

## 1. INTRODUCTION

### 1.1 Background

- 1.1.1 There will be substantial developments in West Kowloon Reclamation Development (WKR D) including the West Kowloon Cultural District (WKCD), West Kowloon Terminus (WKT) of the Hong Kong Section of Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) and building developments above the two railway stations. With the completion of these developments and the commissioning of the new transport facilities, their traffic impact to the road network of WKR D and its vicinity will be significant.
- 1.1.2 Apart from the additional traffic impact arising from the major developments and transport facilities in WKR D, several major junctions in the area are currently operating with insufficient capacity causing serious congestion to some existing major road corridors including Jordan Road (JRD), Ferry Street (FST), Canton Road (CRD), Lin Cheung Road (LCR), Wui Cheung Road (WCR) and Austin Road (AUR). For example, the observed traffic queue on LCR southbound at its junction with JRD can be up to 340 metres (m) in the PM peak of Saturdays.
- 1.1.3 Against this background, Transport Department commissioned the “West Kowloon Reclamation Development Traffic Study” (the Traffic Study) in May 2008 to formulate comprehensive traffic and transport measures to address the traffic congestion problems and the additional traffic impact arising from the various developments and transport infrastructures on the WKR D.
- 1.1.4 The Final Report of the Traffic Study was issued in September 2009. Findings of the study concluded that in design year 2031 the original road network in the WKR D previously planned in the late 1980s would be inadequate to support the demand of the local traffic as well as through traffic heading for other surrounding areas such as WKCD and Tsim Sha Tsui (TST). For instance, out of 41 key road junctions in the study area, 18 of them would be overloaded or approaching their capacity. The critical reserve capacity (RC) of these 18 junctions would range from -37% (junction of Austin Road West/ Road D1) to +7% (junction of CRD/ Kowloon Park Drive). Furthermore, there would be long traffic queues at five major junctions 2 on JRD, FST, LCR, Austin Road West (AURW) and the future Road D1 causing blockage to the upstream junctions. Please refer to the Final Report of Agreement No. TD 54/2008 – West Kowloon Reclamation Traffic Study for the detailed junction analysis results within the study area.
- 1.1.5 To enhance the road network of the area, the Traffic Study identified and recommended, amongst others, the following Schemes together with the improvement works at the junction of CRD/FST/JRD.
- 1.1.6 Schemes and Junction Improvement Works:
- (i) Scheme H (elevated road) - New road connection from Hoi Po Road to West Kowloon Highway (WKH) northbound plus widening of the elevated Nga Cheung Road (NCR);
  - (ii) Scheme I (elevated road) - New link road from elevated NCR to WHC;
  - (iii) Scheme J (slip road) - New link road from WKH southbound to NCR;

- (iv) Scheme Q (underpass) (*outside the scope of this Report*) - Provision of a local underpass along CRD at the junction of CRD/AUR;
- (v) Interim Scheme Q (road widening and junction improvement) – Interim Road Improvement along Canton Road;
- (vi) Improvement Works at Junction of CRD/FST/JRD (junction improvement).

1.1.7 The Schemes coupled with the junction improvement works would enable most of the key road junctions in the study area to operate with spare capacity, and the traffic queue length would also be reduced avoiding blockage to the upstream junctions. To accommodate the increased traffic volume arising from XRL commissioning and WKCD (Phase 1) opening in stages between 2015 and 2020, it is desirable to complete the improvement works as early as possible.

1.1.8 A Feasibility Study (FS) consultancy (CE 65/2009 (HY)) was commissioned by the Highways Department (HyD) in May 2010 to study the technical feasibility of the proposed works. The Study concluded in June 2011 that the proposed Schemes H, I, J and Junction Improvement Works at CRD/FST/JRD were, *prima facie*, technically feasible. However, for Scheme Q (underpass) which would involve the construction of an underpass along Canton Road at the junction of CRD/AUR/AURW and the reconstruction of the associated pedestrian subway at the junction, its technical feasibility was still yet to be ascertained subject to the clarification of a number of site constraints and uncertainties. As such, it was decided that the proposed works would be divided into two phases for implementation.

Phase 1 of works would include Schemes H, I, J, Q (interim road improvement only) and the Junction Improvement Works at CRD/FST/JRD. Meanwhile, if the Scheme Q (underpass) is subsequently found to be technical feasible, it will be put under Phase 2 of works for later implementation (i.e. outside the scope of this Report). This EIA Report only covers Phase 1 of works in accordance with EIA Study Brief ESB-236/2011.

If Scheme Q (underpass) under Phase 2 constitutes an A.9 Designated Project, i.e. “A road fully enclosed by decking above and by structure on the sides for more than 100m”, then an Environmental Permit (EP) is required under the EIAO for its construction and operation. In that case, another EIA report will be submitted separately following the EIAO procedures. In any case, Scheme Q (underpass) is outside the scope of this Report.

## 1.2 This Assignment

1.2.1 On 7 March 2012, the Government of Hong Kong Administration Region awarded Agreement No. CE44/2011 (HY) Proposed Road Improvement Works in West Kowloon Reclamation Development – Phase 1 – Investigation, Design and Construction to Parsons Brinckerhoff (Asia) Ltd. The scope of the Project under this Assignment comprises:

- (a) Scheme H (Part A) (elevated road) – New road connection from Hoi Po Road to WKH Northbound
  - (i) Construction of a 6m wide elevated road, of approximate length of 300m linking the elevated Hoi Po Road to the unnamed slip road towards WKH northbound, together with the realignment of adjacent existing Lin Cheung Road northbound and Hoi Fai Road.

- (b) Scheme H (Part B) (elevated road) - Widening of elevated NCR
  - (i) Modification of the elevated road structure of the elevated NCR for provision of an additional traffic lane for an approximate length of 200m near the junction of NCR/ Jordan Road.
- (c) Scheme I (elevated road) - New Link Road from Elevated NCR to WHC
  - (i) Construction of a 6m wide elevated road, with local widening to 8.2m at the bend, of approximate length of 200m linking the elevated NCR to the Hong Kong bound of the WHC toll plaza area.
  - (ii) Addition of an autotoll lane, relocation of an autotoll lane and the associated modification works on the toll plaza of the WHC.
- (d) Scheme J (slip road) - New Link Road from WKH Southbound to NCR
  - (i) Construction of a 6m wide carriageway of length 220m approximately linking the slip road from WKH southbound to NCR.
- (e) Interim Scheme Q (road widening and junction improvement) - Interim Road Improvement along Canton Road
  - (i) Road junction improvement at junction of Canton Road/ Austin Road/ Austin Road West.
  - (ii) Road junction improvement at junction of Canton Road/ Wui Cheung Road.
  - (iii) Widening of Canton Road northbound turning left into Jordan Road, and modification of traffic islands near the junction of Canton Road/ Jordan Road.
- (f) Improvement Works at the Junction of Canton Road/ Ferry Street/ Jordan Road (junction improvement)
  - (i) Widening of Jordan Road eastbound downstream of the junction.
  - (ii) Demolition of the existing ramp and provisioning of lifts for the subway on Jordan Road eastbound near Wai Ching Street; and
- (g) Associated works
  - (i) Associated drainage, E&M, landscaping, utility diversion, traffic aid, etc. for the above schemes.

1.2.2 The corresponding general layout plans indicating the scope of works are in **Figure 1.1 to 1.5.**