

Case 32/2015

Issue: Methodology Report for Wind Tunnel Test

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

(1) Proximity Model

(i) Model Scale: 1:300

(ii) Extent of model: all known existing and proposed surrounding buildings and structures within a radius of 360m from the subject site will be modeled. In this case it is surrounded by ocean and will be isolated case.

(2) Wind Climate Study Results

The Upcrossing Method will be adopted. The Upcrossing Method was used to combine the directional wind statistics and wind tunnel data to predict the overall design wind loads on the cladding.

(3) Possible Removal of Surrounding / Adjacent Building

There is no surrounding building and this is going to be tested as isolated case i.e. all buildings within 360m would be removed except the existing Ocean Terminal Building. It is unlikely that the Ocean Terminal Building will be demolished in future leaving the extension standing alone.

(4) Wind Pressure to be adopted in design

The following in the superstructure design were proposed:

(i) The finally adopted peak design wind pressures for external elements of the buildings including cladding and protrusions 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 Wind Code even if the pressure found in the test are smaller.

(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, members endorsed the recommendation.