

MALAYSIAN STANDARD

MS 1553:2002,
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**Code of practice on wind loading for building
structure**

AMENDMENT 1

ICS: 91.090

Descriptors: building structure, wind loading, wind loading, wind action, wind speed, wind pressure, site exposure, multipliers, shape factor

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DEPARTMENT OF STANDARDS MALAYSIA

AMENDMENT OF MALAYSIAN STANDARD

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MS 1553: 2002

CODE OF PRACTICE ON WIND LOADING FOR BUILDING STRUCTURE

(1) Scope, page 1

To add new criteria, to be read as follows:

d) Where structures have natural frequencies less than 1Hz section requires dynamic analysis to be carried out (see section 6).

e) Further advice should be sought for geometrics not described in this standard such as roofs of podiums below tall building.

(2) Subclause 1.7 Notation, page 12

To add new notation as follows:

θ_a angle of deviation of the wind stream from the line joining the Centre of the tower cross section to the Centre of the ancillary.

(3) Subclause 1.7 Notation, page 13,

To replace ρ_{air} density of air from 1.225 kg/m³ to 1.200 kg/m³ and to be read as follows:

ρ_{air} density of air which can be taken as 1.200 kg/m³.

(4) Subclause 2.4 Design Wind Pressure, page 15

To replace ρ_{air} density of air from 1.225 kg/m³ to 1.200 kg/m³ and to be read as follows:

ρ_{air} density of air which can be taken as 1.200 kg/m³.

(5) Figure 3.1, page 20

To replace the Figure 3.1 and its caption with new figure, Basic Wind Speed for Peninsular Malaysia (Simplified Procedures) as per attached.

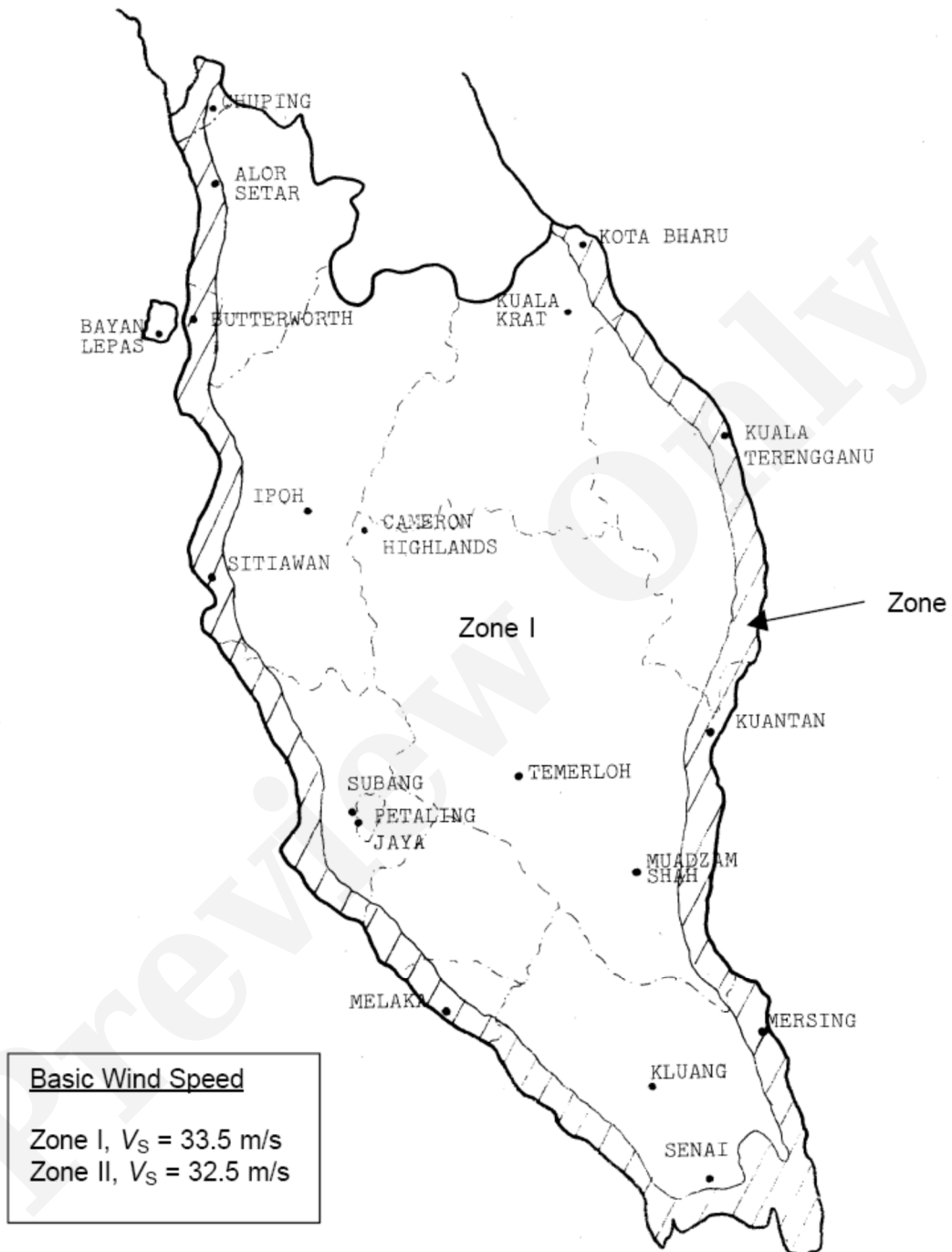


Figure 3.1 Basic Wind Speed for Peninsular Malaysia (Simplified Procedures)

(6) Subclause 4.3.2 Buildings providing shielding, page 26,

To change $20h_i$ to $20h$ and “equal to h_i ” to “equal to z ”.

(7) Figure 4.3, page 28

Replace the Figure 4.3 with the following figure:

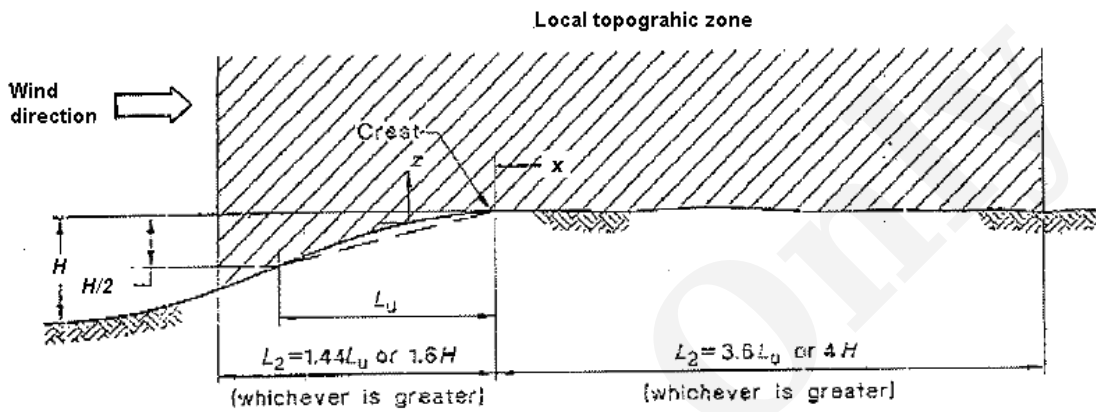


Figure 4.3 Escarpments

(8) Table 5.3 (b), page 36

To replace the Table 5.3 (b) with the following table, to be read as follows:

Roof type and slope	Ratio h/d	External pressure coefficients, $C_{p,e}$						
		Roof pitch, α degrees *						
		10	15	20	25	30	35	≥ 45
$\alpha \geq 10^\circ$	≤ 0.25	-0.7, -0.3	-0.5, 0.0	-0.3, 0.2	-0.2, 0.3	-0.2, 0.4	0.0, 0.5	0, $0.8\sin\alpha$
	0.5	-0.9, -0.4	-0.7, -0.3	-0.4, 0.0	-0.3, 0.2	-0.2, 0.3	-0.2, 0.4	
	≥ 1.0	-1.3, -0.6	-1.0, -0.5	-0.7, -0.3	-0.5, 0.0	-0.3, 0.2	-0.2, 0.3	

(9) Table 5.6, page 39

To replace the Table 5.6 with the following table, to be read as follows:

Design case	Figure 5.3 reference number	h (m)	Area, A	Proximity to edge	K_i
Positive pressures					
Windward wall	WA1	All	$A \leq 0.25a^2$	Anywhere	1.25
All other areas	-	All	-	-	1.0
Negative pressures					
Roof edges	RA1	All	$A \leq a^2$	$< a$	1.5
	RA2	All	$A \leq 0.25a^2$	$< 0.5a$	2.0
Hips and ridges of roofs with pitch $\geq 10^\circ$	RA3	All	$A \leq a^2$	$< a$	1.5
	RA4	All	$A \leq 0.25a^2$	$< 0.5a$	2.0
Side walls near windward wall edges	SA1	≤ 25	$A \leq a^2$	$< a$	1.5
	SA2		$A \leq 0.25a^2$	$< 0.5a$	2.0
	SA3	> 25	$A \leq 0.25a^2$	$> a$	1.5
	SA4		$A \leq a^2$	$< a$	2.0
	SA5		$A \leq 0.25a^2$	$< 0.5a$	3.0
All other areas	-	All	-	-	1.0
NOTES: 1. The dimension, a , and the figure reference numbers are defined in Figure 5.3 2. Design cases attracting $K_i = 1.5$ or 2.0 or 3.0 are alternative cases and need not be applied simultaneously. 3. The areas for local pressure factor are not necessarily square.					