Annex I – Result of The Traffic Count Survey

1)   Existing Nearby Road Network

1.1   The application site (the Site) is accessible from Ping Che Road via the aforesaid local access.

1.2   The existing local access that connects the Site to Ping Che Road is a village track. Ping Che Road is district distributor which provides major access for traffic commuting to/from Ta Kwu Ling and other areas of North East New Territories.

2)   Existing Traffic Flows with the Proposed Development

2.1   In order to gain understanding of the existing traffic condition of the vicinity of the Site, traffic count surveys were conducted at the key locations on 29/5/2024 (Wednesday) PM and 30/5/2024 (Thursday) AM with survey period of 07:00 – 10:00 and 16:00 – 19:00. The AM and PM peak hours are identified to occur at 08:00 – 09:00 and 17:00 – 18:00 respectively. The survey results are shown at **Tables 1** and **2** below and **Figures 1 and 2**:

Table 1: 2024 Peak Hour Junction Capacity Performance (w/o the proposed development)

Junction No.	Location	DFC for AM Peak	DFC for PM Peak
J1	Ping Che Road / Local Access	0.04[#]	0.03[#]

[#]Please refer to the junction capacity performance calculation at **Annex II**.

Table 2: 2024 Peak Hour Road Link Performance (w/o the proposed development)

Link No.	Location	Direction	Design Capacity	AM Peak		PM Peak	
				Flows[#] (veh/hr)	P/Df	Flows (veh/hr)	P/Df
L1	Ping Che Road	NB	400*	193	0.48	183	0.46
		SB	400*	184	0.46	175	0.44
L2	Ping Che Road	NB	400*	195	0.49	185	0.46
		SB	400*	185	0.46	176	0.44
L3	Local Access	2-way	100	37	0.37	31	0.31

*According to TPDM 2.4.1.1, the design flow of a 2-lane single carriageway may be taken as 800 veh/h

[#]According to TPDM 2.3.1.1, flow (vehicle/hr) has been converted to passenger car units

2.2   The traffic count results indicate that the key link flows in the vicinity of the proposed development are currently operating <u>within</u> capacity during the AM and PM peak hour.

3)   Trip Generation and Attraction of the Proposed Development

3.1   The applicant has been a warehouse operator for decades and intends to operate the proposed development at the Site to provide more local storage space to support the local warehousing and logistics industry. According to the applicant, the below **Table 3** is the estimated trip

generation and attraction of the proposed development at 08:00 – 09:00 and 17:00 – 18:00, details are as follows:

Table 3: Trip Generation and Attraction of the Proposed Development

Time Period	Trip Generation and Attraction						
	PC		MGV		CV/T		2-Way
	In	Out	In	Out	In	Out	Total
Trips at 08:00 – 09:00	2	0	0	2	0	3	7
Trips at 17:00 – 18:00	0	2	2	0	3	0	7

#According to TPDM 2.3.1.1, flow of vehicle has been converted to passenger car units

4) Future Traffic Situation with the Proposed Development

4.1 Based on the results of the traffic count survey on the existing peak hours traffic flows with the accumulation of the estimated peak hour traffic generation and attraction by the proposed development, the peak hour traffic flows with the proposed development are shown at **Tables 4 and 5** below and **Figure 2**:

Table 4: 2024 Peak Hour Junction Capacity Performance (with the proposed development)

Junction No.	Location	DFC for AM Peak	DFC for PM Peak
J1	Ping Che Road / Local Access	*0.05*#	*0.04*#

#Please refer to the junction capacity performance calculation at **Annex II**.

Table 5: 2024 Peak Hour Road Link Performance (with the proposed development)

Link No.	Location	Direction	Design Capacity	AM Peak		PM Peak	
				Flows (veh/hr)	P/Df	Flows (veh/hr)	P/Df
L1	Ping Che Road	NB	400*	*198 (+5)*	*0.50*	183	0.41
		SB	400*	184	0.41	*180 (+5)*	*0.45*
L2	Ping Che Road	NB	400*	*197 (+2)*	*0.49*	185	0.42
		SB	400*	185	0.41	*178 (+2)*	*0.45*
L3	Local Access	2-way	100	*44 (+7)*	*0.44*	*38 (+7)*	*0.38*

*According to TPDM 2.4.1.1, the design flow of a 2-lane single carriageway may be taken as 800 veh/h

4.2 As advised by the applicant, goods vehicle would likely enter/leave the Site from/towards Heung Yuen Wai Highway, while private car would likely enter/leave the Site from/towards Sha Tau Kok Road (Ma Mei Ha). Therefore, vehicular trips are added to respective road links at AM and PM peak.

4.3   The results shown at **Tables 4, 5** and **Annex II** indicate that all the link flows in the vicinity of the proposed development would be operating <u>within</u> capacity during the AM and PM peak hour even with the estimated peak hours trips from the proposed development.

4.4   Furthermore, passing areas are also provided along the local access connecting the Site to Ping Che Road, hence, adverse traffic impact arisen from the proposed development to the surrounding road network should not be anticipated (**Annex III**).

Figure 1 – Observed 2024 Peak Hour Traffic Flows (without the Proposed Development)

1) The AM and PM peak hours are identified to occur at 08:00 – 09:00 and 17:00 – 18:00 respectively.

Application Site

Legend

J1	Junction No.
<- L1 ->	Link No.
9	AM Peak Hour Traffic Flows
(8)	(PM Peak Hour Traffic Flows)
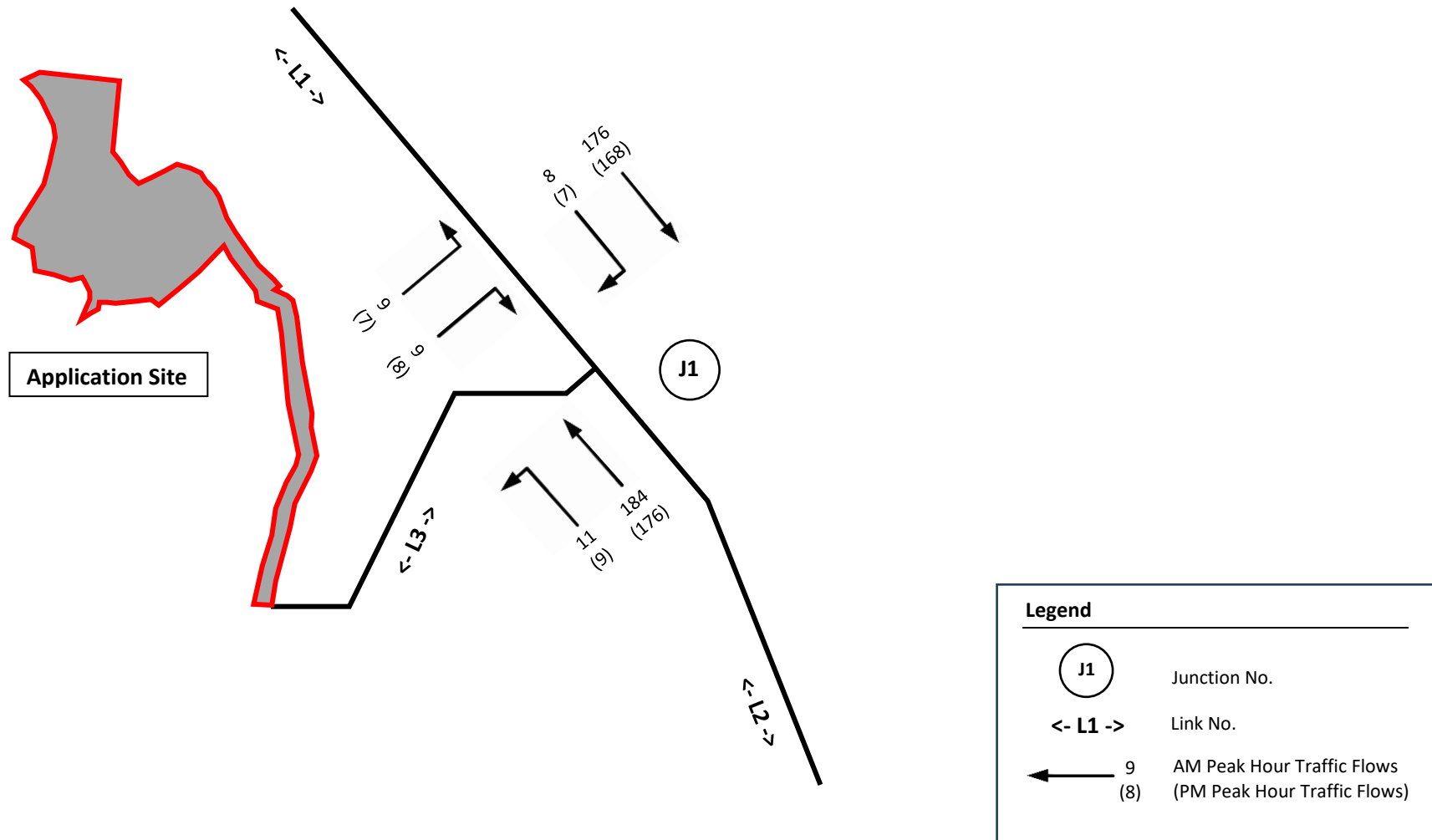
Figure 2 – Future 2024 Peak Hour Traffic Flows (with the Proposed Development)

1) The AM and PM peak hours are identified to occur at 08:00 – 09:00 and 17:00 – 18:00 respectively.

Application Site

J1

176
(168)

8
(**12**), +5

14, +5
(7)

9
(**10**), +2

184
(176)

13, +2
(9)

<- L1 ->

<- L3 ->

<- L2 ->

Legend

J1	Junction No.
<- L1 ->	Link No.
9 (8)	AM Peak Hour Traffic Flows (PM Peak Hour Traffic Flows)
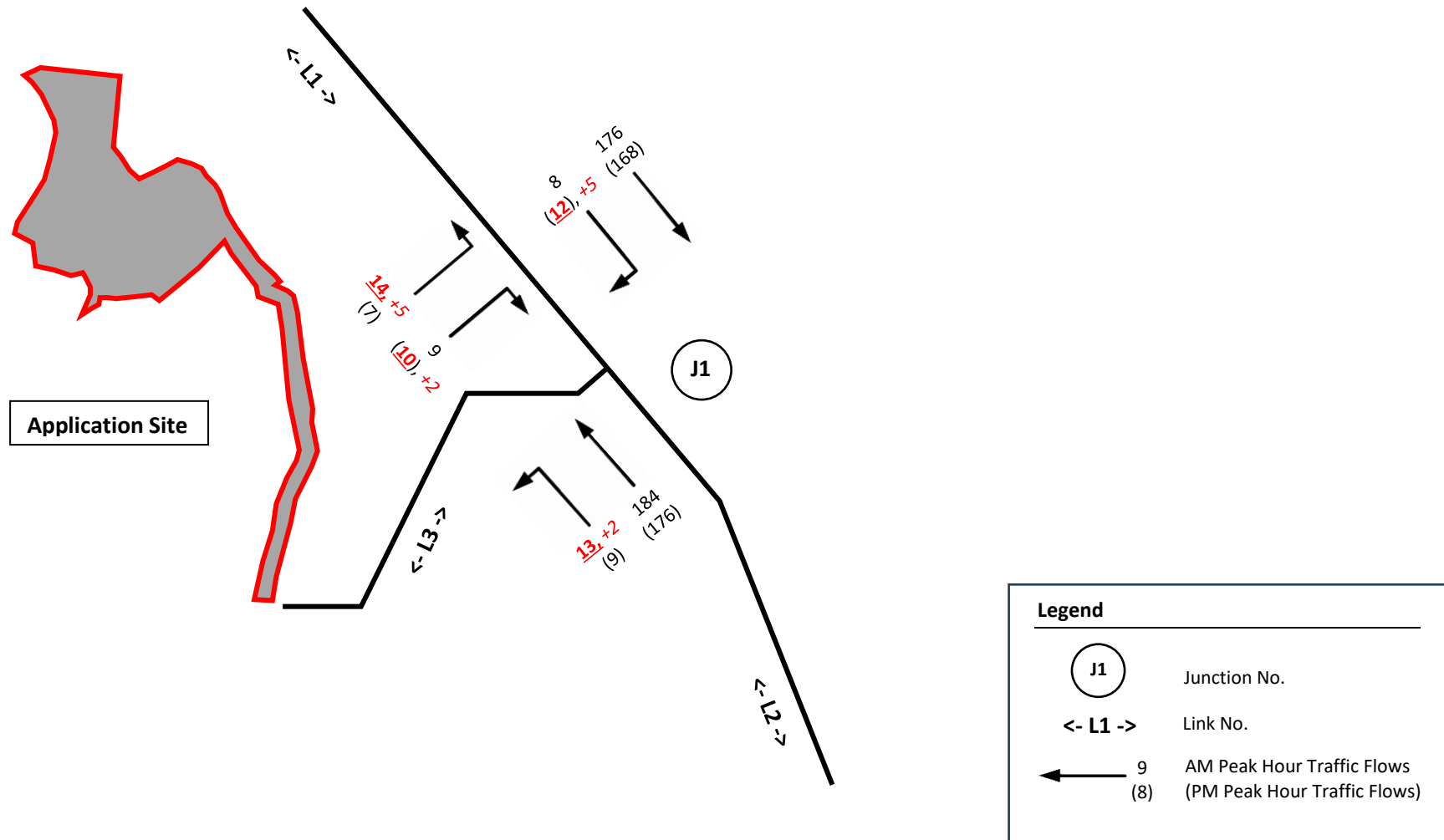
Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years and Associated Filling of Land in "Agricutlure" and "Industrial (Group D)" Zones, Various Lots in D.D. 84, Ta Kwu Ling, New Territories
S.16 Planning Application No. A/NE-TKL/757

Priority Junction Calculation
2024 AM Peak (w/o the proposed development)

Geomatric details:				**Geometric factors:**			**The capacity of movement:**			**Comparison of design flow to capacity:**		

Geomatric details:

Major Road (Arm A)

W	=	6.3	metres	D	=	0.8659	Q b-a	=	466.3031	DFC b-a	=	0.0193
W cr	=	0	metres	E	=	0.8899	Q b-c	=	615.2175	DFC b-c	=	0.0146
q a-b	=	11	pcu/hr	F	=	0.8647	Q c-b	=	596.1376	DFC c-b	=	0.0134
q a-c	=	184	pcu/hr	Y	=	0.7827	Q b-ac	=	466.3031	DFC b-ac (share lane)	=	0.0386

Major Road (Arm C)

W c-b	=	3.1	metres
Vr c-b	=	22	metres
q c-a	=	176	pcu/hr
q c-b	=	8	pcu/hr

Total flow = 397 pcu/hr

Critical DFC = 0.04

Minor Road (Arm B)

W b-a	=	3	metres
W b-c	=	3	metres
Vl b-a	=	105	metres
Vr b-a	=	62	metres
Vr b-c	=	62	metres
q b-a	=	9	pcu/hr
q b-c	=	9	pcu/hr

```
                              (8)  (7)
                               9    9   Local Access
                                        (Arm B)

        (9) 11      →
       (176) 184    →
                                           ↑  ——— 8 (7)
                                           ←  ——— 176 (168)
        Ping Che Road        Ping Che Road
        (Arm A)              (Arm C)
```

W	=	Major Road Width		D	=	Stream-specific B-A
W cr	=	Central Reserve Width		E	=	Stream-specific B-C
W b-a	=	Lane width available to vehicle waiting in stream b-a		F	=	Stream-specific C-B
W b-c	=	Lane width available to vehicle waiting in stream b-c		Y	=	(1-0.0345W)
W c-b	=	Lane width available to vehicle waiting in stream c-b				
Vl b-a	=	Visibility to the left for vehicles waiting in steam b-a				
Vr b-a	=	Visibility to the right for vehicles waiting in steam b-a				
Vr b-c	=	Visibility to the right for vehicles waiting in steam b-c				
Vr c-b	=	Visibility to the right for vehicles waiting in steam c-b				

Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years and Associated Filling of Land in "Agricutlure" and "Industrial (Group D)" Zones, Various Lots in D.D. 84, Ta Kwu Ling, New Territories
S.16 Planning Application No. A/NE-TKL/757

Priority Junction Calculation
2024 PM Peak (w/o the proposed development)

Geomatric details:				**Geometric factors:**			**The capacity of movement:**			**Comparison of design flow to capacity:**		

Geomatric details:

Major Road (Arm A)

W	=	6.3	metres
W cr	=	0	metres
q a-b	=	9	pcu/hr
q a-c	=	176	pcu/hr

Geometric factors:

D	=	0.8659
E	=	0.8899
F	=	0.8647
Y	=	0.7827

The capacity of movement:

Q b-a	=	470.0655
Q b-c	=	617.4462
Q c-b	=	598.6009
Q b-ac	=	470.0655

Comparison of design flow to capacity:

DFC b-a	=	0.0170
DFC b-c	=	0.0113
DFC c-b	=	0.0117
DFC b-ac (share lane)	=	0.0319

Major Road (Arm C)

W c-b	=	3.1	metres
Vr c-b	=	22	metres
q c-a	=	168	pcu/hr
q c-b	=	7	pcu/hr

Total flow = 375 pcu/hr

Critical DFC = <u>0.03</u>

Minor Road (Arm B)

W b-a	=	3	metres
W b-c	=	3	metres
Vl b-a	=	105	metres
Vr b-a	=	62	metres
Vr b-c	=	62	metres
q b-a	=	8	pcu/hr
q b-c	=	7	pcu/hr

```
                                    (8)  (7)
                                     9    9    Local Access
                                               (Arm B)



                                    ┌─┐  ┌─┐
                                    ↓    ↓

        (9) 11      ──────→ ↑
        (176) 184   ──────→

                                        ↑────── 8 (7)
                                        ←────── 176 (168)
        ──────────────────────
        Ping Che Road              Ping Che Road
        (Arm A)                    (Arm C)
```
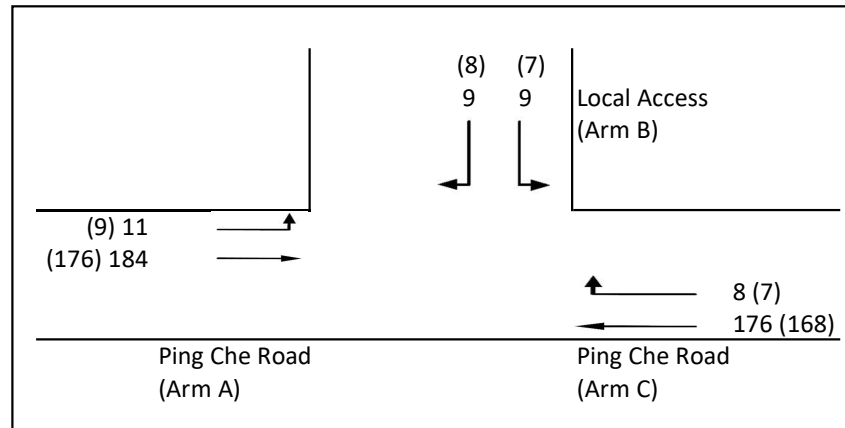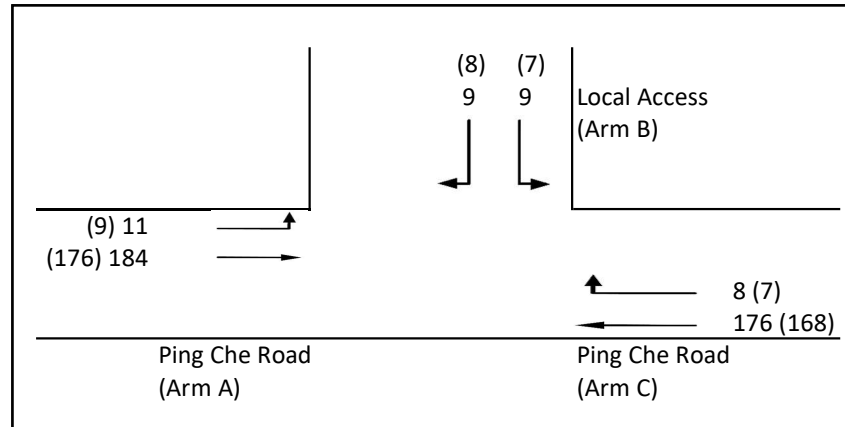
W	=	Major Road Width
W cr	=	Central Reserve Width
W b-a	=	Lane width available to vehicle waiting in stream b-a
W b-c	=	Lane width available to vehicle waiting in stream b-c
W c-b	=	Lane width available to vehicle waiting in stream c-b
Vl b-a	=	Visibility to the left for vehicles waiting in steam b-a
Vr b-a	=	Visibility to the right for vehicles waiting in steam b-a
Vr b-c	=	Visibility to the right for vehicles waiting in steam b-c
Vr c-b	=	Visibility to the right for vehicles waiting in steam c-b

D	=	Stream-specific B-A
E	=	Stream-specific B-C
F	=	Stream-specific C-B
Y	=	(1-0.0345W)

Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years and Associated Filling of Land in "Agricutlure" and "Industrial (Group D)" Zones, Various Lots in D.D. 84, Ta Kwu Ling, New Territories
<u>**S.16 Planning Application No. A/NE-TKL/757**</u>

Priority Junction Calculation
2024 AM Peak (with the proposed development)

Geomatric details: **Geometric factors:** **The capacity of movement:** **Comparison of design flow to capacity:**

Major Road (Arm A)

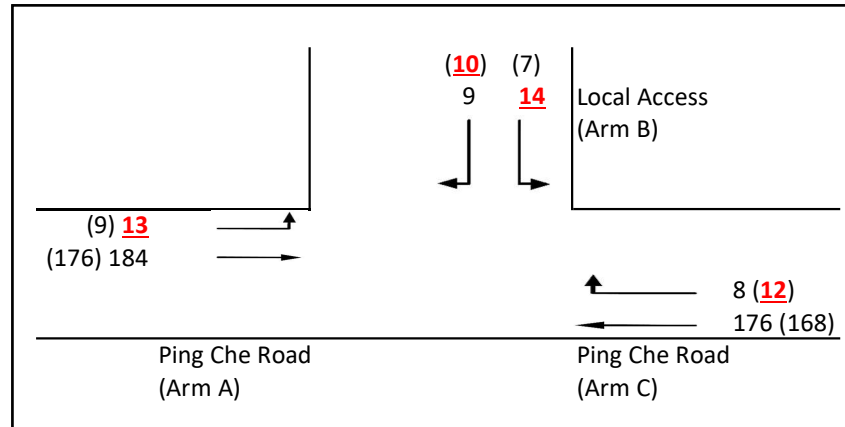|													
W	=	6.3	metres	D	=	0.8659	Q b-a	=	466.1079	DFC b-a	=	0.0193
W cr	=	0	metres	E	=	0.8899	Q b-c	=	615.0169	DFC b-c	=	0.0228
q a-b	=	**13**	pcu/hr	F	=	0.8647	Q c-b	=	595.6450	DFC c-b	=	0.0134
q a-c	=	184	pcu/hr	Y	=	0.7827	Q b-ac	=	466.1079	DFC b-ac (share lane)	=	0.0493

Major Road (Arm C)

Total flow   =   404   pcu/hr

W c-b	=	3.1	metres
Vr c-b	=	22	metres
q c-a	=	176	pcu/hr
q c-b	=	8	pcu/hr

Critical DFC   =   <u>0.05</u>

```
                        (10)  (7)
                         9    14   Local Access
                                   (Arm B)
```

Minor Road (Arm B)

W b-a	=	3	metres
W b-c	=	3	metres
Vl b-a	=	105	metres
Vr b-a	=	62	metres
Vr b-c	=	62	metres
q b-a	=	9	pcu/hr
q b-c	=	**14**	pcu/hr

```
          (9) 13      ───────►
         (176) 184    ───────►

                           ◄─────── 8 (12)
                           ──────►  176 (168)
         Ping Che Road          Ping Che Road
         (Arm A)                (Arm C)
```

W	=	Major Road Width		D	=	Stream-specific B-A
W cr	=	Central Reserve Width		E	=	Stream-specific B-C
W b-a	=	Lane width available to vehicle waiting in stream b-a		F	=	Stream-specific C-B
W b-c	=	Lane width available to vehicle waiting in stream b-c		Y	=	(1-0.0345W)
W c-b	=	Lane width available to vehicle waiting in stream c-b				
Vl b-a	=	Visibility to the left for vehicles waiting in steam b-a				
Vr b-a	=	Visibility to the right for vehicles waiting in steam b-a				
Vr b-c	=	Visibility to the right for vehicles waiting in steam b-c				
Vr c-b	=	Visibility to the right for vehicles waiting in steam c-b				

Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years and Associated Filling of Land in "Agricutlure" and "Industrial (Group D)" Zones, Various Lots in D.D. 84, Ta Kwu Ling, New Territories
S.16 Planning Application No. A/NE-TKL/757

Priority Junction Calculation
2024 PM Peak (with the proposed development)

Geomatric details: **Geometric factors:**   **The capacity of movement:**   **Comparison of design flow to capacity:**

Major Road (Arm A)
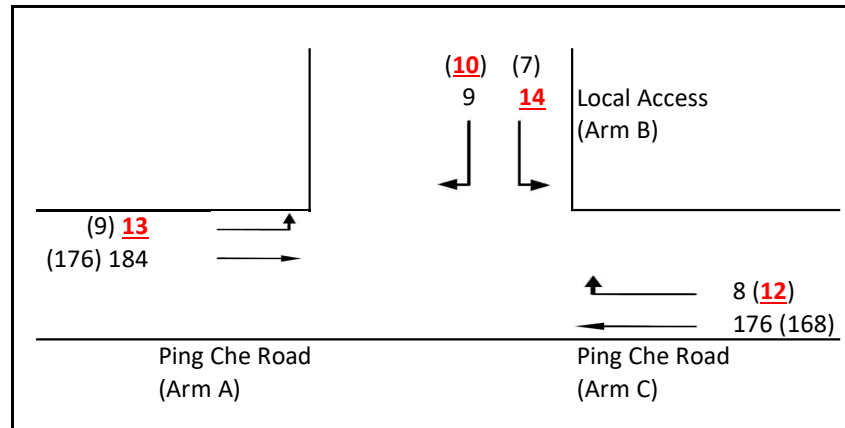|													
W	=	6.3	metres	D	=	0.8659	Q b-a	=	468.3035	DFC b-a	=	0.0214
W cr	=	0	metres	E	=	0.8899	Q b-c	=	617.4462	DFC b-c	=	0.0113
q a-b	=	9	pcu/hr	F	=	0.8647	Q c-b	=	598.6009	DFC c-b	=	0.0200
q a-c	=	176	pcu/hr	Y	=	0.7827	Q b-ac	=	468.3035	DFC b-ac (share lane)	=	0.0363

Major Road (Arm C)

Total flow = 382 pcu/hr

W c-b	=	3.1	metres
Vr c-b	=	22	metres
q c-a	=	168	pcu/hr
q c-b	=	**12**	pcu/hr

Critical DFC = <u>0.04</u>

```
                              (10)  (7)
                               9    14    Local Access
                                          (Arm B)


              (9) 13      ────→↑
              (176) 184   ─────→

                                    ↑─────────  8 (12)
                                    ←─────────  176 (168)
              Ping Che Road              Ping Che Road
              (Arm A)                    (Arm C)
```

Minor Road (Arm B)
W b-a	=	3	metres
W b-c	=	3	metres
Vl b-a	=	105	metres
Vr b-a	=	62	metres
Vr b-c	=	62	metres
q b-a	=	**10**	pcu/hr
q b-c	=	7	pcu/hr

W	=	Major Road Width		D	=	Stream-specific B-A
W cr	=	Central Reserve Width		E	=	Stream-specific B-C
W b-a	=	Lane width available to vehicle waiting in stream b-a		F	=	Stream-specific C-B
W b-c	=	Lane width available to vehicle waiting in stream b-c		Y	=	(1-0.0345W)
W c-b	=	Lane width available to vehicle waiting in stream c-b				
Vl b-a	=	Visibility to the left for vehicles waiting in steam b-a				
Vr b-a	=	Visibility to the right for vehicles waiting in steam b-a				
Vr b-c	=	Visibility to the right for vehicles waiting in steam b-c				
Vr c-b	=	Visibility to the right for vehicles waiting in steam c-b				

Annex III – Passing Areas at the Local Access

(i)   Adequate passing areas are also provided along the local access connecting the Site to Ping Che Road, details are as follows: