z_0 : Surface friction length in meters.

z_{min} : Minimum friction height in meters where the surface friction is constant.

For five terrain types, the z_o and z_{min} values are given below, in Table 3.1.

Table 3.1. Surface friction lengths (z_o) ve minimum friction heights (z_{min})

(*Adopted from Euro Code*)

Terrain No	Terrain type	z_o *(m)*	z_{min} *(m)*
0	Coastal areas exposed to open sea	0.003	1
I	Lake shores and flat open areas with no obstacles	0.01	1
II	Areas with low vegitaton and isolated obstacles where the average obstacle separation is more than 20 times the average obstacle height.	0.05	2
III	Villages and suburbs, where the average obstacle seperation is less than 20 times the average obstacle height.	0.3	5
IV	City centers and similar areas, where more than %15 of the terrain is covered with structures taller than 15 m.	1.0	10

3.1.4. C_t topography coefficient

For the city of Dubai, the topography coefficient will be taken as

$$C_t = 1 + 0.001\,\Delta \qquad (3.4)$$

where Δ is the height of the location in *meters* from the sea level.

3.1.5. Effects of neighbouring structures on average wind velocity

In city centers (Terrain IV in Table 3.1), when calculating wind loads in a tall structures surrounded by shorter structures, the blocking effects of surrounding structures are accounted for by ficticuously increasing the ground level by a specified amount, h_y. The wind loads are calculated by shifting the wind velocity profile vertically by this amount. The rules for determining h_y are given in Eqs. 3.5 and Fig. 3.4