Summary of Decisions of the Structural Engineering Committee
SEC Meeting 3/2015 held on 9.4.2015

(a) Case 10/2015

Issue: Methodology Report for Wind Tunnel Test

Recommendation: To accept the following methodology and parameters for wind tunnel test of the proposed development:

(1) Topographic Model

Model 1:2000

(2) Proximity Model

(i) Model Scale: 1:500

(ii) Extent of model: all known existing and proposed surrounding buildings and structures within a radius of 500m from the subject site will be modeled

(3) Wind Climate Study Results

Directional characteristics of typhoons affecting HK based on a Monte Carlo simulation of storms passing within 250km of HK, conducted by Applied Research Associates, Inc. (ARA).

(4) Possible Removal of Surrounding / Adjacent Building

46 building groups were proposed to be removed in the Proximity Model.

(5) Wind Pressure to be adopted in design

The following in the superstructural design were proposed:

(i) The finally adopted peak design combined wind moment will not be less than 70% of the peak design wind moment as determined using the Code of Practice on Wind Effects in Hong Kong 2004 (the Wind Code).

(ii) If the peak design combined wind moment determined in the wind tunnel test is found greater than the peak design wind moment as determined using wind code's method, the peak design wind moments determined in the wind tunnel test will be adopted for design.

(iii) The storey wind shears adopted for design shall be determined from the peak design combined wind moments established in accordance with sub-paragraphs (i) and (ii) above.

(iv) The peak building acceleration assessment on human comfort under wind loads should be in accordance with the Code of Practice for Structural Use of Concrete 2014

clause 7.3.2. Limiting maximum peak acceleration at the top occupied floor of an office building to 0.25m/s^2 should be adopted.

Decision: Having noted the background information and arguments together with RSE's supervision arrangement, members endorsed the recommendation.