APPENDIX A

JUNCTION CALCULATIONS

2023 Junction Assessment

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

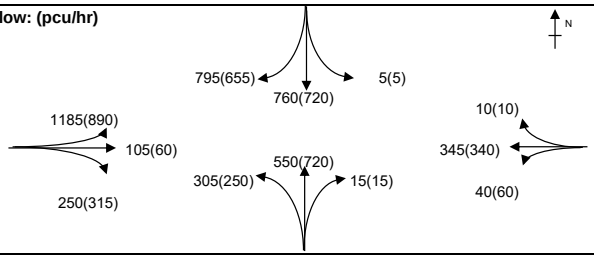
Junction: J1 Ting Kok Rd / Yuen Shin Rd (13791) Design Year: 2023

Description: 2023 Observed Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
		B	1,2	3.500	15					1785	1785	568	0.318		426	0.239	
Ting Kok Road		B	1,2	3.500	17.5					1940	1940	617	0.318		464	0.239	
(EB)		C	2	3.500						2105	2105	105	0.050		60	0.029	
		C	2	3.500		32.5				2010	2010	250	0.124	0.124	315	0.157	0.157
		A	1	3.600		25				1995	1995	397	0.199	0.199	327	0.164	
Ting Kok Road		A	1	3.600		27.5				2005	2005	398	0.199		328	0.164	
(SB)		A	1	3.600	12.5			1%	1%	1970	1970	369	0.187		350	0.178	0.178
		A	1	3.600						2115	2115	396	0.187		375	0.177	
Dai Fuk Street		F	4	3.650	15			21%	31%	1940	1920	189	0.097		195	0.102	
(WB)		F	4	3.650		22.5		5%	5%	2115	2115	206	0.097		215	0.102	
		D	2,3	3.500	15					1785	1785	305	0.171		250	0.140	
		E	3	3.500						2105	2105	183	0.087		240	0.114	0.114
Yuen Shin Road		E	3	3.500					2105	2105	2105	184	0.087	0.087	240	0.114	
(NB)		E	3	3.500						2105	2105	183	0.087		240	0.114	
		E	3	3.500		25				1985	1985	15	0.008		15	0.008	
Pedestrian Crossing		Gp	1,2,3	MIN GREEN + FLASH =			9	+	7	=	16						
		Hp	4	MIN GREEN + FLASH =			5	+	10	=	15			*			*

Notes:

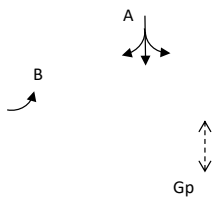
Flow: (pcu/hr)



Group	A,C,E,F	A,C,E,Hp	Group	A,C,E,F	A,C,E,Hp
y	0.508	0.411	y	0.550	0.448
L (sec)	25	40	L (sec)	25	40
C (sec)	100	100	C (sec)	96	96
y pract.	0.675	0.540	y pract.	0.666	0.525
R.C. (%)	33%	31%	R.C. (%)	21%	17%

Stage / Phase Diagrams

1.



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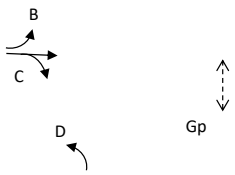

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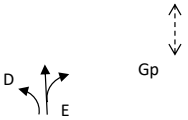

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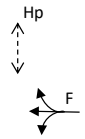


5.

I/G= 2		I/G= 7		I/G= 8		I/G= 11	15	I/G=	
I/G= 2		I/G= 7		I/G= 8		I/G= 11	15	I/G=	

Date: DEC, 2024 **Junction:** J1 Ting Kok Rd / Yuen Shin Rd (13791) (J1)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J2 Yuen Shin Rd / Dai Fat St (13081) Design Year: 2023

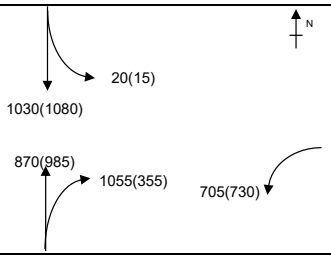
Description: 2023 Observed Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Yuen Shin Road (NB)		A	1	3.500						1965	1965	636	0.324		476	0.242	0.242
		A	1	3.500		22.5		64%	0%	2020	2105	654	0.324		509	0.242	
		A	1	3.500		20				1960	1960	635	0.324	0.324	355	0.181	
Yuen Shin Road (SB)		B	2	3.300	15			4%	3%	1935	1940	506	0.261	0.261	528	0.272	0.272
		B	2	3.300						2085	2085	544	0.261		567	0.272	
Dai Fat Street (WB)		C	1	3.750	20					1850	1850	339	0.183		351	0.190	
		C	1	3.750	22.5					1995	1995	366	0.183		379	0.190	
Pedestrian Crossing		Dp	2,3	MIN GREEN + FLASH =			5	+	6	=	11						
		Ep	3	MIN GREEN + FLASH =			5	+	8	=	13			*			*
		Fp	1,3	MIN GREEN + FLASH =			5	+	6	=	11						
		Gp	2,3	MIN GREEN + FLASH =			5	+	7	=	12						

Notes:

Based on site observation of existing situation in two weekdays, Stage 3 is demand dependent which is only activated from 15-30% of all cycles in peak hour recorded. To reflect the actual situation, the lost time in Stage 3 has been prorated by 30% (highest) wihtin peak hour assessment.

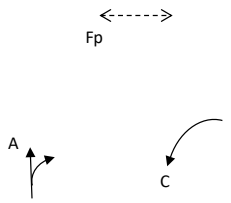
Flow: (pcu/hr)



Group	C,B,Ep	A,B,Ep	Group	C,B,Ep	A,B,Ep
y	0.445	0.585	y	0.462	0.514
L (sec)	18	16	L (sec)	18	16
C (sec)	100	100	C (sec)	96	96
y pract.	0.738	0.756	y pract.	0.731	0.750
R.C. (%)	66%	29%	R.C. (%)	58%	46%

Stage / Phase Diagrams

1.



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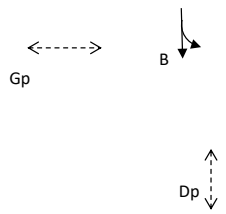

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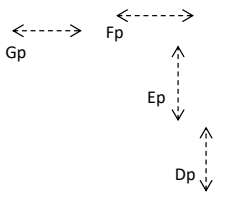


(Demand Dependant)

5.

I/G= 2		I/G= 7		I/G= 10	13	I/G=		I/G=	
I/G= 2		I/G= 7		I/G= 10	13	I/G=		I/G=	

Date: DEC, 2024 **Junction:** (J2) J2 Yuen Shin Rd / Dai Fat St (13081)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J3 Tai Po Tai Wo Rd / Yuen Shin Rd (13080) Design Year: 2023

Description: 2023 Observed Weekday Designed By: TLY Checked By: TKM

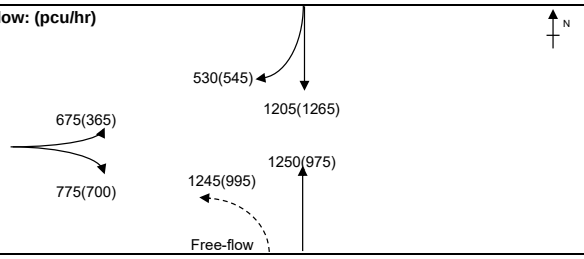
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Yuen Shin Road (SB)	*	B	1,2	3.300						1875	1875	571	0.305		599	0.319	
		B	1,2	3.300						2085	2085	634	0.304		666	0.319	
		C	2	3.300		15				1895	1895	530	0.280	0.280	545	0.288	0.288
Tai Po Tai Wo Road (EB)		D	2,3	3.300	15					1895	1895	675	0.356		365	0.193	
		E	3	3.300		20				1940	1940	392	0.202		354	0.182	
		E	3	3.300		15				1895	1895	383	0.202	0.202	346	0.183	0.183
Yuen Shin Road (NB)	*	A	1	3.300						1875	1875	388	0.207	0.207	302	0.161	
		A	1	3.300						2085	2085	431	0.207		337	0.162	0.162
		A	1	3.300						2085	2085	431	0.207		336	0.161	

Pedestrian Crossing

Notes:

*Site factor = 0.9 (short lane)

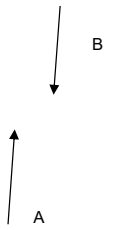
Flow: (pcu/hr)



Group	A,D	A,C,E	Group	B,E	A,C,E
y	0.563	0.689	y	0.502	0.632
L (sec)	10	13	L (sec)	10	13
C (sec)	100	100	C (sec)	96	96
y pract.	0.810	0.783	y pract.	0.806	0.778
R.C. (%)	44%	14%	R.C. (%)	61%	23%

Stage / Phase Diagrams

1.



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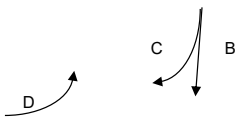

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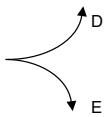


4.

5.

I/G= 5		I/G= 5		I/G= 6		I/G=	I/G=
I/G= 5		I/G= 5		I/G= 6		I/G=	I/G=

Date: DEC, 2024

Junction: (J3) J3 Tai Po Tai Wo Rd / Yuen Shin Rd (13080)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

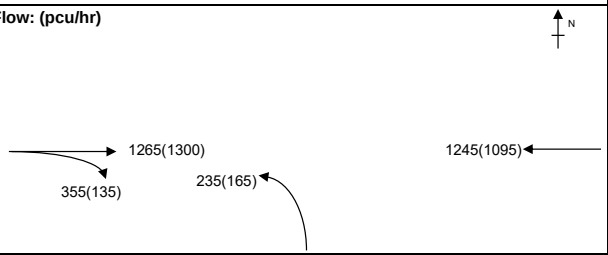
Junction: J4 Ting Kok Rd / Dai Fat St (13792) Design Year: 2023

Description: 2023 Observed Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road	→	A	1,2	3.400						1955	1955	808	0.413	0.413	702	0.359	
(EB)	↱	A	1,2	3.400		10		44%	18%	1965	2040	812	0.413		733	0.359	0.359
Ting Kok Road	←	C	3	3.650						1980	1980	601	0.304		529	0.267	0.267
(WB)	←	C	3	3.650						2120	2120	644	0.304	0.304	566	0.267	
Dai Fat Street	↰	B	1	3.650	10					1720	1720	112	0.065		79	0.046	
(NB)	↰	B	1	3.650	12.5					1895	1895	123	0.065		86	0.045	
Pedestrian Crossing		Dp	2	MIN GREEN + FLASH =			5	+	7	=	12						
		Ep	3	MIN GREEN + FLASH =			6	+	7	=	13						
		Fp	2,3	MIN GREEN + FLASH =			10	+	7	=	17						

Notes:

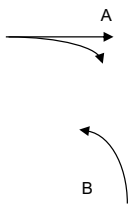
Flow: (pcu/hr)



Group	A,Ep	A,C	Group	A,Ep	A,C
y	0.413	0.717	y	0.359	0.626
L (sec)	25	10	L (sec)	25	10
C (sec)	100	100	C (sec)	96	96
y pract.	0.675	0.810	y pract.	0.666	0.806
R.C. (%)	63%	13%	R.C. (%)	85%	29%

Stage / Phase Diagrams

1.



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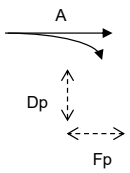

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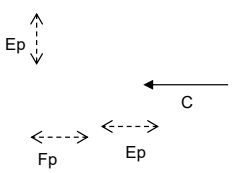


4.

5.

I/G= 6		I/G=		I/G= 6		I/G=	I/G=
I/G= 6		I/G=		I/G= 6		I/G=	I/G=

Date: DEC, 2024 **Junction:** (J4) J4 Ting Kok Rd / Dai Fat St (13792)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J5 Ting Kok Rd / Dai Kwai St (13811) Design Year: 2023

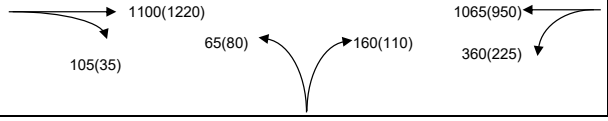
Description: 2023 Observed Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road (EB)	→	B	1,2	3.350						1950	1950	980	0.503	0.503	940	0.482	
	↓	D	2	3.350		15		47%	11%	1995	2065	225	0.113		315	0.153	0.153
Ting Kok Road (WB)	↓	A	1	3.700	30			53%	40%	1935	1945	679	0.351		562	0.289	0.289
	←	A	1	3.700						2125	2125	746	0.351		613	0.288	
Dai Kwai Street (NB)	↰	E	3	3.500	15					1785	1785	65	0.036		80	0.045	
	↑	E	3	3.500	17.5	15		0% / 100%	0% / 100%	1915	1915	160	0.084	0.084	110	0.057	0.057
Pedestrian Crossing		Fp	4	MIN GREEN + FLASH =			12	+	8	=	20						
		Gp	4	MIN GREEN + FLASH =			5	+	9	=	14			*			*

Notes:

Based on site observation of existing situation in two weekdays, Stage 4 is demand dependent which is only activated from 50-60% of all cycles in peak hour recorded. To reflect the actual situation, the lost time in Stage 4 has been prorated by 60% (highest) wihtin peak hour assessment.

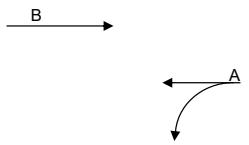
Flow: (pcu/hr)



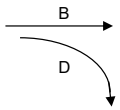
Group	A,D,E,Gp	B,E,Gp	Group	A,D,E,Gp	B,E,Gp
y	0.547	0.586	y	0.499	0.539
L (sec)	30	25	L (sec)	30	25
C (sec)	120	120	C (sec)	96	96
y pract.	0.677	0.714	y pract.	0.621	0.668
R.C. (%)	24%	22%	R.C. (%)	24%	24%

Stage / Phase Diagrams

1.



2.



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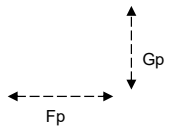


(Demand Dependant)

5.

I/G= 4		I/G=		I/G= 6		I/G= 12	14	I/G=	
I/G= 4		I/G= 6		I/G= 6		I/G= 12	14	I/G=	

Date: DEC, 2024 **Junction:** (J5) J5 Ting Kok Rd / Dai Kwai St (13811)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J6 Ting Kok Rd / Access Rd to Fortune Garden (13813) Design Year: 2023

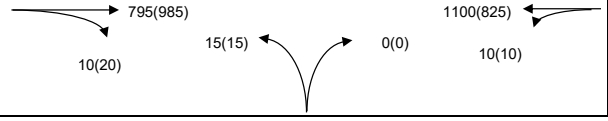
Description: 2023 Observed Weekday Designed By: TLY Checked By: TKM

Approach		Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road (EB)		→	B	1,2	3.000						1915	1915	383	0.200		475	0.248	
		→	B	1,2	3.000						2055	2055	412	0.200		510	0.248	0.248
	*	↴	C	2	3.000		15				1310	1310	10	0.008		20	0.015	
Ting Kok Road (WB)		↰	A	1	4.000	20			2%	2%	2010	2010	536	0.267	0.267	403	0.200	
		←	A	1	4.000						2155	2155	574	0.266		432	0.200	
Fortune Garden Access		↰→	D	3	3.650	15	15		100% / 0%	100% / 0%	1800	1800	15	0.008		15	0.008	
Pedestrian Crossing			Ep	4	MIN GREEN + FLASH =			5	+	8	=	13			*			*
			Fp	4	MIN GREEN + FLASH =			6	+	6	=	12						

Notes:

*Site factor = 0.7 (short lane)

Flow: (pcu/hr)

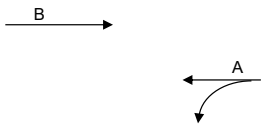


Group	A,C,D,Fp	A,C,D,Ep
y	0.267	0.267
L (sec)	40	45
C (sec)	100	100
y pract.	0.540	0.495
R.C. (%)	103%	86%

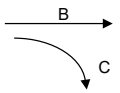
Group	A,C,D,Ep	B,D,Ep
y	0.200	0.248
L (sec)	45	34
C (sec)	96	96
y pract.	0.478	0.581
R.C. (%)	138%	134%

Stage / Phase Diagrams

1.



2.

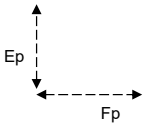


(Demand Dependant)

3.

(Demand Dependant)

4.



(Demand Dependant)

5.

I/G= 3		I/G= 6	5	I/G= 6	5	I/G= 8	13	I/G=	
I/G= 3		I/G=		I/G= 6	5	I/G= 8	13	I/G=	

Date: DEC, 2024

Junction: J6 Ting Kok Rd / Access Rd to Fortune Garden (13813)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J7 Ting Kok Rd / Lo Fai Rd (13812) Design Year: 2023

Description: 2023 Observed Weekday Designed By: TLY Checked By: TKM

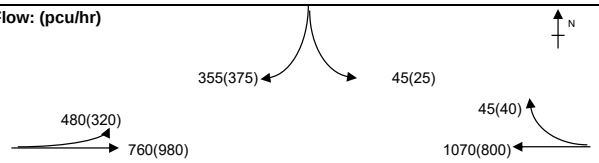
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road (EB)	*	C	1	3.650	15			89%	56%	1635	1690	540	0.330		576	0.341	
		C	1	3.650						2120	2120	700	0.330		724	0.342	0.342
Lo Fai Road (SB)		B	3	3.400	22.5	15		21% / 79%	12% / 88%	1790	1785	214	0.120	0.120	213	0.119	
	**	B	3	3.400		20				1560	1560	186	0.119		187	0.120	0.120
Ting Kok Road (WB)		H	2	3.750		20		31%	21%	2080	2095	145	0.070		190	0.091	0.091
		A	1,2	3.750						1990	1990	970	0.487	0.487	650	0.327	

Pedestrian Crossing	Ep	3	MIN GREEN + FLASH =	5	+	7	=	12
	Fp	1,2	MIN GREEN + FLASH =	5	+	7	=	12
	Gp	3	MIN GREEN + FLASH =	5	+	8	=	13

Notes:

*Site factor = 0.9 (on-street bus stop)
**Site factor = 0.8 (short lane)

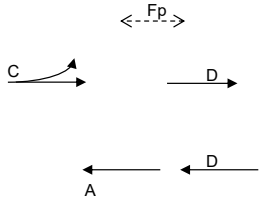
Flow: (pcu/hr)



Group	C,H,B	A,B	Group	C,H,Ep	C,H,B
y	0.520	0.607	y	0.432	0.552
L (sec)	14	12	L (sec)	28	14
C (sec)	120	120	C (sec)	96	96
y pract.	0.795	0.810	y pract.	0.638	0.769
R.C. (%)	53%	33%	R.C. (%)	48%	39%

Stage / Phase Diagrams

1.



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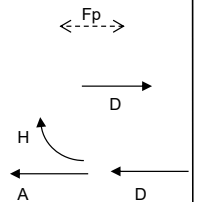
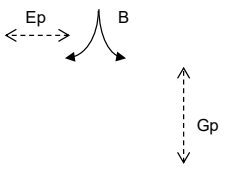


3.



4.

5.

I/G= 8		I/G= 6		I/G=		I/G=	
I/G= 6		I/G= 5		I/G= 6		I/G=	

Date: DEC, 2024 **Junction:** J7 Ting Kok Rd / Lo Fai Rd (13812) (J7)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

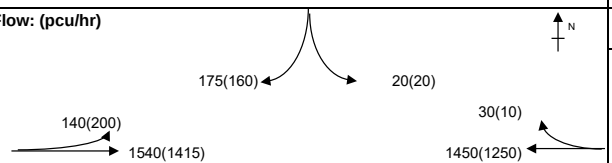
Junction: J8 Ting Kok Rd / Fung Yuen Rd (13810) Design Year: 2023

Description: 2023 Observed Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road		A	1	3.500	15			17%	26%	1930	1915	804	0.417	0.417	769	0.402	
EB		A	1	3.500						2105	2105	876	0.416		846	0.402	0.402
Fung Yuen Road		D	3	3.750	10					1730	1730	20	0.012		20	0.012	
SB		D	3	3.750		20				1980	1980	175	0.088	0.088	160	0.081	0.081
Ting Kok Road		B	1,2	3.500						1965	1965	759	0.386		645	0.328	
WB		B	1,2	3.500		15		4%	2%	1865	1870	721	0.387		615	0.329	
		Bp	2	GREEN TIME						=	5	sec		*			*
[Lost time for Stage 2 right turn]																	
Pedestrian Crossing		Ep	4	MIN GREEN + FLASH =			8	+	8	=	16	sec		*			*
		Fp	4	MIN GREEN + FLASH =			11	+	10	=	21	sec					

Notes:

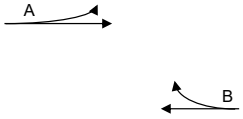
Flow: (pcu/hr)



Group	A,Bp,D,Fp	A,Bp,D,Ep	Group	A,Bp,D,Fp	A,Bp,D,Ep
y	0.505	0.505	y	0.483	0.483
L (sec)	42	44	L (sec)	42	44
C (sec)	100	100	C (sec)	96	96
y pract.	0.522	0.504	y pract.	0.506	0.488
R.C. (%)	3%	0%	R.C. (%)	5%	1%

Stage / Phase Diagrams

1.

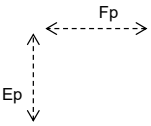


2.

3.

(Demand Dependant)

4.



(Demand Dependant)

5.

I/G= 4		I/G= 5	5	I/G= 6		I/G= 10	16	I/G=	
I/G= 4		I/G= 5	5	I/G= 6		I/G= 10	16	I/G=	

Date: DEC, 2024 **Junction:** J8 Ting Kok Rd / Fung Yuen Rd (13810)

2036 Junction Assessment (Reference)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

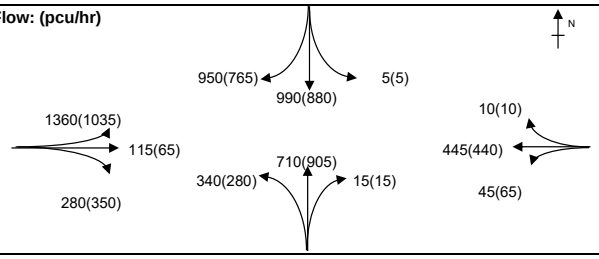
Junction: J1 Ting Kok Rd / Yuen Shin Rd (13791) Design Year: 2036

Description: 2036 Reference Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
		B	1,2	3.500	15					1785	1785	652	0.365		496	0.278	
Ting Kok Road		B	1,2	3.500	17.5					1940	1940	708	0.365		539	0.278	
(EB)		C	2	3.500						2105	2105	115	0.055		65	0.031	
		C	2	3.500		32.5				2010	2010	280	0.139	0.139	350	0.174	0.174
		A	1	3.600		25				1995	1995	474	0.238		382	0.191	
Ting Kok Road		A	1	3.600		27.5				2005	2005	476	0.237		383	0.191	
(SB)		A	1	3.600	12.5			1%	1%	1975	1970	480	0.243		427	0.217	0.217
		A	1	3.600						2115	2115	515	0.243	0.243	458	0.217	
Dai Fuk Street		F	4	3.650	15			19%	26%	1945	1930	239	0.123		246	0.127	
(WB)		F	4	3.650		22.5		4%	4%	2115	2115	261	0.123		269	0.127	
		D	2,3	3.500	15					1785	1785	340	0.190		280	0.157	
		E	3	3.500						2105	2105	237	0.113	0.113	302	0.143	0.143
Yuen Shin Road		E	3	3.500					2105	2105	2105	236	0.112		301	0.143	
(NB)		E	3	3.500						2105	2105	237	0.113		302	0.143	
		E	3	3.500		25				1985	1985	15	0.008		15	0.008	
Pedestrian Crossing		Gp	1,2,3	MIN GREEN + FLASH =			9	+	7	=	16						
		Hp	4	MIN GREEN + FLASH =			5	+	10	=	15			*			*

Notes:

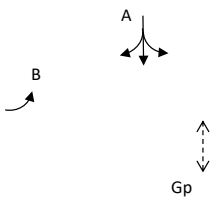
Flow: (pcu/hr)



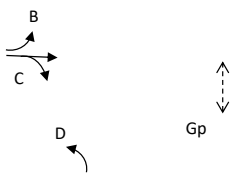
Group	A,C,E,F	A,C,E,Hp	Group	A,C,E,F	A,C,E,Hp
y	0.619	0.495	y	0.662	0.534
L (sec)	25	40	L (sec)	25	40
C (sec)	100	100	C (sec)	96	96
y pract.	0.675	0.540	y pract.	0.666	0.525
R.C. (%)	9%	9%	R.C. (%)	1%	-2%

Stage / Phase Diagrams

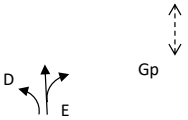
1.



2.



3.



4.

5.

I/G= 2		I/G= 7		I/G= 8		I/G= 11	15	I/G=	
I/G= 2		I/G= 7		I/G= 8		I/G= 11	15	I/G=	

Date: DEC, 2024 **Junction:** (J1) J1 Ting Kok Rd / Yuen Shin Rd (13791)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J2 Yuen Shin Rd / Dai Fat St (13081) Design Year: 2036

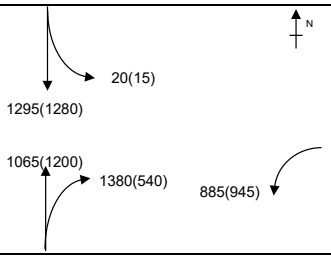
Description: 2036 Reference Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Yuen Shin Road (NB)		A	1	3.500						1965	1965	809	0.412		579	0.295	
		A	1	3.500		22.5		69%	0%	2010	2105	829	0.412	0.412	621	0.295	0.295
		A	1	3.500		20				1960	1960	807	0.412		540	0.276	
Yuen Shin Road (SB)		B	2	3.300	15			3%	2%	1940	1940	634	0.327	0.327	624	0.322	
		B	2	3.300						2085	2085	681	0.327		671	0.322	0.322
Dai Fat Street (WB)		C	1	3.750	20					1850	1850	426	0.230		455	0.246	
		C	1	3.750	22.5					1995	1995	459	0.230		490	0.246	
Pedestrian Crossing		Dp	2,3	MIN GREEN + FLASH =			5	+	6	=	11						
		Ep	3	MIN GREEN + FLASH =			5	+	8	=	13			*			*
		Fp	1,3	MIN GREEN + FLASH =			5	+	6	=	11						
		Gp	2,3	MIN GREEN + FLASH =			5	+	7	=	12						

Notes:

Based on site observation of existing situation in two weekdays, Stage 3 is demand dependent which is only activated from 15-30% of all cycles in peak hour recorded. To reflect the actual situation, the lost time in Stage 3 has been prorated by 30% (highest) wihtin peak hour assessment.

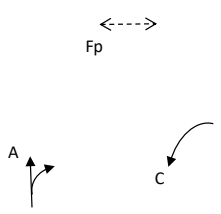
Flow: (pcu/hr)



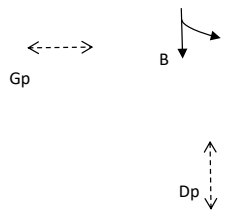
Group	C,B,Ep	A,B,Ep	Group	C,B,Ep	A,B,Ep
y	0.557	0.739	y	0.568	0.617
L (sec)	18	16	L (sec)	18	16
C (sec)	100	100	C (sec)	96	96
y pract.	0.738	0.756	y pract.	0.731	0.750
R.C. (%)	32%	2%	R.C. (%)	29%	22%

Stage / Phase Diagrams

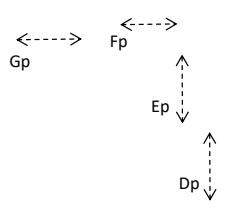
1.



2.



3.



(Demand Dependant)

5.

I/G= 2		I/G= 7		I/G= 10	13	I/G=		I/G=	
I/G= 2		I/G= 7		I/G= 10	13	I/G=		I/G=	

Date: DEC, 2024 **Junction:** (J2) J2 Yuen Shin Rd / Dai Fat St (13081)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J3 Tai Po Tai Wo Rd / Yuen Shin Rd (13080) Design Year: 2036

Description: 2036 Reference Weekday Designed By: TLY Checked By: TKM

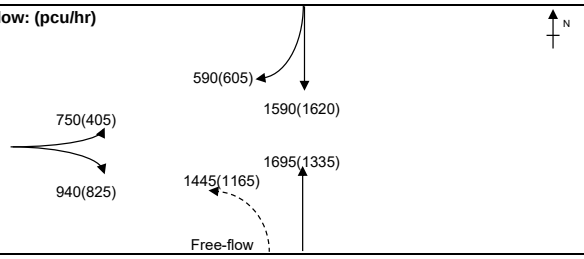
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Yuen Shin Road (SB)	*	B	1,2	3.300						1875	1875	753	0.402		767	0.409	
		B	1,2	3.300						2085	2085	837	0.401		853	0.409	
		C	2	3.300		15				1895	1895	590	0.311	0.311	605	0.319	0.319
Tai Po Tai Wo Road (EB)		D	2,3	3.300	15					1895	1895	750	0.396		405	0.214	
		E	3	3.300		20				1940	1940	476	0.245	0.245	417	0.215	
		E	3	3.300		15				1895	1895	464	0.245		408	0.215	0.215
Yuen Shin Road (NB)	*	A	1	3.300						1875	1875	526	0.281		414	0.221	
		A	1	3.300						2085	2085	584	0.280		461	0.221	0.221
		A	1	3.300						2085	2085	585	0.281	0.281	460	0.221	

Pedestrian Crossing

Notes:

*Site factor = 0.9 (short lane)

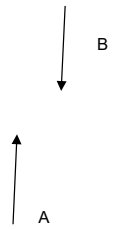
Flow: (pcu/hr)



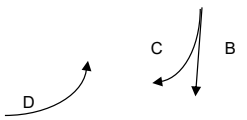
Group	A,D	A,C,E	Group	B,E	A,C,E
y	0.676	0.837	y	0.624	0.756
L (sec)	10	13	L (sec)	10	13
C (sec)	100	100	C (sec)	96	96
y pract.	0.810	0.783	y pract.	0.806	0.778
R.C. (%)	20%	-6%	R.C. (%)	29%	3%

Stage / Phase Diagrams

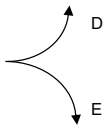
1.



2.



3.



4.

5.

I/G= 5		I/G= 5		I/G= 6		I/G=	I/G=
I/G= 5		I/G= 5		I/G= 6		I/G=	I/G=

Date: DEC, 2024 **Junction:** (J3) J3 Tai Po Tai Wo Rd / Yuen Shin Rd (13080)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J4 Ting Kok Rd / Dai Fat St (13792) Design Year: 2036

Description: 2036 Reference Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road	→	A	1,2	3.400						1955	1955	929	0.475	0.475	822	0.420	
(EB)	↱	A	1,2	3.400		10		42%	17%	1970	2040	936	0.475		858	0.421	0.421
Ting Kok Road	←	C	3	3.650						1980	1980	710	0.359	0.359	616	0.311	0.311
(WB)	←	C	3	3.650						2120	2120	760	0.358		659	0.311	
Dai Fat Street	↰	B	1	3.650	10					1720	1720	124	0.072		88	0.051	
(NB)	↰	B	1	3.650	12.5					1895	1895	136	0.072		97	0.051	
Pedestrian Crossing		Dp	2	MIN GREEN + FLASH =			5	+	7	=	12						
		Ep	3	MIN GREEN + FLASH =			6	+	7	=	13						
		Fp	2,3	MIN GREEN + FLASH =			10	+	7	=	17						

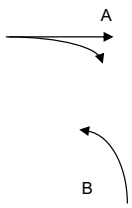
Notes:

Flow: (pcu/hr)

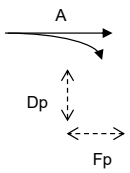
Group	A,Ep	A,C	Group	A,Ep	A,C
y	0.475	0.834	y	0.421	0.732
L (sec)	25	10	L (sec)	25	10
C (sec)	100	100	C (sec)	96	96
y pract.	0.675	0.810	y pract.	0.666	0.806
R.C. (%)	42%	-3%	R.C. (%)	58%	10%

Stage / Phase Diagrams

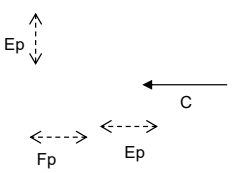
1.



2.



3.



4.

5.

I/G= 6		I/G=		I/G= 6		I/G=	I/G=
I/G= 6		I/G=		I/G= 6		I/G=	I/G=

Date: DEC, 2024 **Junction:** (J4) J4 Ting Kok Rd / Dai Fat St (13792)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J5 Ting Kok Rd / Dai Kwai St (13811) Design Year: 2036

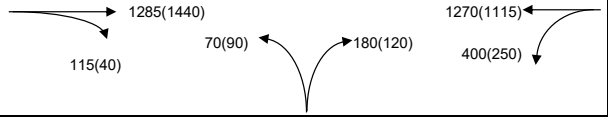
Description: 2036 Reference Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road (EB)	→	B	1,2	3.350						1950	1950	1090	0.559		1110	0.569	0.569
	↓	D	2	3.350		15		37%	11%	2015	2070	310	0.154	0.154	370	0.179	
Ting Kok Road (WB)	↰	A	1	3.700	30			50%	38%	1935	1950	796	0.411	0.411	653	0.335	
	←	A	1	3.700						2125	2125	874	0.411		712	0.335	
Dai Kwai Street (NB)	↰	E	3	3.500	15					1785	1785	70	0.039		90	0.050	
	↑	E	3	3.500	17.5	15		0% / 100%	0% / 100%	1915	1915	180	0.094	0.094	120	0.063	0.063
Pedestrian Crossing		Fp	4	MIN GREEN + FLASH =			12	+	8	=	20						
		Gp	4	MIN GREEN + FLASH =			5	+	9	=	14			*			*

Notes:

Based on site observation of existing situation in two weekdays, Stage 4 is demand dependent which is only activated from 50-60% of all cycles in peak hour recorded. To reflect the actual situation, the lost time in Stage 4 has been prorated by 60% (highest) wihtin peak hour assessment.

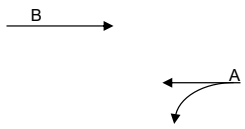
Flow: (pcu/hr)



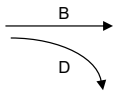
Group	A,D,E,Gp	B,E,Gp	Group	A,D,E,Gp	B,E,Gp
y	0.659	0.653	y	0.576	0.632
L (sec)	30	25	L (sec)	30	25
C (sec)	120	120	C (sec)	96	96
y pract.	0.677	0.714	y pract.	0.621	0.668
R.C. (%)	3%	9%	R.C. (%)	8%	6%

Stage / Phase Diagrams

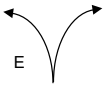
1.



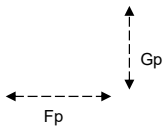
2.



3.



4.



(Demand Dependant)

5.

I/G= 4		I/G= 6		I/G= 6		I/G= 12	14	I/G=	
I/G= 4		I/G=		I/G= 6		I/G= 12	14	I/G=	

Date: DEC, 2024 **Junction:** J5 Ting Kok Rd / Dai Kwai St (13811) (J5)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J6 Ting Kok Rd / Access Rd to Fortune Garden (13813) Design Year: 2036

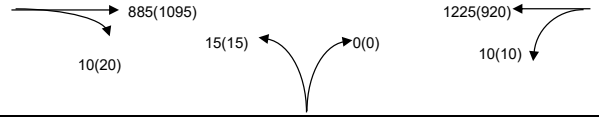
Description: 2036 Reference Weekday Designed By: TLY Checked By: TKM

Approach		Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road (EB)		→	B	1,2	3.000						1915	1915	427	0.223		528	0.276	
		→	B	1,2	3.000						2055	2055	458	0.223		567	0.276	0.276
	*	↱	C	2	3.000		15				1310	1310	10	0.008		20	0.015	
Ting Kok Road (WB)		↰	A	1	4.000	20			2%	2%	2010	2010	596	0.297		449	0.223	
		←	A	1	4.000						2155	2155	639	0.297	0.297	481	0.223	
Fortune Garden Access		↰↱	D	3	3.650	15	15		100% / 0%	100% / 0%	1800	1800	15	0.008		15	0.008	
Pedestrian Crossing			Ep	4	MIN GREEN + FLASH =			5	+	8	=	13			*			*
			Fp	4	MIN GREEN + FLASH =			6	+	6	=	12						

Notes:

*Site factor = 0.7 (short lane)

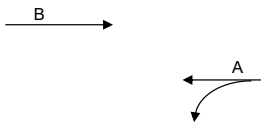
Flow: (pcu/hr)



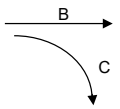
Group	A,C,D,Fp	A,C,D,Ep	Group	A,C,D,Ep	B,D,Ep
y	0.297	0.297	y	0.223	0.276
L (sec)	40	45	L (sec)	45	34
C (sec)	100	100	C (sec)	96	96
y pract.	0.540	0.495	y pract.	0.478	0.581
R.C. (%)	82%	67%	R.C. (%)	114%	111%

Stage / Phase Diagrams

1.



2.

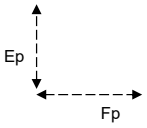


(Demand Dependant)

3.

(Demand Dependant)

4.



(Demand Dependant)

5.

I/G= 3		I/G= 6	5	I/G= 6	5	I/G= 8	13	I/G=	
I/G= 3		I/G=		I/G= 6	5	I/G= 8	13	I/G=	

Date: DEC, 2024

Junction: J6 Ting Kok Rd / Access Rd to Fortune Garden (13813)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J7 Ting Kok Rd / Lo Fai Rd (13812) Design Year: 2036

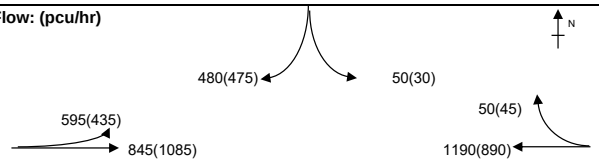
Description: 2036 Reference Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road (EB)	*	C	1	3.650	15			95%	65%	1625	1675	625	0.385		671	0.401	0.401
		C	1	3.650						2120	2120	815	0.384		849	0.400	
Lo Fai Road (SB)		B	3	3.400	22.5	15		18% / 82%	11% / 89%	1785	1785	283	0.159	0.159	269	0.151	
	**	B	3	3.400		20				1560	1560	247	0.158		236	0.151	0.151
Ting Kok Road (WB)		H	2	3.750		20		23%	24%	2095	2090	221	0.105		185	0.089	0.089
		A	1,2	3.750						1990	1990	1019	0.512	0.512	750	0.377	
Pedestrian Crossing		Ep	3	MIN GREEN + FLASH =			5	+	7	=	12						
		Fp	1,2	MIN GREEN + FLASH =			5	+	7	=	12						
		Gp	3	MIN GREEN + FLASH =			5	+	7	=	13						

Notes:

*Site factor = 0.9 (on-street bus stop)
**Site factor = 0.8 (short lane)

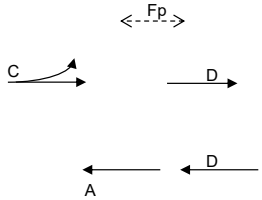
Flow: (pcu/hr)



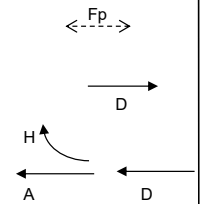
Group	C,H,B	A,B	Group	C,H,Ep	C,H,B
y	0.649	0.671	y	0.489	0.640
L (sec)	14	12	L (sec)	28	14
C (sec)	120	120	C (sec)	96	96
y pract.	0.795	0.810	y pract.	0.638	0.769
R.C. (%)	23%	21%	R.C. (%)	30%	20%

Stage / Phase Diagrams

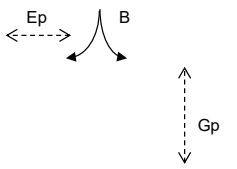
1.



2.



3.



4.

5.

I/G= 8		I/G= 6		I/G=		I/G=	
I/G= 6		I/G= 5		I/G= 6		I/G=	

Date: DEC, 2024

Junction: J7 Ting Kok Rd / Lo Fai Rd (13812) (J7)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

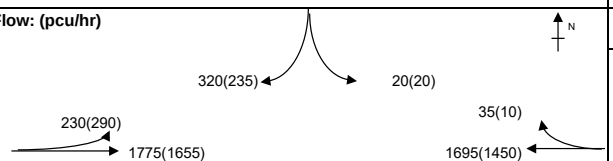
Junction: J8 Ting Kok Rd / Fung Yuen Rd (13810) Design Year: 2036

Description: 2036 Reference Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road		A	1	3.500	15			24%	31%	1920	1905	956	0.498		924	0.485	0.485
EB	→	A	1	3.500						2105	2105	1049	0.498	0.498	1021	0.485	
Fung Yuen Road		D	3	3.750	10	22.5		12% / 88%	16% / 84%	1850	1840	164	0.089		123	0.067	0.067
SB		D	3	3.750		20				1980	1980	176	0.089	0.089	132	0.067	
Ting Kok Road	←	B	1,2	3.500						1965	1965	887	0.451		748	0.381	
WB		B	1,2	3.500		15		4%	1%	1865	1870	843	0.452		712	0.381	
		Bp	2	GREEN TIME						=	5	sec		*			*
[Lost time for Stage 2 right turn]																	
Pedestrian Crossing		Ep	4	MIN GREEN + FLASH =			8	+	8	=	16	sec		*			*
		Fp	4	MIN GREEN + FLASH =			11	+	10	=	21	sec					

Notes:

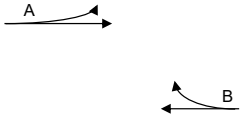
Flow: (pcu/hr)



Group	A,Bp,D,Fp	A,Bp,D,Ep	Group	A,Bp,D,Fp	A,Bp,D,Ep
y	0.587	0.587	y	0.552	0.552
L (sec)	42	44	L (sec)	42	44
C (sec)	100	100	C (sec)	96	96
y pract.	0.522	0.504	y pract.	0.506	0.488
R.C. (%)	-11%	-14%	R.C. (%)	-8%	-12%

Stage / Phase Diagrams

1.

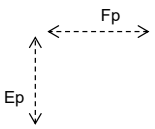


2.

3.

(Demand Dependant)

4.



(Demand Dependant)

5.

I/G= 4		I/G= 5	5	I/G= 6		I/G= 10	16	I/G=	
I/G= 4		I/G= 5	5	I/G= 6		I/G= 10	16	I/G=	

Date: DEC, 2024 **Junction:** J8 Ting Kok Rd / Fung Yuen Rd (13810)

2036 Junction Assessment (Design)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

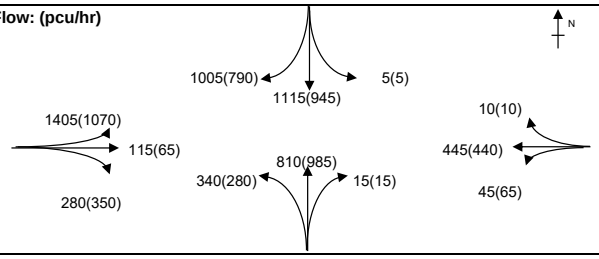
Junction: J1 Ting Kok Rd / Yuen Shin Rd (13791) Design Year: 2036

Description: 2036 Design Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
		B	1,2	3.500	15					1785	1785	673	0.377		513	0.287	
Ting Kok Road		B	1,2	3.500	17.5					1940	1940	732	0.377		557	0.287	
(EB)		C	2	3.500						2105	2105	115	0.055		65	0.031	
		C	2	3.500		32.5				2010	2010	280	0.139	0.139	350	0.174	0.174
		A	1	3.600		25				1995	1995	501	0.251		394	0.197	
Ting Kok Road		A	1	3.600		27.5				2005	2005	504	0.251		396	0.198	
(SB)		A	1	3.600	12.5			1%	1%	1975	1970	541	0.274	0.274	458	0.232	
		A	1	3.600						2115	2115	579	0.274		492	0.233	0.233
Dai Fuk Street		F	4	3.650	15			19%	26%	1945	1930	239	0.123		246	0.127	
(WB)		F	4	3.650		22.5		4%	4%	2115	2115	261	0.123		269	0.127	
		D	2,3	3.500	15					1785	1785	340	0.190		280	0.157	
		E	3	3.500						2105	2105	270	0.128	0.128	328	0.156	
Yuen Shin Road		E	3	3.500					2105	2105	2105	270	0.128		329	0.156	0.156
(NB)		E	3	3.500						2105	2105	270	0.128		328	0.156	
		E	3	3.500		25				1985	1985	15	0.008		15	0.008	
Pedestrian Crossing		Gp	1,2,3	MIN GREEN + FLASH =			9	+	7	=	16						
		Hp	4	MIN GREEN + FLASH =			5	+	10	=	15			*			*

Notes:

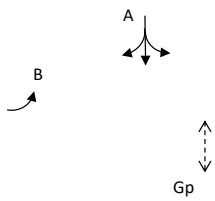
Flow: (pcu/hr)



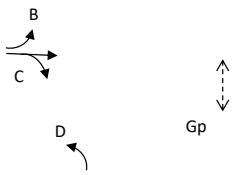
Group	A,C,E,F	A,C,E,Hp	Group	A,C,E,F	A,C,E,Hp
y	0.665	0.541	y	0.691	0.563
L (sec)	25	40	L (sec)	25	40
C (sec)	100	100	C (sec)	96	96
y pract.	0.675	0.540	y pract.	0.666	0.525
R.C. (%)	2%	0%	R.C. (%)	-4%	-7%

Stage / Phase Diagrams

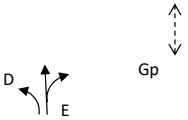
1.



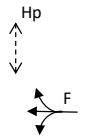
2.



3.



4.



5.

I/G= 2		I/G= 7		I/G= 8		I/G= 11	15	I/G=	
I/G= 2		I/G= 7		I/G= 8		I/G= 11	15	I/G=	

Date: DEC, 2024 **Junction:** (J1) J1 Ting Kok Rd / Yuen Shin Rd (13791)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

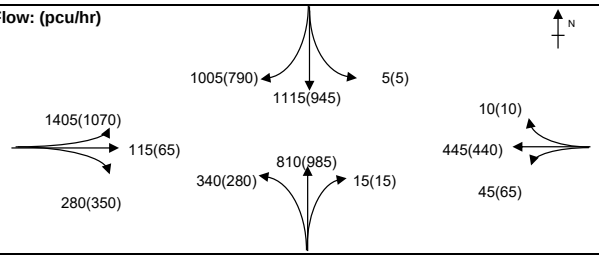
Junction: J1 Ting Kok Rd / Yuen Shin Rd (13791) Design Year: 2036

Description: 2036 Design Weekday (Improvement) Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road (EB)		B	1,2	3.500	15					1785	1785	673	0.377		513	0.287	
		B	1,2	3.500	17.5					1940	1940	732	0.377	0.377	557	0.287	
		C	2	3.500						2105	2105	115	0.055		65	0.031	
		C	2	3.500		32.5				2010	2010	141	0.070		176	0.088	
		C	2	3.300		30				1985	1985	139	0.070		174	0.088	0.088
Ting Kok Road (SB)		A	1	3.600		25				1995	1995	501	0.251		394	0.197	
		A	1	3.600		27.5				2005	2005	504	0.251		396	0.198	0.198
		A	1	3.300	12.5			1%	2%	1940	1940	352	0.181		299	0.154	
		A	1	3.600						2115	2115	384	0.182		326	0.154	
		A	1	3.600						2115	2115	384	0.182		325	0.154	
Dai Fuk Street (WB)		F	4	3.650	15			19%	26%	1945	1930	239	0.123		246	0.127	0.127
		F	4	3.650		22.5		4%	4%	2115	2115	261	0.123	0.123	269	0.127	
Yuen Shin Road (NB)		D	2,3	3.500	15					1785	1785	340	0.190		280	0.157	
		E	3	3.500						2105	2105	270	0.128	0.128	328	0.156	
		E	3	3.500					2105	2105	2105	270	0.128		329	0.156	0.156
		E	3	3.500						2105	2105	270	0.128		328	0.156	
		E	3	3.500		25				1985	1985	15	0.008		15	0.008	
Pedestrian Crossing		Gp	1,2,3	MIN GREEN + FLASH =			9	+	7	=	16						
		Hp	4	MIN GREEN + FLASH =			5	+	12	=	17						

Notes:

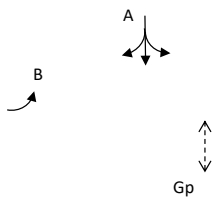
Flow: (pcu/hr)



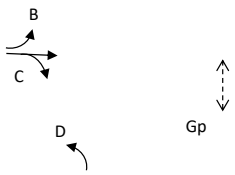
Group	A,C,E,F	B,E,F	Group	B,E,F	A,C,E,F
y	0.573	0.629	y	0.571	0.569
L (sec)	25	22	L (sec)	22	25
C (sec)	120	120	C (sec)	120	120
y pract.	0.713	0.735	y pract.	0.735	0.713
R.C. (%)	24%	17%	R.C. (%)	29%	25%

Stage / Phase Diagrams

1.



2.



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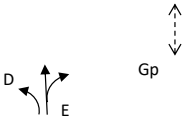


4.

5.

I/G= 12		I/G=		I/G= 8		I/G= 5	I/G=
I/G= 9		I/G= 7		I/G= 8		I/G= 5	I/G=

Date: DEC, 2024 **Junction:** (J1) J1 Ting Kok Rd / Yuen Shin Rd (13791)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

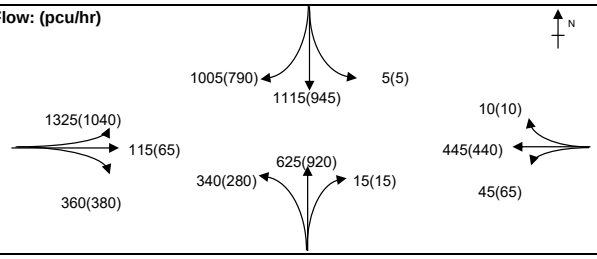
Junction: J1 Ting Kok Rd / Yuen Shin Rd (13791) Design Year: 2036

Description: 2036 Design Weekday (Improvement with J4 further improvement) Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road (EB)		B	1,2	3.500	15					1785	1785	635	0.356		498	0.279	
		B	1,2	3.500	17.5					1940	1940	690	0.356		542	0.279	
		C	2	3.500						2105	2105	115	0.055		65	0.031	
		C	2	3.500		32.5				2010	2010	181	0.090		191	0.095	
		C	2	3.300		30				1985	1985	179	0.090	0.090	189	0.095	0.095
Ting Kok Road (SB)		A	1	3.600		25				1995	1995	501	0.251		394	0.197	
		A	1	3.600		27.5				2005	2005	504	0.251	0.251	396	0.198	0.198
		A	1	3.300	12.5			1%	2%	1940	1940	352	0.181		299	0.154	
		A	1	3.600						2115	2115	384	0.182		326	0.154	
		A	1	3.600						2115	2115	384	0.182		325	0.154	
Dai Fuk Street (WB)		F	4	3.650	15			19%	26%	1945	1930	239	0.123		246	0.127	0.127
		F	4	3.650		22.5		4%	4%	2115	2115	261	0.123	0.123	269	0.127	
Yuen Shin Road (NB)		D	2,3	3.500	15					1785	1785	340	0.190		280	0.157	
		E	3	3.500						2105	2105	208	0.099		307	0.146	0.146
		E	3	3.500					2105	2105	2105	209	0.099	0.099	306	0.145	
		E	3	3.500						2105	2105	208	0.099		307	0.146	
		E	3	3.500		25				1985	1985	15	0.008		15	0.008	
Pedestrian Crossing		Gp	1,2,3	MIN GREEN + FLASH =			9	+	7	=	16						
		Hp	4	MIN GREEN + FLASH =			5	+	12	=	17						

Notes:

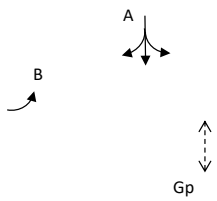
Flow: (pcu/hr)



Group	B,E,F	A,C,E,F	Group	B,E,F	A,C,E,F
y	0.578	0.564	y	0.553	0.566
L (sec)	22	25	L (sec)	22	25
C (sec)	120	120	C (sec)	120	120
y pract.	0.735	0.713	y pract.	0.735	0.713
R.C. (%)	27%	26%	R.C. (%)	33%	26%

Stage / Phase Diagrams

1.



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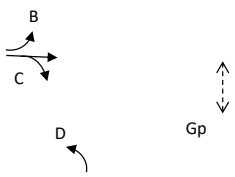
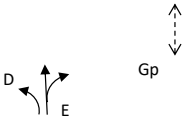
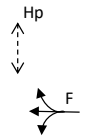


3.



4.



5.

I/G= 9		I/G= 7		I/G= 8		I/G= 5	I/G=
I/G= 9		I/G= 7		I/G= 8		I/G= 5	I/G=

Date: DEC, 2024 **Junction:** (J1) J1 Ting Kok Rd / Yuen Shin Rd (13791)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J2 Yuen Shin Rd / Dai Fat St (13081) Design Year: 2036

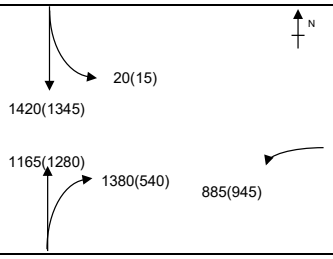
Description: 2036 Design Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Yuen Shin Road (NB)		A	1	3.500						1965	1965	841	0.428		618	0.315	0.315
		A	1	3.500		22.5		63%	0%	2020	2105	865	0.428	0.428	662	0.314	
		A	1	3.500		20				1960	1960	839	0.428		540	0.276	
Yuen Shin Road (SB)		B	2	3.300	15			3%	2%	1940	1940	694	0.358		656	0.338	0.338
		B	2	3.300						2085	2085	746	0.358	0.358	704	0.338	
Dai Fat Street (WB)		C	1	3.750	20					1850	1850	426	0.230		455	0.246	
		C	1	3.750	22.5					1995	1995	459	0.230		490	0.246	
Pedestrian Crossing		Dp	2,3	MIN GREEN + FLASH =			5	+	6	=	11						
		Ep	3	MIN GREEN + FLASH =			5	+	8	=	13			*			*
		Fp	1,3	MIN GREEN + FLASH =			5	+	6	=	11						
		Gp	2,3	MIN GREEN + FLASH =			5	+	7	=	12						

Notes:

Based on site observation of existing situation in two weekdays, Stage 3 is demand dependent which is only activated from 15-30% of all cycles in peak hour recorded. To reflect the actual situation, the lost time in Stage 3 has been prorated by 30% (highest) wihtin peak hour assessment.

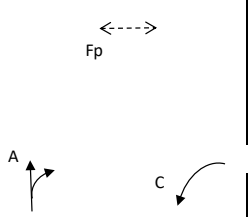
Flow: (pcu/hr)



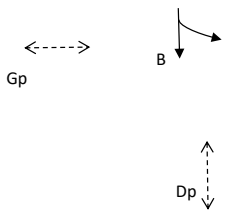
Group	C,B,Ep	A,B,Ep	Group	C,B,Ep	A,B,Ep
y	0.588	0.786	y	0.584	0.653
L (sec)	18	16	L (sec)	18	16
C (sec)	100	100	C (sec)	96	96
y pract.	0.738	0.756	y pract.	0.731	0.750
R.C. (%)	25%	-4%	R.C. (%)	25%	15%

Stage / Phase Diagrams

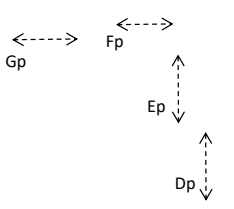
1.



2.



3.



(Demand Dependant)

5.

I/G= 2		I/G= 7		I/G= 10	13	I/G=		I/G=	
I/G= 2		I/G= 7		I/G= 10	13	I/G=		I/G=	

Date: DEC, 2024 **Junction:** (J2) J2 Yuen Shin Rd / Dai Fat St (13081)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J2 Yuen Shin Rd / Dai Fat St (13081) Design Year: 2036

Description: 2036 Design Weekday (Improvement) Designed By: TLY Checked By: TKM

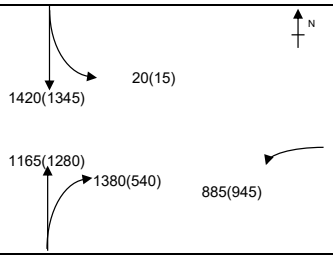
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Yuen Shin Road (NB)	*	A	1	3.300						1555	1555	523	0.336		547	0.352	0.352
		A	1	3.300		25		8%	0%	2075	2085	698	0.336		733	0.352	
		A	1	3.500		22.5				1975	1975	665	0.337	0.337	271	0.137	
		A	1	3.500		20				1960	1960	659	0.336		269	0.137	
Yuen Shin Road (SB)		B	2	3.300	12.5			4%	3%	1935	1935	456	0.236		431	0.223	
		B	2	3.300						2085	2085	492	0.236	0.236	465	0.223	0.223
		B	2	3.300						2085	2085	492	0.236		464	0.223	
Dai Fat Street (WB)		C	1	3.750	20					1850	1850	426	0.230		455	0.246	
		C	1	3.750	22.5					1995	1995	459	0.230		490	0.246	
Pedestrian Crossing		Dp	2,3	MIN GREEN + FLASH =			5	+	6	=	11						
		Ep	3	MIN GREEN + FLASH =			5	+	10	=	15			*			*
		Fp	1,3	MIN GREEN + FLASH =			5	+	10	=	15						
		Gp	2,3	MIN GREEN + FLASH =			5	+	7	=	12						

Notes:

Based on site observation of existing situation in two weekdays, Stage 3 is demand dependent which is only activated from 15-30% of all cycles in peak hour recorded. To reflect the actual situation, the lost time in Stage 3 has been prorated by 30% (highest) wihtin peak hour assessment.

*Site factor = 0.8 (short lane)

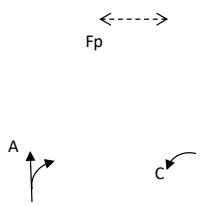
Flow: (pcu/hr)



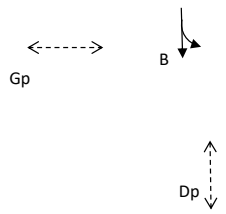
Group	C,B,Ep	A,B,Ep	Group	C,B,Ep	A,B,Ep
y	0.466	0.573	y	0.469	0.575
L (sec)	19	17	L (sec)	19	17
C (sec)	120	120	C (sec)	120	120
y pract.	0.761	0.776	y pract.	0.761	0.776
R.C. (%)	63%	35%	R.C. (%)	62%	35%

Stage / Phase Diagrams

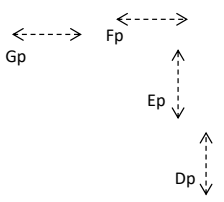
1.



2.



3.



(Demand Dependant)

5.

I/G= 2		I/G= 7		I/G= 10	15	I/G=		I/G=	
I/G= 2		I/G= 7		I/G= 10	15	I/G=		I/G=	

Date: DEC, 2024 **Junction:** (J2) J2 Yuen Shin Rd / Dai Fat St (13081)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J2 Yuen Shin Rd / Dai Fat St (13081) Design Year: 2036

Description: 2036 Design Weekday (Improvement with J4 further improvement) Designed By: TLY Checked By: TKM

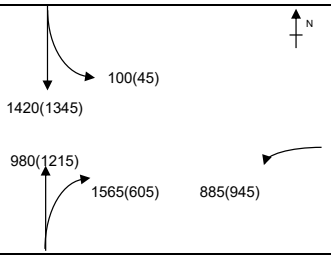
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Yuen Shin Road (NB)	*	A	1	3.300		25		34%	0%	1555	1555	526	0.338	0.338	519	0.334	
		A	1	3.300						2045	2085	691	0.338		696	0.334	0.334
		A	1	3.500		22.5				1975	1975	667	0.338		304	0.154	
		A	1	3.500		20				1960	1960	661	0.337		301	0.154	
Yuen Shin Road (SB)		B	2	3.300	12.5			21%	10%	1895	1920	475	0.251		438	0.228	
		B	2	3.300						2085	2085	523	0.251	0.251	476	0.228	0.228
		B	2	3.300						2085	2085	522	0.250		476	0.228	
Dai Fat Street (WB)		C	1	3.750	20					1850	1850	426	0.230		455	0.246	
		C	1	3.750	22.5					1995	1995	459	0.230		490	0.246	
Pedestrian Crossing		Dp	2,3	MIN GREEN + FLASH =			5	+	6	=	11						
		Ep	3	MIN GREEN + FLASH =			5	+	10	=	15			*			*
		Fp	1,3	MIN GREEN + FLASH =			5	+	10	=	15						
		Gp	2,3	MIN GREEN + FLASH =			5	+	7	=	12						

Notes:

Based on site observation of existing situation in two weekdays, Stage 3 is demand dependent which is only activated from 15-30% of all cycles in peak hour recorded. To reflect the actual situation, the lost time in Stage 3 has been prorated by 30% (highest) wihtin peak hour assessment.

*Site factor = 0.8 (short lane)

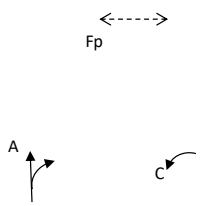
Flow: (pcu/hr)



Group	C,B,Ep	A,B,Ep	Group	C,B,Ep	A,B,Ep
y	0.481	0.589	y	0.474	0.562
L (sec)	19	17	L (sec)	19	17
C (sec)	120	120	C (sec)	120	120
y pract.	0.761	0.776	y pract.	0.761	0.776
R.C. (%)	58%	32%	R.C. (%)	60%	38%

Stage / Phase Diagrams

1.



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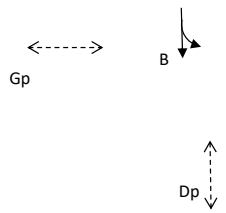
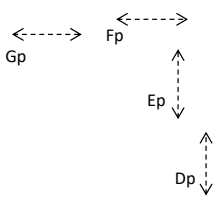


3.



(Demand Dependant)

5.

I/G= 2		I/G= 7		I/G= 10	15	I/G=	I/G=
I/G= 2		I/G= 7		I/G= 10	15	I/G=	I/G=

Date: DEC, 2024 **Junction:** (J2) J2 Yuen Shin Rd / Dai Fat St (13081)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J3 Tai Po Tai Wo Rd / Yuen Shin Rd (13080) Design Year: 2036

Description: 2036 Design Weekday Designed By: TLY Checked By: TKM

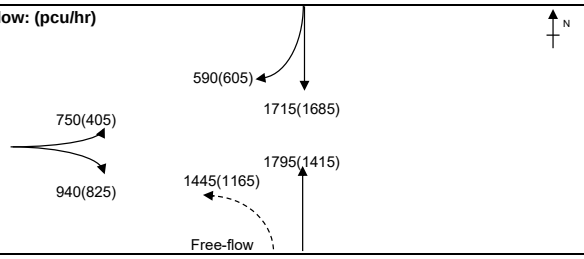
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Yuen Shin Road (SB)	*	B	1,2	3.300						1875	1875	812	0.433		798	0.426	
		B	1,2	3.300						2085	2085	903	0.433		887	0.425	
		C	2	3.300		15				1895	1895	590	0.311	0.311	605	0.319	0.319
Tai Po Tai Wo Road (EB)		D	2,3	3.300	15					1895	1895	750	0.396		405	0.214	
		E	3	3.300		20				1940	1940	476	0.245	0.245	417	0.215	
		E	3	3.300		15				1895	1895	464	0.245		408	0.215	0.215
Yuen Shin Road (NB)	*	A	1	3.300						1875	1875	557	0.297	0.297	439	0.234	0.234
		A	1	3.300						2085	2085	619	0.297		488	0.234	
		A	1	3.300						2085	2085	619	0.297		488	0.234	

Pedestrian Crossing

Notes:

*Site factor = 0.9 (short lane)

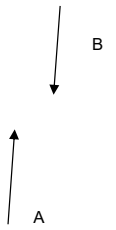
Flow: (pcu/hr)



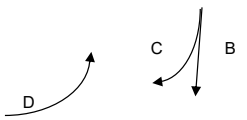
Group	A,D	A,C,E	Group	B,E	A,C,E
y	0.693	0.854	y	0.641	0.769
L (sec)	10	13	L (sec)	10	13
C (sec)	100	100	C (sec)	96	96
y pract.	0.810	0.783	y pract.	0.806	0.778
R.C. (%)	17%	-8%	R.C. (%)	26%	1%

Stage / Phase Diagrams

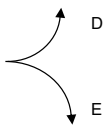
1.



2.



3.



4.

5.

I/G= 5		I/G= 5		I/G= 6		I/G=	I/G=
I/G= 5		I/G= 5		I/G= 6		I/G=	I/G=

Date: DEC, 2024 **Junction:** J3 — J3 Tai Po Tai Wo Rd / Yuen Shin Rd (13080)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J3 Tai Po Tai Wo Rd / Yuen Shin Rd (13080) Design Year: 2036

Description: 2036 Design Weekday (Improvement) Designed By: TLY Checked By: TKM

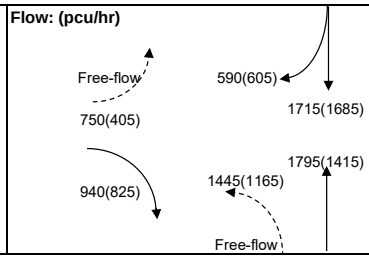
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Yuen Shin Road (SB)	*	B	1,2	3.300						1875	1875	532	0.284		523	0.279	
		B	1,2	3.300						2085	2085	591	0.283		581	0.279	
		B	1,2	3.300						2085	2085	592	0.284		581	0.279	
		C	2	3.300		17.5				1920	1920	312	0.163		320	0.167	
	*	C	2	3.300		15				1705	1705	278	0.163	0.163	285	0.167	0.167
Yuen Shin Road (NB)	*	A	1	3.300						1875	1875	557	0.297	0.297	439	0.234	0.234
		A	1	3.300						2085	2085	619	0.297		488	0.234	
		A	1	3.300						2085	2085	619	0.297		488	0.234	
Tai Po Tai Wo Road (EB)	*	E	3	3.300		22.5				1760	1760	296	0.168	0.168	260	0.148	0.148
		E	3	3.300		20				1940	1940	326	0.168		286	0.147	
		E	3	3.300		15				1895	1895	318	0.168		279	0.147	

Pedestrian Crossing

Notes:

*Site factor = 0.9 (short lane)

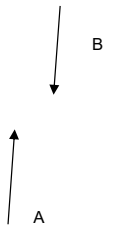
Flow: (pcu/hr)



Group	B,E	A,C,E	Group	B,E	A,C,E
y	0.452	0.628	y	0.427	0.549
L (sec)	10	15	L (sec)	10	15
C (sec)	120	120	C (sec)	120	120
y pract.	0.825	0.788	y pract.	0.825	0.788
R.C. (%)	82%	25%	R.C. (%)	93%	43%

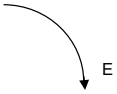
Stage / Phase Diagrams

1.



2.

3.



4.

5.

I/G= 5		I/G= 8		I/G= 5		I/G=	I/G=
I/G= 5		I/G= 8		I/G= 5		I/G=	I/G=

Date: DEC, 2024

Junction: (J3) J3 Tai Po Tai Wo Rd / Yuen Shin Rd (13080)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

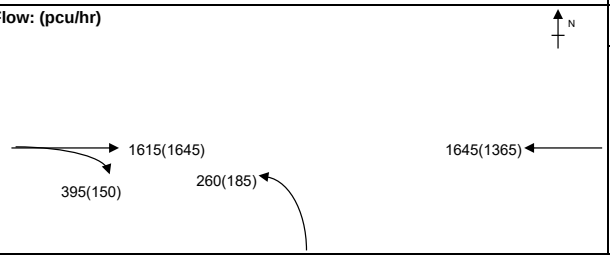
Junction: J4 Ting Kok Rd / Dai Fat St (13792) Design Year: 2036

Description: 2036 Design Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road	→	A	1,2	3.400						1955	1955	999	0.511	0.511	877	0.449	
(EB)	↱	A	1,2	3.400		10		39%	16%	1980	2045	1011	0.511		918	0.449	0.449
Ting Kok Road	←	C	3	3.650						1980	1980	794	0.401		659	0.333	
(WB)	←	C	3	3.650						2120	2120	851	0.401	0.401	706	0.333	0.333
Dai Fat Street	↰	B	1	3.650	10					1720	1720	124	0.072		88	0.051	
(NB)	↰	B	1	3.650	12.5					1895	1895	136	0.072		97	0.051	
Pedestrian Crossing		Dp	2	MIN GREEN + FLASH =			5	+	7	=	12						
		Ep	3	MIN GREEN + FLASH =			6	+	7	=	13						
		Fp	2,3	MIN GREEN + FLASH =			10	+	7	=	17						

Notes:

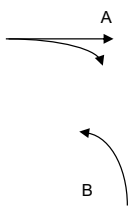
Flow: (pcu/hr)



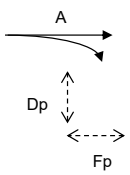
Group	A,Ep	A,C	Group	A,Ep	A,C
y	0.511	0.912	y	0.449	0.782
L (sec)	25	10	L (sec)	25	10
C (sec)	100	100	C (sec)	96	96
y pract.	0.675	0.810	y pract.	0.666	0.806
R.C. (%)	32%	-11%	R.C. (%)	48%	3%

Stage / Phase Diagrams

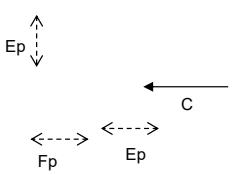
1.



2.



3.



4.

5.

I/G= 6		I/G=		I/G= 6		I/G=	I/G=
I/G= 6		I/G=		I/G= 6		I/G=	I/G=

Date: DEC, 2024

Junction: (J4) J4 Ting Kok Rd / Dai Fat St (13792)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J4 Ting Kok Rd / Dai Fat St (13792) Design Year: 2036

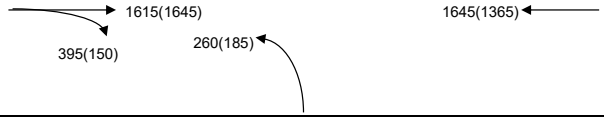
Description: 2036 Design Weekday (Improvement) Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road (EB)	* →	A	1,2	3.300						1750	1750	610	0.349	0.349	536	0.306	0.306
	→	A	1,2	3.400						2095	2095	730	0.348		641	0.306	
	→↓	A	1,2	3.400		10		59%	24%	1925	2020	670	0.348		618	0.306	
Ting Kok Road (WB)	←	C	3	3.650						1980	1980	794	0.401		659	0.333	
	←	C	3	3.650						2120	2120	851	0.401	0.401	706	0.333	0.333
Dai Fat Street (NB)	↰	B	1	3.650	10					1720	1720	124	0.072		88	0.051	
	↰	B	1	3.650	12.5					1895	1895	136	0.072		97	0.051	
Pedestrian Crossing		Dp	2	MIN GREEN + FLASH =			5	+	7	=	12						
		Ep	3	MIN GREEN + FLASH =			6	+	9	=	15						
		Fp	2,3	MIN GREEN + FLASH =			10	+	7	=	17						

Notes:

*Site factor = 0.9 (on-street bus stop)

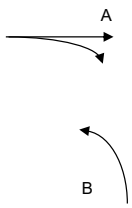
Flow: (pcu/hr)



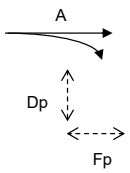
Group	B,Dp,C	A,C	Group	B,Dp,C	A,C
y	0.474	0.750	y	0.384	0.639
L (sec)	28	10	L (sec)	28	10
C (sec)	120	120	C (sec)	120	120
y pract.	0.690	0.825	y pract.	0.690	0.825
R.C. (%)	46%	10%	R.C. (%)	80%	29%

Stage / Phase Diagrams

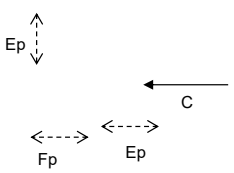
1.



2.



3.



4.

5.

I/G= 6		I/G=		I/G= 6		I/G=	I/G=
I/G= 6		I/G=		I/G= 6		I/G=	I/G=

Date: DEC, 2024 **Junction:** (J4) J4 Ting Kok Rd / Dai Fat St (13792)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J4 Ting Kok Rd / Dai Fat St (13792) Design Year: 2036

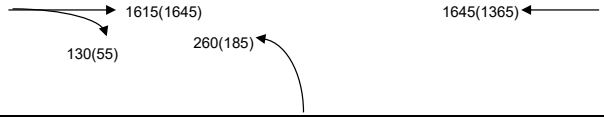
Description: 2036 Design Weekday (Further Improvement) Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road (EB)	* →	A	1,2	3.300						1750	1750	520	0.297	0.297	503	0.287	
	→	A	1,2	3.400						2095	2095	622	0.297		603	0.288	0.288
	→↓	A	1,2	3.400		10		22%	9%	2030	2065	603	0.297		594	0.288	
Ting Kok Road (WB)	←	C	3	3.650						1980	1980	794	0.401		659	0.333	
	←	C	3	3.650						2120	2120	851	0.401	0.401	706	0.333	0.333
Dai Fat Street (NB)	↰	B	1	3.650	10					1720	1720	124	0.072		88	0.051	
	↰	B	1	3.650	12.5					1895	1895	136	0.072		97	0.051	
Pedestrian Crossing		Dp	2	MIN GREEN + FLASH =			5	+	7	=	12						
		Ep	3	MIN GREEN + FLASH =			6	+	9	=	15						
		Fp	2,3	MIN GREEN + FLASH =			10	+	7	=	17						

Notes:

*Site factor = 0.9 (on-street bus stop)

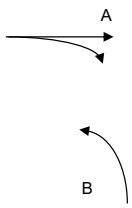
Flow: (pcu/hr)



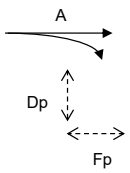
Group	B,Dp,C	A,C	Group	B,Dp,C	A,C
y	0.474	0.699	y	0.384	0.621
L (sec)	28	10	L (sec)	28	10
C (sec)	120	120	C (sec)	120	120
y pract.	0.690	0.825	y pract.	0.690	0.825
R.C. (%)	46%	18%	R.C. (%)	80%	33%

Stage / Phase Diagrams

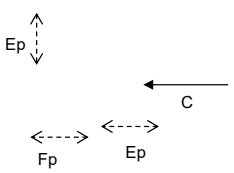
1.



2.



3.



4.

5.

I/G= 6		I/G=		I/G= 6		I/G=	I/G=
I/G= 6		I/G=		I/G= 6		I/G=	I/G=

Date: DEC, 2024 **Junction:** (J4) J4 Ting Kok Rd / Dai Fat St (13792)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J5 Ting Kok Rd / Dai Kwai St (13811) Design Year: 2036

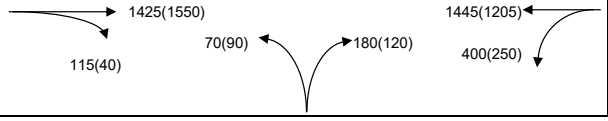
Description: 2036 Design Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road (EB)	→	B	1,2	3.350						1950	1950	1227	0.629		1190	0.610	0.610
	↓	D	2	3.350		15		37%	10%	2015	2070	313	0.155	0.155	400	0.193	
Ting Kok Road (WB)	↰	A	1	3.700	30			45%	36%	1940	1950	881	0.454	0.454	696	0.357	
	←	A	1	3.700						2125	2125	964	0.454		759	0.357	
Dai Kwai Street (NB)	↰	E	3	3.500	15					1785	1785	70	0.039		90	0.050	
	↑	E	3	3.500	17.5	15		0% / 100%	0% / 100%	1915	1915	180	0.094	0.094	120	0.063	
Pedestrian Crossing		Fp	4	MIN GREEN + FLASH =			12	+	8	=	20						
		Gp	4	MIN GREEN + FLASH =			5	+	9	=	14			*			*

Notes:

Based on site observation of existing situation in two weekdays, Stage 4 is demand dependent which is only activated from 50-60% of all cycles in peak hour recorded. To reflect the actual situation, the lost time in Stage 4 has been prorated by 60% (highest) wihtin peak hour assessment.

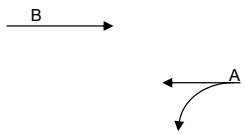
Flow: (pcu/hr)



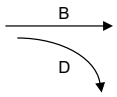
Group	A,D,E,Gp	B,E,Gp	Group	A,D,E,Gp	B,E,Gp
y	0.703	0.723	y	0.613	0.673
L (sec)	30	25	L (sec)	33	28
C (sec)	120	120	C (sec)	96	96
y pract.	0.677	0.714	y pract.	0.587	0.634
R.C. (%)	-4%	-1%	R.C. (%)	-4%	-6%

Stage / Phase Diagrams

1.

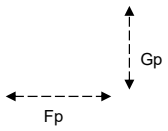


2.



3.

4.



(Demand Dependant)

5.

I/G= 4		I/G= 6		I/G= 6		I/G= 12	14	I/G=	
I/G= 4		I/G=		I/G= 6	5	I/G= 12	14	I/G=	

Date: DEC, 2024 **Junction:** J5 Ting Kok Rd / Dai Kwai St (13811) (J5)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J5 Ting Kok Rd / Dai Kwai St (13811) Design Year: 2036

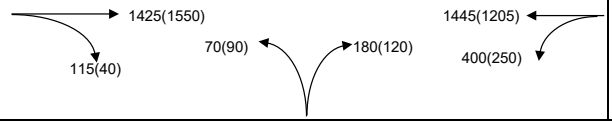
Description: 2036 Design Weekday (Improvement) Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road (EB)	→	B	1,2	3.400						1955	1955	688	0.352		748	0.383	
	→	B	1,2	3.400						2095	2095	737	0.352		802	0.383	0.383
	↴	D	2	3.400		15				1905	1905	115	0.060	0.060	40	0.021	
Dai Kwai Street (NB)	↰	E	3	3.500	15					1785	1785	70	0.039		90	0.050	
	↰↑	E	3	3.500	17.5	15		0% / 100%	0% / 100%	1915	1915	180	0.094	0.094	120	0.063	0.063
Ting Kok Road (WB)	←	A	1	3.400						2095	2095	723	0.345		603	0.288	
	←	A	1	3.400						2095	2095	722	0.345		602	0.287	
	* ↙	A	1	3.400	30					930	930	400	0.430	0.430	250	0.269	
Pedestrian Crossing		Fp	4	MIN GREEN + FLASH =			12	+	8	=	20						
		Gp	4	MIN GREEN + FLASH =			5	+	10	=	15			*			*

Notes:

*Site factor = 0.5 (short lane)
Based on site observation of existing situation in two weekdays, Stage 4 is demand dependent which is only activated from 50-60% of all cycles in peak hour recorded. To reflect the actual situation, the lost time in Stage 4 has been prorated by 60% (highest) wihtin peak hour assessment.

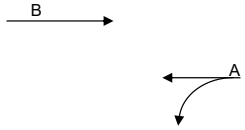
Flow: (pcu/hr)



Group	A,D,E,Gp	B,E,Gp	Group	A,D,E,Gp	B,E,Gp
y	0.584	0.446	y	0.350	0.445
L (sec)	30	23	L (sec)	36	23
C (sec)	120	120	C (sec)	120	120
y pract.	0.678	0.731	y pract.	0.633	0.731
R.C. (%)	16%	64%	R.C. (%)	81%	64%

Stage / Phase Diagrams

1.



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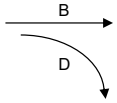
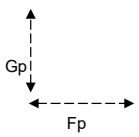


3.

4.



(Demand Dependant)

5.

I/G= 5		I/G= 8		I/G= 5		I/G= 8	15	I/G=	
I/G= 5		I/G=		I/G= 5		I/G= 8	15	I/G=	

Date: DEC, 2024 **Junction:** J5 Ting Kok Rd / Dai Kwai St (13811) (J5)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J6 Ting Kok Rd / Access Rd to Fortune Garden (13813) Design Year: 2036

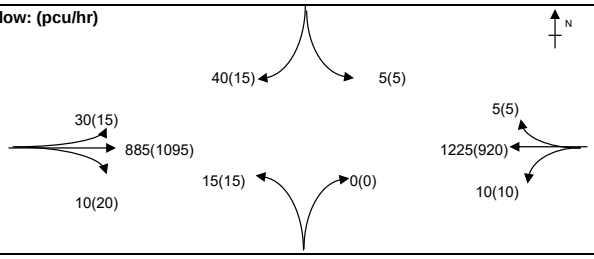
Description: 2036 Design Weekday (5 stages MOC with existing cycle time) Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Site B		C	4	3.300	15	15		11% / 89%	25% / 75%	1770	1770	45	0.025		20	0.011	
Ting Kok Road (WB)		A	2	4.000	20			2%	2%	2010	2010	596	0.297		449	0.223	0.223
		A	2	4.000		15		0%	0%	2155	2155	639	0.297	0.297	481	0.223	
Fortune Garden Access		D	3	3.650	15	15		100% / 0%	100% / 0%	1800	1800	15	0.008		15	0.008	
Ting Kok Road (EB)		B	1	3.000	15			7%	3%	1900	1910	440	0.232	0.232	535	0.280	0.280
		B	1	3.000						2055	2055	475	0.231		575	0.280	
	*	B	1	3.000		15				1310	1310	10	0.008		20	0.015	
Pedestrian Crossing		Ep	5	MIN GREEN + FLASH =			5	+	9	=	14			*			*
		Fp	4,5	MIN GREEN + FLASH =			6	+	6	=	12						

Notes:

*Site factor = 0.7 (short lane)

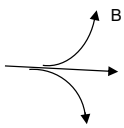
Flow: (pcu/hr)



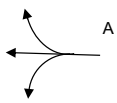
Group	B,A,D,Fp	B,A,D,C,Ep	Group	B,A,D,Fp	B,A,D,C,Ep
y	0.528	0.528	y	0.503	0.503
L (sec)	37	57	L (sec)	37	57
C (sec)	100	100	C (sec)	96	96
y pract.	0.567	0.387	y pract.	0.553	0.366
R.C. (%)	7%	-27%	R.C. (%)	10%	-27%

Stage / Phase Diagrams

1.



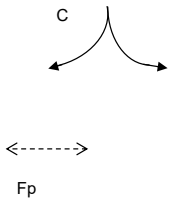
2.



3.

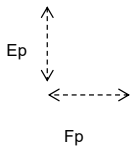
(Demand Dependant)

4.



(Demand Dependant)

5.



(Demand Dependant)

I/G= 5		I/G= 6		I/G= 6	5	I/G= 9	5	I/G= 9	14
I/G= 5		I/G= 6		I/G= 6	5	I/G= 9	5	I/G= 9	14

Date: DEC, 2024 **Junction:** J6 Ting Kok Rd / Access Rd to Fortune Garden (13813)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J6 Ting Kok Rd / Access Rd to Fortune Garden (13813) Design Year: 2036

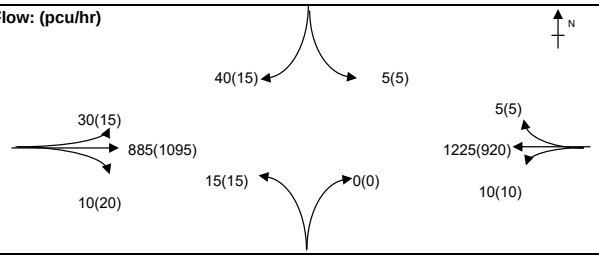
Description: 2036 Design Weekday (5 Stages MOC with Improvement) Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Site B		H	4	3.300	15	15		11% / 89%	25% / 75%	1770	1770	45	0.025		20	0.011	
Ting Kok Road (WB)		G	2	3.300		15				1895	1895	0	0.000		0	0.000	
		A	1	3.300	20			2%	2%	1945	1940	596	0.306		448	0.231	
		A	1	3.300						2085	2085	639	0.306	0.306	482	0.231	
Fortune Garden Access		D	3	3.650	15	15		100% / 0%	100% / 0%	1800	1800	15	0.008		15	0.008	
Ting Kok Road (EB)		B	1	3.000	15			7%	3%	1900	1910	440	0.232		535	0.280	0.280
		B	1	3.000						2055	2055	475	0.231		575	0.280	
	*	C	2	3.000		15				1310	1310	10	0.008		20	0.015	
Pedestrian Crossing		Ep	5	MIN GREEN + FLASH =			5	+	9	=	14			*			*
		Fp	4,5	MIN GREEN + FLASH =			6	+	6	=	12						

Notes:

*Site factor = 0.7 (short lane)

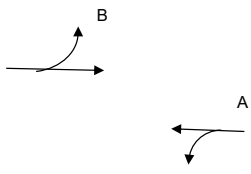
Flow: (pcu/hr)



Group	A,G,D,H,Ep	A,C,D,H,Ep	Group	B,G,D,H,Ep	B,C,D,H,Ep
y	0.306	0.306	y	0.280	0.280
L (sec)	56	61	L (sec)	57	61
C (sec)	120	120	C (sec)	120	120
y pract.	0.480	0.443	y pract.	0.473	0.443
R.C. (%)	57%	44%	R.C. (%)	69%	58%

Stage / Phase Diagrams

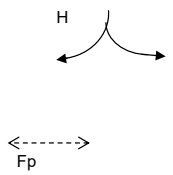
1.



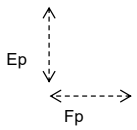
2.

3.

4.



5.



I/G= 5		I/G= 5	5	I/G= 5	5	I/G= 9	5	I/G= 9	14		
I/G= 5		I/G= 5	5	I/G= 5	5	I/G= 9	5	I/G= 9	14		
1		2	3	4	5	**Date:** DEC, 2024		**Junction:** (J6) J6 Ting Kok Rd / Access Rd to Fortune Garden (13813)			

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J7 Ting Kok Rd / Lo Fai Rd (13812) Design Year: 2036

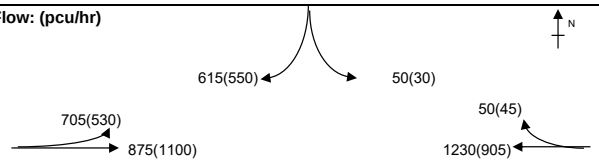
Description: 2036 Design Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road (EB)	*	C	1	3.650	15			100%	74%	1620	1660	705	0.435	0.435	716	0.431	0.431
		C	1	3.650						2120	2120	875	0.413		914	0.431	
Lo Fai Road (SB)		B	3	3.400	22.5	15		14% / 86%	10% / 90%	1785	1785	355	0.199	0.199	309	0.173	
	**	B	3	3.400		20				1560	1560	310	0.199		271	0.174	0.174
Ting Kok Road (WB)		H	2	3.750		20		25%	30%	2090	2085	200	0.096	0.096	150	0.072	0.072
		A	1,2	3.750						1990	1990	1080	0.543		800	0.402	
Pedestrian Crossing		Ep	3	MIN GREEN + FLASH =			5	+	7	=	12						
		Fp	1,2	MIN GREEN + FLASH =			5	+	7	=	12						
		Gp	3	MIN GREEN + FLASH =			5	+	7	=	13						

Notes:

*Site factor = 0.9 (on-street bus stop)
**Site factor = 0.8 (short lane)

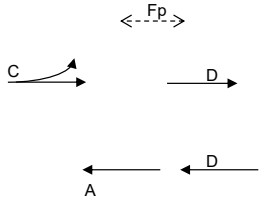
Flow: (pcu/hr)



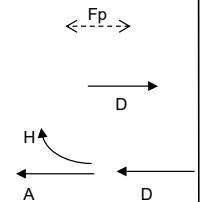
Group	A,B	C,H,B	Group	C,H,Ep	C,H,B
y	0.742	0.730	y	0.503	0.677
L (sec)	12	14	L (sec)	28	14
C (sec)	120	120	C (sec)	96	96
y pract.	0.810	0.795	y pract.	0.638	0.769
R.C. (%)	9%	9%	R.C. (%)	27%	14%

Stage / Phase Diagrams

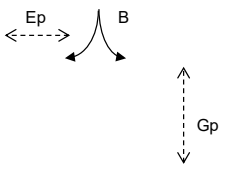
1.



2.



3.



4.

5.

I/G= 6		I/G= 5		I/G= 6		I/G=	I/G=
I/G= 6		I/G= 5		I/G= 6		I/G=	I/G=

Date: DEC, 2024

Junction: J7 Ting Kok Rd / Lo Fai Rd (13812) (J7)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J7 Ting Kok Rd / Lo Fai Rd (13812) Design Year: 2036

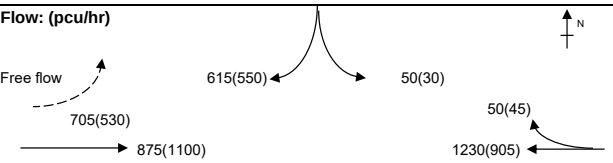
Description: 2036 Design Weekday (Improvement) Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Lo Fai Road (SB)	↓→	B	3	3.500	22.5	15		15% / 85%	10% / 90%	1795	1790	336	0.187	0.187	293	0.164	0.164
	* ↓	B	3	3.500		20				1760	1760	329	0.187		287	0.163	
Ting Kok Road (WB)	* ↑←	H	2	3.300		20				1745	1745	50	0.029		45	0.026	
	←	A	1,2	3.300						2085	2085	636	0.305		468	0.224	
	←	A	1,2	3.300						1945	1945	594	0.305		437	0.225	
Ting Kok Road (EB)	** →	C	1	3.300						390	390	138	0.354	0.354	173	0.444	
	→	C	1	3.300						2085	2085	737	0.353		927	0.445	0.445
Pedestrian Crossing		Ep	1,3	MIN GREEN + FLASH =			5	+	7	=	12						
		Fp	1,2	MIN GREEN + FLASH =			5	+	7	=	12						
		Gp	3	MIN GREEN + FLASH =			5	+	8	=	13						

Notes:

*Site factor = 0.9 (short lane)
**Site factor = 0.2 (short lane and on-street bus stop)

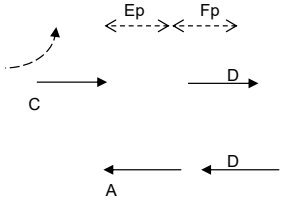
Flow: (pcu/hr)



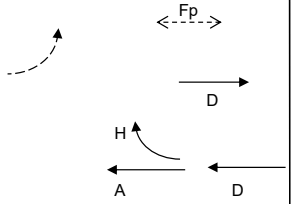
Group	A,B	C,H,B	Group	C,H,Gp	C,H,B
y	0.493	0.541	y	0.445	0.608
L (sec)	10	20	L (sec)	30	20
C (sec)	120	120	C (sec)	120	120
y pract.	0.825	0.750	y pract.	0.675	0.750
R.C. (%)	67%	39%	R.C. (%)	52%	23%

Stage / Phase Diagrams

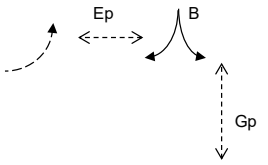
1.



2.



3.



4.

5.

I/G= 5		I/G= 6	5	I/G= 6		I/G=	I/G=
I/G= 5		I/G= 6	5	I/G= 6		I/G=	I/G=

Date: DEC, 2024 **Junction:** J7 Ting Kok Rd / Lo Fai Rd (13812) (J7)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

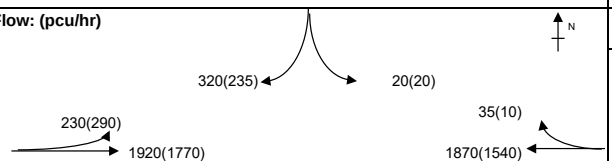
Junction: J8 Ting Kok Rd / Fung Yuen Rd (13810) Design Year: 2036

Description: 2036 Design Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road		A	1	3.500	15			22%	30%	1920	1910	1026	0.534	0.534	980	0.513	0.513
EB	→	A	1	3.500						2105	2105	1124	0.534		1080	0.513	
Fung Yuen Road		D	3	3.750	10	22.5		12% / 88%	16% / 84%	1850	1840	164	0.089		123	0.067	
SB		D	3	3.750		20				1980	1980	176	0.089	0.089	132	0.067	
Ting Kok Road	←	B	1,2	3.500						1965	1965	977	0.497		794	0.404	
WB		B	1,2	3.500		15		4%	1%	1870	1875	928	0.496		756	0.403	
		Bp	2	GREEN TIME						=	5	sec		*			*
[Lost time for Stage 2 right turn]																	
Pedestrian Crossing		Ep	4	MIN GREEN + FLASH =			8	+	8	=	16			*			*
		Fp	4	MIN GREEN + FLASH =			11	+	10	=	21						

Notes:

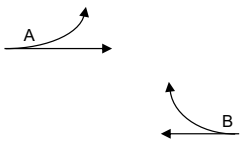
Flow: (pcu/hr)



Group	A,Bp,D,Fp	A,Bp,D,Ep	Group	A,Bp,D,Fp	A,Bp,D,Ep
y	0.623	0.623	y	0.580	0.513
L (sec)	42	44	L (sec)	42	50
C (sec)	100	100	C (sec)	96	96
y pract.	0.522	0.504	y pract.	0.506	0.431
R.C. (%)	-16%	-19%	R.C. (%)	-13%	-16%

Stage / Phase Diagrams

1.

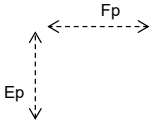


2.

3.

(Demand Dependant)

4.



(Demand Dependant)

5.

I/G= 4		I/G= 5	5	I/G= 6		I/G= 10	16	I/G=	
I/G= 4		I/G= 5	5	I/G= 6	5	I/G= 10	16	I/G=	

Date: DEC, 2024 **Junction:** J8 Ting Kok Rd / Fung Yuen Rd (13810)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J8 Ting Kok Rd / Fung Yuen Rd (13810) Design Year: 2036

Description: 2036 Design Weekday (with improvement) Designed By: TLY Checked By: TKM

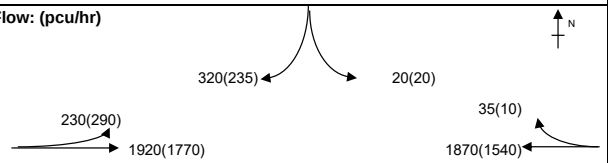
Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road EB		A	1	3.500	15			22%	30%	1920	1910	1026	0.534	0.534	980	0.513	0.513
	→	A	1	3.500						2105	2105	1124	0.534		1080	0.513	
Fung Yuen Road SB		D	3	3.750	10	22.5		12% / 88%	16% / 84%	1850	1840	164	0.089		123	0.067	0.067
		D	3	3.750		20				1980	1980	176	0.089	0.089	132	0.067	
* Ting Kok Road WB		G	2	GREEN TIME						=	5	sec		*			*
	←	B	1,2	3.300						2085	2085	967	0.464		797	0.382	
	←	B	1,2	3.300						1945	1945	903	0.464		743	0.382	

Pedestrian Crossing	Hp	1,2	MIN GREEN + FLASH =	11	+	10	=	21	
	Ip	3	MIN GREEN + FLASH =	5	+	5	=	10	
	Jp	2	MIN GREEN + FLASH =	6	+	6	=	12	
	Kp	3	MIN GREEN + FLASH =	9	+	9	=	18	

Notes:

*Site factor = 0.6 (short lane)

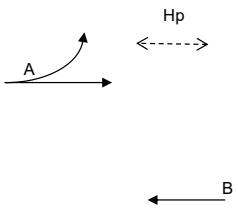
Flow: (pcu/hr)



Group	A,G,Kp	A,G,D	Group	A,G,Kp	A,G,D
y	0.534	0.623	y	0.513	0.580
L (sec)	33	22	L (sec)	33	22
C (sec)	120	120	C (sec)	120	120
y pract.	0.653	0.735	y pract.	0.653	0.735
R.C. (%)	22%	18%	R.C. (%)	27%	27%

Stage / Phase Diagrams

1.



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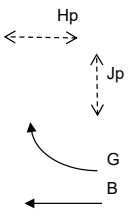

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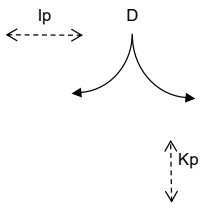


4.

5.

I/G= 6		I/G= 5	5	I/G= 8		I/G=	I/G=
I/G= 6		I/G= 5	5	I/G= 8		I/G=	I/G=

Date: DEC, 2024 **Junction:** J8 Ting Kok Rd / Fung Yuen Rd (13810)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

Junction: J8 Ting Kok Rd / Fung Yuen Rd (13810) Design Year: 2036

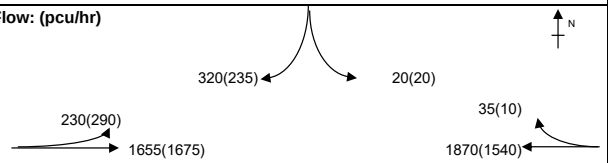
Description: 2036 Design Weekday (with J4 further improvement) Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Ting Kok Road EB		A	1	3.500	15			26%	31%	1915	1905	898	0.469	0.469	934	0.490	0.490
		A	1	3.500						2105	2105	987	0.469		1031	0.490	
Fung Yuen Road SB		D	3	3.750	10	22.5		12% / 88%	16% / 84%	1850	1840	164	0.089		123	0.067	0.067
		D	3	3.750		20				1980	1980	176	0.089	0.089	132	0.067	
* Ting Kok Road WB		G	2	GREEN TIME						=	5	sec		*			*
		B	1,2	3.300						2085	2085	967	0.464		797	0.382	
		B	1,2	3.300						1945	1945	903	0.464		743	0.382	
Pedestrian Crossing		Hp	1,2	MIN GREEN + FLASH =			11	+	10	=	21						
		Ip	3	MIN GREEN + FLASH =			5	+	5	=	10						
		Jp	2	MIN GREEN + FLASH =			6	+	6	=	12						
		Kp	3	MIN GREEN + FLASH =			9	+	9	=	18						

Notes:

*Site factor = 0.6 (short lane)

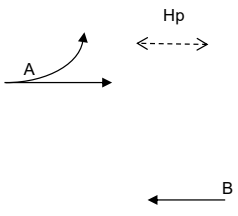
Flow: (pcu/hr)



Group	A,G,Ip	A,G,D	Group	A,G,Ip	A,G,D
y	0.469	0.558	y	0.490	0.557
L (sec)	29	20	L (sec)	29	20
C (sec)	120	120	C (sec)	120	120
y pract.	0.683	0.750	y pract.	0.683	0.750
R.C. (%)	46%	34%	R.C. (%)	39%	35%

Stage / Phase Diagrams

1.



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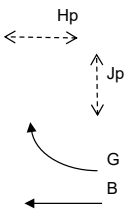
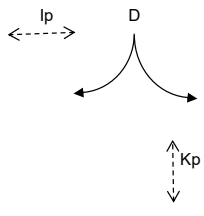


3.



4.

5.

I/G= 6		I/G= 5	5	I/G= 6		I/G=	I/G=
I/G= 6		I/G= 5	5	I/G= 6		I/G=	I/G=

Date: DEC, 2024 **Junction:** J8 Ting Kok Rd / Fung Yuen Rd (13810)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

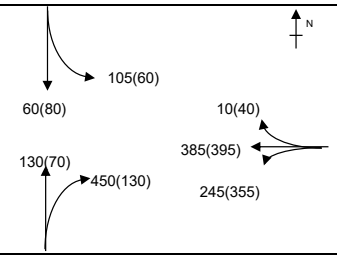
Junction: JA Dai Fat St / Dai Cheong St (13793) Design Year: 2036

Description: 2036 Design Weekday Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Dai Fat Street (SB)	↓	C	3	3.300						2085	2085	60	0.029		80	0.038	0.038
	↳	C	3	3.300	20					1810	1810	105	0.058	0.058	60	0.033	
Dai Cheong Street (WB)	↰	A	1	3.125		25		3%	9%	1925	1915	395	0.205	0.205	435	0.227	0.227
	↰	A	1	3.125	20					1795	1795	245	0.136		355	0.198	
Dai Fat Street (NB)	↑	B	2	3.600						1975	1975	130	0.066		70	0.035	
	↱	B	2	3.600		25				1995	1995	450	0.226	0.226	130	0.065	0.065
Pedestrian Crossing		Dp	4	MIN GREEN + FLASH =			7	+	7	=	14			*			*
		Ep	2,3,4	MIN GREEN + FLASH =			5	+	7	=	12						
		Fp	2,3,4	MIN GREEN + FLASH =			5	+	7	=	12						
		Gp	1,4	MIN GREEN + FLASH =			5	+	7	=	12						

Notes:

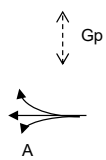
Flow: (pcu/hr)



Group	Gp,B,C	A,B,C,Dp	Group	A,Ep	A,B,C,Dp
y	0.284	0.489	y	0.227	0.331
L (sec)	30	31	L (sec)	22	31
C (sec)	112	112	C (sec)	102	102
y pract.	0.659	0.651	y pract.	0.706	0.626
R.C. (%)	132%	33%	R.C. (%)	211%	89%

Stage / Phase Diagrams

1.



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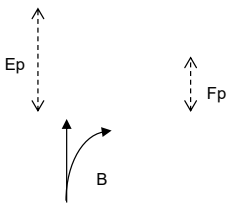

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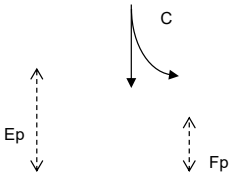

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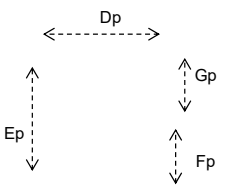


5.

I/G= 2		I/G= 7		I/G= 6		I/G= 5	14	I/G=	
I/G= 2		I/G= 7		I/G= 6		I/G= 5	14	I/G=	

Date: DEC, 2024 **Junction:** JA Dai Fat St / Dai Cheong St (13793) (JA)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50539710 **MVA HONG KONG LIMITED**

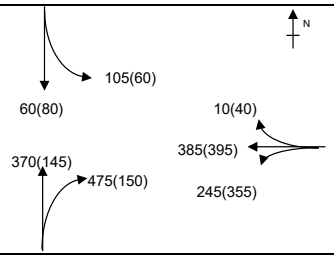
Junction: JA Dai Fat St / Dai Cheong St (13793) Design Year: 2036

Description: 2036 Design Weekday (with J4 improvement) Designed By: TLY Checked By: TKM

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) AM	Pro. Turning (%) PM	Revised Saturation Flow (pcu/hr) AM	Revised Saturation Flow (pcu/hr) PM	AM Peak Flow (pcu/hr)	AM Peak y Value	AM Peak Critical y	PM Peak Flow (pcu/hr)	PM Peak y Value	PM Peak Critical y
Dai Fat Street (SB)	↓	C	3	3.300						2085	2085	60	0.029		80	0.038	0.038
	↳	C	3	3.300	20					1810	1810	105	0.058	0.058	60	0.033	
Dai Cheong Street (WB)	↱	A	1	3.125		25		3%	9%	1925	1915	395	0.205	0.205	435	0.227	0.227
	←	A	1	3.125	20					1795	1795	245	0.136		355	0.198	
Dai Fat Street (NB)	↑	B	2	3.600						1975	1975	370	0.187		145	0.073	
	↱	B	2	3.600		25				1995	1995	475	0.238	0.238	150	0.075	0.075
Pedestrian Crossing		Dp	4	MIN GREEN + FLASH =			7	+	7	=	14			*			*
		Ep	2,3,4	MIN GREEN + FLASH =			5	+	7	=	12						
		Fp	2,3,4	MIN GREEN + FLASH =			5	+	7	=	12						
		Gp	1,4	MIN GREEN + FLASH =			5	+	7	=	12						

Notes:

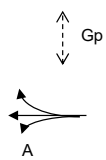
Flow: (pcu/hr)



Group	Gp,B,C	A,B,C,Dp	Group	A,Ep	A,B,C,Dp
y	0.296	0.501	y	0.227	0.341
L (sec)	30	31	L (sec)	22	31
C (sec)	112	112	C (sec)	102	102
y pract.	0.659	0.651	y pract.	0.706	0.626
R.C. (%)	123%	30%	R.C. (%)	211%	84%

Stage / Phase Diagrams

1.



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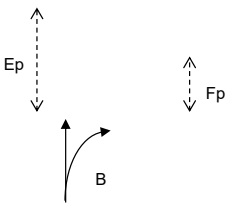

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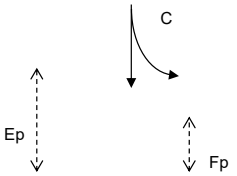

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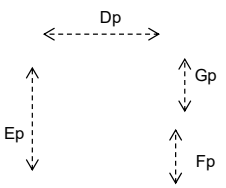


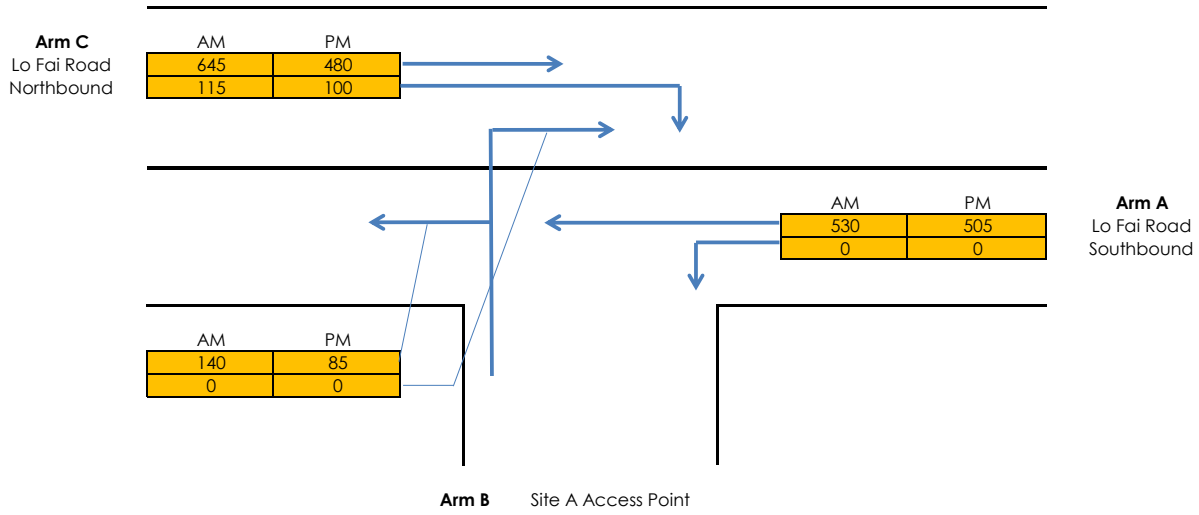
5.

I/G= 2		I/G= 7		I/G= 6		I/G= 5	14	I/G=	
I/G= 2		I/G= 7		I/G= 6		I/G= 5	14	I/G=	

Date: DEC, 2024 **Junction:** JA Dai Fat St / Dai Cheong St (13793) (JA)

Simplified Priority Junction Capacity Calculation

Job Title:	Wong Yue Tan TIA		
Junction:	Right Turn Pocket at Lo Fai Road		Designed by: TLY
Scheme:	2036 Design Weekday		Checked by: TKM
Design Year 2036		Job No.: CHK50539710	Date: DEC, 2024
Arm A:	Lo Fai Road Southbound		
Arm B:	Site A Access Point		
Arm C:	Lo Fai Road Northbound		



GEOMETRY

Major Road Width (m)	W	9.00	Lane widths (m)	w(b-a)	5.00
Central Reserve Width (m)	Wcr	0.00		w(b-c)	5.00
Blockage of major road right turn	Y/N?	N		w(c-b)	3.50
Combined stream on minor arm	Y/N?	Y			
Visibility Distances (m)	Vr(b-a)	60	Calculated Parameters	D	1.008
	Vl(b-a)	60		E	1.066
	Vr(b-c)	60		F	0.933
	Vr(c-b)	60		Y	0.69

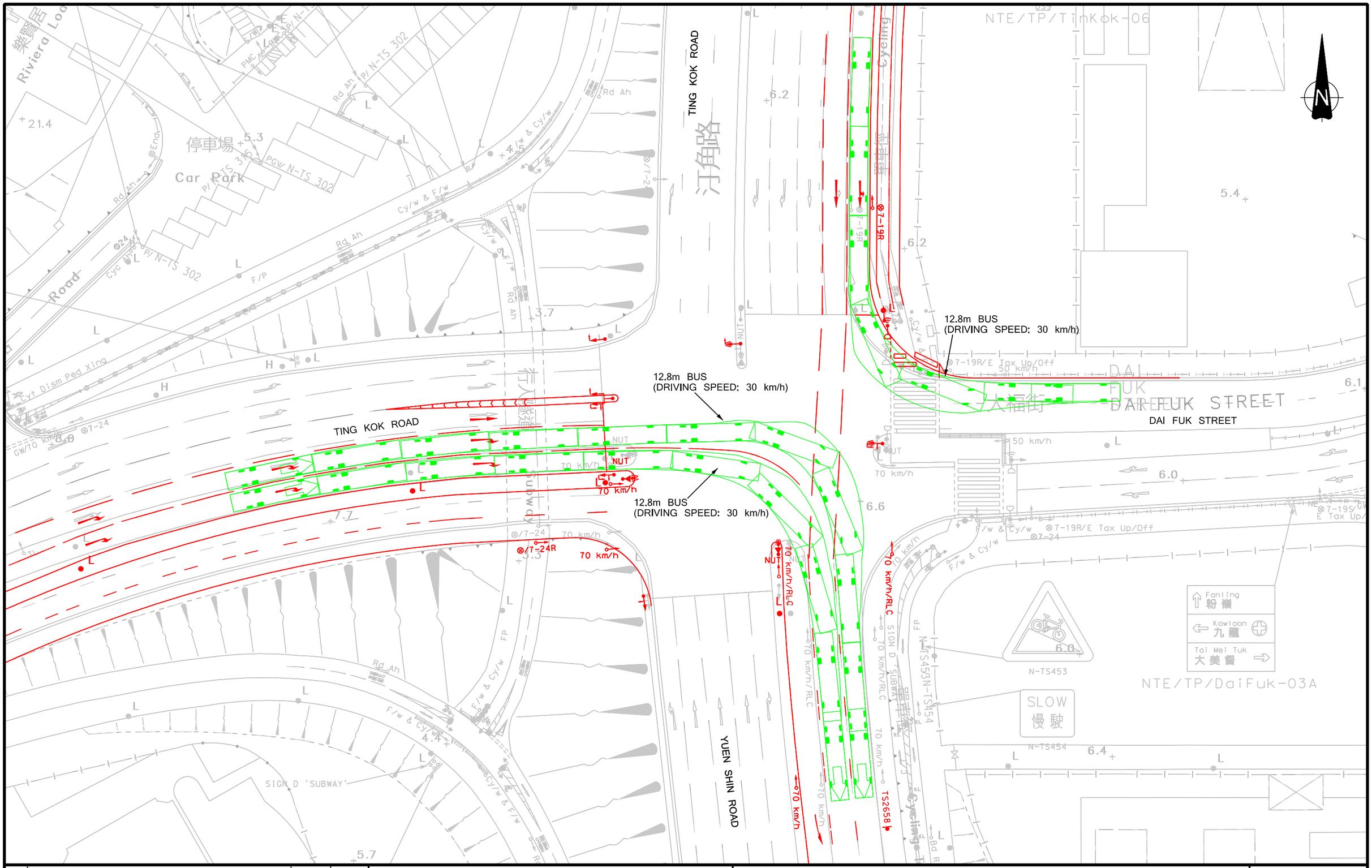
ANALYSIS		**SAT PEAK**	**SUN PEAK**
TRAFFIC FLOWS (pcu/hr)	q(c-a)	645	480
	q(c-b)	115	100
	q(a-b)	0	0
	q(a-c)	530	505
	q(b-a)	0	0
	q(b-c)	140	85
	f	1.00	1.00
CAPACITIES (pcu/hr)	Q(b-ac)	652.4 652.401	659.1
	Q(c-b)	570.772	576.6
RFC's	c-b	0.20	0.17
	b-ac	0.21	0.13
RFC		**0.21**	**0.17**

Where Vl and Vr are visibility distances to the left or right of the respective streams
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(wc-b)-3.65))(1+0.0009(Vr(c-b)-120))
Y = 1-0.0345W
f = proportion of minor traffic turning left
Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a) Capacity of combined streams

All the above formulas are in accordance to T.P.D.M. V.2.4 Appendix 1

APPENDIX B

SWEPT PATH ANALYSIS



Rev.	Description	Checked	Date
D	MODIFIED IMPROVEMENT SCHEME	TKM	13JAN25
C	MODIFIED IMPROVEMENT SCHEME	TKM	04DEC24
B	EXISTING TRAFFIC AIDS UPDATED	TKM	12SEP24
A	RESPONSE TO COMMENTS	TKM	03AUG23

Project Title

TCS FOR THE PROPOSED APPLICATION
IN UNSURVEYED DISTRICT AT
WONG YUE TAN LOT NOS. 11RP & 14RP, TAI PO

Drawing Title

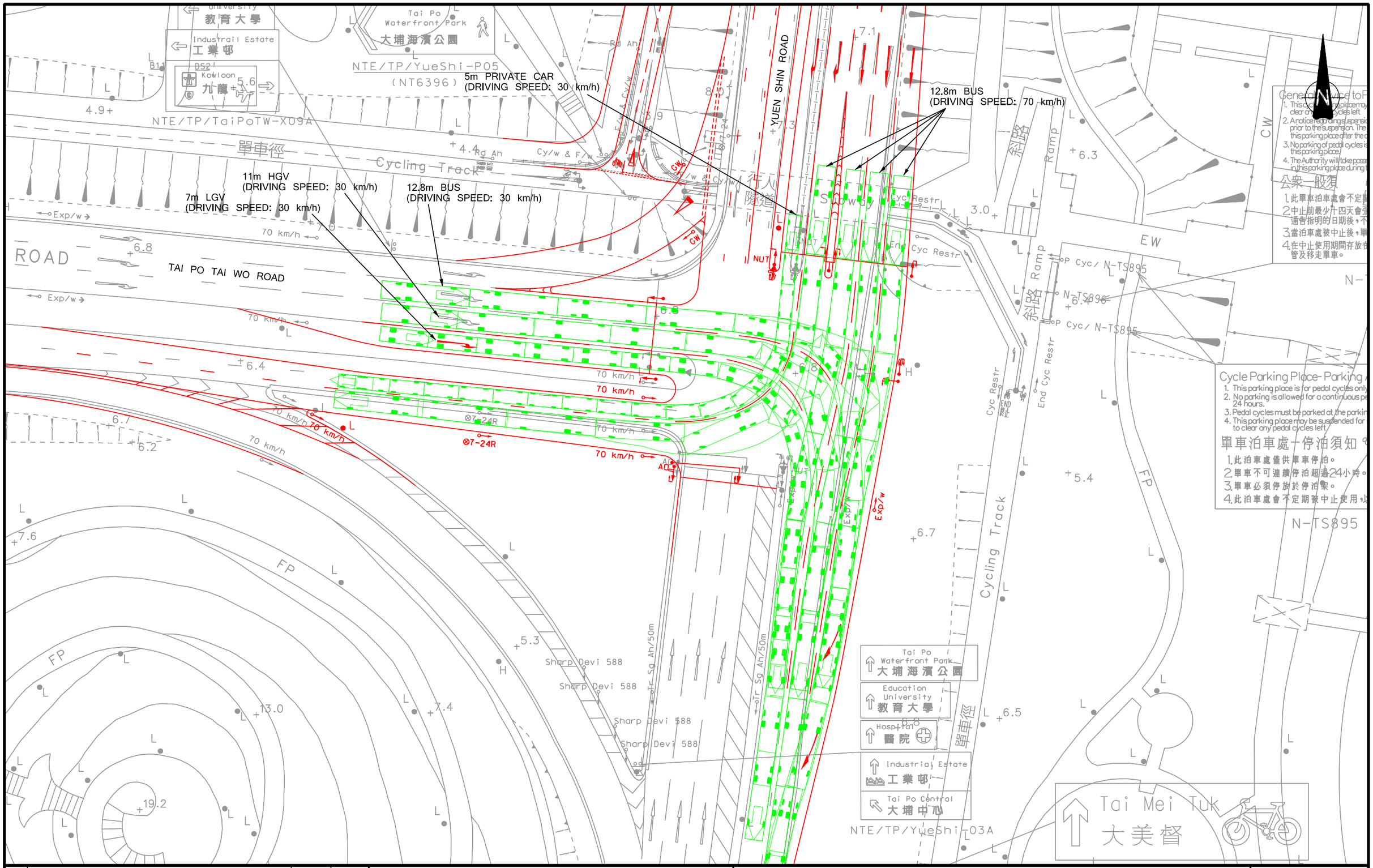
SWEPT PATH ANALYSIS OF PROPOSED IMPROVEMENT SCHEME OF TING KOK ROAD / YUEN SHIN ROAD / DAI FUK STREET (J1)

Designed	Checked	Scale	Date	Drawing No.	Rev.
TYL	TKM	1:500(A3)	APR 2023	B1	D

SYSTRA MVA

CHK50539710/FRTIA/FB1-D.DGN/CKC/13JAN25

Original Size : A3



Rev.	Description	Checked	Date
D	MODIFIED IMPROVEMENT SCHEME	TKM	11FEB25
C	MODIFIED IMPROVEMENT SCHEME	TKM	04DEC24
B	EXISTING TRAFFIC AIDS UPDATED	TKM	12SEP24
A	RESPONSE TO COMMENTS	TKM	03AUG23

Project Title

TCS FOR THE PROPOSED APPLICATION IN UNSURVEYED DISTRICT AT WONG YUE TAN LOT NOS. 11 RP & 14 RP, TAI PO

Drawing Title

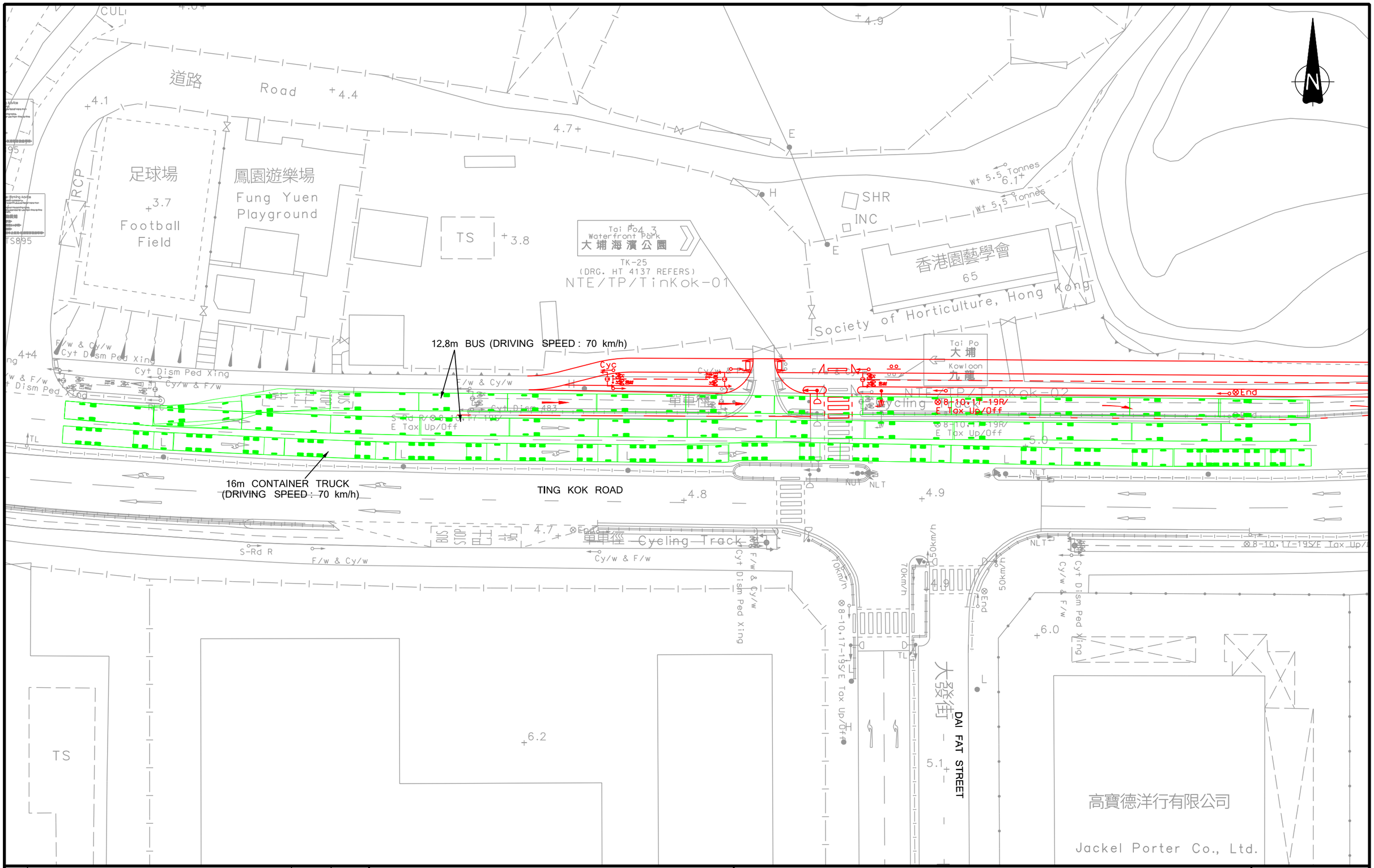
SWEPT PATH ANALYSIS OF PROPOSED IMPROVEMENT SCHEME OF TAI PO TAI WO ROAD / YUEN SHIN ROAD (J3)

Designed	Checked	Scale	Date	Drawing No.	Rev.
TYL	TKM	1:500(A3)	APR 2023	B2	D

SYSTRA MVA

CHK50539710/FRTIA/FB2-D.DGN/CKC/11FEB25

Original Size : A3



Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
B	EXISTING TRAFFIC AIDS UPDATED	TKM	12SEP24
A	RESPONSE TO COMMENTS	TKM	03AUG23

Project Title

TCS FOR THE PROPOSED APPLICATION
IN UNSURVEYED DISTRICT AT
WONG YUE TAN LOT NOS. 11RP & 14RP, TAI PO

Drawing Title

SWEPT PATH ANAYSIS OF PROPOSED IMPROVEMENT SCHEME OF TING KOK ROAD / DAI FAT STREET (J4)

Designed	Checked	Scale	Date	Drawing No.	Rev.
TLY	TKM	1:500(A3)	APR 2023	B3	B

SYSTRA MVA

CHK50539710/FRTIA/FB3-B.DGN/TKH/12SEP24

Original Size : A3

12.8m BUS
(DRIVING SPEED: 30km/h)

12.8m BUS
(DRIVING SPEED: 30km/h)

12.8m BUS
(DRIVING SPEED: 70km/h)

7m LGV
(DRIVING SPEED: 30km/h)

12.8m BUS
(DRIVING SPEED: 30km/h)

SITE A
14RP

TING KOK ROAD

LO FAI ROAD

Hong Kong Landfill Restoration Group limited

香港進益工程有限公司

Rev.	Description	Checked	Date
-	-	-	-
C	MODIFIED IMPROVEMENT SCHEME	TKM	11FEB25
B	EXISTING TRAFFIC AIDS UPDATED	TKM	13JAN25
A	RESPONSE TO COMMENTS	TKM	03AUG23

Project Title

TCS FOR THE PROPOSED APPLICATION
IN UNSURVEYED DISTRICT AT
WONG YUE TAN LOT NOS. 11RP & 14RP, TAI PO

Drawing Title

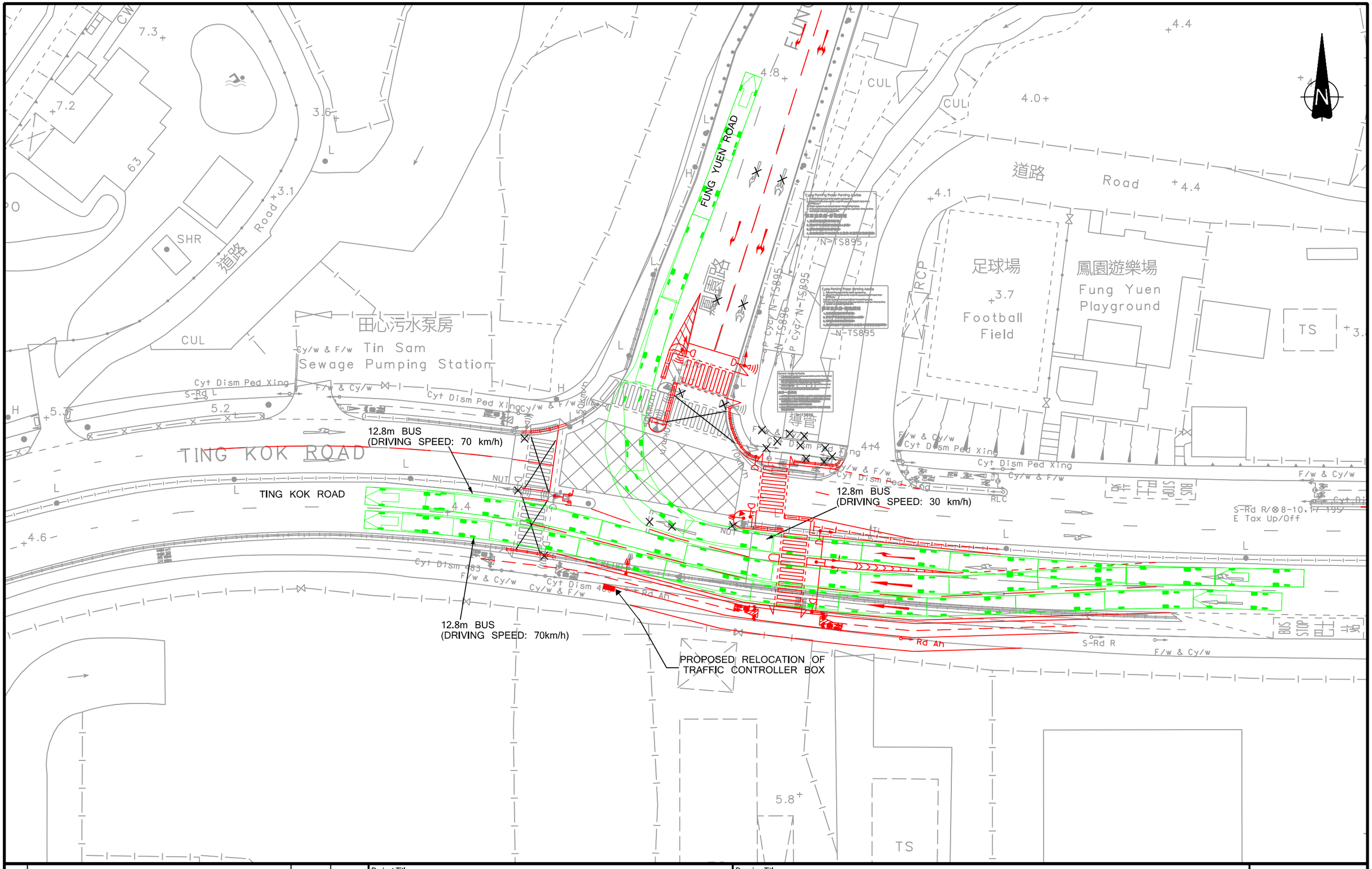
SWEPT PATH ANALYSIS OF PROPOSED IMPROVEMENT SCHEME OF TING KOK ROAD / LO FAI ROAD (J7)

Designed	Checked	Scale	Date	Drawing No.	Rev.
TLY	TKM	1:500(A3)	APR 2023	B4	C

SYSTRA MVA

CHK50539710/FRTIA/FB4-C.DGN/CKC/11FEB25

Original Size : A3



Rev.	Description	Checked	Date
D	MODIFICATIED IMPROVEMENT SCHEME	TKM	06JAN25
C	EXISTING TRAFFIC AIDS UPDATED	TKM	04DEC24
B	EXISTING TRAFFIC AIDS UPDATED	TKM	12SEP24
A	RESPONSE TO COMMENTS	TKM	03AUG23

Project Title

TCS FOR THE PROPOSED APPLICATION
IN UNSURVEYED DISTRICT AT
WONG YUE TAN LOT NOS. 11RP & 14RP, TAI PO

Drawing Title

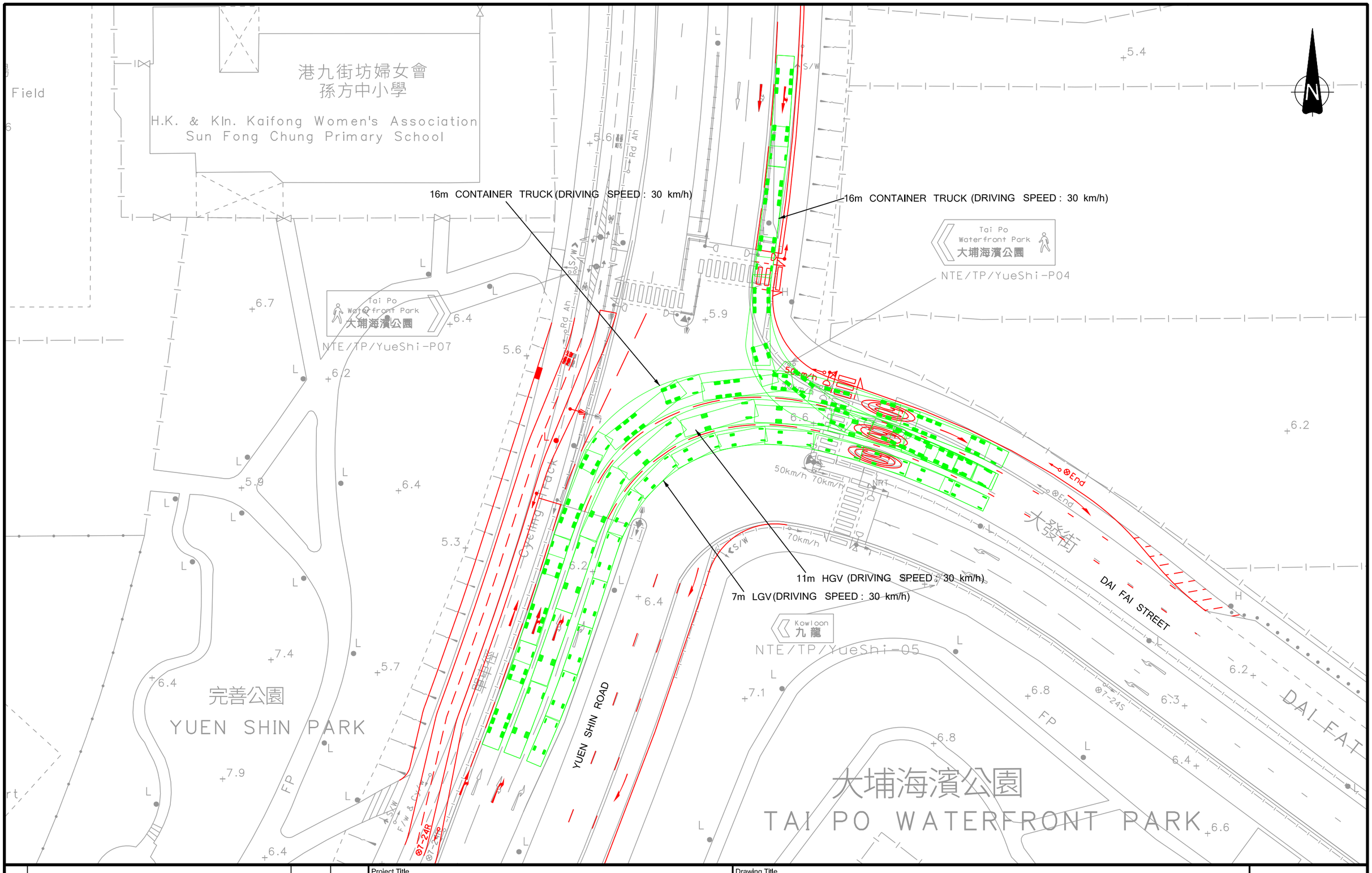
SWEPT PATH ANALYSIS OF PROPOSED IMPROVEMENT SCHEME OF TING KOK ROAD / FUNG YUEN ROAD (J8)

Designed	Checked	Scale	Date	Drawing No.	Rev.
TLY	TKM	1:500(A3)	APR 2023	B5	D

SYSTRA MVA

CHK50539710/FRTIA/FB5-D.DGN/CKC/06JAN25

Original Size : A3



Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
B	EXISTING TRAFFIC AIDS UPDATED	TKM	12SEP24
A	RESPONSE TO COMMENTS	TKM	03AUG23

Project Title

TCS FOR THE PROPOSED APPLICATION
IN UNSURVEYED DISTRICT AT
WONG YUE TAN LOT NOS. 11RP & 14RP, TAI PO

Drawing Title

SWEPT PATH ANALYSIS OF PROPOSED IMPROVEMENT SCHEME OF YUEN SHIN ROAD / DAI FAT STREET (J2)

Designed	Checked	Scale	Date	Drawing No.	Rev.
TLY	TKM	1:500(A3)	JUL 2023	B6	B

SYSTRA MVA

CHK50539710/FRTIA/FB6-B.DGN/TKH/12SEP24

Original Size : A3

STAIRCASE UNDER PROPOSED DISTRICT OPEN SPACE IMPROVEMENT WORKS BY LCSD

PROPOSED START / END OF CYCLE TRACK

PROPOSED 2.5m WIDE FOOTPATH (CYCLIST DISMOUNT AND PUSH THE BICYCLE ALONG THE FOOTPATH)

12.8m Bus (DRIVING SPEED : 70 km/h)

12.8m Bus (DRIVING SPEED : 70 km/h)

16m Container Truck (DRIVING SPEED : 30 km/h)

TING KOK ROAD

DAI KWAI STREET

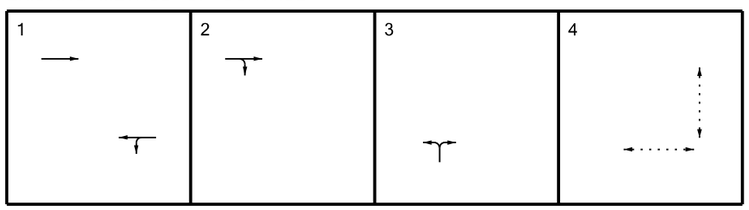
Ha Hang Telephone Exchange

NTE/TP/TinKok-03A

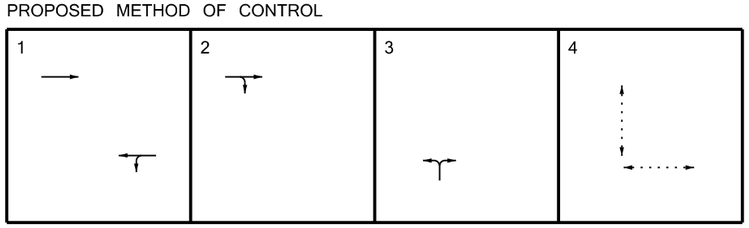
NTE/TP/TinKok-04A

NTE/TP/TinKok-10

EXISTING METHOD OF CONTROL



PROPOSED METHOD OF CONTROL



Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Project Title

TCS FOR THE PROPOSED APPLICATION IN UNSURVEYED DISTRICT AT WONG YUE TAN LOT NOS. 11RP & 14RP, TAI PO

Drawing Title

SWEPT PATH ANALYSIS OF PROPOSED IMPROVEMENT SCHEME OF TING KOK ROAD / DAI KWAI STREET (J5)

Designed	Checked	Scale	Date	Drawing No.	Rev.
TLY	TKM	1:500(A3)	AUG 2024	B7	-

CHK50539710/FRTIA/B10.DGN/TLY/21AUG24

Original Size : A3

SITE B
11RP

11m HGV
(DRIVING SPEED: 30 km/h)

11m HGV
(DRIVING SPEED: 30 km/h)

12.8m BUS
(DRIVING SPEED: 70 km/h)

16m CONTAINER TRUCK
(DRIVING SPEED: 70 km/h)

12.8m BUS
(DRIVING SPEED: 70 km/h)

11m HGV
(DRIVING SPEED: 30 km/h)

TING KOK ROAD

Cyclist Track

Cyt Dism Ped Xing

Cyt Dism Ped Xing

Tennis Court

網球場

道路 Road

單車徑

Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
-	-	-	-
A	MODIFIED IMPROVEMENT SCHEME	TKM	15JAN25

Project Title

TCS FOR THE PROPOSED APPLICATION IN UNSURVEYED DISTRICT AT WONG YUE TAN LOT NOS. 11 RP & 14 RP, TAI PO

Drawing Title

SWEPT PATH ANALYSIS OF PROPOSED IMPROVEMENT SCHEME OF TING KOK ROAD OUTSIDE FORTUNE GARDEN (J6)

Designed	Checked	Scale	Date	Drawing No.	Rev.
TLY	TKM	1:500(A3)	AUG 2024	B8	A

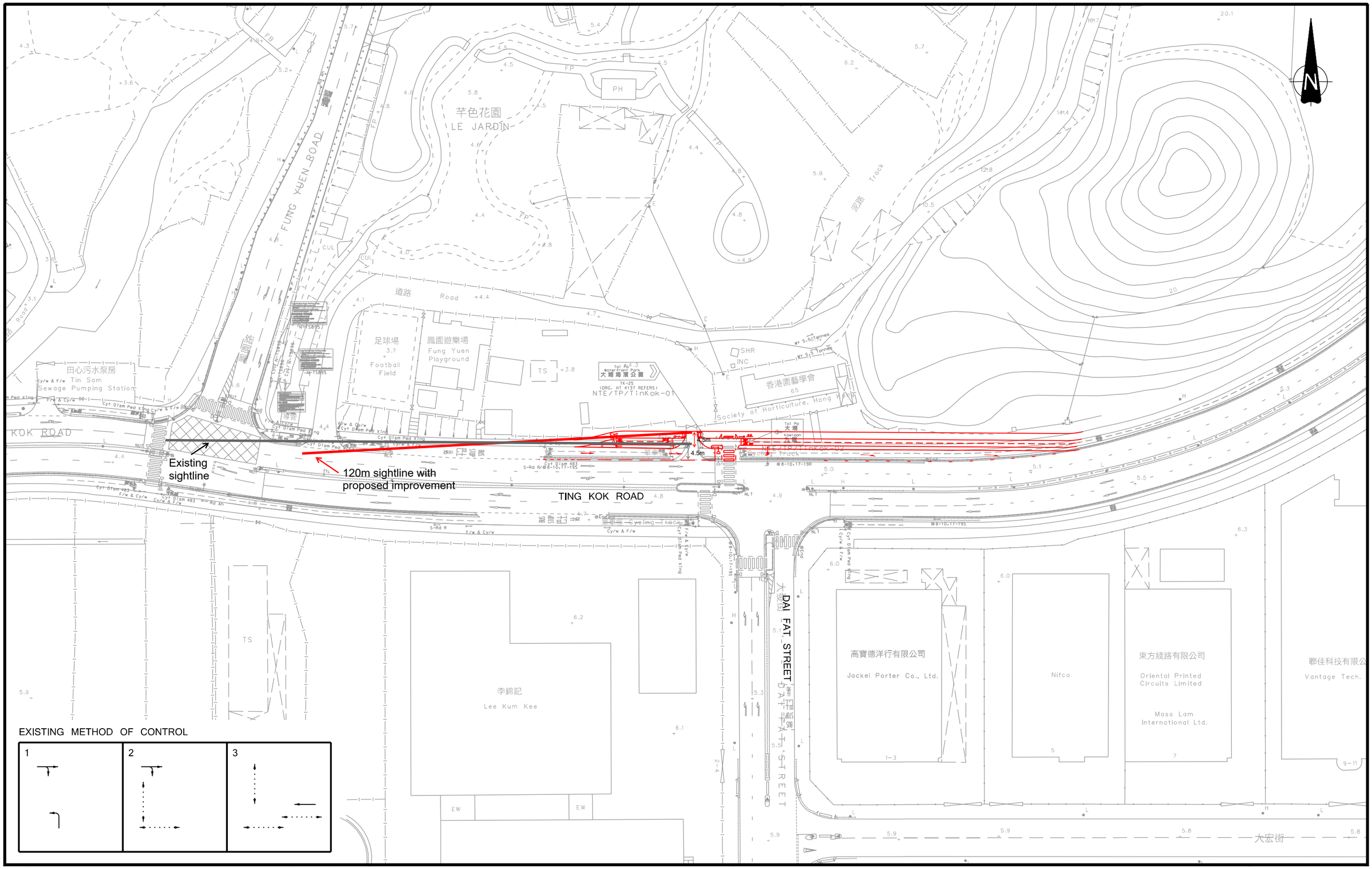
SYSTRA MVA

CHK50539710/FRTIA/FB8-A.DGN/CKC/15JAN25

Original Size : A3

APPENDIX C

SIGHTLINE ANALYSIS



J4 Sightline assessment

30m sightline with proposed improvement

TING KOK ROAD

LO FAI ROAD

SITE A
14RP

The fence could be see through which is less chance of blocking the sightline of the pedestrians

J7 Sightline assessment

APPENDIX D

QUEUE LENGTH ASSESSMENT

Queue Length Analysis

SYSTRA MVA **MVA Hong Kong Ltd.**

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement with J4 further improvement) AM
Junction Name	J1 Ting Kok Rd/Yuen Shin Rd	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

		Unit	Movement									
			TKR EB SL	TKR EB 2 L	TKR EB 3 L	TKR EB 4 L	TKR EB 5 L	TKR SB SL	TKR SB 2 L	TKR SB 3 L	TKR SB 4 L	TKR SB 5 L
Cycle time	c	sec	120	120	120	120	120	120	120	120	120	120
Effective green time	g	sec	59	59	18	18	18	38	38	38	38	38
		pcu/hr	635	690	115	181	179	352	384	384	501	504
Design flow	q	veh/sec	0.136	0.147	0.025	0.039	0.038	0.075	0.082	0.082	0.107	0.108
		pcu/hr	1785	1940	2105	2010	1985	1940	2115	2115	1995	2005
Saturation flow	Q	veh/sec	0.381	0.415	0.450	0.429	0.424	0.415	0.452	0.452	0.426	0.428
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.492	0.492	0.150	0.150	0.150	0.317	0.317	0.317	0.317	0.317
Degree of saturation	x		0.724	0.723	0.364	0.600	0.601	0.573	0.573	0.573	0.793	0.794
	M		16.282	17.692	2.949	4.641	4.590	9.026	9.846	9.846	12.846	12.923
	y		0.356	0.356	0.055	0.090	0.090	0.181	0.182	0.182	0.251	0.251
	Qt	veh/sec	168.774	183.429	60.721	57.981	57.260	118.141	128.798	128.798	121.490	122.099
	x<1											
	A	sec/veh	0.201	0.201	0.382	0.397	0.397	0.285	0.285	0.285	0.312	0.312
	B	sec/veh	0.947	0.946	0.104	0.451	0.453	0.384	0.385	0.385	1.519	1.528
	C	sec/veh	2.869	2.712	2.359	6.891	6.969	2.446	2.313	2.313	6.195	6.192
Average Queue Delay	D	sec/veh	28	28	48	52	53	37	37	37	45	45
	x>x'											
	Z		-0.276	-0.277	-0.636	-0.400	-0.399	-0.427	-0.427	-0.427	-0.207	-0.206
	X'		0.708	0.711	0.683	0.683	0.683	0.696	0.699	0.699	0.697	0.697
	No	veh	0.087	0.068	-0.785	-0.319	-0.315	-0.441	-0.448	-0.448	0.661	0.668
Average Queue Delay	D	sec/veh	25	24	34	43	43	31	31	31	42	42
Average Delay		**sec/veh**	**25**	**24**	**48**	**52**	**53**	**37**	**37**	**37**	**42**	**42**
Average Queue	N = q(r/2+d)	veh	7.961	8.591	2.426	3.999	3.960	5.859	6.368	6.368	9.250	9.307
Average Queue Length	NL/n	metre	48	52	15	24	24	35	38	38	56	56
Average Queue	N=qr	veh	8.277	8.994	2.506	3.945	3.901	6.168	6.728	6.728	8.778	8.831
Average Queue Length	NL/n	metre	50	54	15	24	23	37	40	40	53	53
Average Queue	N=qr+No	veh	8.363	9.062	1.721	3.626	3.586	5.727	6.280	6.280	9.439	9.499
Average Queue Length	NL/n	metre	50	54	10	22	22	34	38	38	57	57
Average Queue Length		**metre**	**50**	**54**	**15**	**24**	**24**	**37**	**40**	**40**	**57**	**57**

Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement with J4 further improvement) AM
Junction Name	J1 Ting Kok Rd/Yuen Shin Rd	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

			Movement						
		Unit	DFS WB SL	DFS WB 2 L	YSR NB SL	YSR NB 2 L	YSR NB 3 L	YSR NB 4 L	YSR NB 5 L
Cycle time	c	sec	120	120	120	120	120	120	120
Effective green time	g	sec	20	20	40	19	19	19	19
		pcu/hr	239	261	340	208	209	208	15
Design flow	q	veh/sec	0.051	0.056	0.073	0.044	0.045	0.044	0.003
		pcu/hr	1945	2115	1785	2105	2105	2105	1985
Saturation flow	Q	veh/sec	0.416	0.452	0.381	0.450	0.450	0.450	0.424
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.167	0.167	0.333	0.158	0.158	0.158	0.158
Degree of saturation	x		0.737	0.740	0.571	0.624	0.627	0.624	0.048
	M		6.128	6.692	8.718	5.333	5.359	5.333	0.385
	y		0.123	0.123	0.190	0.099	0.099	0.099	0.008
	Qt	veh/sec	62.340	67.788	114.423	64.095	64.095	64.095	60.441
	x<1								
	A	sec/veh	0.396	0.396	0.275	0.393	0.393	0.393	0.357
	B	sec/veh	1.034	1.056	0.381	0.518	0.527	0.518	0.001
	C	sec/veh	9.821	9.374	2.366	6.852	6.922	6.852	0.030
Average Queue Delay	D	sec/veh	58	57	36	52	52	52	43
	x>x'								
	Z		-0.263	-0.260	-0.429	-0.376	-0.373	-0.376	-0.952
	X'		0.684	0.685	0.695	0.684	0.684	0.684	0.683
	No	veh	0.294	0.309	-0.442	-0.245	-0.235	-0.245	-1.039
Average Queue Delay	D	sec/veh	52	52	29	44	44	44	27
Average Delay		**sec/veh**	**52**	**52**	**36**	**52**	**52**	**52**	**43**
Average Queue	N = q(r/2+d)	veh	5.512	5.973	5.508	4.554	4.581	4.554	0.300
Average Queue Length	NL/n	metre	33	36	33	27	27	27	2
Average Queue	N=qr	veh	5.107	5.577	5.812	4.489	4.510	4.489	0.324
Average Queue Length	NL/n	metre	31	33	35	27	27	27	2
Average Queue	N=qr+No	veh	5.401	5.886	5.370	4.244	4.276	4.244	-0.715
Average Queue Length	NL/n	metre	32	35	32	25	26	25	-4
Average Queue Length		**metre**	**32**	**35**	**35**	**27**	**27**	**27**	**2**

Queue Length Analysis

SYSTRA MVA **MVA Hong Kong Ltd.**

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement with J4 further improvement) PM
Junction Name	J1 Ting Kok Rd/Yuen Shin Rd	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

		Unit	Movement									
			TKR EB SL	TKR EB 2 L	TKR EB 3 L	TKR EB 4 L	TKR EB 5 L	TKR SB SL	TKR SB 2 L	TKR SB 3 L	TKR SB 4 L	TKR SB 5 L
Cycle time	c	sec	120	120	120	120	120	120	120	120	120	120
Effective green time	g	sec	56	56	21	21	21	32	32	32	32	32
		pcu/hr	498	542	65	191	189	299	326	325	394	396
Design flow	q	veh/sec	0.106	0.116	0.014	0.041	0.040	0.064	0.070	0.069	0.084	0.085
		pcu/hr	1785	1940	2105	2010	1985	1940	2115	2115	1995	2005
Saturation flow	Q	veh/sec	0.381	0.415	0.450	0.429	0.424	0.415	0.452	0.452	0.426	0.428
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.467	0.467	0.175	0.175	0.175	0.267	0.267	0.267	0.267	0.267
Degree of saturation	x		0.598	0.599	0.176	0.543	0.544	0.578	0.578	0.576	0.741	0.741
	M		12.769	13.897	1.667	4.897	4.846	7.667	8.359	8.333	10.103	10.154
	y		0.279	0.279	0.031	0.095	0.095	0.154	0.154	0.154	0.197	0.198
	Qt	veh/sec	160.192	174.103	70.841	67.644	66.803	99.487	108.462	108.462	102.308	102.821
	x<1											
	A	sec/veh	0.197	0.197	0.351	0.376	0.376	0.318	0.318	0.318	0.335	0.335
	B	sec/veh	0.444	0.447	0.019	0.323	0.325	0.396	0.396	0.392	1.057	1.058
	C	sec/veh	1.536	1.461	0.379	4.674	4.734	3.226	3.046	3.022	6.134	6.115
Average Queue Delay	D	sec/veh	26	26	43	48	48	41	41	41	47	47
	x>x'											
	Z		-0.402	-0.401	-0.824	-0.457	-0.456	-0.422	-0.422	-0.424	-0.259	-0.259
	X'		0.706	0.709	0.686	0.685	0.685	0.692	0.694	0.694	0.693	0.693
	No	veh	-0.407	-0.416	-0.959	-0.481	-0.478	-0.414	-0.420	-0.425	0.271	0.271
Average Queue Delay	D	sec/veh	21	22	30	39	39	34	35	35	43	43
Average Delay		**sec/veh**	**26**	**26**	**43**	**48**	**48**	**41**	**41**	**41**	**43**	**43**
Average Queue	N = q(r/2+d)	veh	6.205	6.726	1.286	3.994	3.955	5.438	5.906	5.885	7.630	7.665
Average Queue Length	NL/n	metre	37	40	8	24	24	33	35	35	46	46
Average Queue	N=qr	veh	6.810	7.412	1.375	4.040	3.998	5.622	6.130	6.111	7.409	7.446
Average Queue Length	NL/n	metre	41	44	8	24	24	34	37	37	44	45
Average Queue	N=qr+No	veh	6.403	6.996	0.416	3.559	3.520	5.208	5.710	5.686	7.680	7.717
Average Queue Length	NL/n	metre	38	42	2	21	21	31	34	34	46	46
Average Queue Length		**metre**	**41**	**44**	**8**	**24**	**24**	**34**	**37**	**37**	**46**	**46**

Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement with J4 further improvement) PM
Junction Name	J1 Ting Kok Rd/Yuen Shin Rd	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

			Movement						
		Unit	DFS WB SL	DFS WB 2 L	YSR NB SL	YSR NB 2 L	YSR NB 3 L	YSR NB 4 L	YSR NB 5 L
Cycle time	c	sec	120	120	120	120	120	120	120
Effective green time	g	sec	20	20	46	22	22	22	22
		pcu/hr	246	269	280	307	306	307	15
Design flow	q	veh/sec	0.053	0.057	0.060	0.066	0.065	0.066	0.003
		pcu/hr	1930	2115	1785	2105	2105	2105	1985
Saturation flow	Q	veh/sec	0.412	0.452	0.381	0.450	0.450	0.450	0.424
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.167	0.167	0.383	0.183	0.183	0.183	0.183
Degree of saturation	x		0.765	0.763	0.409	0.796	0.793	0.796	0.041
	M		6.308	6.897	7.179	7.872	7.846	7.872	0.385
	y		0.127	0.127	0.157	0.146	0.145	0.146	0.008
	Qt	veh/sec	61.859	67.788	131.587	74.215	74.215	74.215	69.984
	x<1								
	A	sec/veh	0.398	0.398	0.226	0.390	0.390	0.390	0.336
	B	sec/veh	1.243	1.229	0.142	1.547	1.518	1.547	0.001
	C	sec/veh	10.687	10.007	0.633	10.114	10.040	10.114	0.013
Average Queue Delay	D	sec/veh	61	59	29	60	60	60	41
	x>x'								
	Z		-0.235	-0.237	-0.591	-0.204	-0.207	-0.204	-0.959
	X'		0.684	0.685	0.699	0.686	0.686	0.686	0.686
	No	veh	0.484	0.467	-0.751	0.730	0.706	0.730	-1.040
Average Queue Delay	D	sec/veh	55	54	22	56	55	56	27
Average Delay		**sec/veh**	**55**	**54**	**29**	**56**	**55**	**56**	**41**
Average Queue	N = q(r/2+d)	veh	5.820	6.272	3.937	7.171	7.127	7.171	0.287
Average Queue Length	NL/n	metre	35	38	24	43	43	43	2
Average Queue	N=qr	veh	5.256	5.748	4.427	6.429	6.408	6.429	0.314
Average Queue Length	NL/n	metre	32	34	27	39	38	39	2
Average Queue	N=qr+No	veh	5.741	6.215	3.676	7.158	7.114	7.158	-0.726
Average Queue Length	NL/n	metre	34	37	22	43	43	43	-4
Average Queue Length		**metre**	**34**	**37**	**27**	**43**	**43**	**43**	**2**

Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement with J4 further improvement) AM
Junction Name	J2 Yuen Shin Road/Dai Fat Street	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

		Unit	Movement								
			YSR NB SL	YSR NB 2 L	YSR NB 3 L	YSR NB 4 L	YSR SB SL	YSR SB 2 L	YSR SB 3 L	DFS WB SL	DFS WB 2 L
Cycle time	c	sec	120	120	120	120	120	120	120	120	120
Effective green time	g	sec	43	43	43	43	45	45	45	42	42
		pcu/hr	526	691	667	661	475	523	522	426	459
Design flow	q	veh/sec	0.112	0.148	0.143	0.141	0.101	0.112	0.112	0.091	0.098
		pcu/hr	1555	2045	1975	1960	1895	2085	2085	1850	1995
Saturation flow	Q	veh/sec	0.332	0.437	0.422	0.419	0.405	0.446	0.446	0.395	0.426
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.358	0.358	0.358	0.358	0.375	0.375	0.375	0.350	0.350
Degree of saturation	x		0.944	0.943	0.942	0.941	0.668	0.669	0.668	0.658	0.657
	M		13.487	17.718	17.103	16.949	12.179	13.410	13.385	10.923	11.769
	y		0.338	0.338	0.338	0.337	0.251	0.251	0.250	0.230	0.230
	Qt	veh/sec	107.155	140.921	136.098	135.064	136.659	150.361	150.361	124.519	134.279
	x<1										
	A	sec/veh	0.311	0.311	0.311	0.311	0.261	0.261	0.261	0.274	0.274
	B	sec/veh	7.955	7.796	7.721	7.525	0.674	0.676	0.671	0.633	0.631
	C	sec/veh	11.064	9.186	9.386	9.393	3.093	2.909	2.891	3.296	3.126
Average Queue Delay	D	sec/veh	97	81	82	81	35	34	34	37	36
	x>x'										
	Z		-0.056	-0.057	-0.058	-0.059	-0.332	-0.331	-0.332	-0.342	-0.343
	X'		0.694	0.701	0.700	0.700	0.700	0.703	0.703	0.698	0.700
	No	veh	3.228	3.429	3.387	3.340	-0.145	-0.157	-0.163	-0.176	-0.188
Average Queue Delay	D	sec/veh	64	59	60	60	30	30	30	32	32
Average Delay		**sec/veh**	**64**	**59**	**60**	**60**	**35**	**34**	**34**	**37**	**36**
Average Queue	N = q(r/2+d)	veh	15.235	17.633	17.187	16.901	7.340	8.037	8.018	6.880	7.378
Average Queue Length	NL/n	metre	91	106	103	101	44	48	48	41	44
Average Queue	N=qr	veh	8.654	11.369	10.974	10.875	7.612	8.381	8.365	7.100	7.650
Average Queue Length	NL/n	metre	52	68	66	65	46	50	50	43	46
Average Queue	N=qr+No	veh	11.882	14.798	14.361	14.215	7.467	8.224	8.203	6.924	7.462
Average Queue Length	NL/n	metre	71	89	86	85	45	49	49	42	45
Average Queue Length		**metre**	**71**	**89**	**86**	**85**	**46**	**50**	**50**	**43**	**46**

Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement with J4 further improvement) PM
Junction Name	J2 Yuen Shin Road/Dai Fat Street	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

			Movement								
		Unit	YSR NB SL	YSR NB 2 L	YSR NB 3 L	YSR NB 4 L	YSR SB SL	YSR SB 2 L	YSR SB 3 L	DFS WB SL	DFS WB 2 L
Cycle time	c	sec	120	120	120	120	120	120	120	120	120
Effective green time	g	sec	45	45	45	45	42	42	42	44	44
		pcu/hr	519	691	667	661	475	523	522	426	459
Design flow	q	veh/sec	0.111	0.148	0.143	0.141	0.101	0.112	0.112	0.091	0.098
		pcu/hr	1555	2045	1975	1960	1895	2085	2085	1850	1995
Saturation flow	Q	veh/sec	0.332	0.437	0.422	0.419	0.405	0.446	0.446	0.395	0.426
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.375	0.375	0.375	0.375	0.350	0.350	0.350	0.367	0.367
Degree of saturation	x		0.890	0.901	0.901	0.899	0.716	0.717	0.715	0.628	0.627
	M		13.308	17.718	17.103	16.949	12.179	13.410	13.385	10.923	11.769
	y		0.334	0.338	0.338	0.337	0.251	0.251	0.250	0.230	0.230
	Qt	veh/sec	112.139	147.476	142.428	141.346	127.548	140.337	140.337	130.449	140.673
	x<1										
	A	sec/veh	0.293	0.295	0.295	0.295	0.282	0.282	0.282	0.261	0.260
	B	sec/veh	3.602	4.103	4.079	4.017	0.904	0.906	0.899	0.530	0.528
	C	sec/veh	8.844	7.665	7.832	7.836	4.214	3.962	3.939	2.663	2.526
Average Queue Delay	D	sec/veh	59	56	56	56	39	38	38	34	34
	x>x'										
	Z		-0.110	-0.099	-0.099	-0.101	-0.284	-0.283	-0.285	-0.372	-0.373
	X'		0.695	0.703	0.702	0.701	0.698	0.701	0.701	0.699	0.701
	No	veh	2.008	2.288	2.272	2.242	0.094	0.082	0.074	-0.290	-0.301
Average Queue Delay	D	sec/veh	51	49	50	50	34	34	34	29	29
Average Delay		**sec/veh**	**51**	**49**	**50**	**50**	**34**	**34**	**34**	**34**	**34**
Average Queue	N = q(r/2+d)	veh	10.681	13.735	13.352	13.201	7.868	8.603	8.581	6.593	7.073
Average Queue Length	NL/n	metre	64	82	80	79	47	52	51	40	42
Average Queue	N=qr	veh	8.317	11.074	10.689	10.593	7.917	8.717	8.700	6.918	7.454
Average Queue Length	NL/n	metre	50	66	64	64	48	52	52	42	45
Average Queue	N=qr+No	veh	10.325	13.362	12.962	12.835	8.010	8.798	8.774	6.628	7.153
Average Queue Length	NL/n	metre	62	80	78	77	48	53	53	40	43
Average Queue Length		**metre**	**62**	**80**	**78**	**77**	**48**	**53**	**53**	**42**	**45**

Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement) AM
Junction Name	J3 Tai Po Tai Wo Rd/Yuen Shin Rd	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

			Movement							
		Unit	YSR SB SL	YSR SB 2 L	YSR SB 3 L	YSR SB 4 L	YSR SB 5 L	YSR NB SL	YSR NB 2 L	YSR NB 3 L
Cycle time	c	sec	120	120	120	120	120	120	120	120
Effective green time	g	sec	80	80	80	34	34	42	42	42
		pcu/hr	532	591	592	312	278	557	619	619
Design flow	q	veh/sec	0.114	0.126	0.126	0.067	0.059	0.119	0.132	0.132
		pcu/hr	1875	2085	2085	1920	1705	1875	2085	2085
Saturation flow	Q	veh/sec	0.401	0.446	0.446	0.410	0.364	0.401	0.446	0.446
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.667	0.667	0.667	0.283	0.283	0.350	0.350	0.350
Degree of saturation	x		0.426	0.425	0.426	0.574	0.575	0.849	0.848	0.848
	M		13.641	15.154	15.179	8.000	7.128	14.282	15.872	15.872
	y		0.284	0.283	0.284	0.163	0.163	0.297	0.297	0.297
	Qt	veh/sec	240.385	267.308	267.308	104.615	92.901	126.202	140.337	140.337
	x<1									
	A	sec/veh	0.078	0.078	0.078	0.307	0.307	0.301	0.300	0.300
	B	sec/veh	0.158	0.157	0.158	0.386	0.390	2.382	2.370	2.370
	C	sec/veh	0.144	0.133	0.134	2.918	3.188	7.164	6.662	6.662
Average Queue Delay	D	sec/veh	11	10	10	40	40	49	47	47
	x>x'									
	Z		-0.574	-0.575	-0.574	-0.426	-0.425	-0.151	-0.152	-0.152
	X'		0.723	0.729	0.729	0.693	0.691	0.698	0.701	0.701
	No	veh	-0.787	-0.802	-0.801	-0.429	-0.416	1.314	1.296	1.296
Average Queue Delay	D	sec/veh	6	7	7	33	33	45	44	44
Average Delay		**sec/veh**	**11**	**10**	**10**	**40**	**40**	**45**	**44**	**44**
Average Queue	N = q(r/2+d)	veh	3.473	3.841	3.849	5.511	4.942	10.463	11.416	11.416
Average Queue Length	NL/n	metre	21	23	23	33	30	63	68	68
Average Queue	N=qr	veh	4.547	5.051	5.060	5.733	5.109	9.283	10.317	10.317
Average Queue Length	NL/n	metre	27	30	30	34	31	56	62	62
Average Queue	N=qr+No	veh	3.760	4.249	4.258	5.304	4.693	10.597	11.612	11.612
Average Queue Length	NL/n	metre	23	25	26	32	28	64	70	70
Average Queue Length		**metre**	**27**	**30**	**30**	**34**	**31**	**64**	**70**	**70**

Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po
Junction Name	J3 Tai Po Tai Wo Rd/Yuen Shin Rd
Approach	All bound
Probability(1% / 5%)?	5%

Description	All bound
Design Year	2036 Design Weekday (Improvement) AM
Designed By	TLY
Checked By	TKM

			Movement		
		Unit	TPTWR EB SL	TPTWR EB 2 L	TPTWR EB 3 L
Cycle time	c	sec	120	120	120
Effective green time	g	sec	30	30	30
		pcu/hr	311	344	335
Design flow	q	veh/sec	0.066	0.074	0.072
		pcu/hr	1760	1940	1895
Saturation flow	Q	veh/sec	0.376	0.415	0.405
PCU factor	f	pcu/veh	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1
Length of a vehicle	L	metre	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.250	0.250	0.250
Degree of saturation	x		0.707	0.709	0.707
	M		7.974	8.821	8.590
	y		0.177	0.177	0.177
	Qt	veh/sec	84.615	93.269	91.106
	x<1				
	A	sec/veh	0.342	0.342	0.342
	B	sec/veh	0.852	0.865	0.854
	C	sec/veh	6.327	5.983	6.030
Average Queue Delay	D	sec/veh	47	47	47
	x>x'				
	Z		-0.293	-0.291	-0.293
	X'		0.689	0.691	0.690
	No	veh	0.091	0.095	0.086
Average Queue Delay	D	sec/veh	42	42	42
Average Delay		**sec/veh**	**42**	**42**	**42**
Average Queue	N = q(r/2+d)	veh	6.146	6.749	6.578
Average Queue Length	NL/n	metre	37	40	39
Average Queue	N=qr	veh	5.981	6.615	6.442
Average Queue Length	NL/n	metre	36	40	39
Average Queue	N=qr+No	veh	6.072	6.710	6.528
Average Queue Length	NL/n	metre	36	40	39
Average Queue Length		**metre**	**36**	**40**	**39**

Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement) PM
Junction Name	J3 Tai Po Tai Wo Rd/Yuen Shin Rd	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

			Movement							
		Unit	YSR SB SL	YSR SB 2 L	YSR SB 3 L	YSR SB 4 L	YSR SB 5 L	YSR NB SL	YSR NB 2 L	YSR NB 3 L
Cycle time	c	sec	120	120	120	120	120	120	120	120
Effective green time	g	sec	83	83	83	44	44	35	35	35
		pcu/hr	523	581	581	320	285	439	488	488
Design flow	q	veh/sec	0.112	0.124	0.124	0.068	0.061	0.094	0.104	0.104
		pcu/hr	1875	2085	2085	1920	1705	1875	2085	2085
Saturation flow	Q	veh/sec	0.401	0.446	0.446	0.410	0.364	0.401	0.446	0.446
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.692	0.692	0.692	0.367	0.367	0.292	0.292	0.292
Degree of saturation	x		0.403	0.403	0.403	0.455	0.456	0.803	0.802	0.802
	M		13.410	14.897	14.897	8.205	7.308	11.256	12.513	12.513
	y		0.279	0.279	0.279	0.167	0.167	0.234	0.234	0.234
	Qt	veh/sec	249.399	277.332	277.332	135.385	120.224	105.168	116.947	116.947
	x<1									
	A	sec/veh	0.066	0.066	0.066	0.241	0.241	0.328	0.328	0.328
	B	sec/veh	0.136	0.136	0.136	0.189	0.191	1.633	1.630	1.630
	C	sec/veh	0.097	0.090	0.090	0.933	1.020	7.264	6.761	6.761
Average Queue Delay	D	sec/veh	9	9	9	31	31	49	48	48
	x>x'									
	Z		-0.597	-0.597	-0.597	-0.545	-0.544	-0.197	-0.198	-0.198
	X'		0.725	0.732	0.732	0.700	0.697	0.693	0.696	0.696
	No	veh	-0.819	-0.834	-0.834	-0.688	-0.678	0.774	0.759	0.759
Average Queue Delay	D	sec/veh	5	5	5	24	24	46	45	45
Average Delay		**sec/veh**	**9**	**9**	**9**	**31**	**31**	**46**	**45**	**45**
Average Queue	N = q(r/2+d)	veh	3.077	3.403	3.403	4.699	4.203	8.626	9.455	9.455
Average Queue Length	NL/n	metre	18	20	20	28	25	52	57	57
Average Queue	N=qr	veh	4.135	4.593	4.593	5.197	4.628	7.973	8.863	8.863
Average Queue Length	NL/n	metre	25	28	28	31	28	48	53	53
Average Queue	N=qr+No	veh	3.316	3.759	3.759	4.509	3.950	8.747	9.622	9.622
Average Queue Length	NL/n	metre	20	23	23	27	24	52	58	58
Average Queue Length		**metre**	**25**	**28**	**28**	**31**	**28**	**52**	**58**	**58**

Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po
Junction Name	J3 Tai Po Tai Wo Rd/Yuen Shin Rd
Approach	All bound
Probability(1% / 5%)?	5%

Description	All bound
Design Year	2036 Design Weekday (Improvement) PM
Designed By	TLY
Checked By	TKM

			Movement		
		Unit	TPTWR EB SL	TPTWR EB 2 L	TPTWR EB 3 L
Cycle time	c	sec	120	120	120
Effective green time	g	sec	27	27	27
		pcu/hr	267	295	288
Design flow	q	veh/sec	0.057	0.063	0.062
		pcu/hr	1760	1940	1895
Saturation flow	Q	veh/sec	0.376	0.415	0.405
PCU factor	f	pcu/veh	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1
Length of a vehicle	L	metre	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.225	0.225	0.225
Degree of saturation	x		0.674	0.676	0.675
	M		6.846	7.564	7.385
	y		0.152	0.152	0.152
	Qt	veh/sec	76.154	83.942	81.995
	x<1				
	A	sec/veh	0.354	0.354	0.354
	B	sec/veh	0.698	0.704	0.703
	C	sec/veh	6.312	5.950	6.035
Average Queue Delay	D	sec/veh	48	48	48
	x>x'				
	Z		-0.326	-0.324	-0.325
	X'		0.687	0.689	0.688
	No	veh	-0.059	-0.060	-0.059
Average Queue Delay	D	sec/veh	42	42	42
Average Delay		**sec/veh**	**48**	**48**	**48**
Average Queue	N = q(r/2+d)	veh	5.414	5.940	5.808
Average Queue Length	NL/n	metre	32	36	35
Average Queue	N=qr	veh	5.306	5.862	5.723
Average Queue Length	NL/n	metre	32	35	34
Average Queue	N=qr+No	veh	5.247	5.803	5.664
Average Queue Length	NL/n	metre	31	35	34
Average Queue Length		**metre**	**32**	**36**	**35**

Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Further improvement) AM
Junction Name	J4 Ting Kok Road / Dai Fat Street	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

		Unit	Movement						
			TKR EB SL	TKR EB 2 L	TKR EB 3 L	TKR WB SL	TKR WB 2 L	DFS NB SL	DFS NB 2 L
Cycle time	c	sec	120	120	120	120	120	120	120
Effective green time	g	sec	57	57	57	53	53	39	39
		pcu/hr	523	622	600	794	851	124	136
Design flow	q	veh/sec	0.112	0.133	0.128	0.170	0.182	0.026	0.029
		pcu/hr	1760	2095	2020	1980	2120	1720	1895
Saturation flow	Q	veh/sec	0.376	0.448	0.432	0.423	0.453	0.368	0.405
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.475	0.475	0.475	0.442	0.442	0.325	0.325
Degree of saturation	x		0.626	0.625	0.625	0.908	0.909	0.222	0.221
	M		13.410	15.949	15.385	20.359	21.821	3.179	3.487
	y		0.297	0.297	0.297	0.401	0.401	0.072	0.072
	Qt	veh/sec	160.769	191.370	184.519	168.173	180.064	107.500	118.438
	x<1								
	A	sec/veh	0.196	0.196	0.196	0.260	0.260	0.246	0.245
	B	sec/veh	0.523	0.521	0.522	4.478	4.532	0.032	0.031
	C	sec/veh	1.775	1.575	1.617	6.968	6.681	0.154	0.142
Average Queue Delay	D	sec/veh	26	26	26	51	49	31	30
	x>x'								
	Z		-0.374	-0.375	-0.375	-0.092	-0.091	-0.778	-0.779
	X'		0.706	0.713	0.711	0.707	0.710	0.694	0.696
	No	veh	-0.325	-0.353	-0.346	2.476	2.507	-0.931	-0.934
Average Queue Delay	D	sec/veh	22	22	22	44	44	22	22
Average Delay		**sec/veh**	**26**	**26**	**26**	**44**	**44**	**31**	**30**
Average Queue	N = q(r/2+d)	veh	6.474	7.624	7.369	14.277	15.090	1.881	2.060
Average Queue Length	NL/n	metre	39	46	44	86	91	11	12
Average Queue	N=qr	veh	7.040	8.373	8.077	11.367	12.183	2.146	2.354
Average Queue Length	NL/n	metre	42	50	48	68	73	13	14
Average Queue	N=qr+No	veh	6.716	8.020	7.730	13.843	14.690	1.216	1.420
Average Queue Length	NL/n	metre	40	48	46	83	88	7	9
Average Queue Length		**metre**	**42**	**50**	**48**	**83**	**88**	**13**	**14**

Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Further improvement) PM
Junction Name	J4 Ting Kok Road / Dai Fat Street	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

		Unit	Movement						
			TKR EB SL	TKR EB 2 L	TKR EB 3 L	TKR WB SL	TKR WB 2 L	DFS NB SL	DFS NB 2 L
Cycle time	c	sec	120	120	120	120	120	120	120
Effective green time	g	sec	59	59	59	51	51	37	37
		pcu/hr	506	603	591	659	706	88	97
Design flow	q	veh/sec	0.108	0.129	0.126	0.141	0.151	0.019	0.021
		pcu/hr	1760	2095	2055	1980	2120	1720	1895
Saturation flow	Q	veh/sec	0.376	0.448	0.439	0.423	0.453	0.368	0.405
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.492	0.492	0.492	0.425	0.425	0.308	0.308
Degree of saturation	x		0.585	0.585	0.585	0.783	0.784	0.166	0.166
	M		12.974	15.462	15.154	16.897	18.103	2.256	2.487
	y		0.288	0.288	0.288	0.333	0.333	0.051	0.051
	Qt	veh/sec	166.410	198.085	194.303	161.827	173.269	101.987	112.364
	x<1								
	A	sec/veh	0.181	0.181	0.181	0.248	0.248	0.252	0.252
	B	sec/veh	0.412	0.413	0.412	1.414	1.418	0.017	0.017
	C	sec/veh	1.292	1.155	1.166	4.321	4.137	0.078	0.074
Average Queue Delay	D	sec/veh	24	24	24	35	35	31	31
	x>x'								
	Z		-0.415	-0.415	-0.415	-0.217	-0.216	-0.834	-0.834
	X'		0.707	0.714	0.713	0.706	0.709	0.693	0.695
	No	veh	-0.447	-0.471	-0.469	0.518	0.507	-0.969	-0.972
Average Queue Delay	D	sec/veh	19	20	20	33	32	22	22
Average Delay		**sec/veh**	**24**	**24**	**24**	**33**	**32**	**31**	**31**
Average Queue	N = q(r/2+d)	veh	5.922	6.999	6.865	9.850	10.486	1.364	1.502
Average Queue Length	NL/n	metre	36	42	41	59	63	8	9
Average Queue	N=qr	veh	6.595	7.860	7.703	9.716	10.409	1.561	1.720
Average Queue Length	NL/n	metre	40	47	46	58	62	9	10
Average Queue	N=qr+No	veh	6.148	7.389	7.234	10.234	10.916	0.591	0.749
Average Queue Length	NL/n	metre	37	44	43	61	65	4	4
Average Queue Length		**metre**	**40**	**47**	**46**	**61**	**65**	**9**	**10**

Queue Length Analysis

SYSTRA MVA **MVA Hong Kong Ltd.**

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement) AM
Junction Name	J5 Ting Kok Rd/Dai Kwai St	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

		Unit	Movement							
			TKR EB SL	TKR EB 2 L	TKR EB 3 L	DKS NB SL	DKS NB 2 L	TKR WB SL	TKR WB 2 L	TKR WB 3 L
Cycle time	c	sec	120	120	120	120	120	120	120	120
Effective green time	g	sec	66	66	12	12	12	49	49	49
		pcu/hr	688	737	115	70	180	723	722	400
Design flow	q	veh/sec	0.147	0.157	0.025	0.015	0.038	0.154	0.154	0.085
		pcu/hr	1955	2095	1905	1785	1915	2095	2095	930
Saturation flow	Q	veh/sec	0.418	0.448	0.407	0.381	0.409	0.448	0.448	0.199
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.550	0.550	0.100	0.100	0.100	0.408	0.408	0.408
Degree of saturation	x		0.640	0.640	0.604	0.392	0.940	0.845	0.844	1.053
	M		17.641	18.897	2.949	1.795	4.615	18.538	18.513	10.256
	y		0.352	0.352	0.060	0.039	0.094	0.345	0.345	0.430
	Qt	veh/sec	206.779	221.587	36.635	34.327	36.827	164.511	164.511	73.029
	x<1									
	A	sec/veh	0.156	0.156	0.431	0.422	0.447	0.267	0.267	0.307
	B	sec/veh	0.568	0.568	0.460	0.127	7.356	2.307	2.283	-10.403
	C	sec/veh	1.380	1.316	10.740	5.086	24.102	5.642	5.616	20.384
Average Queue Delay	D	sec/veh	21	21	60	54	221	41	41	-105
	x>x'									
	Z		-0.360	-0.360	-0.396	-0.608	-0.060	-0.155	-0.156	0.053
	X'		0.716	0.719	0.678	0.678	0.678	0.707	0.707	0.686
	No	veh	-0.320	-0.334	-0.294	-0.760	2.192	1.225	1.208	5.562
Average Queue Delay	D	sec/veh	17	17	45	31	107	39	39	105
Average Delay		**sec/veh**	**21**	**21**	**60**	**54**	**107**	**39**	**39**	**105**
Average Queue	N = q(r/2+d)	veh	7.091	7.564	2.794	1.615	10.569	11.874	11.838	-5.961
Average Queue Length	NL/n	metre	43	45	17	10	63	71	71	-36
Average Queue	N=qr	veh	7.938	8.504	2.654	1.615	4.154	10.969	10.953	6.068
Average Queue Length	NL/n	metre	48	51	16	10	25	66	66	36
Average Queue	N=qr+No	veh	7.619	8.170	2.360	0.856	6.346	12.193	12.161	11.630
Average Queue Length	NL/n	metre	46	49	14	5	38	73	73	70
Average Queue Length		**metre**	**48**	**51**	**17**	**10**	**38**	**73**	**73**	**70**

Queue Length Analysis

SYSTRA MVA **MVA Hong Kong Ltd.**

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement) PM
Junction Name	J5 Ting Kok Rd/Dai Kwai St	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

		Unit	Movement							
			TKR EB SL	TKR EB 2 L	TKR EB 3 L	DKS NB SL	DKS NB 2 L	TKR WB SL	TKR WB 2 L	TKR WB 3 L
Cycle time	c	sec	120	120	120	120	120	120	120	120
Effective green time	g	sec	66	66	12	12	12	49	49	49
		pcu/hr	748	802	40	90	120	603	602	250
Design flow	q	veh/sec	0.160	0.171	0.009	0.019	0.026	0.129	0.129	0.053
		pcu/hr	1955	2095	1905	1785	1915	2095	2095	930
Saturation flow	Q	veh/sec	0.418	0.448	0.407	0.381	0.409	0.448	0.448	0.199
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.550	0.550	0.100	0.100	0.100	0.408	0.408	0.408
Degree of saturation	x		0.696	0.696	0.210	0.504	0.627	0.705	0.704	0.658
	M		19.179	20.564	1.026	2.308	3.077	15.462	15.436	6.410
	y		0.383	0.383	0.021	0.050	0.063	0.288	0.287	0.269
	Qt	veh/sec	206.779	221.587	36.635	34.327	36.827	164.511	164.511	73.029
	x<1									
	A	sec/veh	0.164	0.164	0.414	0.427	0.432	0.246	0.246	0.239
	B	sec/veh	0.795	0.797	0.028	0.256	0.526	0.842	0.836	0.634
	C	sec/veh	1.942	1.859	1.549	8.063	11.461	3.058	3.041	4.172
Average Queue Delay	D	sec/veh	23	22	51	56	61	33	33	36
	x>x'									
	Z		-0.304	-0.304	-0.790	-0.496	-0.373	-0.295	-0.296	-0.342
	X'		0.716	0.719	0.678	0.678	0.678	0.707	0.707	0.686
	No	veh	-0.100	-0.115	-0.951	-0.562	-0.214	-0.009	-0.014	-0.124
Average Queue Delay	D	sec/veh	19	19	26	36	47	29	29	27
Average Delay		**sec/veh**	**23**	**22**	**51**	**56**	**61**	**33**	**33**	**36**
Average Queue	N = q(r/2+d)	veh	7.945	8.479	0.900	2.124	2.946	8.822	8.802	3.842
Average Queue Length	NL/n	metre	48	51	5	13	18	53	53	23
Average Queue	N=qr	veh	8.631	9.254	0.923	2.077	2.769	9.148	9.133	3.793
Average Queue Length	NL/n	metre	52	56	6	12	17	55	55	23
Average Queue	N=qr+No	veh	8.530	9.139	-0.028	1.515	2.555	9.140	9.119	3.669
Average Queue Length	NL/n	metre	51	55	0	9	15	55	55	22
Average Queue Length		**metre**	**52**	**56**	**6**	**13**	**18**	**55**	**55**	**23**

Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement) AM
Junction Name	J6 Ting Kok Rd Access Rd to Fortune Garden	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

			Movement							
		Unit	SiteB SB	TKR WB SL	TKR WB 2 L	TKR WB 3 L	FG NB	TKR EB SL	TKR EB 2 L	TKR EB 3 L
Cycle time	c	sec	120	120	120	120	120	120	120	120
Effective green time	g	sec	7	46	46	18	11	61	61	10
		pcu/hr	40	596	639	5	15	440	475	10
Design flow	q	veh/sec	0.009	0.127	0.137	0.001	0.003	0.094	0.101	0.002
		pcu/hr	1770	1945	2085	1895	1800	1900	2055	1310
Saturation flow	Q	veh/sec	0.378	0.416	0.446	0.405	0.385	0.406	0.439	0.280
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.058	0.383	0.383	0.150	0.092	0.508	0.508	0.083
Degree of saturation	x		0.387	0.799	0.799	0.018	0.091	0.456	0.455	0.092
	M		1.026	15.282	16.385	0.128	0.385	11.282	12.179	0.256
	y		0.023	0.306	0.306	0.003	0.008	0.232	0.231	0.008
	Qt	veh/sec	19.856	143.381	153.702	54.663	31.731	185.737	200.889	20.994
	x<1									
	A	sec/veh	0.454	0.274	0.274	0.362	0.416	0.157	0.157	0.423
	B	sec/veh	0.123	1.593	1.594	0.000	0.005	0.191	0.190	0.005
	C	sec/veh	8.729	5.269	5.033	0.005	0.406	0.436	0.411	0.599
Average Queue Delay	D	sec/veh	60	40	40	44	51	20	20	52
	x>x'									
	Z		-0.613	-0.201	-0.201	-0.982	-0.909	-0.544	-0.545	-0.908
	X'		0.674	0.702	0.704	0.682	0.677	0.711	0.715	0.675
	No	veh	-0.811	0.695	0.683	-1.056	-1.042	-0.715	-0.725	-1.087
Average Queue Delay	D	sec/veh	18	37	37	26	20	15	16	4
Average Delay		**sec/veh**	**60**	**37**	**37**	**44**	**51**	**20**	**20**	**52**
Average Queue	N = q(r/2+d)	veh	0.996	9.823	10.451	0.101	0.338	4.698	5.057	0.229
Average Queue Length	NL/n	metre	6	59	63	1	2	28	30	1
Average Queue	N=qr	veh	0.966	9.424	10.104	0.109	0.349	5.547	5.988	0.235
Average Queue Length	NL/n	metre	6	57	61	1	2	33	36	1
Average Queue	N=qr+No	veh	0.155	10.119	10.787	-0.947	-0.693	4.832	5.264	-0.852
Average Queue Length	NL/n	metre	1	61	65	-6	-4	29	32	-5
Average Queue Length		**metre**	**6**	**61**	**65**	**1**	**2**	**33**	**36**	**1**

Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement) PM
Junction Name	J6 Ting Kok Rd Access Rd to Fortune Garden	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

			Movement							
		Unit	SiteB SB	TKR WB SL	TKR WB 2 L	TKR WB 3 L	FG NB	TKR EB SL	TKR EB 2 L	TKR EB 3 L
Cycle time	c	sec	120	120	120	120	120	120	120	120
Effective green time	g	sec	7	46	46	18	11	61	61	10
		pcu/hr	15	448	482	5	15	535	575	20
Design flow	q	veh/sec	0.003	0.096	0.103	0.001	0.003	0.114	0.123	0.004
		pcu/hr	1770	1940	2085	1895	1800	1910	2055	1310
Saturation flow	Q	veh/sec	0.378	0.415	0.446	0.405	0.385	0.408	0.439	0.280
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.058	0.383	0.383	0.150	0.092	0.508	0.508	0.083
Degree of saturation	x		0.145	0.602	0.603	0.018	0.091	0.551	0.550	0.183
	M		0.385	11.487	12.359	0.128	0.385	13.718	14.744	0.513
	y		0.008	0.231	0.231	0.003	0.008	0.280	0.280	0.015
	Qt	veh/sec	19.856	143.013	153.702	54.663	31.731	186.715	200.889	20.994
	x<1									
	A	sec/veh	0.447	0.247	0.247	0.362	0.416	0.168	0.168	0.427
	B	sec/veh	0.012	0.456	0.458	0.000	0.005	0.338	0.337	0.021
	C	sec/veh	1.773	2.105	2.013	0.005	0.406	0.909	0.862	2.015
Average Queue Delay	D	sec/veh	56	32	32	44	51	22	22	54
	x>x'									
	Z		-0.855	-0.398	-0.397	-0.982	-0.909	-0.449	-0.450	-0.817
	X'		0.674	0.702	0.704	0.682	0.677	0.711	0.715	0.675
	No	veh	-1.061	-0.380	-0.387	-1.056	-1.042	-0.543	-0.555	-1.025
Average Queue Delay	D	sec/veh	6	27	27	26	20	18	18	7
Average Delay		**sec/veh**	**56**	**32**	**32**	**44**	**51**	**22**	**22**	**54**
Average Queue	N = q(r/2+d)	veh	0.360	6.637	7.118	0.101	0.338	5.910	6.330	0.466
Average Queue Length	NL/n	metre	2	40	43	1	2	35	38	3
Average Queue	N=qr	veh	0.362	7.084	7.621	0.109	0.349	6.745	7.249	0.470
Average Queue Length	NL/n	metre	2	43	46	1	2	40	43	3
Average Queue	N=qr+No	veh	-0.699	6.704	7.234	-0.947	-0.693	6.202	6.694	-0.555
Average Queue Length	NL/n	metre	-4	40	43	-6	-4	37	40	-3
Average Queue Length		**metre**	**2**	**43**	**46**	**1**	**2**	**40**	**43**	**3**

Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement) AM
Junction Name	J7 Ting Kok Road / Lo Fai Road	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

			Movement						
		Unit	LFR SB SL	LFR SB 2 L	TKR WB 3 L	TKR WB 2 L	TKR WB SL	TKR EB SL	TKR EB 2 L
Cycle time	c	sec	120	120	120	120	120	120	120
Effective green time	g	sec	26	26	82	82	15	65	65
		pcu/hr	336	329	594	636	50	138	737
Design flow	q	veh/sec	0.072	0.070	0.127	0.136	0.011	0.029	0.157
		pcu/hr	1795	1760	1945	2085	1745	390	2085
Saturation flow	Q	veh/sec	0.384	0.376	0.416	0.446	0.373	0.083	0.446
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.217	0.217	0.683	0.683	0.125	0.542	0.542
Degree of saturation	x		0.864	0.863	0.447	0.446	0.229	0.653	0.653
	M		8.615	8.436	15.231	16.308	1.282	3.538	18.897
	y		0.187	0.187	0.305	0.305	0.029	0.354	0.353
	Qt	veh/sec	74.792	73.333	255.593	273.990	41.947	40.625	217.188
	x<1								
	A	sec/veh	0.377	0.377	0.072	0.072	0.394	0.163	0.162
	B	sec/veh	2.743	2.712	0.181	0.180	0.034	0.615	0.613
	C	sec/veh	11.823	11.940	0.162	0.154	1.383	4.524	1.474
Average Queue Delay	D	sec/veh	72	72	10	10	49	36	22
	x>x'								
	Z		-0.136	-0.137	-0.553	-0.554	-0.771	-0.347	-0.347
	X'		0.687	0.686	0.727	0.731	0.679	0.679	0.718
	No	veh	1.508	1.488	-0.767	-0.779	-0.929	-0.113	-0.286
Average Queue Delay	D	sec/veh	63	64	6	6	27	17	18
Average Delay		**sec/veh**	**63**	**64**	**10**	**10**	**49**	**36**	**22**
Average Queue	N = q(r/2+d)	veh	8.520	8.360	3.671	3.918	1.085	1.868	7.782
Average Queue Length	NL/n	metre	51	50	22	24	7	11	47
Average Queue	N=qr	veh	6.749	6.608	4.823	5.164	1.122	1.622	8.661
Average Queue Length	NL/n	metre	40	40	29	31	7	10	52
Average Queue	N=qr+No	veh	8.257	8.097	4.056	4.385	0.192	1.508	8.376
Average Queue Length	NL/n	metre	50	49	24	26	1	9	50
Average Queue Length		**metre**	**50**	**49**	**29**	**31**	**7**	**11**	**52**

Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement) PM
Junction Name	J7 Ting Kok Road / Lo Fai Road	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

		Unit	Movement						
			LFR SB SL	LFR SB 2 L	TKR WB 3 L	TKR WB 2 L	TKR WB SL	TKR EB SL	TKR EB 2 L
Cycle time	c	sec	120	120	120	120	120	120	120
Effective green time	g	sec	24	24	84	84	15	67	67
		pcu/hr	293	287	437	468	45	173	927
Design flow	q	veh/sec	0.063	0.061	0.093	0.100	0.010	0.037	0.198
		pcu/hr	1790	1760	1945	2085	1745	390	2085
Saturation flow	Q	veh/sec	0.382	0.376	0.416	0.446	0.373	0.083	0.446
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.200	0.200	0.700	0.700	0.125	0.558	0.558
Degree of saturation	x		0.818	0.815	0.321	0.321	0.206	0.794	0.796
	M		7.513	7.359	11.205	12.000	1.154	4.436	23.769
	y		0.164	0.163	0.225	0.224	0.026	0.444	0.445
	Qt	veh/sec	68.846	67.692	261.827	280.673	41.947	41.875	223.870
	x<1								
	A	sec/veh	0.383	0.382	0.058	0.058	0.393	0.175	0.176
	B	sec/veh	1.845	1.800	0.076	0.076	0.027	1.536	1.557
	C	sec/veh	11.148	11.175	0.030	0.029	1.125	9.595	3.168
Average Queue Delay	D	sec/veh	64	64	8	8	49	53	26
	x>x'								
	Z		-0.182	-0.185	-0.679	-0.679	-0.794	-0.206	-0.204
	X'		0.685	0.685	0.728	0.732	0.679	0.679	0.720
	No	veh	0.954	0.922	-0.909	-0.918	-0.948	0.720	0.550
Average Queue Delay	D	sec/veh	58	58	4	4	27	37	23
Average Delay		**sec/veh**	**58**	**58**	**8**	**8**	**49**	**37**	**23**
Average Queue	N = q(r/2+d)	veh	7.026	6.872	2.404	2.569	0.974	2.938	10.352
Average Queue Length	NL/n	metre	42	41	14	15	6	18	62
Average Queue	N=qr	veh	6.010	5.887	3.362	3.600	1.010	1.959	10.498
Average Queue Length	NL/n	metre	36	35	20	22	6	12	63
Average Queue	N=qr+No	veh	6.964	6.809	2.453	2.682	0.062	2.679	11.049
Average Queue Length	NL/n	metre	42	41	15	16	0	16	66
Average Queue Length		**metre**	**42**	**41**	**20**	**22**	**6**	**16**	**66**

Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement with J4 further improvement) AM
Junction Name	J8 Ting Kok Road / Fung Yuen Road	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

		Unit	Movement						
			TKR EB SL	TKR EB 2 L	FYR SB SL	FYR SB 2 L	TKR WB SL	TKR WB 2 L	TKR WB 3 L
Cycle time	c	sec	120	120	120	120	120	120	120
Effective green time	g	sec	61	61	12	12	73	73	7
		pcu/hr	898	987	164	176	903	967	35
Design flow	q	veh/sec	0.192	0.211	0.035	0.038	0.193	0.207	0.007
		pcu/hr	1915	2105	1850	1980	1945	2085	1010
Saturation flow	Q	veh/sec	0.409	0.450	0.395	0.423	0.416	0.446	0.216
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.508	0.508	0.100	0.100	0.608	0.608	0.058
Degree of saturation	x		0.922	0.922	0.886	0.889	0.763	0.762	0.594
	M		23.026	25.308	4.205	4.513	23.154	24.795	0.897
	y		0.469	0.469	0.089	0.089	0.464	0.464	0.035
	Qt	veh/sec	187.204	205.777	35.577	38.077	227.540	243.918	11.330
	x<1								
	A	sec/veh	0.228	0.228	0.444	0.445	0.143	0.143	0.459
	B	sec/veh	5.489	5.482	3.462	3.556	1.230	1.223	0.435
	C	sec/veh	6.680	6.270	22.152	21.277	2.458	2.336	25.417
Average Queue Delay	D	sec/veh	49	47	130	127	21	21	88
	x>x'								
	Z		-0.078	-0.078	-0.114	-0.111	-0.237	-0.238	-0.406
	X'		0.712	0.716	0.678	0.678	0.721	0.724	0.673
	No	veh	2.912	2.924	1.556	1.612	0.267	0.239	-0.340
Average Queue Delay	D	sec/veh	41	40	93	91	18	18	28
Average Delay		**sec/veh**	**41**	**40**	**93**	**91**	**18**	**18**	**88**
Average Queue	N = q(r/2+d)	veh	15.108	16.140	6.446	6.792	8.605	9.143	1.079
Average Queue Length	NL/n	metre	91	97	39	41	52	55	6
Average Queue	N=qr	veh	11.321	12.443	3.785	4.062	9.069	9.711	0.845
Average Queue Length	NL/n	metre	68	75	23	24	54	58	5
Average Queue	N=qr+No	veh	14.233	15.367	5.341	5.674	9.336	9.950	0.505
Average Queue Length	NL/n	metre	85	92	32	34	56	60	3
Average Queue Length		**metre**	**85**	**92**	**32**	**34**	**56**	**60**	**6**

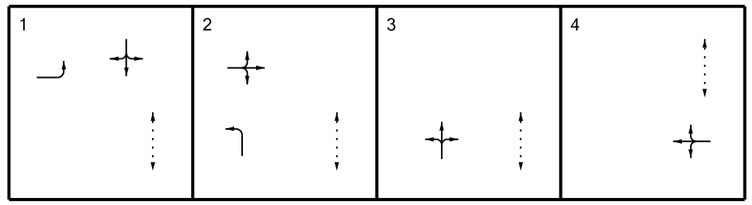
Queue Length Analysis

MVA Hong Kong Ltd.

Job No.	CHK50539711	Description	All bound
Job Title	Land Sharing Pilot Scheme at UDWYT Lot 14 RP and Lot 11 RP, Tai Po	Design Year	2036 Design Weekday (Improvement with J4 further improvement) PM
Junction Name	J8 Ting Kok Road / Fung Yuen Road	Designed By	TLY
Approach	All bound	Checked By	TKM
Probability(1% / 5%)?	5%		

			Movement						
		Unit	TKR EB SL	TKR EB 2 L	FYR SB SL	FYR SB 2 L	TKR WB SL	TKR WB 2 L	TKR WB 3 L
Cycle time	c	sec	120	120	120	120	120	120	120
Effective green time	g	sec	62	62	12	12	73	73	6
		pcu/hr	934	1031	123	132	743	797	10
Design flow	q	veh/sec	0.200	0.220	0.026	0.028	0.159	0.170	0.002
		pcu/hr	1905	2105	1840	1980	1945	2085	1010
Saturation flow	Q	veh/sec	0.407	0.450	0.393	0.423	0.416	0.446	0.216
PCU factor	f	pcu/veh	1.3	1.3	1.3	1.3	1.3	1.3	1.3
No. of lanes	n	lane	1	1	1	1	1	1	1
Length of a vehicle	L	metre	6	6	6	6	6	6	6
Queue duration	t	hr	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
Ratio of effective green	g/c		0.517	0.517	0.100	0.100	0.608	0.608	0.050
Degree of saturation	x		0.949	0.948	0.668	0.667	0.628	0.628	0.198
	M		23.949	26.436	3.154	3.385	19.051	20.436	0.256
	y		0.490	0.490	0.067	0.067	0.382	0.382	0.010
	Qt	veh/sec	189.279	209.151	35.385	38.077	227.540	243.918	9.712
	x<1								
	A	sec/veh	0.229	0.229	0.434	0.434	0.124	0.124	0.456
	B	sec/veh	8.819	8.636	0.674	0.667	0.530	0.531	0.024
	C	sec/veh	7.384	6.880	13.251	12.556	1.047	1.003	5.055
Average Queue Delay	D	sec/veh	64	60	64	63	17	17	61
	x>x'								
	Z		-0.051	-0.052	-0.332	-0.333	-0.372	-0.372	-0.802
	X'		0.712	0.716	0.678	0.678	0.721	0.724	0.672
	No	veh	3.866	3.891	-0.043	-0.054	-0.377	-0.390	-1.366
Average Queue Delay	D	sec/veh	46	44	51	51	13	13	-72
Average Delay		**sec/veh**	**46**	**44**	**64**	**63**	**17**	**17**	**61**
Average Queue	N = q(r/2+d)	veh	18.621	19.561	3.114	3.304	6.459	6.900	0.252
Average Queue Length	NL/n	metre	112	117	19	20	39	41	2
Average Queue	N=qr	veh	11.575	12.777	2.838	3.046	7.462	8.004	0.244
Average Queue Length	NL/n	metre	69	77	17	18	45	48	1
Average Queue	N=qr+No	veh	15.441	16.669	2.796	2.993	7.085	7.614	-1.122
Average Queue Length	NL/n	metre	93	100	17	18	43	46	-7
Average Queue Length		**metre**	**93**	**100**	**19**	**20**	**45**	**48**	**2**

EXISTING METHOD OF CONTROL



Queue Length for J1 Ting Kok Road/Yuen Shin Road/Dai Fuk Street with J4 Further Improvement Scheme in 2036

Scale 1:1000

Drawing no. D1

休憩場地
Sitting-out Area

羽毛球場
Badminton Court

道路
Road

籃球場
Basketball Court

足球場
Football Field

善翠樓
Shin Tsui House

港九街坊婦女會
孫方中小學
H.K. & Kln. Kaifong Women's Association
Sun Fong Chung Primary School

停車場
Car Park

完善公園
YUEN SHIN PARK

香港道教聯合會
圓玄學院第二中學
Hong Kong Taoist Association
The Yuen Yuen Institute No.2
Secondary School

大埔海濱公園
TAI PO WATERFRONT PARK

草地滾球場
Bowling Green

模型船水池
Model Boat Pool

YUEN SHIN ROAD

DAI FAT STREET

NTE/TP/YueShi-P07

NTE/TP/YueShi-P04

NTE/TP/YueShi-05

NTE/TP/DaiFat-P01

NTE/TP/YueShi-X06a

Legend:

AM average queue length

PM average queue length

METHOD OF CONTROL

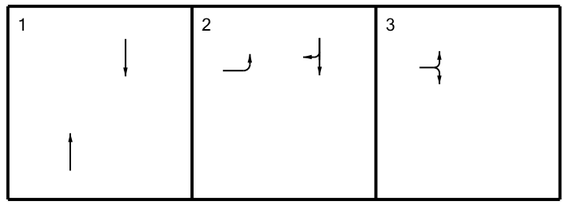
1 2 3

Queue Length for J2 Yuen Shin Road/Dai Fat Street with J4 Further Improvement Scheme in 2036

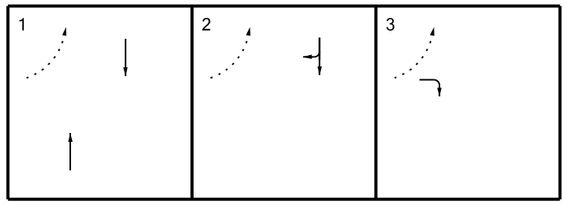
Scale 1:1000

Drawing no. D2

EXISTING METHOD OF CONTROL



PROPOSED METHOD OF CONTROL



YUEN SHIN ROAD

TAI PO TAI WO ROAD

Legend:
- AM average queue length
- PM average queue length

Queue Length for J3 Tai Po Tai Wo Road/Yuen Shin Road with J4 Further Improvement Scheme in 2036

Scale 1:1000

Drawing no. D3

TING KOK ROAD

DAI FAT STREET

香港園藝學會
65
Society of Horticulture, Hong Kong

Tai Po Waterfront Park
大埔海濱公園
TK-25
(DRG. HT 4137 REFERS)

NTE/TP/TinKok-01

NTE/TP/TinKok-02

Tai Po
大埔
Kowloon
九龍

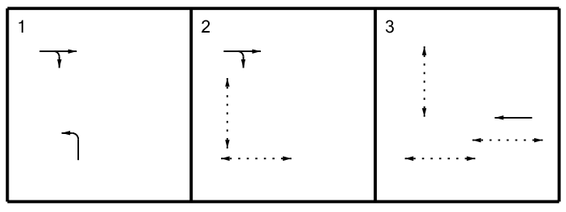
SHR
INC

TS

Cyc
Cycling Track
單車徑
F/w & Cy/w
Cy/w & F/w
Cyt Dism 483
S-Rd
⊗8-10.17-19S
⊗8-10.17-19R
⊗End
Cyt Dism Ped Xing
BUS STOP
巴士站
NLT
Wt 5.5 Tonnes
Wt 5.5 Tonnes

高寶德洋行有限公司
Jackel Porter Co., Ltd.
Nifco

EXISTING METHOD OF CONTROL

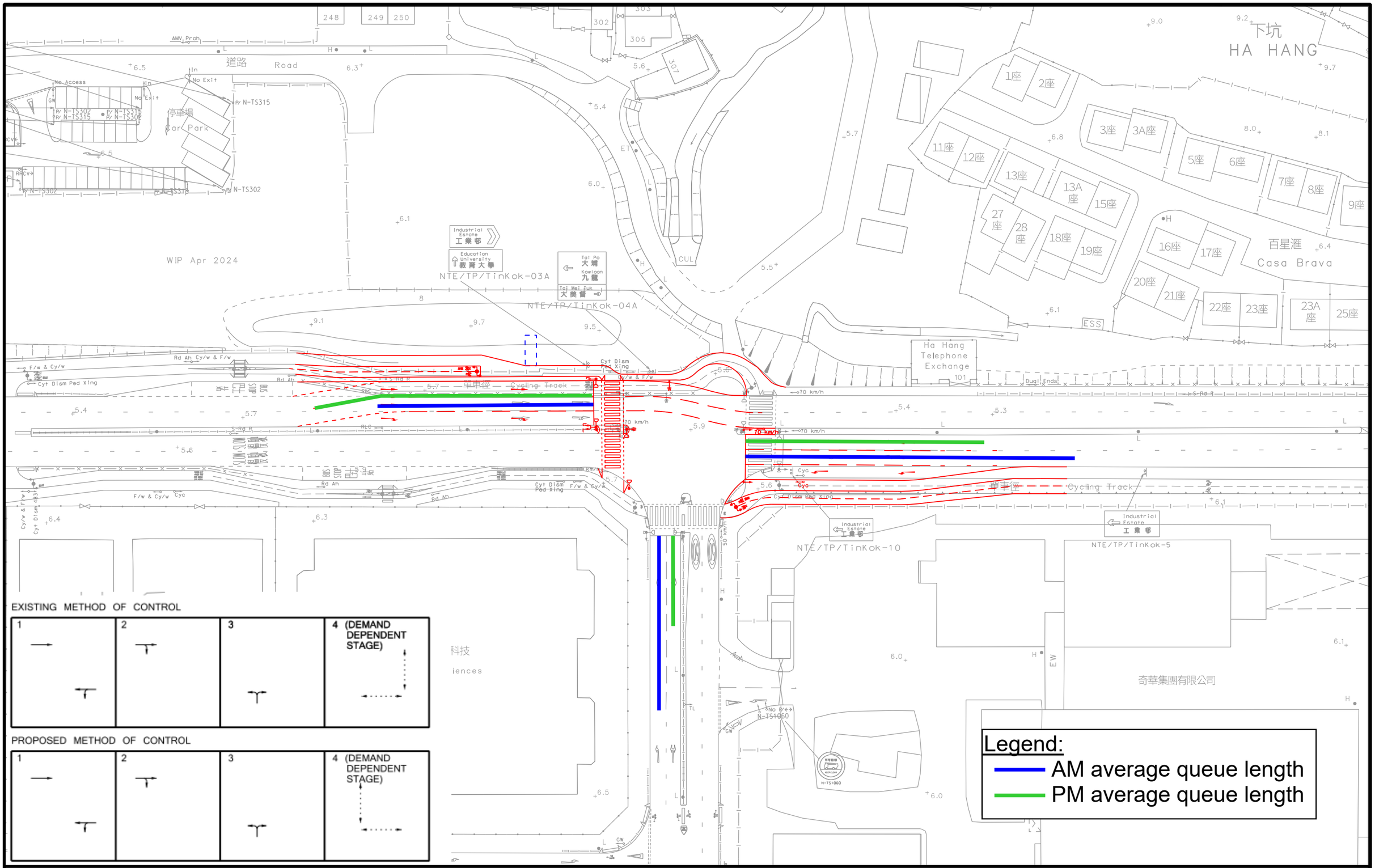


Legend:
AM average queue length
PM average queue length

Queue Length for J4 Ting Kok Road/Dai Fat Street with Further Improvement Scheme in 2036

Scale 1:500

Drawing no. D4

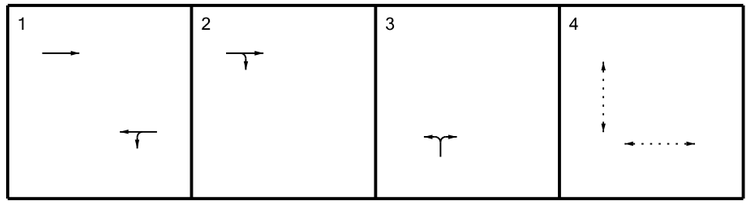


Queue Length for J5 Ting Kok Road/Dai Kwai Street Improvement Scheme in 2036

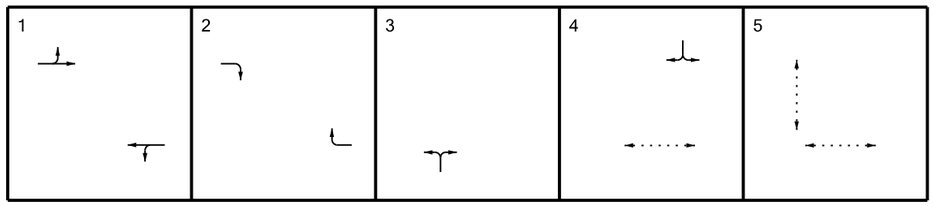
Scale 1:800

Drawing no. D7

EXISTING METHOD OF CONTROL



PROPOSED METHOD OF CONTROL



SITE B
11RP

TING KOK ROAD

Legend:
AM average queue length
PM average queue length

Queue Length for J6 Ting Kok Road outside Fortune Garden Improvement Scheme in 2036

Scale 1:500

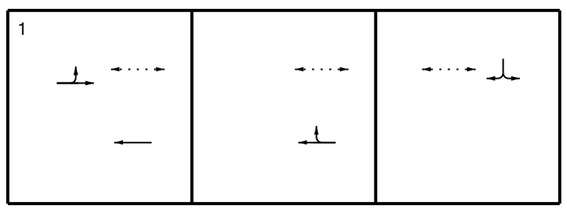
Drawing no. D8

TING KOK ROAD

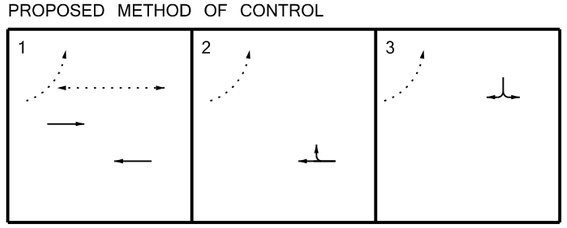
LO FAI ROAD

SITE A
14RP

EXISTING METHOD OF CONTROL



PROPOSED METHOD OF CONTROL

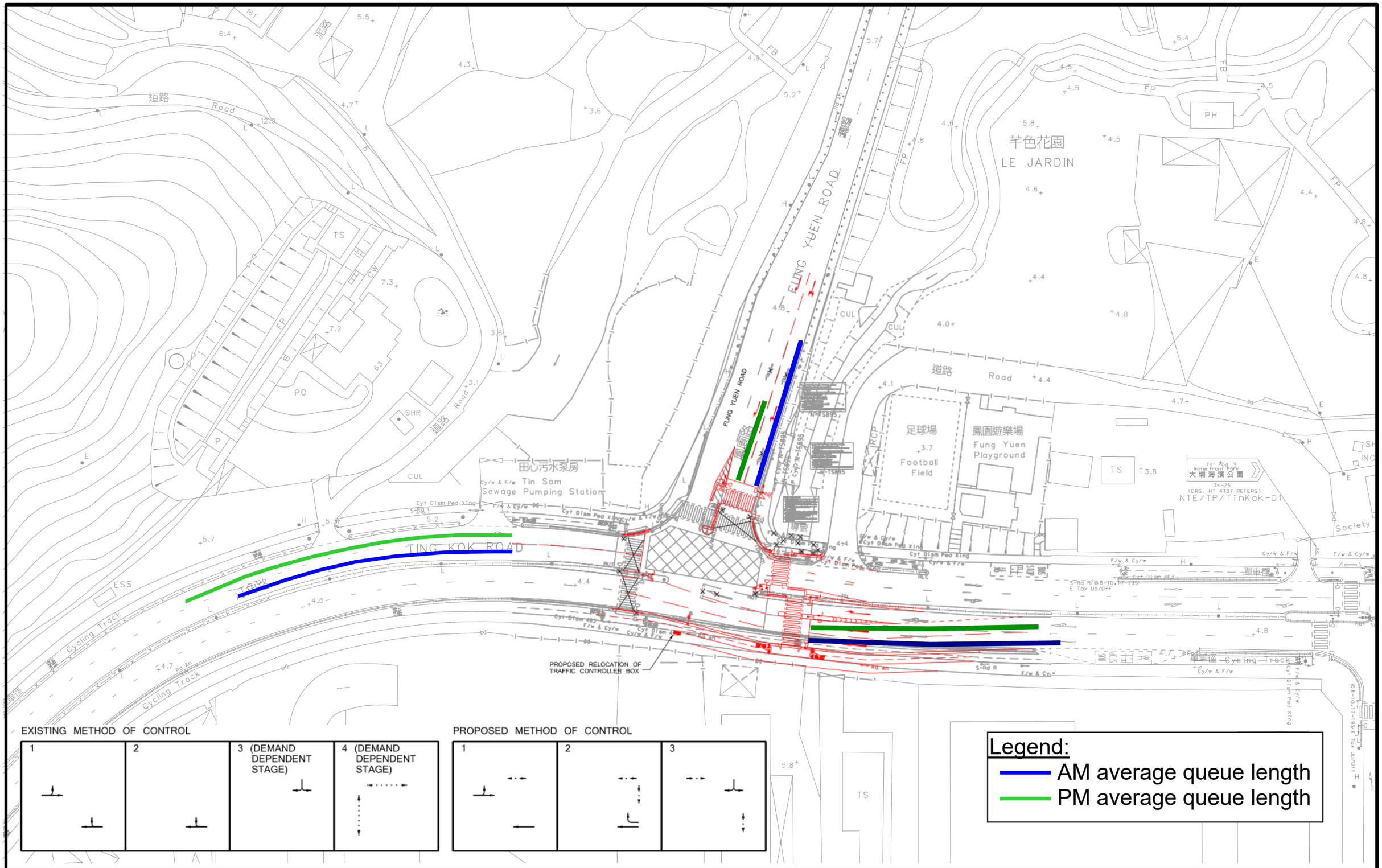


Legend:
- AM average queue length
- PM average queue length

Queue Length for J7 Ting Kok Road/Lo Fai Road Improvement Scheme in 2036

Scale 1:500

Drawing no. D9



Queue Length for J8 Ting Kok Road/Fung Yuen Road with J4 Further Improvement Scheme in 2036

Scale 1:800

Drawing no. D10

APPENDIX E Definition of Level-of-Service (LOS) in Pedestrian Walkway Systems

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

Source: Highway Capacity Manual (HCM) 2000

APPENDIX F

TIME DATA PLAN

Time Data Plan

J1	Existing		120s cycle time	
	AM	PM	AM	PM
1	37	30	44	38
2	21	22	25	28
3	19	21	23	26
4	23	23	28	29
	100	96	120	120

J2	Existing		120s cycle time	
	AM	PM	AM	PM
1	37	39	44	49
2	37	36	44	45
3	26	21	31	26
	100	96	120	120

J3	Existing		120s cycle time	
	AM	PM	AM	PM
1	31	29	37	36
2	35	42	42	53
3	34	25	41	31
	100	96	120	120

J4	Existing		120s cycle time	
	AM	PM	AM	PM
1	34	32	41	40
2	19	20	23	25
3	47	44	56	55
	100	96	120	120

J5	Existing		120s cycle time	
	AM	PM	AM	PM
1	53	33	53	41
2	20	14	20	18
3	19	18	19	23
4	28	31	28	39
	120	96	120	120

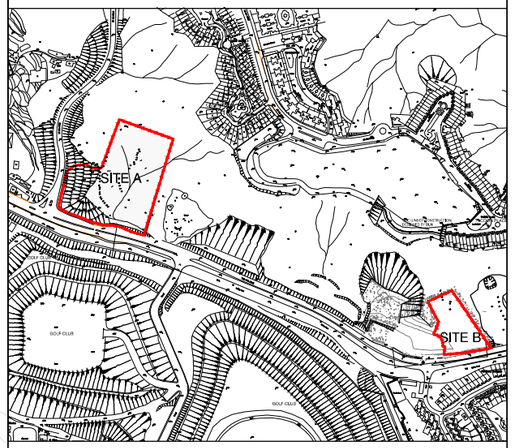
J6	Existing		120s cycle time	
	AM	PM	AM	PM
1	43	42	63	63
2	15	15	10	10
3	17	16	14	14
4	25	23	14	14
5			19	19
	100	96	120	120

J7	Existing		120s cycle time	
	AM	PM	AM	PM
1	69	54	69	68
2	19	16	19	20
3	32	26	32	33
	120	96	120	120

J8	Existing		120s cycle time	
	AM	PM	AM	PM
1	46	42	55	53
2	13	13	16	16
3	16	16	19	20
4	25	25	30	31
	100	96	120	120

APPENDIX G

LAYOUT OF THE FOOTPATH WITHIN SITES A & B



SITE KEY PLAN

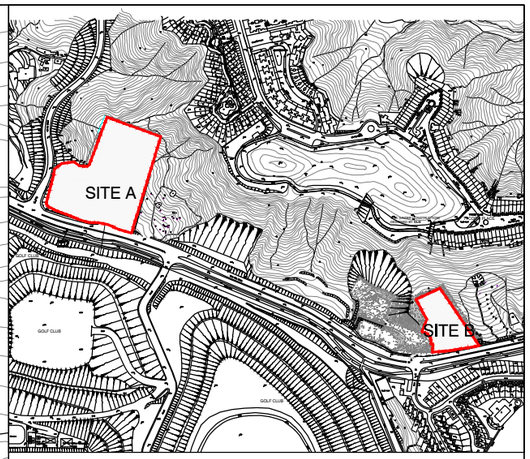
DATE:20241220

LEGEND

- PROPOSED SITE BOUNDARY
- PROPOSED INGRESS AND EGRESS
- PEDESTRIAN FOOTPATH

Site A - Master Layout Plan

Scale 1:1000 (A3)



SITE KEY PLAN

+20.5 mPD
+78.20 mPD
+20.5 mPD
+16.00 mPD
+16.00 mPD
+27.60 mPD
+14.50 mPD
Excluded Grave
RC RETAINING WALL
PROPOSED 30 DEG. CUT SLOPE
13M 3.5M
EVA
TING KOK ROAD
Cycling Track
FORTUNE GARDEN
Graves
Tennis Court
Road
FP
TS
CUL
N
S

LEGEND:

PROPOSED SITE BOUNDARY

PEDESTRIAN FOOTPATH

PROPOSED INGRESS AND EGRESS

Site B - Master Layout Plan
Scale 1:1000 (A3)

Unsurveyed District at Wong Yue Tan Lot 11 RP and adjoining Government Land ("Site B")

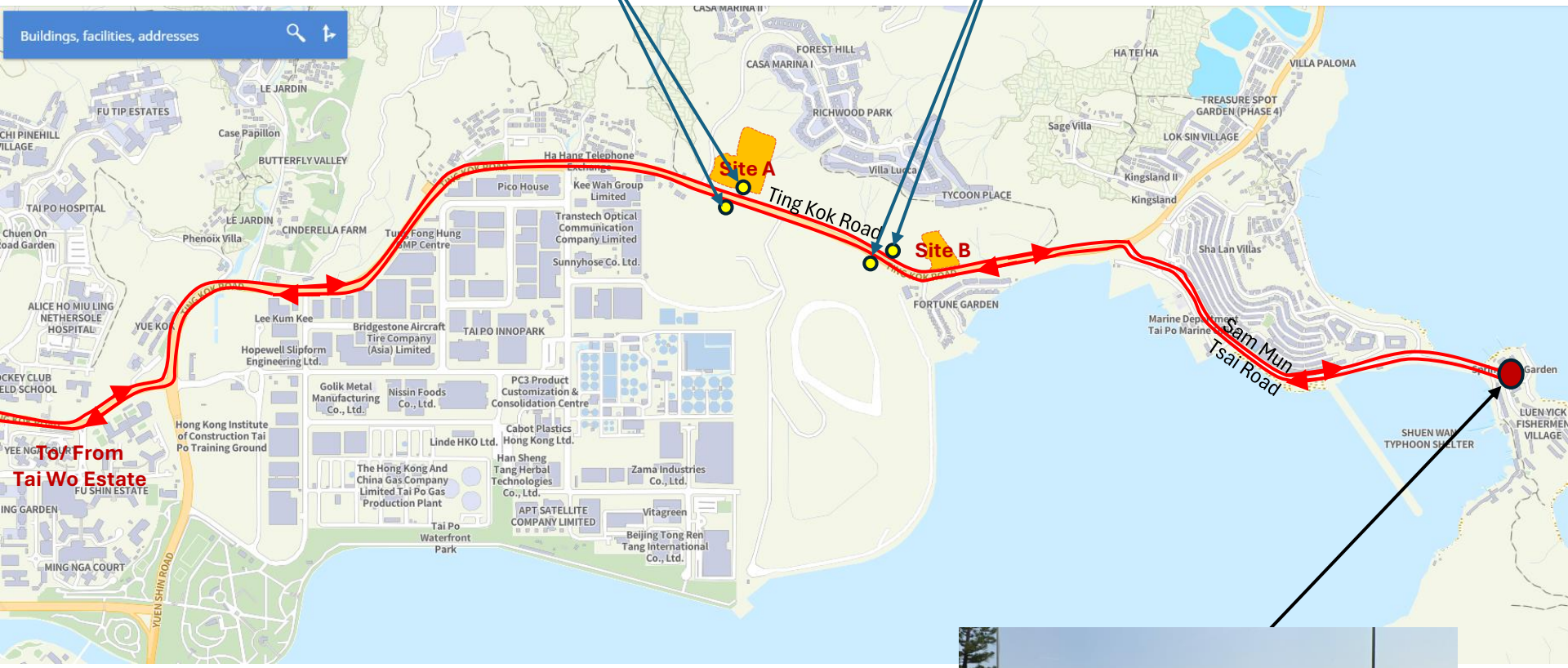
H:\Dwgs\ACAD\Sketches\SK-09\2024-10-15 (11RP & 14RP Section & Flat Mix)(CAD & PDF)\CAD\11RP_MLP_Footpath.dwg, 1:1, Project No.: N3001-H

APPENDIX H

PRELIMINARY ROUTING AND TERMINAL LOCATION FOR THE NEW BUS ROUTE

Propose Bus Stop using existing bus stop lay-by at Ting Kok Road (Eastbound & Westbound) adjacent to Site A / Lo Fai Road

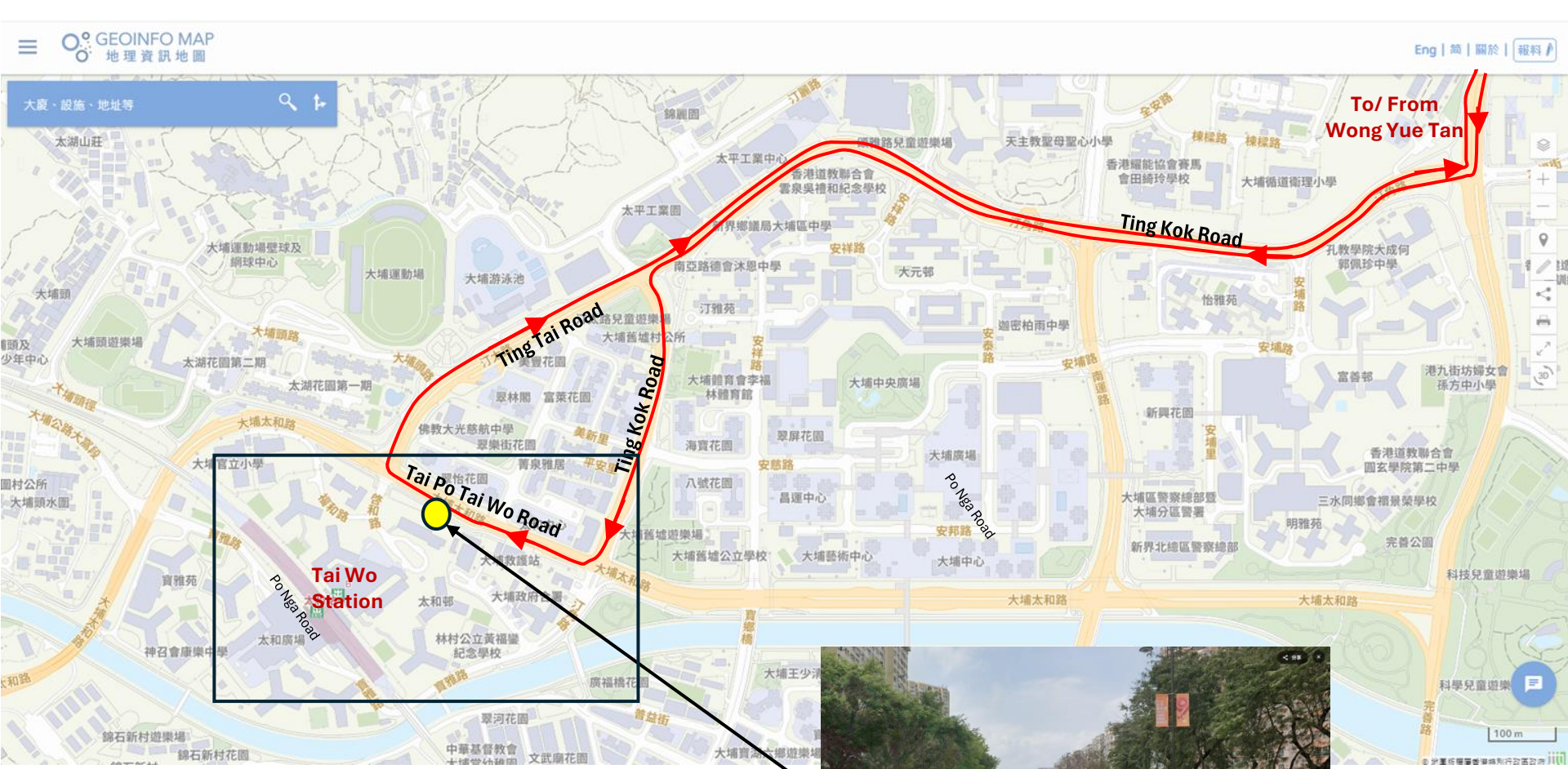
Propose Bus Stop using existing bus stop lay-by at Ting Kok Road (Eastbound & Westbound) adjacent to Site B & Fortune Garden



Legend:

- Proposed Bus Routing
- Propose Bus Terminus

Propose Terminus at Sam Mun Tsai (74K bus stop)



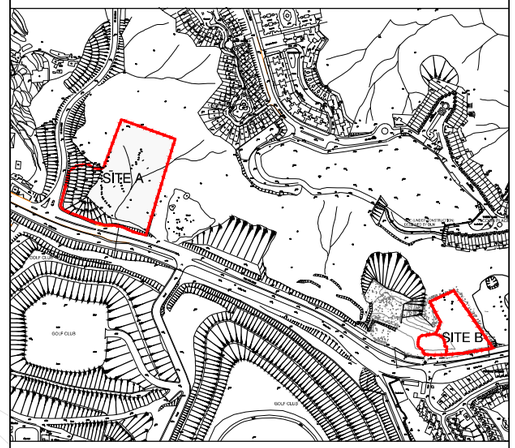
Propose circular route bus stop at Tai Po Tai Wo Road (outside Tai Wo Estate Hang Wo House)

Legend:

- Proposed Bus Routing
- Proposed Bus Stop

APPENDIX I

PROPOSED LOCATION OF THE VEHICULAR ACCESS GATE



SITE KEY PLAN

COMPENSATORY PLANTING AREA FOR WHIP TREES

COMPENSATORY PLANTING AREA FOR WHIP TREES

Proposed Vehicular Access Gate Location

LO FAI ROAD

TING KOK ROAD

T1

T2

T3

T4

T5

CARPARK

SHUTTLE LIFT

+83.00 mPD

+28.00 mPD

+19.00 mPD

+80.00 mPD

+27.00 mPD

+36.00 mPD

+18.50

+15.00

≥15m

≥10m

≥5m

≥5M

A passenger lift and stairs for residents will be provided for direct access to Ting Kok Road footpath

Graves

Cycling Track

FP

DATE:20250212

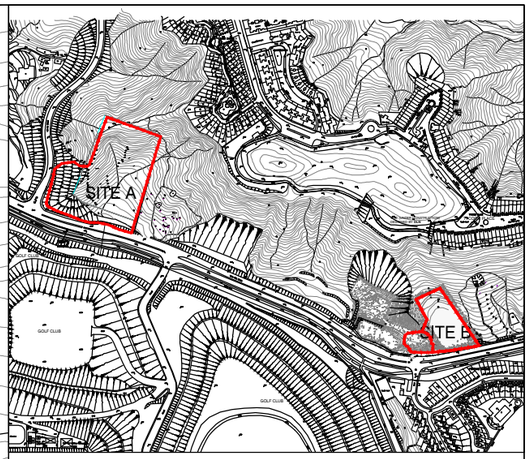
LEGEND

- PROPOSED SITE BOUNDARY
- PROPOSED INGRESS AND EGRESS
- PROPOSED WHIP TREE PLANTING AREA

Site A - Master Layout Plan

Scale 1:1000 (A3)

H:\Dwgs\ACAD\Sketches\SK-09\2025-02-12(11RP & 14RP Section & Flat Mix)(CAD & PDF) _REVISE\14RP_MLP(Planning Department).dwg, 1:1, Project No.: N3001-H



SITE KEY PLAN

COMPENSATORY
PLANTING AREA
FOR WHIP TREES

+20.5 mPD

+78.20 mPD

+20.5 mPD

+16.00 mPD

+16.00 mPD

+27.60 mPD

+14.50 mPD

EVA

Proposed Vehicular
Access Gate Location

TING KOK ROAD

Graves

FP

Cycling Track

FORTUNE GARDEN

Tennis Court

Road

LEGEND:

- PROPOSED REZONING SITE BOUNDARY
- PROPOSED DEVELOPMENT SITE BOUNDARY
- PROPOSED INGRESS AND EGRESS
- PROPOSED WHIP TREE PLANTING AREA

Site B - Master Layout Plan
Scale 1:1000 (A3)