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16 June 2020

Clerk to Public Works Subcommittee
Legislative Council Secretariat
Legislative Council Complex
1 Legislative Council Road, Central
Hong Kong
(Attn.: Ms. Doris LO)

Dear Ms. Lo,

Legislative Council Public Works Subcommittee
Follow-up Actions to Meeting on 15 January 2020

At the Public Works Subcommittee on 15 January 2020, some Members requested for supplementary information related to the agenda item on "7332CL - West Kowloon Reclamation – main works (remainder)". The Government's responses are at the **Annex**.

Yours sincerely,

(Nicole LEUNG)
for Secretary for Development

c.c
Project Manager (South), Civil Engineering and Development

Enclosure

Legislative Council Public Works Subcommittee

PWP Item No. 332CL -West Kowloon Reclamation – Main Works (Remainder)

Follow-up Actions arising from the Meeting held on 15 January 2020

At its meeting on 15 January 2020, the Public Works Subcommittee (PWSC) discussed the LegCo Paper No. PWSC (2019-20)16 and PWSC68/19-20(01) concerning the construction of a footbridge system at the junction of Sham Mong Road and Hing Wah Street West in Sham Shui Po. The Government was requested to provide supplementary information on the subject proposal. Our reply is set out as follows.

Traffic flow at the junction of Sham Mong Road and Hing Wah Street West

2. According to the Traffic Impact Assessment (TIA) covering the three footbridge systems at Sham Mong Road (refer to the **link** attached[1]), the traffic flow at the junction of Sham Mong Road and Hing Wah Street West would increase following completion of housing development projects along Sham Mong Road. According to the estimates of the TIA, the changes in traffic flow in Year 2031 at the junction of Sham Mong Road and Hing Wah Street West at peak hours are tabulated below:-

	AM Peak		**PM Peak**	
	Year 2009	**Year 2031**	**Year 2009**	**Year 2031**
Sham Mong Road Northbound	443 pcu/hr[2]	880 pcu/hr	514 pcu/hr	619 pcu/hr
Sham Mong Road Southbound	342 pcu/hr	672 pcu/hr	226 pcu/hr	417 pcu/hr
Hing Wah Street West Eastbound	421 pcu/hr	816 pcu/hr	306 pcu/hr	407 pcu/hr
Hing Wah Street West Westbound	457 pcu/hr	1051 pcu/hr	320 pcu/hr	1332 pcu/hr

3. The purpose of constructing the proposed footbridge at the junction of Sham Mong Road and Hing Wah Street West and removing the at-grade pedestrian crossings thereat is to ensure segregation of pedestrians and vehicles to enhance road safety and improve junction capacity to cope with the future traffic flow. Comparing the estimated reserve capacity in 2031, if the at-grade pedestrian crossing arrangement at the junction of Sham Mong Road and Hing Wah Street West is retained and straight crossing

[1] https://www.cedd.gov.hk/filemanager/majorprojects/eng/upload/30/TIA%20report.zip

[2] Passenger car unit/hour (pcu/hr) is a unit for measuring traffic flow in equivalent number of private cars as design basis. For example, a pcu value of 1.0 is assigned to private cars and taxis. Heavy vehicles such as goods vehicles or buses which usually travel at a lower speed are assigned higher pcu values.

arrangement is adopted, the reserve capacity[3] of the junction will be reduced to negative value (about -23%), which implies that the junction would not be able to cope with the additional traffic flow to be generated by the adjacent housing development projects, resulting in vehicle queues and longer travel time for vehicles to pass through the junction. If the Government takes forward the proposed footbridge system and removes the existing at-grade pedestrian crossings, the estimated reserve capacity in 2031 after implementation of improvement works to the junctions would be approximately 31%, thereby improving the traffic condition. In respect of the duration of traffic light signals, the total effective green time during the cycle time of traffic signals will be able to reach 100 seconds after the construction of the proposed footbridge and removal of the at-grade pedestrian crossings at the junction. In contrast, the total effective green time for the straight at-grade pedestrian crossing arrangement would only be about 50 seconds. Hence, the proposed footbridge will greatly enhance the smoothness of traffic flow and increase the junction capacity, by allowing more vehicles to pass through the junction within a defined period of time so as to relieve traffic congestion and increase the ease of traffic flow.

Improvement plan of staggered crossing facilities in Hong Kong

4. The Transport Department (TD) has been implementing various measures to enhance the safety and walkability of at-grade pedestrian crossings. Straight crossing arrangements are recently adopted as far as practicable for signalised junctions design, so as to allow pedestrians to reach the footpath on the opposite side of pedestrian crossings without waiting at the refuge islands. If traffic conditions allow, TD would gradually convert existing staggered crossings[4] into straight crossings for the convenience of pedestrians. In the past five years, TD has converted six staggered crossings into straight crossings in various districts.

5. In addition, subject to the actual traffic conditions of each individual junction with staggered crossing arrangement and without causing traffic congestion, TD would apply synchronisation of green traffic signals for pedestrians to some staggered crossings through adjustment to the traffic signal time and the mode of control. Under the arrangement, pedestrian lights of two staggered crossings would show 'Green man' light at the same time to enhance the walkability of pedestrian crossings and prevent pedestrians from crossing the road in two stages as far as practicable. From 2017, TD has applied synchronisation of green traffic signals for pedestrians to 56 staggered crossings. Similar arrangements are expected to be introduced to some 10 staggered crossings this year.

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[3] Reserve Capacity (RC) reflects the traffic condition of a signal-controlled junction. A positive RC figure suggests that the junction is operating with spare capacity, while a negative RC figure suggests that junction is overloaded, hence resulting in vehicle queues and longer travel time.

[4] Staggered crossings are usually adopted at junctions with heavy traffic. This arrangement allows pedestrians to cross roads in stages without interfering the traffic and hence improving the junction capacity.

Progress of reviewing guidelines for lift provision at footbridges

6 The Transport and Housing Bureau/TD, together with bureaux/departments concerned, are undertaking preparatory work to review relevant guidelines for lift provision at footbridges, and target to complete the review and promulgate the revised guidelines in the third quarter of this year.

Development Bureau

Civil Engineering and Development Department

June 2020