

Attachment 2 –

Replacement Pages of the Traffic Impact Assessment

1 INTRODUCTION

1.1 Background

- 1.1.1 The Application Site is located in Tai Lam Chung Valley between Tsuen Wan and Tuen Mun. The proposed development comprises 2,670 nos. of residential flats and site formation works for village houses and provision of public facilities. The location of Application Site is shown in **Figure 1.1**.
- 1.1.2 The Application Site is mainly zoned “Comprehensive Development Area” (“CDA”) under the Approved So Kwun Wat Outline Zoning Plan (OZP) no. S/TM-SKW/15. A previous scheme comprising 1,560 nos. of residential flats with average flat size of 49.0m² was approved in 2002 under the planning application A/TM-SKW/32 (hereinafter referred to as the “Approved Scheme”).
- 1.1.3 The Applicant is now proposing a higher plot ratio of 2.107 which comprises of 2,670 nos. of residential units with an average flat size of about 40.6m² (hereinafter referred to as “Proposed Scheme”) with the site formation works for village houses and provision of public facilities remain unchanged from the Approved Scheme.
- 1.1.4 AECOM Asia Co. Ltd. was commissioned by the Applicant as the Traffic Consultant to prepare a TIA report in support of the Section 16 planning application.

1.2 Objectives

- 1.2.1 The main objectives of this report are as follows-
- Outline the proposed development parameters and internal transport facilities, internal road arrangement etc.;
 - Review the current traffic condition in the vicinity of the Application Site;
 - Estimate the future public transport demand of the proposed development and develop enhancement on public transport services if necessary;
 - Estimate the potential traffic generations and attractions of the proposed development;
 - Produce traffic forecasts on the surrounding road network at the adopted design year;
 - Assess traffic impact on the surrounding road network induced from the proposed development; and
 - Develop traffic improvement proposal(s) if necessary.

1.3 Structure of TIA Report

- 1.3.1 Following this introductory chapter, the TIA is structured as follows:
- **Chapter 2:** Proposed Development, describes the development schedule of the proposed development and its internal traffic facilities provisions, access arrangement, etc.;
 - **Chapter 3:** Existing Traffic Condition, reviews the current traffic conditions in the vicinity;

2 PROPOSED DEVELOPMENT

2.1 Development Schedule

- 2.1.1 **Table 2.1** summarizes the development schedule of the Proposed Scheme with comparison to the Approved Scheme. The proposed indicative Master Layout Plan (MLP) under the current application is illustrated in **Figure 2.1** for reference.

Table 2.1 Indicative Development Schedule of the Development Site

Development Parameters	Approved Scheme	Proposed Scheme
Development Site Area	47,070m ²	46,493m ²
Plot Ratio	1.8555	2.107
Domestic GFA	86,267	108,468
No. of Storeys	15-16	6-23
No. of Units	1,560	2,670
Average Flat Size	49m ²	40.6m ²

2.2 Proposed Development Access Arrangement

- 2.2.1 The location of vehicular run-in/out for the Proposed Development would be maintained at Luen Hong Lane near to Luen On San Tsuen. The proposed run-in/out is presented in **Figure 2.2**.
- 2.2.2 According to the approved Road Gazette 2728 Plan No. TMM4185 dated in May 2022, the road section at both ends of Luen Hong Lane would be widened to allow better vehicle manoeuvring. The approved road gazette plan is presented in **Annex A**.

2.3 Internal Parking and Servicing Facilities

- 2.3.1 The parking and loading/unloading facilities for the Proposed Development would be provided in accordance with the requirements as stipulated in the Hong Kong Planning Standards and Guidelines (HKPSG). The respective requirements and proposed provision are summarized in **Table 2.2**.
- 2.3.2 Swept path analysis for the indicative MLP was also conducted as demonstrated in **Annex C**. The results have demonstrated that sufficient manoeuvring for the critical locations of loading/unloading bay as well as carparking spaces subject to further reviewed in detail design stage.

Year 2033 Background Traffic Flows

- 5.4.2 The 2033 background traffic flows (without approved/proposed development) are derived by applying a growth rate of 1.86% p.a. on the 2023 observed flows up to the design year 2033 and superimpose the traffic flow as derived in **Table 5.6**. The year 2033 background traffic flows are presented in **Figure 5.2**.

Year 2033 Reference Traffic Flows

- 5.4.3 The 2033 reference traffic flows are derived by superimposing the potential traffic as induced by the Approved Scheme in **Table 5.7** onto the traffic flows in **Figure 5.2**.
- 5.4.4 The year 2033 reference traffic flows are presented in **Figure 5.3**.

Trip Generation of the Proposed Development in Design Scenario

- 5.4.5 In the design scenario of year 2033, it is adopted that Site (a) will increase the number of flats to 2,670 flats in accordance with the development schedule as listed in **Table 2.1**.
- 5.4.6 The estimated potential traffic generation and attraction of the Proposed Development in the Design Scenario of 2033 are shown in **Table 5.8**.

Table 5.8 Estimated Traffic Flows for the Proposed Development for Proposed Scheme

Application Site		Estimated Trips (pcu/hr)			
		AM Peak		PM Peak	
		Gen.	Att.	Gen.	Att.
Site (a) – 2,670 flats	Adopted Trip Rates ⁽¹⁾ (pcu/hr/flat)	0.0718	0.0425	0.0286	0.037
	Estimated Trips (pcu/hr)	192	114	77	99
Site (b) – 80 village house	Adopted Trip Rates ⁽²⁾ (pcu/hr/flat)	0.3012	0.2189	0.2235	0.3234
	Estimated Trips (pcu/hr)	25	18	18	26
Retail – 2000m ² GFA	Adopted Trip Rates ⁽³⁾ (pcu/hr/100m ² GFA)	0.2296	0.2434	0.3100	0.3563
	Estimated Trips (pcu/hr)	5	5	7	8
Total (pcu/hr)		222	137	102	133

Note:

- (1) TPDM mean trip rates for Private Housing: High-Density /R(A) with Ave. Flat Size of 60m²
(2) TPDM mean trip rates for Private Housing: Low-Density /R(C) with Ave. Flat Size of 240m²
(3) TPDM mean trip rates for Retail / Shopping Complex (Office + Retail)

- 5.4.7 As shown in **Table 5.8**, it is estimated that the Proposed Scheme would potentially generate 222 pcu/hr and attract 137 pcu/hr in the morning peak hour, and generate about 102 pcu/hr and attract 133 pcu/hr in the evening peak hour.
- 5.4.8 As compared with the Reference Scenario, the Proposed Development with plot ratio of 2.107 would induce additional 2-way traffic 136 pcu/hr and 88 pcu/hr in morning and evening peak hour respectively. The comparison of development traffic of the application site in Reference and Design Scenarios are shown in **Table 5.9**.

8 CONCLUSION

8.1 Summary

- 8.1.1 The Application Site covers various lots and adjacent Government land in DD 385, Tai Lam Chung, Tuen Mun, New Territories. The Site is bounded by Luen Hong Lane to the west with a development site area for private residential development of about 46,493m².
- 8.1.2 Compared to the Approved Scheme, the Applicant now proposed a higher plot ratio of 2.107 which comprises of 2,670 nos. of residential units with an average flat size of about 40.6m².
- 8.1.3 The parking and loading/unloading facilities of the proposed development would be provided in accordance with the requirements as stipulated in the HKPSG.
- 8.1.4 In order to review the existing traffic condition, traffic count surveys were conducted at the following 6 identified critical junctions to investigate the traffic condition during commuting peak hours. At present, all the critical junctions are operating within capacity.
- Castle Peak Road – Tai Lam / Castle Peak Road – New Tai Lam (J1)
 - Castle Peak Road – New Tai Lam / Castle Peak Road – Tsing Lung Tau (J2)
 - Castle Peak Road – Tai Lam / Slip Road from Tuen Mun Road (J3)
 - Castle Peak Road – Tai Lam / Slip Road to Tuen Mun Road (J4)
 - Castle Peak Road – Tai Lam / Tai Lam Chung Road (J5)
 - Tai Lam Chung Road / Luen Hong Lane (J6)
- 8.1.5 To serve the additional public transport demand as induced by the Proposed Development, additional bus trips will be introduced during the peak hours. Also, 3 nos. of bus layby and 4 nos. of GMB layby are proposed at proposed privately-operated transport interchange to cater for the potential transport demand arising from the proposed development.
- 8.1.6 By comparing the trip generation/ attractions of the proposed development under Approved Scheme and Proposed Scheme, the Proposed Scheme will induce additional 138 pcu/hr (two-way) during AM peak hour and 88 pcu/hr (two-way) during PM peak hour.
- 8.1.7 The proposed development is tentatively scheduled for completion in 2030. According to Guidelines and Requirements of TIA Studies, the TIA should assess at least 3 years after the planned completion of the Proposed Development. Hence, 2033 is adopted as the design year for this TIA.
- 8.1.8 In order to carry out traffic forecast and examine traffic impact due to the Proposed Development in year 2033, Annual Growth Rate method is applied to estimate the traffic forecast year 2033. The annual growth rate is made reference to 2019-based TPEDM, Projection of Population Distribution from Planning Department and the historical traffic data from ATC which is available on Transport Department's website. It is proposed to adopt an annual growth rate of 1.86% per annum for projecting the peak hour traffic flow from 2023 to 2033.
- 8.1.9 The 2033 reference traffic flows were derived based on the observed traffic demands and circulation pattern by adopting an appropriate growth rate with consideration of