

Summary of Decisions of the Structural Engineering Committee
SEC Meeting 13/2014 held on 10.12.2014

(a) Case 44/2014

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 scale: 1: 4000.

(2) Proximity Model

(i) Model scale: 1: 400.

(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.

(4) Removal of adjacent buildings that could provide significant shelter

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

(5) Design Wind Pressures Adopted in Cladding Design

The following in the superstructural design were proposed:

(i) The finally adopted peak design wind pressures for external elements of the Apple Shop including cladding and curtain walls will not be less than 70% of the peak design wind pressures based on code calculation as derived from the design values given in the Code of Practice on Wind Effects in Hong Kong 2004 (the Wind Code) even if the pressures found in the test are smaller; and

(ii) If the peak design wind pressures determined in the wind tunnel test are found greater than the peak design wind pressures based on code calculation as derived from the design values given in the Wind Code, the peak design wind pressures determined in the wind tunnel test will be adopted for design.

Decision:

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