AXIOM STRUCTURES

Job	Date	Designer	Job No.	Page
85 Camden Mews	20-Dec-18	KK	15005	

Wind Loading to BS 6399 : Part 2 : 1997
Standard Method (Section 2)

Location:　　**Wind Load on Building**

Stage 1:
Height of Building; H　　　　　4.8 m
Building Type Factor; K_b　　　0.5　　(Ref: Table 1)
Dynamic Augmentation Factor; C_r　　0.0068　　(From Annex C; Equation C.2)

Stage 2:　H and Cr are within limits of applicability for section 2

Stage 3:　Basic Wind Speed; V_b　　　20.5 m/s (Ref: Figure 6)

Stage 4:　*If topography not considered significant, set Z = 0　　If topography is considered significant, then Z > 0*

Site Altitude; Δ_s　　　　　47 m　　Effective Height of Feature; Z　　0 m
　　Topography is not significant　　Altitude at base of topography; Δ_T　　0 m
　　　　　　　　　　　　　　Length of Upwind Slope; L_U　　0 m
　　　　　　　　　　　　　　Length of Downwind Slope; L_D　　0 m
　　　　　　　　　　　　　　Horiz. Distance from Site to Crest; X　　0 m
Altitude Factor; S_a　　　1.05　　　Wind Direction (from N=0, E=90), f　220 °
Direction Factor; S_d　　　0.95　　　Set Sd to Unity? (Y/N)　　n
Seasonal Factor; S_s　　　1.00　　(See Annex D; Table D1.　Unity is conservative)
Probability Factor; S_p　　1.00　　(From Equation D1)　　Annual Risk; Q　0.020
　　　　　　　　　　　　　　[Default value = 0.02]
Site Wind Speed; V_s　　20.46 m/s

Stage 5:　Reference Height; H_r　　4.8 m　　Height of Obstructions; H_o　　0.0 m
Effective Height; H_e　　4.8 m　　Upwind Spacing of Obstructions; X　　0.0 m

Stage 6:　The Standard Method of Calculating Wind Loads is Adopted

Stage 7:　Town or Country Site Location; **T** or **C**　　t　　Closest Distance to the Sea　50 km
Diagonal Dimension, a　　　8.5 m
Size Effect Factor; C_a　　0.95　　Set C_a to Unity? (Y/N)　N
Terrain and Building Factor; S_b　1.38　　Set S_b to Unity? (Y/N)　N
Effective Wind Speed; V_e　　28.24 m/s

Stage 8:　Dynamic Pressure; q_s　　0.489 kN/m²

Stage 9:　External Pressure Coefficient; C_{pe}　1.26　(Ref: Tables 5,7[walls], & Tables 8 - 11[roofs])
Internal Pressure Coefficient; C_{pi}　　　(Ref: Tables 16 - 18)
Net Pressure Coefficient; C_p　1.26　(Ref: Tables 13, 14, 20 & 21)

Stage 10:　External Surface Pressure; p_e　0.587 kN/m²
Internal Surface Pressure; p_i　0 kN/m²
Net Surface Pressure; p　0.587 kN/m²
Loaded Area; A　　1.00 m²
Net load; P　　0.587 kN

> NOTES:
> General building overall dimensions used.
> Wind direction is non-specific - Sd = 1.0.
> External and Internal pressure coefficients
> sum to unity.