

No. 1730.

BUILDING (CONSTRUCTION) REGULATIONS, 1956.

CODE OF PRACTICE (WIND EFFECTS).

Pursuant to regulation 22(2) of the Building (Construction) Regulations, 1956, the following Code of Practice (Wind Effects) is published—

Wind Loads
on a build-
ing as a
whole.

1. The total horizontal force on a building shall be calculated as the basic wind pressure from Table I acting on the whole of the projected area of the building multiplied by the shape factor of the building from Table II. In determining building zone heights at Table I measurements shall be taken from the average ground level adjacent to the windward face of the building to the top of parapet. In the case of pitched roofs the basic wind pressure corresponding to a height halfway between the eaves and ridge levels shall be taken.

TABLE I.

Basic Wind Pressures in Lbs. per square foot.

Zone Height of Building above average ground level in feet	Basic Wind Pressure "p"
From 0 to 30 ft.	25
From 30 to 80 ft.	40
From 80 to 200 ft.	50
200 ft. and above	60

Shielding &
Unusual
Exposures.

2. (a) No allowance shall be made for the general or specific shielding of other building or structures nor of natural features.
- (b) The Building Authority may require higher basic wind pressures for very high or unusual buildings or for conditions of unusual exposure.

Shape
Factors.

3. (a) The wind forces as detailed in Table I shall be applied to normal enclosed buildings generally rectangular in plan, and with a ratio of height to base-width (measured in the direction of the wind) not exceeding four.
- (b) For other cases the basic wind pressures in Table I shall be multiplied by the shape factors given in Table II in calculating the wind forces on the building as a whole.

TABLE II.

~~Shape~~ Factors.

Plan shape of building or part of a building	Factor		
	Ratio of height to base-width		
	not more than 4	over 4 but less than 8	8 or more
Circular	0.6 P	0.65 P	0.7 P
Octagonal	0.8 P	0.9 P	1.0 P
Sq. (Wind perpendicular to diagonal) ...	0.8 P	0.9 P	1.0 P
Sq. or rectangular (wind perpendicular to face)	1.0 P	1.15 P	1.3 P

4. (a) The structural framework or fabric and foundations of the building shall be designed to withstand the total wind force so calculated together with wind forces due to projections above the roof level, or to signs erected on the roof, calculated in accordance with sub-regulations (9) and (11), without exceeding the appropriate limitations of permissible stress for the materials used. Wind effects on a building as a whole.
- (b) Normal stresses including those in respect of earth bearing capacity, foundations and piles may be increased for resisting the combined effect of dead and imposed loads and wind loads, but the increase shall not exceed that permitted by the L.C.C. By-laws or Code of Practice in accordance with which the building is designed and shall be in respect only of stresses induced by wind loads.
- (c) The effect of permanent structural walls and floors in stiffening a building framework may be taken into account in designing the structure.
- (d) The overturning moment on the building as a whole due to wind load shall not exceed two-thirds of the moment of stability of the building due to dead load only, unless the building is anchored to its foundations so as to resist the excess overturning moment and the excess of horizontal shear over the safe sliding friction. Vertically driven piles shall not be considered to resist horizontal forces.
- (e) Where multiple spans of roof cover a large area of uniform height, the building shall be designed for a horizontal wind drag, at roof level, equal to one-tenth of the basic wind pressure multiplied by the plan area of the building in square feet, in addition to the wind load on the walls or projections above the roof.

Special Buildings.

5. Where a building is of unusual shape or slenderness or where openings in walls are of unusual proportion, the Building Authority may require more detailed calculations and estimates of wind loads.

Wind Pressures on Walls.

6. The external wind loads calculated from the pressures "P" in Table I are the sum of the total pressure on the windward face and the total suction on the leeward face, appropriate to the building.

In addition to these, the internal pressures and suction due to opening in the walls shall be taken into account in the design of the panel walls.

(a) Where the wall surfaces are nominally airtight, *i.e.* with fixed windows and closed doors, each wall shall be designed to withstand a total inward pressure of 0.6 "P" lbs./sq. ft. or alternatively a total outward suction of 0.5 "P" lbs./sq. ft.

(b) Where the wall surfaces have one-third of the area open, or capable of being open or broken open, each wall shall be designed for a total inward pressure of 0.9 "P" lbs./sq. ft. or alternatively a total outward suction of 0.9 "P" lbs./sq. ft.

Wind Pressure on Roofs.

7. (a) The roofs of all buildings shall be designed for a pressure acting outward normal to the surface equal to one and a quarter times the basic wind pressure of Table I appropriate for the building. Such pressures shall be considered as acting on the whole surface of the roof.

(b) Where the pitch of the roof exceeds thirty degrees the roof also shall be designed to withstand a pressure acting inwards normal to the roof surface equal to the basic wind pressure appropriate for the building. Such pressure shall be applied only to the windward surface of the roof.

(c) Anchorage of the roof to the walls and columns, and of walls and columns to the foundations shall be provided in all cases to resist uplift and sliding in excess of one half the dead load resistance.

Wind Pressure on Projections above roof level.

8. The wind pressure acting on projections above the roof level such as stair-hoods, tanks, lift motor-rooms, etc. shall be considered separately from the general wind pressure on the building. The wind pressures given in Table II shall apply and the structure and its anchorage to the main building designed to resist the full wind loading so calculated.

Local Effects of Wind.

9. (a) Overhanging cornices and eaves shall be designed for an upward pressure equal to twice the appropriate basic wind pressure.

(b) All fastenings for wall and roof sheeting or covering within a distance of one-sixth of the length of the span, in the case of roofs, from the eaves, or ridge of the roof slope, and one-sixth of the length of the wall, in the case of both roofs and walls from each end of the walls, shall be designed for an

outward suction equal to twice the appropriate basic wind pressure.

10. (a) Solid signs erected at ground level shall be designed for a wind load of 25 lbs. per sq. foot. Solid signs on roofs shall be designed for the basic wind pressure appropriate to the height zone of the centre of the sign. Signs in which the open area is less than one quarter of the gross area shall be considered to be solid signs. Signs.

(b) Open signs erected at ground level shall be designed for a wind pressure of 50 lbs. per sq. foot. Open signs on roofs shall be designed for a pressure equal to twice the basic wind pressure appropriate to the height zone of the centre of the sign. These pressures shall be applied to the aggregate projected area of all the members of the sign.

11. Provision shall be made for wind stresses during the erection of any building. Wind Forces during erection.

11th December, 1959.

A. INGLIS,
Director of Public Works.

No. 1731.

RESETTLEMENT ORDINANCE, 1958.
(Ordinance 16 of 1958).

Pursuant to subsection (2) of section 52 of the Resettlement Ordinance, 1958, it is hereby notified that in exercise of the powers conferred by subsection (1) thereof the Governor has reduced the area of Crown land set aside by virtue of subsection (3) of section 37 of the Ordinance and more particularly described as the Chai Wan Cottage Resettlement Area; the limits and extent of the reduction are more particularly shown edged red on a new map signed by the Director of Public Works on the nineteenth day of November, 1959, and deposited in the Land Office on the twenty first day of November, 1959, as provided by subsection (2) of section 37.

No. 1732.

COMPANIES REGISTRY.
COMPANIES ORDINANCE.
(Chapter 32).

Pursuant to section 276(3) of the Companies Ordinance, notice is hereby published that at the expiration of three months from the date hereof, the names of the undermentioned Companies will, unless cause is shown to the contrary, be struck off the register and the Companies will be dissolved:—

COURTLANDS LIMITED.

FAR EAST MERCANTILE LIMITED.

11th December, 1959.

W. K. THOMSON,
Registrar of Companies.