

Appendix 2:

Replacement pages of the Traffic Review Report

Traffic Review Report

- 3.1.2. Based on the indicative development parameters of the Approved DSP and the Current Indicative Proposal of the S16 Planning Application as mentioned in **Section 2.1**, the estimated trips are presented in **Table 3-2**.

Table 3-2 - Estimated Traffic Trips

Land Use	Trip Generation / Attraction (pcu/hr)				
	Indicative Development Parameters	AM Peak		PM Peak	
		Gen.	Att.	Gen.	Att.
Current Indicative Proposal of the S16 Planning Application (A)					
Retail	8,213 m²	19	20	25	29
Residential	1,050 flats	75	45	30	39
	Total (A)	94	65	55	68
Approved DSP (B)					
Retail	8,322 m² ⁽¹⁾	20	21	26	30
Residential	900 flats	65	38	26	33
	Total (B)	85	59	52	63
	Total (A) – Total (B)	9 (+10.6%)	6 (+10.2%)	3 (+5.8%)	5 (+7.9%)

Remarks:

- (1) The net site area of the Approved DSP was about 5,548sq.m. For reference, the notional design for the Approved DSP had adopted a net site area of 5,548sq.m., with total GFA of about 49,932 sq.m , domestic GFA of about 41,610 sq.m. and non-domestic GFA of 8,322sq.m..

- 3.1.3. As shown in **Table 3-2**, the Current Indicative Proposal of the S16 Planning Application would generate an additional two-way traffic flow of 15 pcu and 8 pcu during the AM and PM peak hours respectively, as compared with the DSP Scheme. Hence, the additional traffic impact on the local road network arising from the Current Indicative Proposal is considered minimal and insignificant, and no insurmountable traffic impact on the surrounding road network is anticipated.

- 3.1.4. To further assess the traffic impact of the surrounding junctions due to the additional traffic generation arising from the subject S16 Planning Application, junction assessment was undertaken based on the latest junction layout and Method-of-Control (MoC) plans for comparing both the approved DSP Stage TIA Design Scenario and a scenario incorporating the additional traffic generation presented in **Table 3-2** of the Traffic Review Report. The assessment results, together with a comparison of the two scenarios, are presented in **Appendix A**. The junction performance of the assessed junctions under the two scenarios is generally comparable.

4. Conclusion

- 4.1.1. In light of the findings of this Traffic Review, it is concluded that the findings of the Approved TIA for the DSP Scheme remain valid, and no insurmountable traffic impact would be imposed on the surrounding road network by the S16 Planning Application.

Appendix A.



Appendix A Table 1 - Comparison of Assessment Results

Ref.	Junction	Method of Control	Year 2035 DFC/RC ⁽¹⁾			
			DSP Stage TIA Design Scenario		DSP Stage TIA Design Scenario (with additional traffic generation from the S16 Planning Application)	
			AM Peak	PM Peak	AM Peak	PM Peak
A	Ma Tau Wai Road / Bailey Street	Signalized	18%	52%	18%	52%
B	Ma Tau Wai Road / Wing Kwong Street	Signalized	>100%	>100%	>100%	>100%
C	To Kwa Wan Road / Chi Kiang Street	Signalized	28%	54%	28%	54%
D	Sung On Street / Yuk Yat Street / Chi Kiang Street	Signalized	29%	48%	28%	47%
E	Bailey Street / Sung On Street	Signalized	>100%	>100%	>100%	>100%
F	Bailey Street / Wan On Street	Priority	0.24	0.24	0.24	0.24
G	Ngan Hon Street / Wing Kwong Street	Priority	0.76	0.61	0.77	0.62
H	Ngan Hon Street / Lung Tak Street ⁽²⁾	N/A	N/A	N/A	N/A	N/A
I	Wing Kwong Street / Hung Fook Street ⁽³⁾	N/A	N/A	N/A	N/A	N/A
J	Wing Kwong Street / Kai Ming Street ⁽³⁾	N/A	N/A	N/A	N/A	N/A
K	Ting Kwong Road / Ma Tau Wai Road / Ma Hang Chung Road ⁽⁴⁾	Signalized	11%	29%	11%	29%
L	Ma Tau Wai Road / Chi Kiang Street	Signalized	30%	79%	30%	78%
M	Hung Hom Road / Bailey Street / Chi Kiang Street	Signalized	39%	44%	38%	44%
N	Sung On Street / Ngan Hon Street ⁽⁵⁾	Priority	0.37	0.24	0.37	0.24
O	Wing Kwong Street / Wing On Street / Kai Ming Street	Priority	0.31	0.22	0.32	0.22

Note: (1) RC = Reserve Capacity for Signal Junction; DFC = Design Ratio of Flow to Capacity for Priority Junction/Roundabout.
(2) Only ingress traffic is allowed from Ngan Hon Street to Lung Tak Street but not revised. No traffic conflicts or delay is expected in this location.
(3) No longer exist in design year due to road enhancement scheme.
(4) Improvement Layout proposed by URA's project Kau Pui Lung Road / Chi Kiang Street (CBS-2:KC).
(5) Signalized scheme under gazetted scheme.

TRAFFIC SIGNAL CALCULATION SHEET

JOB NO. : _____

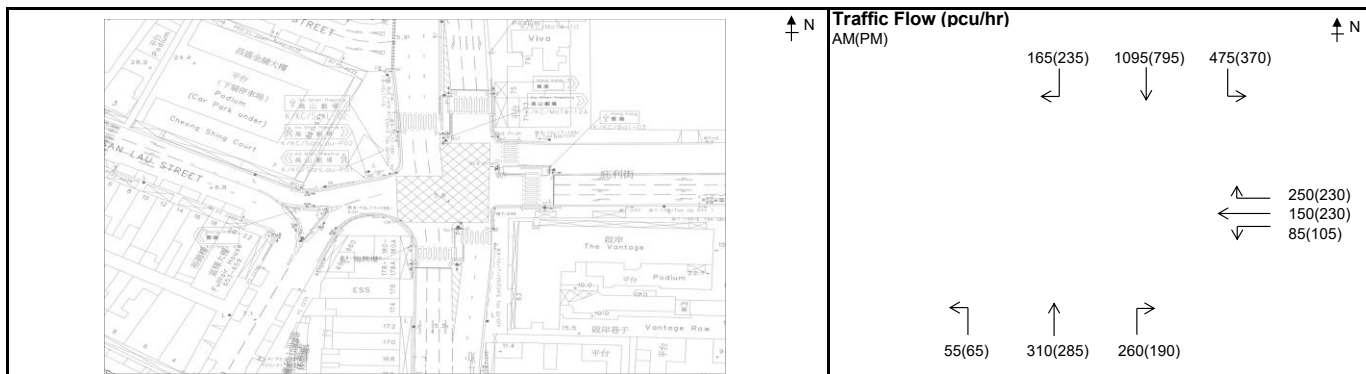
Junction : JA - Ma Tau Wai Road / Bailey Street

Design Year: 2035

Scheme : DSP Stage TIA Design Scenario

Designed by: PC

Checked by: EC



STAGE / PHASE DIAGRAM									
1+2+3	G=	IG=8	G=	IG=6	G=	IG=6	G=	IG=	G=
1+2+3	G=	IG=8	G=	IG=6	G=	IG=6	G=	IG=	G=

Capacity Calculations							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) <i>w</i>	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) <i>r</i>	Gradient in % <i>g</i>	Design Flow <i>q</i> (pcu/hr)	Proportion turning (%) <i>f</i>	Saturation flow <i>S</i> (pcu/hr)	Flow factor <i>y</i>	Design Flow <i>q</i> (pcu/hr)	Proportion turning (%) <i>f</i>	Saturation flow <i>S</i> (pcu/hr)	Flow factor <i>y</i>
Ma Tau Wai Road (NB)														
1A	A	3.40	Y	N	15		174	32%	1895	0.092	166	39%	1880	0.088
1B	A	3.30	N	N			191		2085	0.092	184		2085	0.088
1C	A	3.30	N	N	25		260	100%	1965	0.132	190	100%	1965	0.097
Ma Tau Wai Road (SB)														
2A	B	3.50	Y	N	13		730	65%	1830	0.399	540	69%	1820	0.297
2B	B	3.50	N	N			840		2105	0.399	625		2105	0.297
2C	B	3.50	N	N	27.5		165	100%	1995	0.083	235	100%	1995	0.118
Bailey Street (WB)														
3A	C	3.50	Y	N	13		85	100%	1760	0.048	105	100%	1760	0.060
3B	C	3.30	N	N	15		150	0%	2085	0.072	230	0%	2085	0.110
3C	C	3.50	N	N	15		250	100%	1915	0.131	230	100%	1915	0.120
4p	A,B		5GM +	8FG =	13	sec								
5p	A,B		5GM +	8FG =	13	sec								
6p	B,C		5GM +	8FG =	13	sec								
7p	C		5GM +	9FG =	14	sec								
8p	A,C		5GM +	9FG =	14	sec								
9p	B		5GM +	12FG =	17	sec								

Notes:					AM Peak		1+2+3		PM Peak		1+2+3	
					Sum of Critical <i>y</i> Y		0.662		Sum of Critical <i>y</i> Y		0.514	
					Lost Time <i>L</i> (sec)		17		Lost Time <i>L</i> (sec)		17	
					Cycle Time <i>c</i> (sec)		130		Cycle Time <i>c</i> (sec)		130	
					Practical <i>Y</i> Y_{pr}		0.782		Practical <i>Y</i> Y_{pr}		0.782	
					Reserve Capacity RC		18%		Reserve Capacity RC		52%	

Date : 8/24/2026 Junction : JA - Ma Tau Wai Road / Bailey Street

TRAFFIC SIGNAL CALCULATION SHEET

JOB NO. : _____

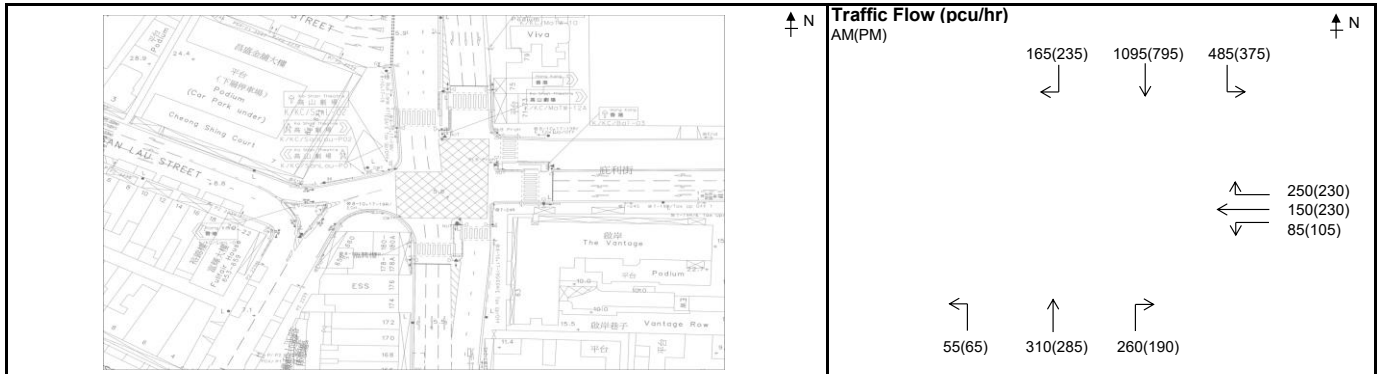
Junction : JA - Ma Tau Wai Road / Bailey Street

Design Year: 2035

Scheme : DSP Stage TIA Design Scenario (with additional traffic generation)

Designed by: PC

Checked by: EC



STAGE / PHASE DIAGRAM									
1+2+3	G=	IG=8	G=	IG=6	G=	IG=6	G=	IG=	G=
1+2+3	G=	IG=8	G=	IG=6	G=	IG=6	G=	IG=	G=

Capacity Calculations							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) w	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) r	Gradient in % g	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y
Ma Tau Wai Road (NB)														
1A	A	3.40	Y	N	15		174	32%	1895	0.092	166	39%	1880	0.088
1B	A	3.30	N	N			191		2085	0.092	184		2085	0.088
1C	A	3.30	N	N	25		260	100%	1965	0.132	190	100%	1965	0.097
Ma Tau Wai Road (SB)														
2A	B	3.50	Y	N	13		734	66%	1825	0.402	542	69%	1820	0.298
2B	B	3.50	N	N			846		2105	0.402	628		2105	0.298
2C	B	3.50	N	N	27.5		165	100%	1995	0.083	235	100%	1995	0.118
Bailey Street (WB)														
3A	C	3.50	Y	N	13		85	100%	1760	0.048	105	100%	1760	0.060
3B	C	3.30	N	N	15		150	0%	2085	0.072	230	0%	2085	0.110
3C	C	3.50	N	N	15		250	100%	1915	0.131	230	100%	1915	0.120
4p	A,B		5GM +	8FG =	13	sec								
5p	A,B		5GM +	8FG =	13	sec								
6p	B,C		5GM +	8FG =	13	sec								
7p	C		5GM +	9FG =	14	sec								
8p	A,C		5GM +	9FG =	14	sec								
9p	B		5GM +	12FG =	17	sec								

Notes:					AM Peak		1+2+3		PM Peak		1+2+3	
					Sum of Critical y Y		0.665		Sum of Critical y Y		0.515	
					Lost Time L (sec)		17		Lost Time L (sec)		17	
					Cycle Time c (sec)		130		Cycle Time c (sec)		130	
					Practical Y Ypr		0.782		Practical Y Ypr		0.782	
					Reserve Capacity RC		18%		Reserve Capacity RC		52%	

Date : 8/24/2026 Junction : JA - Ma Tau Wai Road / Bailey Street

TRAFFIC SIGNAL CALCULATION



Job No. : _____

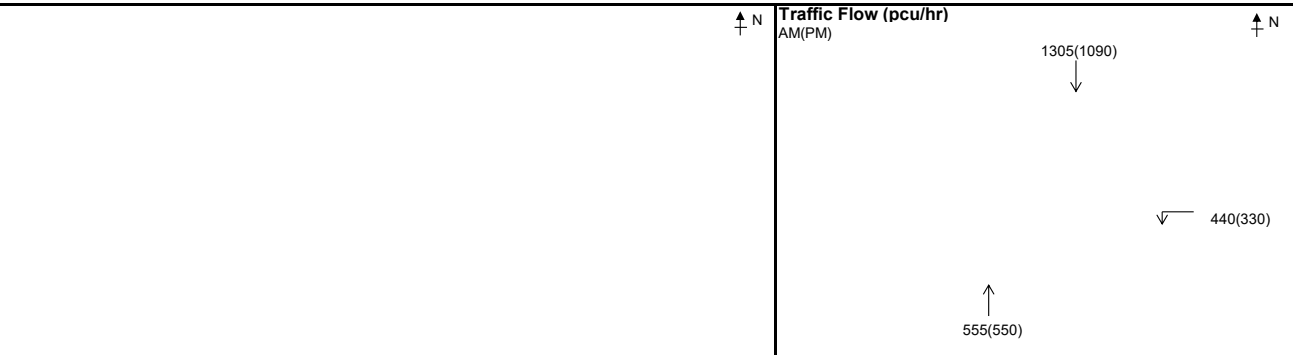
Junction : _____ JB - Ma Tau Wai Road / Wing Kwong Street

Design Year: _____ 2035

Scheme : _____ DSP Stage TIA Design Scenario

Designed by: _____ PC

Checked by: _____ EC



STAGE / PHASE DIAGRAM									
2+3	G=	IG=6	G=	IG=5	G=	IG=	G=	IG=	G=
2+3	G=	IG=6	G=	IG=5	G=	IG=	G=	IG=	G=

CAPACITY CALCULATIONS							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) w	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) r	Gradient in % g	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y
Ma Tau Wai Road NB														
1A	1	3.50	Y	N			177		1965	0.090	175		1965	0.089
1B	1	3.50	N	N			189		2105	0.090	188		2105	0.089
1C	1	3.50	N	N			189		2105	0.090	187		2105	0.089
Wing Kwong Street WB														
3A	2	4.20	Y	N	8		193	100%	1715	0.113	144	100%	1715	0.084
3B	2	7.80	N	N	10		247	100%	2205	0.112	186	100%	2205	0.084
Ma Tau Wai Road SB														
2A	1	3.20	Y	N			418		1935	0.216	349		1935	0.180
2B	1	3.00	N	N			443		2055	0.216	370		2055	0.180
2C	1	3.00	N	N			444		2055	0.216	371		2055	0.181
Pedestrian														
4p	1		5	6	11	sec								
5p	2		12	11	23	sec								

Notes:	AM Peak	2+3	PM Peak	2+3
	Sum of Critical y Y	0.329	Sum of Critical y Y	0.265
	Lost Time L (sec)	9	Lost Time L (sec)	9
	Cycle Time c (sec)	108	Cycle Time c (sec)	108
	Practical Y Ypr	0.825	Practical Y Ypr	0.825
	Reserve Capacity RC	151%	Reserve Capacity RC	211%

Date : _____ 8/24/2026 _____ Junction : _____ JB - Ma Tau Wai Road / Wing Kwong Street

TRAFFIC SIGNAL CALCULATION

Job No. : _____

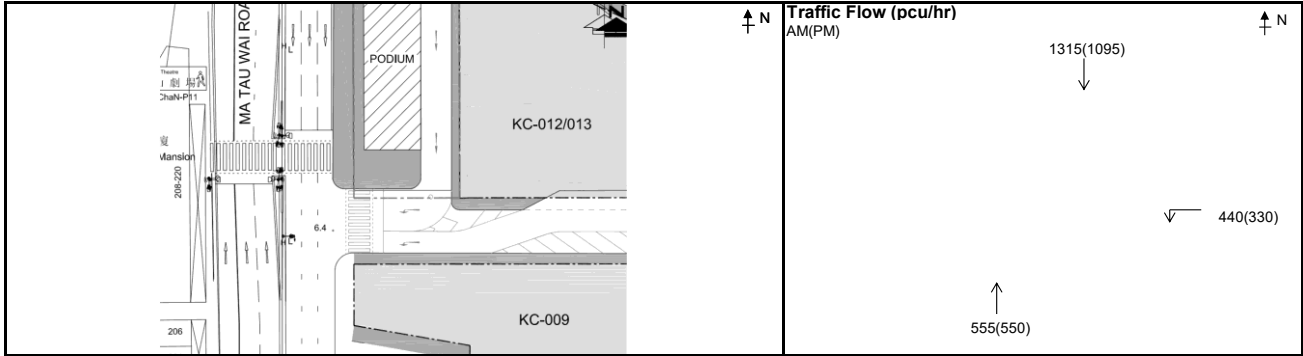
Junction : _____ JB - Ma Tau Wai Road / Wing Kwong Street

Design Year: _____ 2035

Scheme : _____ DSP Stage TIA Design Scenario (with additional traffic generation)

Designed by: _____ PC

Checked by: _____ EC



STAGE / PHASE DIAGRAM									
A		B							
2+3	G=	IG=6	G=	IG=5	G=	IG=	G=	IG=	G=
2+3	G=	IG=6	G=	IG=5	G=	IG=	G=	IG=	G=

CAPACITY CALCULATIONS							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) w	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) r	Gradient in % g	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y
Ma Tau Wai Road NB														
1A	1	3.50	Y	N			177		1965	0.090	175		1965	0.089
1B	1	3.50	N	N			189		2105	0.090	188		2105	0.089
1C	1	3.50	N	N			189		2105	0.090	187		2105	0.089
Wing Kwong Street WB														
3A	2	4.20	Y	N	8		193	100%	1715	0.113	144	100%	1715	0.084
3B	2	7.80	N	N	10		247	100%	2205	0.112	186	100%	2205	0.084
Ma Tau Wai Road SB														
2A	1	3.20	Y	N			421		1935	0.218	351		1935	0.181
2B	1	3.00	N	N			447		2055	0.218	372		2055	0.181
2C	1	3.00	N	N			447		2055	0.218	372		2055	0.181
Pedestrian														
4p	1		5	6	11	sec								
5p	2		12	11	23	sec								

Notes:	AM Peak	2+3	PM Peak	2+3
	Sum of Critical y Y	0.330	Sum of Critical y Y	0.266
	Lost Time L (sec)	9	Lost Time L (sec)	9
	Cycle Time c (sec)	108	Cycle Time c (sec)	108
	Practical Y Ypr	0.825	Practical Y Ypr	0.825
	Reserve Capacity RC	150%	Reserve Capacity RC	210%

Date : _____ 8/24/2026 _____ Junction : _____ JB - Ma Tau Wai Road / Wing Kwong Street

TRAFFIC SIGNAL CALCULATION SHEET

JOB NO. : _____

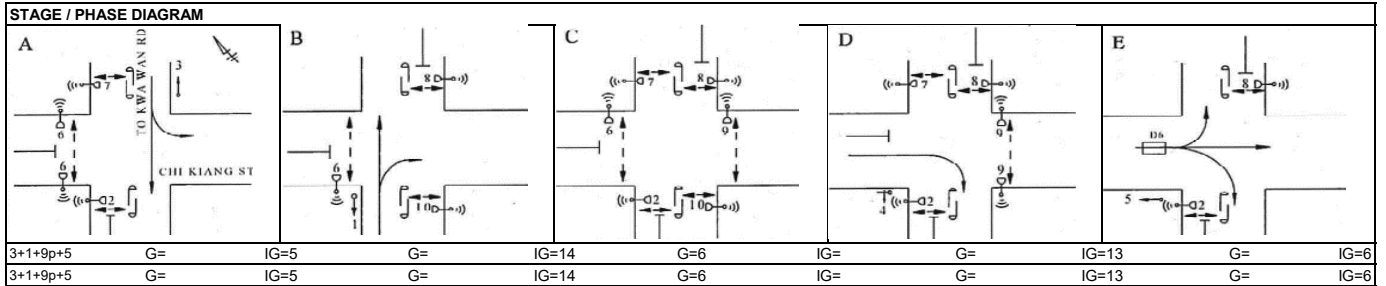
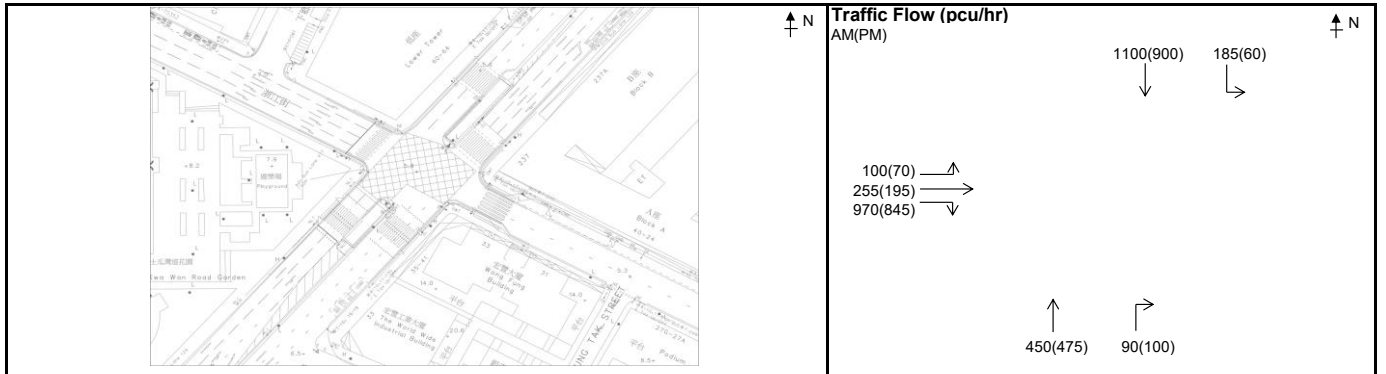
Junction : JC - To Kwa Wan Road / Chi Kiang Street

Design Year: 2035

Scheme : DSP Stage TIA Design Scenario

Designed by: PC

Checked by: EC



Capacity Calculations							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) w	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) r	Gradient in % g	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y
To Kwa Wan Road (NB)														
1A	B	3.65	Y	N			265		1980	0.134	283		1980	0.143
1B	B	3.65	N	N	15		275	33%	2055	0.134	292	34%	2050	0.142
To Kwa Wan Road (SB)														
3A	A	3.00	Y	N	5		371	50%	1665	0.223	293	20%	1805	0.162
3B	A	3.00	N	N			457		2055	0.222	334		2055	0.163
3C	A	3.00	N	N			457		2055	0.222	333		2055	0.162
Chi Kiang Street (EB)														
5A	E	3.00	Y	N	5		100	100%	1475	0.068	70	100%	1475	0.047
5B	E	3.00	N	N			255		2055	0.124	195		2055	0.095
4A	D,E	3.00	N	N	10		485	100%	1785	0.272	423	100%	1785	0.237
4B	D,E	3.00	N	N	10		485	100%	1785	0.272	422	100%	1785	0.236
2p	A,C,D,E		5GM +	7FG =	12	sec								
6p	A,B,C		6GM +	11FG =	17	sec								
7p	A,C,D		5GM +	8FG =	13	sec								
8p	B,C,D,E		5GM +	9FG =	14	sec								
9p	C,D		6GM +	11FG =	17	sec								
10p	B,C		5GM +	8FG =	13	sec								

Notes:					AM Peak		3+1+9p+5		PM Peak		3+1+9p+5	
					Sum of Critical y	Y	0.481		Sum of Critical y	Y	0.400	
					Lost Time L (sec)		41		Lost Time L (sec)		41	
					Cycle Time c (sec)		130		Cycle Time c (sec)		130	
					Practical Y Ypr		0.616		Practical Y Ypr		0.616	
					Reserve Capacity RC		28%		Reserve Capacity RC		54%	

Date : 8/24/2026 Junction : JC - To Kwa Wan Road / Chi Kiang Street

TRAFFIC SIGNAL CALCULATION SHEET

JOB NO. : _____

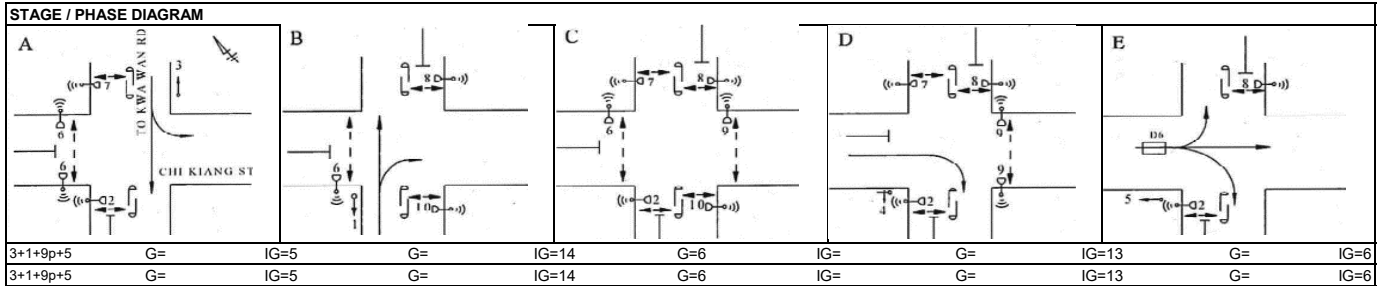
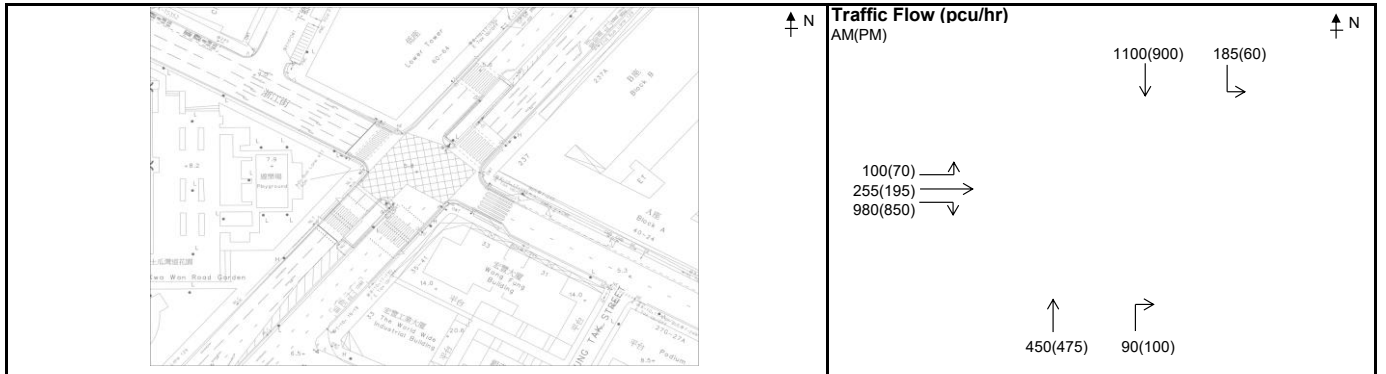
Junction : JC - To Kwa Wan Road / Chi Kiang Street

Design Year: 2035

Scheme : DSP Stage TIA Design Scenario (with additional traffic generation)

Designed by: PC

Checked by: EC



Capacity Calculations							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) w	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) r	Gradient in % g	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y
To Kwa Wan Road (NB)														
1A	B	3.65	Y	N			265		1980	0.134	283		1980	0.143
1B	B	3.65	N	N	15		275	33%	2055	0.134	292	34%	2050	0.142
To Kwa Wan Road (SB)														
3A	A	3.00	Y	N	5		371	50%	1665	0.223	293	20%	1805	0.162
3B	A	3.00	N	N			457		2055	0.222	334		2055	0.163
3C	A	3.00	N	N			457		2055	0.222	333		2055	0.162
Chi Kiang Street (EB)														
5A	E	3.00	Y	N	5		100	100%	1475	0.068	70	100%	1475	0.047
5B	E	3.00	N	N			255		2055	0.124	195		2055	0.095
4A	D,E	3.00	N	N	10		490	100%	1785	0.275	425	100%	1785	0.238
4B	D,E	3.00	N	N	10		490	100%	1785	0.275	425	100%	1785	0.238
2p	A,C,D,E		5GM +	7FG =	12	sec								
6p	A,B,C		6GM +	11FG =	17	sec								
7p	A,C,D		5GM +	8FG =	13	sec								
8p	B,C,D,E		5GM +	9FG =	14	sec								
9p	C,D		6GM +	11FG =	17	sec								
10p	B,C		5GM +	8FG =	13	sec								

Notes:					AM Peak		3+1+9p+5		PM Peak		3+1+9p+5	
					Sum of Critical y	Y	0.481		Sum of Critical y	Y	0.400	
					Lost Time L (sec)		41		Lost Time L (sec)		41	
					Cycle Time c (sec)		130		Cycle Time c (sec)		130	
					Practical Y	Y _{pr}	0.616		Practical Y	Y _{pr}	0.616	
					Reserve Capacity	RC	28%		Reserve Capacity	RC	54%	

Date : 8/24/2026 Junction : JC - To Kwa Wan Road / Chi Kiang Street

TRAFFIC SIGNAL CALCULATION SHEET

JOB NO. : _____

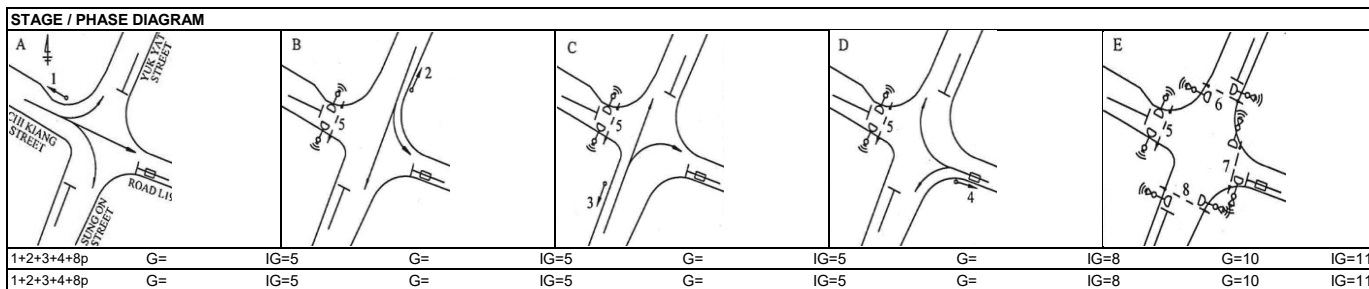
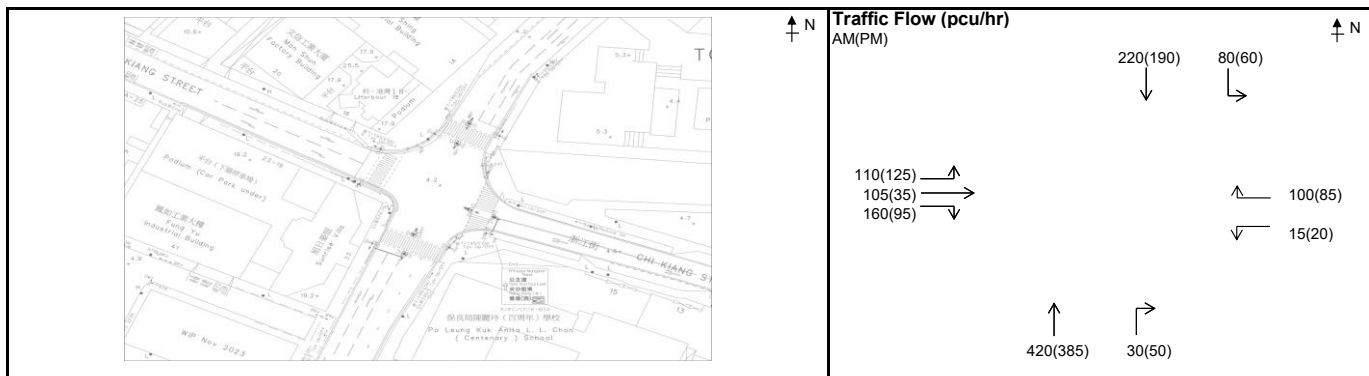
Junction : JD - Sung On Street / Yuk Yat Street / Chi Kiang Street

Design Year: 2035

Scheme : DSP Stage TIA Design Scenario

Designed by: PC

Checked by: EC



Capacity Calculations							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) w	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) r	Gradient in % g	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y
Chi Kiang Street (EB)														
1A	A	4.80	Y	N	10		215	51%	1945	0.111	160	78%	1875	0.085
1B	A	4.80	N	N	10		160	100%	1945	0.082	95	100%	1945	0.049
Yuk Yat Street (SB)														
2A	B	3.00	Y	N	10		138	58%	1760	0.078	116	52%	1775	0.065
2B	B	3.00	N	N			162		2055	0.079	134		2055	0.065
Sung On Street (NB)														
3A	C	3.50	Y	N			420		1965	0.214	385		1965	0.196
3B	C	3.50	N	N	10		30	100%	1830	0.016	50	100%	1830	0.027
Chi Kiang Street (WB)														
4A	D	4.00	Y	N	10/15		115	13% / 87%	1820	0.063	105	19% / 81%	1815	0.058
5p	B,C,D,E		5GM +	13FG =	18	sec								
6p	E		7GM +	7FG =	14	sec								
7p	E		10GM +	8FG =	18	sec								
8p	E		10GM +	9FG =	19	sec								

Notes:	AM Peak	1+2+3+4+8p	PM Peak	1+2+3+4+8p
	Sum of Critical y Y	0.466	Sum of Critical y Y	0.404
	Lost Time L (sec)	40	Lost Time L (sec)	40
	Cycle Time c (sec)	120	Cycle Time c (sec)	120
	Practical Y Ypr	0.600	Practical Y Ypr	0.600
	Reserve Capacity RC	29%	Reserve Capacity RC	48%

Date : 8/24/2026 Junction : JD - Sung On Street / Yuk Yat Street / Chi Kiang Street

TRAFFIC SIGNAL CALCULATION SHEET

JOB NO. : _____

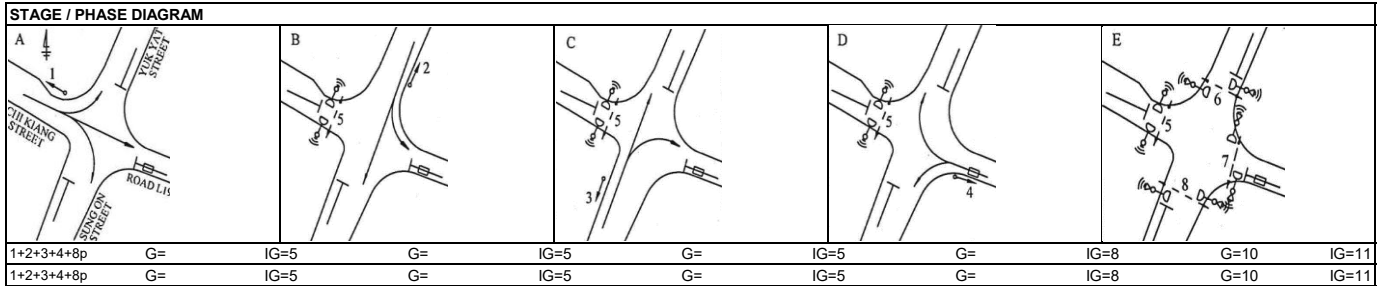
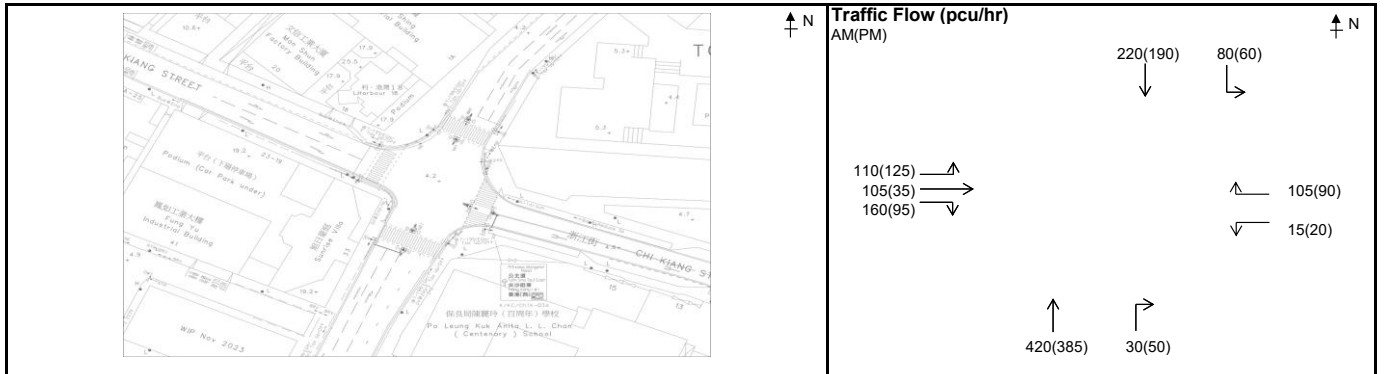
Junction : JD - Sung On Street / Yuk Yat Street / Chi Kiang Street

Design Year: 2035

Scheme : DSP Stage TIA Design Scenario (with additional traffic generation)

Designed by: PC

Checked by: EC



Capacity Calculations							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) w	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) r	Gradient in % g	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y
Chi Kiang Street (EB)														
1A	A	4.80	Y	N	10		215	51%	1945	0.111	160	78%	1875	0.085
1B	A	4.80	N	N	10		160	100%	1945	0.082	95	100%	1945	0.049
Yuk Yat Street (SB)														
2A	B	3.00	Y	N	10		138	58%	1760	0.078	116	52%	1775	0.065
2B	B	3.00	N	N			162		2055	0.079	134		2055	0.065
Sung On Street (NB)														
3A	C	3.50	Y	N			420		1965	0.214	385		1965	0.196
3B	C	3.50	N	N	10		30	100%	1830	0.016	50	100%	1830	0.027
Chi Kiang Street (WB)														
4A	D	4.00	Y	N	10/15		120	13% / 88%	1820	0.066	110	18% / 82%	1815	0.061
5p	B,C,D,E		5GM +	13FG =	18	sec								
6p	E		7GM +	7FG =	14	sec								
7p	E		10GM +	8FG =	18	sec								
8p	E		10GM +	9FG =	19	sec								

Notes:	AM Peak	1+2+3+4+8p	PM Peak	1+2+3+4+8p
	Sum of Critical y Y	0.469	Sum of Critical y Y	0.407
	Lost Time L (sec)	40	Lost Time L (sec)	40
	Cycle Time c (sec)	120	Cycle Time c (sec)	120
	Practical Y Ypr	0.600	Practical Y Ypr	0.600
	Reserve Capacity RC	28%	Reserve Capacity RC	47%

Date : 8/24/2026 Junction : JD - Sung On Street / Yuk Yat Street / Chi Kiang Street

TRAFFIC SIGNAL CALCULATION SHEET

JOB NO. : _____

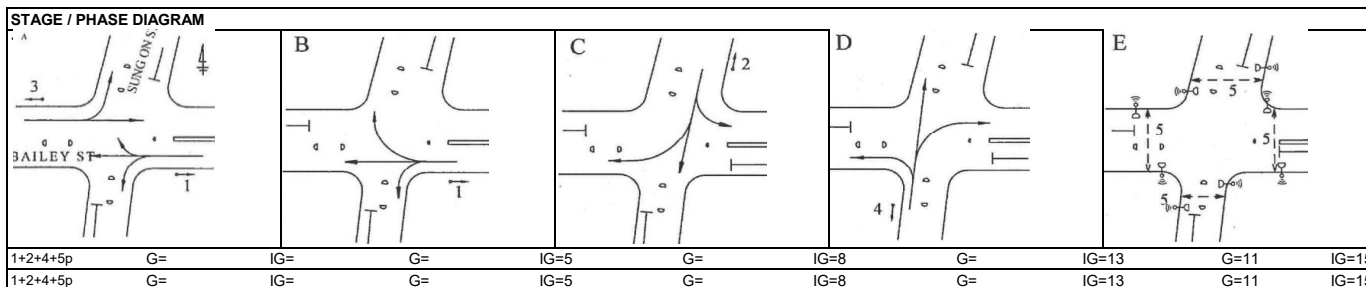
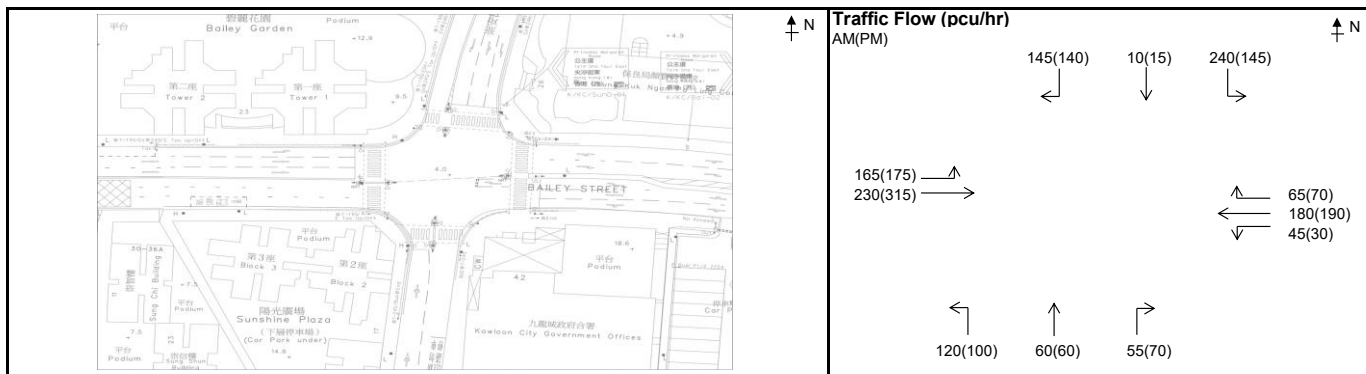
Junction : JE - Bailey Street / Sung On Street

Design Year: 2035

Scheme : DSP Stage TIA Design Scenario

Designed by: PC

Checked by: EC



Capacity Calculations							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) w	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) r	Gradient in % g	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y
Bailey Street (WB)														
1A	A,B	3.20	Y	N	10		105	43%	1820	0.058	104	29%	1855	0.056
1B	A,B	3.20	N	N			120		2075	0.058	116		2075	0.056
1C	A,B	3.00	Y	Y	15		65	100%	1530	0.042	70	100%	1530	0.046
Sung On Street (SB)														
2A	C	3.50	Y	N	10		120	100%	1710	0.070	76	100%	1710	0.044
2B	C	3.50	N	N	10		130	92%	1850	0.070	84	82%	1875	0.045
2C	C	3.50	N	N	15		145	100%	1915	0.076	140	100%	1915	0.073
Bailey Street (EB)														
3A	A	3.10	Y	N	10		165	100%	1675	0.099	175	100%	1675	0.104
3B	A	3.10	N	N			115		2065	0.056	158		2065	0.077
3C	A	3.10	N	N			115		2065	0.056	157		2065	0.076
Sung On Street (NB)														
4A	D	5.00	Y	N	10/25		235	51% / 23%	1940	0.121	230	43% / 30%	1950	0.118
5p	E		11GM +	12FG =	23	sec								

Notes:					AM Peak		1+2+4+5p		PM Peak		1+2+4+5p	
					Sum of Critical y Y		0.255		Sum of Critical y Y		0.247	
					Lost Time L (sec)		49		Lost Time L (sec)		49	
					Cycle Time c (sec)		130		Cycle Time c (sec)		130	
					Practical Y Ypr		0.561		Practical Y Ypr		0.561	
					Reserve Capacity RC		120%		Reserve Capacity RC		127%	

Date : 8/24/2026 Junction : JE - Bailey Street / Sung On Street

TRAFFIC SIGNAL CALCULATION SHEET

JOB NO. : _____

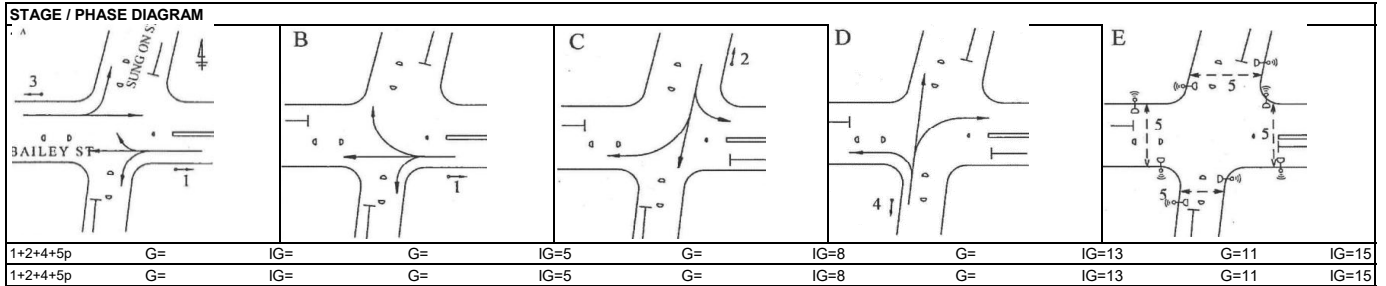
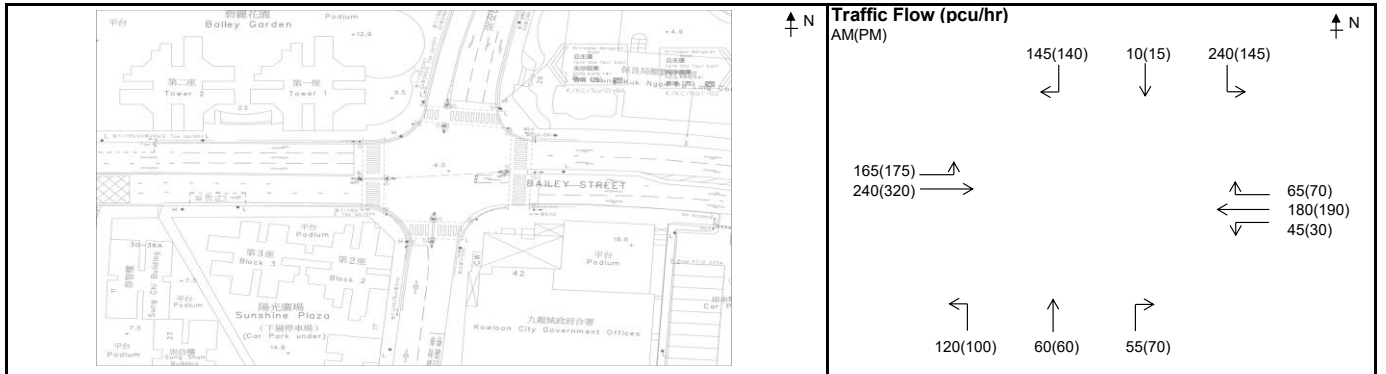
Junction : JE - Bailey Street / Sung On Street

Design Year: 2035

Scheme : DSP Stage TIA Design Scenario (with additional traffic generation)

Designed by: PC

Checked by: EC



Capacity Calculations							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) w	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) r	Gradient in % g	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y
Bailey Street (WB)														
1A	A,B	3.20	Y	N	10		105	43%	1820	0.058	104	29%	1855	0.056
1B	A,B	3.20	N	N			120		2075	0.058	116		2075	0.056
1C	A,B	3.00	Y	Y	15		65	100%	1530	0.042	70	100%	1530	0.046
Sung On Street (SB)														
2A	C	3.50	Y	N	10		120	100%	1710	0.070	76	100%	1710	0.044
2B	C	3.50	N	N	10		130	92%	1850	0.070	84	82%	1875	0.045
2C	C	3.50	N	N	15		145	100%	1915	0.076	140	100%	1915	0.073
Bailey Street (EB)														
3A	A	3.10	Y	N	10		165	100%	1675	0.099	175	100%	1675	0.104
3B	A	3.10	N	N			120		2065	0.058	160		2065	0.077
3C	A	3.10	N	N			120		2065	0.058	160		2065	0.077
Sung On Street (NB)														
4A	D	5.00	Y	N	10/25		235	51% / 23%	1940	0.121	230	43% / 30%	1950	0.118
5p	E		11GM +	12FG =	23	sec								

Notes:	AM Peak	1+2+4+5p	PM Peak	1+2+4+5p
	Sum of Critical y Y	0.255	Sum of Critical y Y	0.247
	Lost Time L (sec)	49	Lost Time L (sec)	49
	Cycle Time c (sec)	130	Cycle Time c (sec)	130
	Practical Y Ypr	0.561	Practical Y Ypr	0.561
	Reserve Capacity RC	120%	Reserve Capacity RC	127%

Date : 8/24/2026 Junction : JE - Bailey Street / Sung On Street

SIMPLIFIED PRIORITY JUNCTION CAPACITY CALCULATION

(Priority T-Junction - Minor Arm B)

Job Title:		Job No.:	
Junction: JF - Bailey Street / Wan On Street		Designed by: PC	
Scheme: DSP Stage TIA Design Scenario		Checked by: EC	
Design Year: 2035			
Arm A: Bailey Street EB			
Arm B: Wan On Street SB			
Arm C: Bailey Street WB			

Arm C
Bailey Street WB

Arm A
Bailey Street EB

Arm B
Wan On Street SB

Flow	am	pm
Arm C (WB)	435	525
Arm C (WB) - Left	50	50
Arm A (EB)	595	415
Arm A (EB) - Right	60	65
Arm B (SB)	55	65
Arm B (SB) - Left	40	40

GEOMETRY					
Major road width (m)	W	10.0	Lane widths (m)	w(b-a)	3.0
Central Reserve width (m)	Wcr	0.0		w(b-c)	3.0
Residual width (m)	Wr(c-a)	6.7		w(c-b)	3.3
Visibilities (m) (*1)	Vr(b-a)	17	Calculated Parameters (*2)	D	0.79
	VI(b-a)	35		E	0.85
	Vr(b-c)	17		F	0.92
	Vr(c-b)	65		Y	0.66

CALCULATION		AM PEAK	PM PEAK
TRAFFIC FLOWS (pcu/hr)	q(c-a)	435	525
	q(c-b)	50	50
	q(a-b)	60	65
	q(a-c)	595	415
	q(b-a)		
	q(b-c)	55	65
	f = $\frac{q(b-c)}{q(b-c)+q(b-a)}$	0.58	0.62
CAPACITIES (pcu/hr)	Q(b-a)	315	338
	Q(b-c)	509	545
	Q(c-b)	543	582
	Q(b-ac) (*3)	404	442
DFC's	b-a = $\frac{q(b-a)}{Q(b-a)}$	0.13	0.12
	b-c = $\frac{q(b-c)}{Q(b-c)}$	0.11	0.12
	c-b = $\frac{q(c-b)}{Q(c-b)}$	0.09	0.09
	b-ac = $\frac{q(b-ac)}{Q(b-ac)}$	0.24	0.24
Critical DFC		0.24	0.24

(*1) Where VI and Vr are visibility distances to the left or right of the respective streams
 (*2) $D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$
 $E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$
 $F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$
 $Y = 1-0.0345W$
 f = proportion of minor traffic turning left
 (*3) $Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$ Capacity of combined streams

- In accordance with TPDM V2.4 Appendix 1

SIMPLIFIED PRIORITY JUNCTION CAPACITY CALCULATION

(Priority T-Junction - Minor Arm B)

Job Title:			Job No.:		
Junction: JF - Bailey Street / Wan On Street			Designed by: PO		
Scheme: DSP Stage TIA Design Scenario (with additional traffic genera			Checked by: EO		
Design Year: 2035					
Arm A: Bailey Street EB					
Arm B: Wan On Street SB					
Arm C: Bailey Street WB					
The diagram shows a T-junction where Bailey Street (Arms A and C) intersects Wan On Street (Arm B). Arm A (Bailey Street EB) has a peak flow of 420 pcu/hr in the PM peak. Arm C (Bailey Street WB) has peak flows of 525 pcu/hr in the PM peak and 435 pcu/hr in the AM peak. Arm B (Wan On Street SB) has peak flows of 65 pcu/hr in the PM peak and 60 pcu/hr in the AM peak. The diagram also shows lane widths and turning movements for each arm.					
GEOMETRY					
Major road width (m)	W	10.0	Lane widths (m)	w(b-a)	3.0
Central Reserve width (m)	Wcr	0.0		w(b-c)	3.0
Residual width (m)	Wr(c-a)	6.7		w(c-b)	3.3
Visibilities (m) (*1)	Vr(b-a)	17	Calculated Parameters (*2)	D	0.79
	VI(b-a)	35		E	0.85
	Vr(b-c)	17		F	0.92
	Vr(c-b)	65		Y	0.66
CALCULATION					
TRAFFIC FLOWS			AM PEAK	PM PEAK	
(pcu/hr)	q(c-a)		435	525	
	q(c-b)		50	50	
	q(a-b)		60	65	
	q(a-c)		605	420	
	q(b-a)				
	q(b-c)		55	65	
	f = q(b-c) / (q(b-c)+q(b-a))		0.58	0.62	
CAPACITIES			313	337	
(pcu/hr)	Q(b-a)		507	544	
	Q(b-c)		541	580	
	Q(c-b)		402	441	
	Q(b-ac) (*3)				
DFC's			0.13	0.12	
	b-a = q(b-a)/Q(b-a)		0.11	0.12	
	b-c = q(b-c)/Q(b-c)		0.09	0.09	
	c-b = q(c-b)/Q(c-b)		0.24	0.24	
	b-ac = q(b-ac)/Q(b-ac)				
Critical DFC			0.24	0.24	
(*1) Where VI and Vr are visibility distances to the left or right of the respective streams					
(*2) $D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$					
$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$					
$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$					
$Y = 1-0.0345W$					
f = proportion of minor traffic turning left					
(*3) $Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$ Capacity of combined streams					
- In accordance with TPDM V2.4 Appendix 1					

SIMPLIFIED PRIORITY JUNCTION CAPACITY CALCULATION

(Priority T-Junction - Minor Arm B)

Job Title:		Job No.:	
Junction: JG - Ngan Hon Street / Wing Kwong Street		Designed by: PC	
Scheme: DSP Stage TIA Design Scenario		Checked by: EC	
Design Year: 2035			
Arm A:			
Arm B: Wing Kwong Street NB			
Arm C: Ngan Hon Street EB			

GEOMETRY

Major road width (m)	W	7.0	Lane widths (m)	w(b-a)	4.7
Central Reserve width (m)	Wcr	0.0		w(b-c)	4.7
Residual width (m)	Wr(c-a)	0.0		w(c-b)	3.5
Visibilities (m) (*1)	Vr(b-a)	250	Calculated Parameters (*2)	D	1.30
	VI(b-a)	250		E	1.23
	Vr(b-c)	250		F	1.10
	Vr(c-b)	250		Y	0.76

CALCULATION		AM PEAK	PM PEAK
TRAFFIC FLOWS (pcu/hr)	q(c-a)	35	35
	q(c-b)	620	500
	q(a-b)	0	0
	q(a-c)	0	0
	q(b-a)		
	q(b-c)	0	0
	f = $q(b-c) / (q(b-c) + q(b-a))$	0.00	0.00
CAPACITIES (pcu/hr)	Q(b-a)	490	551
	Q(b-c)	914	914
	Q(c-b)	820	820
	Q(b-ac) (*3)	490	551
	Q(c-a) = $1800(1 - q(c-b)/Q(c-b))$	440	703
DFC's	b-a = $q(b-a)/Q(b-a)$	0.36	0.21
	b-c = $q(b-c)/Q(b-c)$	0.00	0.00
	c-b = $q(c-b)/Q(c-b)$	0.76	0.61
	b-ac = $q(b-ac)/Q(b-ac)$	0.36	0.21
	c-a	0.08	0.05
Critical DFC		0.76	0.61

(*1) Where VI and Vr are visibility distances to the left or right of the respective streams
 (*2) $D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$
 $E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$
 $F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$
 $Y = 1 - 0.0345W$
 f = proportion of minor traffic turning left
 (*3) $Q(b-ac) = Q(b-c) * Q(b-a) / (1 - f) * Q(b-c) + f * Q(b-a)$ Capacity of combined streams

- In accordance with TPDM V2.4 Appendix 1

SIMPLIFIED PRIORITY JUNCTION CAPACITY CALCULATION

(Priority T-Junction - Minor Arm B)

Job Title:		Job No.:	
Junction: JG - Ngan Hon Street / Wing Kwong Street		Designed by: PC	
Scheme: DSP Stage TIA Design Scenario (with additional traffic genera		Checked by: EC	
Design Year: 2035			
Arm A:			
Arm B: Wing Kwong Street NB			
Arm C: Ngan Hon Street EB			

Arm C
Ngan Hon Street EB

Arm B
Wing Kwong Street NB

Arm A

GEOMETRY					
Major road width (m)	W	7.0	Lane widths (m)	w(b-a)	4.7
Central Reserve width (m)	Wcr	0.0		w(b-c)	4.7
Residual width (m)	Wr(c-a)	0.0		w(c-b)	3.5
Visibilities (m) (*1)	Vr(b-a)	250	Calculated Parameters (*2)	D	1.30
	VI(b-a)	250		E	1.23
	Vr(b-c)	250		F	1.10
	Vr(c-b)	250		Y	0.76

CALCULATION		AM PEAK	PM PEAK
TRAFFIC FLOWS (pcu/hr)	q(c-a)	35	35
	q(c-b)	630	505
	q(a-b)	0	0
	q(a-c)	0	0
	q(b-a)		
	q(b-c)	0	0
	f = $q(b-c) / (q(b-c) + q(b-a))$	0.00	0.00
CAPACITIES (pcu/hr)	Q(b-a)	484	549
	Q(b-c)	914	914
	Q(c-b)	820	820
	Q(b-ac) (*3)	484	549
	Q(c-a) = $1800(1 - q(c-b)/Q(c-b))$	418	692
DFC's	b-a = $q(b-a)/Q(b-a)$	0.36	0.21
	b-c = $q(b-c)/Q(b-c)$	0.00	0.00
	c-b = $q(c-b)/Q(c-b)$	0.77	0.62
	b-ac = $q(b-ac)/Q(b-ac)$	0.36	0.21
	c-a	0.08	0.05
Critical DFC		0.77	0.62

(*1) Where VI and Vr are visibility distances to the left or right of the respective streams
 (*2) $D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$
 $E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$
 $F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$
 $Y = 1 - 0.0345W$
 f = proportion of minor traffic turning left
 (*3) $Q(b-ac) = Q(b-c) * Q(b-a) / ((1-f) * Q(b-c) + f * Q(b-a))$ Capacity of combined streams

- In accordance with TPDM V2.4 Appendix 1

TRAFFIC SIGNAL CALCULATION

Job No. : _____

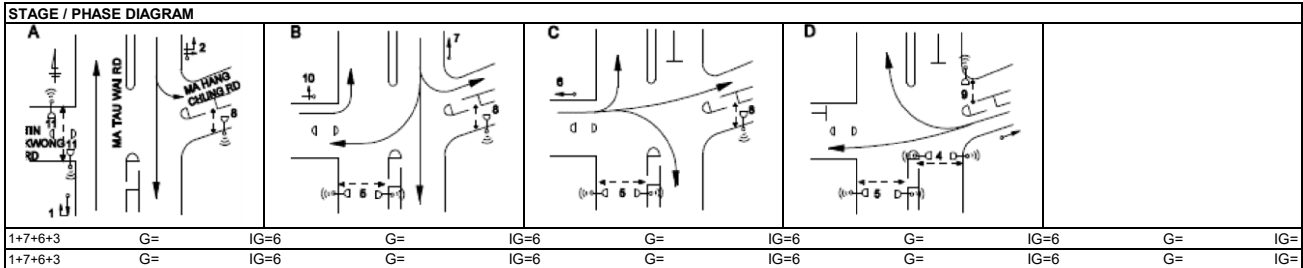
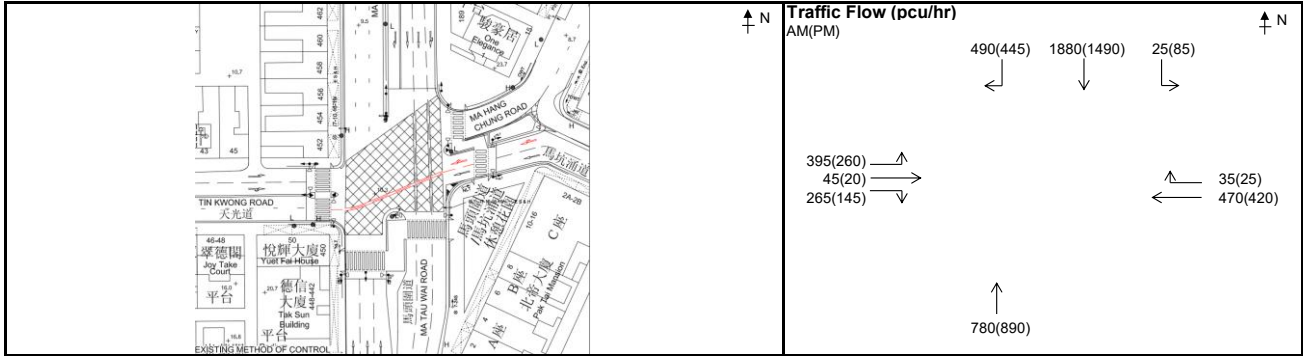
Junction : _____ JK - Tin Kwong Road / Ma Tau Wai Road / Ma Hang Chung Road

Design Year: _____ 2035

Scheme : _____ DSP Stage TIA Design Scenario

Designed by: _____ PC

Checked by: _____ EC



CAPACITY CALCULATIONS

CAPACITY CALCULATIONS							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) w	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) r	Gradient in % g	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y
Tin Kwong Road EB														
10A	2,3	2.90	Y	N	10		395	100%	1655	0.239	260	100%	1655	0.157
6A	3	2.90	N	N	15		310	85%	1885	0.164	165	88%	1880	0.088
Ma Tau Wai Road NB														
1A	1	3.40	Y	N			250		1955	0.128	285		1955	0.146
1B	1	3.40	N	N			267		2095	0.127	305		2095	0.146
1C	1	3.00	N	N			263		2055	0.128	300		2055	0.146
Ma Hang Chung Road WB														
3A	4	3.70	Y	N			246		1985	0.124	216		1985	0.109
3B	4	3.70	N	N	15		259	14%	2095	0.124	229	11%	2100	0.109
Ma Tau Wai Road SB														
2A	1,2	3.00	Y	N	8		602	4%	1900	0.317	490	17%	1855	0.264
2B	1,2	3.00	N	N			652		2055	0.317	543		2055	0.264
2C	1,2	3.00	N	N			651		2055	0.317	542		2055	0.264
7A	2	3.00	N	N	15		490	100%	1870	0.262	445	100%	1870	0.238

Notes:

AM Peak	1+7+6+3	PM Peak	1+7+6+3
Sum of Critical y Y	0.678	Sum of Critical y Y	0.581
Lost Time L (sec)	20	Lost Time L (sec)	20
Cycle Time c (sec)	120	Cycle Time c (sec)	120
Practical Y Ypr	0.750	Practical Y Ypr	0.750
Reserve Capacity RC	11%	Reserve Capacity RC	29%

Date : _____ 8/24/2026 Junction : JK - Tin Kwong Road / Ma Tau Wai Road / Ma Hang Chung Road

TRAFFIC SIGNAL CALCULATION

Job No. : _____

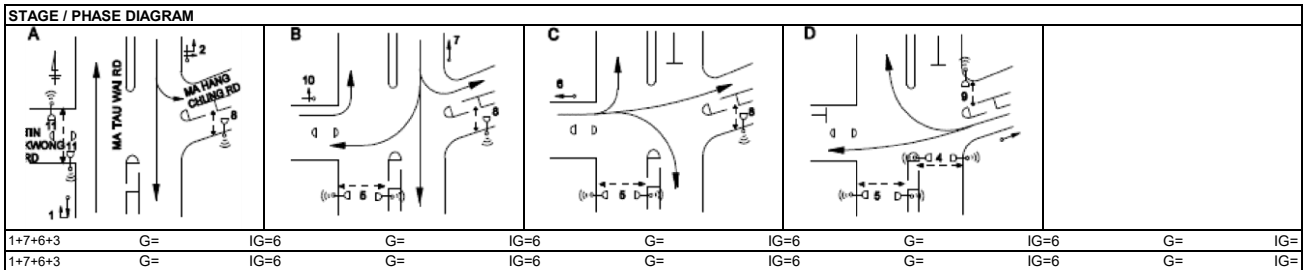
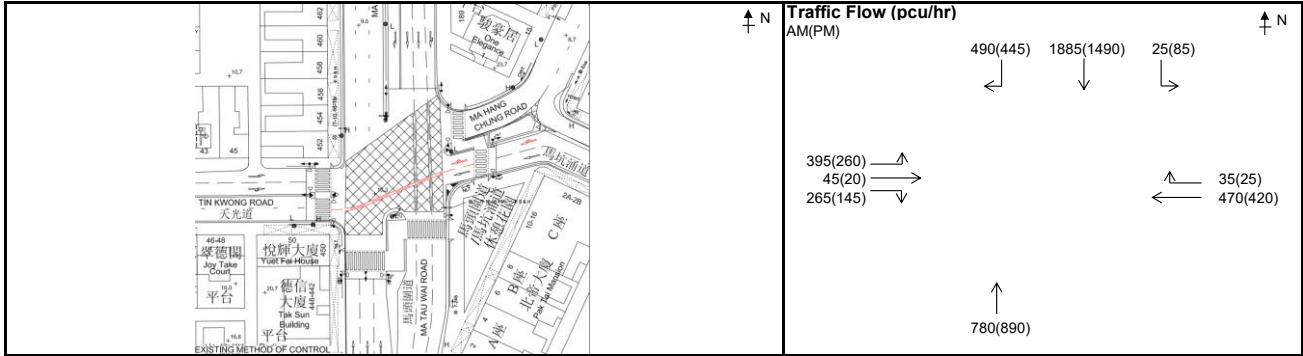
Junction : _____ JK - Tin Kwong Road / Ma Tau Wai Road / Ma Hang Chung Road

Design Year: _____ 2035

Scheme : _____ DSP Stage TIA Design Scenario (with additional traffic generation)

Designed by: _____ PC

Checked by: _____ EC



CAPACITY CALCULATIONS							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) w	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) r	Gradient in % g	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y
Tin Kwong Road EB														
10A	2,3	2.90	Y	N	10		395	100%	1655	0.239	260	100%	1655	0.157
6A	3	2.90	N	N	15		310	85%	1885	0.164	165	88%	1880	0.088
Ma Tau Wai Road NB														
1A	1	3.40	Y	N			250		1955	0.128	285		1955	0.146
1B	1	3.40	N	N			267		2095	0.127	305		2095	0.146
1C	1	3.00	N	N			263		2055	0.128	300		2055	0.146
Ma Hang Chung Road WB														
3A	4	3.70	Y	N			246		1985	0.124	216		1985	0.109
3B	4	3.70	N	N	15		259	14%	2095	0.124	229	11%	2100	0.109
Ma Tau Wai Road SB														
2A	1,2	3.00	Y	N	8		604	4%	1900	0.318	490	17%	1855	0.264
2B	1,2	3.00	N	N			653		2055	0.318	543		2055	0.264
2C	1,2	3.00	N	N			653		2055	0.318	542		2055	0.264
7A	2	3.00	N	N	15		490	100%	1870	0.262	445	100%	1870	0.238
Pedestrian														
4p			GM	FG	TOTAL									
5p			6	11	17	sec								
8p			5	8	13	sec								
9p			5	7	12	sec								
11p			5	8	13	sec								
			7	11	18	sec								

Notes:	AM Peak	1+7+6+3	PM Peak	1+7+6+3
	Sum of Critical y Y	0.678	Sum of Critical y Y	0.581
	Lost Time L (sec)	20	Lost Time L (sec)	20
	Cycle Time c (sec)	120	Cycle Time c (sec)	120
	Practical Y Ypr	0.750	Practical Y Ypr	0.750
	Reserve Capacity RC	11%	Reserve Capacity RC	29%

Date : _____ 8/24/2026 Junction : JK - Tin Kwong Road / Ma Tau Wai Road / Ma Hang Chung Road

TRAFFIC SIGNAL CALCULATION

Job No. : _____

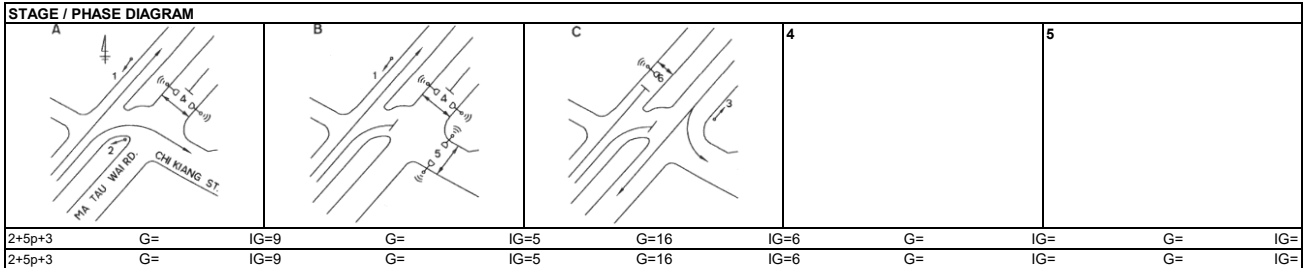
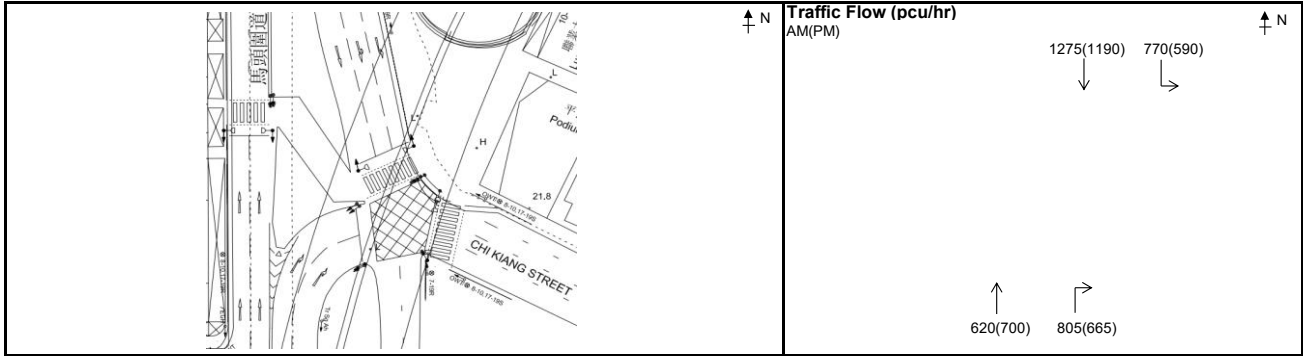
Junction : _____ JL - Ma Tau Wai Road / Chi Kiang Street

Design Year: _____ 2035

Scheme : _____ DSP Stage TIA Design Scenario

Designed by: _____ PC

Checked by: _____ EC



CAPACITY CALCULATIONS

CAPACITY CALCULATIONS							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) w	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) r	Gradient in % g	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y
Ma Tau Wai Road NB														
1A	1,2	3.40	Y	N			299		1955	0.153	338		1955	0.173
1B	1,2	3.40	N	N			321		2095	0.153	362		2095	0.173
2A	1	5.30	N	N	20		414	100%	2125	0.195	342	100%	2125	0.161
2B	1	5.50	N	N	10		391	100%	2005	0.195	323	100%	2005	0.161
Ma Tau Wai Road SB														
3A	3	2.80	Y	N	10		521	100%	1650	0.316	346	100%	1650	0.210
3B	3	3.10	N	N	12		617	45%	1955	0.316	414	37%	1975	0.210
3C	3	3.40	N	N			662		2095	0.316	440		2095	0.210
								</						

Notes:

AM Peak	2+5p+3	PM Peak	2+5p+3
Sum of Critical y Y	0.511	Sum of Critical y Y	0.371
Lost Time L (sec)	34	Lost Time L (sec)	34
Cycle Time c (sec)	130	Cycle Time c (sec)	130
Practical Y Ypr	0.665	Practical Y Ypr	0.665
Reserve Capacity RC	30%	Reserve Capacity RC	79%

Date : _____ 8/24/2026 _____ Junction : _____ JL - Ma Tau Wai Road / Chi Kiang Street

TRAFFIC SIGNAL CALCULATION

Job No. : _____

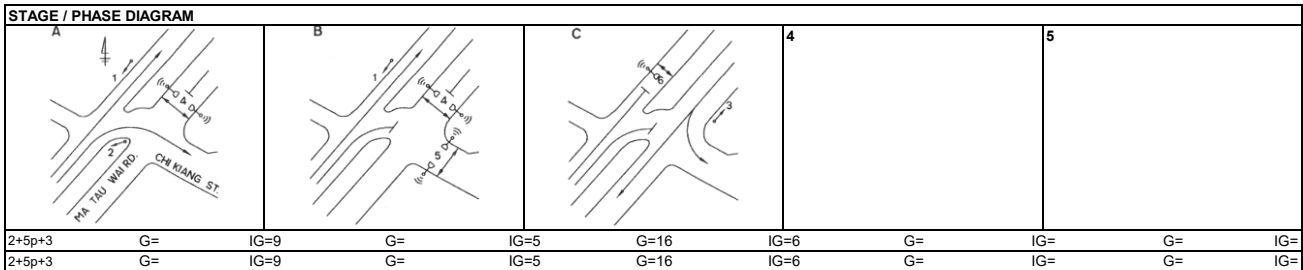
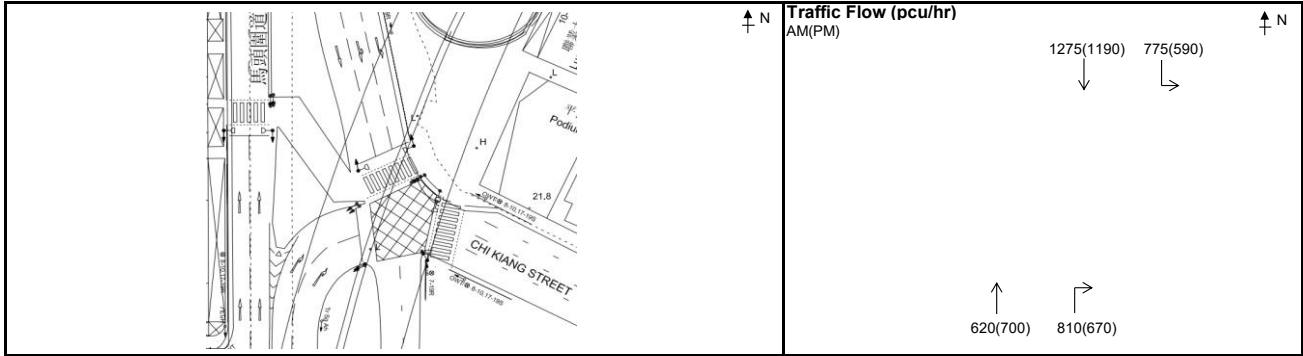
Junction : JL - Ma Tau Wai Road / Chi Kiang Street

Design Year: 2035

Scheme : DSP Stage TIA Design Scenario (with additional traffic generation)

Designed by: PC

Checked by: EC



CAPACITY CALCULATIONS							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) w	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) r	Gradient in % g	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y
Ma Tau Wai Road NB														
1A	1,2	3.40	Y	N			299		1955	0.153	338		1955	0.173
1B	1,2	3.40	N	N			321		2095	0.153	362		2095	0.173
2A	1	5.30	N	N	20		417	100%	2125	0.196	345	100%	2125	0.162
2B	1	5.50	N	N	10		393	100%	2005	0.196	325	100%	2005	0.162
Ma Tau Wai Road SB														
3A	3	2.80	Y	N	10		521	100%	1650	0.316	346	100%	1650	0.210
3B	3	3.10	N	N	12		617	45%	1955	0.316	414	37%	1975	0.210
3C	3	3.40	N	N			662		2095	0.316	440		2095	0.210
Pedestrian														
4p	Stage		GM	FG	TOTAL	sec								
5p			5	11	16	sec								
6p			5	13	18	sec								
			5	8	13	sec								

Notes:	AM Peak	2+5p+3	PM Peak	2+5p+3
	Sum of Critical y Y	0.512	Sum of Critical y Y	0.372
	Lost Time L (sec)	34	Lost Time L (sec)	34
	Cycle Time c (sec)	130	Cycle Time c (sec)	130
	Practical Y Ypr	0.665	Practical Y Ypr	0.665
	Reserve Capacity RC	30%	Reserve Capacity RC	78%

Date : 8/24/2026 Junction : JL - Ma Tau Wai Road / Chi Kiang Street

TRAFFIC SIGNAL CALCULATION SHEET

JOB NO. : _____

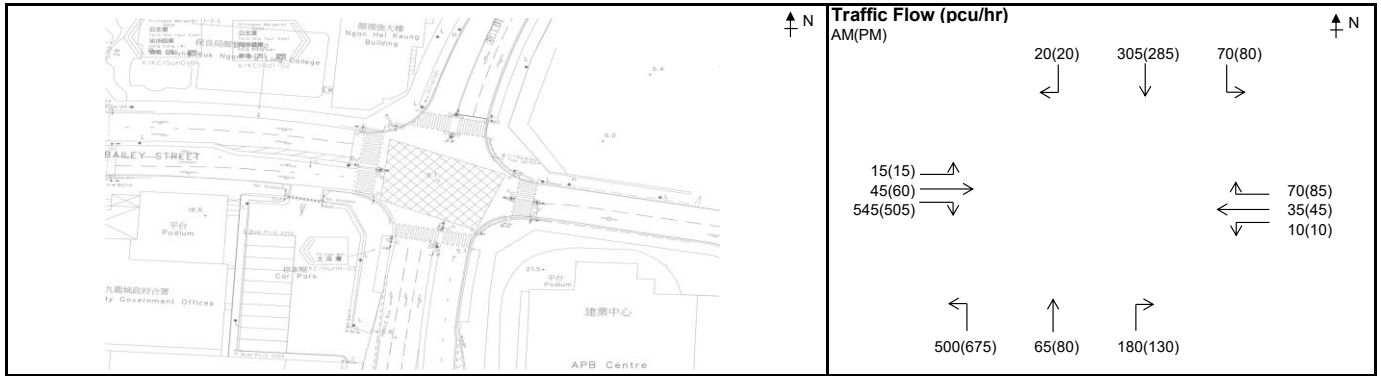
Junction : JM - Hung Hom Road / Bailey Street / Chi Kiang Street

Design Year: 2035

Scheme : DSP Stage TIA Design Scenario

Designed by: PC

Checked by: EC



STAGE / PHASE DIAGRAM										
A	B	C	D	E						
1+4+3+2+8p	G=	IG=6	G=	IG=5	G=	IG=5	G=	IG=11	G=5	IG=13
1+4+3+2+8p	G=	IG=6	G=	IG=5	G=	IG=5	G=	IG=11	G=5	IG=13

Capacity Calculations

Capacity Calculations							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) <i>w</i>	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) <i>r</i>	Gradient in % <i>g</i>	Design Flow <i>q</i> (pcu/hr)	Proportion turning (%) <i>f</i>	Saturation flow <i>S</i> (pcu/hr)	Flow factor <i>y</i>	Design Flow <i>q</i> (pcu/hr)	Proportion turning (%) <i>f</i>	Saturation flow <i>S</i> (pcu/hr)	Flow factor <i>y</i>
Bailey Street (EB)														
1A	A	3.50	Y	N	15/15		294	5% / 80%	1810	0.162	283	5% / 73%	1820	0.155
1B	A	3.50	N	N	15		311	100%	1915	0.162	297	100%	1915	0.155
Chi Kiang Street (SB)														
2A	D	3.80	Y	N	15		188	37%	1925	0.098	183	44%	1910	0.096
2B	D	3.80	N	N	15		207	10%	2115	0.098	202	10%	2115	0.096
Bailey Street (WB)														
3A	C	5.00	Y	N	10/20		115	9% / 61%	2000	0.058	140	7% / 61%	2000	0.070
Hung Hom Road (NB)														
5A	A,B	3.30	Y	N	10		241	100%	1690	0.143	325	100%	1690	0.192
5B	A,B	3.30	N	N	10		259	100%	1815	0.143	350	100%	1815	0.193
4A	B	3.30	N	N	15		245	73%	1940	0.126	210	62%	1965	0.107
6p	E		5GM +	10FG =	15	sec								
7p	E		5GM +	5FG =	10	sec								
8p	E		5GM +	10FG =	15	sec								
9p	E		5GM +	9FG =	14	sec								

Notes:	AM Peak	1+4+3+2+8p	PM Peak	1+4+3+2+8p
	Sum of Critical y Y	0.444	Sum of Critical y Y	0.428
	Lost Time L (sec)	41	Lost Time L (sec)	41
	Cycle Time c (sec)	130	Cycle Time c (sec)	130
	Practical Y Ypr	0.616	Practical Y Ypr	0.616
	Reserve Capacity RC	39%	Reserve Capacity RC	44%

Date : 8/24/2026 Junction : JM - Hung Hom Road / Bailey Street / Chi Kiang Street

TRAFFIC SIGNAL CALCULATION SHEET

JOB NO. : _____

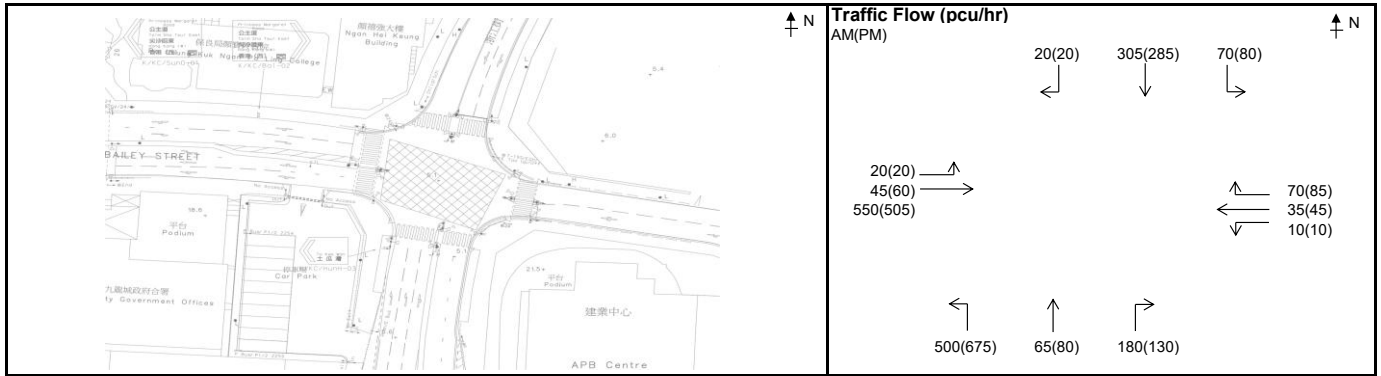
Junction : JM - Hung Hom Road / Bailey Street / Chi Kiang Street

Design Year: 2035

Scheme : DSP Stage TIA Design Scenario (with additional traffic generation)

Designed by: PC

Checked by: EC



STAGE / PHASE DIAGRAM									
A	B	C	D	E					
1+4+3+2+8p	G=	IG=6	G=	IG=5	G=	IG=5	G=	IG=11	G=5
1+4+3+2+8p	G=	IG=6	G=	IG=5	G=	IG=5	G=	IG=11	G=5

Capacity Calculations							AM Peak				PM Peak			
Phase	Stage	Lane Width (m) w	Nearside lane? (Y/N)	Opposed turn? (Y/N)	Radius for turning (m) r	Gradient in % g	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y	Design Flow q (pcu/hr)	Proportion turning (%) f	Saturation flow S (pcu/hr)	Flow factor y
Bailey Street (EB)														
1A	A	3.50	Y	N	15/15		299	7% / 78%	1810	0.165	285	7% / 72%	1820	0.157
1B	A	3.50	N	N	15		316	100%	1915	0.165	300	100%	1915	0.157
Chi Kiang Street (SB)														
2A	D	3.80	Y	N	15		188	37%	1925	0.098	183	44%	1910	0.096
2B	D	3.80	N	N	15		207	10%	2115	0.098	202	10%	2115	0.096
Bailey Street (WB)														
3A	C	5.00	Y	N	10/20		115	9% / 61%	2000	0.058	140	7% / 61%	2000	0.070
Hung Hom Road (NB)														
5A	A,B	3.30	Y	N	10		241	100%	1690	0.143	325	100%	1690	0.192
5B	A,B	3.30	N	N	10		259	100%	1815	0.143	350	100%	1815	0.193
4A	B	3.30	N	N	15		245	73%	1940	0.126	210	62%	1965	0.107
6p	E		5GM +	10FG =	15	sec								
7p	E		5GM +	5FG =	10	sec								
8p	E		5GM +	10FG =	15	sec								
9p	E		5GM +	9FG =	14	sec								

Notes:					AM Peak		1+4+3+2+8p		PM Peak		1+4+3+2+8p	
					Sum of Critical y Y		0.447		Sum of Critical y Y		0.429	
					Lost Time L (sec)		41		Lost Time L (sec)		41	
					Cycle Time c (sec)		130		Cycle Time c (sec)		130	
					Practical Y Ypr		0.616		Practical Y Ypr		0.616	
					Reserve Capacity RC		38%		Reserve Capacity RC		44%	

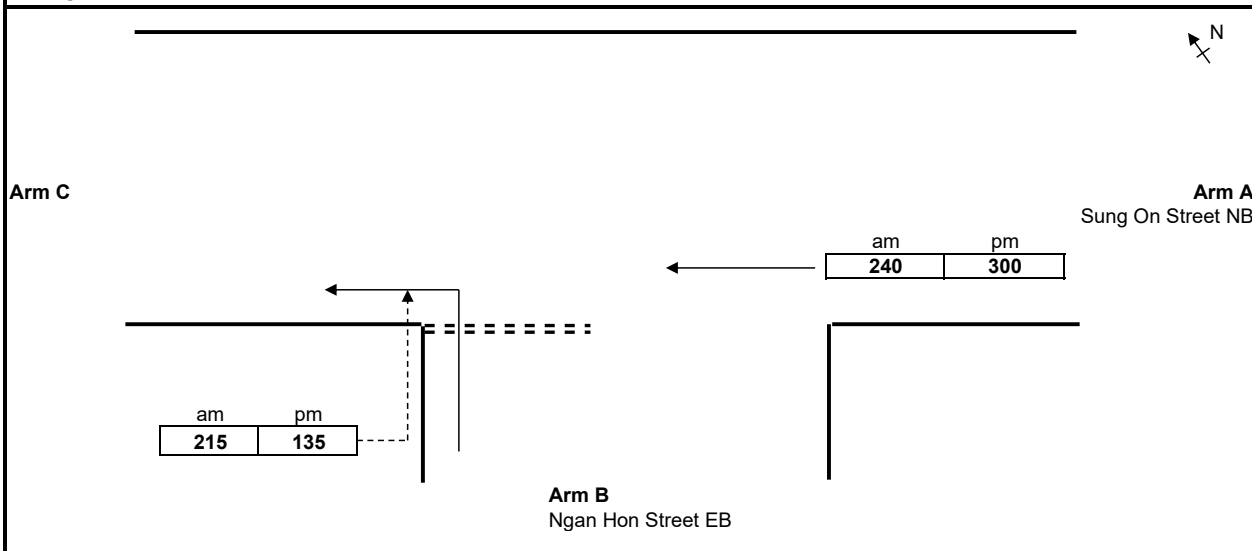
Date : 8/24/2026 Junction : JM - Hung Hom Road / Bailey Street / Chi Kiang Street

SIMPLIFIED PRIORITY JUNCTION CAPACITY CALCULATION

(Priority T-Junction - Minor Arm B)



Job Title:	Job No.:
Junction: JN - Sung On Street / Ngan Hon Street	Designed by: PC
Scheme: DSP Stage TIA Design Scenario	Checked by: EC
Design Year: 2035	
Arm A: Sung On Street NB	
Arm B: Ngan Hon Street EB	
Arm C:	



GEOMETRY					
Major road width (m)	W	7.0	Lane widths (m)	w(b-a)	
Central Reserve width (m)	Wcr			w(b-c)	3.0
Residual width (m)	Wr(c-a)			w(c-b)	
Visibilities (m) (*1)	Vr(b-a)		Calculated Parameters (*2)	D	0.53
	VI(b-a)			E	0.85
	Vr(b-c)	17		F	0.59
	Vr(c-b)			Y	0.76

CALCULATION		AM PEAK	PM PEAK
TRAFFIC FLOWS (pcu/hr)	q(c-a)	0	0
	q(c-b)	0	0
	q(a-b)	0	0
	q(a-c)	240	300
	q(b-a)		
	q(b-c)	215	135
	f = $q(b-c) / (q(b-c) + q(b-a))$	1.00	1.00
CAPACITIES (pcu/hr)	Q(b-a)	299	290
	Q(b-c)	578	564
	Q(c-b)	398	388
	Q(b-ac) (*3)	578	564
	Q(c-a) = $1800(1 - q(c-b)/Q(c-b))$	1800	1800
DFC's	b-a = $q(b-a)/Q(b-a)$	0.00	0.00
	b-c = $q(b-c)/Q(b-c)$	0.37	0.24
	c-b = $q(c-b)/Q(c-b)$	0.00	0.00
	b-ac = $q(b-ac)/Q(b-ac)$	0.37	0.24
	c-a	0.00	0.00
Critical DFC		0.37	0.24

(*1) Where VI and Vr are visibility distances to the left or right of the respective streams

(*2) $D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$

$E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$

$F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$

$Y = 1 - 0.0345W$

f = proportion of minor traffic turning left

(*3) $Q(b-ac) = Q(b-c) * Q(b-a) / (1 - f) * Q(b-c) + f * Q(b-a)$ Capacity of combined streams

- In accordance with TPDM V2.4 Appendix 1

SIMPLIFIED PRIORITY JUNCTION CAPACITY CALCULATION

(Priority T-Junction - Minor Arm B)



Job Title:		Job No.:	
Junction: JN - Sung On Street / Ngan Hon Street		Designed by: PC	
Scheme: DSP Stage TIA Design Scenario (with additional traffic genera		Checked by: EC	
Design Year: 2035			
Arm A: Sung On Street NB			
Arm B: Ngan Hon Street EB			
Arm C:			

N
↗

Arm C

Arm A
Sung On Street NB

Arm B
Ngan Hon Street EB

GEOMETRY				
Major road width (m)	W	7.0	Lane widths (m)	w(b-a)
Central Reserve width (m)	Wcr			w(b-c)
Residual width (m)	Wr(c-a)			w(c-b)
Visibilities (m) (*1)	Vr(b-a)		Calculated Parameters (*2)	D
	VI(b-a)			E
	Vr(b-c)	17		F
	Vr(c-b)			Y

CALCULATION		AM PEAK	PM PEAK
TRAFFIC FLOWS (pcu/hr)	q(c-a)	0	0
	q(c-b)	0	0
	q(a-b)	0	0
	q(a-c)	240	300
	q(b-a)		
	q(b-c)	215	135
	f = q(b-c) / (q(b-c)+q(b-a))	1.00	1.00
CAPACITIES (pcu/hr)	Q(b-a)	299	290
	Q(b-c)	578	564
	Q(c-b)	398	388
	Q(b-ac) (*3)	578	564
	Q(c-a) = 1800(1-q(c-b)/Q(c-b))	1800	1800
DFC's	b-a = q(b-a)/Q(b-a)	0.00	0.00
	b-c = q(b-c)/Q(b-c)	0.37	0.24
	c-b = q(c-b)/Q(c-b)	0.00	0.00
	b-ac = q(b-ac)/Q(b-ac)	0.37	0.24
	c-a	0.00	0.00
	Critical DFC	0.37	0.24

(*1) Where VI and Vr are visibility distances to the left or right of the respective streams

(*2) $D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$

$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$

$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$

$Y = 1-0.0345W$

f = proportion of minor traffic turning left

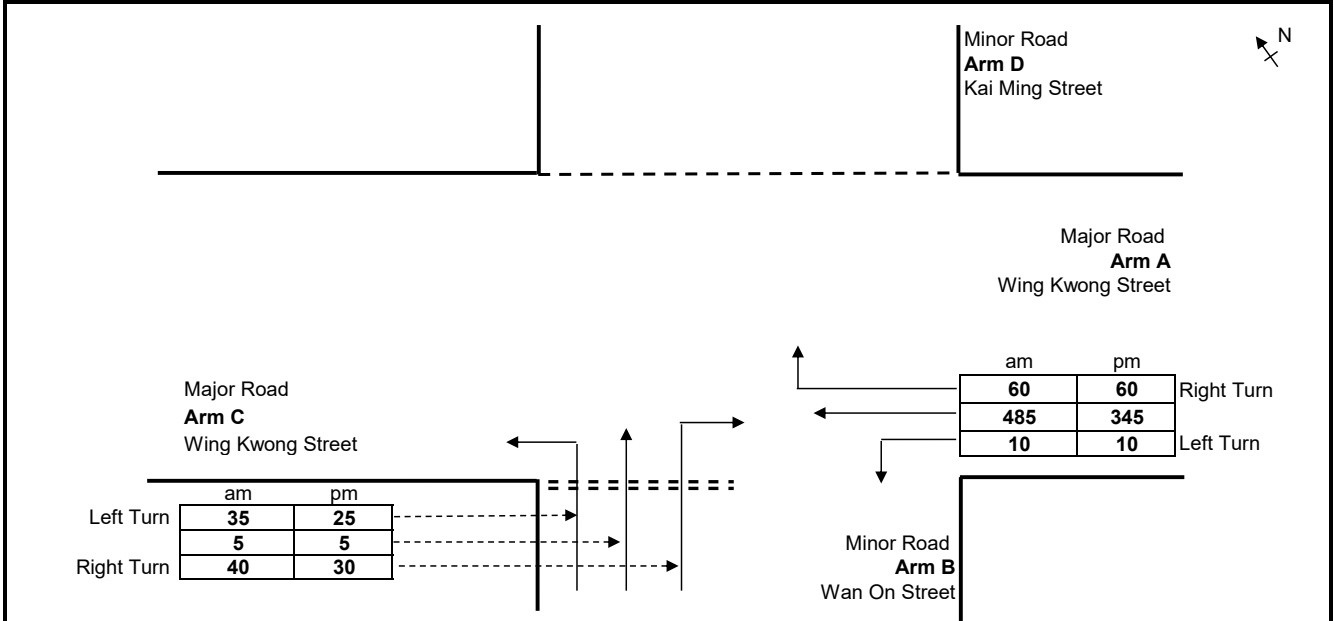
(*3) $Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$ Capacity of combined streams

- In accordance with TPDM V2.4 Appendix 1

(Priority Cross Junction - Single Lane Minor Arms BD)

Job Title:		Job No.:	
Junction:	JO - Wing Kwong Street / Wing On Street / Kai Ming Street	Designed by:	PC
Scheme:	DSP Stage TIA Design Scenario	Checked by:	EC
Design Year:	2035		

Arm A:	Wing Kwong Street	Arm C:	Wing Kwong Street
Arm B:	Wan On Street	Arm D:	Kai Ming Street

**GEOMETRY**

Major road width (m)			W	7.5	Residual width (m)			Wr(c-a)	0.0
Central Reserve width (m)			Wcr	0.0	Residual width (m)			Wr(a-c)	0.0
Arm B					Arm D				
Lane widths (m)			w(b-a)	4.0	Lane widths (m)			w(d-c)	
			w(b-c)	4.0				w(d-a)	
			w(c-b)	4.0				w(a-d)	
Visibilities (m)	Vr(b-a)	22	D	0.87	Visibilities (m)	Vr(d-c)	D	0.53	
(*1)(*2)	VI(b-a)	17	E	0.94	(*1)(*2)	VI(d-c)	E	0.59	
	Vr(b-c)	22	F	0.92		Vr(d-a)	F	0.60	
	Vr(c-b)		Y	0.74		Vr(a-d)	17	Y	0.74

CALCULATION

Arm B				Arm D			
		AM PEAK	PM PEAK			AM PEAK	PM PEAK
TRAFFIC FLOWS	q(c-a)	0	0	TRAFFIC FLOWS	q(a-c)	485	345
	q(c-b)	0	0		q(a-d)	60	60
	q(a-b)	10	10		q(c-d)	0	0
	q(a-c)	485	345		q(c-a)	0	0
	q(b-a)	40	30		q(d-c)	0	0
	q(b-c)	35	25		q(d-a)	0	0
	q(b-d)	5	5		q(d-b)	0	0
	f	0.466667	0.45454545		f	0	0
CAPACITIES	Q(b-a)	415	448	CAPACITIES	Q(d-c)	269	284
	Q(b-c)	577	613		Q(d-a)	437	437
	Q(c-b)	542	577		Q(a-d)	444	444
	Q(b-ac)	478	510		Q(d-ca)	269	284
	Q(b-d)left	415	448		Q(d-b)left	277	290
	Q(b-d)right	415	448		Q(d-b)right	277	290
	Q(c-a)	1800	1800		Q(a-c)	1557	1557
	DFC's	b-ad	0.10	0.07	DFC's	d-c	0.00
b-cd		0.07	0.05		d-a	0.00	0.00
c-b		0.00	0.00		a-d	0.14	0.14
b-acd		0.17	0.12		d-abc	0.00	0.00
c-a		0.00	0.00		a-c	0.31	0.22
DFC	0.17	0.12	DFC	0.31	0.22		

$$(*2) D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(Vl(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1 - 0.0345W$$

f = proportion of minor traffic turning left

$$(*3) \quad Q(b-ac) = Q(b-c) \cdot Q(b-a) / ((1-f) \cdot Q(b-c) + f \cdot Q(b-a)) \quad \text{Capacity of combined streams}$$

Minor Arms Critical DFC	
AM PEAK	PM PEAK
0.31	0.22

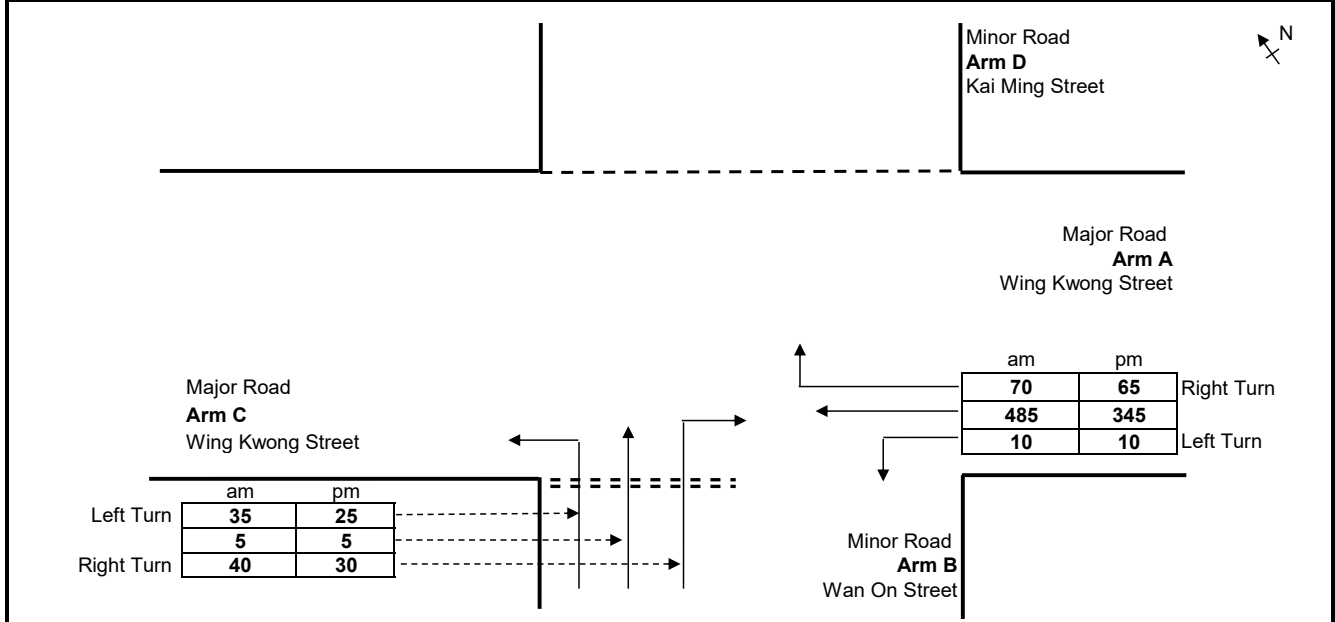
- In accordance with TPDM V2.4 Appendix 1

SIMPLIFIED PRIORITY JUNCTION CAPACITY CALCULATION

(Priority Cross Junction - Single Lane Minor Arms BD)

Job Title:	JO - Wing Kwong Street / Wing On Street / Kai Ming Street	Job No.:	
Junction:	DSP Stage TIA Design Scenario (with additional traffic generation)	Designed by:	PC
Scheme:	2035	Checked by:	EC

Arm A:	Wing Kwong Street	Arm C:	Wing Kwong Street
Arm B:	Wan On Street	Arm D:	Kai Ming Street



GEOMETRY									
Major road width (m)		W		7.5	Residual width (m)		Wr(c-a)		0.0
Central Reserve width (m)		Wcr		0.0	Residual width (m)		Wr(a-c)		0.0
Arm B					Arm D				
Lane widths (m)		w(b-a)		4.0	Lane widths (m)		w(d-c)		
		w(b-c)		4.0			w(d-a)		
		w(c-b)		4.0			w(a-d)		
Visibilities (m)	Vr(b-a)	22	D	0.87	Visibilities (m)	Vr(d-c)	D		0.53
(*1)(*2)	VI(b-a)	17	E	0.94	(*1)(*2)	VI(d-c)	E		0.59
	Vr(b-c)	22	F	0.92		Vr(d-a)	F		0.60
	Vr(c-b)		Y	0.74		Vr(a-d)	17	Y	0.74

CALCULATION									
Arm B					Arm D				
		AM PEAK	PM PEAK				AM PEAK	PM PEAK	
TRAFFIC FLOWS	q(c-a)	0	0		TRAFFIC FLOWS	q(a-c)	485	345	
	q(c-b)	0	0			q(a-d)	70	65	
	q(a-b)	10	10			q(c-d)	0	0	
	q(a-c)	485	345			q(c-a)	0	0	
	q(b-a)	40	30			q(d-c)	0	0	
	q(b-c)	35	25			q(d-a)	0	0	
	q(b-d)	5	5			q(d-b)	0	0	
	f	0.466667	0.454545			f	0	0	
CAPACITIES	Q(b-a)	413	447		CAPACITIES	Q(d-c)	267	283	
	Q(b-c)	577	613			Q(d-a)	437	437	
	Q(c-b)	538	575			Q(a-d)	444	444	
	Q(b-ac)	476	509			Q(d-ca)	267	283	
	Q(b-d)left	413	447			Q(d-b)left	275	289	
	Q(b-d)right	413	447			Q(d-b)right	275	289	
	Q(c-a)	1800	1800			Q(a-c)	1516	1537	
DFC's	b-ad	0.10	0.07		DFC's	d-c	0.00	0.00	
	b-cd	0.07	0.05			d-a	0.00	0.00	
	c-b	0.00	0.00			a-d	0.16	0.15	
	b-acd	0.17	0.12			d-abc	0.00	0.00	
	c-a	0.00	0.00			a-c	0.32	0.22	
DFC		0.17	0.12		DFC		0.32	0.22	

(*1) Where VI and Vr are visibility distances to the left or right of the respective streams

(*2) $D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$

$E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$

$F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$

$Y = 1 - 0.0345W$

f = proportion of minor traffic turning left

(*3) $Q(b-ac) = Q(b-c)Q(b-a)/(1-f)Q(b-c) + fQ(b-a)$ Capacity of combined streams

Minor Arms Critical DFC

AM PEAK	PM PEAK
0.32	0.22

- In accordance with TPDM V2.4 Appendix 1