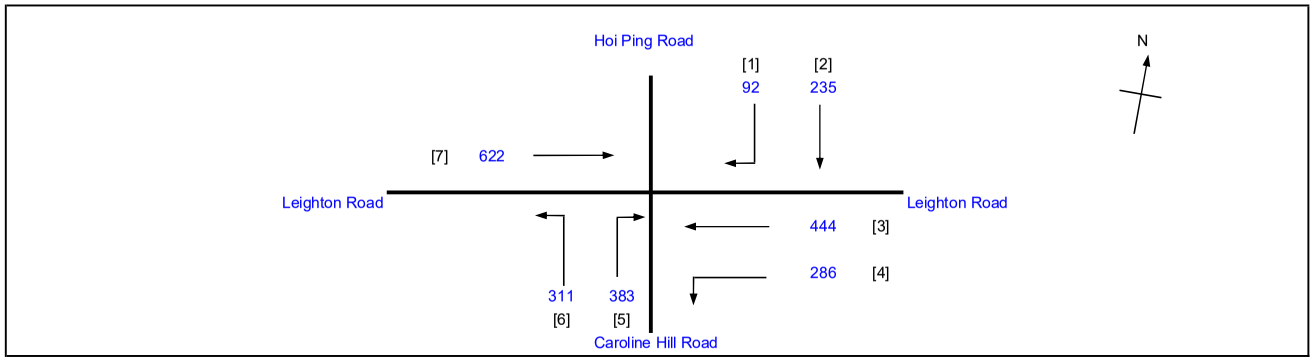
	INITIALS	DATE
Prepared By:	SKL	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

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

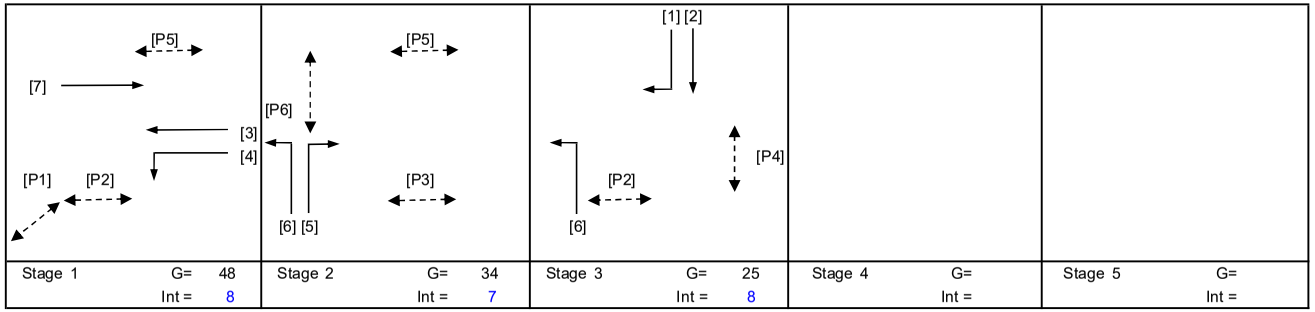
J2 Leighton Road / Caroline Hill Road (West) / Hoi Ping Road

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 %**



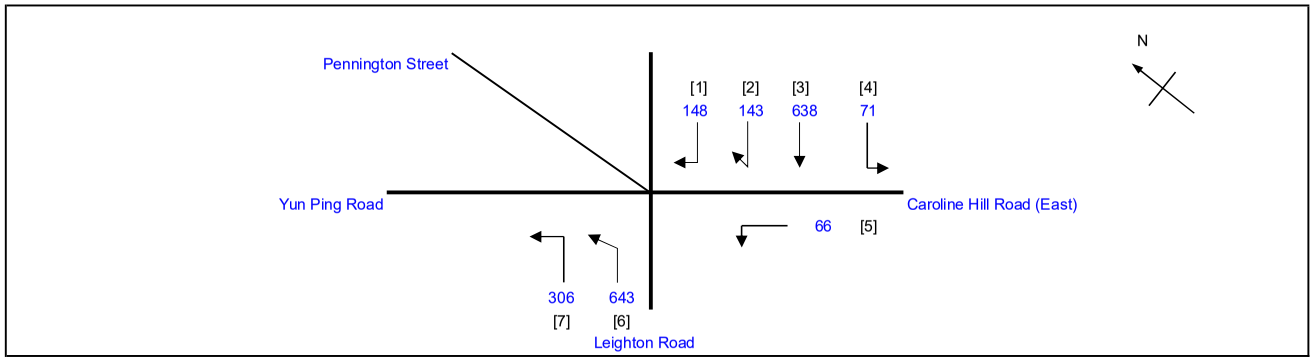
Pedestrian Phase	Stage	Width (m)	Green Time Required SG	Green Time Required FG	Green Time Required Delay	Green Time Provided SG	Green Time Provided FG
P1	1	4.5	10	5	2	49	5
P2	1,3	4	14	5	0	84	5
P3	2	4.5	14	5	3	33	5
P4	3	15	10	7	4	22	7
P5	1,2	7	11	6	1	90	6
P6	2	15	10	7	4	30	7

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	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		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

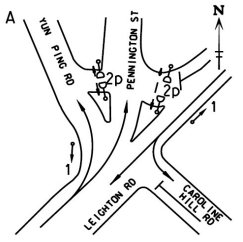
* Site factor is applied to Leighton Road westbound, in view of the short weaving distance at the exit arm of the junction.

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

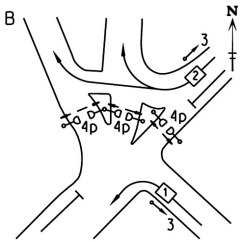
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing AM**	PROJECT NO.: 40920	Prepared By:	SKL	Feb-26
J3 Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street		FILENAME : J3_LR_CHRE_YPR_PS.xlsx	Checked By:	SLN	Feb-26
			Reviewed By:	SLN	Feb-26



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	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

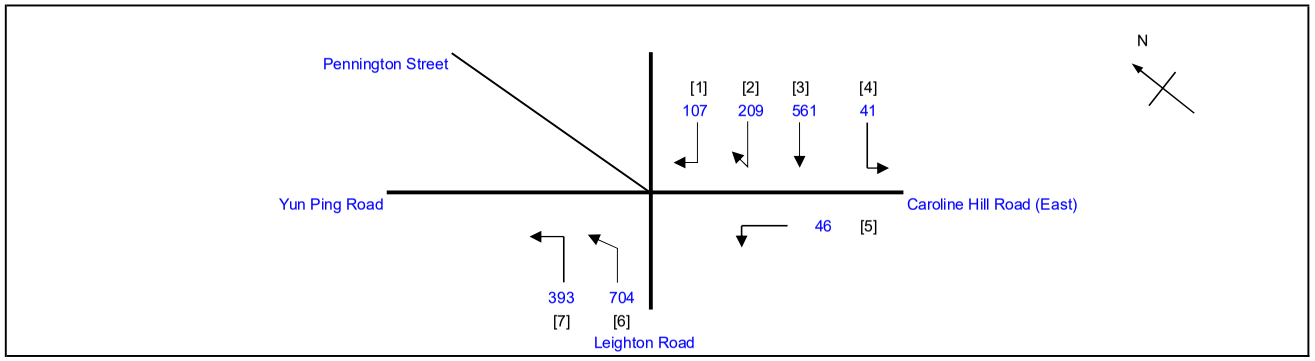
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

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

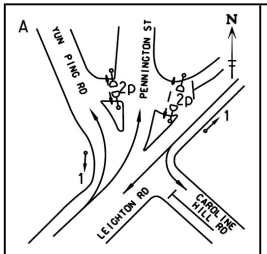
2025 Existing PM

PROJECT NO.: 40920

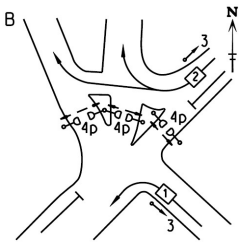
FILENAME : J3_LR_CHRE_YPR_PS.xlsx



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
Prepared By:	SKL	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

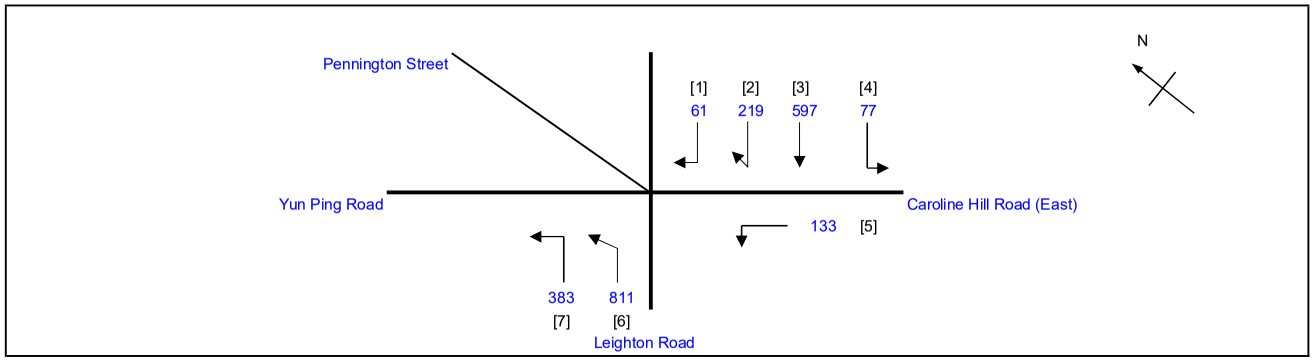
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

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

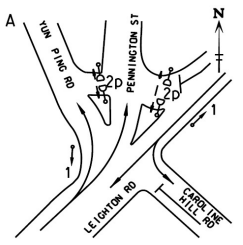
2025 Existing Weekend

PROJECT NO.: 40920

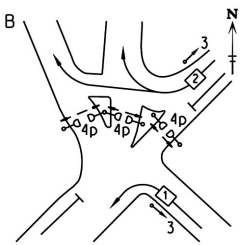
FILENAME : J3_LR_CHRE_YPR_PS.xlsx



No. of stages per cycle		N =	2
Cycle time		C =	130 sec
Sum(y)		Y =	0.627
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



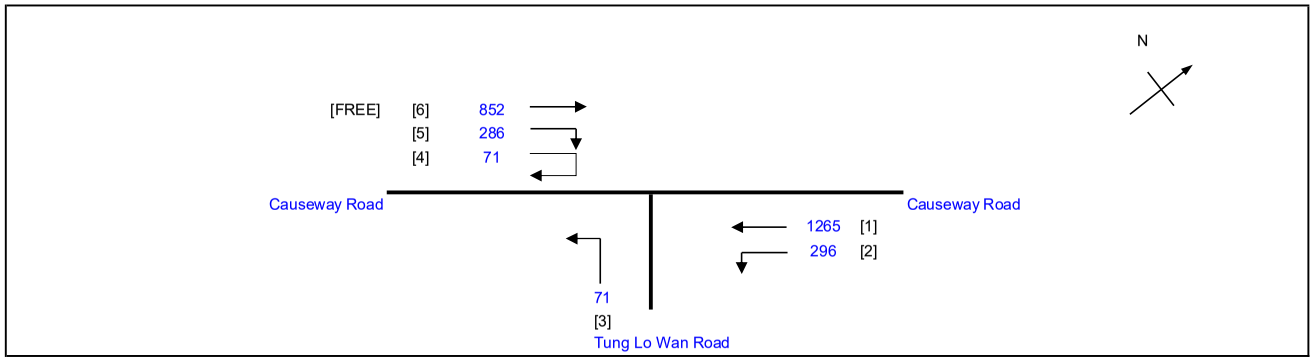
Stage 2 G= 38 Int = 7

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

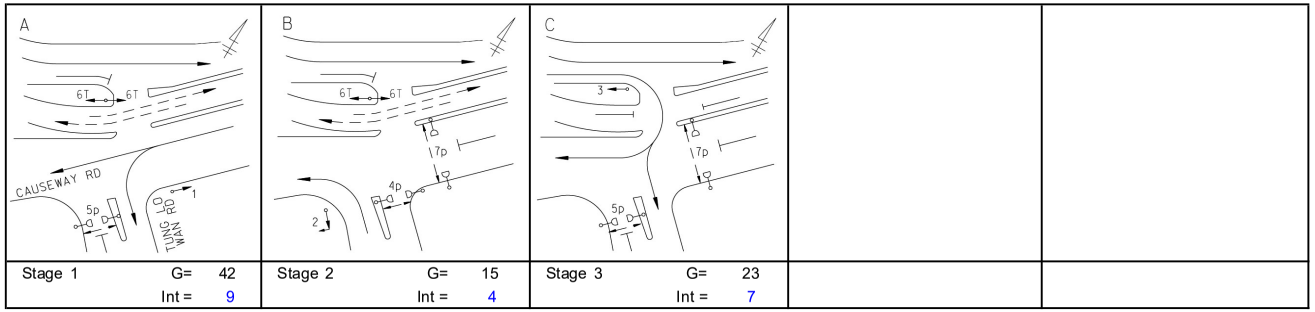
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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	Feb-26
J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road		FILENAME : J4_CR_LR_IS.xlsx	Checked By:	SLN	Feb-26
			Reviewed By:	SLN	Feb-26



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 %**



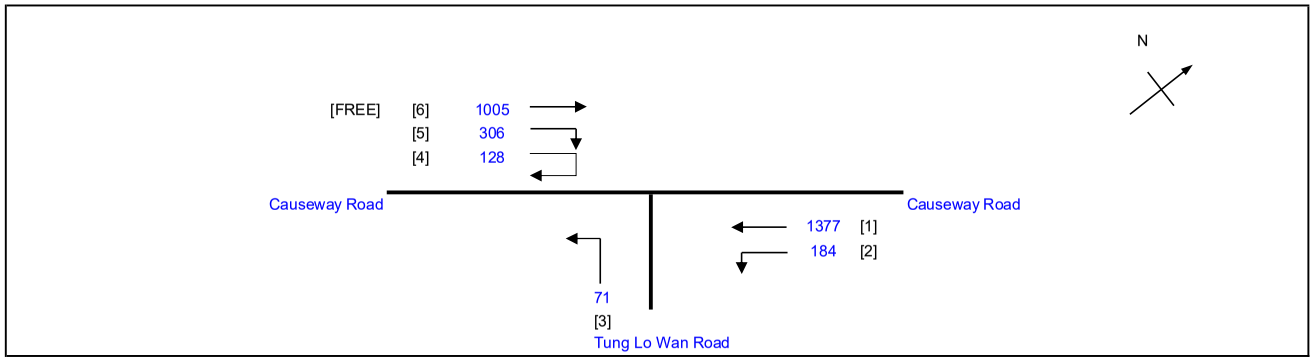
Stage 1	G= 42	Stage 2	G= 15	Stage 3	G= 23
	Int = 9		Int = 4		Int = 7

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

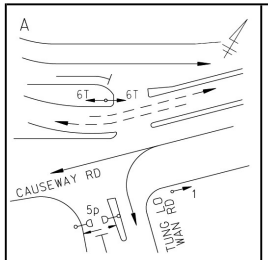
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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

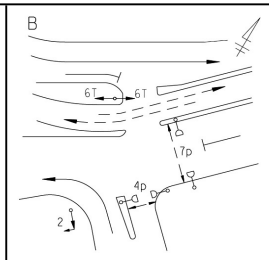
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2025 Existing PM**	PROJECT NO.: 40920	Prepared By:	SKL	Feb-26
J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road		FILENAME : J4_CR_LR_IS.xlsx	Checked By:	SLN	Feb-26
			Reviewed By:	SLN	Feb-26



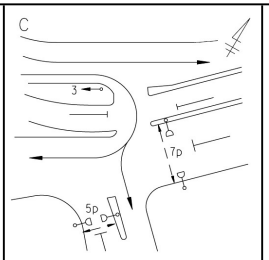
No. of stages per cycle	N =	3
Cycle time	C =	100 sec
Sum(y)	Y =	0.398
Loss time	L =	33 sec
Total Flow	=	2066 pcu
Co = (1.5*L+5)/(1-Y)	=	90.5 sec
Cm = L/(1-Y)	=	54.8 sec
Yult	=	0.653
R.C.ult = (Yult-Y)/Y*100%	=	64.0 %
Cp = 0.9*L/(0.9-Y)	=	59.2 sec
Ymax = 1-L/C	=	0.670
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**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



Stage 1 G= 40 Int = 9



Stage 2 G= 15 Int = 4



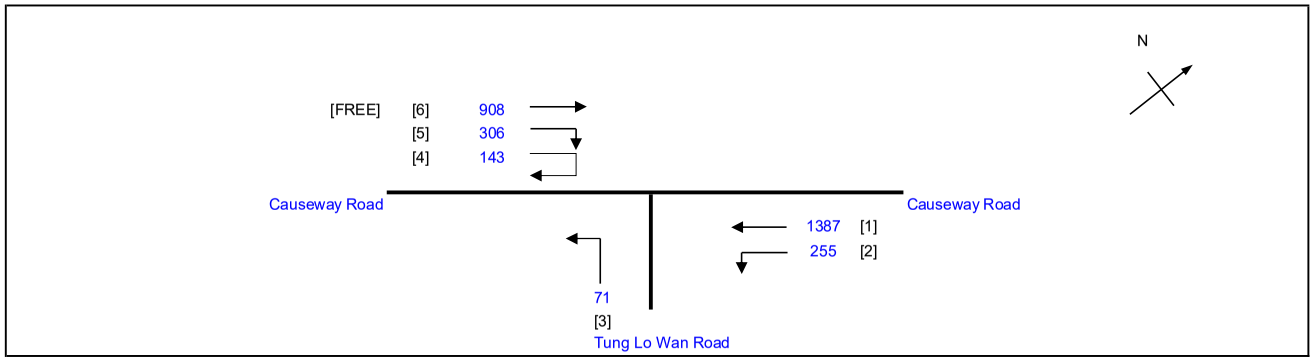
Stage 3 G= 25 Int = 7

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

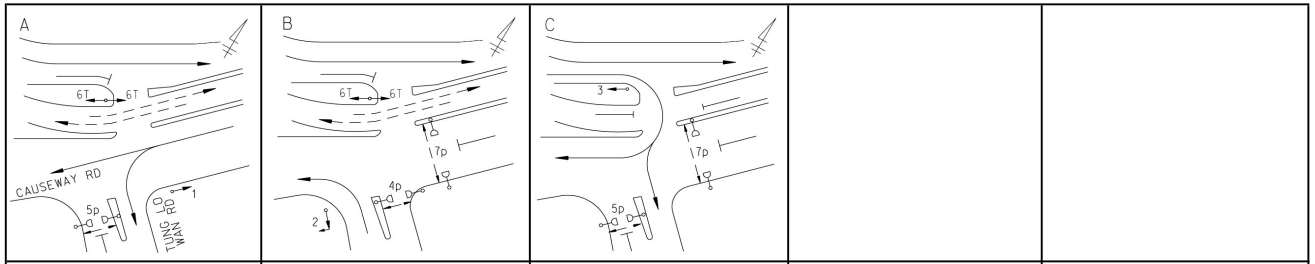
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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
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	Feb-26
J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road		FILENAME :	J4_CR_LR_IS.xlsx	Checked By:	SLN	Feb-26
				Reviewed By:	SLN	Feb-26



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 %**



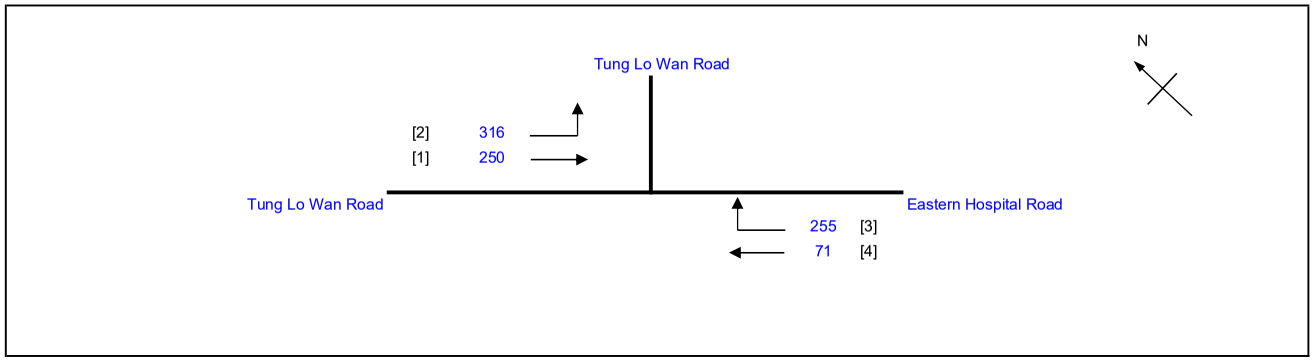
Stage 1	G= 40	Int = 9
Stage 2	G= 15	Int = 4
Stage 3	G= 25	Int = 7

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

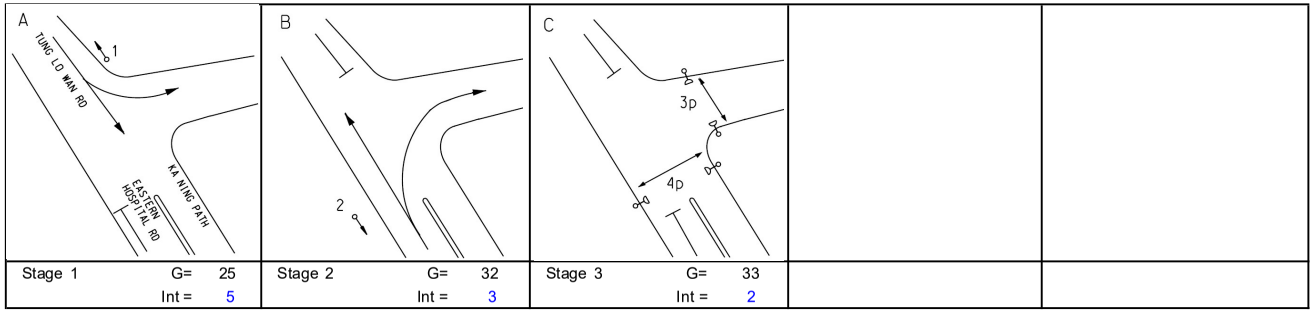
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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	Feb-26
		FILENAME : J5_TLWR_EHR.xlsx	Checked By:	SLN	Feb-26
J5 Tung Lo Wan Road / Eastern Hospital Road			Reviewed By:	SLN	Feb-26



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

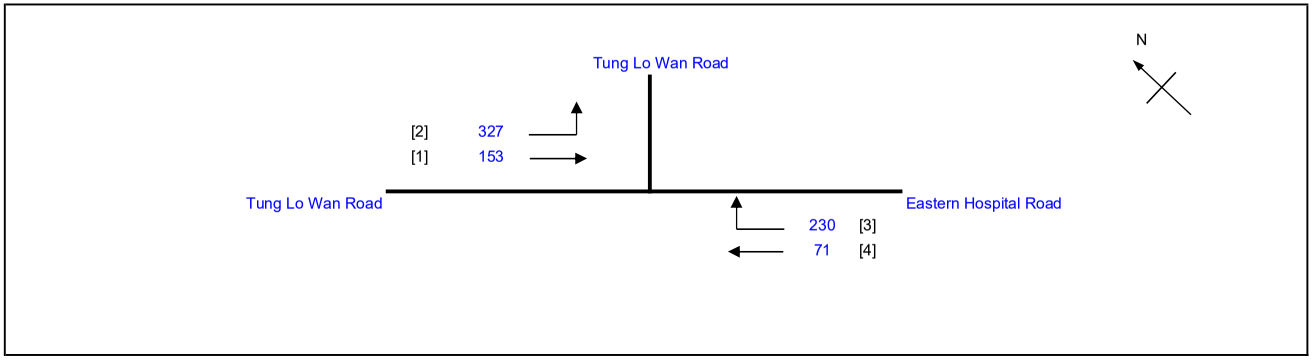
	INITIALS	DATE
Prepared By:	SKL	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

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

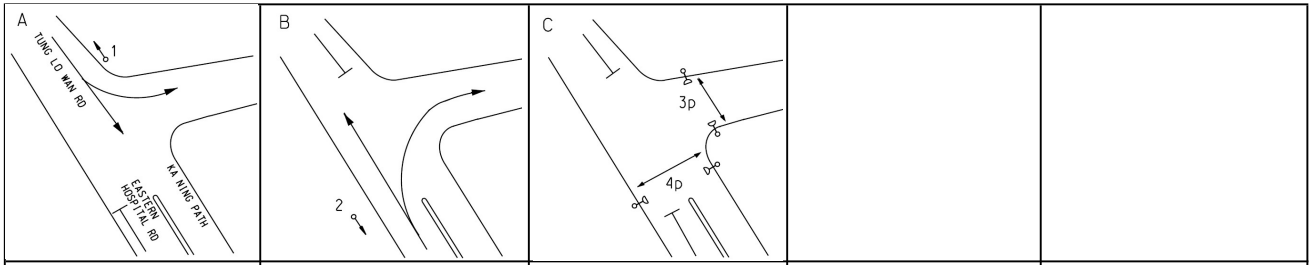
J5 Tung Lo Wan Road / Eastern Hospital Road

2025 Existing PM

PROJECT NO.: 40920
FILENAME : J5_TLWR_EHR.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	100 sec
Sum(y)		Y =	0.291
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

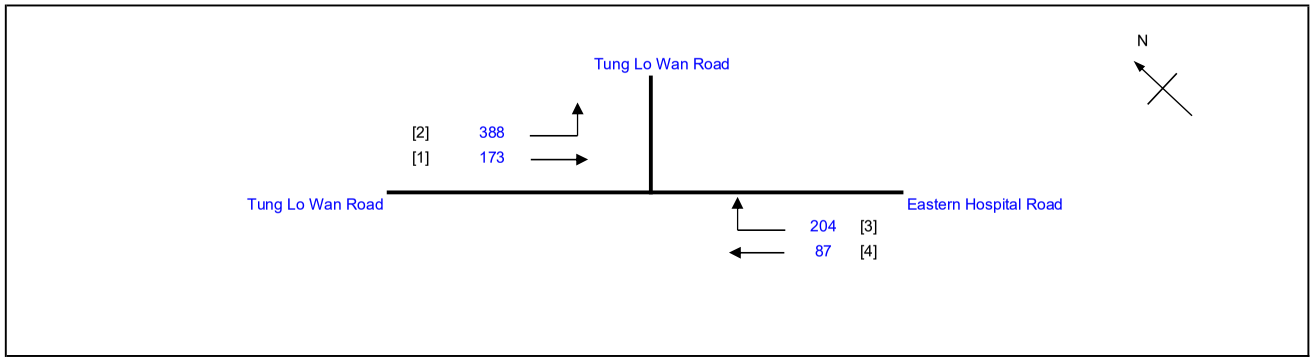
	INITIALS	DATE
Prepared By:	SKL	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

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

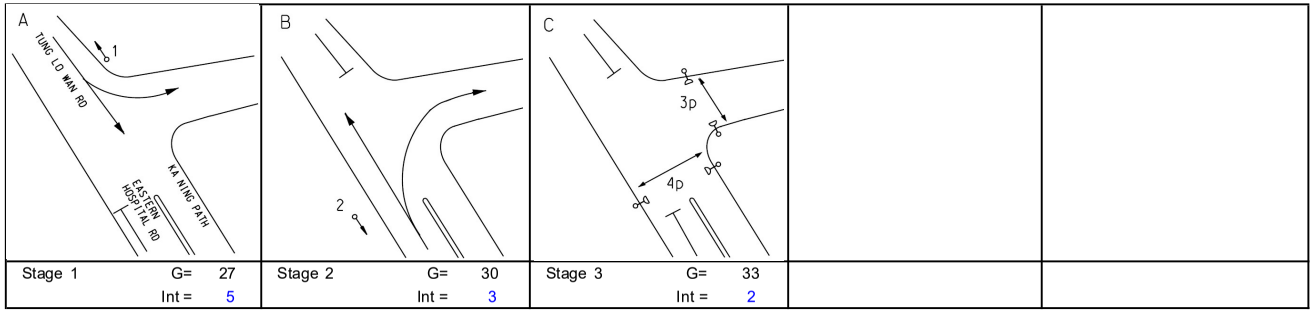
J5 Tung Lo Wan Road / Eastern Hospital Road

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 %**



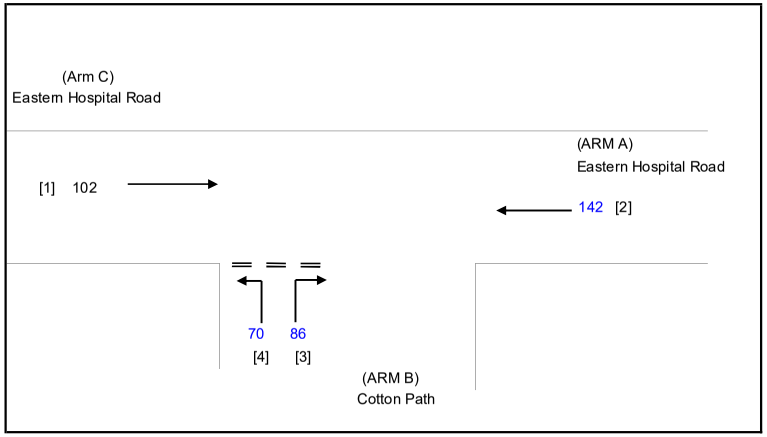
Stage 1	G=	27	Stage 2	G=	30
	Int =	5		Int =	3
Stage 3	G=	33			
	Int =	2			

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	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	Feb-26
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Feb-26
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Feb-26



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	=	86	(pcu/hr)
q b-c	=	70	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.44871795

THE CAPACITY OF MOVEMENT :

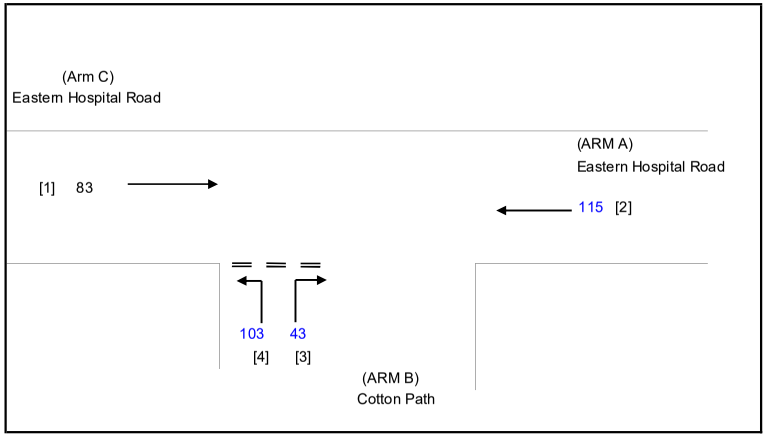
Q b-a	=	528			
Q b-c	=	728	Q b-c (O) =	698.4	
Q c-b	=	414			
Q b-ac	=	602			
TOTAL FLOW	=	400	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.1629
DFC b-c	=	0.0962
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1162

CRITICAL DFC = 0.16

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	Feb-26
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Feb-26
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Feb-26



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	=	43	(pcu/hr)
q b-c	=	103	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.70547945

THE CAPACITY OF MOVEMENT :

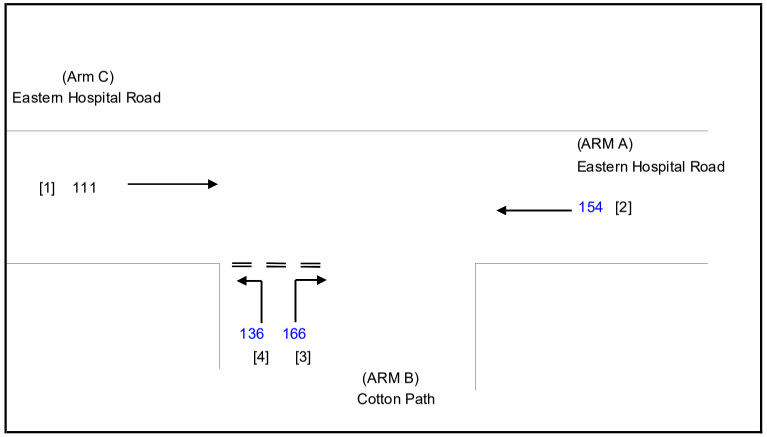
Q b-a	=	538		
Q b-c	=	735	Q b-c (O) =	720.3
Q c-b	=	418		
Q b-ac	=	663		
TOTAL FLOW	=	344	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0799
DFC b-c	=	0.1401
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1552

CRITICAL DFC = 0.16

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	Feb-26
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Feb-26
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Feb-26



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	=	166	(pcu/hr)
q b-c	=	136	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.45033113

THE CAPACITY OF MOVEMENT :

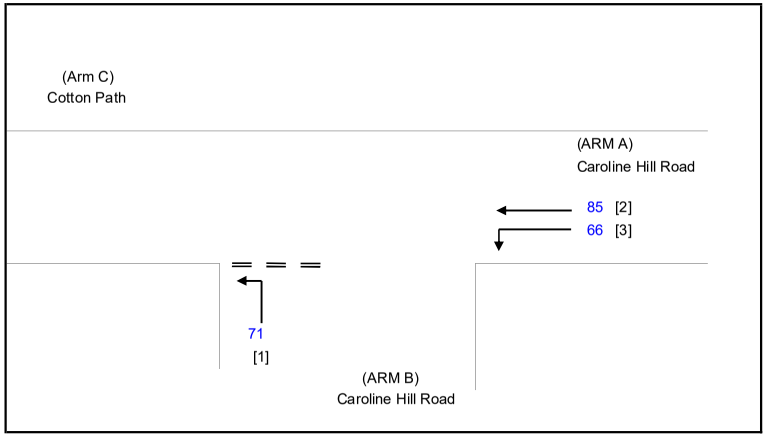
Q b-a	=	524		
Q b-c	=	725	Q b-c (O) =	667.6
Q c-b	=	412		
Q b-ac	=	599		
TOTAL FLOW	=	567	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.3168
DFC b-c	=	0.1876
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.2271

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 AM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Feb-26
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Feb-26
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Feb-26



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	=	85	(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 :

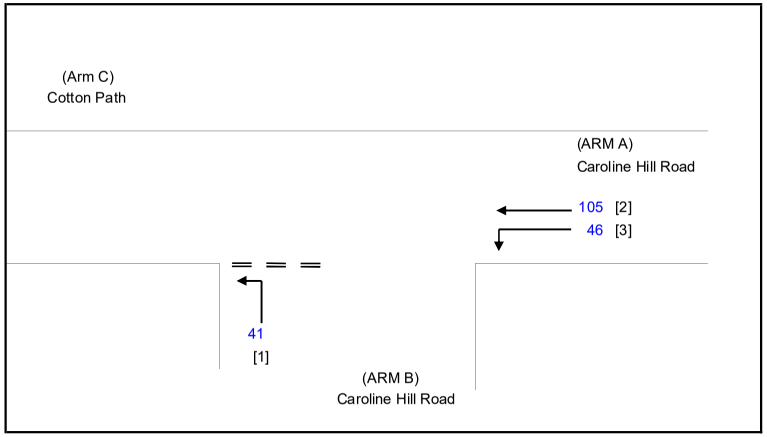
Q b-a	=	317			
Q b-c	=	723	Q b-c (O) =	723	
Q c-b	=	411			
Q b-ac	=	723			
TOTAL FLOW	=	222	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0982
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.0982

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	Feb-26
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Feb-26
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Feb-26



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	=	105	(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 :

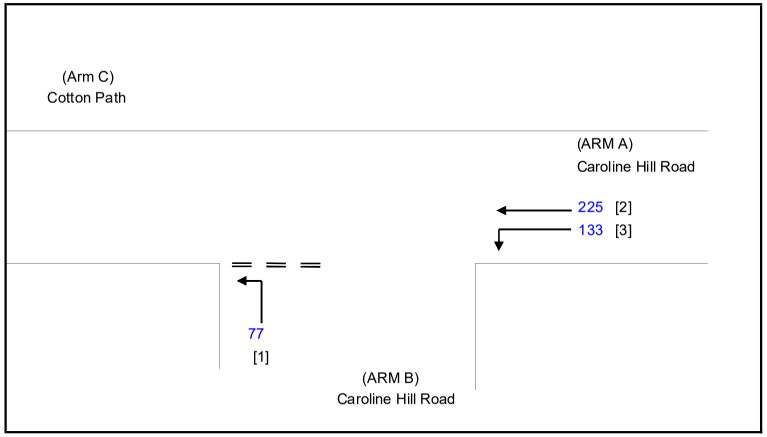
Q b-a	=	315			
Q b-c	=	720	Q b-c (O) =	720	
Q c-b	=	411			
Q b-ac	=	720			
TOTAL FLOW	=	192	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0569
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.0569

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	Feb-26
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Feb-26
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Feb-26



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	=	225	(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	=	292		
Q b-c	=	674	Q b-c (O) =	674
Q c-b	=	376		
Q b-ac	=	674		
TOTAL FLOW	=	435	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

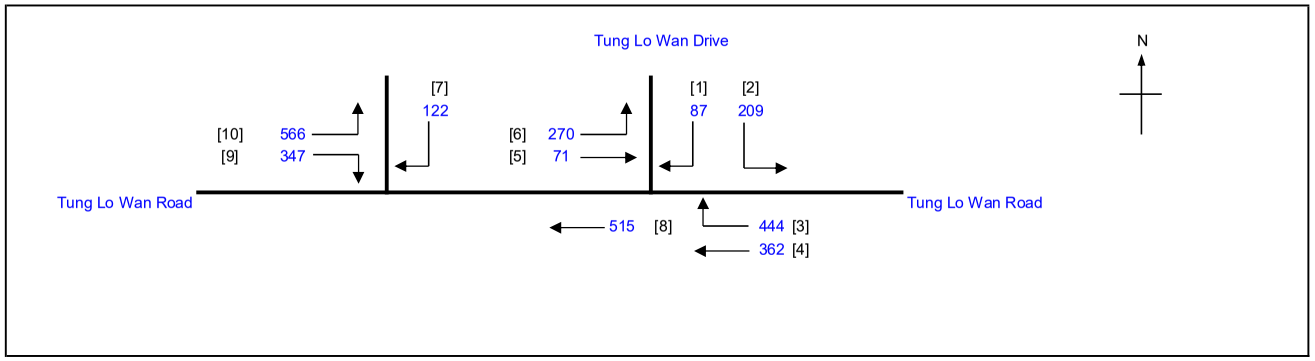
DFC b-a	=	0.0000
DFC b-c	=	0.1142
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1142

CRITICAL DFC = 0.11

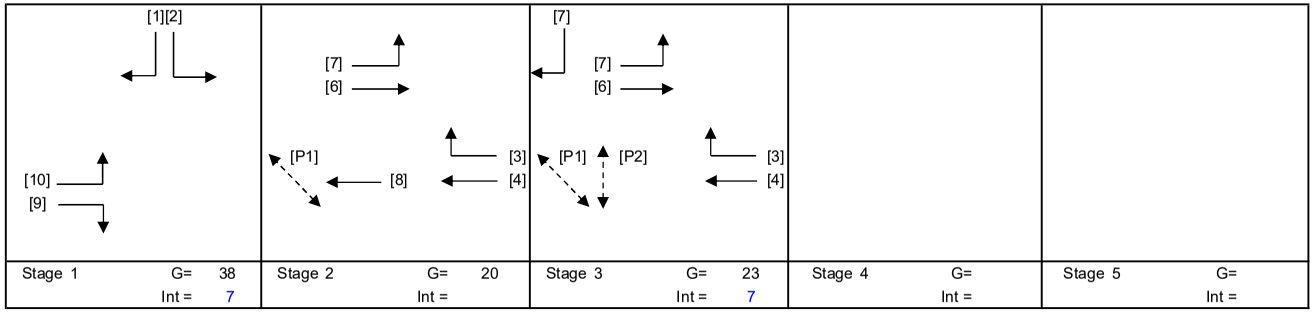
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung			
J8 Tung Lo Wan Road / Moreton Terrace	**2025 Existing AM**		
PROJECT NO.: 40920	Prepared By:	SKL	Feb-26
FILENAME : J8_TLWR_MT.xlsx	Checked By:	SLN	Feb-26
	Reviewed By:	SLN	Feb-26



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 %**



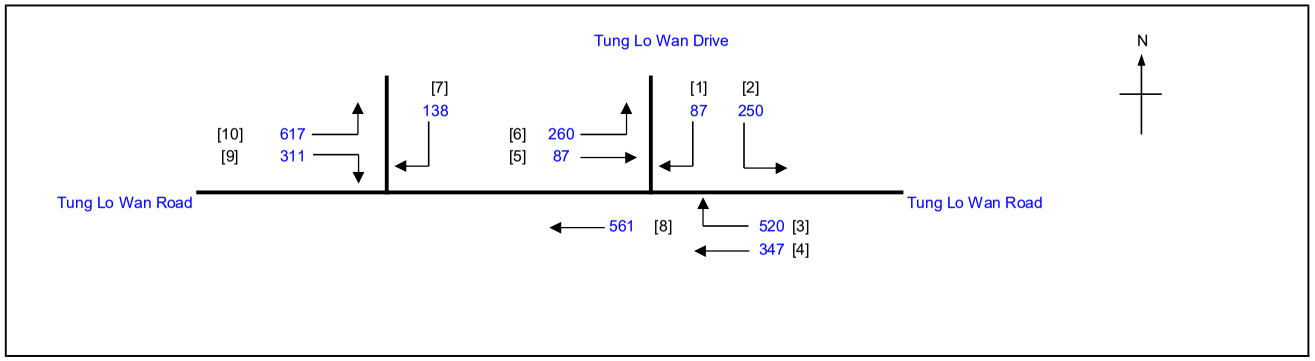
Stage 1	G= 38	Stage 2	G= 20	Stage 3	G= 23	Stage 4	G=	Stage 5	G=
	Int = 7		Int =		Int = 7		Int =		Int =

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

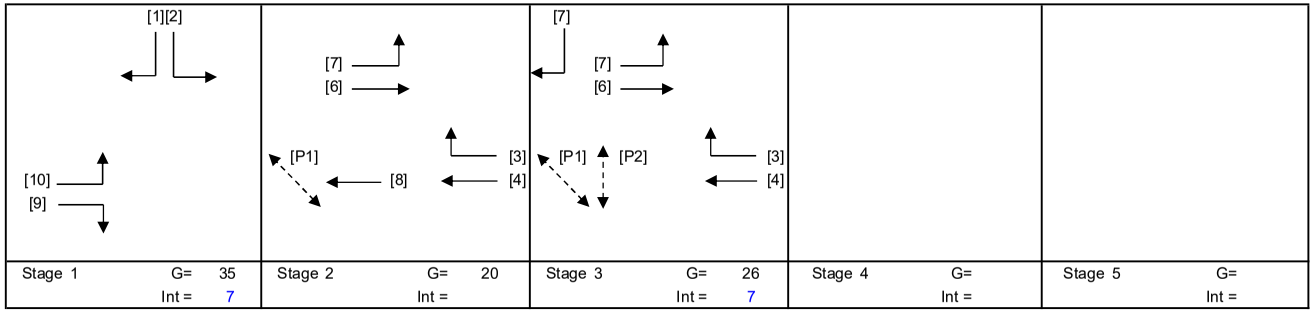
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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
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	Feb-26
		FILENAME : J8_TLWR_MT.xlsx	Checked By:	SLN	Feb-26
J8 Tung Lo Wan Road / Moreton Terrace			Reviewed By:	SLN	Feb-26



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

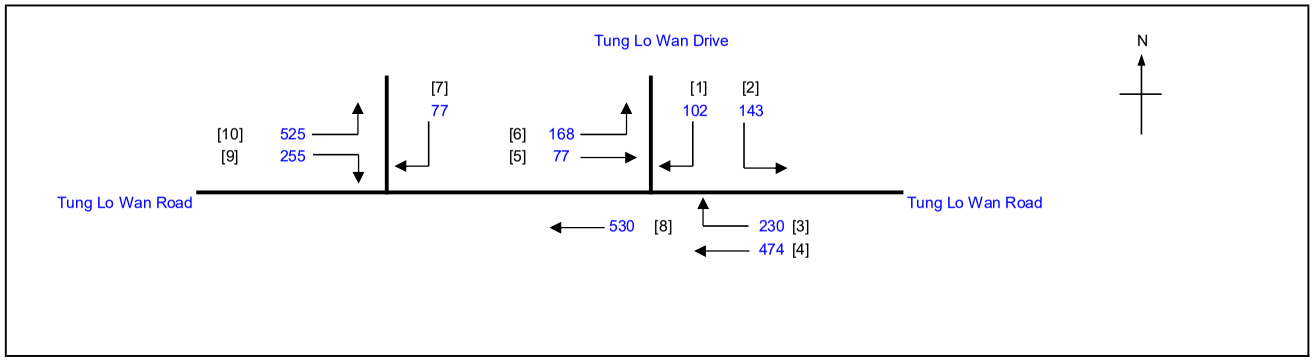
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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

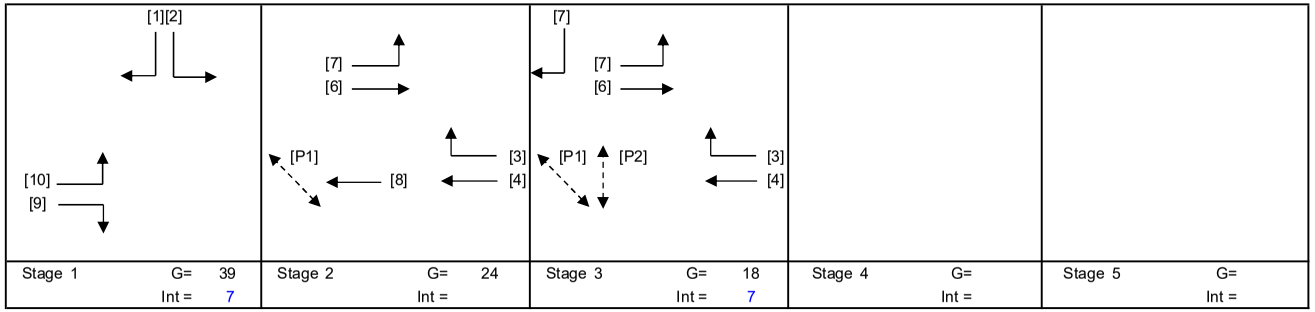
LLA CONSULTANCY LIMITED

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	Feb-26
	FILENAME : J8_TLWR_MT.xlsx	Checked By:	SLN	Feb-26
J8 Tung Lo Wan Road / Moreton Terrace		Reviewed By:	SLN	Feb-26



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

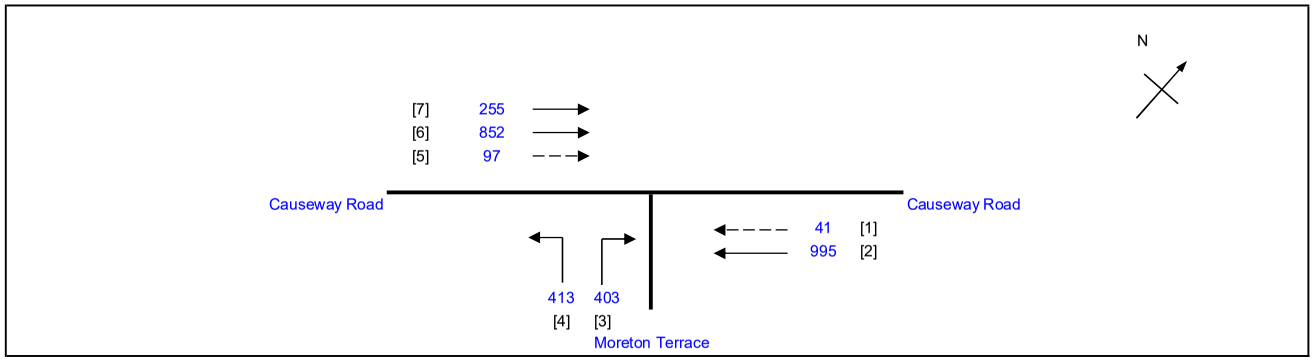
	INITIALS	DATE
Prepared By:	SKL	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

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

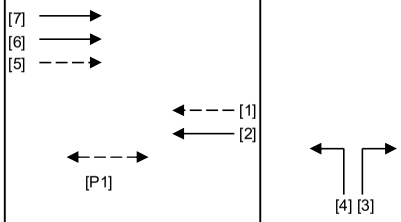
J9 Moreton Terrace / Causeway Road

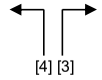
2025 Existing AM

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

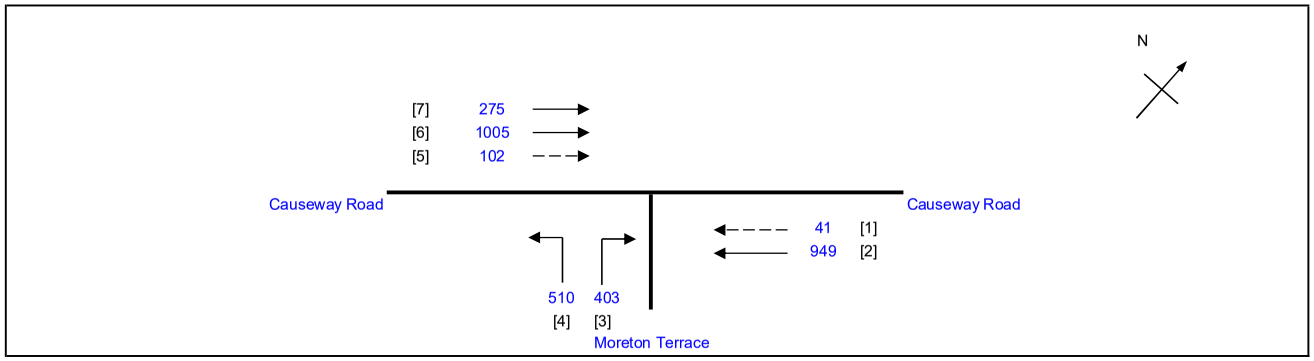
	INITIALS	DATE
Prepared By:	SKL	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

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

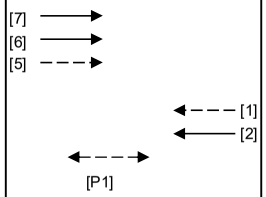
J9 Moreton Terrace / Causeway Road

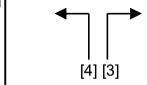
2025 Existing PM

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

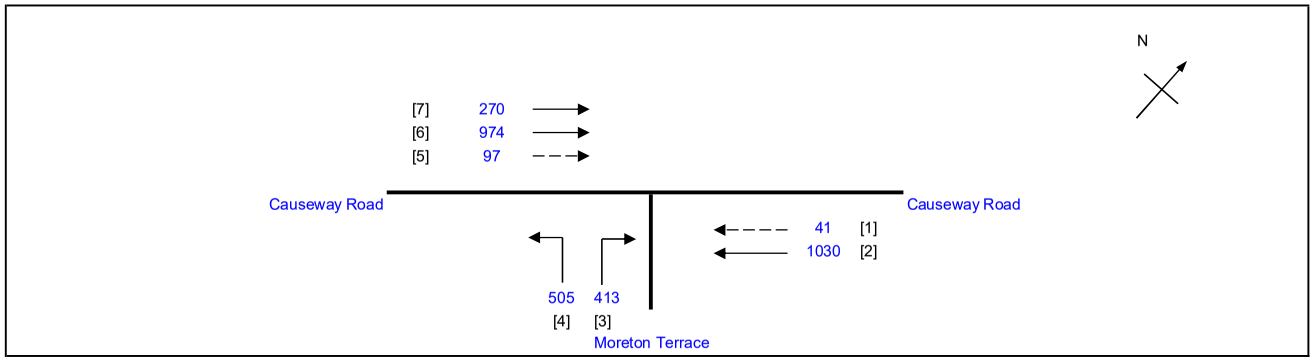
	INITIALS	DATE
Prepared By:	SKL	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

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

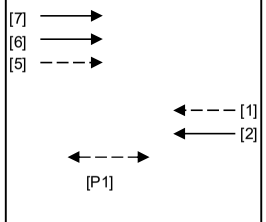
J9 Moreton Terrace / Causeway Road

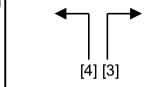
2025 Existing Weekend

PROJECT NO.: 40920
FILENAME : J9_MT_CR.xlsx



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	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

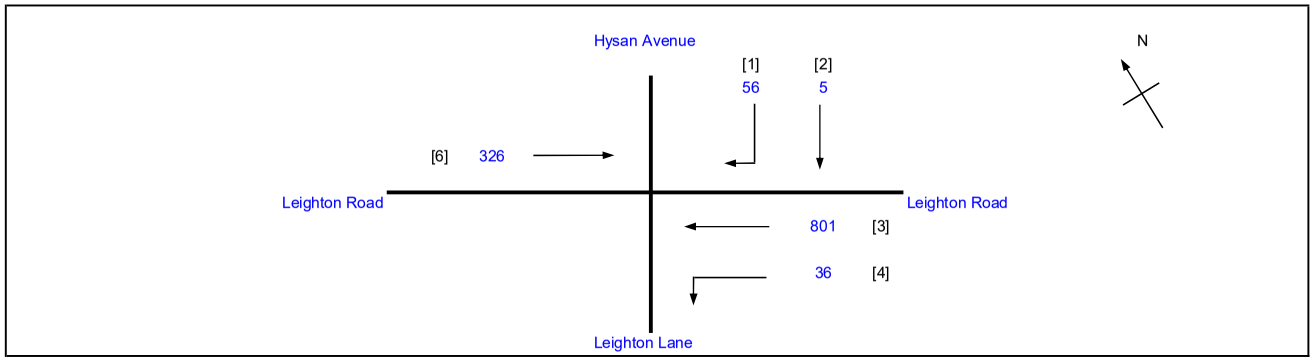
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J10 Leighton Road / Hysan Avenue / Leighton Lane

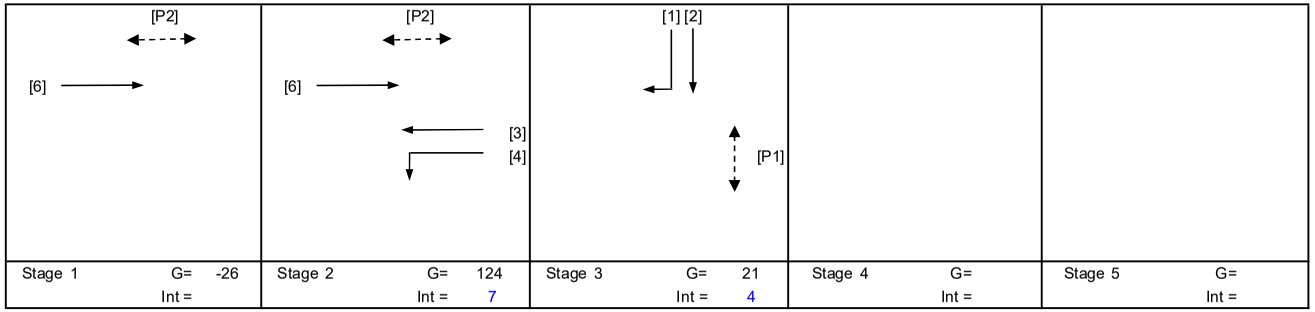
2025 Existing AM

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	Feb-26
Checked By:		SLN	Feb-26
Reviewed By:		SLN	Feb-26

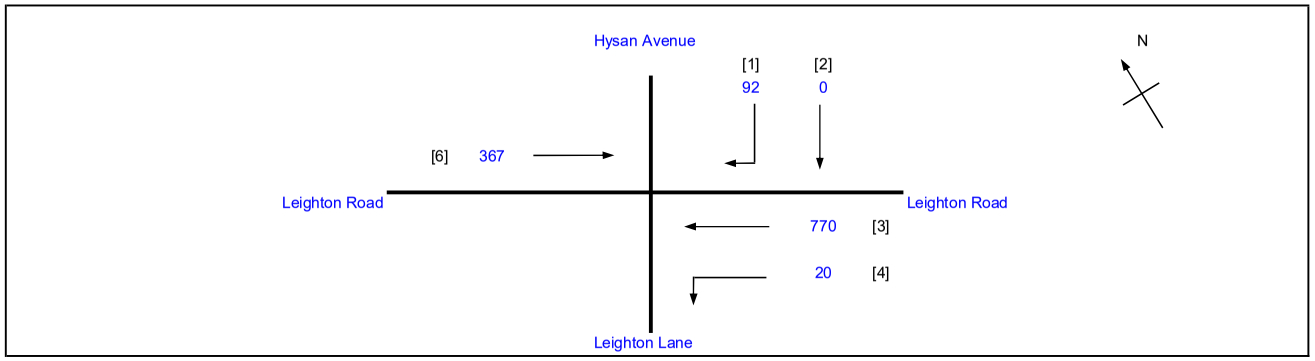
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J10 Leighton Road / Hysan Avenue / Leighton Lane

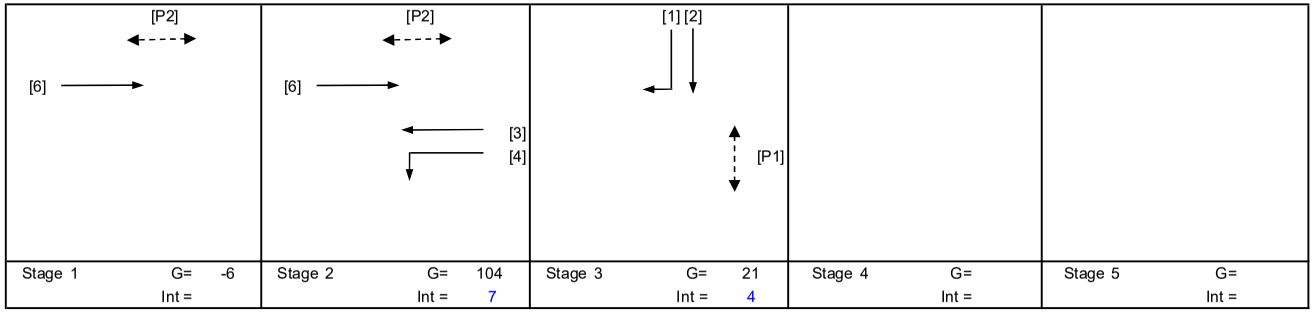
2025 Existing PM

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 %**



Stage 1	G=	-6	Stage 2	G=	104	Stage 3	G=	21	Stage 4 G= Stage 5 G=
	Int =			Int =	7		Int =	4	Int = 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	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	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

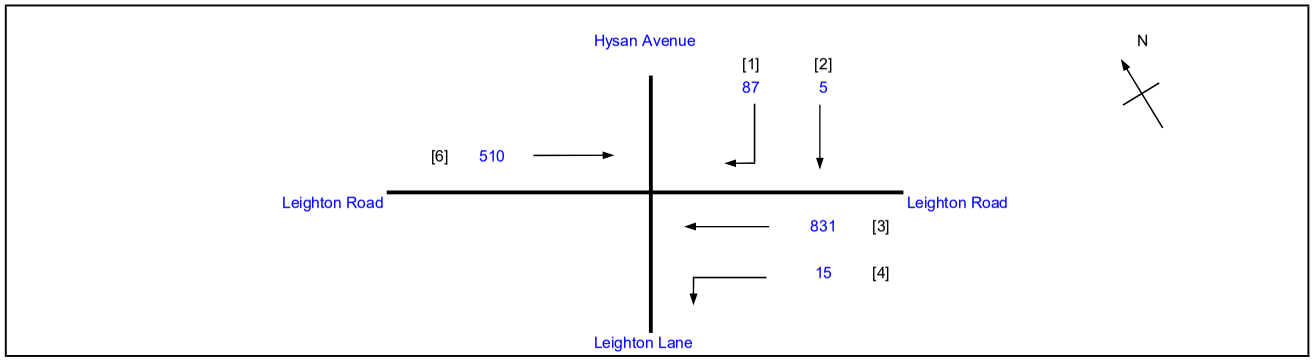
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J10 Leighton Road / Hysan Avenue / Leighton Lane

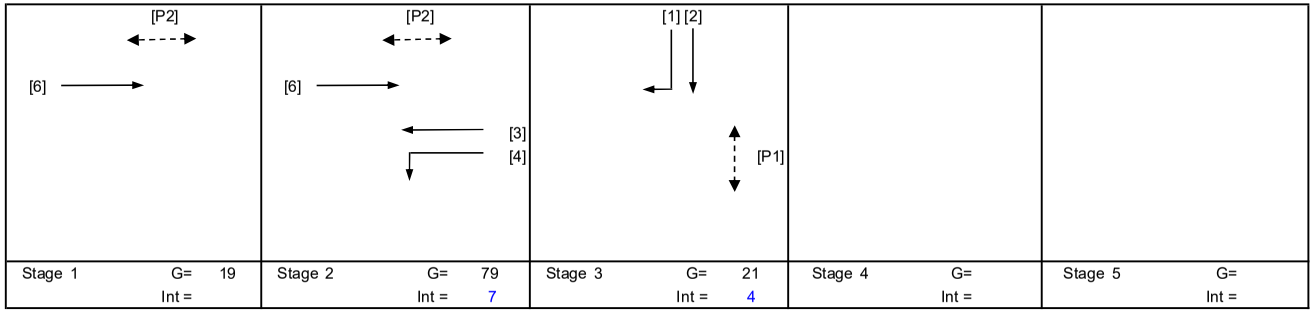
2025 Existing Weekend

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 %**



Stage 1	G= 19	Int =	Stage 2	G= 79	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	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	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

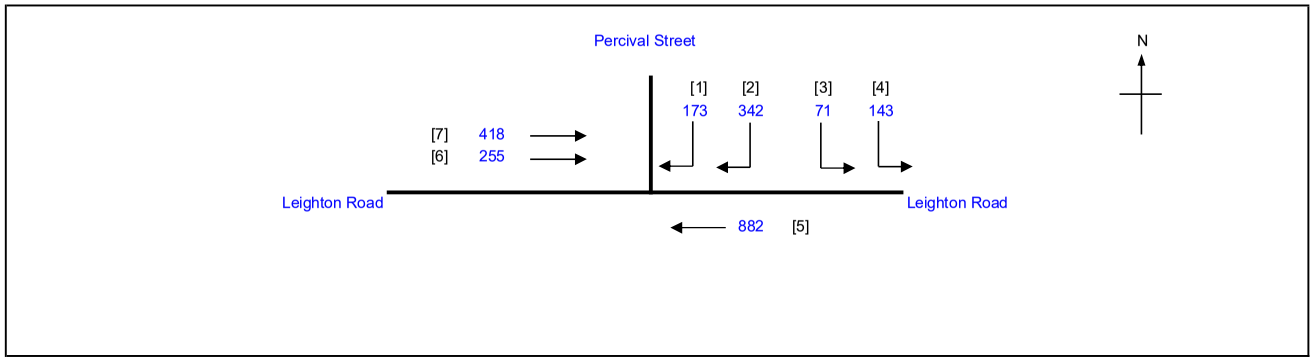
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J11 Leighton Road / Percival Street / Hysan Avenue

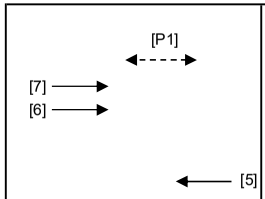
2025 Existing AM

PROJECT NO.: 40920

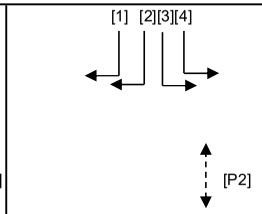
FILENAME : J11_LR_PS_HA.xlsx



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	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

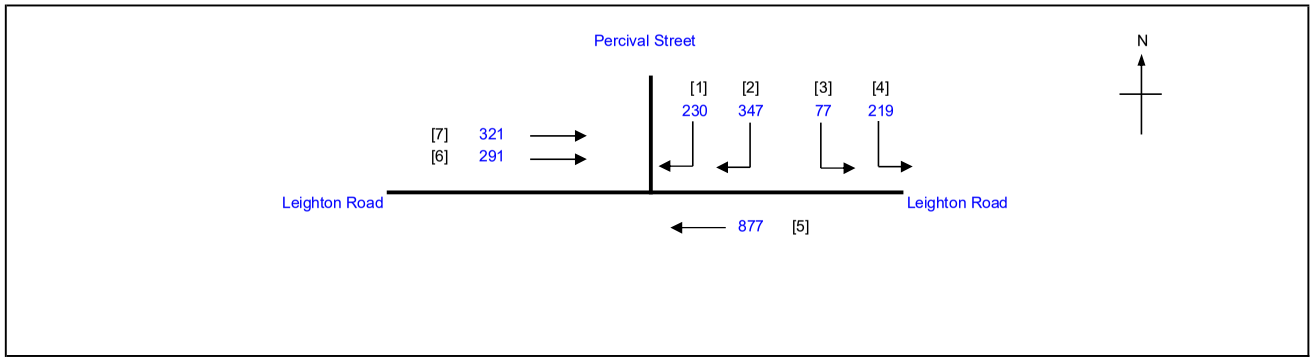
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J11 Leighton Road / Percival Street / Hysan Avenue

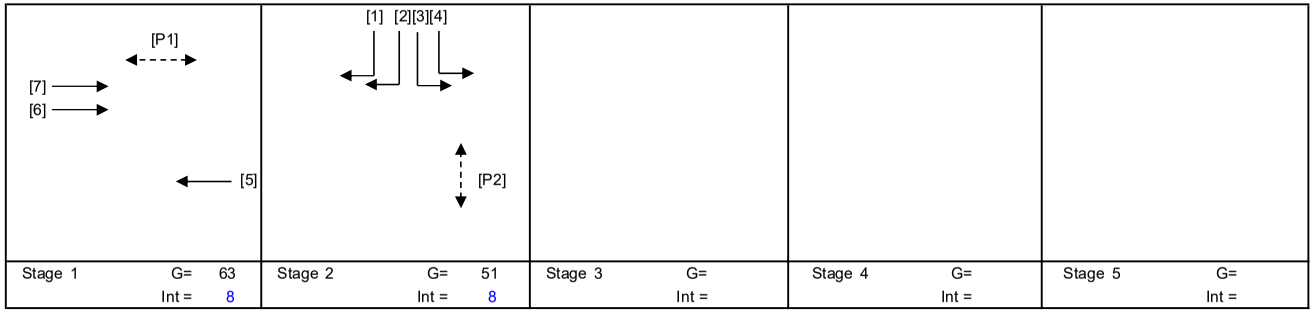
2025 Existing PM

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 %**



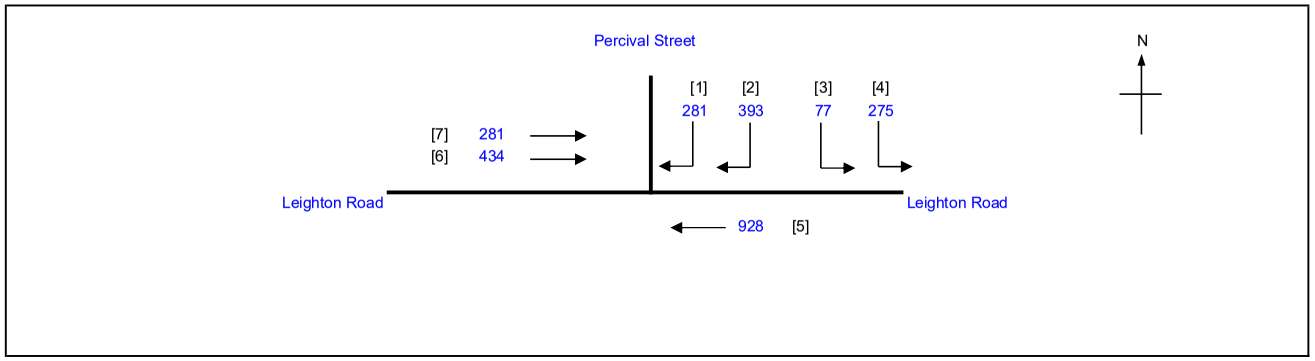
Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
G= 63	G= 51	G=	G=	G=
Int = 8	Int = 8	Int =	Int =	Int =

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

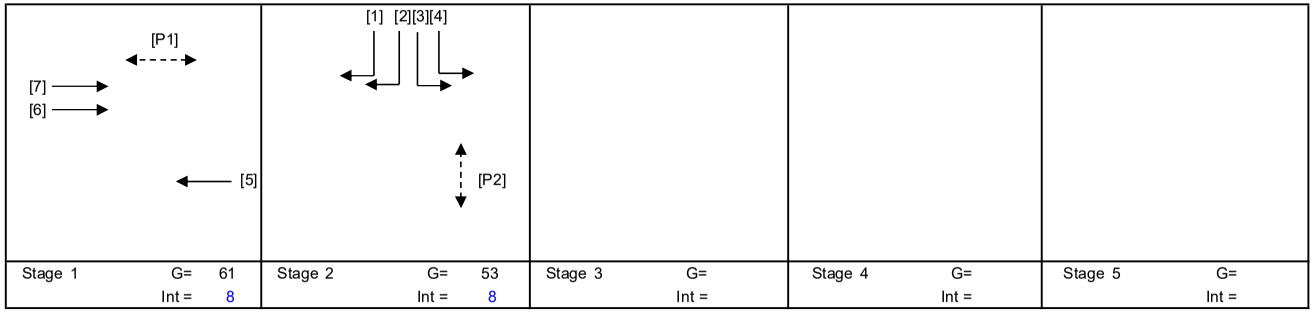
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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
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	Feb-26
		FILENAME : J11_LR_PS_HA.xlsx	Checked By:	SLN	Feb-26
J11 Leighton Road / Percival Street / Hysan Avenue			Reviewed By:	SLN	Feb-26



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	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		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

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

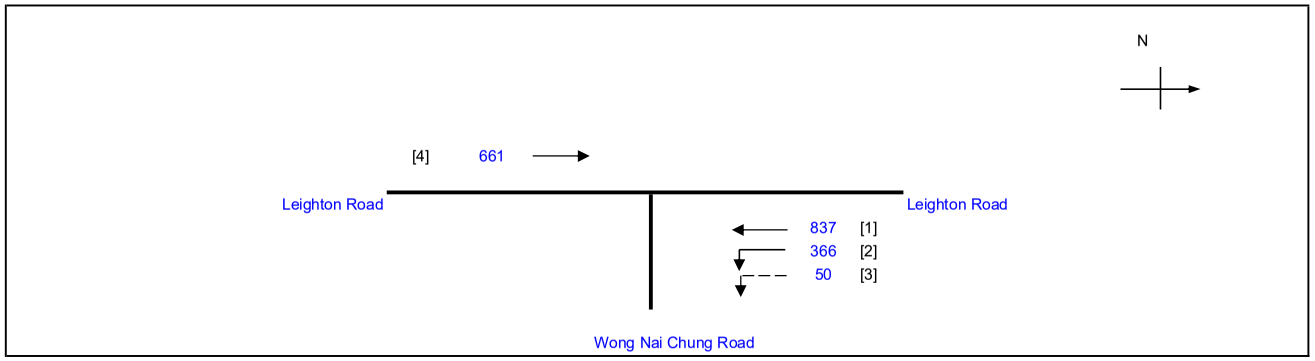
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J12 Leighton Road / Wong Nai Chung Road

2025 Existing AM

PROJECT NO.: 40920

FILENAME : J12_LR_WNCR.xlsx



No. of stages per cycle		N =	2
Cycle time		C =	130 sec
Sum(y)		Y =	0.566
Loss time		L =	12 sec
Total Flow		=	1914 pcu
Co	= (1.5*L+5)/(1-Y)	=	53.0 sec
Cm	= L/(1-Y)	=	27.7 sec
Yult		=	0.810
R.C.ult	= (Yult-Y)/Y*100%	=	43.0 %
Cp	= 0.9*L/(0.9-Y)	=	32.4 sec
Ymax	= 1-L/C	=	0.908
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**44 %**

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2		10	9	0	25	9
P2	2		7	7	0	27	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)
																							12					
2	1	3.50	1	20		N	1965	301			301	1.00	1828							1828	0.165			34	90	0.624	48	44
2	1	3.50	1	25			2105	65			65	1.00	1986			0.2	-1589			397	0.164			34	90	0.624	12	64
3	2	3.00	1	40		N	1915	50			50	1.00	1846			0.2	-1477			369	0.136	0.136		28	28	0.624	6	75
1	1	3.00	1			N	1915		660		660	0.00	1915			0.8	-383			1532	0.431	0.431		90	90	0.624	42	12
1	1	3.00	1				2055		177		177	0.00	2055			0.2	-1644			411	0.431			90	90	0.624	6	19
4	1	3.50	1			N	1965		106		106	0.00	1965			0.2	-1572			393	0.270			56	90	0.624	12	42
4	1	3.00	1				2055		278		278	0.00	2055			0.5	-1028			1027	0.271			56	90	0.624	30	32
4	1	3.00	1				2055		277		277	0.00	2055			0.5	-1028			1027	0.270			56	90	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
Prepared By:	SKL	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

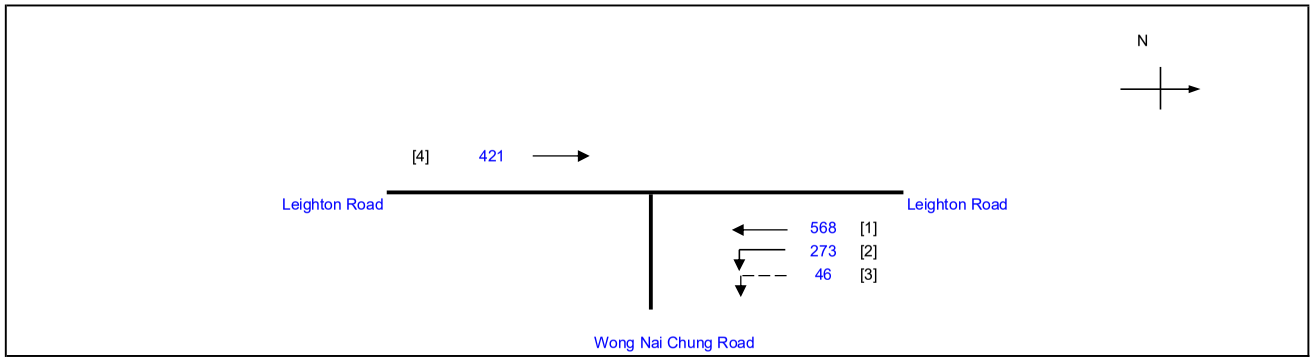
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J12 Leighton Road / Wong Nai Chung Road

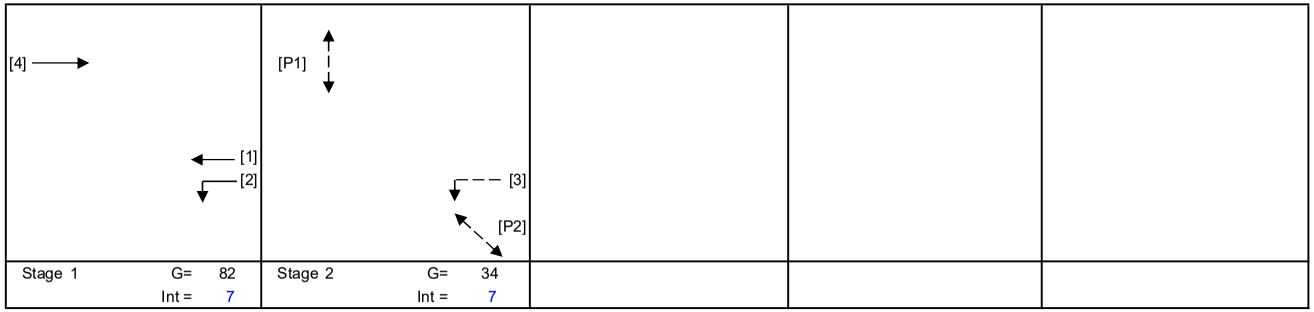
2025 Existing PM

PROJECT NO.: 40920

FILENAME : J12_LR_WNCR.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.417
Loss time	L =	12 sec
Total Flow	=	1308 pcu
Co = (1.5*L+5)/(1-Y)	=	39.5 sec
Cm = L/(1-Y)	=	20.6 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	94.2 %
Cp = 0.9*L/(0.9-Y)	=	22.4 sec
Ymax = 1-L/C	=	0.908
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**96 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2		10	9	0	32	9
P2	2		7	7	0	34	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)
																							12					
2	1	3.50	1	20		N	1965	224			224	1.00	1828							1828	0.123			35	83	0.460	30	39
2	1	3.50	1	25			2105	49			49	1.00	1986			0.2	-1589			397	0.123			35	83	0.460	6	49
3	2	3.00	1	40		N	1915	46			46	1.00	1846			0.2	-1477			369	0.125	0.125		35	35	0.460	6	49
1	1	3.00	1			N	1915		448		448	0.00	1915			0.8	-383			1532	0.292	0.292		83	83	0.460	30	12
1	1	3.00	1				2055		120		120	0.00	2055			0.2	-1644			411	0.292			83	83	0.460	6	16
4	1	3.50	1			N	1965		68		68	0.00	1965			0.2	-1572			393	0.172			49	83	0.460	6	37
4	1	3.00	1				2055		177		177	0.00	2055			0.5	-1028			1027	0.172			49	83	0.460	18	31
4	1	3.00	1				2055		177		177	0.00	2055			0.5	-1028			1027	0.172			49	83	0.460	18	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

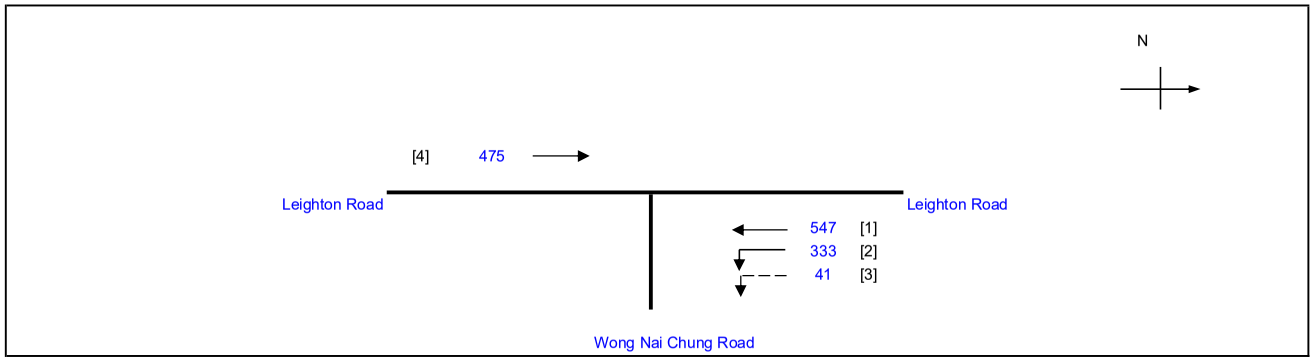
	INITIALS	DATE
Prepared By:	SKL	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

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

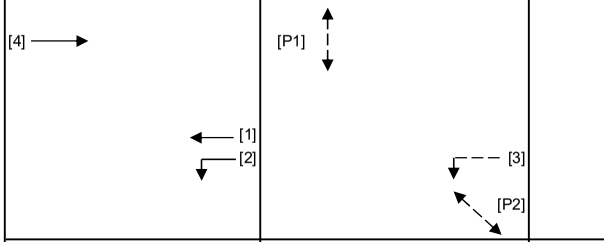
J12 Leighton Road / Wong Nai Chung Road

2025 Existing Weekend

PROJECT NO.: 40920
FILENAME : J12_LR_WNCR.xlsx



No. of stages per cycle		N =	2
Cycle time		C =	130 sec
Sum(y)		Y =	0.393
Loss time		L =	12 sec
Total Flow		=	1396 pcu
Co	= (1.5*L+5)/(1-Y)	=	37.9 sec
Cm	= L/(1-Y)	=	19.8 sec
Yult		=	0.810
R.C.ult	= (Yult-Y)/Y*100%	=	105.9 %
Cp	= 0.9*L/(0.9-Y)	=	21.3 sec
Ymax	= 1-L/C	=	0.908
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**108 %**



Stage 1 G= 84 Int = 7
Stage 2 G= 32 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2		10	9	0	30	9
P2	2		7	7	0	32	7

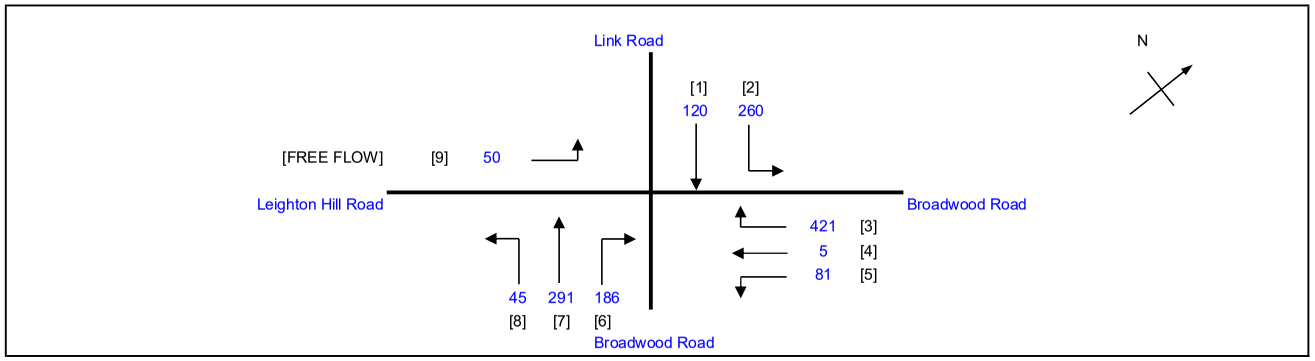
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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)
																							12					
2	1	3.50	1	20		N	1965	274			274	1.00	1828							1828	0.150			45	85	0.433	36	31
2	1	3.50	1	25			2105	59			59	1.00	1986			0.2	-1589			397	0.149			45	85	0.433	6	39
3	2	3.00	1	40		N	1915	41			41	1.00	1846			0.2	-1477			369	0.111	0.111		33	33	0.433	6	49
1	1	3.00	1			N	1915		431		431	0.00	1915			0.8	-383			1532	0.281			84	85	0.433	30	11
1	1	3.00	1				2055		116		116	0.00	2055			0.2	-1644			411	0.282	0.282		85	85	0.433	6	15
4	1	3.50	1			N	1965		76		76	0.00	1965			0.2	-1572			393	0.193			58	85	0.433	6	29
4	1	3.00	1				2055		200		200	0.00	2055			0.5	-1028			1027	0.194			58	85	0.433	18	25
4	1	3.00	1				2055		200		200	0.00	2055			0.5	-1028			1027	0.194			58	85	0.433	18	25

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

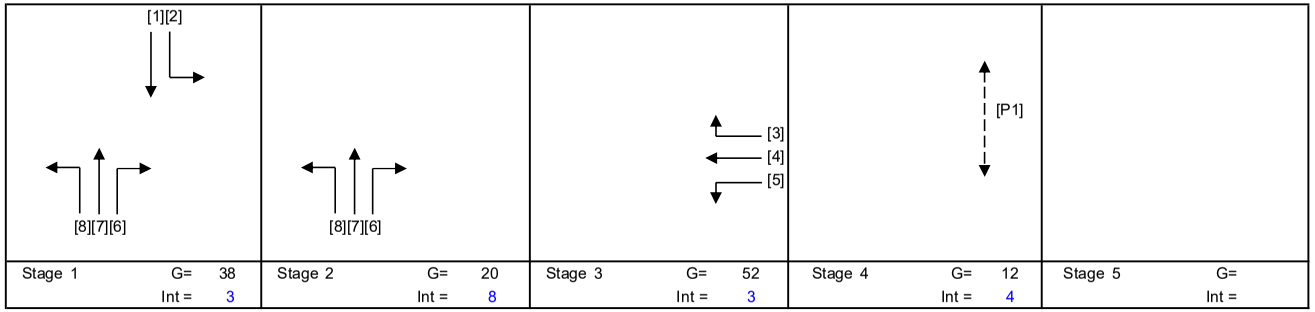
LLA CONSULTANCY LIMITED

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	Feb-26
J13 Broadwood Road / Link Road		FILENAME : J13_BR_LR.xlsx	Checked By:	SLN	Feb-26
			Reviewed By:	SLN	Feb-26



No. of stages per cycle		N =	4
Cycle time		C =	140 sec
Sum(y)		Y =	0.568
Loss time		L =	27 sec
Total Flow		=	1409 pcu
Co	= (1.5*L+5)/(1-Y)	=	105.3 sec
Cm	= L/(1-Y)	=	62.5 sec
Yult		=	0.698
R.C.ult	= (Yult-Y)/Y*100%	=	22.9 %
Cp	= 0.9*L/(0.9-Y)	=	73.1 sec
Ymax	= 1-L/C	=	0.807
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**28 %**



Stage 1	G= 38	Int = 3
Stage 2	G= 20	Int = 8
Stage 3	G= 52	Int = 3
Stage 4	G= 12	Int = 4
Stage 5	G=	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	4		5	7	0	9	7

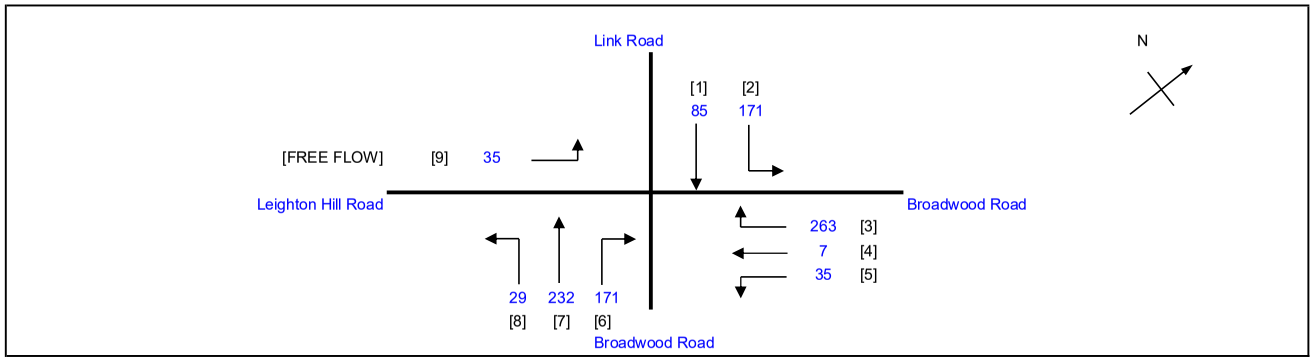
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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)
1,2	1	3.50	1	80		N	1965	260	120		380	0.68	1940							1940	0.196	0.196	15	39	39	0.703	60	48
7,8	1,2	3.00	1	15		N	1915	45	291		336	0.13	1890							1890	0.178			35	60	0.703	54	51
6	2	3.00	1	8			2055			186	186	1.00	1731							1731	0.107	0.107		21	21	0.703	36	65
3,4,5	3	3.50	1	60		N	1965	81	5	421	507	0.99	1918							1918	0.264	0.264		53	53	0.703	72	39
PED	4																						12					

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

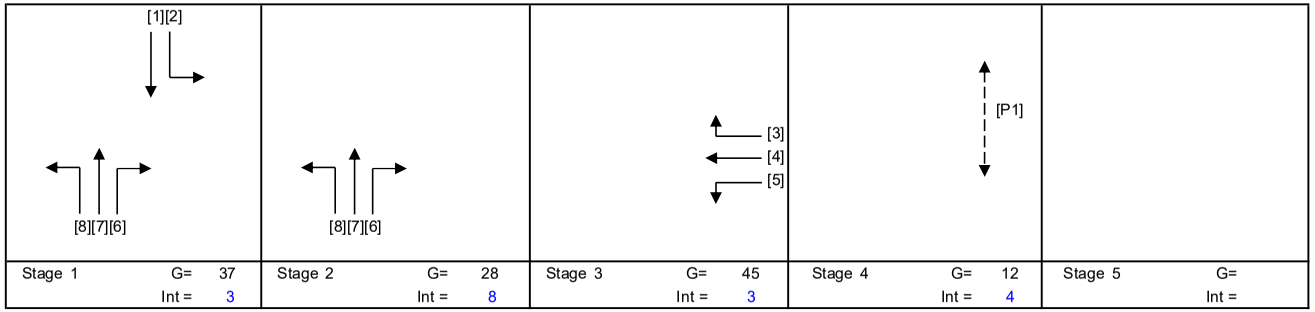
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	PROJECT NO.: 40920	Prepared By:	SKL	Feb-26
2025 Existing PM	FILENAME : J13_BR_LR.xlsx	Checked By:	SLN	Feb-26
J13 Broadwood Road / Link Road		Reviewed By:	SLN	Feb-26



No. of stages per cycle		N =	4
Cycle time		C =	140 sec
Sum(y)		Y =	0.390
Loss time		L =	27 sec
Total Flow		=	993 pcu
Co	= (1.5*L+5)/(1-Y)	=	74.6 sec
Cm	= L/(1-Y)	=	44.2 sec
Yult		=	0.698
R.C.ult	= (Yult-Y)/Y*100%	=	79.0 %
Cp	= 0.9*L/(0.9-Y)	=	47.6 sec
Ymax	= 1-L/C	=	0.807
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**86 %**



Stage 1	G= 37	Int = 3
Stage 2	G= 28	Int = 8
Stage 3	G= 45	Int = 3
Stage 4	G= 12	Int = 4
Stage 5	G=	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	4		5	7	0	9	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)
																							15					
1,2	1	3.50	1	80		N	1965	171	85		256	0.67	1941							1941	0.132	0.132		38	38	0.483	42	41
7,8	1,2	3.00	1	15		N	1915	29	232		261	0.11	1894							1894	0.138			40	67	0.483	42	40
6	2	3.00	1	8			2055			171	171	1.00	1731							1731	0.099	0.099		29	29	0.483	30	48
3,4,5	3	3.50	1	60		N	1965	35	7	263	305	0.98	1918							1918	0.159	0.159		46	46	0.483	42	36
PED	4																						12					

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

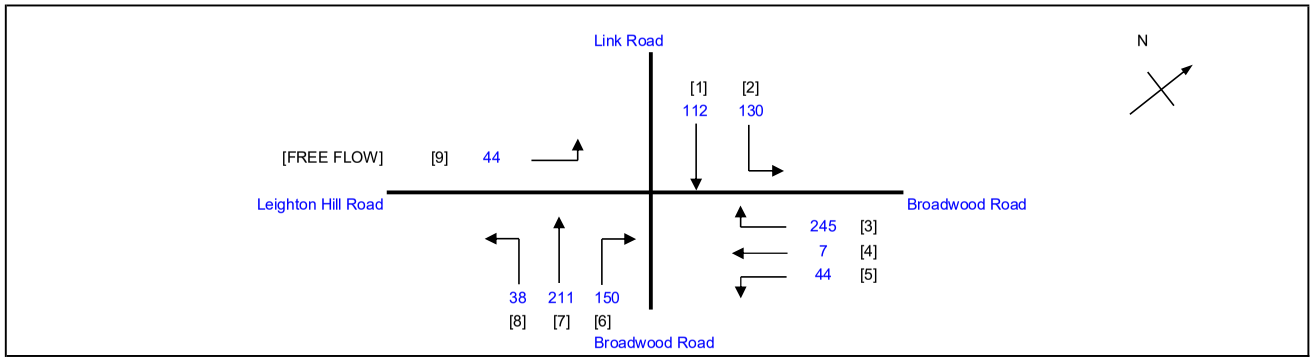
	INITIALS	DATE
Prepared By:	SKL	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

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

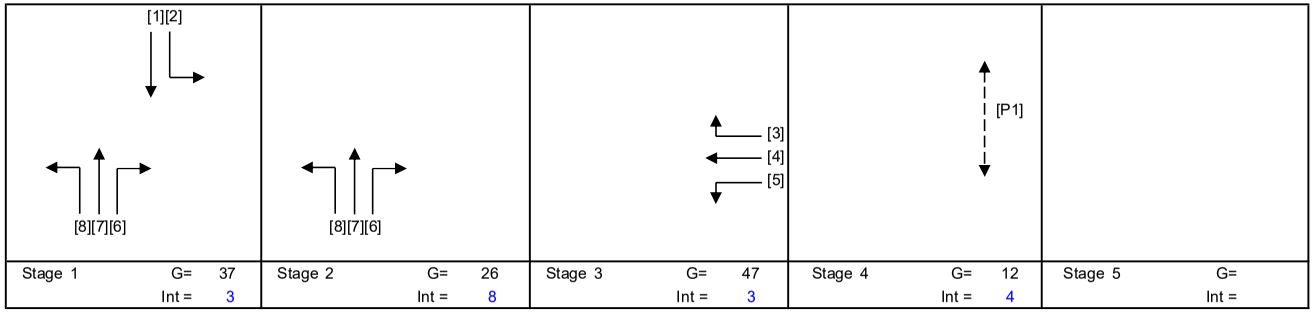
J13 Broadwood Road / Link Road

2025 Existing Weekend

PROJECT NO.: 40920
FILENAME : J13_BR_LR.xlsx



No. of stages per cycle		N =	4
Cycle time		C =	140 sec
Sum(y)		Y =	0.365
Loss time		L =	27 sec
Total Flow		=	937 pcu
Co	= (1.5*L+5)/(1-Y)	=	71.7 sec
Cm	= L/(1-Y)	=	42.5 sec
Yult		=	0.698
R.C.ult	= (Yult-Y)/Y*100%	=	90.9 %
Cp	= 0.9*L/(0.9-Y)	=	45.5 sec
Ymax	= 1-L/C	=	0.807
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**99 %**



Stage 1	G= 37	Int = 3
Stage 2	G= 26	Int = 8
Stage 3	G= 47	Int = 3
Stage 4	G= 12	Int = 4
Stage 5	G=	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	4		5	7	0	9	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)
1,2	1	3.50	1	80		N	1965	130	112		242	0.54	1945							1945	0.124	0.124	15	38	38	0.453	36	40
7,8	1,2	3.00	1	15		N	1915	38	211		249	0.15	1886							1886	0.132			41	65	0.453	36	39
6	2	3.00	1	8			2055			150	150	1.00	1731							1731	0.087	0.087		27	27	0.453	24	49
3,4,5	3	3.50	1	60		N	1965	44	7	245	296	0.98	1918							1918	0.154	0.154		48	48	0.453	42	34
PED	4																						12					

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

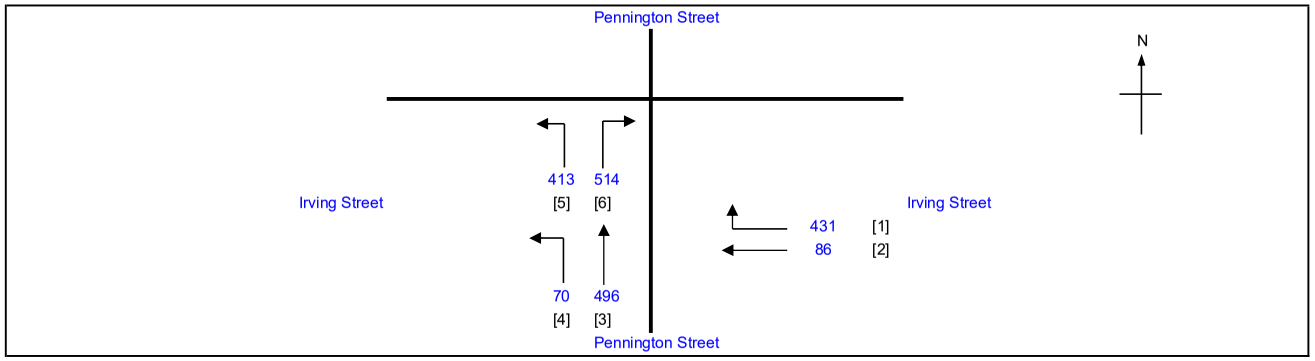
	INITIALS	DATE
Prepared By:	SKL	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

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

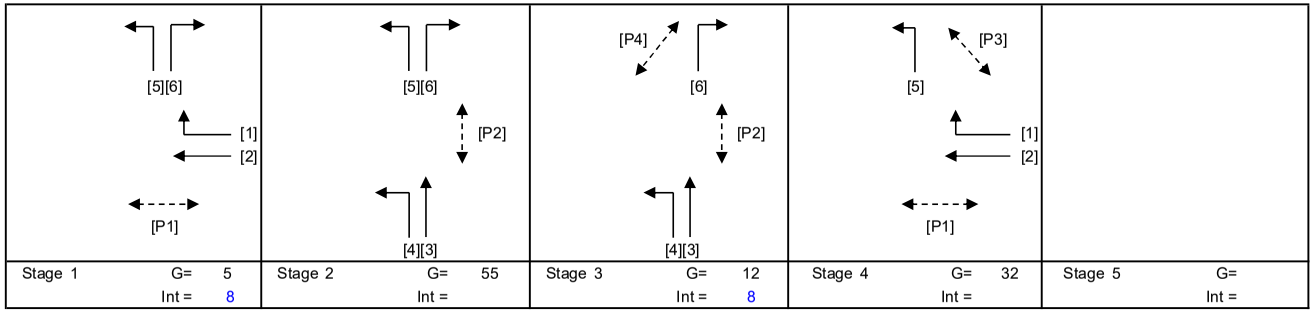
J14 Pennington Street / Irving Street / Jardine's Bazaar

2025 Existing AM

PROJECT NO.: 40920
FILENAME : J14_PS_IS_JB.xlsx



No. of stages per cycle		N =	4
Cycle time		C =	120 sec
Sum(y)		Y =	0.229
Loss time		L =	14 sec
Total Flow		=	2010 pcu
Co	= (1.5*L+5)/(1-Y)	=	33.7 sec
Cm	= L/(1-Y)	=	18.2 sec
Yult		=	0.795
R.C.ult	= (Yult-Y)/Y*100%	=	247.1 %
Cp	= 0.9*L/(0.9-Y)	=	18.8 sec
Ymax	= 1-L/C	=	0.883
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**247 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1,4		8	8		37	8
P2	2,3		8	14		61	14
P3	4		7	7		25	7
P4	3		6	6		14	6

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					
2	1,4	3.00	1			N	1915		78		78	0.00	1915			0.5	-958			957	0.082			38	38	0.259	6	30
1,2	1,4	3.00	1	16			2055		8	145	153	0.95	1887							1887	0.081			38	38	0.259	18	29
1	1,4	3.00	1	13			2055			150	150	1.00	1842							1842	0.081			38	38	0.259	18	29
1	1,4	3.00	1	10		N	1915			136	136	1.00	1665							1665	0.082	0.082		38	38	0.259	18	29
3,4	2,3	3.80	1	5		N	1995	70	203		273	0.26	1853							1853	0.147	0.147		68	68	0.259	18	12
3	2,3	3.80	1			N	1995		293		293	0.00	1995							1995	0.147			68	68	0.259	24	12
5	1,2,4	3.50	1	10			2105	413			413	1.00	1830							1830	0.226			104	94	0.259	6	2
6	1,2,4	3.50	1	10			2105			274	274	1.00	1830							1830	0.150			69	94	0.259	18	12
6	1,2,4	3.50	1	6.5		N	1965			240	240	1.00	1597							1597	0.150			70	94	0.259	18	12

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	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

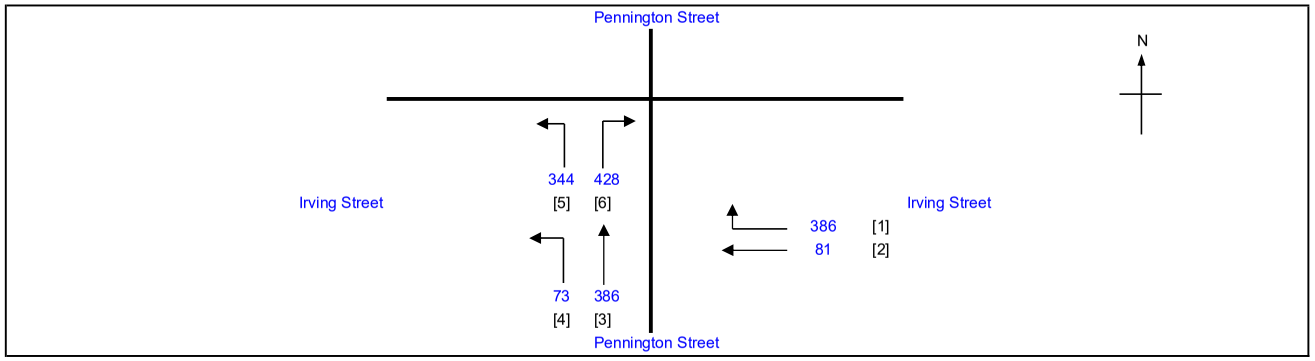
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J14 Pennington Street / Irving Street / Jardine's Bazaar

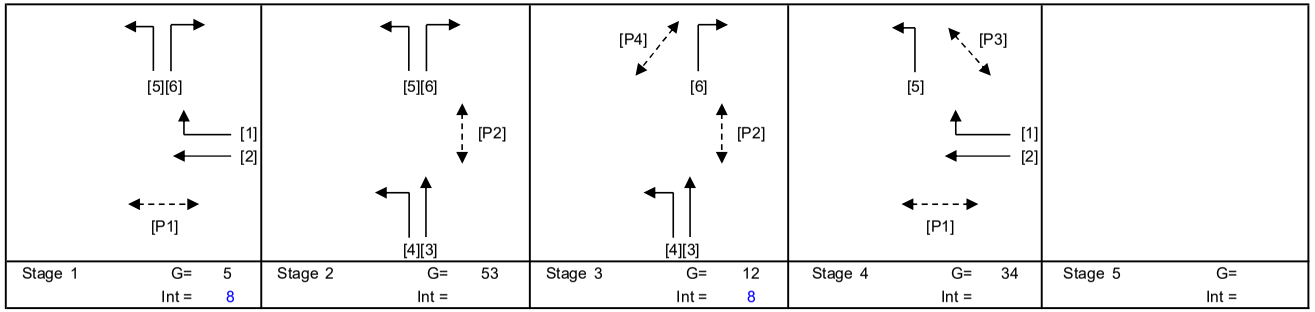
2025 Existing PM

PROJECT NO.: 40920

FILENAME : J14_PS_IS_JB.xlsx



No. of stages per cycle		N =	4
Cycle time		C =	120 sec
Sum(y)		Y =	0.195
Loss time		L =	14 sec
Total Flow		=	1698 pcu
Co	= (1.5*L+5)/(1-Y)	=	32.3 sec
Cm	= L/(1-Y)	=	17.4 sec
Yult		=	0.795
R.C.ult	= (Yult-Y)/Y*100%	=	307.8 %
Cp	= 0.9*L/(0.9-Y)	=	17.9 sec
Ymax	= 1-L/C	=	0.883
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**308 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1,4		8	8		39	8
P2	2,3		8	14		59	14
P3	4		7	7		27	7
P4	3		6	6		14	6

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					
2	1,4	3.00	1			N	1915		71		71	0.00	1915			0.5	-958			957	0.074	0.074		40	40	0.221	6	27
1,2	1,4	3.00	1	16			2055		10	129	139	0.93	1891							1891	0.074			40	40	0.221	18	27
1	1,4	3.00	1	13			2055			136	136	1.00	1842							1842	0.074			40	40	0.221	18	27
1	1,4	3.00	1	10		N	1915			121	121	1.00	1665							1665	0.073			40	40	0.221	12	27
3,4	2,3	3.80	1	5		N	1995	73	146		219	0.33	1814							1814	0.121	0.121		66	66	0.221	18	13
3	2,3	3.80	1			N	1995		240		240	0.00	1995							1995	0.120			65	66	0.221	18	13
5	1,2,4	3.50	1	10			2105	344			344	1.00	1830							1830	0.188			102	94	0.221	6	2
6	1,2,4	3.50	1	10			2105			228	228	1.00	1830							1830	0.125			68	94	0.221	18	12
6	1,2,4	3.50	1	6.5		N	1965			200	200	1.00	1597							1597	0.125			68	94	0.221	12	12

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

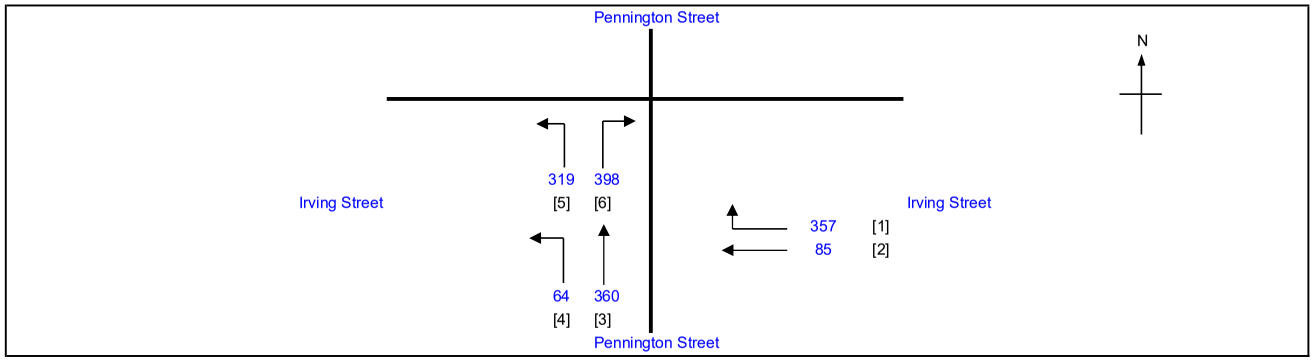
	INITIALS	DATE
Prepared By:	SKL	Feb-26
Checked By:	SLN	Feb-26
Reviewed By:	SLN	Feb-26

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

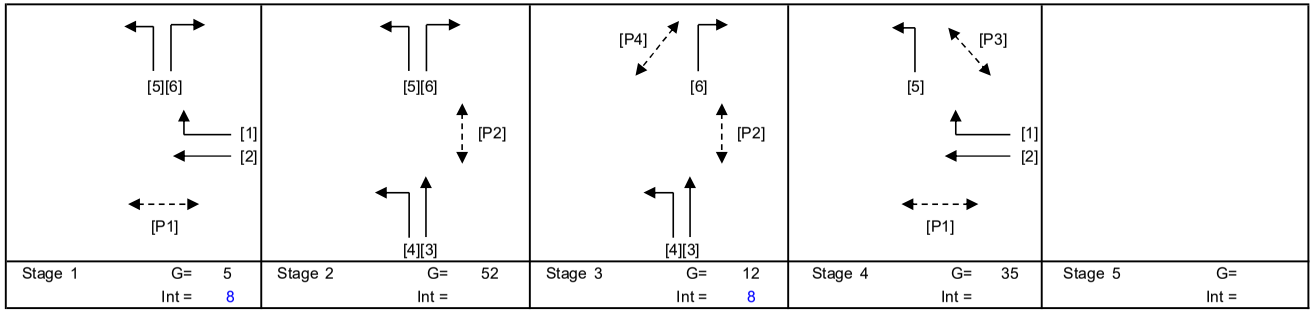
J14 Pennington Street / Irving Street / Jardine's Bazaar

2025 Existing Weekend

PROJECT NO.: 40920
FILENAME : J14_PS_IS_JB.xlsx



No. of stages per cycle		N =	4
Cycle time		C =	120 sec
Sum(y)		Y =	0.181
Loss time		L =	14 sec
Total Flow		=	1583 pcu
Co	= (1.5*L+5)/(1-Y)	=	31.8 sec
Cm	= L/(1-Y)	=	17.1 sec
Yult		=	0.795
R.C.ult	= (Yult-Y)/Y*100%	=	338.5 %
Cp	= 0.9*L/(0.9-Y)	=	17.5 sec
Ymax	= 1-L/C	=	0.883
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**339 %**

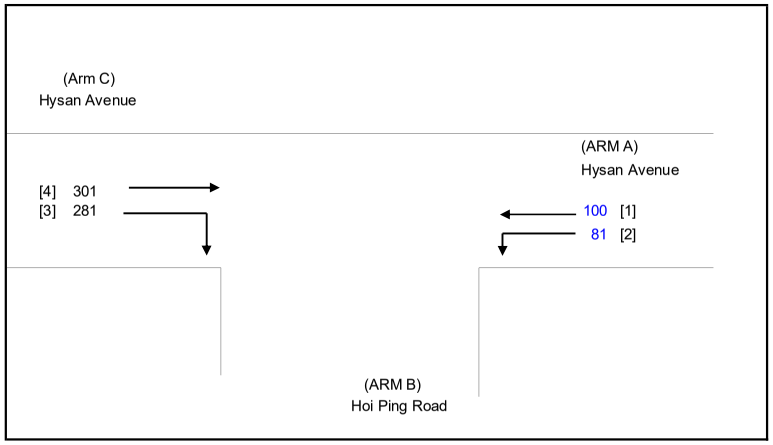


Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1,4		8	8		40	8
P2	2,3		8	14		58	14
P3	4		7	7		28	7
P4	3		6	6		14	6

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					
2	1,4	3.00	1			N	1915		67		67	0.00	1915			0.5	-958			957	0.070	0.070		41	41	0.205	6	26
1,2	1,4	3.00	1	16			2055		18	113	131	0.86	1901							1901	0.069			40	41	0.205	12	26
1	1,4	3.00	1	13			2055			128	128	1.00	1842							1842	0.069			41	41	0.205	12	26
1	1,4	3.00	1	10		N	1915			116	116	1.00	1665							1665	0.070			41	41	0.205	12	26
3,4	2,3	3.80	1	5		N	1995	64	138		202	0.32	1822							1822	0.111			65	65	0.205	18	13
3	2,3	3.80	1			N	1995		222		222	0.00	1995							1995	0.111	0.111		65	65	0.205	18	13
5	1,2,4	3.50	1	10			2105	319			319	1.00	1830							1830	0.174			102	94	0.205	6	2
6	1,2,4	3.50	1	10			2105			213	213	1.00	1830							1830	0.116			68	94	0.205	18	12
6	1,2,4	3.50	1	6.5		N	1965			185	185	1.00	1597							1597	0.116			68	94	0.205	12	12

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	Feb-26
		FILENAME : J15_HA_HPR	CHECKED BY:	SLN	Feb-26
J15 Hysan Avenue / Hoi Ping Road		REFERENCE NO.:	REVIEWED BY:	SLN	Feb-26



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	=	10.00	(metres)
W cr	=	0	(metres)
q a-b	=	81	(pcu/hr)
q a-c	=	100	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.30	(metres)
Vr c-b	=	100	(metres)
q c-a	=	301	(pcu/hr)
q c-b	=	281	(pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D	=	0.53322
E	=	0.58595
F	=	0.94969
Y	=	0.65500
F for (Qb-ac)	=	0

THE CAPACITY OF MOVEMENT :

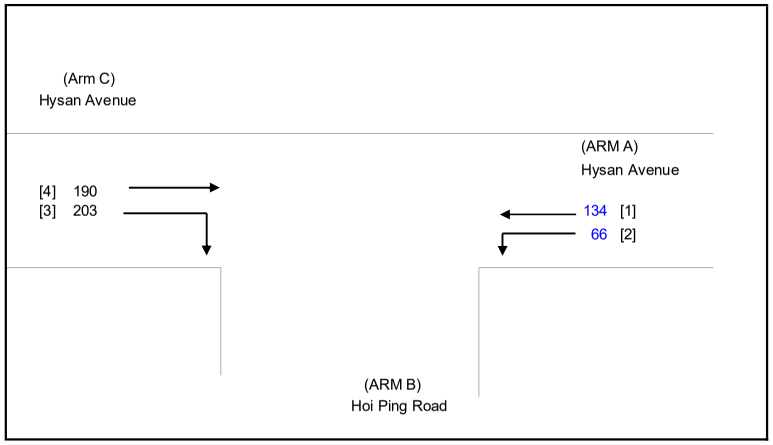
Q b-a	=	242		
Q b-c	=	418	Q b-c (O) =	418
Q c-b	=	667		
Q b-ac	=	242		
TOTAL FLOW	=	763	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0000
DFC c-b	=	0.4213
DFC b-c (share lane)	=	0.0000

CRITICAL DFC = 0.42

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	Feb-26
		FILENAME : J15_HA_HPR	CHECKED BY:	SLN	Feb-26
J15 Hysan Avenue / Hoi Ping Road		REFERENCE NO.:	REVIEWED BY:	SLN	Feb-26



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	=	10.00	(metres)
W cr	=	0	(metres)
q a-b	=	66	(pcu/hr)
q a-c	=	134	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.30	(metres)
Vr c-b	=	100	(metres)
q c-a	=	190	(pcu/hr)
q c-b	=	203	(pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D	=	0.53322
E	=	0.58595
F	=	0.94969
Y	=	0.65500
F for (Qb-ac)	=	0

THE CAPACITY OF MOVEMENT :

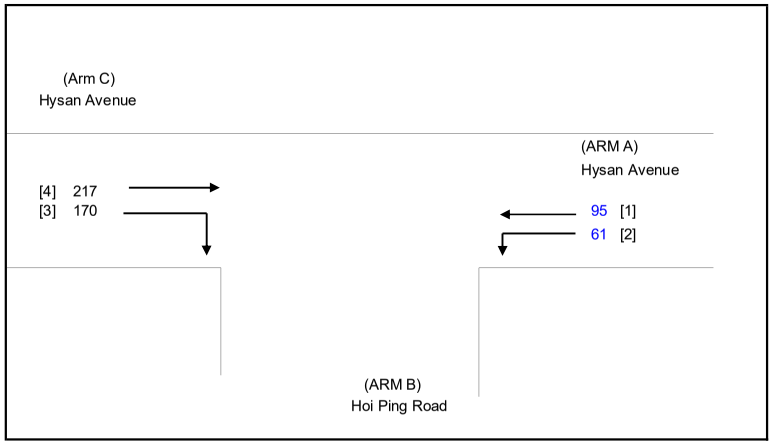
Q b-a	=	262		
Q b-c	=	414	Q b-c (O) =	414
Q c-b	=	662		
Q b-ac	=	262		
TOTAL FLOW	=	593	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0000
DFC c-b	=	0.3066
DFC b-c (share lane)	=	0.0000

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	**2025 Existing Weekend**	PROJECT NO.: 40920	PREPARED BY:	SKL	Feb-26
		FILENAME : J15_HA_HPR	CHECKED BY:	SLN	Feb-26
J15 Hysan Avenue / Hoi Ping Road		REFERENCE NO.:	REVIEWED BY:	SLN	Feb-26



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	=	10.00	(metres)
W cr	=	0	(metres)
q a-b	=	61	(pcu/hr)
q a-c	=	95	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.30	(metres)
Vr c-b	=	100	(metres)
q c-a	=	217	(pcu/hr)
q c-b	=	170	(pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D	=	0.53322
E	=	0.58595
F	=	0.94969
Y	=	0.65500
F for (Qb-ac)	=	0

THE CAPACITY OF MOVEMENT :

Q b-a	=	271		
Q b-c	=	420	Q b-c (O) =	420
Q c-b	=	672		
Q b-ac	=	271		
TOTAL FLOW	=	543	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0000
DFC c-b	=	0.2530
DFC b-c (share lane)	=	0.0000

CRITICAL DFC = 0.25

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/3200×200(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

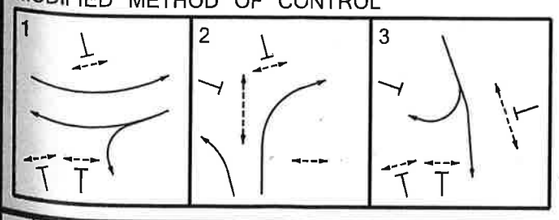
DROP-OFF

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

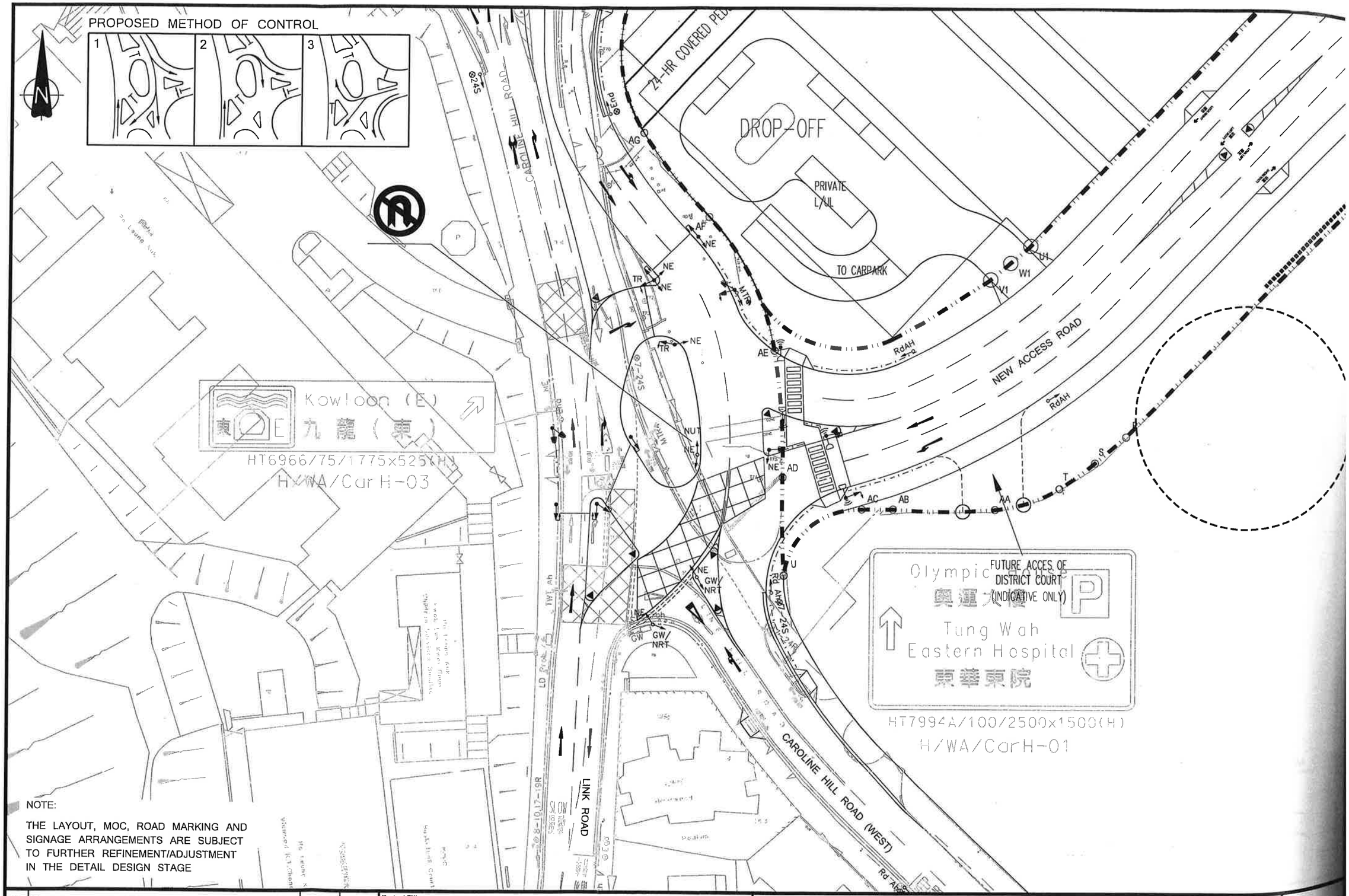
FUTURE JUNCTION LAYOUT OF LEIGHTON ROAD / CAROLINE HILL ROAD (WEST) (J5)

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

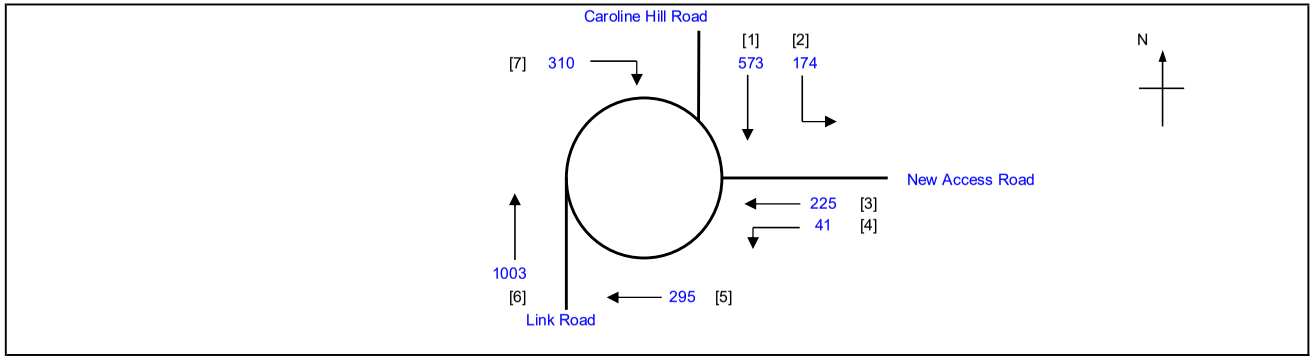
CHK50603110/TIA/F62-B.DWG/KCM/12APR22

APPENDIX D

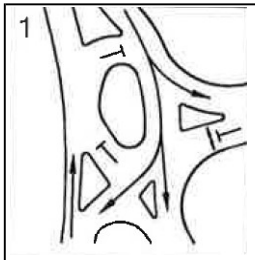
Detail Calculation Sheets

- Reference & Design Scenarios

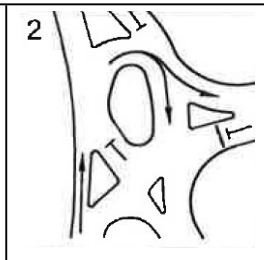
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference AM**	PROJECT NO.: 40920	Prepared By:	SKL	Mar-26
J1 Caroline Hill Road (West) / Link Road		FILENAME : J1_CHRW_LR_IMP.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



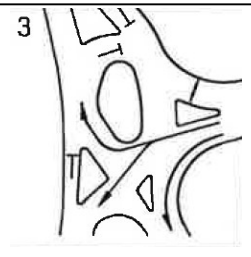
No. of stages per cycle	N =	3
Cycle time	C =	105 sec
Sum(y)	Y =	0.613
Loss time	L =	8 sec
Total Flow	=	2621 pcu
Co = (1.5*L+5)/(1-Y)	=	43.9 sec
Cm = L/(1-Y)	=	20.7 sec
Yult	=	0.840
R.C.ult = (Yult-Y)/Y*100%	=	37.1 %
Cp = 0.9*L/(0.9-Y)	=	25.1 sec
Ymax = 1-L/C	=	0.924
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**36 %**



Stage 1 G= 45 Int =



Stage 2 G= 29 Int = 5



Stage 3 G= 21 Int = 5

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	174	180		354	0.49	1910							1910	0.185			29	45	0.663	42	36
1	1	3.65	1				2120		393		393	0.00	2120							2120	0.185			29	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

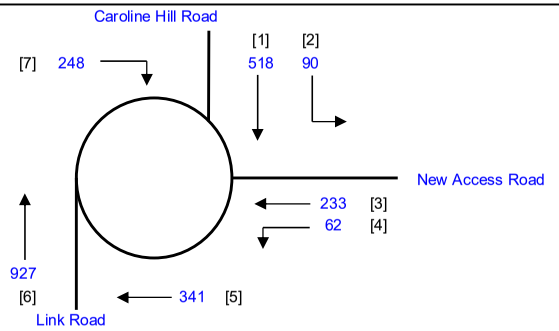
	INITIALS	DATE
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

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

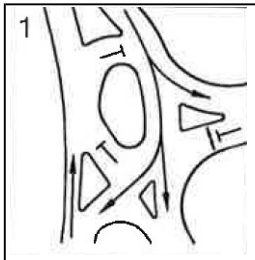
J1 Caroline Hill Road (West) / Link Road

2033 Reference PM

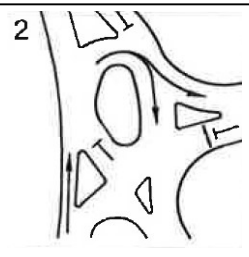
PROJECT NO.: 40920
FILENAME : J1_CHRW_LR_IMP.xlsx



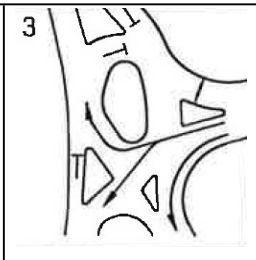
No. of stages per cycle		N =	3
Cycle time		C =	105 sec
Sum(y)		Y =	0.598
Loss time		L =	8 sec
Total Flow		=	2419 pcu
Co	= (1.5*L+5)/(1-Y)	=	42.3 sec
Cm	= L/(1-Y)	=	19.9 sec
Yult		=	0.840
R.C.ult	= (Yult-Y)/Y*100%	=	40.4 %
Cp	= 0.9*L/(0.9-Y)	=	23.9 sec
Ymax	= 1-L/C	=	0.924
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**39 %**



Stage 1 G= 46 Int =



Stage 2 G= 24 Int = 5



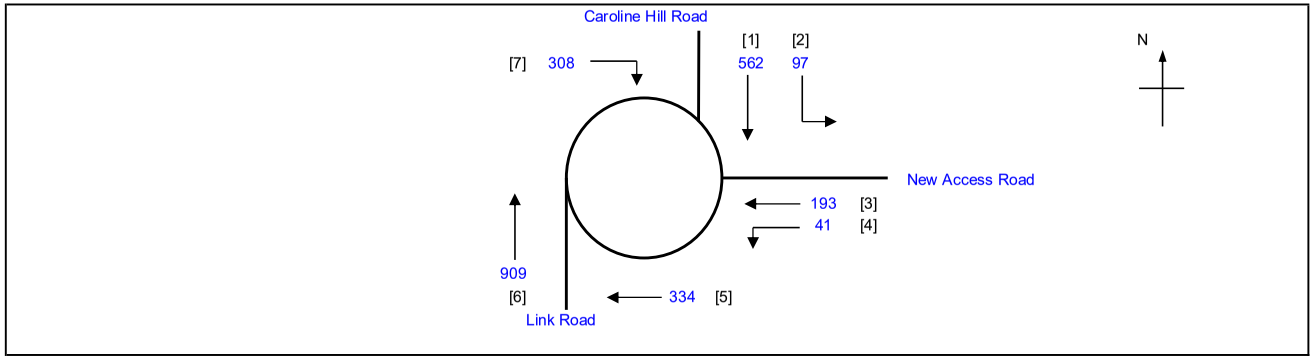
Stage 3 G= 25 Int = 5

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

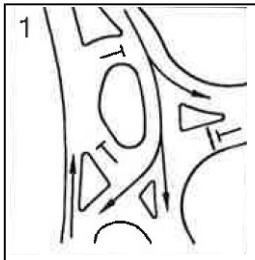
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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		927		927	0.00	2120							2120	0.437	0.437		71	71	0.648	48	11
7	2	5.00	1	5		N	2115			248	248	1.00	1627							1627	0.152			25	25	0.648	30	40
3	3	3.65	1				2120		233		233	0.00	2120							2120	0.110			18	26	0.648	30	45
4	3	3.65	1	15		N	1980	62			62	1.00	1800							1800	0.034			6	26	0.648	12	75
1,2	1	3.65	1	20		N	1980	90	200		290	0.31	1935							1935	0.150			24	46	0.648	36	39
1	1	3.65	1				2120		318		318	0.00	2120							2120	0.150			24	46	0.648	42	39
5	3	5.00	1			N	2115		341		341	0.00	2115							2115	0.161	0.161		26	26	0.648	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

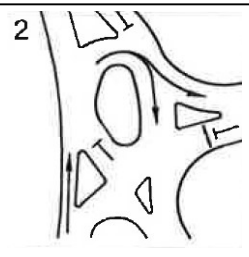
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference Weekend**	PROJECT NO.: 40920	Prepared By:	SKL	Mar-26
		FILENAME : J1_CHRW_LR_IMP.xlsx	Checked By:	SLN	Mar-26
J1 Caroline Hill Road (West) / Link Road			Reviewed By:	SLN	Mar-26



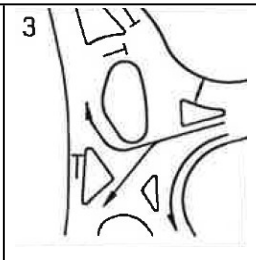
No. of stages per cycle	N =	3
Cycle time	C =	105 sec
Sum(y)	Y =	0.587
Loss time	L =	8 sec
Total Flow	=	2444 pcu
Co = (1.5*L+5)/(1-Y)	=	41.1 sec
Cm = L/(1-Y)	=	19.4 sec
Yult	=	0.840
R.C.ult = (Yult-Y)/Y*100%	=	43.2 %
Cp = 0.9*L/(0.9-Y)	=	23.0 sec
Ymax = 1-L/C	=	0.924
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**42 %**



Stage 1 G= 40 Int =



Stage 2 G= 30 Int = 5



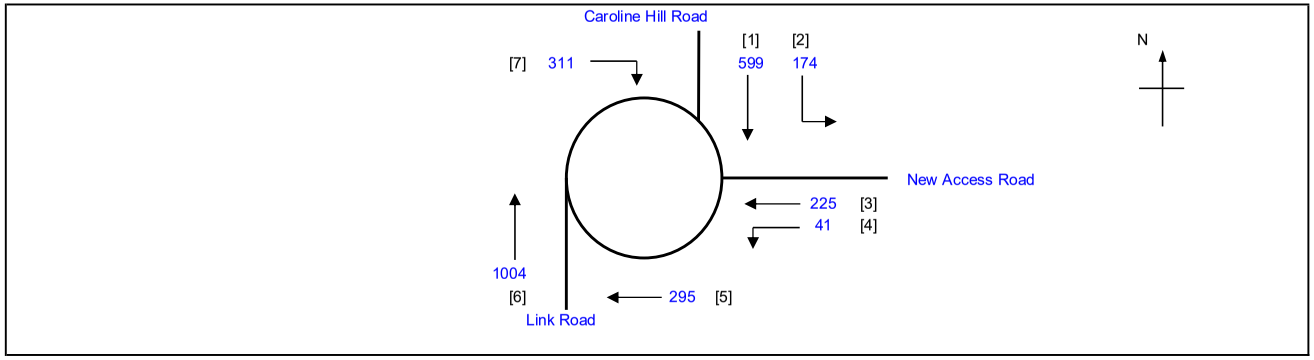
Stage 3 G= 25 Int = 5

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

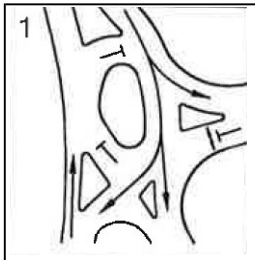
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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		909		909	0.00	2120							2120	0.429	0.429		71	71	0.635	48	11
7	2	5.00	1	5		N	2115			308	308	1.00	1627							1627	0.189			31	31	0.635	36	35
3	3	3.65	1				2120		193		193	0.00	2120							2120	0.091			15	26	0.635	24	47
4	3	3.65	1	15		N	1980	41			41	1.00	1800							1800	0.023			4	26	0.635	6	89
1,2	1	3.65	1	20		N	1980	97	218		315	0.31	1935							1935	0.163			27	40	0.635	36	37
1	1	3.65	1				2120		344		344	0.00	2120							2120	0.162			27	40	0.635	42	36
5	3	5.00	1			N	2115		334		334	0.00	2115							2115	0.158	0.158		26	26	0.635	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

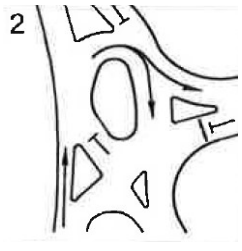
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design AM**	PROJECT NO.: 40920	Prepared By:	SKL	Mar-26
J1 Caroline Hill Road (West) / Link Road		FILENAME : J1_CHRW_LR_IMP.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



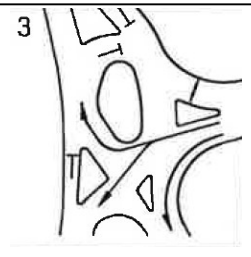
No. of stages per cycle	N =	3
Cycle time	C =	105 sec
Sum(y)	Y =	0.613
Loss time	L =	8 sec
Total Flow	=	2649 pcu
Co = (1.5*L+5)/(1-Y)	=	43.9 sec
Cm = L/(1-Y)	=	20.7 sec
Yult	=	0.840
R.C.ult = (Yult-Y)/Y*100%	=	37.0 %
Cp = 0.9*L/(0.9-Y)	=	25.1 sec
Ymax = 1-L/C	=	0.924
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**36 %**



Stage 1 G= 45
Int =



Stage 2 G= 29
Int = 5



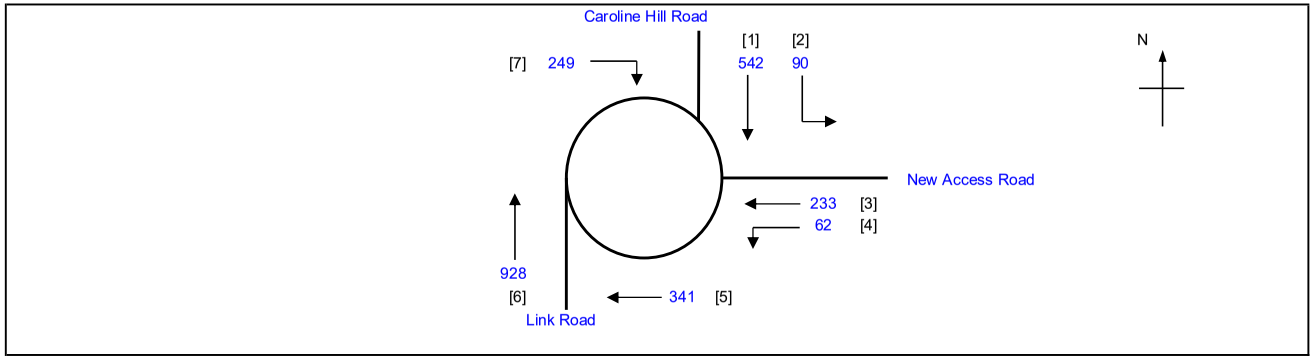
Stage 3 G= 21
Int = 5

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

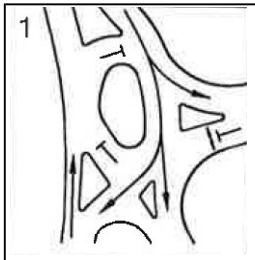
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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		1004		1004	0.00	2120							2120	0.474	0.474		75	75	0.664	48	9
7	2	5.00	1	5		N	2115			311	311	1.00	1627							1627	0.191			30	30	0.664	36	36
3	3	3.65	1				2120		225		225	0.00	2120							2120	0.106			17	22	0.664	30	47
4	3	3.65	1	15		N	1980	41			41	1.00	1800							1800	0.023			4	22	0.664	6	97
1,2	1	3.65	1	20		N	1980	174	193		367	0.47	1912							1912	0.192			30	45	0.664	42	35
1	1	3.65	1				2120		406		406	0.00	2120							2120	0.192			30	45	0.664	48	35
5	3	5.00	1			N	2115		295		295	0.00	2115							2115	0.139	0.139		22	22	0.664	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

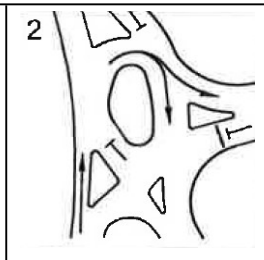
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design PM**	PROJECT NO.: 40920	Prepared By:	SKL	Mar-26
J1 Caroline Hill Road (West) / Link Road		FILENAME : J1_CHRW_LR_IMP.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



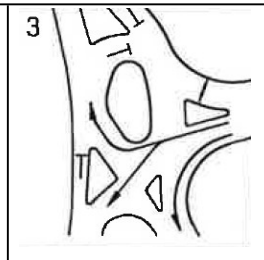
No. of stages per cycle	N =	3
Cycle time	C =	105 sec
Sum(y)	Y =	0.599
Loss time	L =	8 sec
Total Flow	=	2445 pcu
Co = (1.5*L+5)/(1-Y)	=	42.4 sec
Cm = L/(1-Y)	=	19.9 sec
Yult	=	0.840
R.C.ult = (Yult-Y)/Y*100%	=	40.2 %
Cp = 0.9*L/(0.9-Y)	=	23.9 sec
Ymax = 1-L/C	=	0.924
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**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

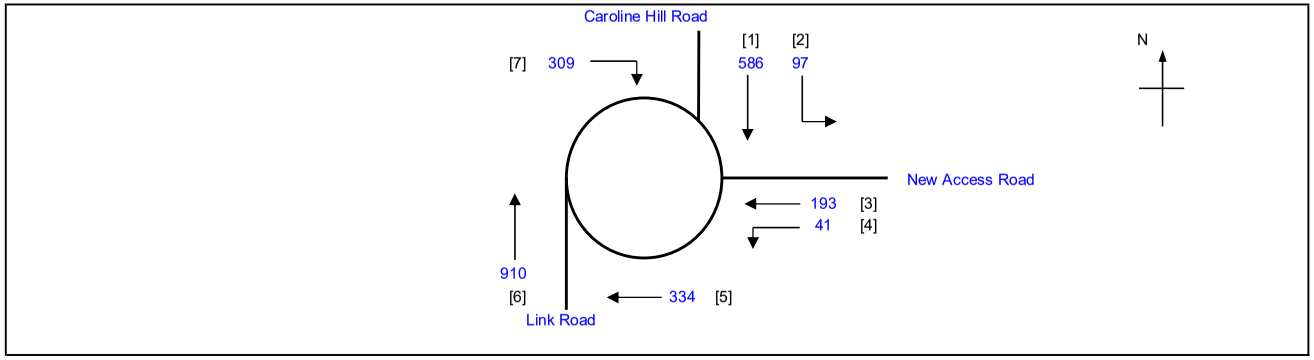
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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		928		928	0.00	2120							2120	0.438	0.438		71	71	0.648	48	11
7	2	5.00	1	5		N	2115			249	249	1.00	1627							1627	0.153			25	25	0.648	30	40
3	3	3.65	1				2120		233		233	0.00	2120							2120	0.110			18	26	0.648	30	45
4	3	3.65	1	15		N	1980	62			62	1.00	1800							1800	0.034			6	26	0.648	12	75
1,2	1	3.65	1	20		N	1980	90	212		302	0.30	1937							1937	0.156			25	46	0.648	36	39
1	1	3.65	1				2120		330		330	0.00	2120							2120	0.156			25	46	0.648	42	38
5	3	5.00	1			N	2115		341		341	0.00	2115							2115	0.161	0.161		26	26	0.648	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

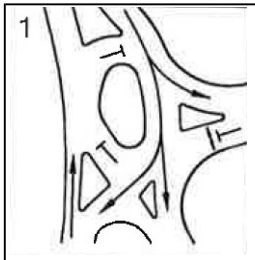
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

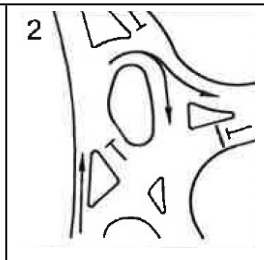
		INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung			
J1 Caroline Hill Road (West) / Link Road	**2033 Design Weekend**		
PROJECT NO.: 40920	Prepared By:	SKL	Mar-26
FILENAME : J1_CHRW_LR_IMP.xlsx	Checked By:	SLN	Mar-26
	Reviewed By:	SLN	Mar-26



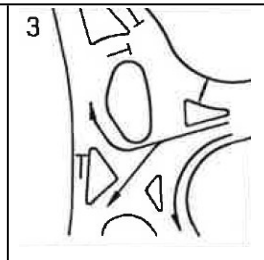
No. of stages per cycle	N =	3
Cycle time	C =	105 sec
Sum(y)	Y =	0.587
Loss time	L =	8 sec
Total Flow	=	2470 pcu
Co = (1.5*L+5)/(1-Y)	=	41.2 sec
Cm = L/(1-Y)	=	19.4 sec
Yult	=	0.840
R.C.ult = (Yult-Y)/Y*100%	=	43.1 %
Cp = 0.9*L/(0.9-Y)	=	23.0 sec
Ymax = 1-L/C	=	0.924
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**42 %**



Stage 1 G= 40 Int =



Stage 2 G= 30 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		910		910	0.00	2120							2120	0.429	0.429		71	71	0.636	48	11
7	2	5.00	1	5		N	2115			309	309	1.00	1627							1627	0.190			31	31	0.636	36	34
3	3	3.65	1				2120		193		193	0.00	2120							2120	0.091			15	26	0.636	24	47
4	3	3.65	1	15		N	1980	41			41	1.00	1800							1800	0.023			4	26	0.636	6	89
1,2	1	3.65	1	20		N	1980	97	229		326	0.30	1937							1937	0.168			28	40	0.636	36	36
1	1	3.65	1				2120		357		357	0.00	2120							2120	0.168			28	40	0.636	42	36
5	3	5.00	1			N	2115		334		334	0.00	2115							2115	0.158	0.158		26	26	0.636	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
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

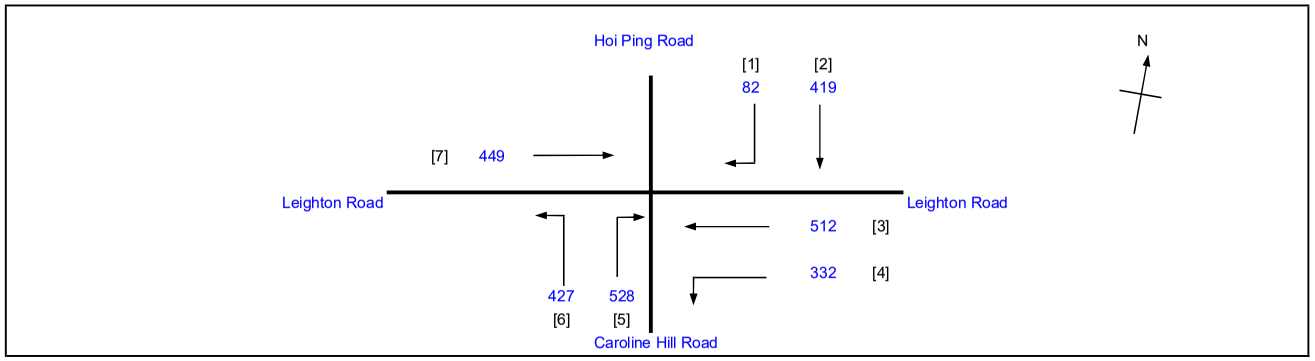
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

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

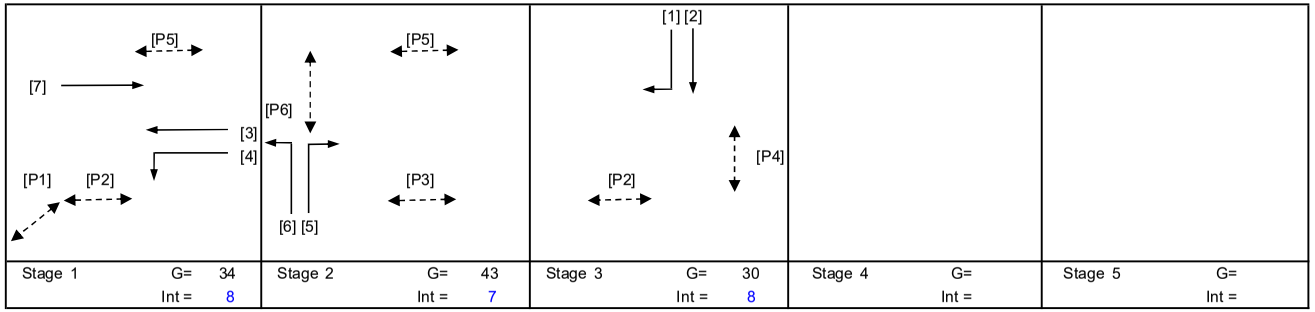
2033 Reference AM

PROJECT NO.: 40920

FILENAME : J2_LR_CHR_HPR.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	130 sec
Sum(y)		Y =	0.613
Loss time		L =	20 sec
Total Flow		=	2749 pcu
Co	= (1.5*L+5)/(1-Y)	=	90.4 sec
Cm	= L/(1-Y)	=	51.7 sec
Yult		=	0.750
R.C.ult	= (Yult-Y)/Y*100%	=	22.3 %
Cp	= 0.9*L/(0.9-Y)	=	62.7 sec
Ymax	= 1-L/C	=	0.846
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**24 %**



Stage 1	G= 34	Int = 8
Stage 2	G= 43	Int = 7
Stage 3	G= 30	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	27	7
P5	1,2	7	11	6	1	85	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	35	0.724	30	57
3,4	1	3.50	1	25			2105	157	117		274	0.57	2035			0.7	-611			1424	0.192	0.192		35	35	0.724	42	50
3	1	3.00	1				2055		395		395	0.00	2055							2055	0.192			34	35	0.724	60	47
5,6	2	3.50	1	65		N	1965	427		46	473	1.00	1921							1921	0.246	0.246		44	44	0.724	66	40
5	2	3.50	1	20			2105			482	482	1.00	1958							1958	0.246			44	44	0.724	66	40
7	1	3.50	1			N	1965		144		144	0.00	1965			0.5	-983			982	0.147			26	35	0.724	24	65
7	1	3.30	1				2085		305		305	0.00	2085							2085	0.146			26	35	0.724	48	54
2	3	3.50	1			N	1965		340		340	0.00	1965							1965	0.173			31	31	0.724	54	50
1,2	3	3.50	1	12		N	1965		79	82	161	0.51	1847			0.5	-924			923	0.174	0.174		31	31	0.724	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
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

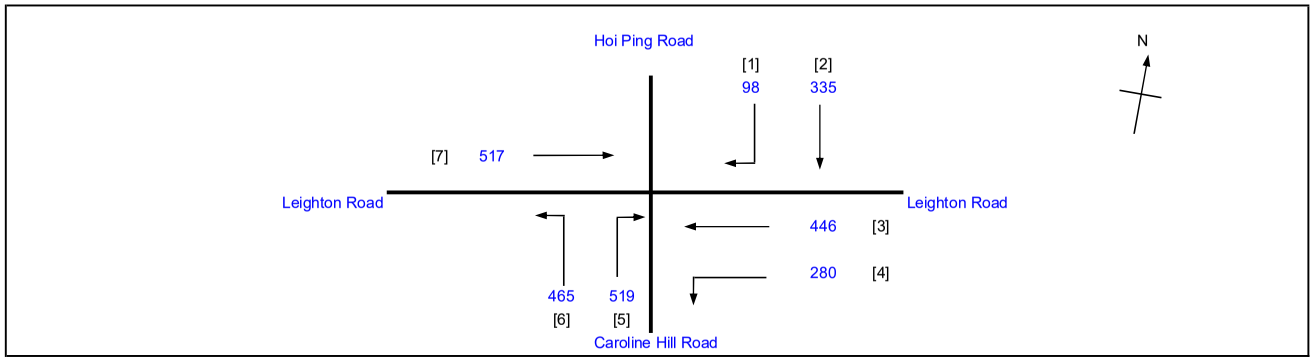
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

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

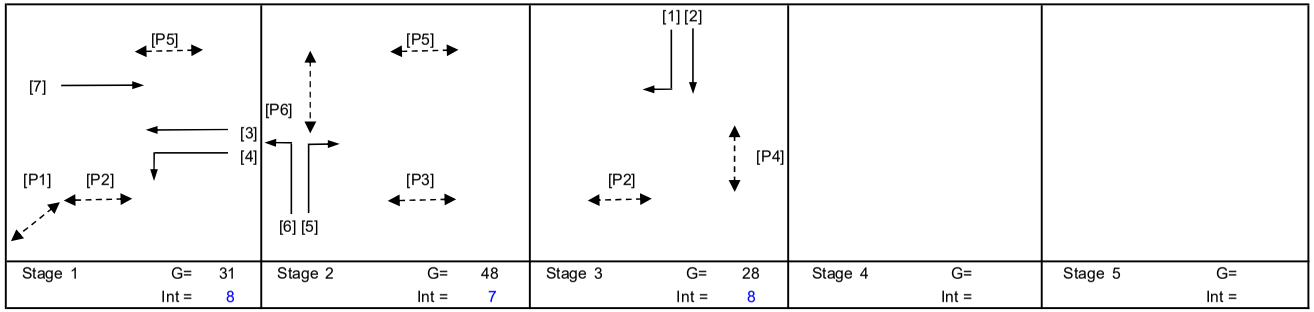
2033 Reference PM

PROJECT NO.: 40920

FILENAME : J2_LR_CHR_HPR.xlsx



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

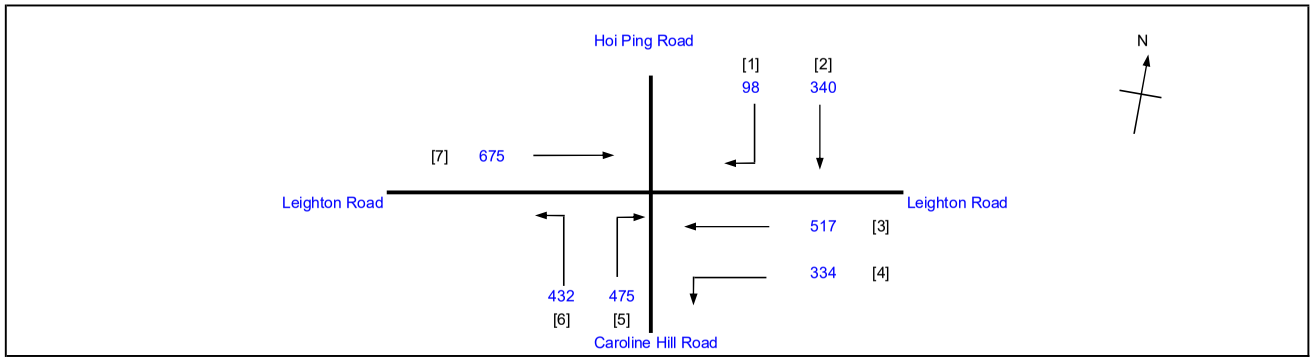
	INITIALS	DATE
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

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

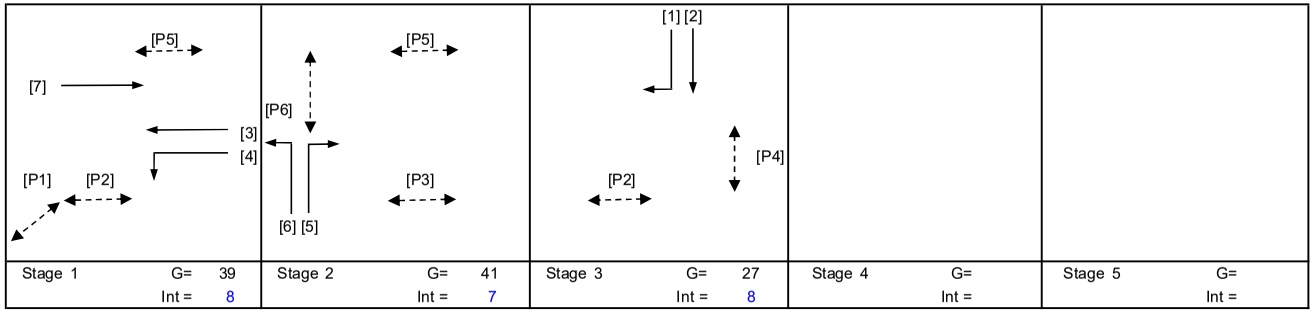
J2 Leighton Road / Caroline Hill Road (West) / Hoi Ping Road

2033 Reference 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 =	0.607
Loss time		L =	20 sec
Total Flow		=	2871 pcu
Co	= (1.5*L+5)/(1-Y)	=	89.0 sec
Cm	= L/(1-Y)	=	50.9 sec
Yult		=	0.750
R.C.ult	= (Yult-Y)/Y*100%	=	23.6 %
Cp	= 0.9*L/(0.9-Y)	=	61.4 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= 41	Int = 7
Stage 3	G= 27	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	77	5
P3	2	4.5	14	5	3	40	5
P4	3	15	10	7	4	24	7
P5	1,2	7	11	6	1	88	6
P6	2	15	10	7	4	37	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			35	40	0.717	30	55
3,4	1	3.50	1	25			2105	157	118		275	0.57	2035			0.7	-611			1424	0.193			35	40	0.717	42	49
3	1	3.00	1				2055		399		399	0.00	2055							2055	0.194			35	40	0.717	60	46
5,6	2	3.50	1	65		N	1965	432		17	449	1.00	1921							1921	0.234			42	42	0.717	60	41
5	2	3.50	1	20			2105			458	458	1.00	1958							1958	0.234	0.234		42	42	0.717	66	41
7	1	3.50	1			N	1965		216		216	0.00	1965			0.5	-983			982	0.220			40	40	0.717	30	50
7	1	3.30	1				2085		459		459	0.00	2085							2085	0.220	0.220		40	40	0.717	66	42
2	3	3.50	1			N	1965		300		300	0.00	1965							1965	0.153			28	28	0.717	48	53
1,2	3	3.50	1	12		N	1965		40	98	138	0.71	1805			0.5	-902			903	0.153	0.153		28	28	0.717	24	64

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	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

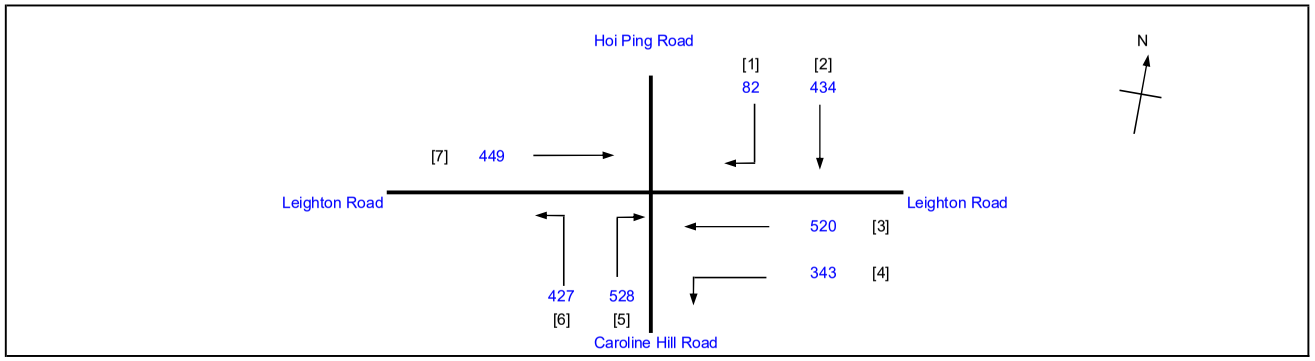
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

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

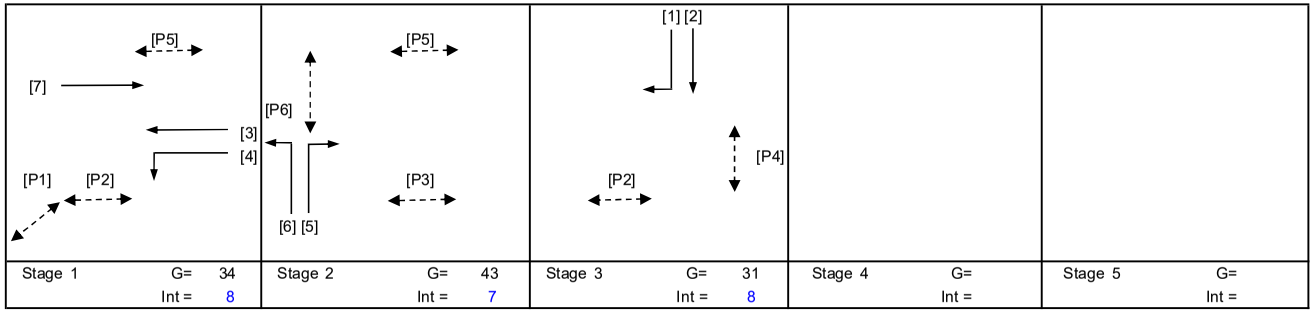
2033 Design AM

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		=	2783 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)	=	64.7 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	180			180	1.00	1828			0.5	-914			914	0.197	0.197		35	35	0.735	30	57
3,4	1	3.50	1	25			2105	163	116		279	0.58	2034			0.7	-610			1424	0.196			35	35	0.735	42	51
3	1	3.00	1				2055		404		404	0.00	2055							2055	0.197			35	35	0.735	60	47
5,6	2	3.50	1	65		N	1965	427		46	473	1.00	1921							1921	0.246	0.246		44	44	0.735	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		351		351	0.00	1965							1965	0.179	0.179		32	32	0.735	54	50
1,2	3	3.50	1	12		N	1965		83	82	165	0.50	1850			0.5	-925			925	0.178			32	32	0.735	30	61

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	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

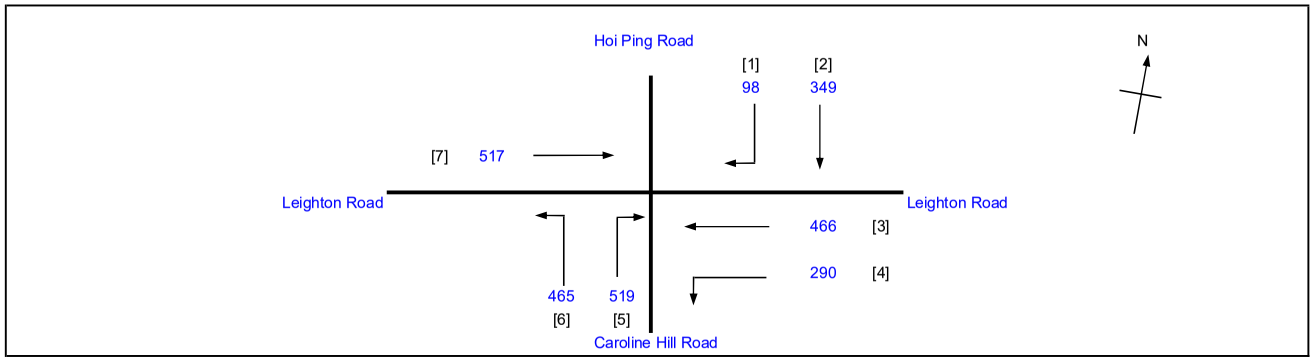
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

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

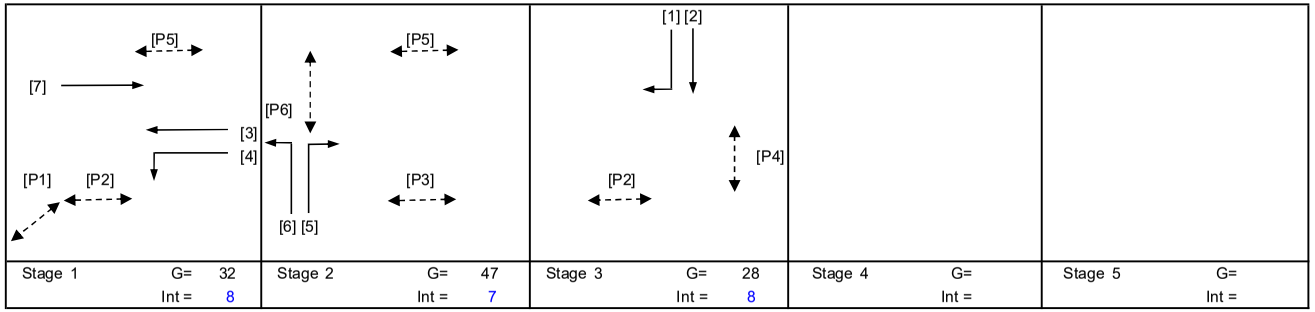
2033 Design PM

PROJECT NO.: 40920

FILENAME : J2_LR_CHR_HPR.xlsx



No. of stages per cycle	N =	3
Cycle time	C =	130 sec
Sum(y)	Y =	0.582
Loss time	L =	20 sec
Total Flow	=	2704 pcu
Co = (1.5*L+5)/(1-Y)	=	83.7 sec
Cm = L/(1-Y)	=	47.9 sec
Yult	=	0.750
R.C.ult = (Yult-Y)/Y*100%	=	28.9 %
Cp = 0.9*L/(0.9-Y)	=	56.6 sec
Ymax = 1-L/C	=	0.846
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**31 %**



Stage 1	G= 32	Int = 8
Stage 2	G= 47	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	33	5
P2	1,3	4	14	5	0	71	5
P3	2	4.5	14	5	3	46	5
P4	3	15	10	7	4	25	7
P5	1,2	7	11	6	1	87	6
P6	2	15	10	7	4	43	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	157			157	1.00	1828			0.5	-914			914	0.172			32	33	0.688	24	55
3,4	1	3.50	1	25			2105	133	112		245	0.54	2039			0.7	-612			1427	0.172			32	33	0.688	36	50
3	1	3.00	1				2055		354		354	0.00	2055							2055	0.172	0.172		33	33	0.688	54	47
5,6	2	3.50	1	65		N	1965	465		22	487	1.00	1921							1921	0.254			48	48	0.688	66	36
5	2	3.50	1	20			2105			497	497	1.00	1958							1958	0.254	0.254		48	48	0.688	66	36
7	1	3.50	1			N	1965		166		166	0.00	1965			0.5	-983			982	0.169			32	33	0.688	24	55
7	1	3.30	1				2085		351		351	0.00	2085							2085	0.168			32	33	0.688	54	47
2	3	3.50	1			N	1965		306		306	0.00	1965							1965	0.156			29	29	0.688	48	49
1,2	3	3.50	1	12		N	1965		43	98	141	0.70	1808			0.5	-904			904	0.156	0.156		29	29	0.688	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

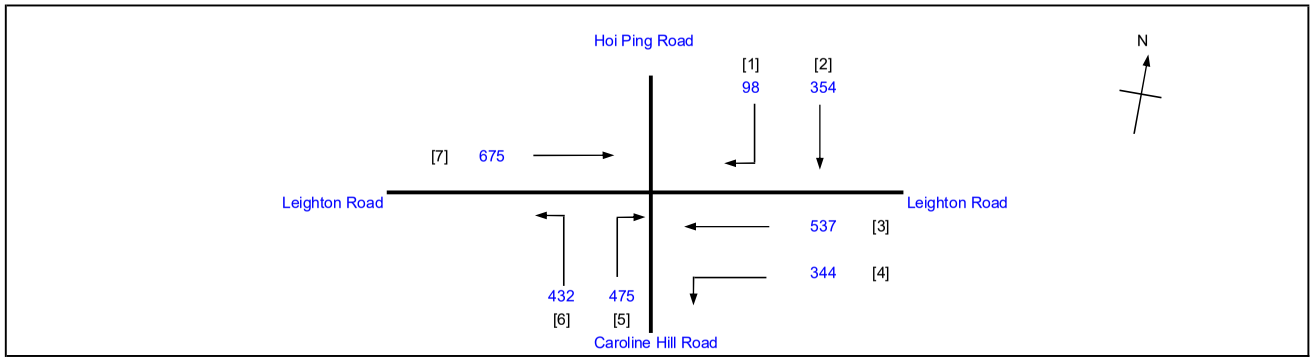
	INITIALS	DATE
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

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

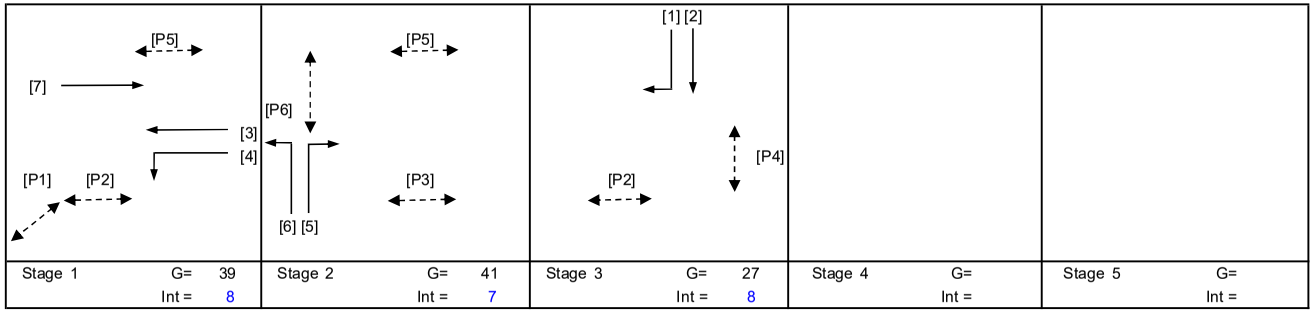
J2 Leighton Road / Caroline Hill Road (West) / Hoi Ping Road

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 =	0.612
Loss time	L =	20 sec
Total Flow	=	2915 pcu
Co = (1.5*L+5)/(1-Y)	=	90.2 sec
Cm = L/(1-Y)	=	51.6 sec
Yult	=	0.750
R.C.ult = (Yult-Y)/Y*100%	=	22.5 %
Cp = 0.9*L/(0.9-Y)	=	62.5 sec
Ymax = 1-L/C	=	0.846
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**24 %**



Stage 1	G= 39	Int = 8
Stage 2	G= 41	Int = 7
Stage 3	G= 27	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	77	5
P3	2	4.5	14	5	3	40	5
P4	3	15	10	7	4	24	7
P5	1,2	7	11	6	1	88	6
P6	2	15	10	7	4	37	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	184			184	1.00	1828			0.5	-914			914	0.201			36	40	0.723	30	55
3,4	1	3.50	1	25			2105	160	126		286	0.56	2037			0.7	-611			1426	0.201			36	40	0.723	42	49
3	1	3.00	1				2055		411		411	0.00	2055							2055	0.200			36	40	0.723	60	46
5,6	2	3.50	1	65		N	1965	432		17	449	1.00	1921							1921	0.234			42	42	0.723	60	42
5	2	3.50	1	20			2105			458	458	1.00	1958							1958	0.234	0.234		42	42	0.723	66	42
7	1	3.50	1			N	1965		216		216	0.00	1965			0.5	-983			982	0.220			40	40	0.723	30	51
7	1	3.30	1				2085		459		459	0.00	2085							2085	0.220	0.220		40	40	0.723	66	43
2	3	3.50	1			N	1965		309		309	0.00	1965							1965	0.157			28	28	0.723	48	52
1,2	3	3.50	1	12		N	1965		45	98	143	0.69	1810			0.5	-905			905	0.158	0.158		28	28	0.723	24	64

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	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

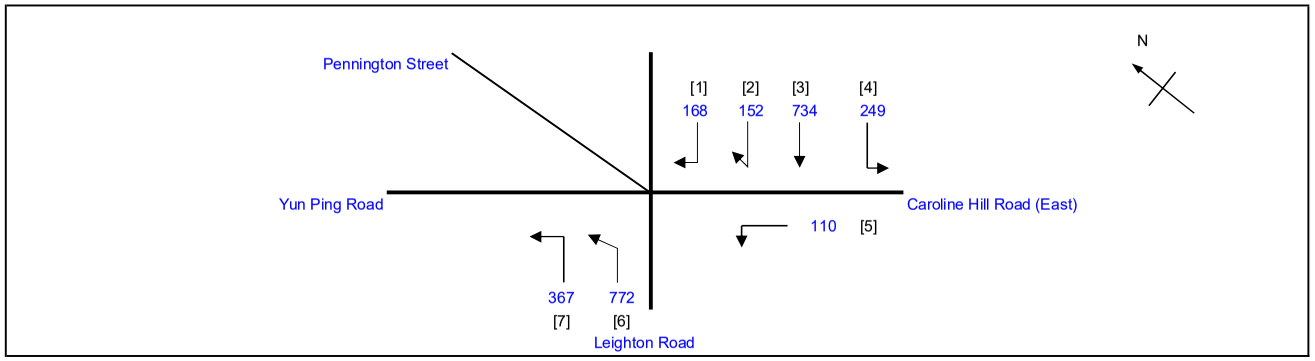
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

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

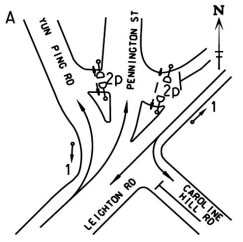
2033 Reference AM

PROJECT NO.: 40920

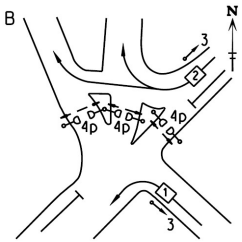
FILENAME : J3_LR_CHRE_YPR_PS.xlsx



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



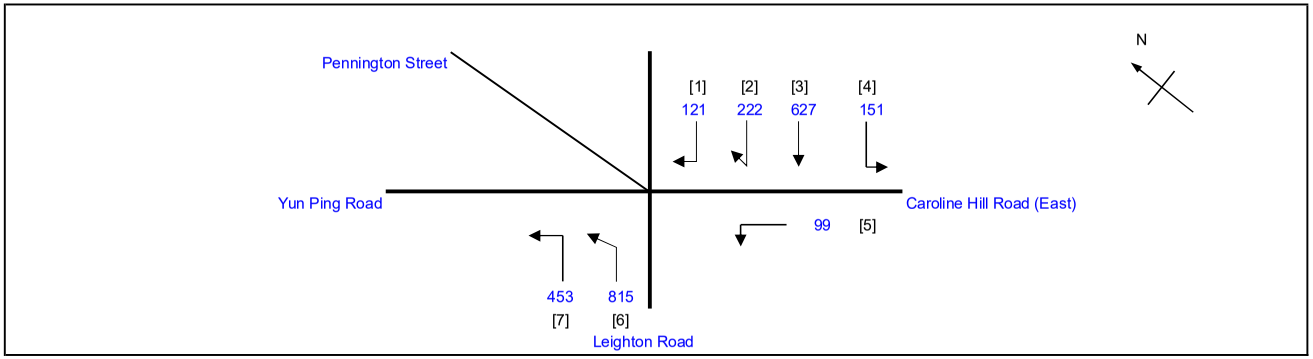
Stage 2 G= 43 Int = 7

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

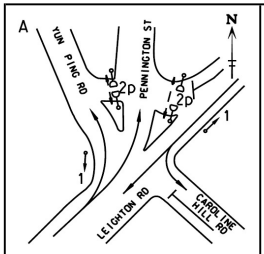
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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

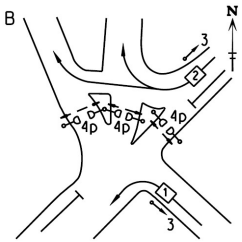
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference PM**	PROJECT NO.: 40920	Prepared By:	SKL	Mar-26
J3 Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street		FILENAME : J3_LR_CHRE_YPR_PS.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



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



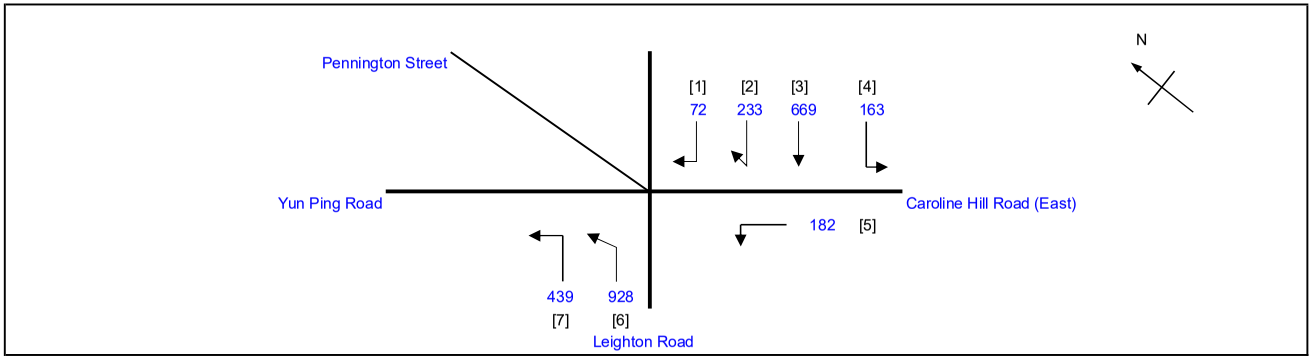
Stage 2 G= 42
Int = 7

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

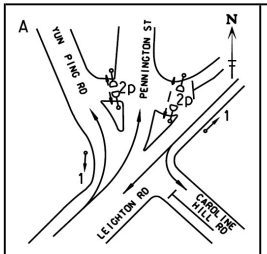
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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

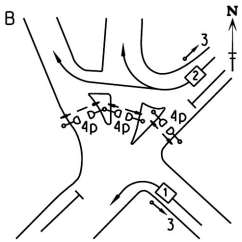
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Reference Weekend**	PROJECT NO.: 40920	Prepared By:	SKL	Mar-26
J3 Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street		FILENAME : J3_LR_CHRE_YPR_PS.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.707
Loss time	L =	11 sec
Total Flow	=	2686 pcu
Co = (1.5*L+5)/(1-Y)	=	73.4 sec
Cm = L/(1-Y)	=	37.5 sec
Yult	=	0.818
R.C.ult = (Yult-Y)/Y*100%	=	15.6 %
Cp = 0.9*L/(0.9-Y)	=	51.3 sec
Ymax = 1-L/C	=	0.915
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**17 %**



Stage 1 G= 80
Int = 6



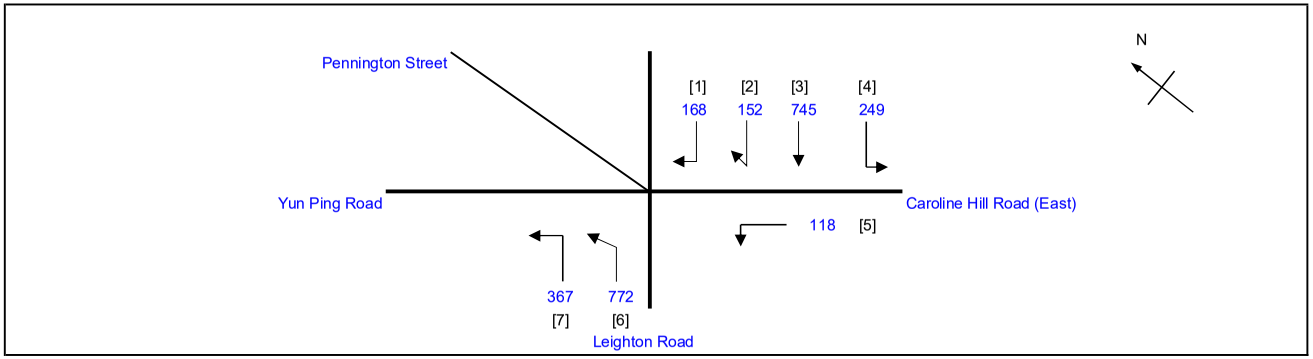
Stage 2 G= 37
Int = 7

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

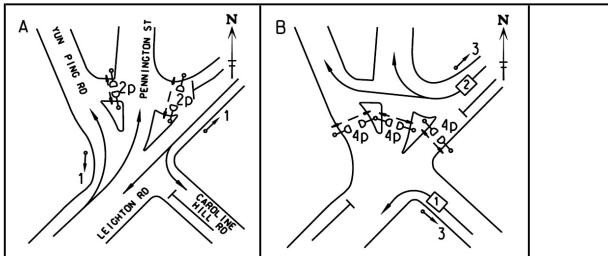
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						11		
3	1	2.50	1				2005		551		551	0.00	2005							2005	0.275			46	81
3,4	1	3.00	1	7		N	1915	163	118		281	0.58	1703			0.6	-681			1022	0.275			46	81
6	1	3.00	1				2055		731		731	0.00	2055			0.7	-534			1521	0.481	0.481		81	81
6,7	1	3.00	1	15		N	1915	439	197		636	0.69	1791			0.7	-466			1325	0.480			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	182			182	1.00	1550			0.6	-620			930	0.196			33	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
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	Mar-26
J3 Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street		FILENAME : J3_LR_CHRE_YPR_PS.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



No. of stages per cycle		N =	2
Cycle time		C =	130 sec
Sum(y)		Y =	0.638
Loss time		L =	11 sec
Total Flow		=	2571 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

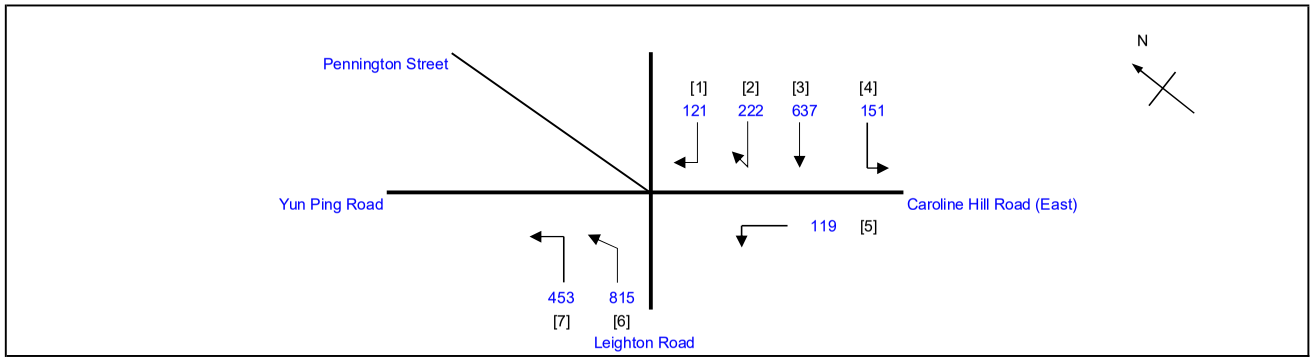
Stage 2 G= 43 Int = 7

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

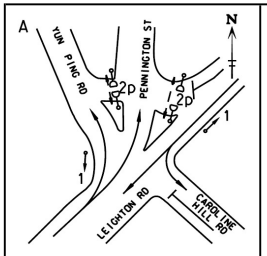
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec			
																							11				
3	1	2.50	1				2005		666		666	0.00	2005							2005	0.332			62	75			
3,4	1	3.00	1	7		N	1915	249	79		328	0.76	1647			0.6	-659			988	0.332			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	118			118	1.00	1550			0.6	-620			930	0.127			24	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

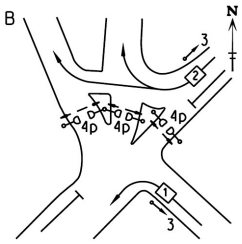
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design PM**	PROJECT NO.: 40920	Prepared By:	SKL	Mar-26
J3 Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street		FILENAME : J3_LR_CHRE_YPR_PS.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.702
Loss time	L =	11 sec
Total Flow	=	2518 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



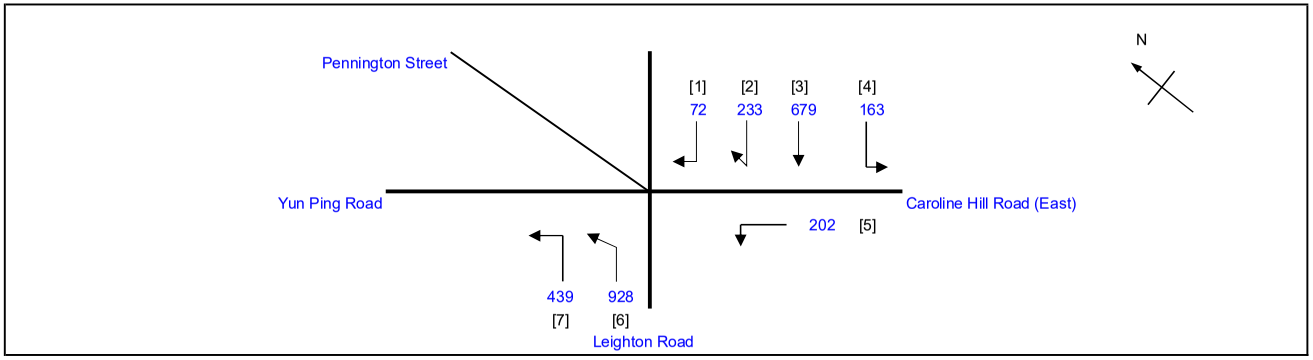
Stage 2 G= 42 Int = 7

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

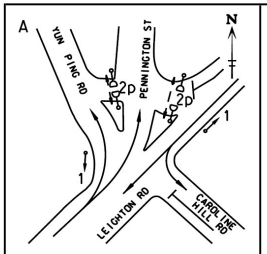
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec			
																							11				
3	1	2.50	1				2005		521		521	0.00	2005							2005	0.260			44	76			
3,4	1	3.00	1	7		N	1915	151	116		267	0.57	1708			0.6	-683			1025	0.260			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	119			119	1.00	1550			0.6	-620			930	0.128			22	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

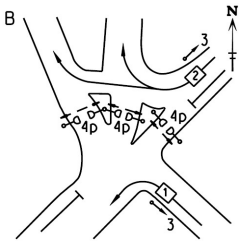
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design Weekend**	PROJECT NO.: 40920	Prepared By:	SKL	Mar-26
J3 Leighton Road / Caroline Hill Road (East) / Yun Ping Road / Pennington Street		FILENAME : J3_LR_CHRE_YPR_PS.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.707
Loss time	L =	11 sec
Total Flow	=	2716 pcu
Co = (1.5*L+5)/(1-Y)	=	73.4 sec
Cm = L/(1-Y)	=	37.5 sec
Yult	=	0.818
R.C.ult = (Yult-Y)/Y*100%	=	15.6 %
Cp = 0.9*L/(0.9-Y)	=	51.3 sec
Ymax = 1-L/C	=	0.915
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**17 %**



Stage 1 G= 80 Int = 6



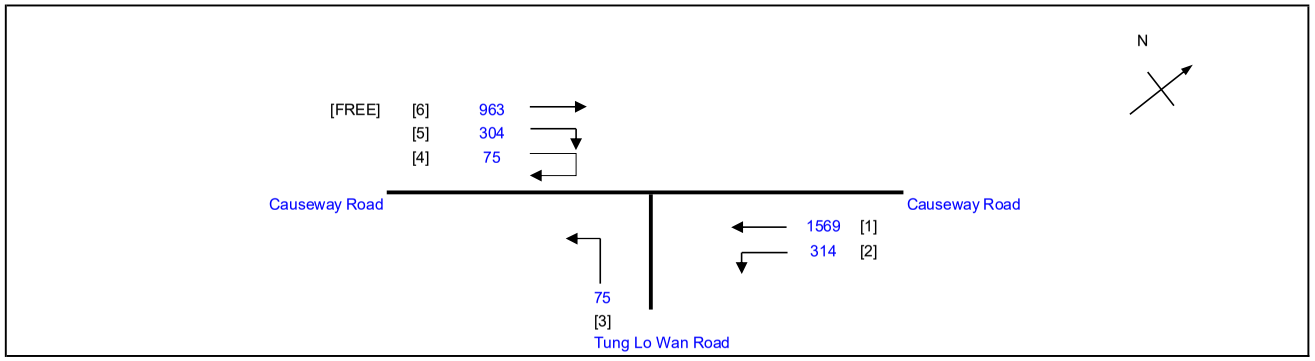
Stage 2 G= 37 Int = 7

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

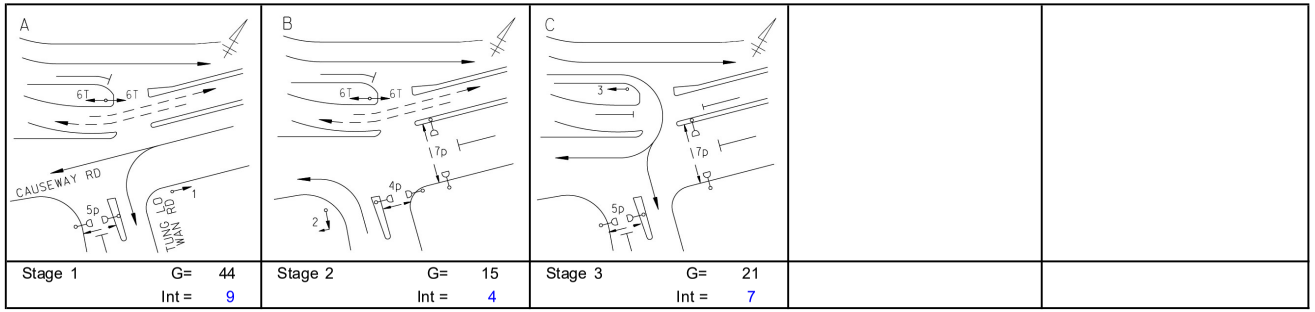
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						11		
3	1	2.50	1				2005		557		557	0.00	2005							2005	0.278			47	81
3,4	1	3.00	1	7		N	1915	163	122		285	0.57	1706			0.6	-682			1024	0.278			47	81
6	1	3.00	1				2055		731		731	0.00	2055			0.7	-534			1521	0.481	0.481		81	81
6,7	1	3.00	1	15		N	1915	439	197		636	0.69	1791			0.7	-466			1325	0.480			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	202			202	1.00	1550			0.6	-620			930	0.217			37	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
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	Mar-26
J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road		FILENAME : J4_CR_LR_IS.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	3
Cycle time	C =	100 sec
Sum(y)	Y =	0.413
Loss time	L =	33 sec
Total Flow	=	2337 pcu
Co = (1.5*L+5)/(1-Y)	=	92.8 sec
Cm = L/(1-Y)	=	56.2 sec
Yult	=	0.653
R.C.ult = (Yult-Y)/Y*100%	=	58.2 %
Cp = 0.9*L/(0.9-Y)	=	60.9 sec
Ymax = 1-L/C	=	0.670
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**46 %**



Stage 1	G= 44	Stage 2	G= 15	Stage 3	G= 21
	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		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		426		426	0.00	1915			0.8	-383			1532	0.278			45	45
1	1	3.00	2				4110		1143		1143	0.00	4110							4110	0.278	0.278		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
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

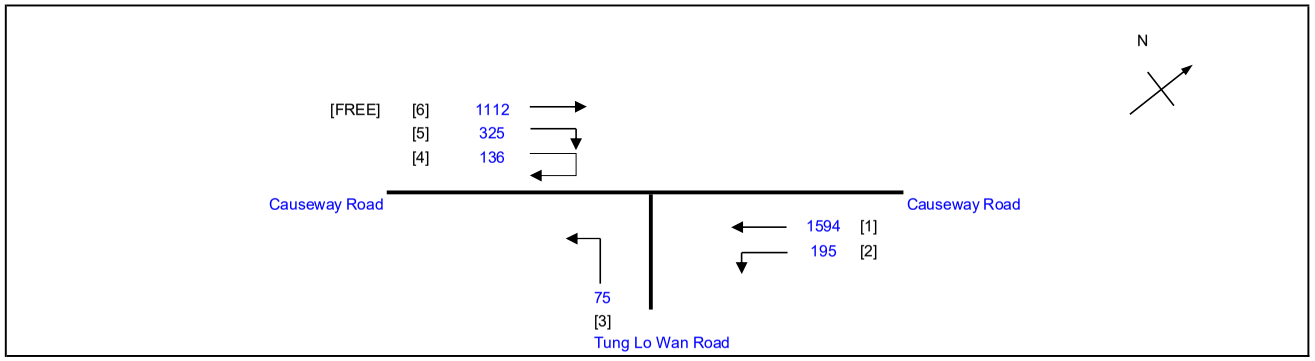
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

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

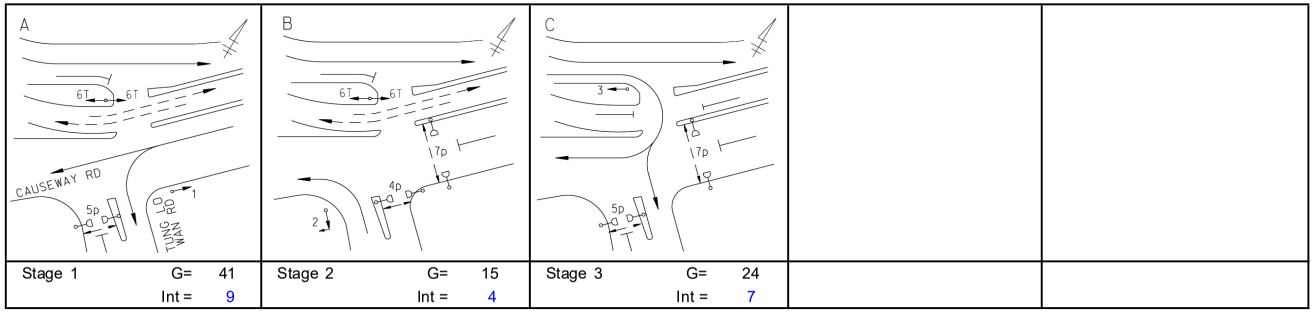
2033 Reference PM

PROJECT NO.: 40920

FILENAME : J4_CR_LR_IS.xlsx



No. of stages per cycle		N =	3
Cycle time		C =	100 sec
Sum(y)		Y =	0.446
Loss time		L =	33 sec
Total Flow		=	2325 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%	=	46.3 %
Cp	= 0.9*L/(0.9-Y)	=	65.4 sec
Ymax	= 1-L/C	=	0.670
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**35 %**



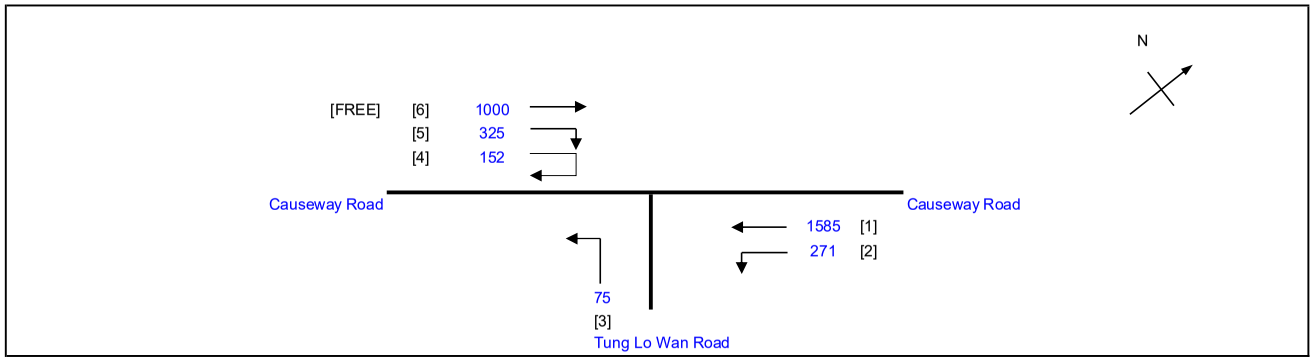
Stage 1	G= 41	Int = 9
Stage 2	G= 15	Int = 4
Stage 3	G= 24	Int = 7

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

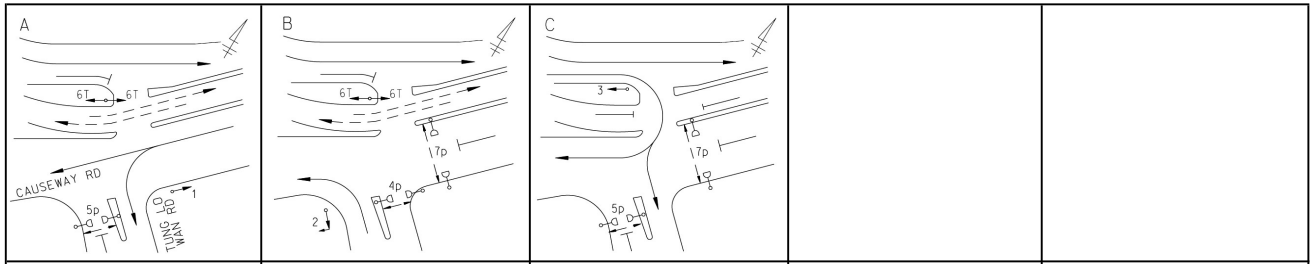
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						18		
1	1	3.00	1			N	1915		433		433	0.00	1915			0.8	-383			1532	0.283	0.283		42	42
1	1	3.00	2				4110		1161		1161	0.00	4110							4110	0.282			42	42
2	1	3.00	1	9		N	1915	195			195	1.00	1641			0.8	-328			1313	0.148			22	42
3	2	4.00	1	25		N	2015	75			75	1.00	1901			0.8	-380			1521	0.049			7	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	Mar-26
J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road		FILENAME : J4_CR_LR_IS.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	3
Cycle time	C =	100 sec
Sum(y)	Y =	0.450
Loss time	L =	33 sec
Total Flow	=	2408 pcu
Co = (1.5*L+5)/(1-Y)	=	99.1 sec
Cm = L/(1-Y)	=	60.0 sec
Yult	=	0.653
R.C.ult = (Yult-Y)/Y*100%	=	44.9 %
Cp = 0.9*L/(0.9-Y)	=	66.0 sec
Ymax = 1-L/C	=	0.670
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**34 %**



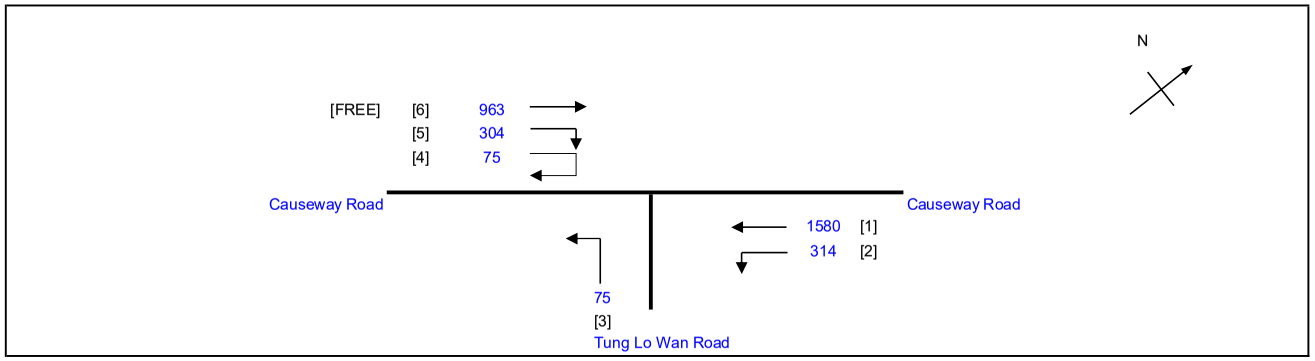
Stage 1	G= 41	Int = 9
Stage 2	G= 15	Int = 4
Stage 3	G= 24	Int = 7

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

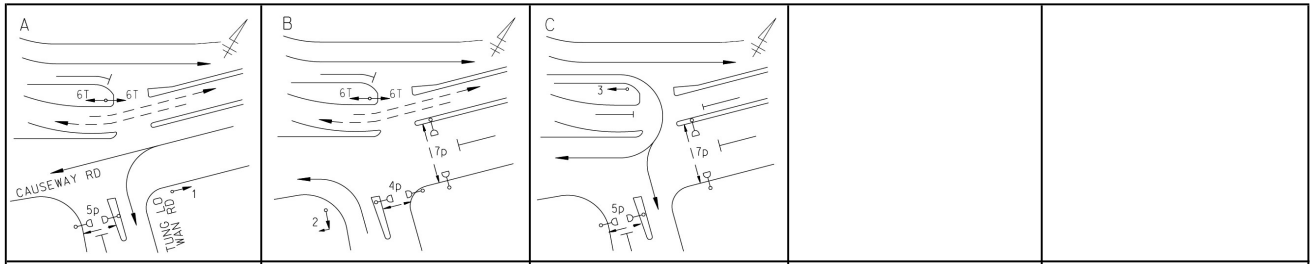
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						18		
1	1	3.00	1			N	1915		431		431	0.00	1915			0.8	-383			1532	0.281	0.281		42	42
1	1	3.00	2				4110		1154		1154	0.00	4110							4110	0.281			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	75			75	1.00	1901			0.8	-380			1521	0.049			7	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
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	Mar-26
J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road		FILENAME : J4_CR_LR_IS.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	3
Cycle time	C =	100 sec
Sum(y)	Y =	0.414
Loss time	L =	33 sec
Total Flow	=	2348 pcu
Co = (1.5*L+5)/(1-Y)	=	93.1 sec
Cm = L/(1-Y)	=	56.4 sec
Yult	=	0.653
R.C.ult = (Yult-Y)/Y*100%	=	57.4 %
Cp = 0.9*L/(0.9-Y)	=	61.2 sec
Ymax = 1-L/C	=	0.670
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**45 %**



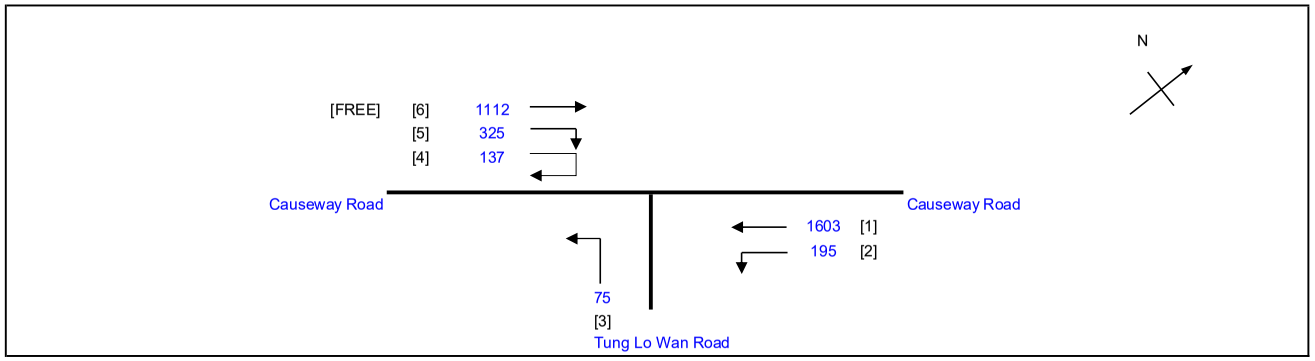
Stage 1	G= 44	Int = 9
Stage 2	G= 15	Int = 4
Stage 3	G= 21	Int = 7

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

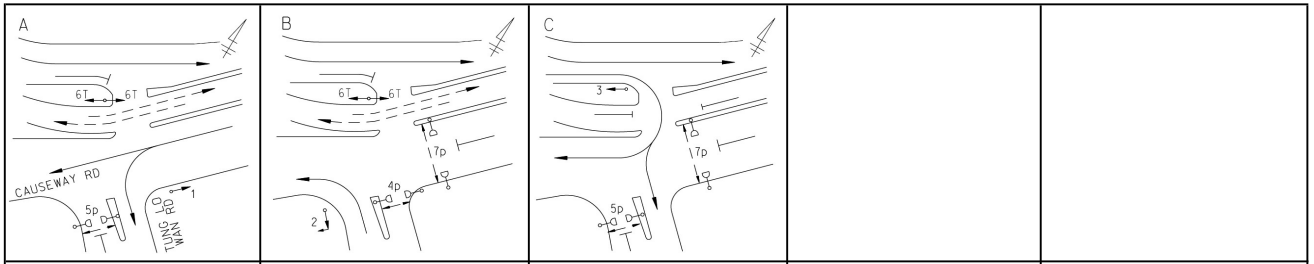
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						18		
1	1	3.00	1			N	1915		429		429	0.00	1915			0.8	-383			1532	0.280			45	45
1	1	3.00	2				4110		1151		1151	0.00	4110							4110	0.280	0.280		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	Mar-26
J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road		FILENAME : J4_CR_LR_IS.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	3
Cycle time	C =	100 sec
Sum(y)	Y =	0.448
Loss time	L =	33 sec
Total Flow	=	2335 pcu
Co = (1.5*L+5)/(1-Y)	=	98.8 sec
Cm = L/(1-Y)	=	59.8 sec
Yult	=	0.653
R.C.ult = (Yult-Y)/Y*100%	=	45.6 %
Cp = 0.9*L/(0.9-Y)	=	65.7 sec
Ymax = 1-L/C	=	0.670
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**35 %**



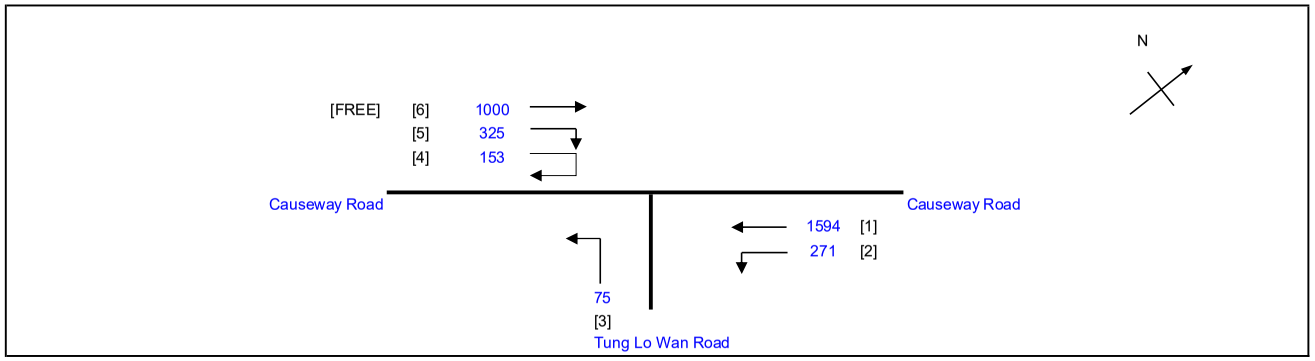
Stage 1	G= 41	Int = 9
Stage 2	G= 15	Int = 4
Stage 3	G= 24	Int = 7

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

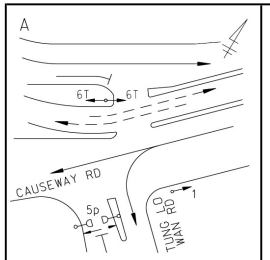
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						18		
1	1	3.00	1			N	1915		435		435	0.00	1915			0.8	-383			1532	0.284			42	42
1	1	3.00	2				4110		1168		1168	0.00	4110							4110	0.284	0.284		42	42
2	1	3.00	1	9		N	1915	195			195	1.00	1641			0.8	-328			1313	0.148			22	42
3	2	4.00	1	25		N	2015	75			75	1.00	1901			0.8	-380			1521	0.049			7	15
4,5	3	4.00	1	12		N	2015			235	235	1.00	1791			0.8	-358			1433	0.164	0.164		25	25
4,5	3	4.50	1	8		N	2065			227	227	1.00	1739			0.8	-348			1391	0.163			24	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

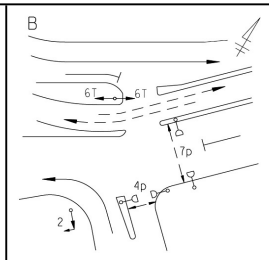
LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	**2033 Design Weekend**	PROJECT NO.:	40920	Prepared By:	SKL	Mar-26
J4 Causeway Road / Leighton Road/Irving Street / Tung Lo Wan Road		FILENAME :	J4_CR_LR_IS.xlsx	Checked By:	SLN	Mar-26
				Reviewed By:	SLN	Mar-26



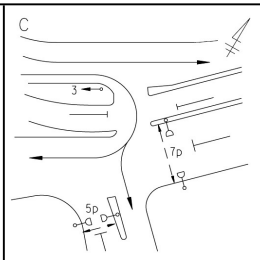
No. of stages per cycle		N =	3
Cycle time		C =	100 sec
Sum(y)		Y =	0.452
Loss time		L =	33 sec
Total Flow		=	2418 pcu
Co	= (1.5*L+5)/(1-Y)	=	99.5 sec
Cm	= L/(1-Y)	=	60.2 sec
Yult		=	0.653
R.C.ult	= (Yult-Y)/Y*100%	=	44.3 %
Cp	= 0.9*L/(0.9-Y)	=	66.3 sec
Ymax	= 1-L/C	=	0.670
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**33 %**



Stage 1 G= 41 Int = 9



Stage 2 G= 15 Int = 4



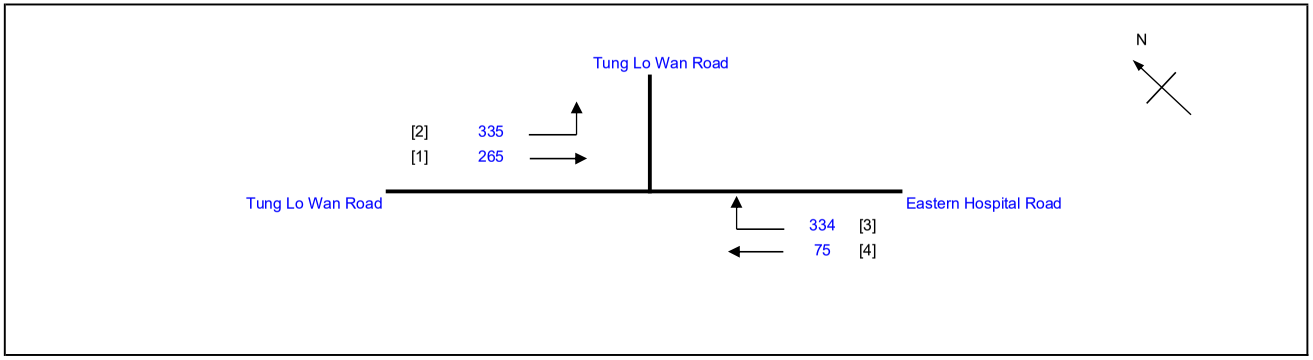
Stage 3 G= 24 Int = 7

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

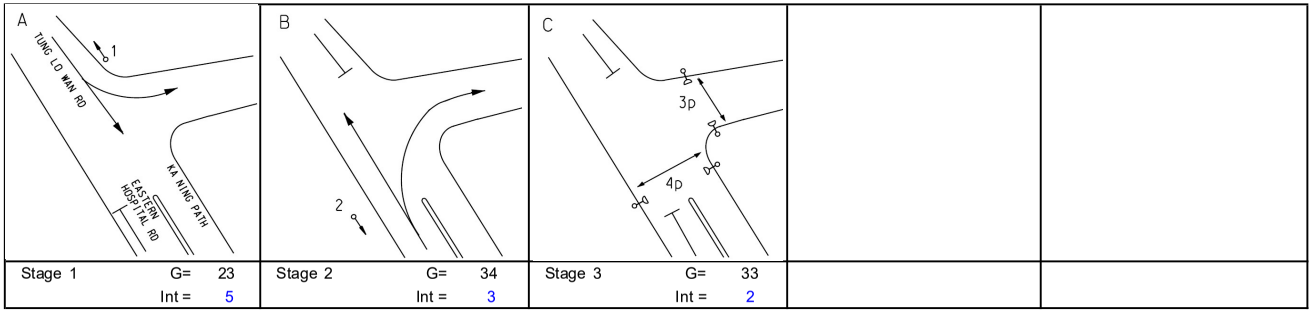
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec
																						18		
1	1	3.00	1			N	1915		433		433	0.00	1915			0.8	-383			1532	0.283	0.283		42	42
1	1	3.00	2				4110		1161		1161	0.00	4110							4110	0.282			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	75			75	1.00	1901			0.8	-380			1521	0.049			7	15
4,5	3	4.00	1	12		N	2015			243	243	1.00	1791			0.8	-358			1433	0.170	0.170		25	25
4,5	3	4.50	1	8		N	2065			235	235	1.00	1739			0.8	-348			1391	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
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	Mar-26
J5 Tung Lo Wan Road / Eastern Hospital Road		FILENAME : J5_TLWR_EHR.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



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 %**



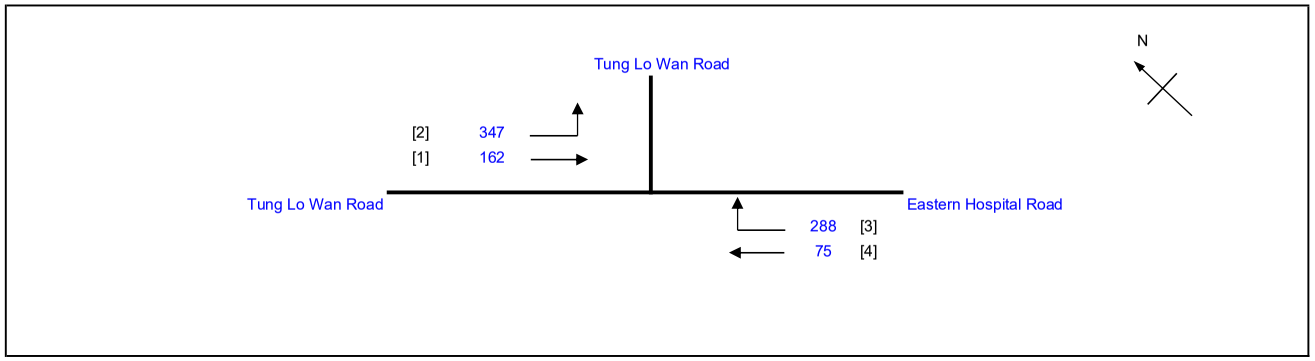
Stage 1	G= 23	Int = 5
Stage 2	G= 34	Int = 3
Stage 3	G= 33	Int = 2

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

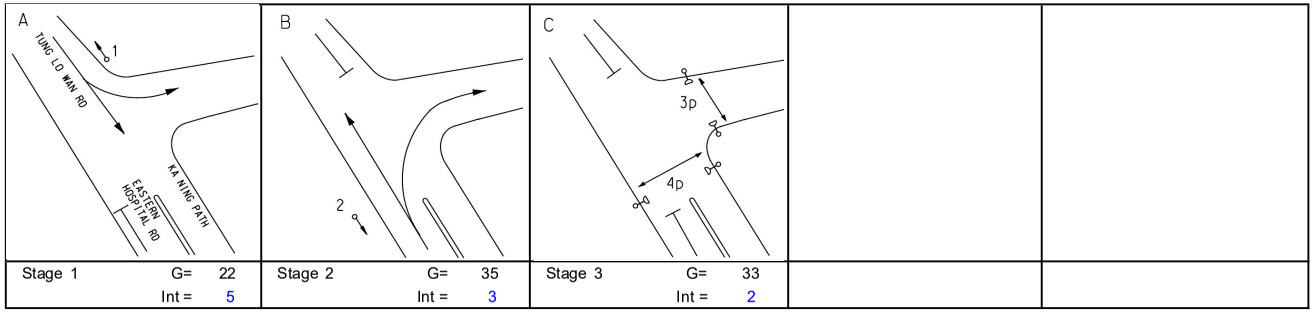
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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
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	Mar-26
J5 Tung Lo Wan Road / Eastern Hospital Road		FILENAME : J5_TLWR_EHR.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



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	Stage 2	G= 35
	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	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

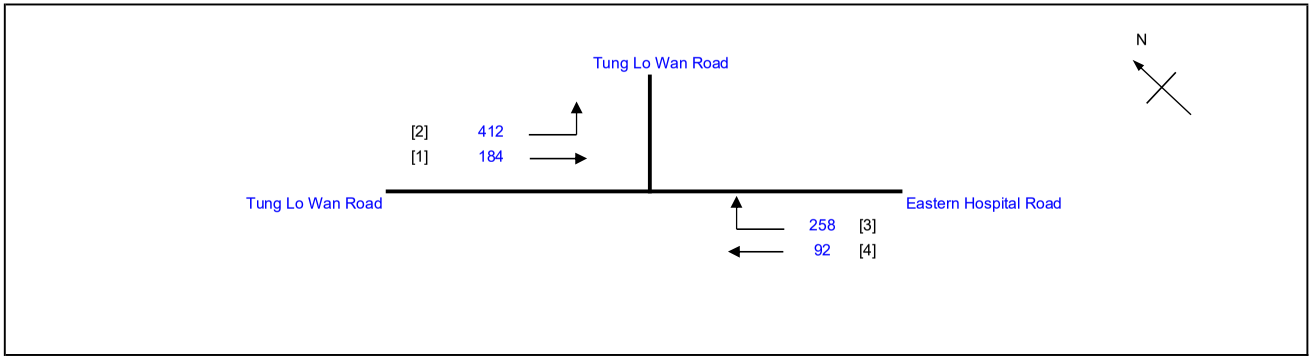
	INITIALS	DATE
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

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

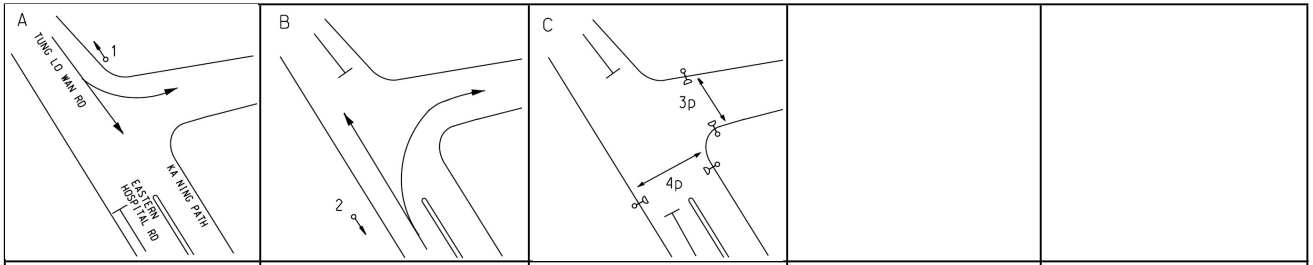
J5 Tung Lo Wan Road / Eastern Hospital Road

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 =	0.347
Loss time		L =	41 sec
Total Flow		=	946 pcu
Co	= (1.5*L+5)/(1-Y)	=	101.9 sec
Cm	= L/(1-Y)	=	62.8 sec
Yult		=	0.593
R.C.ult	= (Yult-Y)/Y*100%	=	70.6 %
Cp	= 0.9*L/(0.9-Y)	=	66.8 sec
Ymax	= 1-L/C	=	0.590
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**53 %**



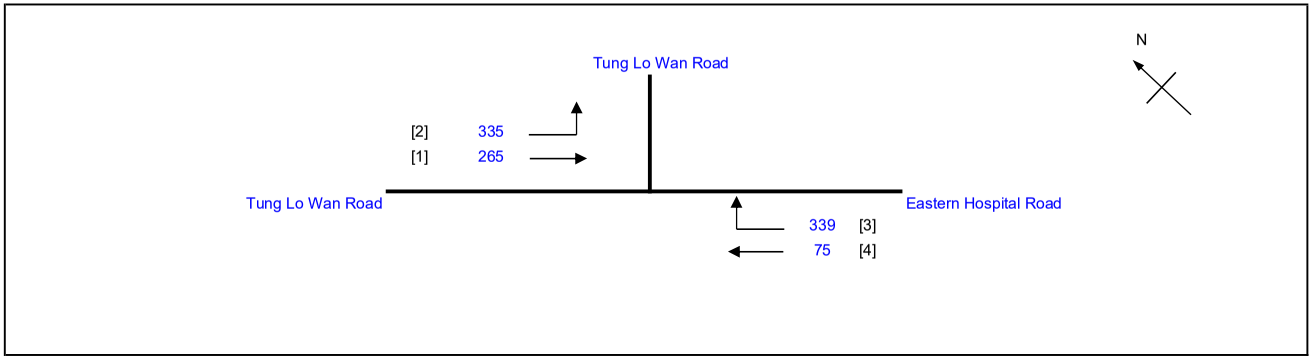
Stage 1	G=	25	
	Int =	5	
Stage 2	G=	32	
	Int =	3	
Stage 3	G=	33	
	Int =	2	

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

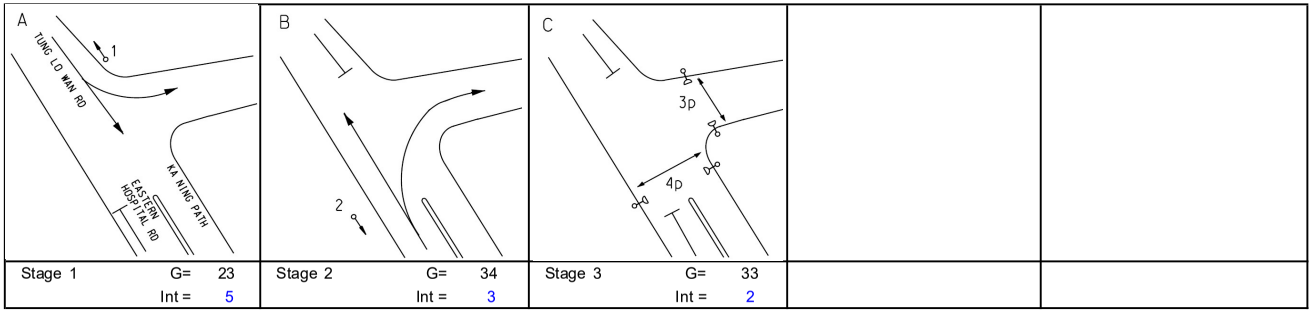
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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	258	350	0.74	1813							1813	0.193	0.193		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	Mar-26
J5 Tung Lo Wan Road / Eastern Hospital Road		FILENAME : J5_TLWR_EHR.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



No. of stages per cycle		N =	3
Cycle time		C =	100 sec
Sum(y)		Y =	0.385
Loss time		L =	41 sec
Total Flow		=	1014 pcu
Co	= (1.5*L+5)/(1-Y)	=	108.1 sec
Cm	= L/(1-Y)	=	66.6 sec
Yult		=	0.593
R.C.ult	= (Yult-Y)/Y*100%	=	54.0 %
Cp	= 0.9*L/(0.9-Y)	=	71.6 sec
Ymax	= 1-L/C	=	0.590
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**38 %**



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	339	414	0.82	1796							1796	0.230	0.230		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

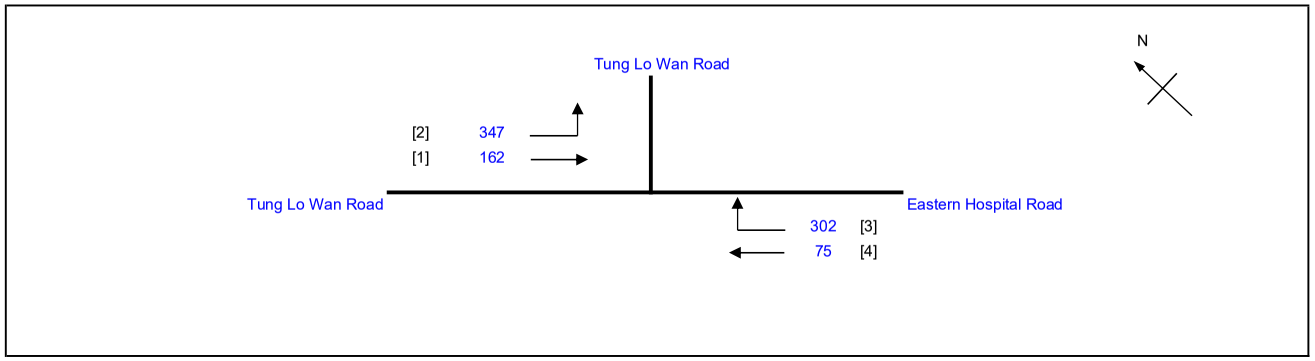
	INITIALS	DATE
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

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

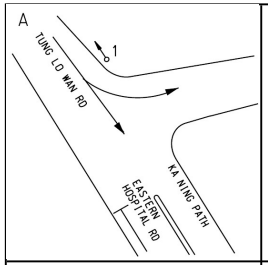
J5 Tung Lo Wan Road / Eastern Hospital Road

2033 Design PM

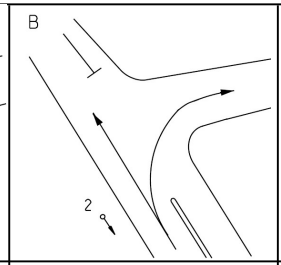
PROJECT NO.:	40920
FILENAME :	J5_TLWR_EHR.xlsx



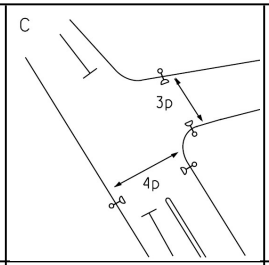
No. of stages per cycle		N =	3
Cycle time		C =	100 sec
Sum(y)		Y =	0.341
Loss time		L =	41 sec
Total Flow		=	886 pcu
Co	= (1.5*L+5)/(1-Y)	=	100.9 sec
Cm	= L/(1-Y)	=	62.2 sec
Yult		=	0.593
R.C.ult	= (Yult-Y)/Y*100%	=	73.7 %
Cp	= 0.9*L/(0.9-Y)	=	66.0 sec
Ymax	= 1-L/C	=	0.590
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**56 %**



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	302	377	0.80	1800							1800	0.209	0.209		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

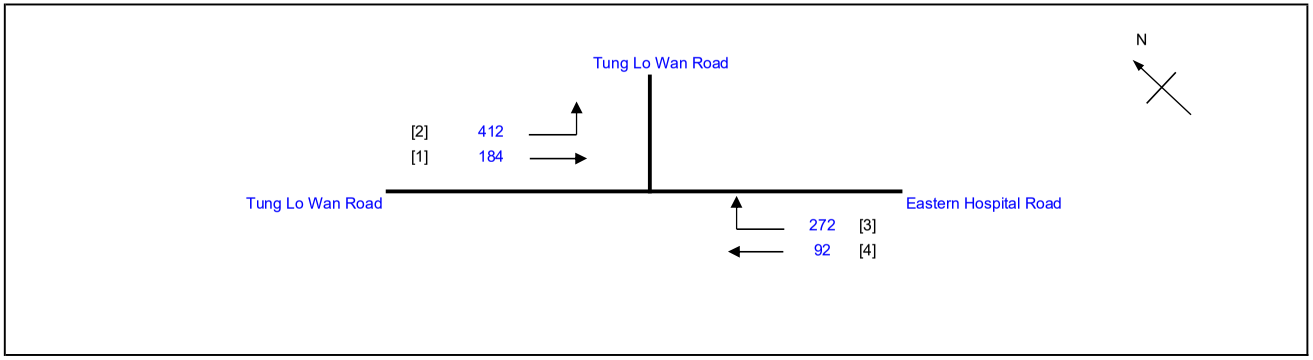
	INITIALS	DATE
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

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

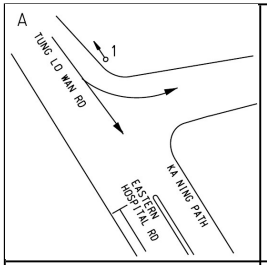
J5 Tung Lo Wan Road / Eastern Hospital Road

2033 Design Weekend

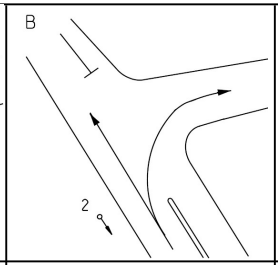
PROJECT NO.: 40920
FILENAME : J5_TLWR_EHR.xlsx



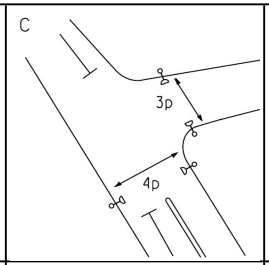
No. of stages per cycle		N =	3
Cycle time		C =	100 sec
Sum(y)		Y =	0.355
Loss time		L =	41 sec
Total Flow		=	960 pcu
Co	= (1.5*L+5)/(1-Y)	=	103.2 sec
Cm	= L/(1-Y)	=	63.6 sec
Yult		=	0.593
R.C.ult	= (Yult-Y)/Y*100%	=	66.7 %
Cp	= 0.9*L/(0.9-Y)	=	67.8 sec
Ymax	= 1-L/C	=	0.590
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**49 %**



Stage 1 G= 25 Int = 5



Stage 2 G= 32 Int = 3



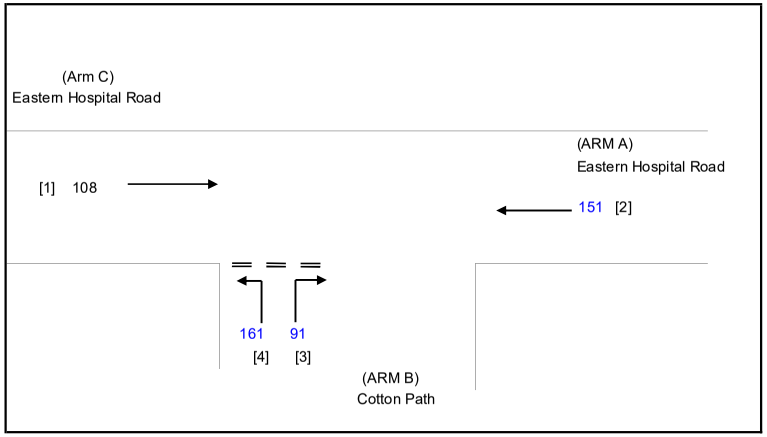
Stage 3 G= 33 Int = 2

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	272	364	0.75	1811							1811	0.201	0.201		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	Mar-26
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Mar-26
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	91	(pcu/hr)
q b-c	=	161	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.63888889

THE CAPACITY OF MOVEMENT :

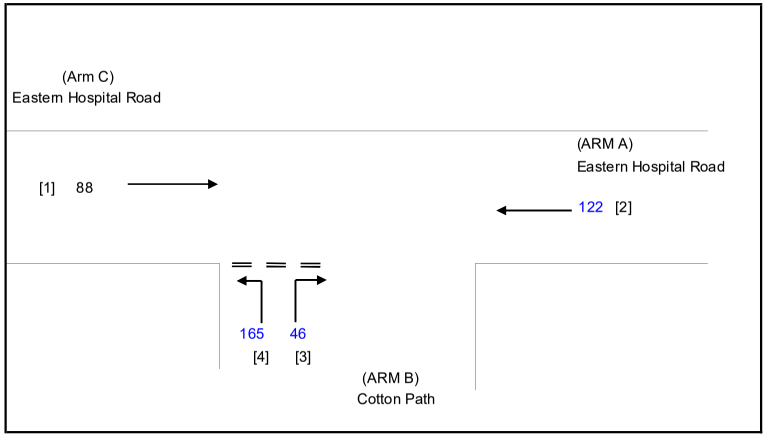
Q b-a	=	525		
Q b-c	=	725	Q b-c (O) =	693.6
Q c-b	=	412		
Q b-ac	=	637		
TOTAL FLOW	=	511	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.1733
DFC b-c	=	0.2221
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.2526

CRITICAL DFC = 0.25

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	Mar-26
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Mar-26
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	46	(pcu/hr)
q b-c	=	165	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.78199052

THE CAPACITY OF MOVEMENT :

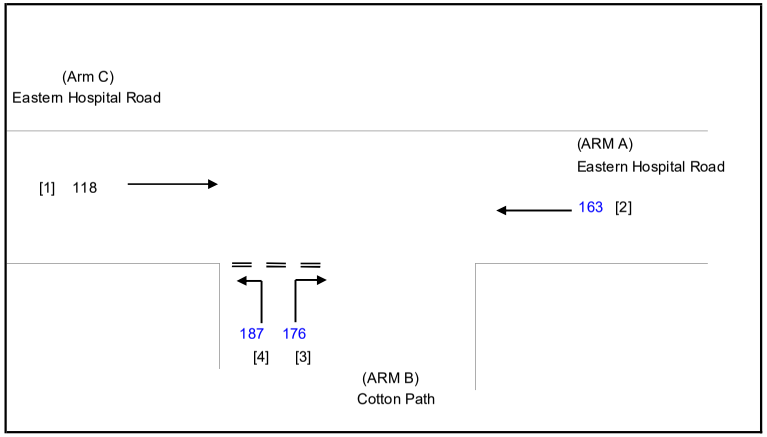
Q b-a	=	535		
Q b-c	=	734	Q b-c (O) =	718.2
Q c-b	=	417		
Q b-ac	=	679		
TOTAL FLOW	=	421	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0860
DFC b-c	=	0.2248
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.2430

CRITICAL DFC = 0.24

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	Mar-26
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Mar-26
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	176	(pcu/hr)
q b-c	=	187	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.51515152

THE CAPACITY OF MOVEMENT :

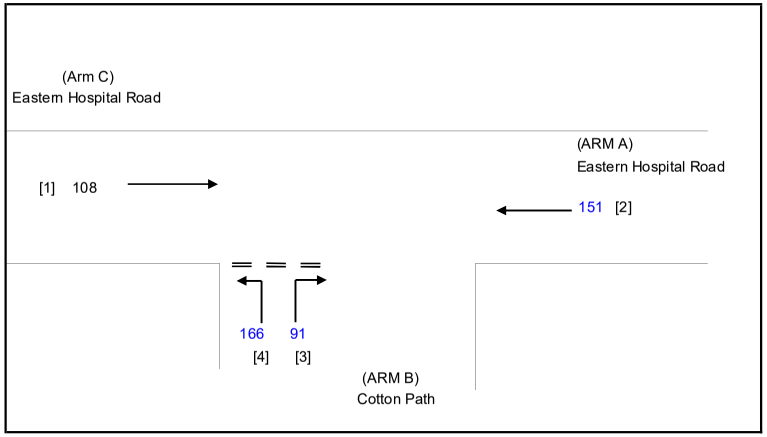
Q b-a	=	520		
Q b-c	=	722	Q b-c (O) =	660.9
Q c-b	=	411		
Q b-ac	=	608		
TOTAL FLOW	=	644	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.3385
DFC b-c	=	0.2590
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.3078

CRITICAL DFC = 0.34

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	Mar-26
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Mar-26
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	91	(pcu/hr)
q b-c	=	166	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.6459144

THE CAPACITY OF MOVEMENT :

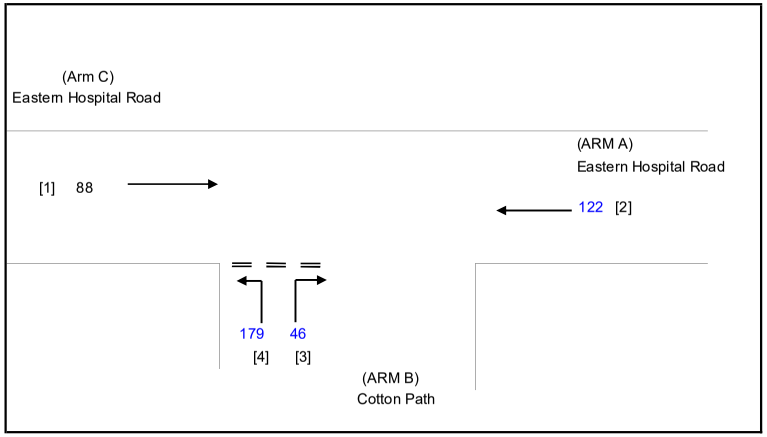
Q b-a	=	525		
Q b-c	=	725	Q b-c (O) =	693.6
Q c-b	=	412		
Q b-ac	=	639		
TOTAL FLOW	=	516	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.1733
DFC b-c	=	0.2290
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.2599

CRITICAL DFC = 0.26

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	Mar-26
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Mar-26
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	46	(pcu/hr)
q b-c	=	179	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.79555556

THE CAPACITY OF MOVEMENT :

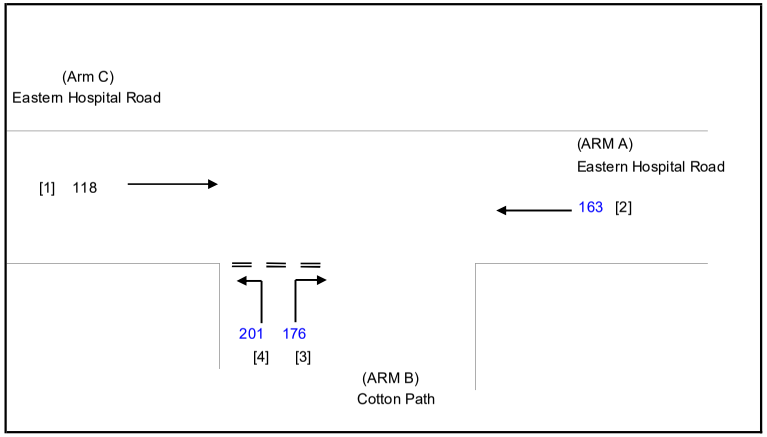
Q b-a	=	535		
Q b-c	=	734	Q b-c (O) =	718.2
Q c-b	=	417		
Q b-ac	=	682		
TOTAL FLOW	=	435	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0860
DFC b-c	=	0.2439
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.2624

CRITICAL DFC = 0.26

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	Mar-26
		FILENAME : J6_EHR_CP.x	CHECKED BY:	SLN	Mar-26
J6 Eastern Hospital Road / Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	176	(pcu/hr)
q b-c	=	201	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.92494
E	=	1.03054
F	=	0.58595
Y	=	0.74815
F for (Qb-ac)	=	0.5331565

THE CAPACITY OF MOVEMENT :

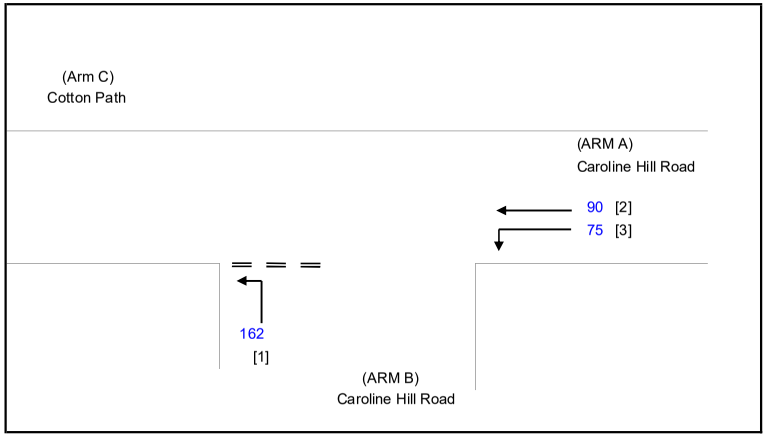
Q b-a	=	520		
Q b-c	=	722	Q b-c (O) =	660.9
Q c-b	=	411		
Q b-ac	=	611		
TOTAL FLOW	=	658	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.3385
DFC b-c	=	0.2784
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.3289

CRITICAL DFC = 0.34

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	Mar-26
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Mar-26
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	75	(pcu/hr)
q a-c	=	90	(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	=	162	(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 :

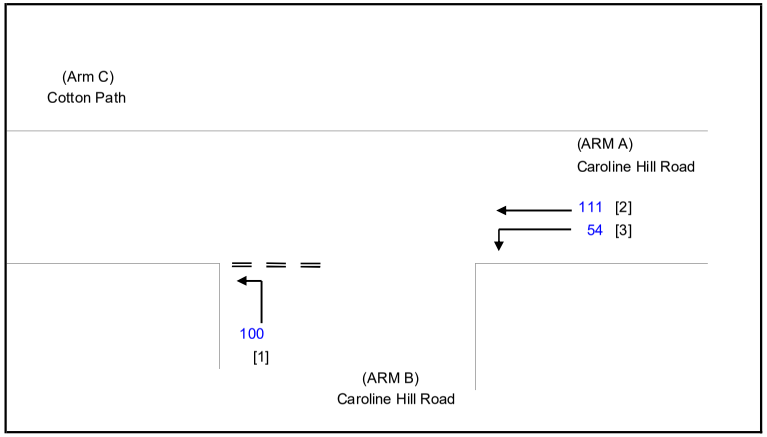
Q b-a	=	316			
Q b-c	=	721	Q b-c (O) =	721	
Q c-b	=	409			
Q b-ac	=	721			
TOTAL FLOW	=	327	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.2247
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.2247

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	**2033 Reference PM**	PROJECT NO.: 40920	PREPARED BY:	SKL	Mar-26
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Mar-26
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	54	(pcu/hr)
q a-c	=	111	(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	=	100	(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 :

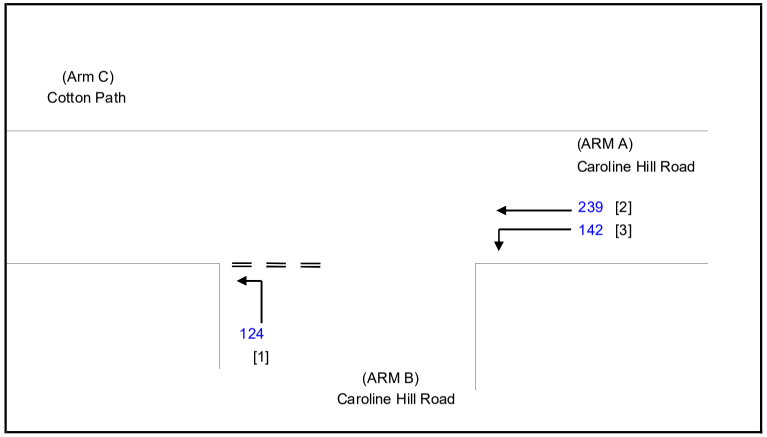
Q b-a	=	314		
Q b-c	=	717	Q b-c (O) =	717
Q c-b	=	409		
Q b-ac	=	717		
TOTAL FLOW	=	265	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.1395
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1395

CRITICAL DFC = 0.14

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	Mar-26
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Mar-26
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	142	(pcu/hr)
q a-c	=	239	(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	=	124	(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	=	289		
Q b-c	=	669	Q b-c (O) =	669
Q c-b	=	372		
Q b-ac	=	669		
TOTAL FLOW	=	505	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.1854
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1854

CRITICAL DFC = 0.19

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
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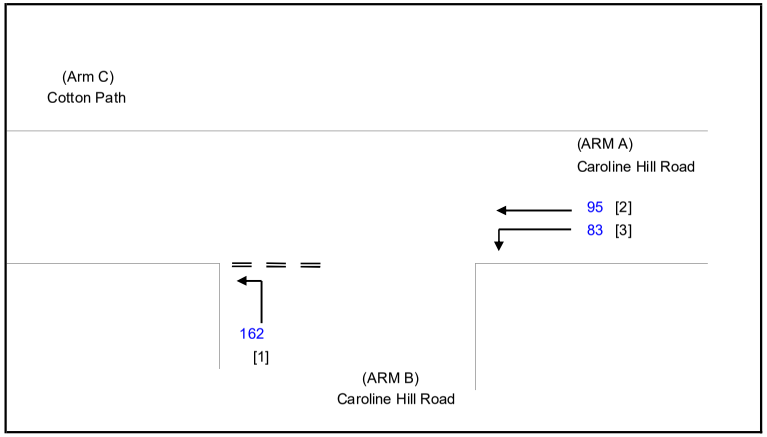
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Mar-26
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	83	(pcu/hr)
q a-c	=	95	(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	=	162	(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 :

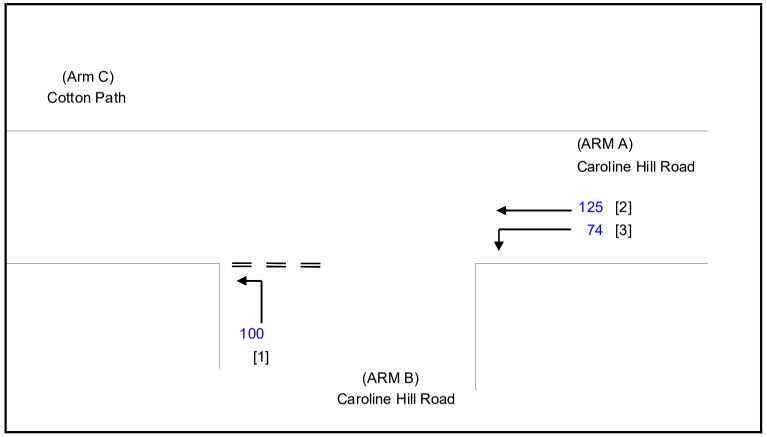
Q b-a	=	315			
Q b-c	=	718	Q b-c (O) =	718	
Q c-b	=	406			
Q b-ac	=	718			
TOTAL FLOW	=	340	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.2256
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.2256

CRITICAL DFC = 0.23

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	Mar-26
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Mar-26
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	74	(pcu/hr)
q a-c	=	125	(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	=	100	(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 :

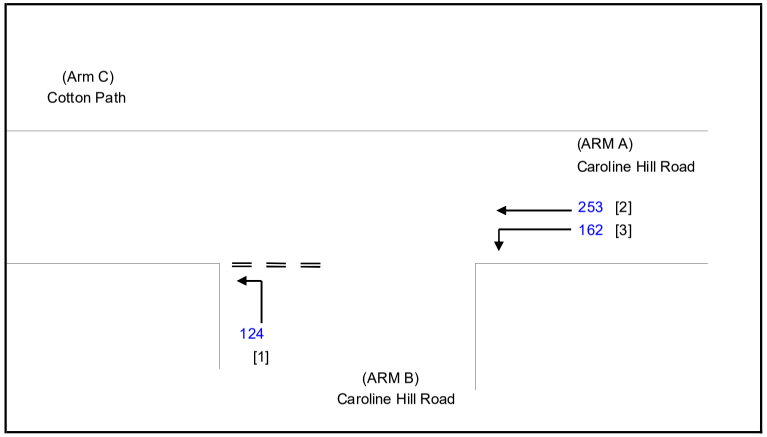
Q b-a	=	311		
Q b-c	=	710	Q b-c (O) =	710
Q c-b	=	403		
Q b-ac	=	710		
TOTAL FLOW	=	299	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.1408
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1408

CRITICAL DFC = 0.14

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	Mar-26
		FILENAME : J7_CHR_CP.x	CHECKED BY:	SLN	Mar-26
J7 Caroline Hill Road/Cotton Path		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	162	(pcu/hr)
q a-c	=	253	(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	=	124	(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	=	286			
Q b-c	=	663	Q b-c (O) =	663	
Q c-b	=	366			
Q b-ac	=	663			
TOTAL FLOW	=	539	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

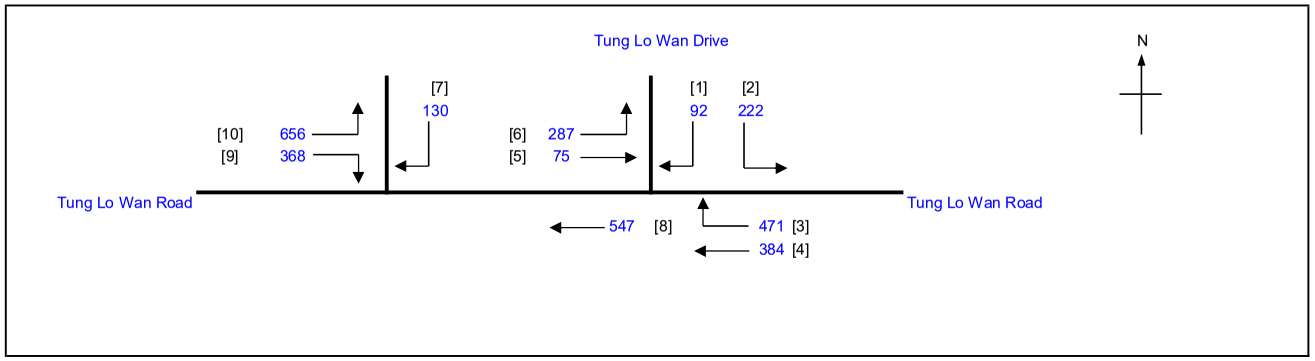
DFC b-a	=	0.0000
DFC b-c	=	0.1870
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.1870

CRITICAL DFC = 0.19

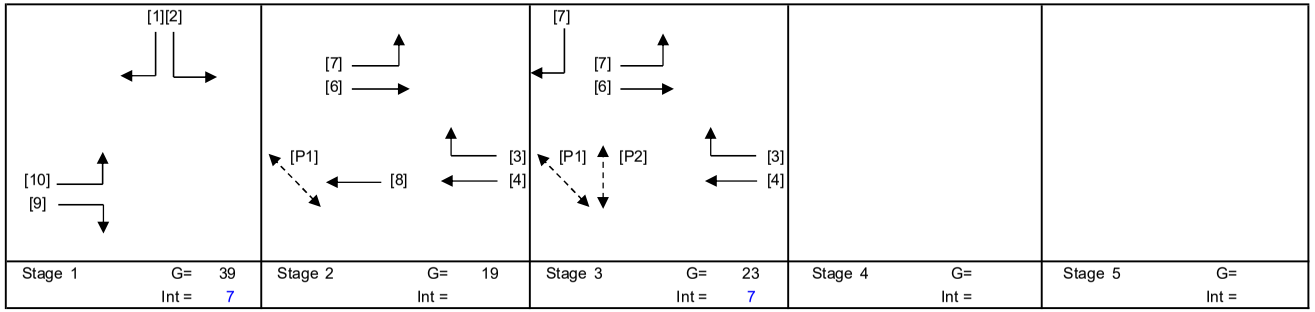
LLA CONSULTANCY LIMITED

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 AM**		
PROJECT NO.: 40920	Prepared By:	SKL	Mar-26
FILENAME : J8_TLWR_MT.xlsx	Checked By:	SLN	Mar-26
	Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	3
Cycle time	C =	95 sec
Sum(y)	Y =	0.594
Loss time	L =	12 sec
Total Flow	=	3232 pcu
Co = (1.5*L+5)/(1-Y)	=	56.7 sec
Cm = L/(1-Y)	=	29.6 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	36.3 %
Cp = 0.9*L/(0.9-Y)	=	35.3 sec
Ymax = 1-L/C	=	0.874
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**32 %**



Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
G= 39	G= 19	G= 23	G=	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		22	8

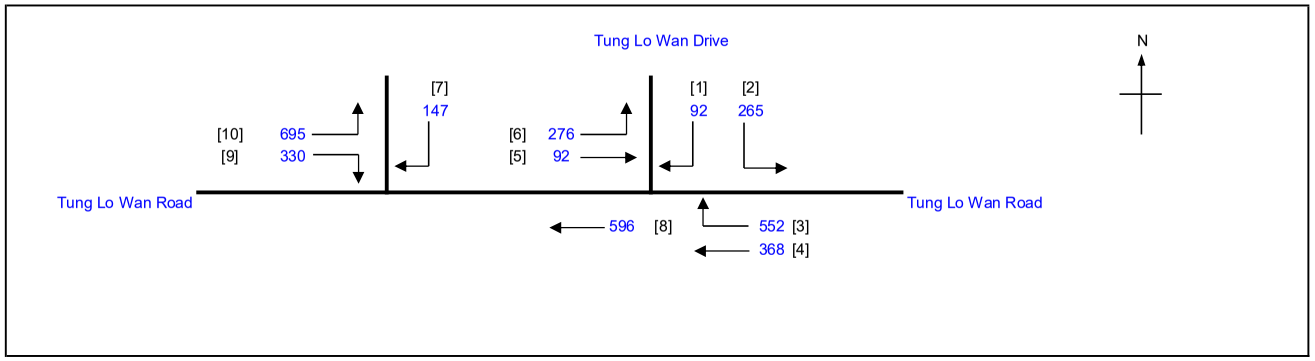
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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		547		547	0.00	3970							3970	0.138			19	19	0.680	33	36
10	1	3.70	1	8		N	1985	481			481	1.00	1672							1672	0.288	0.288		40	40	0.680	42	25
9,10	1	3.50	1	13			2105	175		368	543	1.00	1887							1887	0.288			40	40	0.680	48	24
7	3	5.00	1	27		N	2115			130	130	1.00	2004							2004	0.065			9	24	0.680	18	55
4	2,3	3.70	1			N	1985		384		384	0.00	1985							1985	0.193			27	43	0.680	42	33
3,4	2,3	3.00	1	8	O		2055			471	471	1.00	1537							1537	0.306	0.306		43	43	0.680	36	24
5,6	2,3	5.00	1	13		N	2115	287	75		362	0.79	1938							1938	0.187			26	43	0.680	36	34
1,2	1	3.50	1	8		N	1965	222		92	314	1.00	1655							1655	0.190			27	40	0.680	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

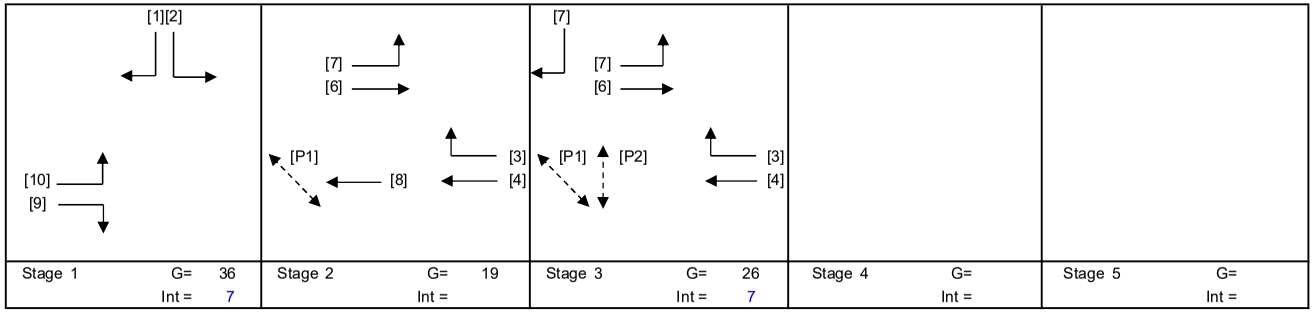
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

			INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	PROJECT NO.: 40920	Prepared By:	SKL	Mar-26
2033 Reference PM	FILENAME : J8_TLWR_MT.xlsx	Checked By:	SLN	Mar-26
J8 Tung Lo Wan Road / Moreton Terrace		Reviewed By:	SLN	Mar-26



No. of stages per cycle		N =	3
Cycle time		C =	95 sec
Sum(y)		Y =	0.647
Loss time		L =	12 sec
Total Flow		=	3413 pcu
Co	= (1.5*L+5)/(1-Y)	=	65.2 sec
Cm	= L/(1-Y)	=	34.0 sec
Yult		=	0.810
R.C.ult	= (Yult-Y)/Y*100%	=	25.1 %
Cp	= 0.9*L/(0.9-Y)	=	42.8 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

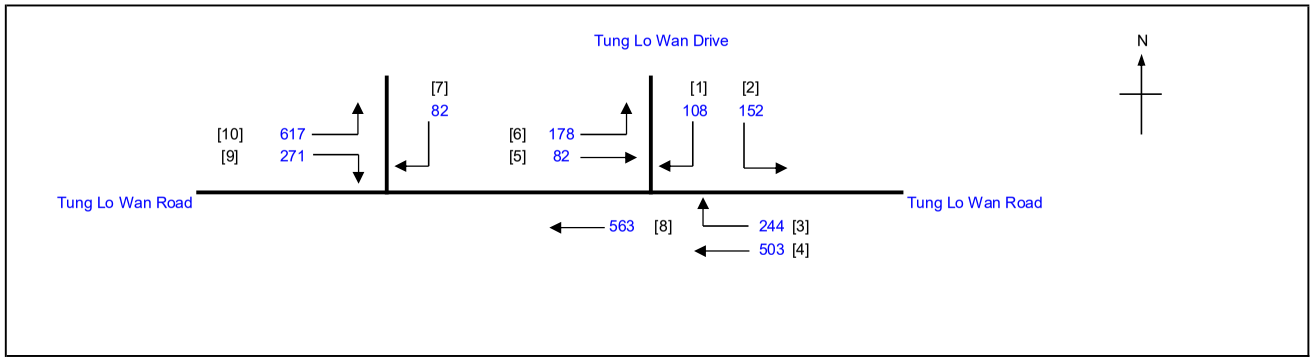
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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	0.741	36	38
10	1	3.70	1	8		N	1985	481			481	1.00	1672							1672	0.288			37	37	0.741	42	30
9,10	1	3.50	1	13			2105	214		330	544	1.00	1887							1887	0.288	0.288		37	37	0.741	48	29
7	3	5.00	1	27		N	2115			147	147	1.00	2004							2004	0.073			9	27	0.741	24	61
4	2,3	3.70	1			N	1985		368		368	0.00	1985							1985	0.185			24	46	0.741	42	39
3,4	2,3	3.00	1	8	O		2055			552	552	1.00	1537							1537	0.359	0.359		46	46	0.741	42	24
5,6	2,3	5.00	1	13		N	2115	276	92		368	0.75	1947							1947	0.189			24	46	0.741	42	39
1,2	1	3.50	1	8		N	1965	265		92	357	1.00	1655							1655	0.216			28	37	0.741	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

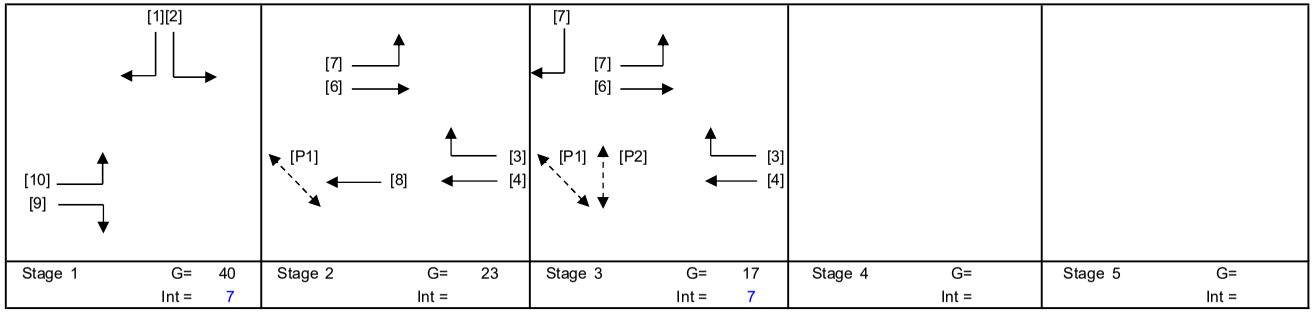
LLA CONSULTANCY LIMITED

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	Mar-26
	FILENAME : J8_TLWR_MT.xlsx — Checked By:	SLN	Mar-26
J8 Tung Lo Wan Road / Moreton Terrace	Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	3
Cycle time	C =	95 sec
Sum(y)	Y =	0.503
Loss time	L =	12 sec
Total Flow	=	2800 pcu
Co = (1.5*L+5)/(1-Y)	=	46.3 sec
Cm = L/(1-Y)	=	24.1 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	61.0 %
Cp = 0.9*L/(0.9-Y)	=	27.2 sec
Ymax = 1-L/C	=	0.874
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**56 %**



Stage 1	G= 40	Stage 2	G= 23	Stage 3	G= 17	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		16	8

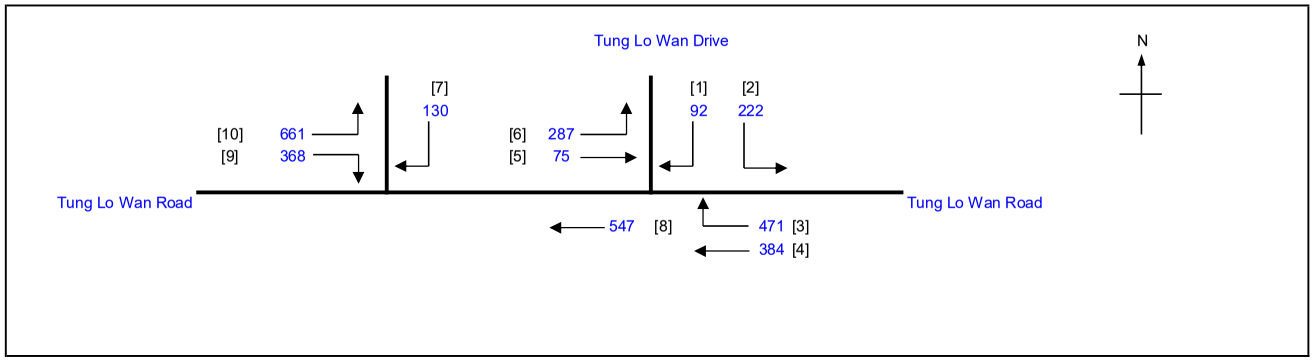
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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			23	23	0.576	33	31
10	1	3.70	1	8		N	1985	417			417	1.00	1672							1672	0.249			41	41	0.576	36	21
9,10	1	3.50	1	13			2105	200		271	471	1.00	1887							1887	0.250	0.250		41	41	0.576	42	21
7	3	5.00	1	27		N	2115			82	82	1.00	2004							2004	0.041			7	18	0.576	12	54
4	2,3	3.70	1			N	1985		503		503	0.00	1985							1985	0.253	0.253		42	42	0.576	42	20
3,4	2,3	3.00	1	8	O		2055			244	244	1.00	1537							1537	0.159			26	42	0.576	24	32
5,6	2,3	5.00	1	13		N	2115	178	82		260	0.68	1960							1960	0.133			22	42	0.576	30	34
1,2	1	3.50	1	8		N	1965	152		108	260	1.00	1655							1655	0.157			26	41	0.576	24	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

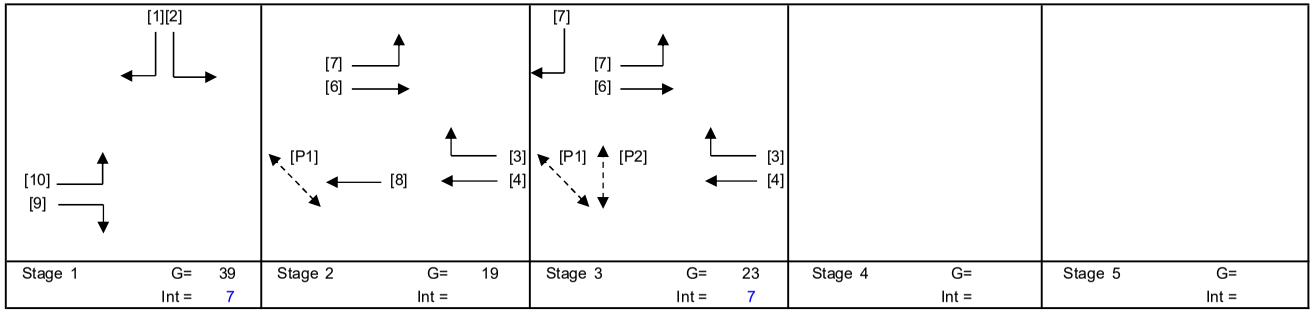
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

			INITIALS	DATE
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	Mar-26
		FILENAME : J8_TLWR_MT.xlsx	Checked By:	SLN	Mar-26
J8 Tung Lo Wan Road / Moreton Terrace			Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	3
Cycle time	C =	95 sec
Sum(y)	Y =	0.596
Loss time	L =	12 sec
Total Flow	=	3237 pcu
Co = (1.5*L+5)/(1-Y)	=	56.9 sec
Cm = L/(1-Y)	=	29.7 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	36.0 %
Cp = 0.9*L/(0.9-Y)	=	35.5 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= 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		41	8
P2	3		9	8		22	8

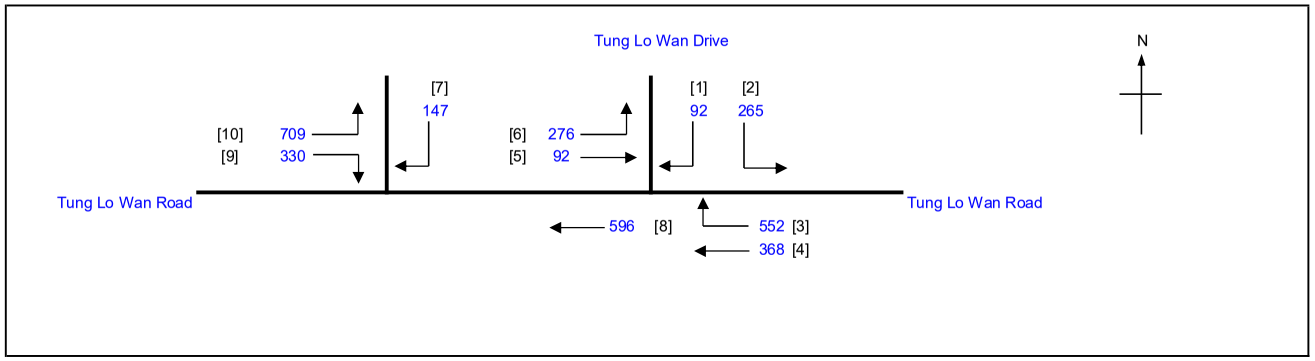
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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		547		547	0.00	3970							3970	0.138			19	19	0.682	33	36
10	1	3.70	1	8		N	1985	483			483	1.00	1672							1672	0.289			40	40	0.682	42	25
9,10	1	3.50	1	13			2105	178		368	546	1.00	1887							1887	0.289	0.289		40	40	0.682	48	24
7	3	5.00	1	27		N	2115			130	130	1.00	2004							2004	0.065			9	24	0.682	18	56
4	2,3	3.70	1			N	1985		384		384	0.00	1985							1985	0.193			27	43	0.682	42	33
3,4	2,3	3.00	1	8	O		2055			471	471	1.00	1537							1537	0.306	0.306		43	43	0.682	36	24
5,6	2,3	5.00	1	13		N	2115	287	75		362	0.79	1938							1938	0.187			26	43	0.682	36	34
1,2	1	3.50	1	8		N	1965	222		92	314	1.00	1655							1655	0.190			26	40	0.682	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

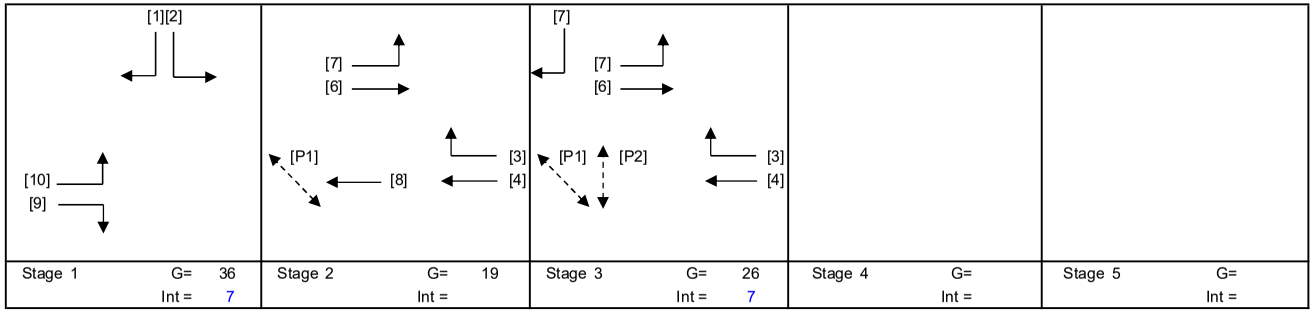
LLA CONSULTANCY LIMITED

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	Mar-26
		FILENAME : J8_TLWR_MT.xlsx	Checked By:	SLN	Mar-26
J8 Tung Lo Wan Road / Moreton Terrace			Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	3
Cycle time	C =	95 sec
Sum(y)	Y =	0.651
Loss time	L =	12 sec
Total Flow	=	3427 pcu
Co = (1.5*L+5)/(1-Y)	=	65.9 sec
Cm = L/(1-Y)	=	34.4 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	24.4 %
Cp = 0.9*L/(0.9-Y)	=	43.4 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

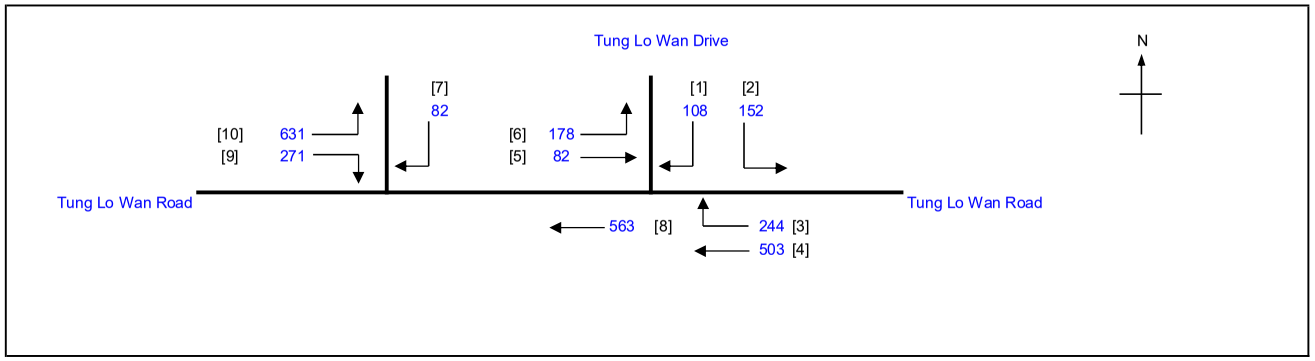
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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	0.745	36	38
10	1	3.70	1	8		N	1985	488			488	1.00	1672							1672	0.292			37	37	0.745	42	30
9,10	1	3.50	1	13			2105	221		330	551	1.00	1887							1887	0.292	0.292		37	37	0.745	48	29
7	3	5.00	1	27		N	2115			147	147	1.00	2004							2004	0.073			9	27	0.745	24	62
4	2,3	3.70	1			N	1985		368		368	0.00	1985							1985	0.185			24	46	0.745	42	39
3,4	2,3	3.00	1	8	O		2055			552	552	1.00	1537							1537	0.359	0.359		46	46	0.745	42	24
5,6	2,3	5.00	1	13		N	2115	276	92		368	0.75	1947							1947	0.189			24	46	0.745	42	39
1,2	1	3.50	1	8		N	1965	265		92	357	1.00	1655							1655	0.216			28	37	0.745	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

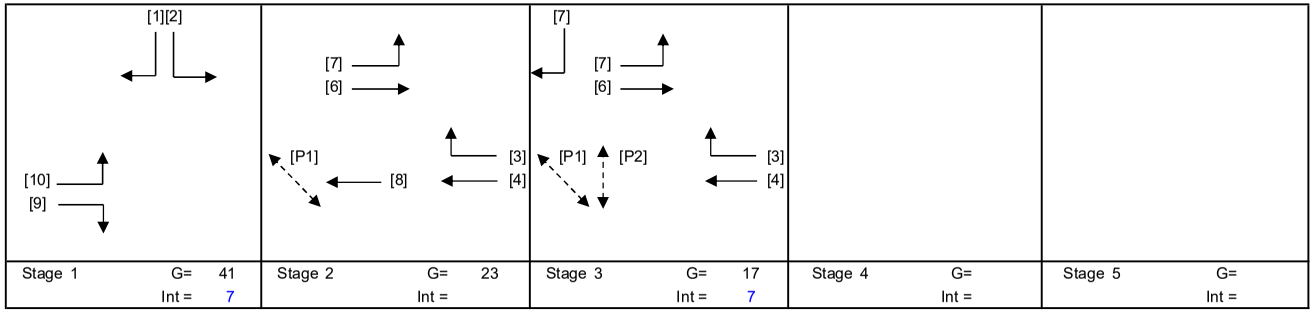
LLA CONSULTANCY LIMITED

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	Mar-26
		FILENAME : J8_TLWR_MT.xlsx	Checked By:	SLN	Mar-26
J8 Tung Lo Wan Road / Moreton Terrace			Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	3
Cycle time	C =	95 sec
Sum(y)	Y =	0.507
Loss time	L =	12 sec
Total Flow	=	2814 pcu
Co = (1.5*L+5)/(1-Y)	=	46.7 sec
Cm = L/(1-Y)	=	24.3 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	59.7 %
Cp = 0.9*L/(0.9-Y)	=	27.5 sec
Ymax = 1-L/C	=	0.874
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**55 %**



Stage 1	G= 41	Stage 2	G= 23	Stage 3	G= 17	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		39	8
P2	3		9	8		16	8

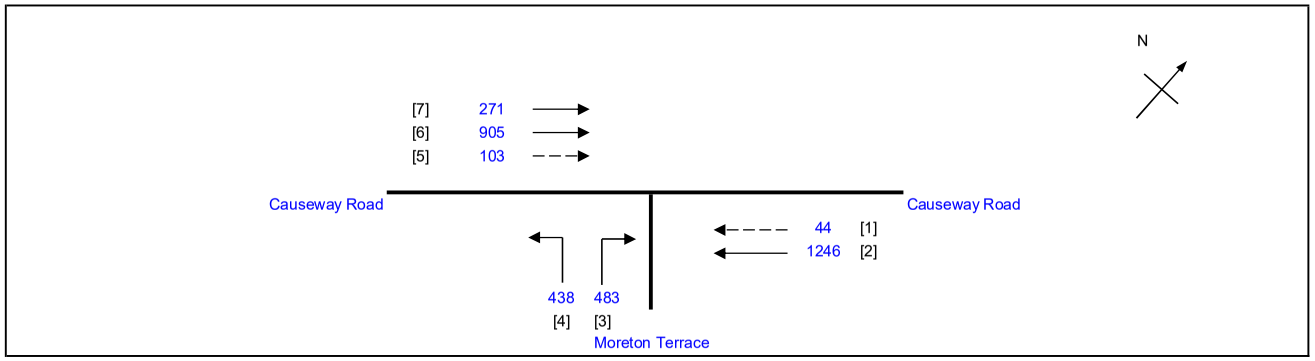
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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			23	23	0.580	33	31
10	1	3.70	1	8		N	1985	424			424	1.00	1672							1672	0.254	0.254		42	42	0.580	36	21
9,10	1	3.50	1	13			2105	207		271	478	1.00	1887							1887	0.253			41	42	0.580	42	21
7	3	5.00	1	27		N	2115			82	82	1.00	2004							2004	0.041			7	18	0.580	12	54
4	2,3	3.70	1			N	1985		503		503	0.00	1985							1985	0.253	0.253		41	41	0.580	42	21
3,4	2,3	3.00	1	8	O		2055			244	244	1.00	1537							1537	0.159			26	41	0.580	24	32
5,6	2,3	5.00	1	13		N	2115	178	82		260	0.68	1960							1960	0.133			22	41	0.580	30	34
1,2	1	3.50	1	8		N	1965	152		108	260	1.00	1655							1655	0.157			26	42	0.580	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

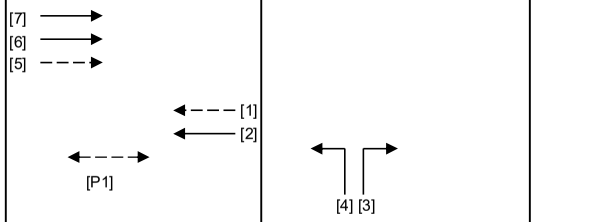
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
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	Mar-26
FILENAME : J9_MT_CR.xlsx	Checked By:	SLN	Mar-26
	Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	2
Cycle time	C =	95 sec
Sum(y)	Y =	0.598
Loss time	L =	10 sec
Total Flow	=	3490 pcu
Co = (1.5*L+5)/(1-Y)	=	49.7 sec
Cm = L/(1-Y)	=	24.9 sec
Yult	=	0.825
R.C.ult = (Yult-Y)/Y*100%	=	38.0 %
Cp = 0.9*L/(0.9-Y)	=	29.8 sec
Ymax = 1-L/C	=	0.895
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**35 %**



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		336		336	0.00	1985			0.4	-1191			794	0.423			60	61	0.668	18	16
2	1	4.00	1				2155		910		910	0.00	2155							2155	0.422			60	61	0.668	48	12
1	1	3.00	1			N	1915		44		44	0.00	1915							1915	0.023			3	61	0.668	6	90
4	2	3.50	1	9		N	1965	282			282	1.00	1684							1684	0.167			24	24	0.668	30	37
3,4	2	3.30	1	15			2085	156		162	318	1.00	1895							1895	0.168	0.168		24	24	0.668	36	36
3	2	3.50	1	15			2105			321	321	1.00	1914							1914	0.168			24	24	0.668	36	36
7	1	3.50	1			N	1965		271		271	0.00	1965							1965	0.138			20	61	0.668	30	39
6	1	3.50	1				2105		905		905	0.00	2105							2105	0.430	0.430		61	61	0.668	48	12
5	1	3.00	1				2055		103		103	0.00	2055							2055	0.050			7	61	0.668	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	Mar-26
Checked By:		SLN	Mar-26
Reviewed By:		SLN	Mar-26

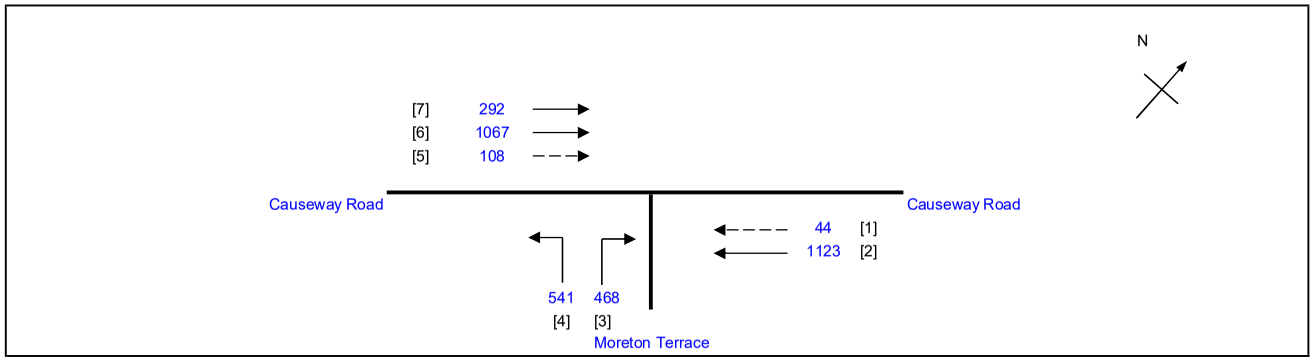
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J9 Moreton Terrace / Causeway Road

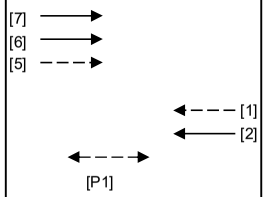
2033 Reference PM

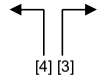
PROJECT NO.: 40920

FILENAME : J9_MT_CR.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	95 sec
Sum(y)	Y =	0.691
Loss time	L =	10 sec
Total Flow	=	3643 pcu
Co = (1.5*L+5)/(1-Y)	=	64.7 sec
Cm = L/(1-Y)	=	32.4 sec
Yult	=	0.825
R.C.ult = (Yult-Y)/Y*100%	=	19.4 %
Cp = 0.9*L/(0.9-Y)	=	43.1 sec
Ymax = 1-L/C	=	0.895
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**17 %**





Stage 1 G= 61 Int = 5

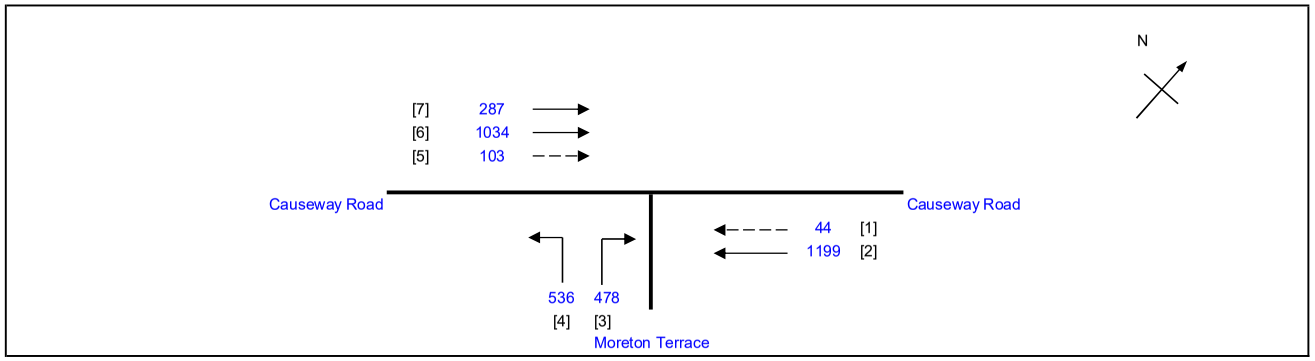
Stage 2 G= 22 Int = 7

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

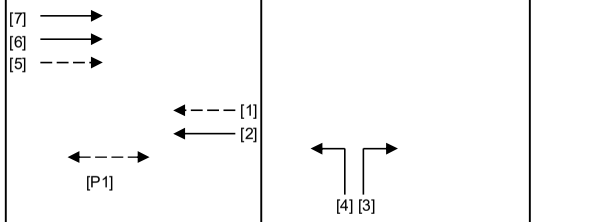
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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		302		302	0.00	1985			0.4	-1191			794	0.380			47	62	0.772	24	32
2	1	4.00	1				2155		821		821	0.00	2155							2155	0.381			47	62	0.772	60	23
1	1	3.00	1			N	1915		44		44	0.00	1915							1915	0.023			3	62	0.772	12	138
4	2	3.50	1	9		N	1965	309			309	1.00	1684							1684	0.183			23	23	0.772	36	44
3,4	2	3.30	1	15			2085	232		117	349	1.00	1895							1895	0.184	0.184		23	23	0.772	42	43
3	2	3.50	1	15			2105			351	351	1.00	1914							1914	0.183			23	23	0.772	42	43
7	1	3.50	1			N	1965		292		292	0.00	1965							1965	0.149			18	62	0.772	36	47
6	1	3.50	1				2105		1067		1067	0.00	2105							2105	0.507	0.507		62	62	0.772	54	14
5	1	3.00	1				2055		108		108	0.00	2055							2055	0.053			6	62	0.772	18	78

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	Mar-26
J9 Moreton Terrace / Causeway Road		FILENAME : J9_MT_CR.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	2
Cycle time	C =	95 sec
Sum(y)	Y =	0.676
Loss time	L =	10 sec
Total Flow	=	3681 pcu
Co = (1.5*L+5)/(1-Y)	=	61.8 sec
Cm = L/(1-Y)	=	30.9 sec
Yult	=	0.825
R.C.ult = (Yult-Y)/Y*100%	=	22.0 %
Cp = 0.9*L/(0.9-Y)	=	40.2 sec
Ymax = 1-L/C	=	0.895
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**19 %**



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		322		322	0.00	1985			0.4	-1191			794	0.406			51	62	0.756	24	27
2	1	4.00	1				2155		877		877	0.00	2155							2155	0.407			51	62	0.756	60	20
1	1	3.00	1			N	1915		44		44	0.00	1915							1915	0.023			3	62	0.756	12	127
4	2	3.50	1	9		N	1965	311			311	1.00	1684							1684	0.185			23	23	0.756	36	42
3,4	2	3.30	1	15			2085	225		124	349	1.00	1895							1895	0.184			23	23	0.756	42	41
3	2	3.50	1	15			2105			354	354	1.00	1914							1914	0.185	0.185		23	23	0.756	42	41
7	1	3.50	1			N	1965		287		287	0.00	1965							1965	0.146			18	62	0.756	36	46
6	1	3.50	1				2105		1034		1034	0.00	2105							2105	0.491	0.491		62	62	0.756	54	14
5	1	3.00	1				2055		103		103	0.00	2055							2055	0.050			6	62	0.756	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	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

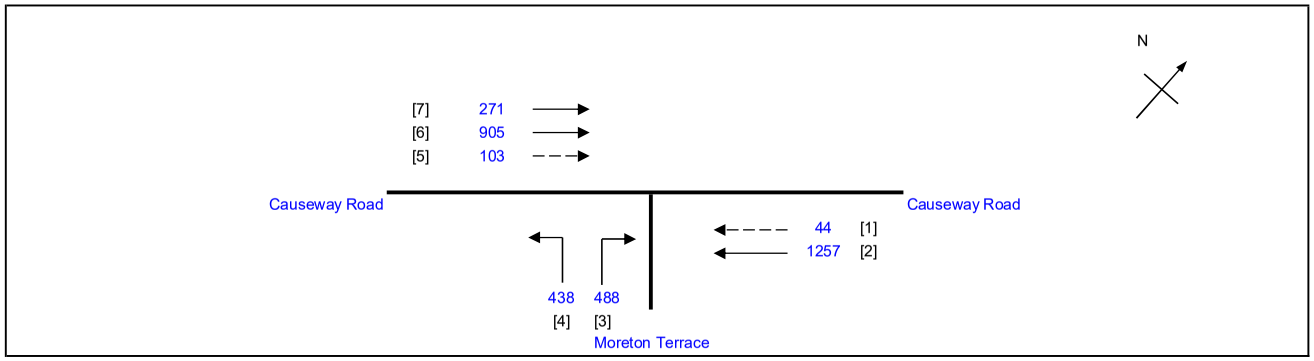
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J9 Moreton Terrace / Causeway Road

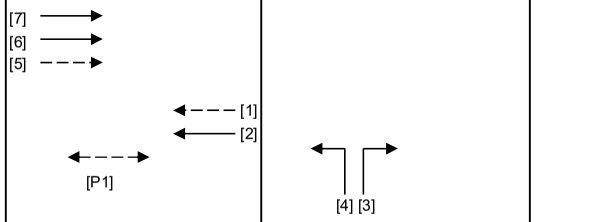
2033 Design AM

PROJECT NO.: 40920

FILENAME : J9_MT_CR.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	95 sec
Sum(y)	Y =	0.599
Loss time	L =	10 sec
Total Flow	=	3506 pcu
Co = (1.5*L+5)/(1-Y)	=	49.8 sec
Cm = L/(1-Y)	=	24.9 sec
Yult	=	0.825
R.C.ult = (Yult-Y)/Y*100%	=	37.8 %
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		338		338	0.00	1985			0.4	-1191			794	0.426			60	61	0.669	18	16
2	1	4.00	1				2155		919		919	0.00	2155							2155	0.426			61	61	0.669	48	12
1	1	3.00	1			N	1915		44		44	0.00	1915							1915	0.023			3	61	0.669	6	91
4	2	3.50	1	9		N	1965	284			284	1.00	1684							1684	0.169			24	24	0.669	30	36
3,4	2	3.30	1	15			2085	154		165	319	1.00	1895							1895	0.168			24	24	0.669	36	36
3	2	3.50	1	15			2105			323	323	1.00	1914							1914	0.169	0.169		24	24	0.669	36	36
7	1	3.50	1			N	1965		271		271	0.00	1965							1965	0.138			20	61	0.669	30	39
6	1	3.50	1				2105		905		905	0.00	2105							2105	0.430	0.430		61	61	0.669	48	12
5	1	3.00	1				2055		103		103	0.00	2055							2055	0.050			7	61	0.669	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	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

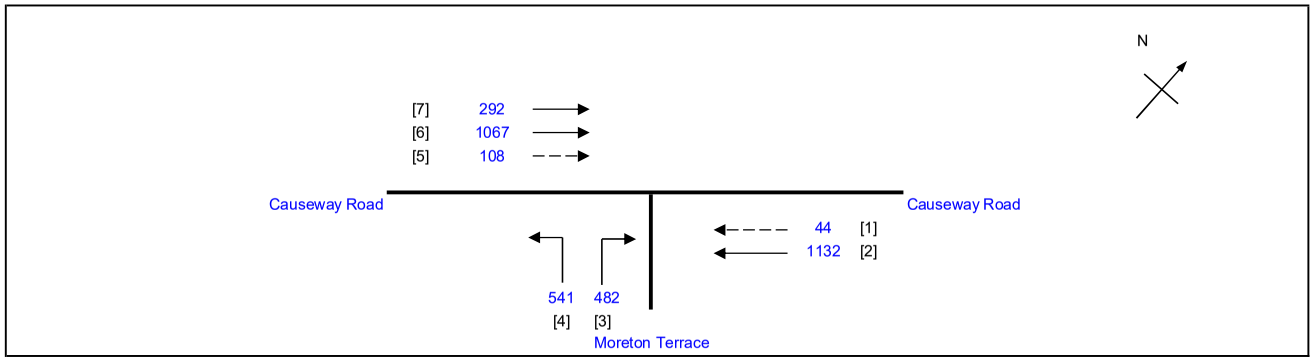
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J9 Moreton Terrace / Causeway Road

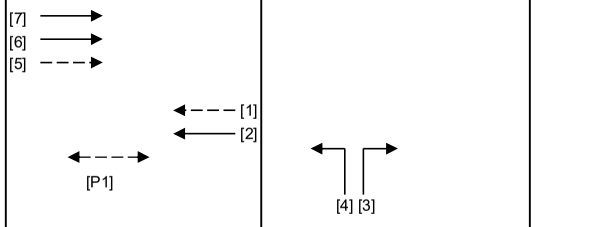
2033 Design PM

PROJECT NO.: 40920

FILENAME : J9_MT_CR.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	95 sec
Sum(y)	Y =	0.694
Loss time	L =	10 sec
Total Flow	=	3666 pcu
Co = (1.5*L+5)/(1-Y)	=	65.3 sec
Cm = L/(1-Y)	=	32.6 sec
Yult	=	0.825
R.C.ult = (Yult-Y)/Y*100%	=	18.9 %
Cp = 0.9*L/(0.9-Y)	=	43.6 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		305		305	0.00	1985			0.4	-1191			794	0.384			47	62	0.775	24	32
2	1	4.00	1				2155		827		827	0.00	2155							2155	0.384			47	62	0.775	66	23
1	1	3.00	1			N	1915		44		44	0.00	1915							1915	0.023			3	62	0.775	12	140
4	2	3.50	1	9		N	1965	314			314	1.00	1684							1684	0.186			23	23	0.775	36	44
3,4	2	3.30	1	15			2085	227		127	354	1.00	1895							1895	0.187	0.187		23	23	0.775	42	43
3	2	3.50	1	15			2105			355	355	1.00	1914							1914	0.186			23	23	0.775	42	43
7	1	3.50	1			N	1965		292		292	0.00	1965							1965	0.149			18	62	0.775	36	48
6	1	3.50	1				2105		1067		1067	0.00	2105							2105	0.507	0.507		62	62	0.775	54	14
5	1	3.00	1				2055		108		108	0.00	2055							2055	0.053			6	62	0.775	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

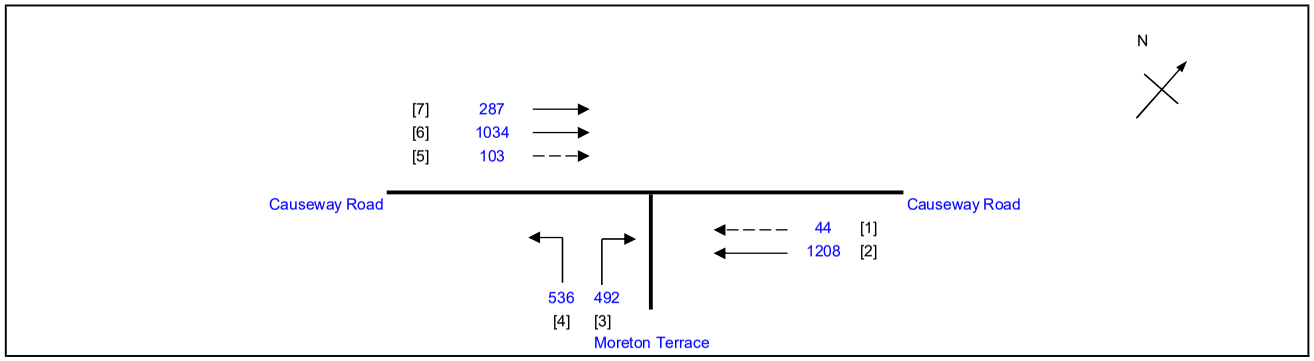
	INITIALS	DATE
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

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

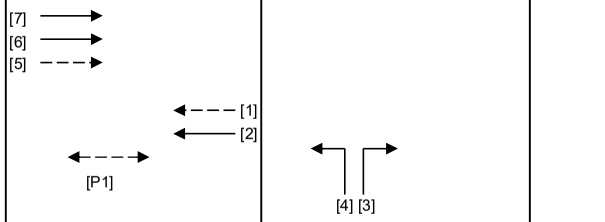
J9 Moreton Terrace / Causeway Road

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 =	0.679
Loss time	L =	10 sec
Total Flow	=	3704 pcu
Co = (1.5*L+5)/(1-Y)	=	62.3 sec
Cm = L/(1-Y)	=	31.2 sec
Yult	=	0.825
R.C.ult = (Yult-Y)/Y*100%	=	21.5 %
Cp = 0.9*L/(0.9-Y)	=	40.7 sec
Ymax = 1-L/C	=	0.895
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**19 %**



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		325		325	0.00	1985			0.4	-1191			794	0.409			51	61	0.759	24	27
2	1	4.00	1				2155		883		883	0.00	2155							2155	0.410			51	61	0.759	60	20
1	1	3.00	1			N	1915		44		44	0.00	1915							1915	0.023			3	61	0.759	12	129
4	2	3.50	1	9		N	1965	315			315	1.00	1684							1684	0.187			23	24	0.759	36	42
3,4	2	3.30	1	15			2085	221		135	356	1.00	1895							1895	0.188	0.188		24	24	0.759	42	41
3	2	3.50	1	15			2105			357	357	1.00	1914							1914	0.187			23	24	0.759	42	41
7	1	3.50	1			N	1965		287		287	0.00	1965							1965	0.146			18	61	0.759	36	46
6	1	3.50	1				2105		1034		1034	0.00	2105							2105	0.491	0.491		61	61	0.759	54	14
5	1	3.00	1				2055		103		103	0.00	2055							2055	0.050			6	61	0.759	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

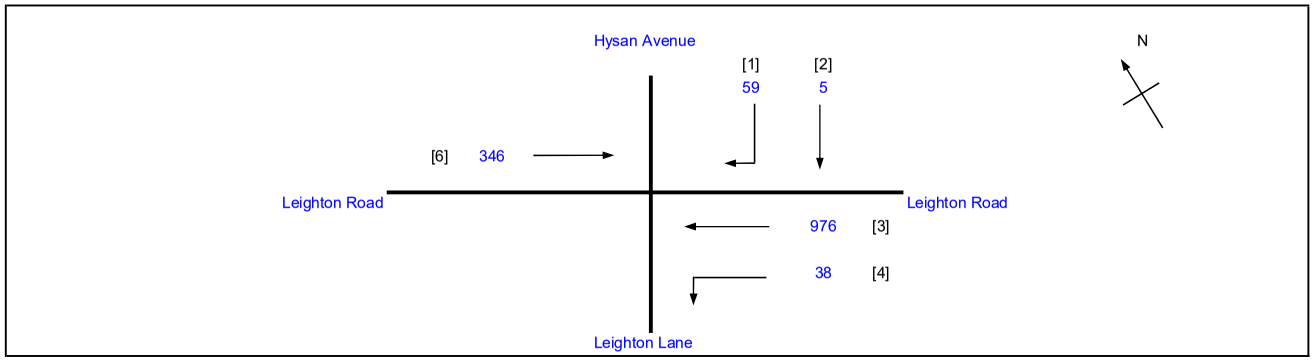
		INITIALS	DATE
Prepared By:		SKL	Mar-26
Checked By:		SLN	Mar-26
Reviewed By:		SLN	Mar-26

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

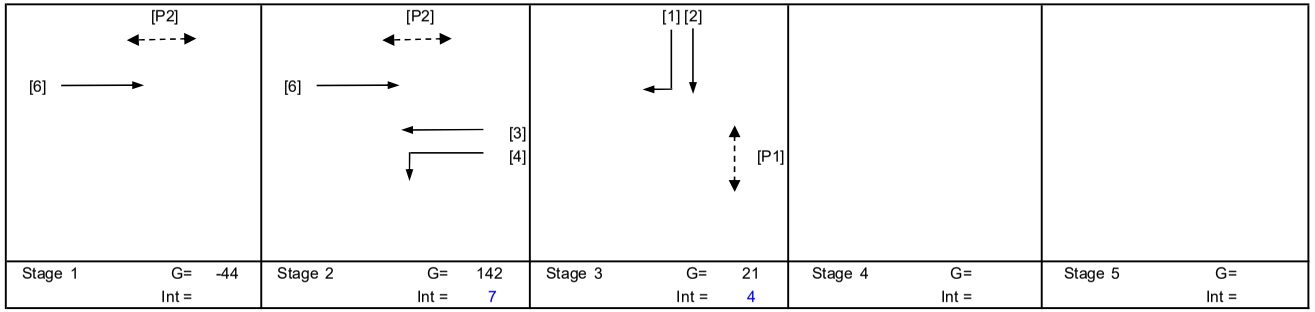
J10 Leighton Road / Hysan Avenue / Leighton Lane

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

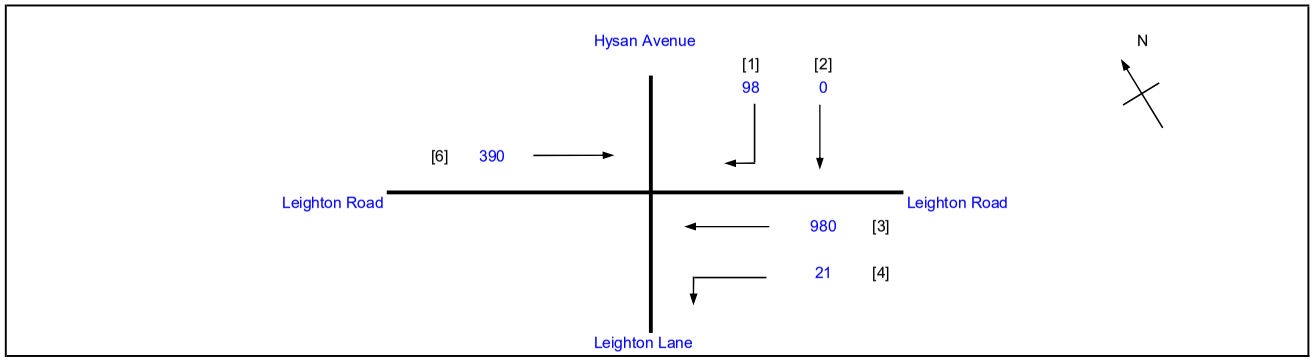
		INITIALS	DATE
Prepared By:		SKL	Mar-26
Checked By:		SLN	Mar-26
Reviewed By:		SLN	Mar-26

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

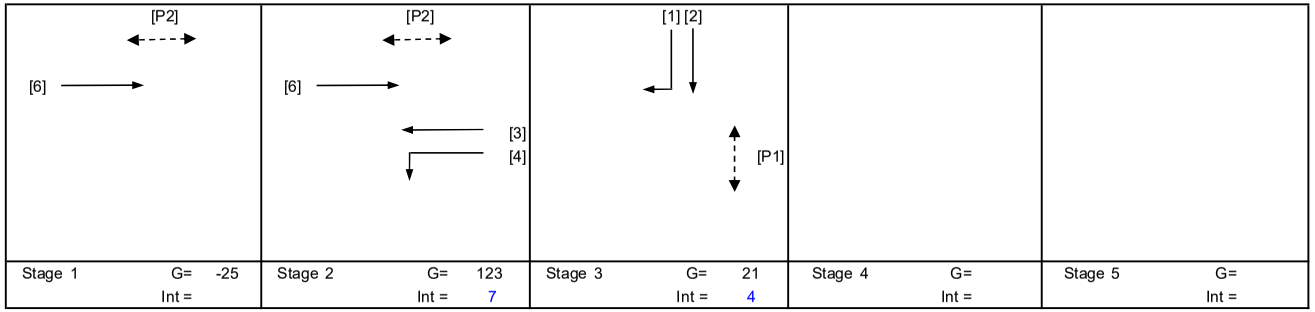
J10 Leighton Road / Hysan Avenue / Leighton Lane

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	52	52	1.00	1787							1787	0.029			15	21	0.261	6	50
1	3	3.00	1	10	O		2055			46	46	1.00	1587							1587	0.029			14	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

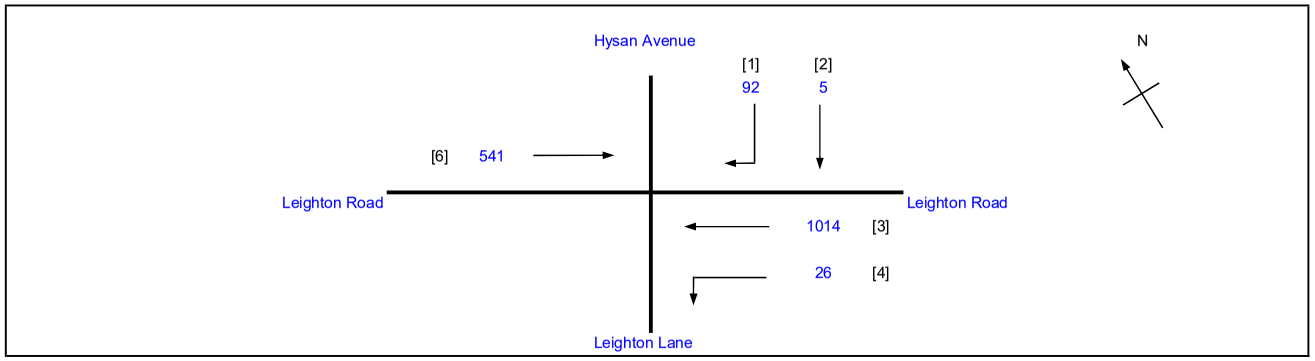
		INITIALS	DATE
Prepared By:		SKL	Mar-26
Checked By:		SLN	Mar-26
Reviewed By:		SLN	Mar-26

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

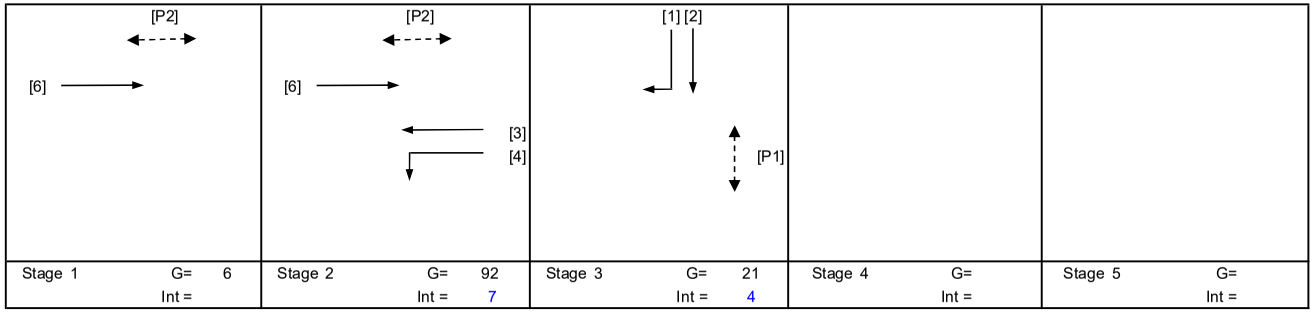
J10 Leighton Road / Hysan Avenue / Leighton Lane

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		=	1678 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	26	476		502	0.05	1935							1935	0.259			93	93	0.362	30	7
3	2	3.20	1				2075		538		538	0.00	2075							2075	0.259			93	93	0.362	30	7
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

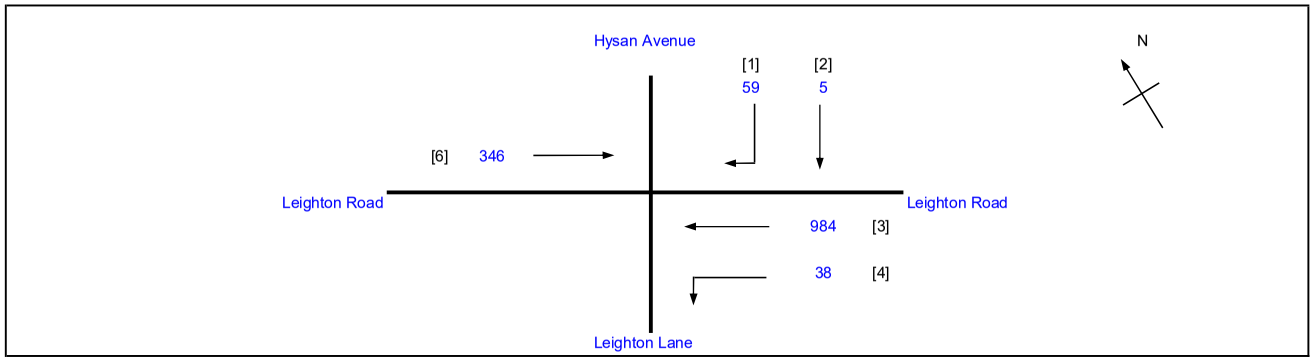
		INITIALS	DATE
Prepared By:		SKL	Mar-26
Checked By:		SLN	Mar-26
Reviewed By:		SLN	Mar-26

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

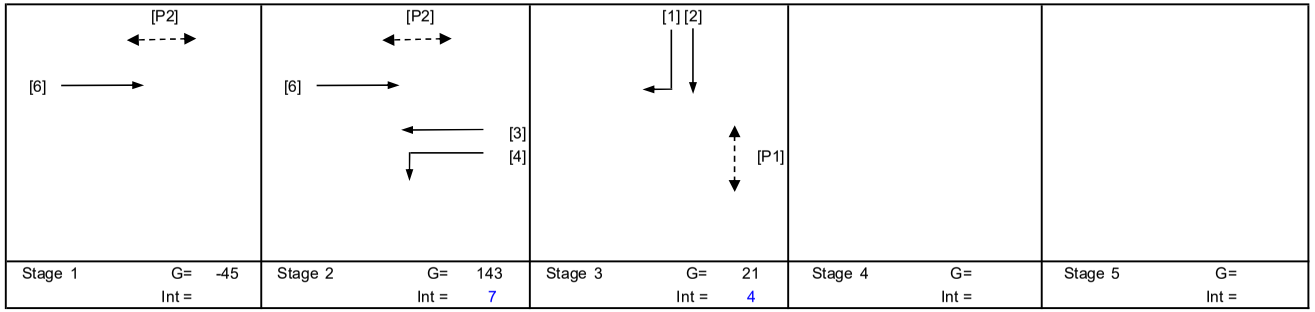
J10 Leighton Road / Hysan Avenue / Leighton Lane

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		=	1432 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 %**



Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
G= -45	G= 143	G= 21	G=	G=
Int =	Int = 7	Int = 4	Int =	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	38	453		491	0.08	1920							1920	0.256			144	144	0.231	-6	1
3	2	3.20	1				2075		531		531	0.00	2075							2075	0.256			144	144	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

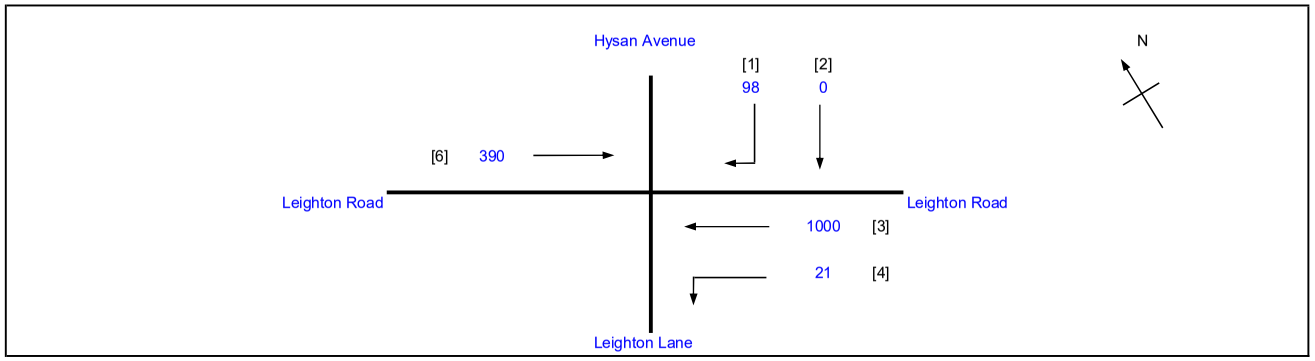
	INITIALS	DATE
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

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

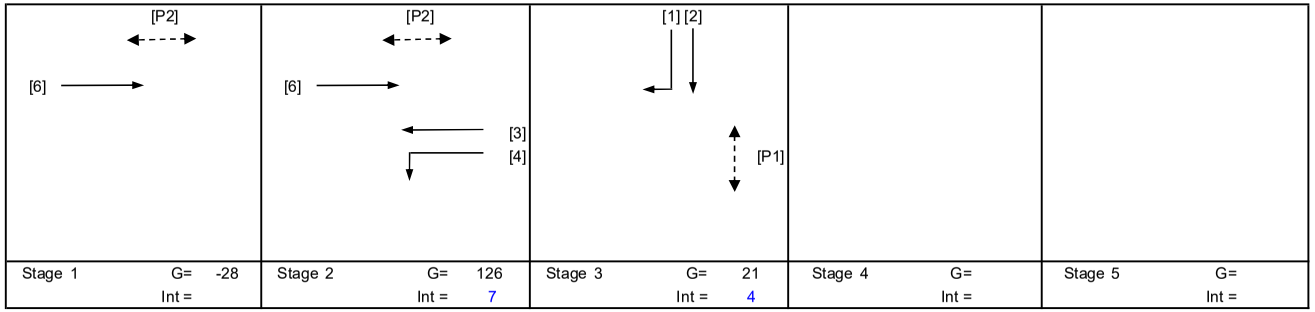
J10 Leighton Road / Hysan Avenue / Leighton Lane

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	=	1509 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	472		493	0.04	1940							1940	0.254			127	127	0.261	0	0
3	2	3.20	1				2075		528		528	0.00	2075							2075	0.254			127	127	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	52	52	1.00	1787							1787	0.029			15	21	0.261	6	50
1	3	3.00	1	10	O		2055			46	46	1.00	1587							1587	0.029			14	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

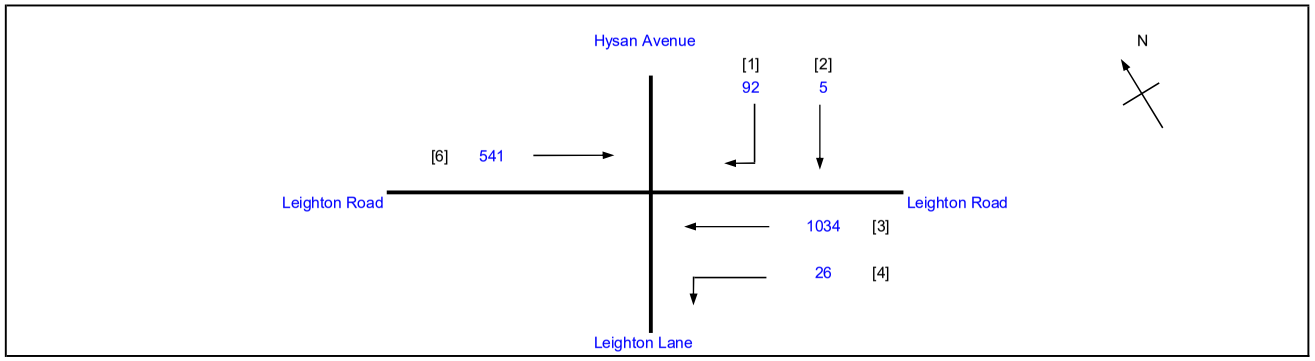
		INITIALS	DATE
Prepared By:		SKL	Mar-26
Checked By:		SLN	Mar-26
Reviewed By:		SLN	Mar-26

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

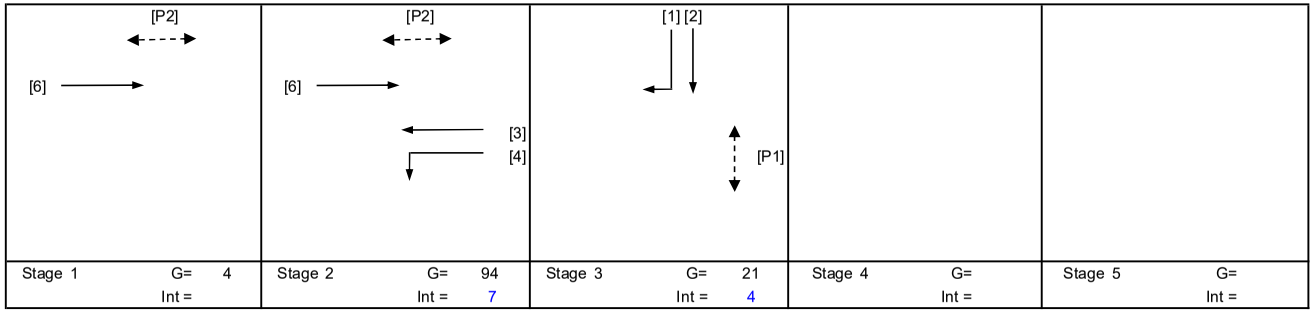
J10 Leighton Road / Hysan Avenue / Leighton Lane

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		=	1698 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	26	486		512	0.05	1936							1936	0.265			95	95	0.362	24	6
3	2	3.20	1				2075		548		548	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	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

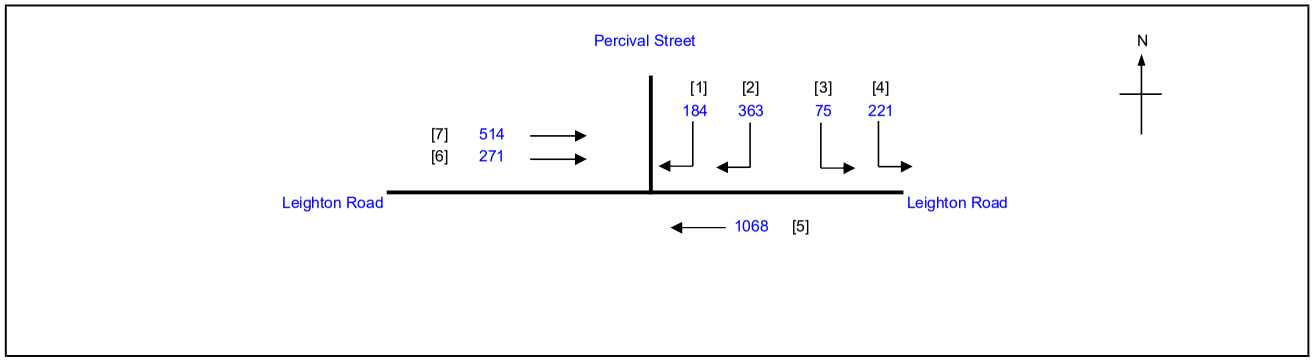
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J11 Leighton Road / Percival Street / Hysan Avenue

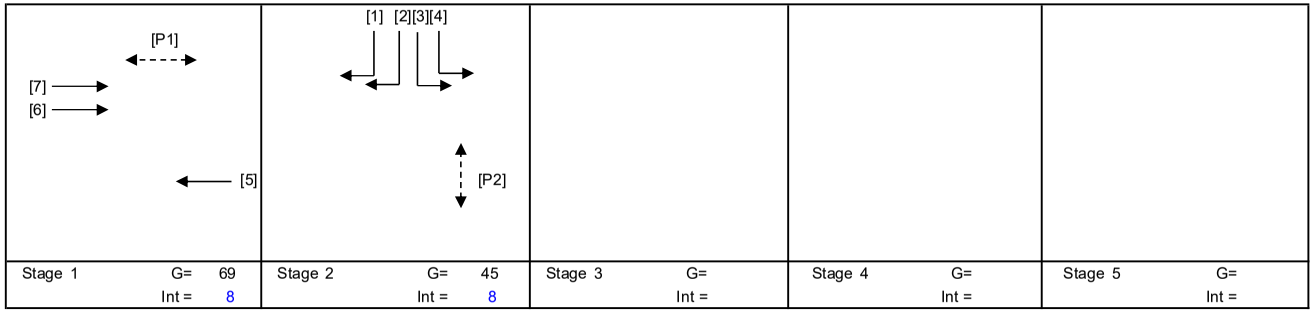
2033 Reference AM

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 %**



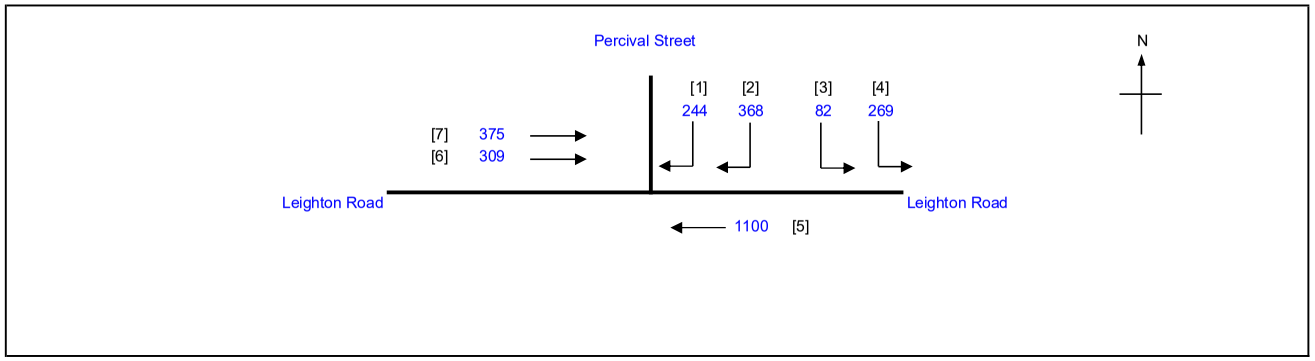
Stage 1	G= 69	Int = 8
Stage 2	G= 45	Int = 8
Stage 3	G=	Int =
Stage 4	G=	Int =
Stage 5	G=	Int =

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

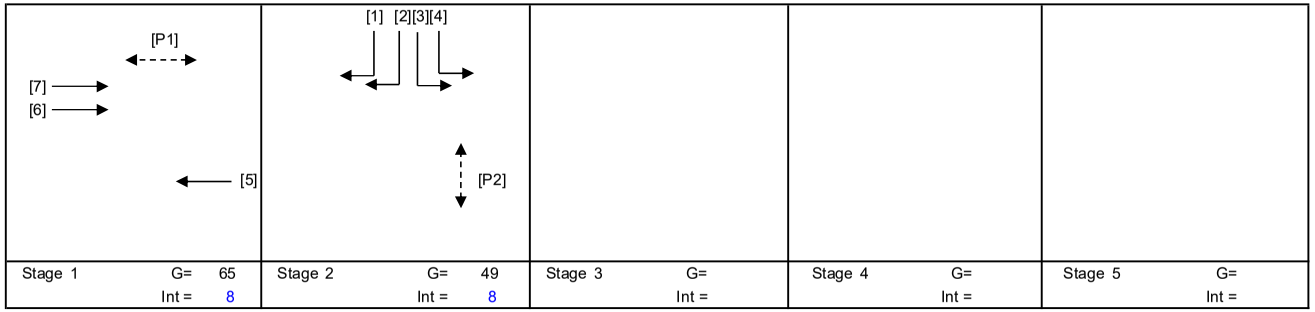
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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
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	Mar-26
J11 Leighton Road / Percival Street / Hysan Avenue		FILENAME : J11_LR_PS_HA.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



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 %**



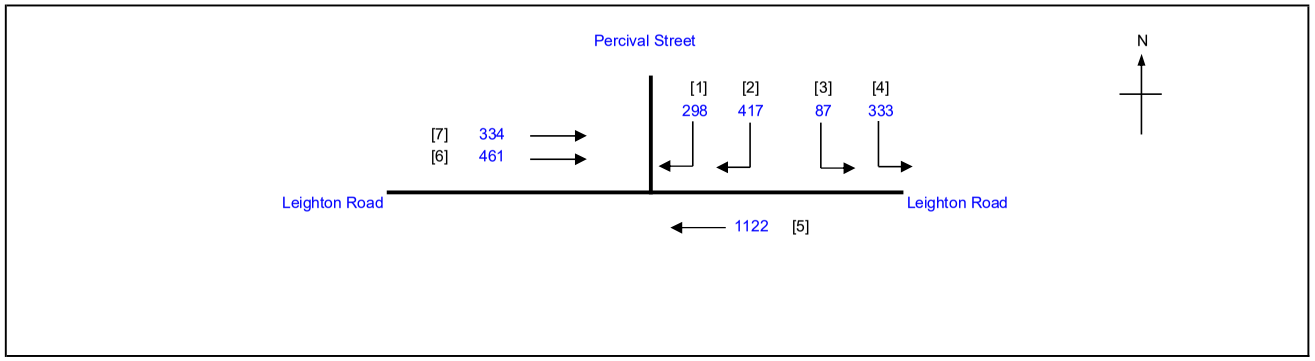
Stage 1	G= 65	Stage 2	G= 49	Stage 3	G=	Stage 4	G=	Stage 5	G=
	Int = 8		Int = 8		Int =		Int =		Int =

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

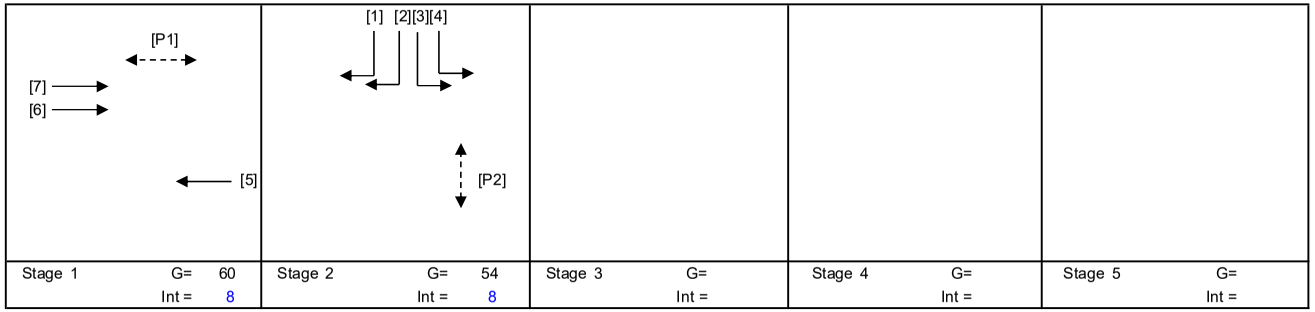
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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	Mar-26
J11 Leighton Road / Percival Street / Hysan Avenue		FILENAME : J11_LR_PS_HA.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.665
Loss time	L =	14 sec
Total Flow	=	3052 pcu
Co = (1.5*L+5)/(1-Y)	=	77.6 sec
Cm = L/(1-Y)	=	41.8 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	19.6 %
Cp = 0.9*L/(0.9-Y)	=	53.6 sec
Ymax = 1-L/C	=	0.892
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**21 %**



Stage 1	G= 60	Stage 2	G= 54	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		61	7
P2	2		5	12		50	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		549		549	0.00	1965			0.8	-393			1572	0.349	0.349		61	61	0.745	60	32
5	1	3.00	1				2055		573		573	0.00	2055			0.8	-411			1644	0.349			61	61	0.745	66	32
6,7	1	2.50	1			N	1865		383		383	0.00	1865			0.6	-746			1119	0.342			60	61	0.745	42	35
6,7	1	2.50	1				2005		412		412	0.00	2005			0.6	-802			1203	0.342			60	61	0.745	48	35
3,4	2	4.00	1	25		N	2015	420			420	1.00	1901			0.7	-570			1331	0.316	0.316		55	55	0.745	48	37
1,2	2	5.00	1	25		N	2115			414	414	1.00	1995			0.8	-399			1596	0.259			45	55	0.745	54	42
1,2	2	3.30	1	20			2085			301	301	1.00	1940			0.6	-776			1164	0.259			45	55	0.745	42	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
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

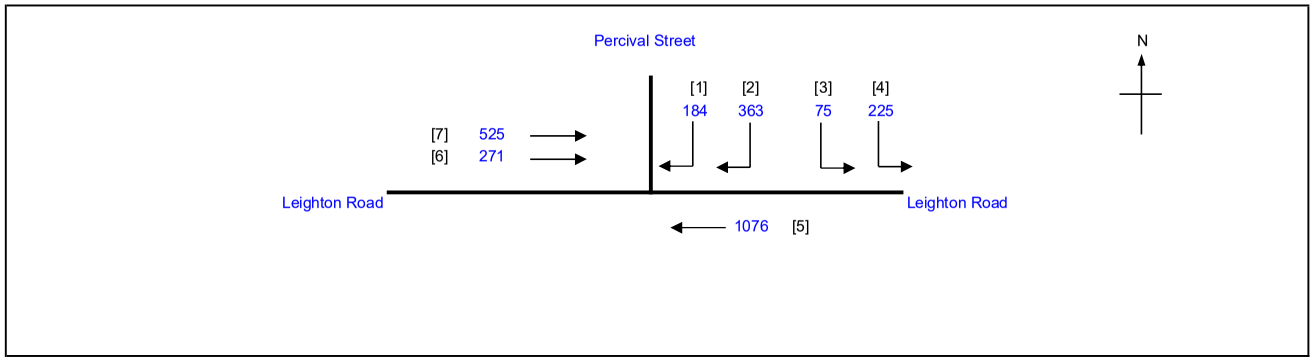
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J11 Leighton Road / Percival Street / Hysan Avenue

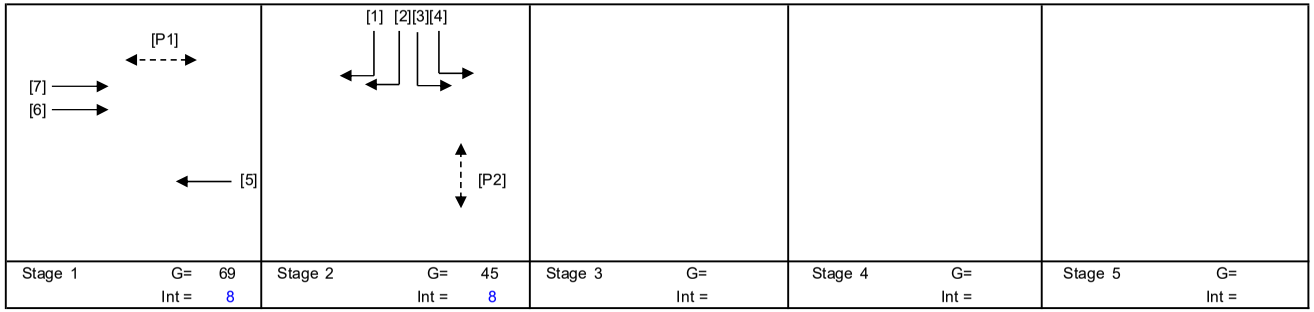
2033 Design AM

PROJECT NO.: 40920

FILENAME : J11_LR_PS_HA.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.569
Loss time	L =	14 sec
Total Flow	=	2719 pcu
Co = (1.5*L+5)/(1-Y)	=	60.3 sec
Cm = L/(1-Y)	=	32.5 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	39.8 %
Cp = 0.9*L/(0.9-Y)	=	38.0 sec
Ymax = 1-L/C	=	0.892
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**41 %**



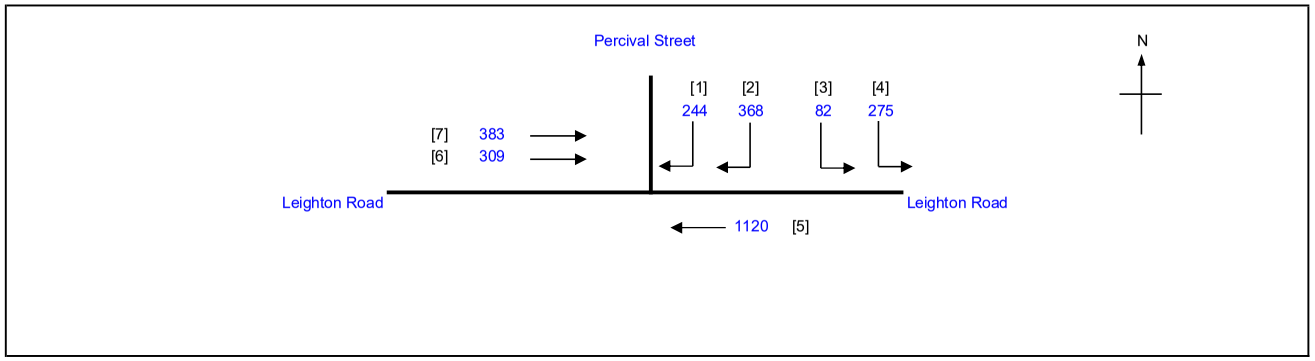
Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
G= 69	G= 45	G=	G=	G=
Int = 8	Int = 8	Int =	Int =	Int =

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

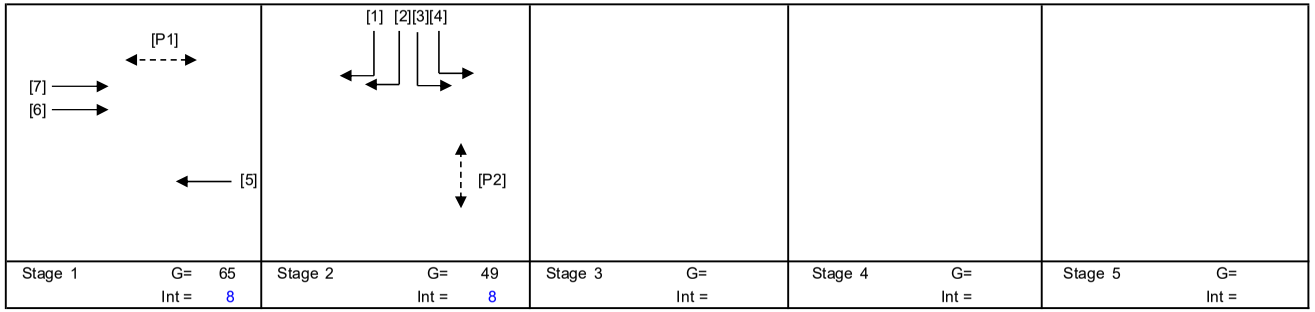
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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		526		526	0.00	1965			0.8	-393			1572	0.335			68	70	0.637	54	23
5	1	3.00	1				2055		550		550	0.00	2055			0.8	-411			1644	0.335			68	70	0.637	54	23
6,7	1	2.50	1			N	1865		384		384	0.00	1865			0.6	-746			1119	0.343	0.343		70	70	0.637	36	24
6,7	1	2.50	1				2005		412		412	0.00	2005			0.6	-802			1203	0.342			70	70	0.637	36	23
3,4	2	4.00	1	25		N	2015	300			300	1.00	1901			0.7	-570			1331	0.225	0.225		46	46	0.637	42	38
1,2	2	5.00	1	25		N	2115			317	317	1.00	1995			0.8	-399			1596	0.199			41	46	0.637	42	40
1,2	2	3.30	1	20			2085			230	230	1.00	1940			0.6	-776			1164	0.198			40	46	0.637	30	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 PM**	PROJECT NO.: 40920	Prepared By:	SKL	Mar-26
J11 Leighton Road / Percival Street / Hysan Avenue		FILENAME : J11_LR_PS_HA.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.617
Loss time	L =	14 sec
Total Flow	=	2781 pcu
Co = (1.5*L+5)/(1-Y)	=	67.8 sec
Cm = L/(1-Y)	=	36.5 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	28.9 %
Cp = 0.9*L/(0.9-Y)	=	44.5 sec
Ymax = 1-L/C	=	0.892
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**30 %**



Stage 1	G= 65	Stage 2	G= 49	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		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		547		547	0.00	1965			0.8	-393			1572	0.348			65	66	0.691	54	27
5	1	3.00	1				2055		573		573	0.00	2055			0.8	-411			1644	0.349	0.349		66	66	0.691	60	26
6,7	1	2.50	1			N	1865		334		334	0.00	1865			0.6	-746			1119	0.298			56	66	0.691	36	34
6,7	1	2.50	1				2005		358		358	0.00	2005			0.6	-802			1203	0.298			56	66	0.691	42	34
3,4	2	4.00	1	25		N	2015	357			357	1.00	1901			0.7	-570			1331	0.268	0.268		50	50	0.691	42	37
1,2	2	5.00	1	25		N	2115			354	354	1.00	1995			0.8	-399			1596	0.222			42	50	0.691	48	42
1,2	2	3.30	1	20			2085			258	258	1.00	1940			0.6	-776			1164	0.222			42	50	0.691	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	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

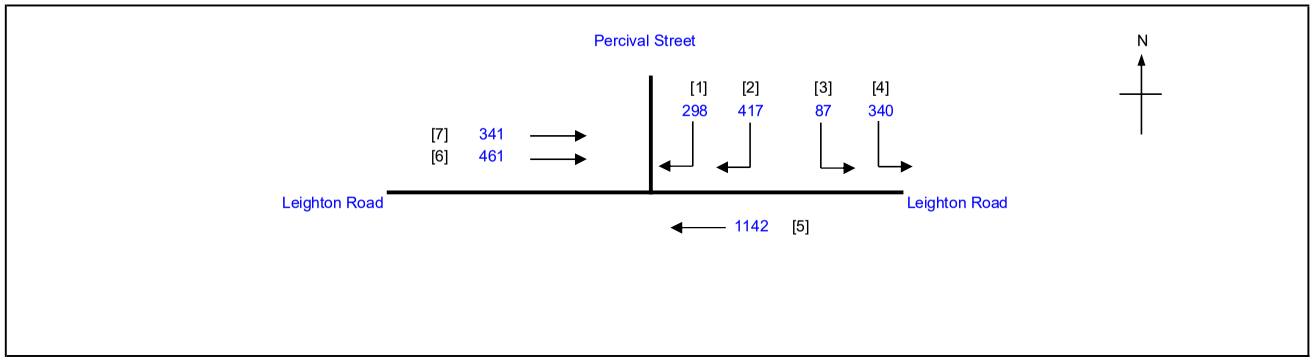
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J11 Leighton Road / Percival Street / Hysan Avenue

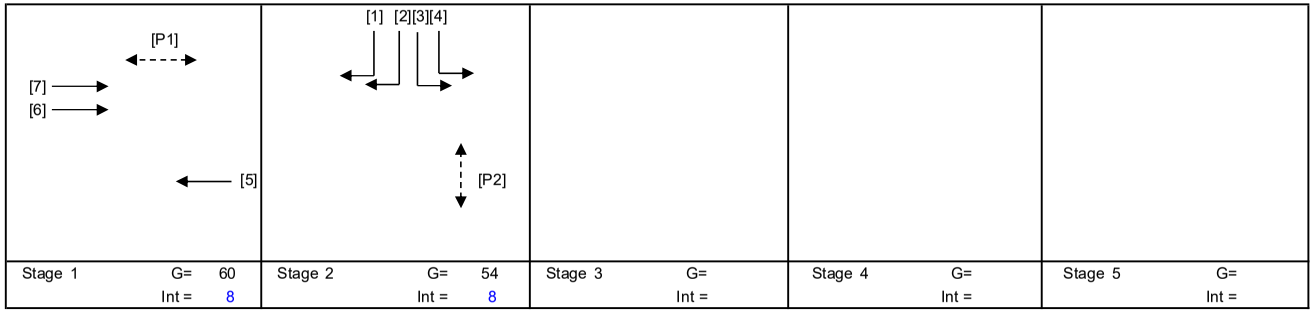
2033 Design Weekend

PROJECT NO.: 40920

FILENAME : J11_LR_PS_HA.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.676
Loss time	L =	14 sec
Total Flow	=	3086 pcu
Co = (1.5*L+5)/(1-Y)	=	80.3 sec
Cm = L/(1-Y)	=	43.2 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	17.6 %
Cp = 0.9*L/(0.9-Y)	=	56.3 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= 60	G= 54	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		61	7
P2	2		5	12		50	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		558		558	0.00	1965			0.8	-393			1572	0.355			61	61	0.758	60	32
5	1	3.00	1				2055		584		584	0.00	2055			0.8	-411			1644	0.355	0.355		61	61	0.758	66	32
6,7	1	2.50	1			N	1865		386		386	0.00	1865			0.6	-746			1119	0.345			59	61	0.758	42	36
6,7	1	2.50	1				2005		416		416	0.00	2005			0.6	-802			1203	0.346			59	61	0.758	48	36
3,4	2	4.00	1	25		N	2015	427			427	1.00	1901			0.7	-570			1331	0.321	0.321		55	55	0.758	48	38
1,2	2	5.00	1	25		N	2115			414	414	1.00	1995			0.8	-399			1596	0.259			45	55	0.758	54	43
1,2	2	3.30	1	20			2085			301	301	1.00	1940			0.6	-776			1164	0.259			44	55	0.758	42	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	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

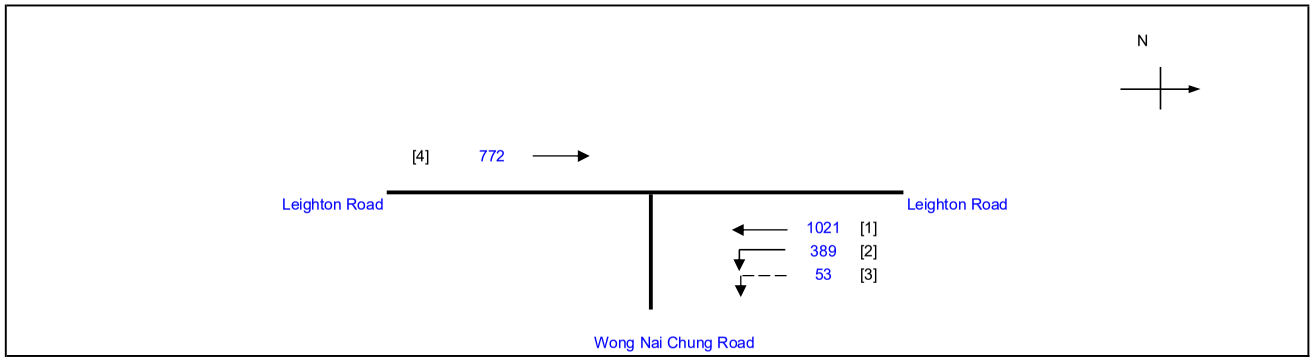
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J12 Leighton Road / Wong Nai Chung Road

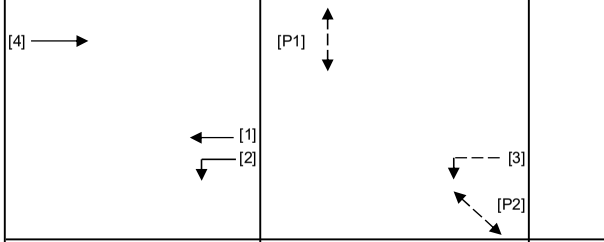
2033 Reference AM

PROJECT NO.: 40920

FILENAME : J12_LR_WNCR.xlsx



No. of stages per cycle		N =	2
Cycle time		C =	130 sec
Sum(y)		Y =	0.669
Loss time		L =	12 sec
Total Flow		=	2235 pcu
Co	= (1.5*L+5)/(1-Y)	=	69.5 sec
Cm	= L/(1-Y)	=	36.3 sec
Yult		=	0.810
R.C.ult	= (Yult-Y)/Y*100%	=	21.0 %
Cp	= 0.9*L/(0.9-Y)	=	46.8 sec
Ymax	= 1-L/C	=	0.908
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**22 %**



Stage 1 G= 92 Int = 7

Stage 2 G= 24 Int = 7

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2		10	9	0	22	9
P2	2		7	7	0	24	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)
																							12					
2	1	3.50	1	20		N	1965	320			320	1.00	1828							1828	0.175			31	93	0.737	54	52
2	1	3.50	1	25			2105	69			69	1.00	1986			0.2	-1589			397	0.174			31	93	0.737	12	90
3	2	3.00	1	40		N	1915	53			53	1.00	1846			0.2	-1477			369	0.144	0.144		25	25	0.737	12	108
1	1	3.00	1			N	1915		805		805	0.00	1915			0.8	-383			1532	0.525			93	93	0.737	48	14
1	1	3.00	1				2055		216		216	0.00	2055			0.2	-1644			411	0.526	0.526		93	93	0.737	12	26
4	1	3.50	1			N	1965		124		124	0.00	1965			0.2	-1572			393	0.316			56	93	0.737	18	55
4	1	3.00	1				2055		324		324	0.00	2055			0.5	-1028			1027	0.315			56	93	0.737	36	38
4	1	3.00	1				2055		324		324	0.00	2055			0.5	-1028			1027	0.315			56	93	0.737	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	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

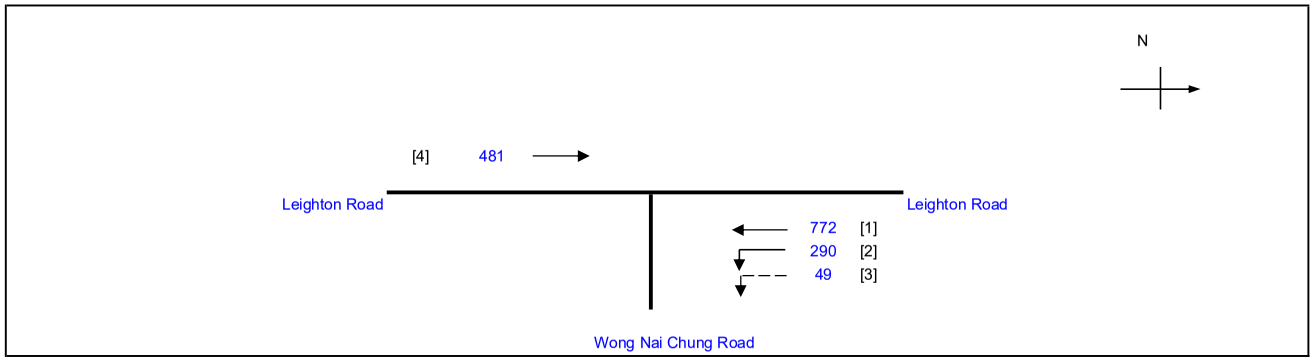
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J12 Leighton Road / Wong Nai Chung Road

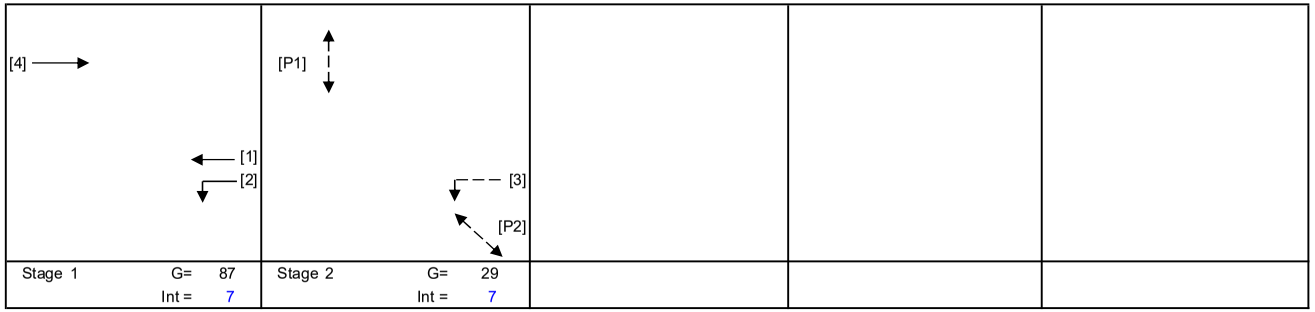
2033 Reference PM

PROJECT NO.: 40920

FILENAME : J12_LR_WNCR.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.530
Loss time	L =	12 sec
Total Flow	=	1592 pcu
Co = (1.5*L+5)/(1-Y)	=	49.0 sec
Cm = L/(1-Y)	=	25.6 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	52.7 %
Cp = 0.9*L/(0.9-Y)	=	29.2 sec
Ymax = 1-L/C	=	0.908
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**54 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2		10	9	0	27	9
P2	2		7	7	0	29	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)
																							12					
2	1	3.50	1	20		N	1965	238			238	1.00	1828							1828	0.130			29	88	0.584	36	46
2	1	3.50	1	25			2105	52			52	1.00	1986			0.2	-1589			397	0.131			29	88	0.584	6	66
3	2	3.00	1	40		N	1915	49			49	1.00	1846			0.2	-1477			369	0.133	0.133		30	30	0.584	6	67
1	1	3.00	1			N	1915		609		609	0.00	1915			0.8	-383			1532	0.398	0.398		88	88	0.584	42	12
1	1	3.00	1				2055		163		163	0.00	2055			0.2	-1644			411	0.397			88	88	0.584	6	18
4	1	3.50	1			N	1965		77		77	0.00	1965			0.2	-1572			393	0.196			44	88	0.584	6	49
4	1	3.00	1				2055		202		202	0.00	2055			0.5	-1028			1027	0.197			44	88	0.584	24	39
4	1	3.00	1				2055		202		202	0.00	2055			0.5	-1028			1027	0.197			44	88	0.584	24	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
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

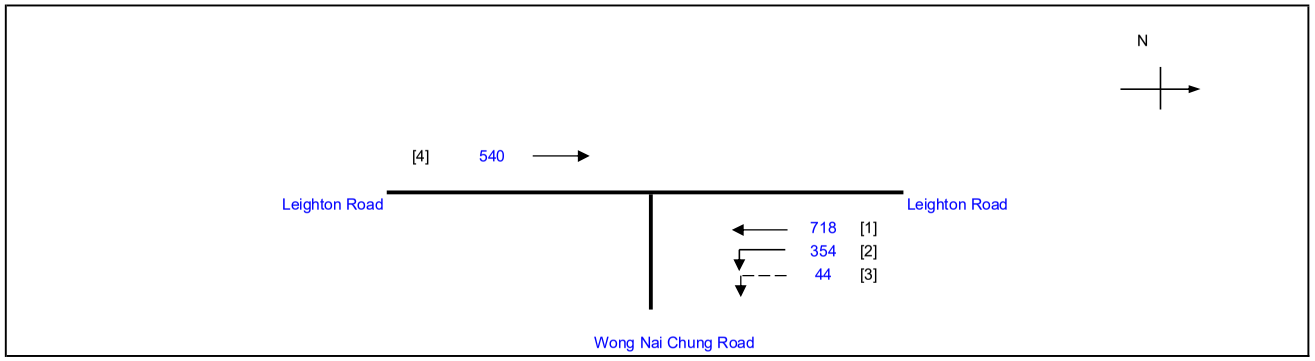
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J12 Leighton Road / Wong Nai Chung Road

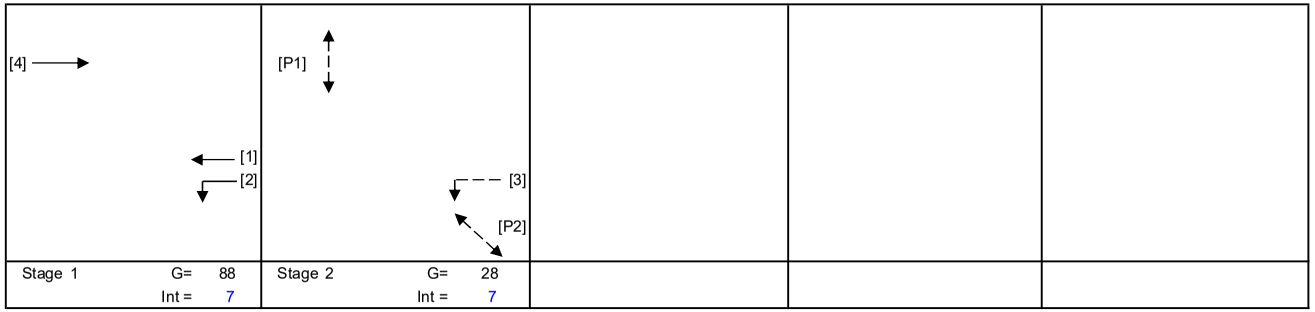
2033 Reference Weekend

PROJECT NO.: 40920

FILENAME : J12_LR_WNCR.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.489
Loss time	L =	12 sec
Total Flow	=	1656 pcu
Co = (1.5*L+5)/(1-Y)	=	45.0 sec
Cm = L/(1-Y)	=	23.5 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	65.6 %
Cp = 0.9*L/(0.9-Y)	=	26.3 sec
Ymax = 1-L/C	=	0.908
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**67 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2		10	9	0	26	9
P2	2		7	7	0	28	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)
																							12					
2	1	3.50	1	20		N	1965	291			291	1.00	1828							1828	0.159			38	89	0.539	42	38
2	1	3.50	1	25			2105	63			63	1.00	1986			0.2	-1589			397	0.159			38	89	0.539	6	51
3	2	3.00	1	40		N	1915	44			44	1.00	1846			0.2	-1477			369	0.119	0.119		29	29	0.539	6	63
1	1	3.00	1			N	1915		566		566	0.00	1915			0.8	-383			1532	0.369			89	89	0.539	36	11
1	1	3.00	1				2055		152		152	0.00	2055			0.2	-1644			411	0.370	0.370		89	89	0.539	6	16
4	1	3.50	1			N	1965		87		87	0.00	1965			0.2	-1572			393	0.221			53	89	0.539	6	38
4	1	3.00	1				2055		226		226	0.00	2055			0.5	-1028			1027	0.220			53	89	0.539	24	31
4	1	3.00	1				2055		227		227	0.00	2055			0.5	-1028			1027	0.221			53	89	0.539	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
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

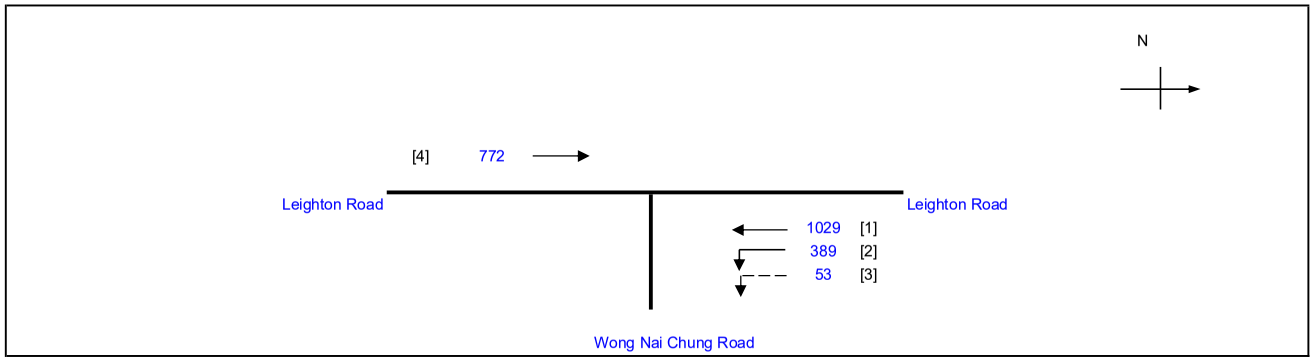
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J12 Leighton Road / Wong Nai Chung Road

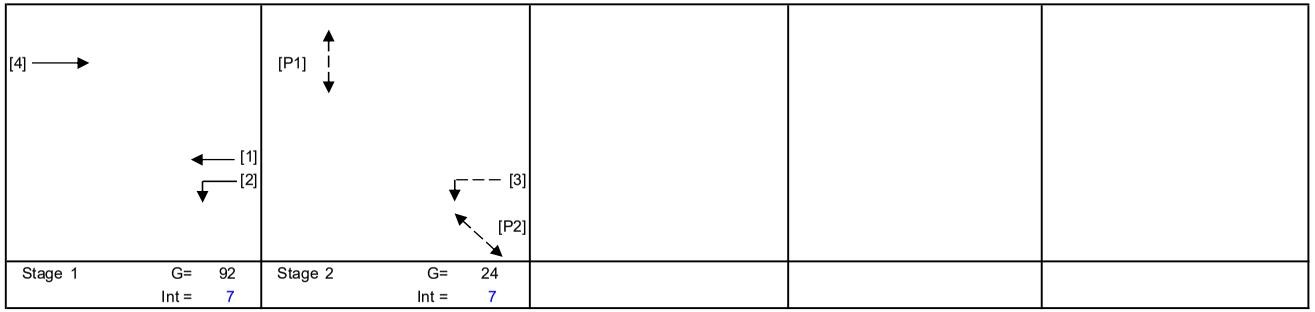
2033 Design AM

PROJECT NO.: 40920

FILENAME : J12_LR_WNCR.xlsx



No. of stages per cycle	N =	2
Cycle time	C =	130 sec
Sum(y)	Y =	0.674
Loss time	L =	12 sec
Total Flow	=	2243 pcu
Co = (1.5*L+5)/(1-Y)	=	70.6 sec
Cm = L/(1-Y)	=	36.8 sec
Yult	=	0.810
R.C.ult = (Yult-Y)/Y*100%	=	20.2 %
Cp = 0.9*L/(0.9-Y)	=	47.8 sec
Ymax = 1-L/C	=	0.908
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**21 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2		10	9	0	22	9
P2	2		7	7	0	24	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)
																							12					
2	1	3.50	1	20		N	1965	320			320	1.00	1828							1828	0.175			31	93	0.743	54	52
2	1	3.50	1	25			2105	69			69	1.00	1986			0.2	-1589			397	0.174			30	93	0.743	12	92
3	2	3.00	1	40		N	1915	53			53	1.00	1846			0.2	-1477			369	0.144	0.144		25	25	0.743	12	110
1	1	3.00	1			N	1915		811		811	0.00	1915			0.8	-383			1532	0.529			93	93	0.743	48	15
1	1	3.00	1				2055		218		218	0.00	2055			0.2	-1644			411	0.530	0.530		93	93	0.743	12	26
4	1	3.50	1			N	1965		124		124	0.00	1965			0.2	-1572			393	0.316			55	93	0.743	18	56
4	1	3.00	1				2055		325		325	0.00	2055			0.5	-1028			1027	0.316			55	93	0.743	36	39
4	1	3.00	1				2055		323		323	0.00	2055			0.5	-1028			1027	0.315			55	93	0.743	36	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
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

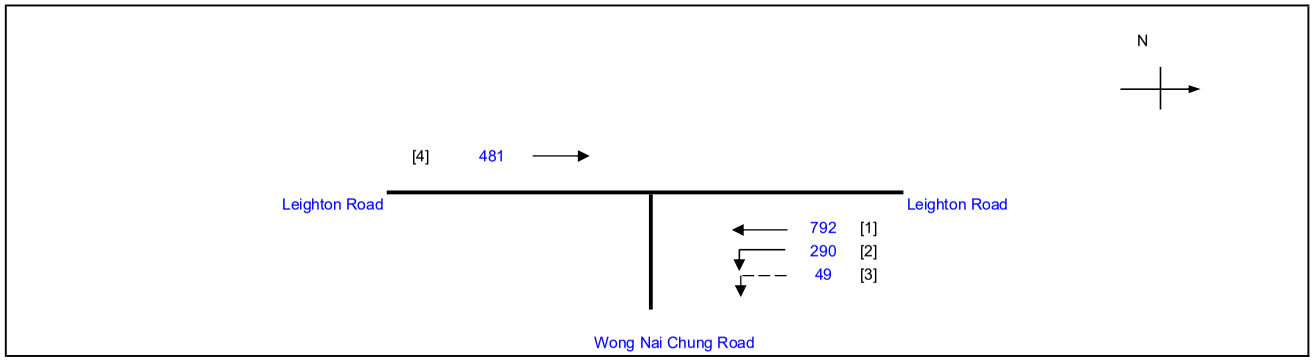
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J12 Leighton Road / Wong Nai Chung Road

2033 Design PM

PROJECT NO.: 40920

FILENAME : J12_LR_WNCR.xlsx



No. of stages per cycle		N =	2
Cycle time		C =	130 sec
Sum(y)		Y =	0.541
Loss time		L =	12 sec
Total Flow		=	1612 pcu
Co	= (1.5*L+5)/(1-Y)	=	50.1 sec
Cm	= L/(1-Y)	=	26.1 sec
Yult		=	0.810
R.C.ult	= (Yult-Y)/Y*100%	=	49.9 %
Cp	= 0.9*L/(0.9-Y)	=	30.0 sec
Ymax	= 1-L/C	=	0.908
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**51 %**

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2		10	9	0	26	9
P2	2		7	7	0	28	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)
																							12					
2	1	3.50	1	20		N	1965	238			238	1.00	1828							1828	0.130			28	89	0.595	36	47
2	1	3.50	1	25			2105	52			52	1.00	1986			0.2	-1589			397	0.131			29	89	0.595	6	68
3	2	3.00	1	40		N	1915	49			49	1.00	1846			0.2	-1477			369	0.133	0.133		29	29	0.595	6	70
1	1	3.00	1			N	1915		625		625	0.00	1915			0.8	-383			1532	0.408	0.408		89	89	0.595	42	12
1	1	3.00	1				2055		168		168	0.00	2055			0.2	-1644			411	0.408			89	89	0.595	6	18
4	1	3.50	1			N	1965		77		77	0.00	1965			0.2	-1572			393	0.196			43	89	0.595	12	51
4	1	3.00	1				2055		202		202	0.00	2055			0.5	-1028			1027	0.197			43	89	0.595	24	40
4	1	3.00	1				2055		202		202	0.00	2055			0.5	-1028			1027	0.197			43	89	0.595	24	40

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	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

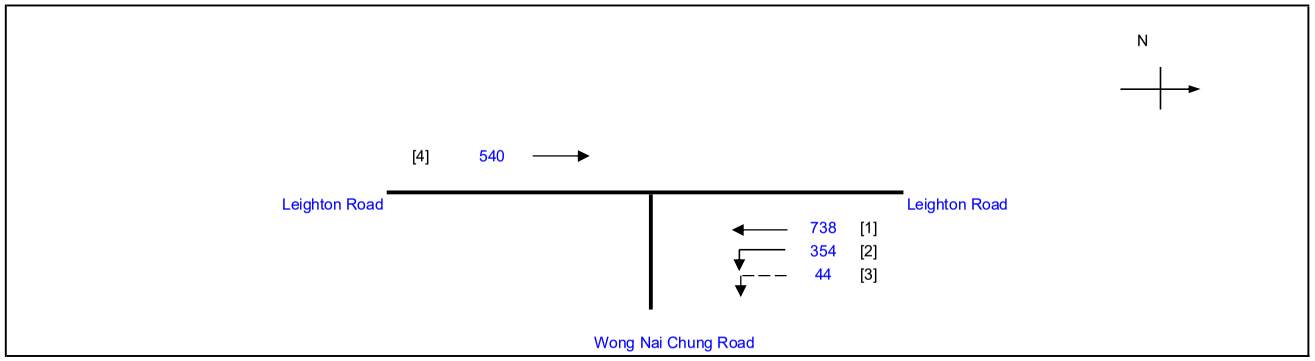
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J12 Leighton Road / Wong Nai Chung Road

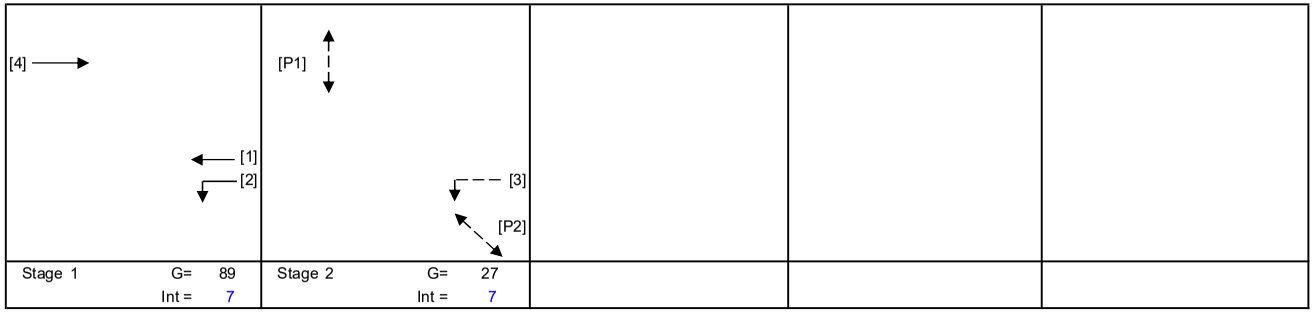
2033 Design Weekend

PROJECT NO.: 40920

FILENAME : J12_LR_WNCR.xlsx



No. of stages per cycle		N =	2
Cycle time		C =	130 sec
Sum(y)		Y =	0.499
Loss time		L =	12 sec
Total Flow		=	1676 pcu
Co	= (1.5*L+5)/(1-Y)	=	45.9 sec
Cm	= L/(1-Y)	=	24.0 sec
Yult		=	0.810
R.C.ult	= (Yult-Y)/Y*100%	=	62.3 %
Cp	= 0.9*L/(0.9-Y)	=	26.9 sec
Ymax	= 1-L/C	=	0.908
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**64 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	2		10	9	0	25	9
P2	2		7	7	0	27	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)
																							12					
2	1	3.50	1	20		N	1965	291			291	1.00	1828							1828	0.159			38	90	0.550	42	39
2	1	3.50	1	25			2105	63			63	1.00	1986			0.2	-1589			397	0.159			38	90	0.550	6	52
3	2	3.00	1	40		N	1915	44			44	1.00	1846			0.2	-1477			369	0.119	0.119		28	28	0.550	6	65
1	1	3.00	1			N	1915		582		582	0.00	1915			0.8	-383			1532	0.380	0.380		90	90	0.550	36	11
1	1	3.00	1				2055		156		156	0.00	2055			0.2	-1644			411	0.380			90	90	0.550	6	16
4	1	3.50	1			N	1965		87		87	0.00	1965			0.2	-1572			393	0.221			52	90	0.550	6	39
4	1	3.00	1				2055		226		226	0.00	2055			0.5	-1028			1027	0.220			52	90	0.550	24	32
4	1	3.00	1				2055		227		227	0.00	2055			0.5	-1028			1027	0.221			52	90	0.550	24	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
Prepared By:		SKL	Mar-26
Checked By:		SLN	Mar-26
Reviewed By:		SLN	Mar-26

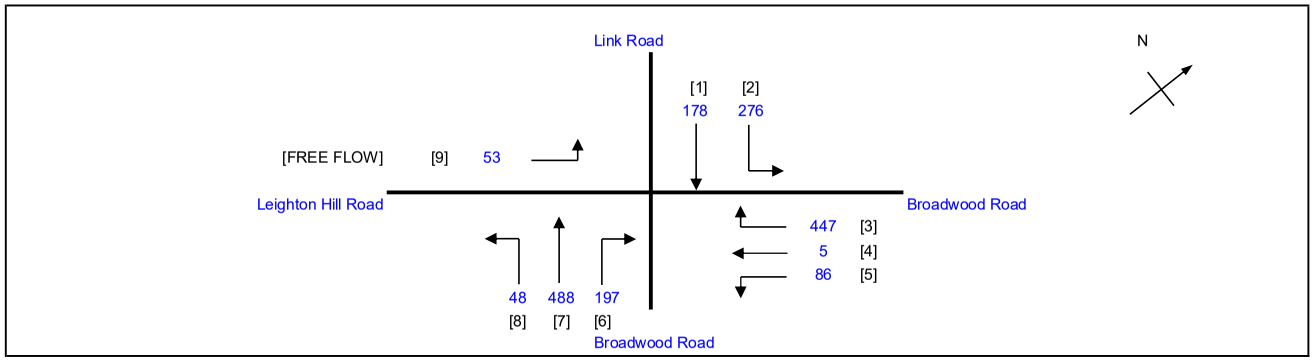
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J13 Broadwood Road / Link Road

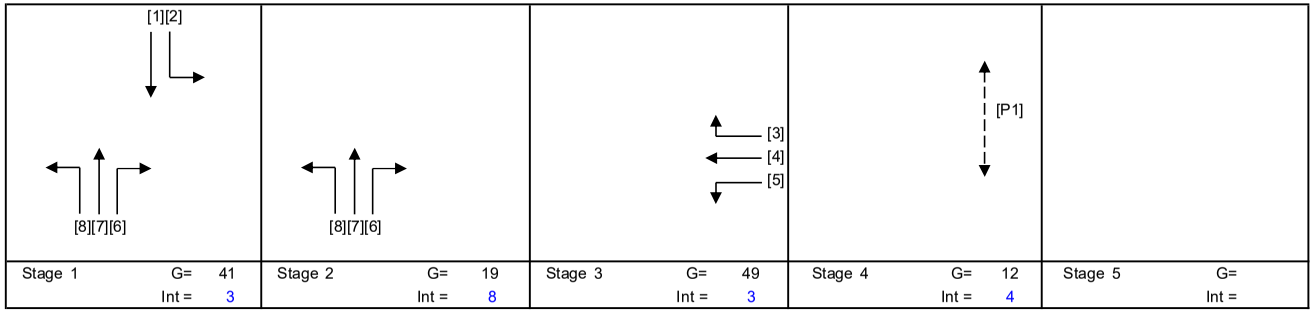
2033 Reference AM

PROJECT NO.: 40920

FILENAME : J13_BR_LR.xlsx



No. of stages per cycle	N =	4
Cycle time	C =	140 sec
Sum(y)	Y =	0.628
Loss time	L =	27 sec
Total Flow	=	1725 pcu
Co = (1.5*L+5)/(1-Y)	=	122.3 sec
Cm = L/(1-Y)	=	72.6 sec
Yult	=	0.698
R.C.ult = (Yult-Y)/Y*100%	=	11.1 %
Cp = 0.9*L/(0.9-Y)	=	89.4 sec
Ymax = 1-L/C	=	0.807
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**16 %**



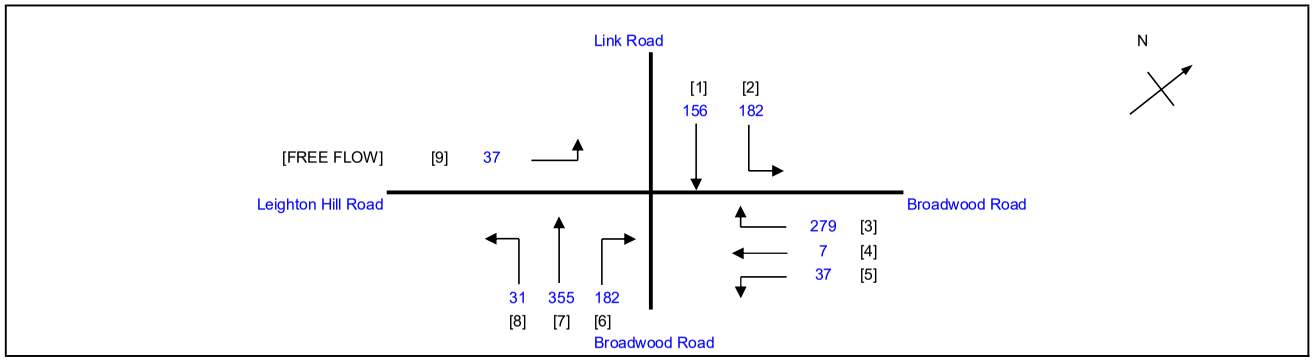
Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
G= 41	G= 19	G= 49	G= 12	G=
Int = 3	Int = 8	Int = 3	Int = 4	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	4		5	7	0	9	7

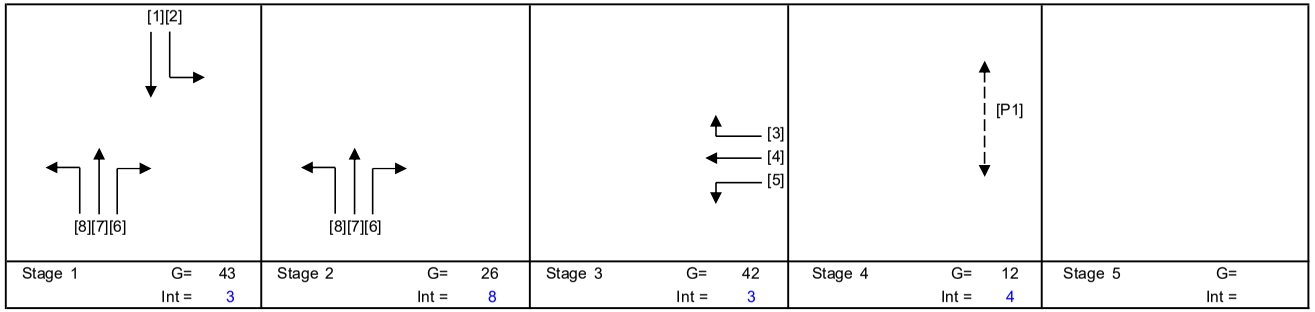
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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)
																							15					
1,2	1	3.50	1	80		N	1965	276	178		454	0.61	1943							1943	0.234	0.234		42	42	0.778	72	50
7,8	1,2	3.00	1	15		N	1915	48	488		536	0.09	1898							1898	0.282			51	63	0.778	78	44
6	2	3.00	1	8			2055			197	197	1.00	1731							1731	0.114	0.114		20	20	0.778	42	74
3,4,5	3	3.50	1	60		N	1965	86	5	447	538	0.99	1918							1918	0.281	0.281		50	50	0.778	78	44
PED	4																						12					

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	Mar-26
J13 Broadwood Road / Link Road		FILENAME : J13_BR_LR.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



No. of stages per cycle		N =	4
Cycle time		C =	140 sec
Sum(y)		Y =	0.447
Loss time		L =	27 sec
Total Flow		=	1229 pcu
Co	= (1.5*L+5)/(1-Y)	=	82.3 sec
Cm	= L/(1-Y)	=	48.9 sec
Yult		=	0.698
R.C.ult	= (Yult-Y)/Y*100%	=	55.9 %
Cp	= 0.9*L/(0.9-Y)	=	53.7 sec
Ymax	= 1-L/C	=	0.807
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**62 %**



Stage 1	G= 43	Int = 3
Stage 2	G= 26	Int = 8
Stage 3	G= 42	Int = 3
Stage 4	G= 12	Int = 4
Stage 5	G=	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	4		5	7	0	9	7

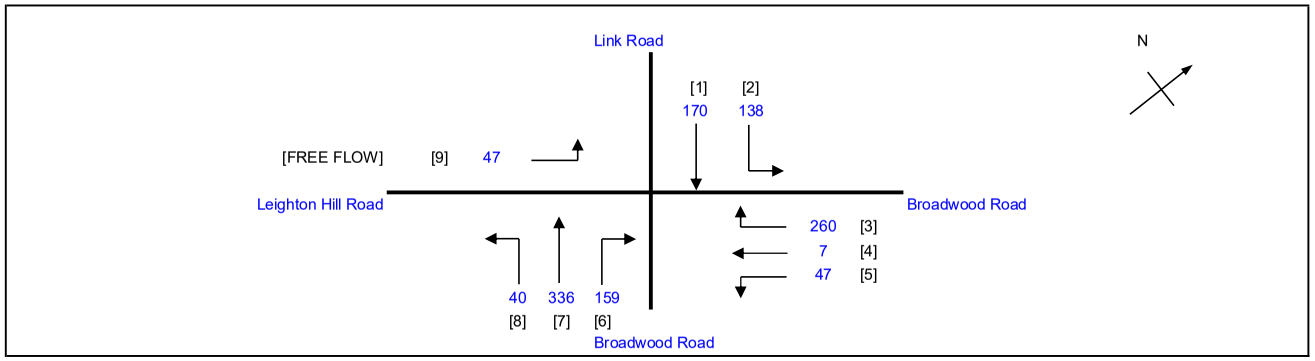
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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)
																							15					
1,2	1	3.50	1	80		N	1965	182	156		338	0.54	1945							1945	0.174	0.174		44	44	0.554	54	39
7,8	1,2	3.00	1	15		N	1915	31	355		386	0.08	1900							1900	0.203			51	70	0.554	54	35
6	2	3.00	1	8			2055			182	182	1.00	1731							1731	0.105	0.105		27	27	0.554	30	52
3,4,5	3	3.50	1	60		N	1965	37	7	279	323	0.98	1918							1918	0.168	0.168		43	43	0.554	48	40
PED	4																						12					

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

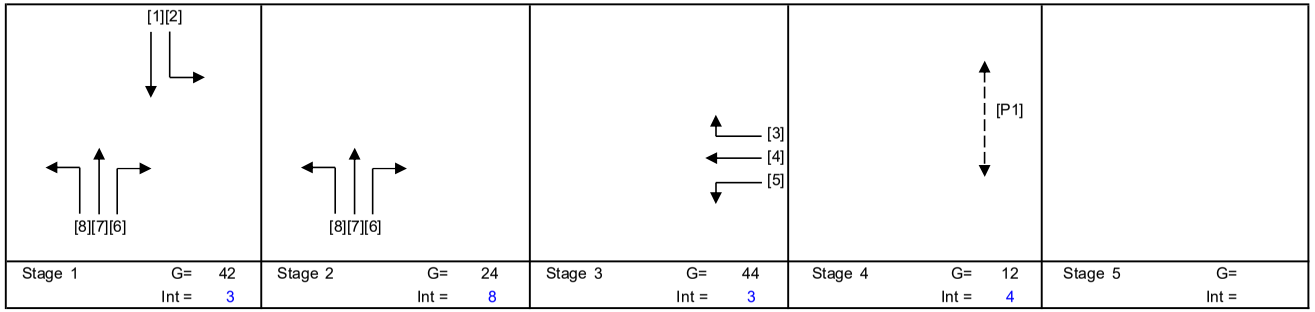
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung			
J13 Broadwood Road / Link Road	**2033 Reference Weekend**		
	PROJECT NO.: 40920	Prepared By:	SKL Mar-26
	FILENAME : J13_BR_LR.xlsx	Checked By:	SLN Mar-26
		Reviewed By:	SLN Mar-26



No. of stages per cycle		N =	4
Cycle time		C =	140 sec
Sum(y)		Y =	0.414
Loss time		L =	27 sec
Total Flow		=	1157 pcu
Co	= (1.5*L+5)/(1-Y)	=	77.6 sec
Cm	= L/(1-Y)	=	46.0 sec
Yult		=	0.698
R.C.ult	= (Yult-Y)/Y*100%	=	68.6 %
Cp	= 0.9*L/(0.9-Y)	=	50.0 sec
Ymax	= 1-L/C	=	0.807
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**76 %**



Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
G= 42	G= 24	G= 44	G= 12	G=
Int = 3	Int = 8	Int = 3	Int = 4	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	4		5	7	0	9	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)
1,2	1	3.50	1	80		N	1965	138	170		308	0.45	1949							1949	0.158	0.158	15	43	43	0.512	48	39
7,8	1,2	3.00	1	15		N	1915	40	336		376	0.11	1895							1895	0.198			54	68	0.512	48	32
6	2	3.00	1	8			2055			159	159	1.00	1731							1731	0.092	0.092		25	25	0.512	30	52
3,4,5	3	3.50	1	60		N	1965	47	7	260	314	0.98	1918							1918	0.164	0.164		45	45	0.512	48	38
PED	4																						12					

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	Mar-26
Checked By:		SLN	Mar-26
Reviewed By:		SLN	Mar-26

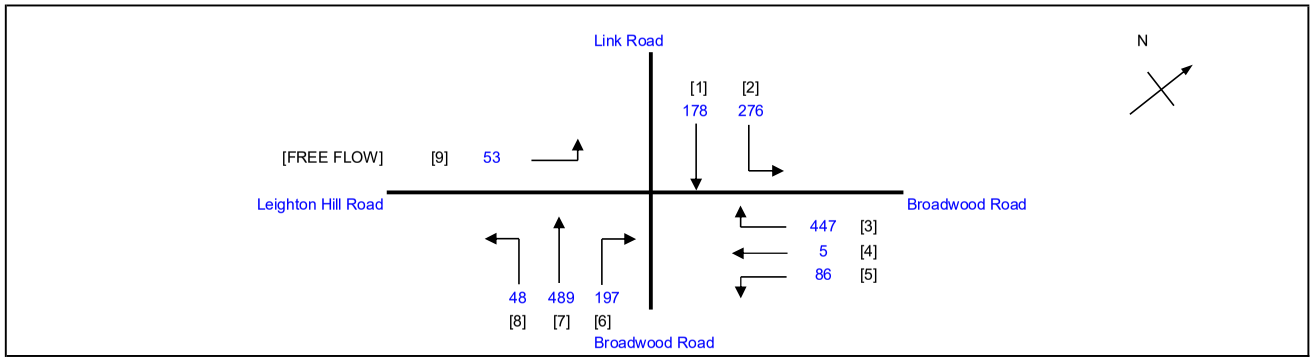
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J13 Broadwood Road / Link Road

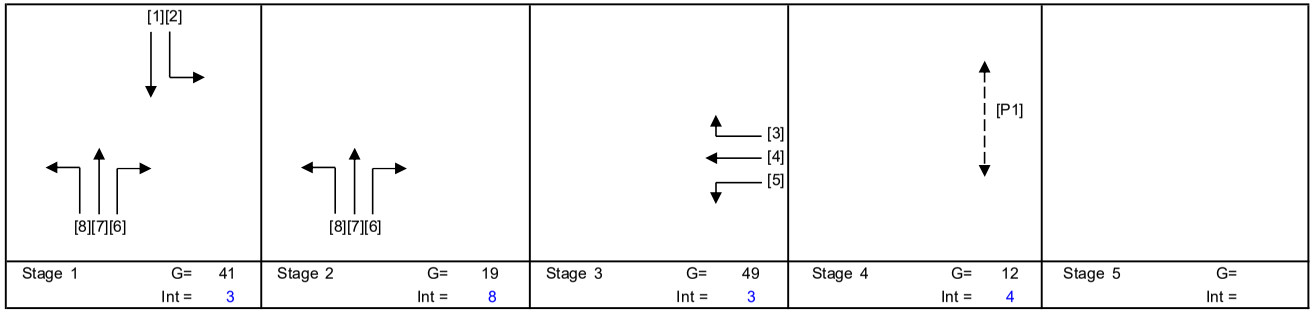
2033 Design AM

PROJECT NO.: 40920

FILENAME : J13_BR_LR.xlsx



No. of stages per cycle	N =	4
Cycle time	C =	140 sec
Sum(y)	Y =	0.628
Loss time	L =	27 sec
Total Flow	=	1726 pcu
Co = (1.5*L+5)/(1-Y)	=	122.3 sec
Cm = L/(1-Y)	=	72.6 sec
Yult	=	0.698
R.C.ult = (Yult-Y)/Y*100%	=	11.1 %
Cp = 0.9*L/(0.9-Y)	=	89.4 sec
Ymax = 1-L/C	=	0.807
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**=**	**16 %**



Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
G= 41	G= 19	G= 49	G= 12	G=
Int = 3	Int = 8	Int = 3	Int = 4	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	4		5	7	0	9	7

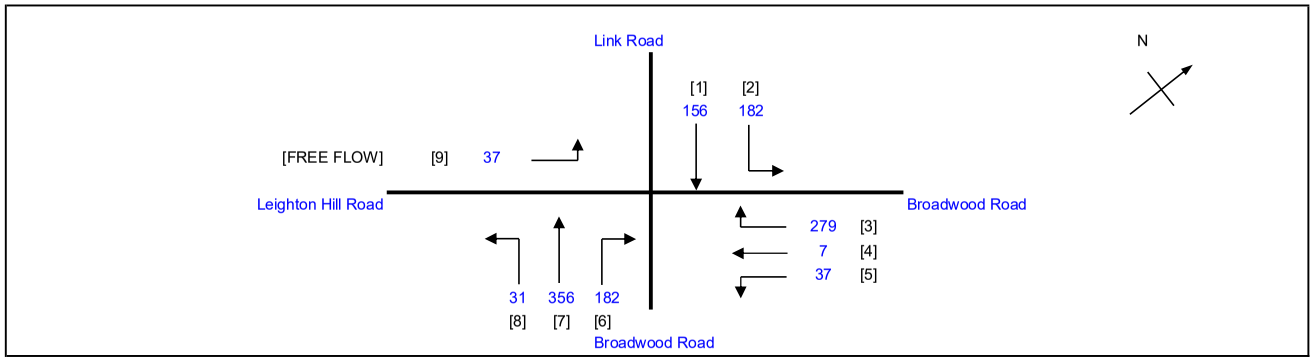
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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)
																							15					
1,2	1	3.50	1	80		N	1965	276	178		454	0.61	1943							1943	0.234	0.234		42	42	0.778	72	50
7,8	1,2	3.00	1	15		N	1915	48	489		537	0.09	1898							1898	0.283			51	63	0.778	78	44
6	2	3.00	1	8			2055			197	197	1.00	1731							1731	0.114	0.114		20	20	0.778	42	74
3,4,5	3	3.50	1	60		N	1965	86	5	447	538	0.99	1918							1918	0.281	0.281		50	50	0.778	78	44
PED	4																						12					

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

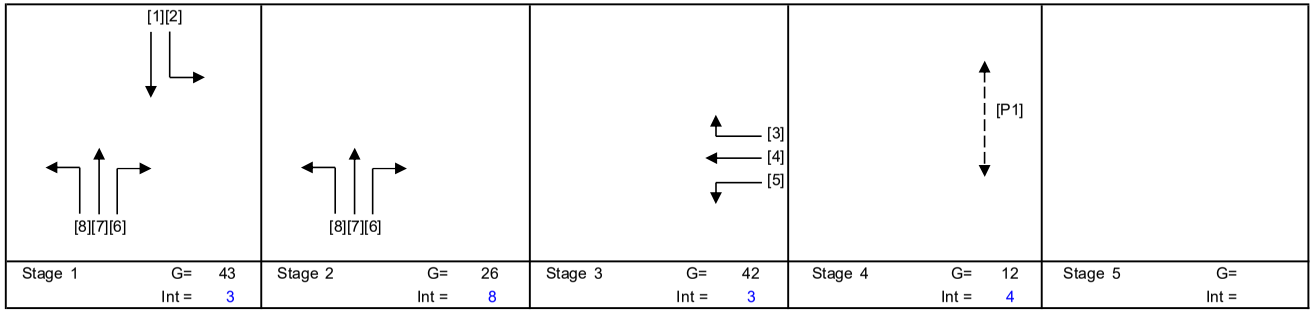
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung			
J13 Broadwood Road / Link Road	**2033 Design PM**		
PROJECT NO.: 40920	Prepared By:	SKL	Mar-26
FILENAME : J13_BR_LR.xlsx	Checked By:	SLN	Mar-26
	Reviewed By:	SLN	Mar-26



No. of stages per cycle		N =	4
Cycle time		C =	140 sec
Sum(y)		Y =	0.447
Loss time		L =	27 sec
Total Flow		=	1230 pcu
Co	= (1.5*L+5)/(1-Y)	=	82.3 sec
Cm	= L/(1-Y)	=	48.9 sec
Yult		=	0.698
R.C.ult	= (Yult-Y)/Y*100%	=	55.9 %
Cp	= 0.9*L/(0.9-Y)	=	53.7 sec
Ymax	= 1-L/C	=	0.807
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**62 %**



Stage 1	G= 43	Int = 3
Stage 2	G= 26	Int = 8
Stage 3	G= 42	Int = 3
Stage 4	G= 12	Int = 4
Stage 5	G=	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	4		5	7	0	9	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)
1,2	1	3.50	1	80		N	1965	182	156		338	0.54	1945							1945	0.174	0.174	15	44	44	0.554	54	39
7,8	1,2	3.00	1	15		N	1915	31	356		387	0.08	1900							1900	0.204			51	70	0.554	54	35
6	2	3.00	1	8			2055			182	182	1.00	1731							1731	0.105	0.105		27	27	0.554	30	52
3,4,5	3	3.50	1	60		N	1965	37	7	279	323	0.98	1918							1918	0.168	0.168		43	43	0.554	48	40
PED	4																						12					

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

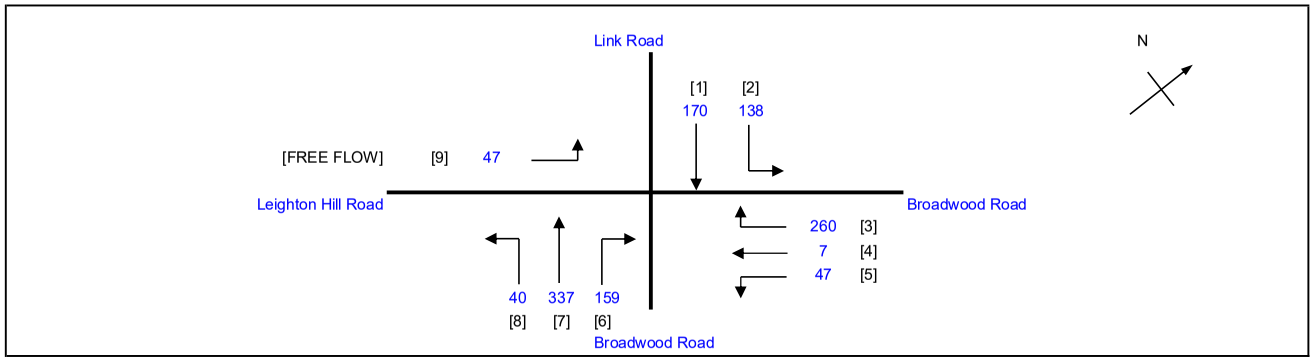
		INITIALS	DATE
Prepared By:		SKL	Mar-26
Checked By:		SLN	Mar-26
Reviewed By:		SLN	Mar-26

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

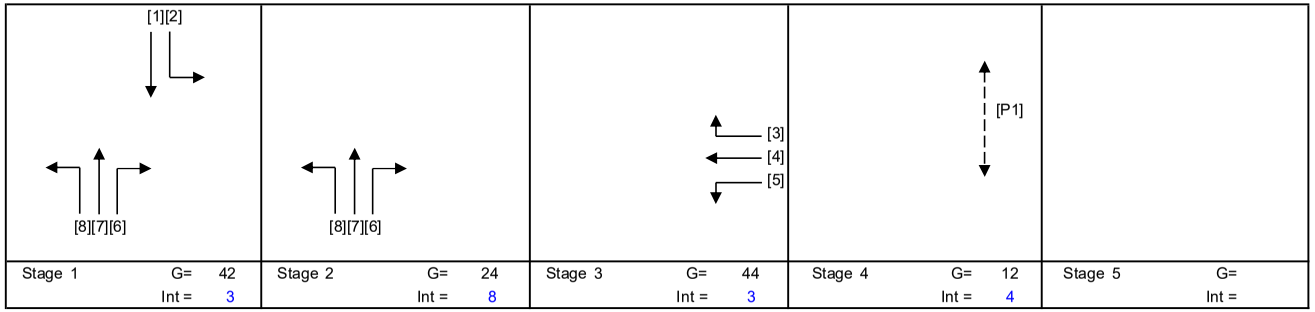
J13 Broadwood Road / Link Road

2033 Design Weekend

PROJECT NO.: 40920
FILENAME : J13_BR_LR.xlsx



No. of stages per cycle		N =	4
Cycle time		C =	140 sec
Sum(y)		Y =	0.414
Loss time		L =	27 sec
Total Flow		=	1158 pcu
Co	= (1.5*L+5)/(1-Y)	=	77.6 sec
Cm	= L/(1-Y)	=	46.0 sec
Yult		=	0.698
R.C.ult	= (Yult-Y)/Y*100%	=	68.6 %
Cp	= 0.9*L/(0.9-Y)	=	50.0 sec
Ymax	= 1-L/C	=	0.807
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**76 %**



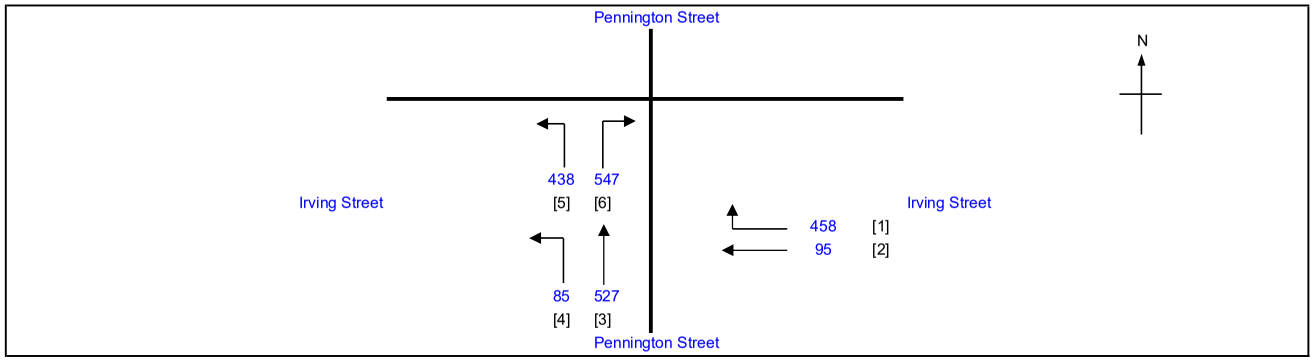
Stage 1	G= 42	Int = 3
Stage 2	G= 24	Int = 8
Stage 3	G= 44	Int = 3
Stage 4	G= 12	Int = 4
Stage 5	G=	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	4		5	7	0	9	7

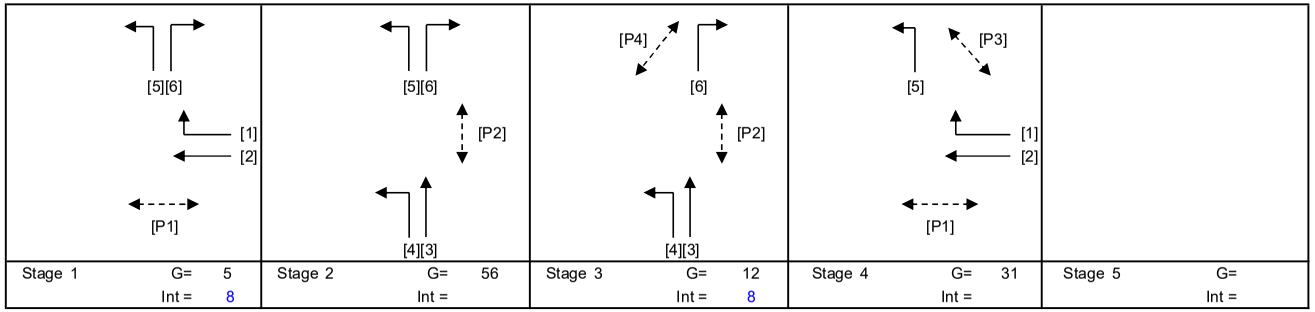
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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)
1,2	1	3.50	1	80		N	1965	138	170		308	0.45	1949							1949	0.158	0.158	15	43	43	0.512	48	39
7,8	1,2	3.00	1	15		N	1915	40	337		377	0.11	1895							1895	0.199			54	68	0.512	48	32
6	2	3.00	1	8			2055			159	159	1.00	1731							1731	0.092	0.092		25	25	0.512	30	52
3,4,5	3	3.50	1	60		N	1965	47	7	260	314	0.98	1918							1918	0.164	0.164		45	45	0.512	48	38
PED	4																						12					

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 AM**	PROJECT NO.: 40920	Prepared By:	SKL	Mar-26
J14 Pennington Street / Irving Street / Jardine's Bazaar		FILENAME : J14_PS_IS_JB.xlsx	Checked By:	SLN	Mar-26
			Reviewed By:	SLN	Mar-26



No. of stages per cycle	N = 4
Cycle time	C = 120 sec
Sum(y)	Y = 0.247
Loss time	L = 14 sec
Total Flow	= 2150 pcu
Co = (1.5*L+5)/(1-Y)	= 34.5 sec
Cm = L/(1-Y)	= 18.6 sec
Yult	= 0.795
R.C.ult = (Yult-Y)/Y*100%	= 221.6 %
Cp = 0.9*L/(0.9-Y)	= 19.3 sec
Ymax = 1-L/C	= 0.883
R.C.(C) = (0.9*Ymax-Y)/Y*100%	**= 222 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1,4		8	8		36	8
P2	2,3		8	14		62	14
P3	4		7	7		24	7
P4	3		6	6		14	6

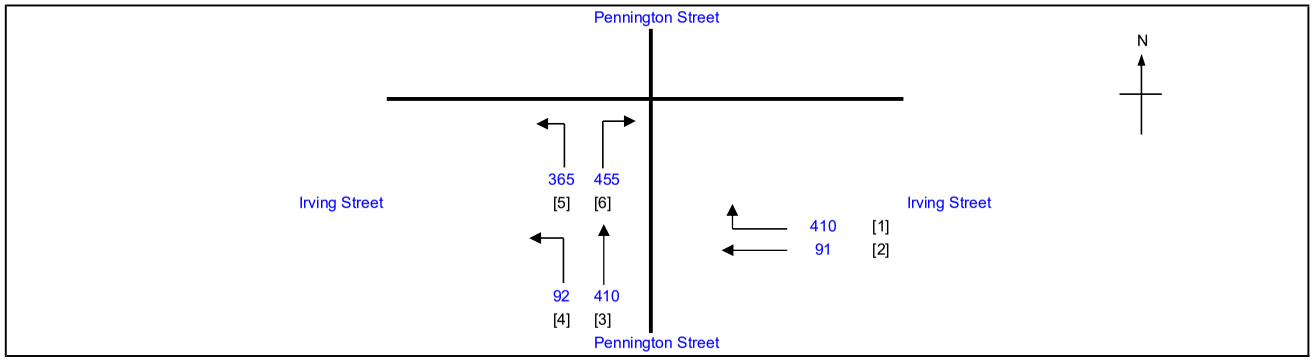
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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					
2	1,4	3.00	1			N	1915		83		83	0.00	1915			0.5	-958			957	0.087			37	37	0.280	6	30
1,2	1,4	3.00	1	16			2055		12	153	165	0.93	1891							1891	0.087	0.087		37	37	0.280	18	29
1	1,4	3.00	1	13			2055			160	160	1.00	1842							1842	0.087			37	37	0.280	18	29
1	1,4	3.00	1	10		N	1915			145	145	1.00	1665							1665	0.087			37	37	0.280	18	29
3,4	2,3	3.80	1	5		N	1995	85	208		293	0.29	1835							1835	0.160			68	69	0.280	24	12
3	2,3	3.80	1			N	1995		319		319	0.00	1995							1995	0.160	0.160		69	69	0.280	24	12
5	1,2,4	3.50	1	10			2105	438			438	1.00	1830							1830	0.239			103	94	0.280	12	2
6	1,2,4	3.50	1	10			2105			292	292	1.00	1830							1830	0.160			68	94	0.280	24	12
6	1,2,4	3.50	1	6.5		N	1965			255	255	1.00	1597							1597	0.160			68	94	0.280	18	13

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

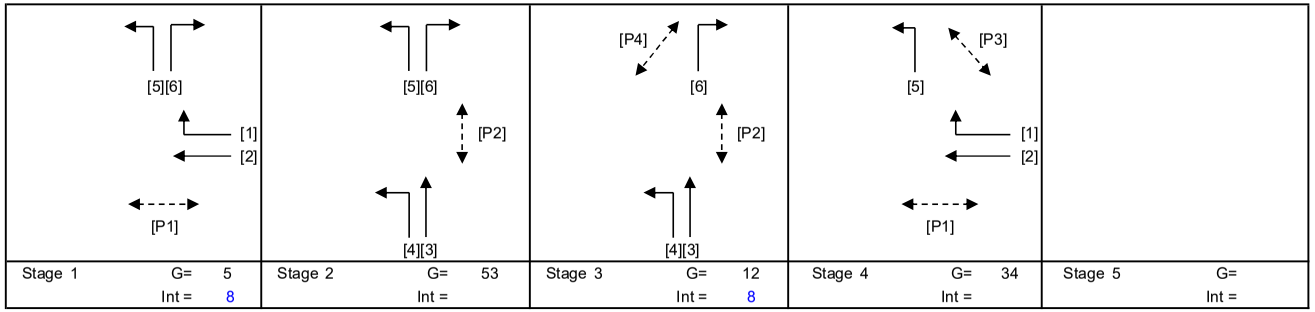
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung	PROJECT NO.: 40920	Prepared By:	SKL	Mar-26
2033 Reference PM	FILENAME : J14_PS_IS_JB.xlsx	Checked By:	SLN	Mar-26
J14 Pennington Street / Irving Street / Jardine's Bazaar		Reviewed By:	SLN	Mar-26



No. of stages per cycle	N =	4
Cycle time	C =	120 sec
Sum(y)	Y =	0.212
Loss time	L =	14 sec
Total Flow	=	1823 pcu
Co = (1.5*L+5)/(1-Y)	=	33.0 sec
Cm = L/(1-Y)	=	17.8 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	274.6 %
Cp = 0.9*L/(0.9-Y)	=	18.3 sec
Ymax = 1-L/C	=	0.883
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**275 %**



Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
G= 5	G= 53	G= 12	G= 34	G=
Int = 8	Int =	Int = 8	Int =	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1,4		8	8		39	8
P2	2,3		8	14		59	14
P3	4		7	7		27	7
P4	3		6	6		14	6

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					
2	1,4	3.00	1			N	1915		76		76	0.00	1915			0.5	-958			957	0.079	0.079		40	40	0.240	6	28
1,2	1,4	3.00	1	16			2055		15	133	148	0.90	1895							1895	0.078			39	40	0.240	18	28
1	1,4	3.00	1	13			2055			146	146	1.00	1842							1842	0.079			40	40	0.240	18	27
1	1,4	3.00	1	10		N	1915			131	131	1.00	1665							1665	0.079			39	40	0.240	12	27
3,4	2,3	3.80	1	5		N	1995	92	145		237	0.39	1787							1787	0.133			66	66	0.240	18	13
3	2,3	3.80	1			N	1995		265		265	0.00	1995							1995	0.133	0.133		66	66	0.240	18	13
5	1,2,4	3.50	1	10			2105	365			365	1.00	1830							1830	0.199			100	94	0.240	12	2
6	1,2,4	3.50	1	10			2105			243	243	1.00	1830							1830	0.133			66	94	0.240	18	13
6	1,2,4	3.50	1	6.5		N	1965			212	212	1.00	1597							1597	0.133			66	94	0.240	18	13

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

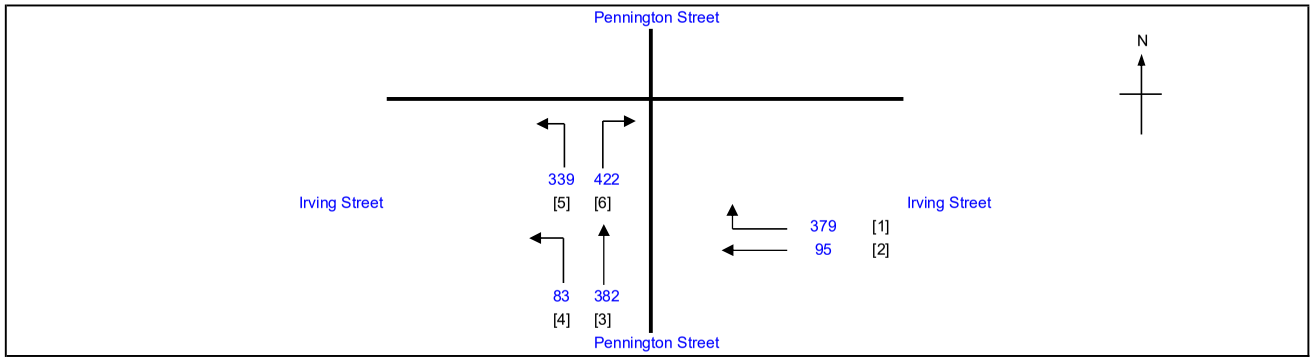
	INITIALS	DATE
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

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

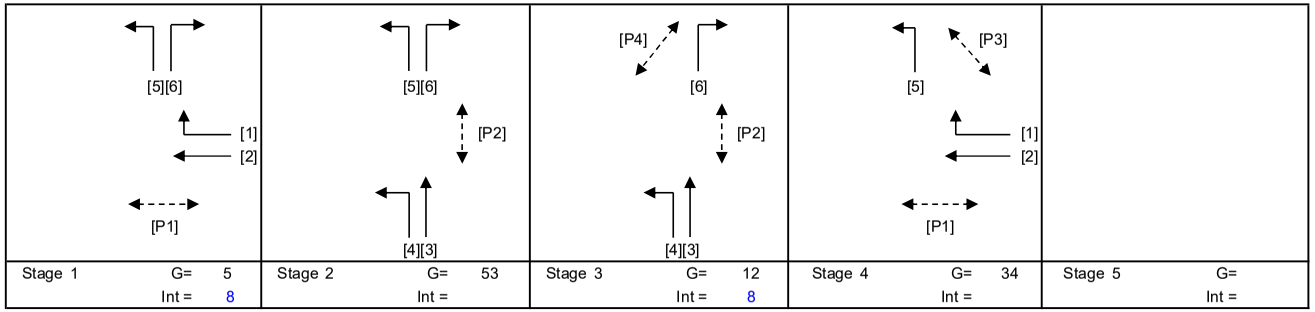
J14 Pennington Street / Irving Street / Jardine's Bazaar

2033 Reference Weekend

PROJECT NO.: 40920
FILENAME : J14_PS_IS_JB.xlsx



No. of stages per cycle		N =	4
Cycle time		C =	120 sec
Sum(y)		Y =	0.197
Loss time		L =	14 sec
Total Flow		=	1700 pcu
Co	= (1.5*L+5)/(1-Y)	=	32.4 sec
Cm	= L/(1-Y)	=	17.4 sec
Yult		=	0.795
R.C.ult	= (Yult-Y)/Y*100%	=	303.0 %
Cp	= 0.9*L/(0.9-Y)	=	17.9 sec
Ymax	= 1-L/C	=	0.883
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**303 %**



Stage 1	G= 5	Int = 8
Stage 2	G= 53	Int =
Stage 3	G= 12	Int = 8
Stage 4	G= 34	Int =
Stage 5	G=	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1,4		8	8		39	8
P2	2,3		8	14		59	14
P3	4		7	7		27	7
P4	3		6	6		14	6

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					
2	1,4	3.00	1			N	1915		71		71	0.00	1915			0.5	-958			957	0.074			40	40	0.223	6	27
1,2	1,4	3.00	1	16			2055		24	118	142	0.83	1906							1906	0.074	0.074		40	40	0.223	18	27
1	1,4	3.00	1	13			2055			137	137	1.00	1842							1842	0.074			40	40	0.223	18	27
1	1,4	3.00	1	10		N	1915			124	124	1.00	1665							1665	0.074			40	40	0.223	12	27
3,4	2,3	3.80	1	5		N	1995	83	137		220	0.38	1792							1792	0.123			66	66	0.223	18	13
3	2,3	3.80	1			N	1995		245		245	0.00	1995							1995	0.123	0.123		66	66	0.223	18	13
5	1,2,4	3.50	1	10			2105	339			339	1.00	1830							1830	0.185			100	94	0.223	6	2
6	1,2,4	3.50	1	10			2105			225	225	1.00	1830							1830	0.123			66	94	0.223	18	13
6	1,2,4	3.50	1	6.5		N	1965			197	197	1.00	1597							1597	0.123			66	94	0.223	12	13

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	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

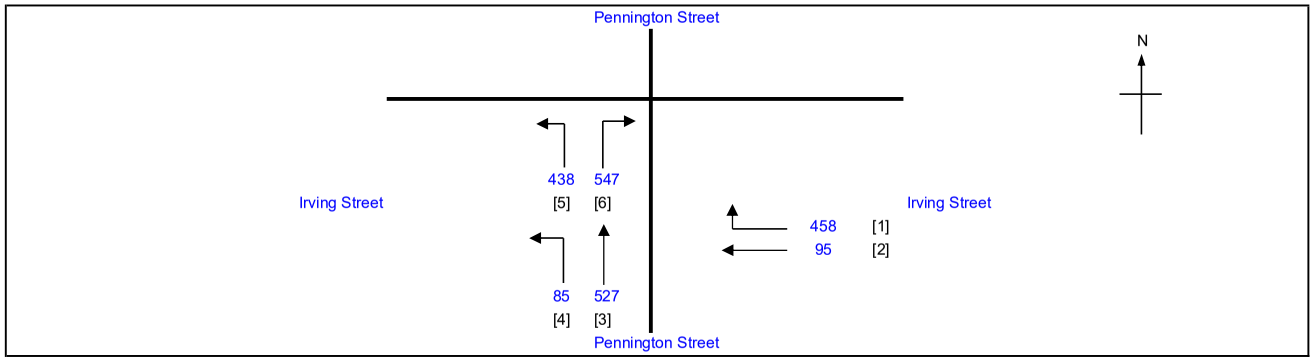
Proposed SCAA Sports Link at South China Athletic Association 88 Caroline Hill Road in Wong Nai Chung

J14 Pennington Street / Irving Street / Jardine's Bazaar

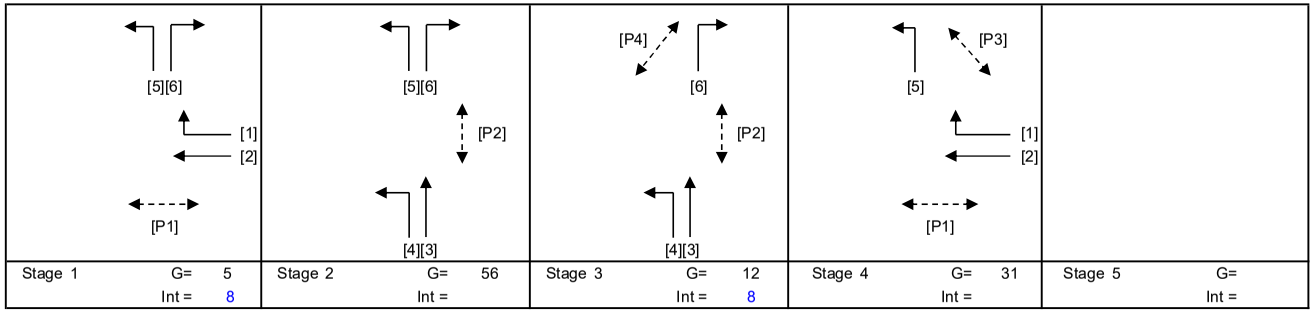
2033 Design AM

PROJECT NO.: 40920

FILENAME : J14_PS_IS_JB.xlsx



No. of stages per cycle	N =	4
Cycle time	C =	120 sec
Sum(y)	Y =	0.247
Loss time	L =	14 sec
Total Flow	=	2150 pcu
Co = (1.5*L+5)/(1-Y)	=	34.5 sec
Cm = L/(1-Y)	=	18.6 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	221.6 %
Cp = 0.9*L/(0.9-Y)	=	19.3 sec
Ymax = 1-L/C	=	0.883
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**222 %**



Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1,4		8	8		36	8
P2	2,3		8	14		62	14
P3	4		7	7		24	7
P4	3		6	6		14	6

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					
2	1,4	3.00	1			N	1915		83		83	0.00	1915			0.5	-958			957	0.087			37	37	0.280	6	30
1,2	1,4	3.00	1	16			2055		12	153	165	0.93	1891							1891	0.087	0.087		37	37	0.280	18	29
1	1,4	3.00	1	13			2055			160	160	1.00	1842							1842	0.087			37	37	0.280	18	29
1	1,4	3.00	1	10		N	1915			145	145	1.00	1665							1665	0.087			37	37	0.280	18	29
3,4	2,3	3.80	1	5		N	1995	85	208		293	0.29	1835							1835	0.160			68	69	0.280	24	12
3	2,3	3.80	1			N	1995		319		319	0.00	1995							1995	0.160	0.160		69	69	0.280	24	12
5	1,2,4	3.50	1	10			2105	438			438	1.00	1830							1830	0.239			103	94	0.280	12	2
6	1,2,4	3.50	1	10			2105			292	292	1.00	1830							1830	0.160			68	94	0.280	24	12
6	1,2,4	3.50	1	6.5		N	1965			255	255	1.00	1597							1597	0.160			68	94	0.280	18	13

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

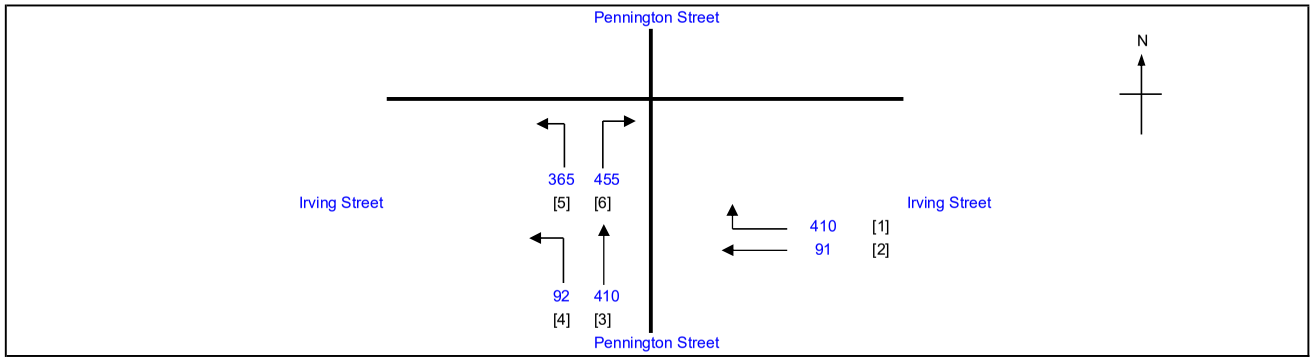
	INITIALS	DATE
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

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

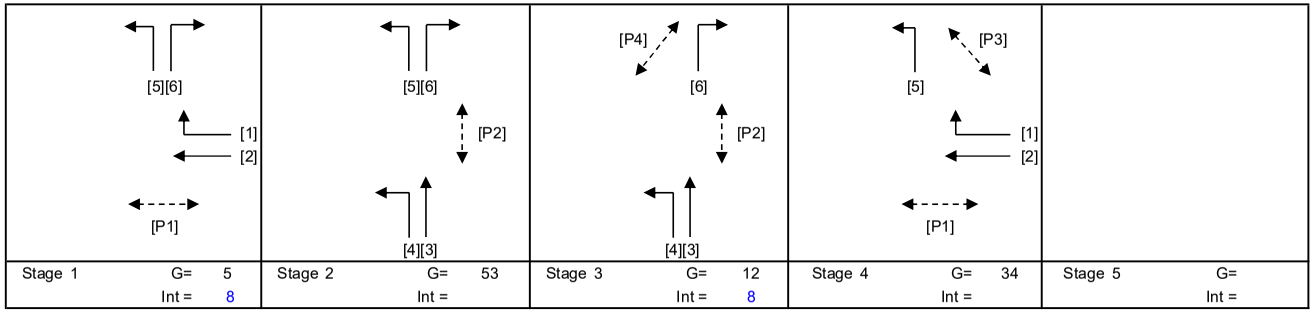
J14 Pennington Street / Irving Street / Jardine's Bazaar

2033 Design PM

PROJECT NO.: 40920
FILENAME : J14_PS_IS_JB.xlsx



No. of stages per cycle		N =	4
Cycle time		C =	120 sec
Sum(y)		Y =	0.212
Loss time		L =	14 sec
Total Flow		=	1823 pcu
Co	= (1.5*L+5)/(1-Y)	=	33.0 sec
Cm	= L/(1-Y)	=	17.8 sec
Yult		=	0.795
R.C.ult	= (Yult-Y)/Y*100%	=	274.6 %
Cp	= 0.9*L/(0.9-Y)	=	18.3 sec
Ymax	= 1-L/C	=	0.883
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**275 %**



Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
G= 5	G= 53	G= 12	G= 34	G=
Int = 8	Int =	Int = 8	Int =	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1,4		8	8		39	8
P2	2,3		8	14		59	14
P3	4		7	7		27	7
P4	3		6	6		14	6

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					
2	1,4	3.00	1			N	1915		76		76	0.00	1915			0.5	-958			957	0.079	0.079		40	40	0.240	6	28
1,2	1,4	3.00	1	16			2055		15	133	148	0.90	1895							1895	0.078			39	40	0.240	18	28
1	1,4	3.00	1	13			2055			146	146	1.00	1842							1842	0.079			40	40	0.240	18	27
1	1,4	3.00	1	10		N	1915			131	131	1.00	1665							1665	0.079			39	40	0.240	12	27
3,4	2,3	3.80	1	5		N	1995	92	145		237	0.39	1787							1787	0.133			66	66	0.240	18	13
3	2,3	3.80	1			N	1995		265		265	0.00	1995							1995	0.133	0.133		66	66	0.240	18	13
5	1,2,4	3.50	1	10			2105	365			365	1.00	1830							1830	0.199			100	94	0.240	12	2
6	1,2,4	3.50	1	10			2105			243	243	1.00	1830							1830	0.133			66	94	0.240	18	13
6	1,2,4	3.50	1	6.5		N	1965			212	212	1.00	1597							1597	0.133			66	94	0.240	18	13

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

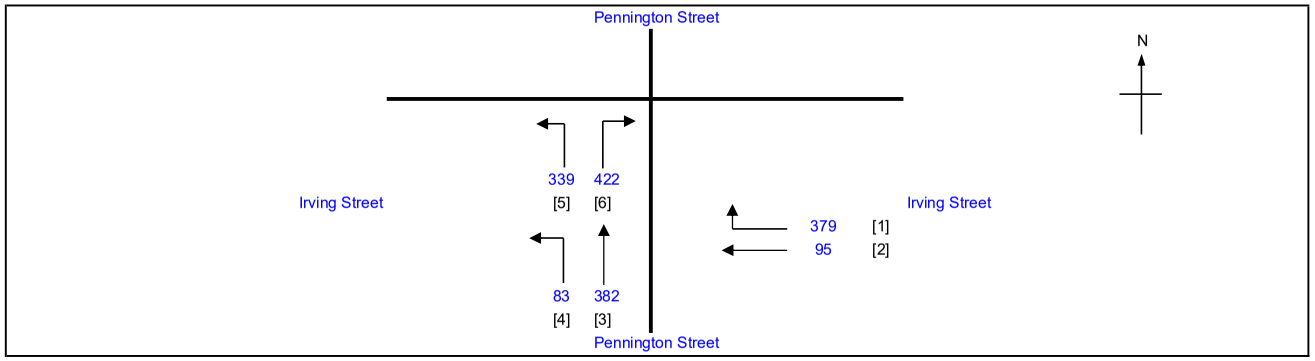
	INITIALS	DATE
Prepared By:	SKL	Mar-26
Checked By:	SLN	Mar-26
Reviewed By:	SLN	Mar-26

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

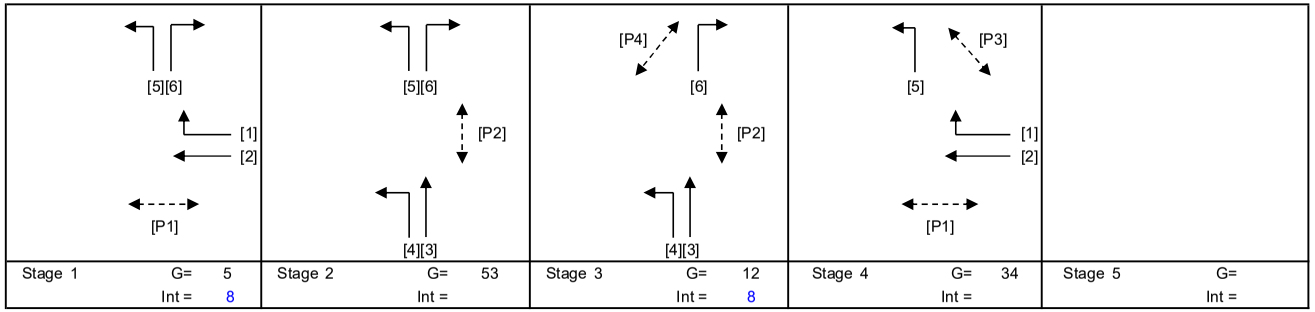
J14 Pennington Street / Irving Street / Jardine's Bazaar

2033 Design Weekend

PROJECT NO.: 40920
FILENAME : J14_PS_IS_JB.xlsx



No. of stages per cycle	N =	4
Cycle time	C =	120 sec
Sum(y)	Y =	0.197
Loss time	L =	14 sec
Total Flow	=	1700 pcu
Co = (1.5*L+5)/(1-Y)	=	32.4 sec
Cm = L/(1-Y)	=	17.4 sec
Yult	=	0.795
R.C.ult = (Yult-Y)/Y*100%	=	303.0 %
Cp = 0.9*L/(0.9-Y)	=	17.9 sec
Ymax = 1-L/C	=	0.883
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**303 %**



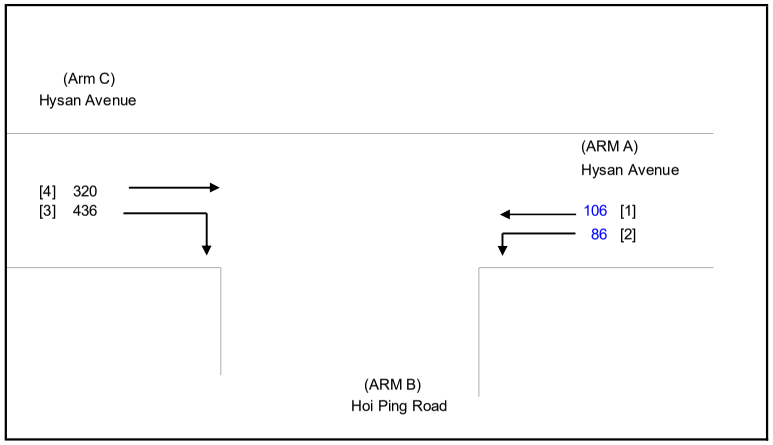
Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
G= 5	G= 53	G= 12	G= 34	G=
Int = 8	Int =	Int = 8	Int =	Int =

Pedestrian Phase	Stage		Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1,4		8	8		39	8
P2	2,3		8	14		59	14
P3	4		7	7		27	7
P4	3		6	6		14	6

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				
2	1,4	3.00	1			N	1915		71		71	0.00	1915			0.5	-958			957	0.074			40	40	0.223	6	27
1,2	1,4	3.00	1	16			2055		24	118	142	0.83	1906							1906	0.074	0.074		40	40	0.223	18	27
1	1,4	3.00	1	13			2055			137	137	1.00	1842							1842	0.074			40	40	0.223	18	27
1	1,4	3.00	1	10		N	1915			124	124	1.00	1665							1665	0.074			40	40	0.223	12	27
3,4	2,3	3.80	1	5		N	1995	83	137		220	0.38	1792							1792	0.123			66	66	0.223	18	13
3	2,3	3.80	1			N	1995		245		245	0.00	1995							1995	0.123	0.123		66	66	0.223	18	13
5	1,2,4	3.50	1	10			2105	339			339	1.00	1830							1830	0.185			100	94	0.223	6	2
6	1,2,4	3.50	1	10			2105			225	225	1.00	1830							1830	0.123			66	94	0.223	18	13
6	1,2,4	3.50	1	6.5		N	1965			197	197	1.00	1597							1597	0.123			66	94	0.223	12	13

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	Mar-26
		FILENAME : J15_HA_HPR	CHECKED BY:	SLN	Mar-26
J15 Hysan Avenue / Hoi Ping Road		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	10.00	(metres)
W cr	=	0	(metres)
q a-b	=	86	(pcu/hr)
q a-c	=	106	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.30	(metres)
Vr c-b	=	100	(metres)
q c-a	=	320	(pcu/hr)
q c-b	=	436	(pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D	=	0.53322
E	=	0.58595
F	=	0.94969
Y	=	0.65500
F for (Qb-ac)	=	0

THE CAPACITY OF MOVEMENT :

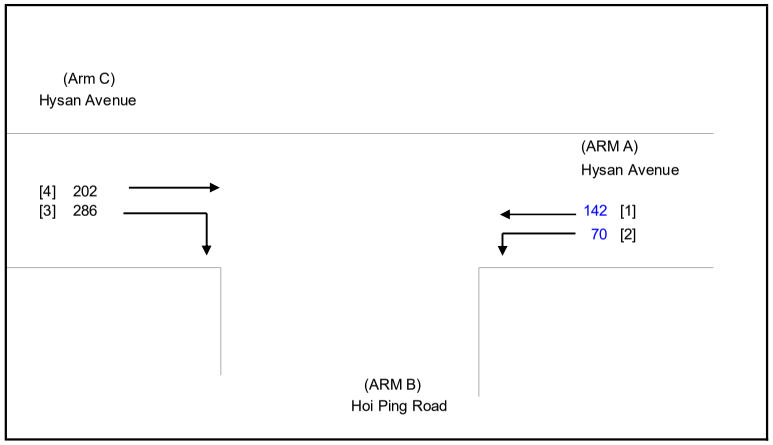
Q b-a	=	212		
Q b-c	=	417	Q b-c (O) =	417
Q c-b	=	664		
Q b-ac	=	212		
TOTAL FLOW	=	948	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0000
DFC c-b	=	0.6566
DFC b-c (share lane)	=	0.0000

CRITICAL DFC = 0.66

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	Mar-26
		FILENAME : J15_HA_HPR	CHECKED BY:	SLN	Mar-26
J15 Hysan Avenue / Hoi Ping Road		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	10.00	(metres)
W cr	=	0	(metres)
q a-b	=	70	(pcu/hr)
q a-c	=	142	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.30	(metres)
Vr c-b	=	100	(metres)
q c-a	=	202	(pcu/hr)
q c-b	=	286	(pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D	=	0.53322
E	=	0.58595
F	=	0.94969
Y	=	0.65500
F for (Qb-ac)	=	0

THE CAPACITY OF MOVEMENT :

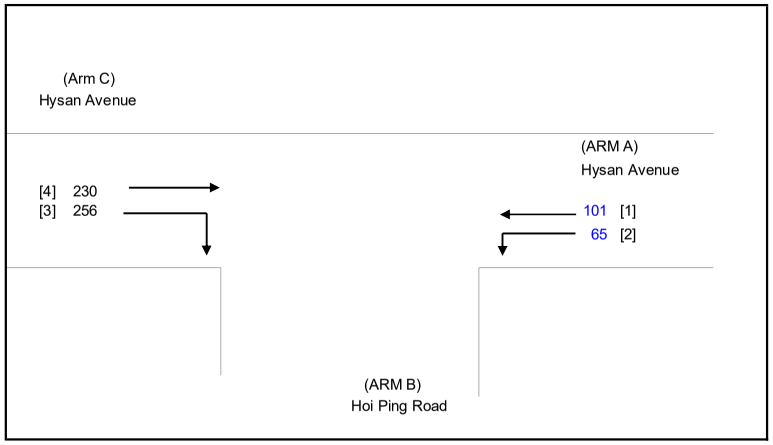
Q b-a	=	245		
Q b-c	=	413	Q b-c (O) =	413
Q c-b	=	660		
Q b-ac	=	245		
TOTAL FLOW	=	700	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0000
DFC c-b	=	0.4333
DFC b-c (share lane)	=	0.0000

CRITICAL DFC = 0.43

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	Mar-26
		FILENAME : J15_HA_HPR	CHECKED BY:	SLN	Mar-26
J15 Hysan Avenue / Hoi Ping Road		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	10.00	(metres)
W cr	=	0	(metres)
q a-b	=	65	(pcu/hr)
q a-c	=	101	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.30	(metres)
Vr c-b	=	100	(metres)
q c-a	=	230	(pcu/hr)
q c-b	=	256	(pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D	=	0.53322
E	=	0.58595
F	=	0.94969
Y	=	0.65500
F for (Qb-ac)	=	0

THE CAPACITY OF MOVEMENT :

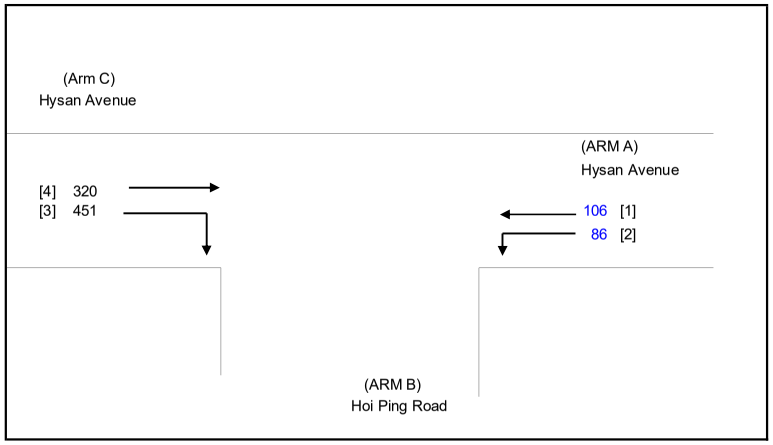
Q b-a	=	253		
Q b-c	=	419	Q b-c (O) =	419
Q c-b	=	670		
Q b-ac	=	253		
TOTAL FLOW	=	652	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0000
DFC c-b	=	0.3821
DFC b-c (share lane)	=	0.0000

CRITICAL DFC = 0.38

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	Mar-26
		FILENAME : J15_HA_HPR	CHECKED BY:	SLN	Mar-26
J15 Hysan Avenue / Hoi Ping Road		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	10.00	(metres)
W cr	=	0	(metres)
q a-b	=	86	(pcu/hr)
q a-c	=	106	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.30	(metres)
Vr c-b	=	100	(metres)
q c-a	=	320	(pcu/hr)
q c-b	=	451	(pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D	=	0.53322
E	=	0.58595
F	=	0.94969
Y	=	0.65500
F for (Qb-ac)	=	0

THE CAPACITY OF MOVEMENT :

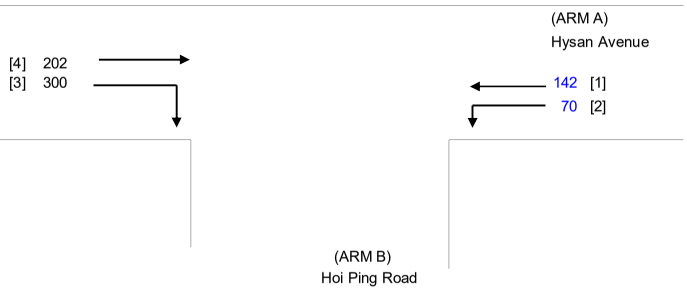
Q b-a	=	209		
Q b-c	=	417	Q b-c (O) =	417
Q c-b	=	664		
Q b-ac	=	209		
TOTAL FLOW	=	963	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0000
DFC c-b	=	0.6792
DFC b-c (share lane)	=	0.0000

CRITICAL DFC = 0.68

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	Mar-26
		FILENAME : J15_HA_HPR	CHECKED BY:	SLN	Mar-26
J15 Hysan Avenue / Hoi Ping Road		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	10.00	(metres)
W cr	=	0	(metres)
q a-b	=	70	(pcu/hr)
q a-c	=	142	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.30	(metres)
Vr c-b	=	100	(metres)
q c-a	=	202	(pcu/hr)
q c-b	=	300	(pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D	=	0.53322
E	=	0.58595
F	=	0.94969
Y	=	0.65500
F for (Qb-ac)	=	0

THE CAPACITY OF MOVEMENT :

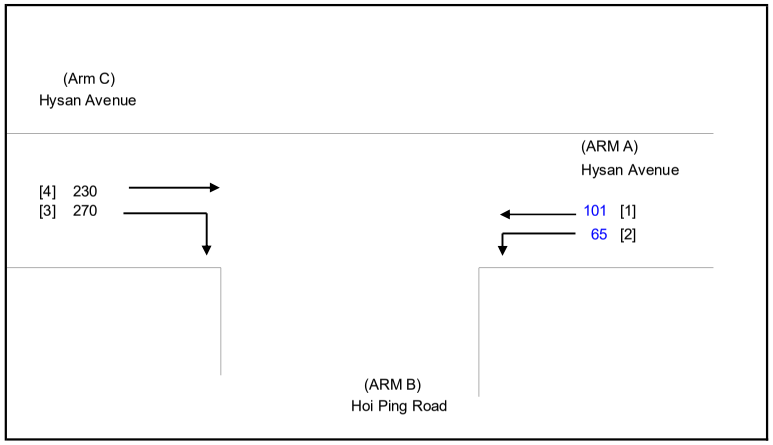
Q b-a	=	242		
Q b-c	=	413	Q b-c (O) =	413
Q c-b	=	660		
Q b-ac	=	242		
TOTAL FLOW	=	714	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0000
DFC c-b	=	0.4545
DFC b-c (share lane)	=	0.0000

CRITICAL DFC = 0.45

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	Mar-26
		FILENAME : J15_HA_HPR	CHECKED BY:	SLN	Mar-26
J15 Hysan Avenue / Hoi Ping Road		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	10.00	(metres)
W cr	=	0	(metres)
q a-b	=	65	(pcu/hr)
q a-c	=	101	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.30	(metres)
Vr c-b	=	100	(metres)
q c-a	=	230	(pcu/hr)
q c-b	=	270	(pcu/hr)

MINOR ROAD (ARM B)

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

GEOMETRIC FACTORS :

D	=	0.53322
E	=	0.58595
F	=	0.94969
Y	=	0.65500
F for (Qb-ac)	=	0

THE CAPACITY OF MOVEMENT :

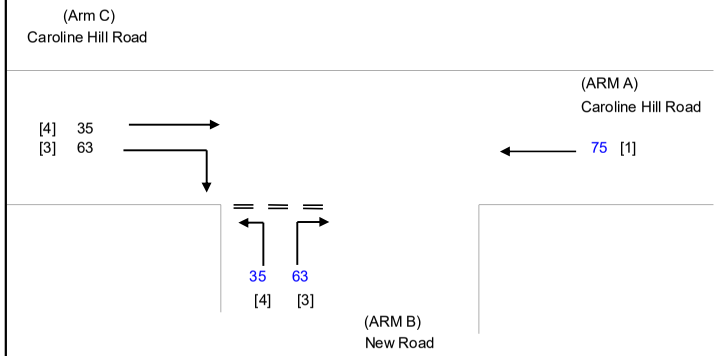
Q b-a	=	251		
Q b-c	=	419	Q b-c (O) =	419
Q c-b	=	670		
Q b-ac	=	251		
TOTAL FLOW	=	666	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.0000
DFC c-b	=	0.4030
DFC b-c (share lane)	=	0.0000

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	Mar-26
		FILENAME : J16_CHR_NR	CHECKED BY:	SLN	Mar-26
J16 Caroline Hill Road / New Road		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	7.25	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	75	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.00	(metres)
Vr c-b	=	100	(metres)
q c-a	=	35	(pcu/hr)
q c-b	=	63	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.50	(metres)
W b-c	=	3.50	(metres)
Vl b-a	=	35	(metres)
Vr b-a	=	45	(metres)
Vr b-c	=	50	(metres)
q b-a	=	63	(pcu/hr)
q b-c	=	35	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.85592
E	=	0.92379
F	=	0.92200
Y	=	0.74988
F for (Qb-ac)	=	0.35714286

THE CAPACITY OF MOVEMENT :

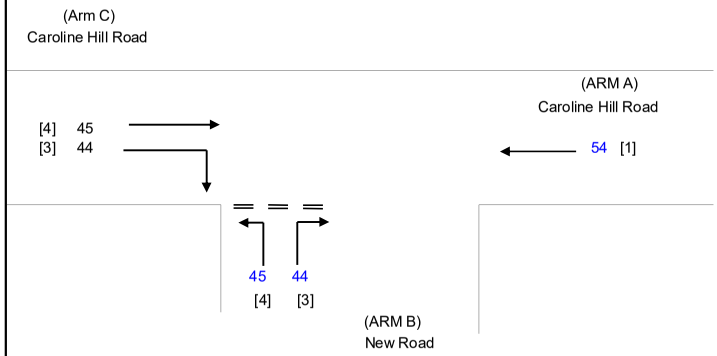
Q b-a	=	493		
Q b-c	=	669	Q b-c (O) =	647.6
Q c-b	=	668		
Q b-ac	=	544		
TOTAL FLOW	=	271	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.1278
DFC b-c	=	0.0523
DFC c-b	=	0.0943
DFC b-c (share lane)	=	0.0643

CRITICAL DFC = 0.13

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	Mar-26
		FILENAME : J16_CHR_NR	CHECKED BY:	SLN	Mar-26
J16 Caroline Hill Road / New Road		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	7.25	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	54	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.00	(metres)
Vr c-b	=	100	(metres)
q c-a	=	45	(pcu/hr)
q c-b	=	44	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.50	(metres)
W b-c	=	3.50	(metres)
Vl b-a	=	35	(metres)
Vr b-a	=	45	(metres)
Vr b-c	=	50	(metres)
q b-a	=	44	(pcu/hr)
q b-c	=	45	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.85592
E	=	0.92379
F	=	0.92200
Y	=	0.74988
F for (Qb-ac)	=	0.50561798

THE CAPACITY OF MOVEMENT :

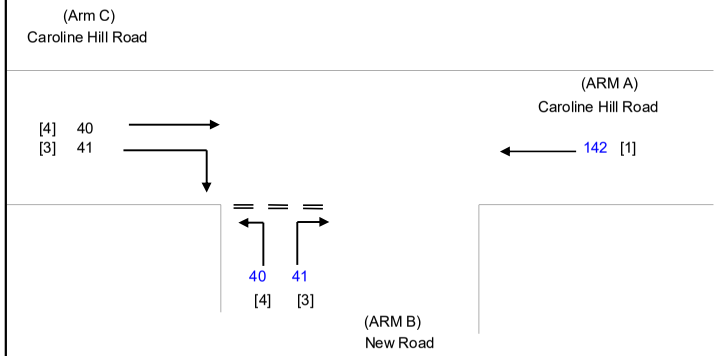
Q b-a	=	503		
Q b-c	=	675	Q b-c (O) =	660.2
Q c-b	=	673		
Q b-ac	=	577		
TOTAL FLOW	=	232	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0875
DFC b-c	=	0.0667
DFC c-b	=	0.0654
DFC b-c (share lane)	=	0.0779

CRITICAL DFC = 0.09

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	Mar-26
		FILENAME : J16_CHR_NR	CHECKED BY:	SLN	Mar-26
J16 Caroline Hill Road / New Road		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	7.25	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	142	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.00	(metres)
Vr c-b	=	100	(metres)
q c-a	=	40	(pcu/hr)
q c-b	=	41	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.50	(metres)
W b-c	=	3.50	(metres)
Vl b-a	=	35	(metres)
Vr b-a	=	45	(metres)
Vr b-c	=	50	(metres)
q b-a	=	41	(pcu/hr)
q b-c	=	40	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.85592
E	=	0.92379
F	=	0.92200
Y	=	0.74988
F for (Qb-ac)	=	0.49382716

THE CAPACITY OF MOVEMENT :

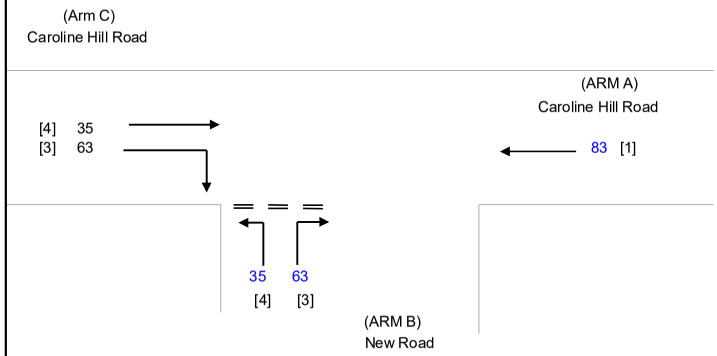
Q b-a	=	484		
Q b-c	=	652	Q b-c (O) =	638.2
Q c-b	=	651		
Q b-ac	=	555		
TOTAL FLOW	=	304	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0847
DFC b-c	=	0.0613
DFC c-b	=	0.0630
DFC b-c (share lane)	=	0.0721

CRITICAL DFC = 0.08

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	Mar-26
		FILENAME : J16_CHR_NR	CHECKED BY:	SLN	Mar-26
J16 Caroline Hill Road / New Road		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	7.25	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	83	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.00	(metres)
Vr c-b	=	100	(metres)
q c-a	=	35	(pcu/hr)
q c-b	=	63	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.50	(metres)
W b-c	=	3.50	(metres)
Vl b-a	=	35	(metres)
Vr b-a	=	45	(metres)
Vr b-c	=	50	(metres)
q b-a	=	63	(pcu/hr)
q b-c	=	35	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.85592
E	=	0.92379
F	=	0.92200
Y	=	0.74988
F for (Qb-ac)	=	0.35714286

THE CAPACITY OF MOVEMENT :

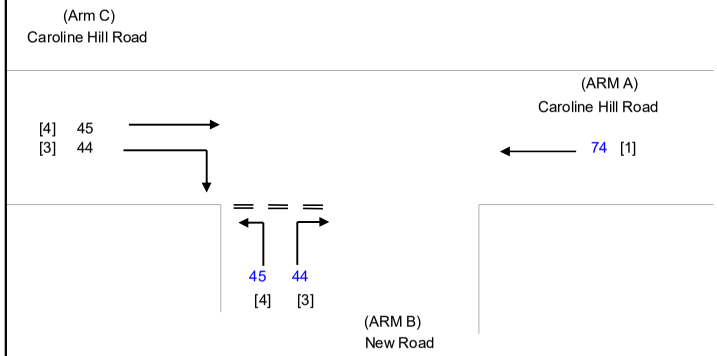
Q b-a	=	491		
Q b-c	=	667	Q b-c (O) =	645.6
Q c-b	=	666		
Q b-ac	=	542		
TOTAL FLOW	=	279	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.1283
DFC b-c	=	0.0525
DFC c-b	=	0.0946
DFC b-c (share lane)	=	0.0646

CRITICAL DFC = 0.13

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	Mar-26
		FILENAME : J16_CHR_NR	CHECKED BY:	SLN	Mar-26
J16 Caroline Hill Road / New Road		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	7.25	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	74	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.00	(metres)
Vr c-b	=	100	(metres)
q c-a	=	45	(pcu/hr)
q c-b	=	44	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.50	(metres)
W b-c	=	3.50	(metres)
Vl b-a	=	35	(metres)
Vr b-a	=	45	(metres)
Vr b-c	=	50	(metres)
q b-a	=	44	(pcu/hr)
q b-c	=	45	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.85592
E	=	0.92379
F	=	0.92200
Y	=	0.74988
F for (Qb-ac)	=	0.50561798

THE CAPACITY OF MOVEMENT :

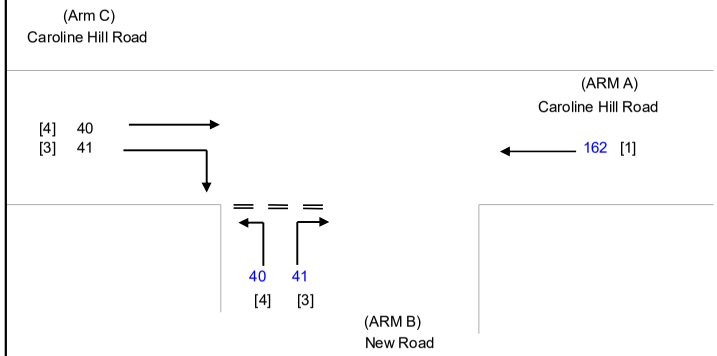
Q b-a	=	498		
Q b-c	=	670	Q b-c (O) =	655.2
Q c-b	=	668		
Q b-ac	=	572		
TOTAL FLOW	=	252	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0884
DFC b-c	=	0.0672
DFC c-b	=	0.0659
DFC b-c (share lane)	=	0.0786

CRITICAL DFC = 0.09

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	Mar-26
		FILENAME : J16_CHR_NR	CHECKED BY:	SLN	Mar-26
J16 Caroline Hill Road / New Road		REFERENCE NO.:	REVIEWED BY:	SLN	Mar-26



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	=	7.25	(metres)
W cr	=	0	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	162	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.00	(metres)
Vr c-b	=	100	(metres)
q c-a	=	40	(pcu/hr)
q c-b	=	41	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.50	(metres)
W b-c	=	3.50	(metres)
Vl b-a	=	35	(metres)
Vr b-a	=	45	(metres)
Vr b-c	=	50	(metres)
q b-a	=	41	(pcu/hr)
q b-c	=	40	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.85592
E	=	0.92379
F	=	0.92200
Y	=	0.74988
F for (Qb-ac)	=	0.49382716

THE CAPACITY OF MOVEMENT :

Q b-a	=	479		
Q b-c	=	647	Q b-c (O) =	633.2
Q c-b	=	646		
Q b-ac	=	549		
TOTAL FLOW	=	324	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0856
DFC b-c	=	0.0618
DFC c-b	=	0.0635
DFC b-c (share lane)	=	0.0728

CRITICAL DFC = 0.09

APPENDIX E

Abstract of Highway Capacity Manual (HCM) 2000

transportation terminals is provided in Chapter 27, "Transit;" for more discussion, refer to the *Transit Quality of Service Manual* (*3*).

EXHIBIT 18-4. PLATOON-ADJUSTED LOS CRITERIA FOR WALKWAYS AND SIDEWALKS

LOS	Space (m^2/p)	Flow Rate[a] (p/min/m)
A	> 49	≤ 1.6
B	> 8–49	> 1.6–10
C	> 4–8	> 10–20
D	> 2–4	> 20–36
E	> 1–2	> 36–59
F	≤ 1	> 59

Note:
a. Rates in the table represent average flow rates over a 5- to 6-min period.

Stairs

Institute of Transportation Engineers stairway standards

Research (*4*) has developed LOS thresholds based on the Institute of Transportation Engineers stairways standards, which provide space and flow values listed in Exhibit 18-5. These modified LOS criteria are to ensure that the basic equation of traffic flow is satisfied. The volume to capacity (v/c) ratios are based on a stairway capacity of 49 p/min/m.

EXHIBIT 18-5. LOS CRITERIA FOR STAIRWAYS

LOS	Space (m^2/p)	Flow Rate (p/min/m)	Average Horizontal Speed (m/s)	v/c Ratio
A	> 1.9	≤ 16	> 0.53	≤ 0.33
B	> 1.6–1.9	> 16–20	> 0.53	> 0.33–0.41
C	> 1.1–1.6	> 20–26	> 0.48–0.53	> 0.41–0.53
D	> 0.7–1.1	> 26–36	> 0.42–0.48	> 0.53–0.73
E	> 0.5–0.7	> 36–49	> 0.40–0.42	> 0.73–1.00
F	≤ 0.5	variable	≤ 0.40	variable

Cross Flows

A cross flow is a pedestrian flow that is approximately perpendicular to and crosses another pedestrian stream. In general, the smaller of the two flows is referred to as the cross-flow condition. Research (*5*) notes that pedestrian cross flows occur in hallways and corridors. The same procedure for estimating walkway and sidewalk space is used to analyze pedestrian facilities with cross flows. LOS criteria A through D are to be used from Exhibit 18-3 or, if platoons are observed, from Exhibit 18-4. In addition, Exhibit 18-6 lists LOS E criteria for pedestrian facilities with cross flows.

EXHIBIT 18-6. LOS CRITERIA FOR PEDESTRIAN CROSS FLOWS

LOS	Space (m^2/p)	Flow[a] (p/min/m)	Speed (m/s)	Density (p/m^2)
E	≥ 1.25	≤ 75	≥ 1.0	≤ 0.8

Note:
a. Total of the major and minor flows.

Queuing Areas

The average space available to pedestrians also can apply as the walkway service measure for queuing or waiting areas. The pedestrian stands temporarily in these areas, waiting to be served. The LOS thresholds listed in Exhibit 18-7 are related to the average space available to each pedestrian and to the degree of mobility allowed. In dense

standing crowds, there is little room to move, but limited circulation is possible as the average space per pedestrian increases.

EXHIBIT 18-7. LOS CRITERIA FOR PEDESTRIAN QUEUING AREAS

LOS	Space (m^2/p)
A	> 1.2
B	> 0.9–1.2
C	> 0.6–0.9
D	> 0.3–0.6
E	> 0.2–0.3
F	≤ 0.2

Shared Pedestrian-Bicycle Facilities

Shared pedestrian facilities typically are open to use by nonmotorized modes such as bicycles, skate boards, and wheelchairs. Shared-use paths often are constructed to serve areas without city streets and to provide recreational opportunities for the public. These paths are common on university campuses, where motor vehicle traffic and parking are often restricted. In the United States, there are few paths exclusively for pedestrians; most off-street paths, therefore, are for shared use.

On shared facilities, bicycles—because of their markedly higher speeds—can have a negative effect on pedestrian capacity and LOS. However, it is difficult to establish a bicycle-pedestrian equivalent because the relationship between the two differs depending on their respective flows, directional splits, and other factors.

This chapter deals with the LOS provided to pedestrians on shared facilities. Bicyclists have a different perspective as discussed in Chapter 19 of this manual.

LOS is based on the overtaking of pedestrians by bicycles. Pedestrian-to-pedestrian interaction is negligible.

LOS for shared paths is based on hindrance. Research (*6*) has established LOS guidelines both for pedestrians and for bicyclists based on the frequency of passing (same direction) and of meeting (opposite direction) other users on paths 2.4 m wide. Because pedestrians seldom overtake other pedestrians, the LOS for a pedestrian on a shared path depends on the frequency that the average pedestrian is overtaken by bicyclists (*6*). However, the analyst should observe pedestrian behavior in the field before assuming there is no pedestrian-to-pedestrian interaction.

Equation 18-3 is used to calculate the total number of bicycle passing events and the total number of opposing bicycle meeting events, per hour, for the average pedestrian on the shared path.

$$F_p = Q_{sb}\left(1 - \frac{S_p}{S_b}\right) \qquad (18\text{-}3)$$

$$F_m = Q_{ob}\left(1 + \frac{S_p}{S_b}\right)$$

where

F_p = number of passing events (events/h),
F_m = number of opposing events (events/h),
Q_{sb} = bicycle flow rate in the same direction (bicycles/h),
Q_{ob} = bicycle flow rate in the opposing direction (bicycles/h),
S_p = mean pedestrian speed on the path (m/s), and
S_b = mean bicycle speed on the path (m/s).

The total number of events is calculated according to Equation 18-4.

$$F = F_p + 0.5\,F_m \qquad (18\text{-}4)$$