

over the activities of the persons on the premises, and that, in order to be an occupier, it is not necessary for a person to have complete control over the premises, but it is sufficient for him to share the control with others (*Wheat v Bladen* [1966] AC 552, [1966] 1 All ER 582 (HL); *Kearney v Eric Walker Ltd* [1967] 1 QB 29, [1965] 3 All ER 352; *H & N Emanuel Ltd v GLC* [1971] 1 All ER 835, 115 Sol Jo 226 (CA); *Harris v Birkenhead Corp* [1976] 1 All ER 341, [1976] 1 WLR 279 (CA); and *Jackson v Hall* [1980] AC 854, [1980] 1 All ER 177 (HL)). It includes a person who has a license entitling him to possession see (*Stevens v London Borough of Bromley* [1972] Ch 400, [1972] 1 All ER 712 (CA); and *R v Tao* [1976] 2 All ER 65, [1976] 3 WLR 25 (CA)). See also *AG v Cabot Plastics Hong Kong Ltd* (unreported, HCMA 25/1992, 14 May 1992) construing 'occupier of the said premises' under regs 2 and 11 of Air Pollution Control (Furnaces, Ovens and Chimneys) (Installations and Alteration) Regulations (Cap 311A).

A contractor may be in occupation of the site for the purposes of the Occupiers Liability Ordinance (Cap 314) and the issue has been considered in *Chu Keung Fai v Lai Chak Man* [1988] HKC 103 (CA); *Yeung Wan Chun (Administratrix of the estate of Yu Chi Wai, deceased) v Kwok Wing Kwan t/a Golder Harvest Transportation and Anor* [1987] 3 HKC 288; *Ma Hui Tung Kuk & Anor v Cheong Hing Ha Kee Construction Co Ltd & Anor* [1992] 2 HKC 391; and *Wong Chi Shing v Argos Engineering and Heavy Industries Co Ltd* [1995] 1 HKC 598. Where the contractor is in occupational control of the premises, he will owe lawful visitors a duty to see that the premises are safe for the purpose of their visit: see for example, *Yeung Kam Fuk v Len Shing Construction Co Ltd* [1986] HKC 160; *Lee Yau Cheung v Leto King Tung (t/a Tung Lee Building Const (a firm)) & Anor* [1986] HKC 246; and *Chan Yuk Lee v Chan Chiu Ying & Ors* [1987] HKC 24 (unreported, HCA No A235 of 1985, 20 March 1987) (HC). Such a contractor would not be held directly responsible for an independent contractor if he could bring himself within s 3(4)(b) of the Occupiers Liability Ordinance. *Yeung Kam Fuk v Len Shing Construction Co Ltd* (supra), (*AMF International v Magnet Bowling* [1968] 2 All ER 789 followed).

In discharging his duty, the occupier may rely upon a visitor guarding against 'special risks' ordinarily incident in the exercise of his calling: see the Occupiers Liability Ordinance (Cap 314) s 3(3)(b). The duties of occupiers and the common duty of care under s 3(1) of the Occupiers Liability Ordinance have been considered in a large number of cases: see *Halsbury's Laws of Hong Kong: Building and Construction* (2nd Edn, 2013 Reissue), para [65.019] and *Halsbury's Laws of Hong Kong: Tort* (2nd Edn, 2015 Reissue). See also the definition of 'domestic building' and 'building' above.

[2.22] Owner

The definition of 'owner' includes a person entitled to receive rents and profits from the land, such as a manager of a *t'ong*: see *A-G v Lam Mei Chai* [1997] 1 HKC 22 (HC) at p 25, [1997] HKLRD 196 (HC) at p 199.

[2.23] Registered contractor

'Contractor' includes the contractor undertaking the work, as well as the principal contractor responsible for a construction site: see *R v Tusk Way Ping* [1993] 2 HKC 675 at p 684, per Patrick Can J; and the Construction Sites (Safety) Regulations (Cap 59I) regs 2(2)(a), 38A(b) and 38P(1). See also the definitions of 'register' and 'Architects Registration Board' above.

[2.24] Regulations

This term means rules and regulations made under this Ordinance. These regulations include the following: the Building (Construction) Regulations (Cap 123B); the Building (Demolition Works) Regulations (Cap 123C); Building (Private Streets and Access Roads) Regulations (Cap 123G); Building (Refuse Storage Chambers and Chutes) Regulations (Cap 123H); Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations (Cap 123I); Building (Ventilating Systems) Regulations (Cap 123J); and the Building (Oil Storage Installations) Regulations (Cap 123K).

In addition there are other regulations that are particularly relevant to building and construction as well as a considerable number of Works Bureau (formerly Works Branch) technical circulars and Practice Notes. See the Construction Sites (Safety) Regulations: Public Works Departmental Technical Circular No 3/74; Site Development - Aesthetic Aspects: Public Works Departmental Technical Circular No 7/79; Safety on Construction Sites: Public Works Departmental Technical Circulars No 19/80; Specification: Concrete for Structures: Lands and Works Branch Technical Circular No 16/83; Specification: Concrete for Minor and Non-structural Work: Lands and Works Branch Technical Circular No 17/83; Lands and Works Practice Note No 2 - The General Specification: Concrete for Structures: Lands and Works Branch Technical Circular No 12/84; Prior Approval System for Permanent Prestressed Ground Anchors (PASA): Public Works Departmental Technical Circular No 2/89; Construction Standard 1:1990 - Testing Concrete: Works Branch Technical Circular No 14/91; Practice Note for Registered Contractors No 10 (PNRC 10) 'Testing Concrete - Construction Standard CS 1:1990' issued by the Buildings Ordinance Office in April 1980 and as revised in May 1991; Permanent Reinforced Fill Structures: Works Branch Technical Circular No 19/91; The Use of Tropical Hardwood on Construction Sites: Works Branch Technical Circular No 32/92; Construction Site Security: Works Branch Technical Circular No 11/93; Construction Site Security: Works Branch Technical Circular No 11/93; Construction Standards Used in Hong Kong: Works Branch Technical Circular No 24/93; Quality Assurance for Structural Concrete: Works Branch Technical Circular No 3/94; Specification Clauses to Guard Against the Occurrence of Alkali-aggregate Reaction in Concrete Structures: Works Branch Technical Circular No 5/94; Restrictions on the Use of Hand-dug Caissons for Foundations and Geotechnical Works: Works Branch Technical Circular No 9/94; Model Specification for Protective Coatings for Concrete: Works Branch Technical Circular No 10/94; Construction Site Safety Manual: Works Branch Technical Circular No 11/95; Independent Checking of the Design, Erection, Use and Removal of Temporary Works: Works Branch Technical Circular No 15/96; and Construction Standard CS2: 1995 - Carbon Steel Bars for the Reinforcement of Concrete: Works Branch Technical Circular No 24/95.

[2.25] Site formation works

Site formation works would generally involve excavation, grading, levelling, perhaps impacting, filling etc: see *R v Way Luck Industrial Ltd* [1995] 2 HKC 290 (HC). See the definition of 'groundwater drainage works' above.

To facilitate and expedite the processing of its formation proposals and to delineate clear responsibilities, the Building Authority adopts a system of splitting submissions: see para 2 of the Practice Note for Authorized Persons and Registered Structural Engineers No 200 (PNAP 200) 'Submission of Site Formation Proposals' issued by the Buildings Department in October 1996.

[2.25A] Specialised works

In exercise of the power conferred on the Building Authority to designate works that are required to be carried out by a registered specialist contractor, four categories of work have been designated as specialised works by the Building Authority with effect from 1 April 1998. They are: (a) ventilation, (b) demolition, (c) foundation and (d) site formation. See para 3 of the Practice Note for Authorized Persons and Registered Structural Engineers No 214 (PNAP 214) 'New Contractor Registration System and the Contractors Registration Committee' issued by the Buildings Department in November 1997 and April 1998 and the Practice Note for Registered Contractors No 38 (PNRC 38) 'New Contractor Registration System and the Contractors Registration Committee' issued by the Buildings Department in November 1997 and April 1998. It is expected that new proposals on the registration of subcontractors will soon be put forward under the auspices of the Provisional Construction Industry Co-ordination Board.

[2.26] Street

The term 'street' is broadly defined and has been construed in planning contexts, notably under the Building (Planning) Regulations 1956 (Cap 123F): see, for example, *Aik San Realty Ltd v A-G* [1982] HKC 320 (PC); *A-G v Cheng Yick Chi* [1983] 1 HKC 14 (PC); *Attorney General v Mightystream Ltd* [1983] 1 HKC 8, [1983] 1 WLR 980 (PC) (road-bridge); *Hinge Well Co Ltd v A-G* [1988] 1 HKLR 32, [1987] 1 HKC 44 (PC) (scavenging lane); *Beaux Estates Ltd v A-G* [1983] 1 HKC 317 (grass verges); *Cho Hsun CO Ltd v A-G* [1983] HKC 620; *A-G v Firebird Ltd* [1983] 1 HKC 1 (PC); *Blotner Ltd v Hong Kong Building Authority* [1993] HKDCLR 9; *R v Buildings Ordinance Appeal Tribunal, ex p Widearn Investments Ltd* (unreported, MP No 600/1994, per Mayo J; *Kaifull Investment Ltd v Sonnix Ltd* [1994] 1 HKC 295, [1994-95] CPR 65 (CA); and *Sonnix Ltd v Kaifull Investments Ltd* (HCA 5793/1993, unreported) (service lane); *Club Lusitano v Director of Public Works* [1961] HKLR 554 (FC) (footpath); and *Cheong Ming Investment Co Ltd v A-G* (unreported, HCA No 250 of 1979) (HC). See also the note 'regulation ... site coverage, plot ratio ...' to s 38(1)(c) below. See also *Circumwealth Ltd v A-G* [1993] 2 HKLR 193, a case on s 16(1)(h) below where the word 'street' was discussed.

The seminal authority on the meaning of 'street' was laid down in *Building Authority v Appeal Tribunal (Buildings) and Estoree Ltd* [1999] 3 HKC 247 (unreported, HCAL 147/2002, 25 July 2003), where Hartmann J (as he then was) in recognising that

the word 'street' is used in different context under the Buildings Ordinance and its subsidiary legislations, said that a 'street' has: (i) the physical characteristics of a street and (ii) there is some third party right of way over that area. He also confirmed that the explicit definitions in the present Ordinance and in the Building (Planning) Regulations have to be considered together. The wording of reg 2(1) of the Building (Planning) Regulations showed beyond doubt that the definition in the said Regulations was supplementary to, and not in replacement of, that in s 2 of the present Ordinance: see *Hinge Well Co Ltd v A-G* [1987] 1 HKC 44, [1986-88] CPR 51 (PC) (supra) at p 36, per Lord Oliver. If any doubt existed on the introductory words, it would be removed by the fact that the express definition of 'street' was in the inclusive form, and clearly shown to be so intended by the fact that all other definitions contained in reg 2 were prefaced by the word 'means': see *Attorney General v Mightystream Ltd* (supra). Any part of a footpath can be a street when the definitions of 'street' under the Ordinance and the Regulations are considered together: see *Mayloy Development Ltd v Director of Lands* (LDAR 4/1998); *Tam Kan Julia (Executrix of Estate of Kan Sik Kau (Dec'd)) v Director of Lands* [2000] CPR 416.

In the consolidated actions of *Mayloy Development Limited v The Director of Lands* (LDLR 4/1998) and *Julia Tam Kan v The Director of Lands* (LDLR 5/1998), the Lands Tribunal considered the definitions of 'street' under the Building Ordinance and the Building (Planning) Regulations.

See the guidelines in determining what constitutes a street for the purpose of site classification under regs 2(1) and 2(2) of the Building (Planning) Regulations para 2 of the Practice Note for Authorized Persons and Registered Structural Engineers No 263 (PNAP 263) 'Streets for Site Classification' issued by the Buildings Department in October 2001.

See also the meaning of 'street' under other legislation, for example, the Public Health and Municipal Services Ordinance (Cap 132) and the Interpretation and General Clauses Ordinance (Cap 1) considered in *A-G v Hui Shu Sang* [1993] 2 HKC 526; and the Public Reclamations and Works Ordinance (Cap 113) considered in *CG & L Investment Ltd v Director of Lands* [1982] HKC 610, Land Tribunal.

'Passage' has been construed to exclude a garden path giving access from the front gate to the door of a house: see *Denton Urban District Council v Burstead Properties Ltd* [1955] 1 All ER 273. 'Passages' also appears in Sch 2, s 118(6).

Car parking spaces are part of a street for purposes of the Buildings Ordinance and the Building (Planning) Regulations: see *Smart Fortune Limited and Ors v Building Authority* (unreported, Appeal Case No 128-96). In the case, whilst the subject area was used as car parking spaces, it was still part of a communicating link between passages on either side of the site and was also an area over which the adjoining owners had a right of way. Therefore, the Tribunal decided that the subject area fell within the definition of a street for the purposes of regulation 23(2)(a) of the Building (Planning) Regulations.

In *Ohori Investment Ltd v Building Authority* (unreported, Case No 59/1991) the Tribunal held that 'street' means more than a passage or thoroughfare under the statutory definition.

In *Fairbo Investment Ltd v Appeal Tribunal (Buildings)* [2014] 3 HKLRD 99, Au

J held that the definition of 'street' as held in *Estoree* in respect of the Building (Planning) Regulations applies equally to the meaning of 'street' under s 31(1) of this Ordinance. See also *Fairbo Investment Ltd & Anor v Building Authority* (unreported, Appeal Tribunal (Buildings), Case Nos 982 & 1086 of 2010, 12 May 2015).

[2.26A] Street works

The definition makes it clear that 'street works' are works for the construction, formation or laying out of any private street or access road. And thus, by definition, would therefore not be applicable to works for the demolition of a private street. See *Proposed Development At 1-8 Tien Poa Street, Hong Kong* (unreported, Case No 70-93). See also [31.07A] below.

[2.27] And

Conjunctive words should be read as conjunctive unless in a rare case the context shows that the necessary meaning of disjunctive as in *Golden Horseshoe Estates Co Ltd v R* [1911] AC 480, 80 LJPC 135 (PC). See also 'Or' at [2.28] below.

[2.28] Or

In general disjunctive words should be read as disjunctive unless in a rare case the context shows that the necessary meaning is conjunctive as in *A-G v Chin Man-lun* [1989] 1 HKLR 99, [1989] HKCU 353 (CA), where the word 'or' in s 30 of the Summary Offences Ordinance (Cap 228) in the phrase 'possession, conveying' was not construed disjunctively and there relying upon s 2 of the Interpretation and General Clauses Ordinance (Cap 1). See also *Mersey Dock and Harbour Board v Henderson Brothers* (1888) 13 App Cas 595 at p 603, 58 LJQB 152 (HL), per Lord Halsbury LC; *Walker v York Corpn* [1906] 1 KB 724, 75 LJKB 413; and *Green v Premier Glynrhonwy Slate Co* [1928] 1 KB 561, 97 LJKB 32 (CA).

[2.29] Person

Unless the contrary intention appears, this includes any public body and any body of persons, corporate or unincorporate: see the Interpretation and General Clauses Ordinance (Cap 1) s 3.

[2.30] Public

For cases on the meaning of 'public', 'members of the public' and 'the public' in various contexts, see *Tatem Steam Navigation Co Ltd v IRC* [1941] 2 KB 194, [1941] 2 All ER 616 (CA); *Income Tax Comr v Bjordal* [1955] AC 309, [1955] 1 All ER 401 (PC); *DPP v Milbanke Tours Ltd* [1960] 2 All ER 467; *Morrison Holdings Ltd v IRC* [1966] 1 WLR 553; *IRC v Park Investments Ltd* [1966] Ch 701, [1966] 2 All ER 785 (CA); *R v Delmayne* [1970] 2 QB 170, [1969] 2 All ER 980 (CA); and *Beynon v Caerphilly Lower Licensing Justices* [1970] 1 All ER 618, (1969) 114 Sol Jo 90.

[2.31] Subsection (2): May be carried out and exercised by an officer of any Department of the Government specified in the Fourth Schedule who is authorised by the Director of Buildings

Since 1 August 1993, building development in the private sector has been the responsibility of the Buildings Department, formerly the Buildings Ordinance Office. The Buildings Department is headed by a Director of Buildings. The powers granted to the Building Authority under the Buildings Ordinance may be carried out and exercised by any officer authorised by the Director of Buildings albeit subject to his instructions either generally or particularly. While delegation may thus take place, there are still distinct roles which various officers, for example, public officer, play as distinct from persons entrusted with specific duties, for example, authorised persons. On the distinction between a 'public officer' and an 'authorized person' under the Crown Land Ordinance (Cap 28) (now known as the Land (Miscellaneous Provisions) Ordinance by virtue of s 2 of the Adaptation of Laws (Crown Land) Ordinance 1998 (29 of 1998)), see *R v Yip Kin Kwok* [1990] 1 HKC 362. The Buildings Department is divided into several specialised divisions including control and enforcement, development, structural engineering, litigation and legislation. The Buildings Department plays important roles in safety matters and control of buildings, routinely issuing demolition orders and orders with regard to unauthorised and dangerous structures and is also responsible for granting occupation permits. The actions may be taken by public officers or others in designated roles. See also *Halsbury's Laws of Hong Kong: Administrative Law* (2nd Edn, 2014 Reissue), paras [10.026], [10.030] – 'Sub-delegation of powers'.

[2.32] May

As to meaning, see *Halsbury's Laws of Hong Kong: Administrative Law* (2nd Edn, 2014 Reissue), para [10.026] – 'Duty and discretion'.

[2.33] An officer of any Department of the Government

Previously before the Buildings (Amendment) (No 2) Ordinance (73 of 1985) in 20 November 1985, it was 'any officer of the Building Development Department'. Any public officer whom the Director of Building Development purported to authorise for the purposes of s 2(2) of the present Ordinance before the commencement of Ordinance No 73 of 1985 shall be deemed to have been validly authorised, notwithstanding that the public officer was not an officer of the Building Development Department: see s 4 of Ordinance No 73 of 1985.

[2.34] Fourth Schedule

The schedules as a general rule concern matters, which for considerations of space or clarity, cannot be conveniently inserted in the body of the legislation, or are transitory or procedural in their operation, or more conveniently placed separate from the permanent substantive provisions of the legislation. The Schedules still form part of the legislation as much as the sections in the legislation which introduces them: see *A-G Lamplough* (1878) 3 Ex D 214 (CA) at p 229, per Brett LJ; *Flower Freight Co Ltd v Hammond* [1963] 1 QB 275, [1962] 3 All ER 950;

and *Metropolitan Police Comr v Curran* [1976] 1 All ER 162, [1976] 1 WLR 87 (HL). See also the definition of 'Building Authority' above.

2A. Designation of specialized works

- (1) The Building Authority may designate any category of building works or street works as specialized works.
- (2) The Building Authority shall notify in the Gazette a designation under subsection (1).
- (3) The notification in subsection (2) is not subsidiary legislation. (Added 20 of 2008 s. 4)

[2A.01] Enactment history

S 2A was added pursuant to the Buildings (Amendment) Ordinance 2008 (20 of 2008) s 4, commenced 15 December 2008.

[2A.02] General note

The effect of designating certain works as specialised works is that the provisions concerning specialised works would apply. Such provisions are s 8A, s 9, and s 11.

[2A.03] Building authority

See definition in s 2(1).

[2A.04] Building works

See definition in s 2(1).

[2A.05] Gazette

See definition in s 3 of the Interpretation of General Clauses Ordinance (Cap 1).

[2A.06] Specialised works

It is defined in s 2(1) to mean building works or street works designated as specialised works under this section.

[2A.07] Street works

See definition in s 2(1).

[2A.08] Subsidiary legislation

See definition in s 3 of the Interpretation of General Clauses Ordinance (Cap 1).

PART 1

AUTHORIZED PERSONS, REGISTERED STRUCTURAL
ENGINEERS, REGISTERED GEOTECHNICAL ENGINEERS,
REGISTERED INSPECTORS AND REGISTERED
CONTRACTORS*

Note: * (Amended 52 of 1974 s. 3; 43 of 1987 s. 44; 54 of 1996 s. 3; 15 of 2004 s. 3; 16 of 2011 s. 5)

3. Registers of authorized persons, structural engineers, geotechnical engineers and inspectors#

- (1) The Building Authority shall keep a register (hereinafter referred to as the *authorized persons' register*) of all persons who are qualified to perform the duties and functions of an authorized person in accordance with this Ordinance.
- (2) The authorized persons' register contains-
 - (a) a list of architects;
 - (b) a list of engineers; and
 - (c) a list of surveyors. (Replaced 54 of 1996 s. 4)
- (3) The Building Authority shall keep a register (hereinafter referred to as the *structural engineers' register*) of all persons who are qualified to perform the duties and functions of structural engineers (relating to more advanced structural designs of building works or street works) in accordance with this Ordinance.
- (3A) The Building Authority shall keep a register (hereinafter referred to as the *geotechnical engineers' register*) of all persons who are qualified to perform the duties and functions of geotechnical engineers (relating to geotechnical designs of building works or street works) in accordance with this Ordinance.
- (3B) The Building Authority must keep a register (the *inspectors' register*) of all persons who are qualified to perform the duties and functions of inspectors in accordance with this Ordinance. (Added 16 of 2011 s. 6)
- (3C) The inspectors' register contains-
 - (a) a list of architects;
 - (b) a list of engineers; and
 - (c) a list of surveyors. (Added 16 of 2011 s. 6)
- (4) The Building Authority shall publish annually in the Gazette the names of-

- (a) the persons included in each of the lists in the authorized persons' register; (Amended 15 of 2004 s. 4)
 - (b) the persons included in the structural engineers' register; (Amended 15 of 2004 s. 4; 16 of 2011 s. 6)
 - (c) the persons included in the geotechnical engineers' register; and (Added 15 of 2004 s. 4. Amended 16 of 2011 s. 6)
 - (d) the persons included in each of the lists in the inspectors' register. (Added 16 of 2011 s. 6)
- (5) The Building Authority is to establish 4 panels with sufficient members from whom he is to appoint committees to be known respectively as Authorized Persons Registration Committees, Structural Engineers Registration Committees, Geotechnical Engineers Registration Committees and Inspectors Registration Committees. The Building Authority may appoint more than one Registration Committee of each type at any one time. (Replaced 54 of 1996 s. 4. Amended 15 of 2004 s. 4; 16 of 2011 s. 6)
- (5A) The function of a Registration Committee is to assist the Building Authority in considering applications for inclusion in the relevant register by-
- (a) examining the qualifications of applicants;
 - (b) inquiring as the relevant Registration Committee considers necessary to ascertain whether an applicant has the relevant experience;
 - (c) conducting professional interviews with applicants; and
 - (d) advising the Building Authority to accept, defer or reject applications for inclusion in the relevant register. (Added 54 of 1996 s. 4)
- (5B) An Authorized Persons Registration Committee consists of-
- (a) 4 authorized persons nominated by the Architects Registration Board from the list of architects in the authorized persons' register;
 - (b) 2 authorized persons nominated by the Engineers Registration Board from the list of engineers in the authorized persons' register;

- (c) 1 authorized person nominated by the Surveyors Registration Board from the list of surveyors in the authorized persons' register;
 - (d) an Assistant Director of Buildings nominated by the Building Authority; and
 - (e) 1 person selected by the Building Authority from among the persons nominated in accordance with subsection (5E). (Added 54 of 1996 s. 4)
- (5C) A Structural Engineers Registration Committee consists of-
- (a) 3 registered structural engineers nominated by the Engineers Registration Board;
 - (b) 1 authorized person nominated by the Architects Registration Board from the list of architects in the authorized persons' register;
 - (c) 1 authorized person nominated by the Surveyors Registration Board from the list of surveyors in the authorized persons' register;
 - (d) an Assistant Director of Buildings nominated by the Building Authority; and
 - (e) 1 person selected by the Building Authority from among the persons nominated in accordance with subsection (5E). (Added 54 of 1996 s. 4)
- (5CA) A Geotechnical Engineers Registration Committee consists of-
- (a) 3 registered geotechnical engineers nominated by the Engineers Registration Board;
 - (b) 1 authorized person nominated by the Architects Registration Board from the list of architects in the authorized persons' register;
 - (c) 1 authorized person nominated by the Surveyors Registration Board from the list of surveyors in the authorized persons' register;
 - (d) 1 registered structural engineer nominated by the Engineers Registration Board;
 - (e) 1 person nominated by the Building Authority as his representative;
 - (f) 1 public officer of the rank of Government Geotechnical Engineer nominated by the Director of Civil Engineering and Development; and
 - (g) 1 person selected by the Building Authority from

- among the persons nominated in accordance with subsection (5E). (Replaced 20 of 2008 s. 5)
- (5CB) An Inspectors Registration Committee consists of-
- (a) 1 registered inspector nominated by the Architects Registration Board from the list of architects in the inspectors' register;
 - (b) 1 registered inspector nominated by the Engineers Registration Board from the list of engineers in the inspectors' register;
 - (c) 1 registered inspector nominated by the Surveyors Registration Board from the list of surveyors in the inspectors' register;
 - (d) 1 person nominated by the Building Authority as the Building Authority's representative; and
 - (e) 1 person selected by the Building Authority from among the persons nominated in accordance with subsection (5E). (Added 16 of 2011 s. 6)
- (5D) The Building Authority is to appoint an officer of the Buildings Department as the secretary of each Registration Committee, who is not a member of either Registration Committee and may not cast a vote. (Added 54 of 1996 s. 4)
- (5E) For the purpose of subsections (5B), (5C) and (5CA), the Building Authority is to invite such bodies as the Building Authority may think fit to nominate persons for the Building Authority to consider for appointment to each of the respective Registration Committees. (Added 54 of 1996 s. 4. Amended 15 of 2004 s. 4; 16 of 2011 s. 6)
- (5F) A person appointed to be a member of the Authorized Persons', Registered Structural Engineers' and Registered Geotechnical Engineers' Disciplinary Board Panel under section 5A must not be a member of a Registration Committee. (Added 54 of 1996 s. 4. Amended 15 of 2004 s. 4; 16 of 2011 s. 6)
- (5FA) A person appointed to be a member of the Registered Inspectors' Disciplinary Board Panel under section 5A must not be a member of an Inspectors Registration Committee. (Added 16 of 2011 s. 6)
- (5G) The quorum for a meeting of a Registration Committee (other than a Geotechnical Engineers Registration Committee or an Inspectors Registration Committee) is—
(Amended 15 of 2004 s. 4; 16 of 2011 s. 6)

- (a) the Chairman of the committee;
 - (b) the Assistant Director of Buildings nominated under subsection (5B)(d) or (5C)(d); and
 - (c) 3 other members for an Authorized Persons Registration Committee and 2 other members for a Structural Engineers Registration Committee. (Added 54 of 1996 s. 4)
- (5GA) The quorum for a meeting of a Geotechnical Engineers Registration Committee is-
- (a) the Chairman of the committee;
 - (b) the Building Authority's representative under subsection (5CA)(e); (Amended 20 of 2008 s. 5)
 - (c) the public officer nominated under subsection (5CA)(f); and (Amended 20 of 2008 s. 5)
 - (d) 2 other members. (Added 15 of 2004 s. 4)
- (5GB) The quorum for a meeting of an Inspectors Registration Committee is-
- (a) the Chairman of the committee;
 - (b) the Building Authority's representative under subsection (5CB)(d); and
 - (c) 1 other member. (Added 16 of 2011 s. 6)
- (5H) At least one member of the Registration Committee (other than an Inspectors Registration Committee) at a meeting hearing an application for inclusion in a register must be-
- (Amended 16 of 2011 s. 6)
- (a) for an Authorized Persons Registration Committee, on the same list in the authorized persons' register as that on which the applicant wishes to be included; (Amended 15 of 2004 s. 4)
 - (b) for a Structural Engineers Registration Committee, a registered structural engineer; and (Added 54 of 1996 s. 4. Amended 15 of 2004 s. 4; 20 of 2008 s. 5)
 - (c) for a Geotechnical Engineers Registration Committee under subsection (5CA)(a), a registered professional engineer nominated under that subsection. (Added 15 of 2004 s. 4. Amended 20 of 2008 s. 5)
 - (d) (Repealed 20 of 2008 s. 5)
- (5I) The Chairman of a Registration Committee is elected by its members. (Added 54 of 1996 s. 4)

- (5J) A Registration Committee is required to meet as often as the Building Authority directs. (Added 54 of 1996 s. 4)
- (6) Every applicant for inclusion in the authorized persons' register, the structural engineers' register or the geotechnical engineers' register shall submit his application in the specified form to the secretary of the respective Registration Committee. (Amended 68 of 1993 s. 3; 15 of 2004 s. 4; 16 of 2011 s. 6)
- (6A) An applicant under subsection (6)-
- (a) (Repealed 15 of 2004 s. 4)
 - (b) shall pay-
 - (i) upon submission of the application, the non-refundable prescribed fee for processing of the application;
 - (ii) upon the application being granted, the respective prescribed fees for inclusion and retention of his name in the appropriate register.
- (7) A person must not be included in a register unless-
- (a) he has obtained the prescribed qualifications; and
 - (b) he is recommended by the respective Registration Committee for inclusion. (Replaced 54 of 1996 s. 4. Amended 16 of 2011 s. 6)
- (7AA) A person may be included in the inspectors' register without recommendation by an Inspectors Registration Committee if the person is-
- (a) an authorized person or a registered structural engineer with relevant experience as prescribed in the regulations; or
 - (b) within the period of 12 months beginning on the commencement* of section 6 of the Buildings (Amendment) Ordinance 2011 (16 of 2011)-
 - (i) a registered architect nominated by the Architects Registration Board with not less than 5 years of experience in building design, construction, repair and maintenance before the nomination;
 - (ii) a registered professional engineer nominated by the Engineers Registration Board with not less than 5 years of experience in building design, construction, repair and maintenance before the nomination; or
 - (iii) a registered professional surveyor nominated by the Surveyors Registration Board with not

- less than 5 years of experience in building design, construction, repair and maintenance before the nomination. (Added 16 of 2011 s. 6)
- (7A) If an applicant for inclusion in a register fails to satisfy subsection (7), the Building Authority shall refuse the application. (Added 54 of 1996 s. 4)
- (7B) If an applicant for inclusion in a register satisfies subsection (7), the Building Authority shall grant the application unless for other reasons he thinks fit to refuse the application. (Added 54 of 1996 s. 4)
- (7C) The Building Authority shall give reasons in writing to—
- the applicant for the refusal of an application for inclusion in a register;
 - the respective Registration Committee for the refusal of an application for inclusion in a register, and the reasons must refer to the requirements of subsections (7) and (7B). (Added 54 of 1996 s. 4)
- (7D) In subsections (7), (7A), (7B) and (7C), **register** (名冊) means the authorized persons' register kept under subsection (1), the structural engineers' register kept under subsection (3), the geotechnical engineers' register kept under subsection (3A) or the inspectors' register kept under subsection (3B), as the case requires. (Replaced 16 of 2011 s. 6)
- (8) Subject to subsection (7), a person's name may be included in more than one of the following registers— (Amended 15 of 2004 s. 4)
- the authorized persons' register;
 - the structural engineers' register; and
 - the geotechnical engineers' register,
 - the inspectors' register, (Added 16 of 2011 s. 6)
- and in more than one list in the authorized persons' register or the inspectors' register. (Amended 15 of 2004 s. 4; 16 of 2011 s. 6)
- (9) In respect of every application for inclusion in any list in the authorized persons' register, in the structural engineers' register, in the geotechnical engineers' register or in any list in the inspectors' register (except for an application made by a person mentioned in subsection (7AA)), the Building Authority shall within 3 months from

- the date of the meeting of the respective Registration Committee at which the application was considered— (Amended 15 of 2004 s. 4; 16 of 2011 s. 6)
- on payment by the applicant of the prescribed fees mentioned in subsection (6A)(b)(ii), publish in the Gazette and enter in the appropriate list or, as the case may be, register the name of that applicant; or (Replaced 39 of 2000 s. 2)
 - inform the applicant that his application is deferred for a period not exceeding 12 months; or
 - refuse his application.
- (9AA) For an application made by a person mentioned in subsection (7AA) for inclusion in any list in the inspectors' register, the Building Authority must within 1 month after the date of receiving the application—
- on payment by the applicant of the prescribed fees mentioned in subsection (6A)(b)(ii), publish in the Gazette and enter in the appropriate list the name of that applicant; or
 - refuse the application. (Added 16 of 2011 s. 6)
- (9A) An application that has been deferred under subsection (9)(b) shall, when it comes up for consideration again—
- be accepted, so that the applicant is included in the appropriate list or registered, as the case may be, upon payment of the prescribed fee; or
 - be refused. (Added 57 of 1987 s. 3)
- (9B) A person—
- whose name is included or retained in or restored to the authorized persons' register, the structural engineers' register, the geotechnical engineers' register or the inspectors' register, under this section, (Amended 16 of 2011 s. 6)
 - (Repealed 15 of 2004 s. 4)
- may apply to the Building Authority, in accordance with subsection (9C), for the further retention or retention, as may be appropriate, of his name in the register for a period of 5 years. (Added 77 of 1994 s. 3. Amended 15 of 2004 s. 4)
- (9C) An application under subsection (9B) shall be—
- in the specified form;
 - made so as to be received by the Building

investigation. This subsection was later amended pursuant to the Adaptation of Laws (Crown Land) Ordinance (29 of 1998) s 105.

Subsection (3) was amended pursuant to the Buildings (Amendment) (No 2) Ordinance (91 of 1990) s 4, operative on 14 December 1990 (see the enactment history for sub-s (2) above); and the Buildings (Amendment) (No 2) Ordinance 1996 (55 of 1996) s 6, commenced 13 September 1996 (LN 384 of 1996). See the enactment history for sub-s (2D).

Subsections (3A) and (3B) were added pursuant to the Buildings (Amendment) (No 2) Ordinance 1996 (55 of 1996) s 6, commenced 13 September 1996. See the enactment history for sub-s (2D).

See *HKSAR v Liem Hung and Others* [1999] HKCU 1534 (unreported, HCMA 554/1999, 22 December 1999) in respect of a challenge of the lawfulness of a s 27A order, the standard for compliance and penalty for non-compliance.

[27A.02] General note

The powers in respect of dangerous buildings are mirrored to some extent with regard to dangerous hillsides as well: see s 26 above.

The Court of Final Appeal considered that simple deterioration or, in an appropriate case, a defect in design or construction would bring the matter within s 27A: see *Liem Hung and Others v HKSAR* (unreported, FAMC 29/1999, 31 January 2000).

Where the Building Authority determines that a slope was liable to become dangerous and issued orders twice and withdrew them twice, resulting in appeals by the appellants becoming 'spent of effect', the Tribunal was not accorded an inherent jurisdiction to award the costs of the proceedings to the appellant as it was bound by s s 50(1) below. See also [51.02] below.

As a general principle, the responsibility for maintenance of a structure falls on the owners of individual sections of a lot even though such structure is formed/constructed for the development of the whole lot: see Clause 3.1 of the Dangerous Building s Manual. In *Wong Chung-man and Ors v Building Authority* (unreported, Case Nos 37-96, 38-96, 59-96, 66-96, 57-96, 68-96, L.M 85/96), the Tribunal held that an order under s 27A should be served on the owners of the subject structure (which was an individual section of a lot) only and not on the owners of other sections of the lot when it was not the case that the subject structure was formed or constructed for the development of the whole lot.

As to the standards of good practice in investigation, design, construction and maintenance of slopes and site formation works in Hong Kong, see the Geotechnical Manual for Slopes (Second Edition, 1984). For guidance with regard to the interpretation of the Manual refer to Appendix A of the Practice Note for Authorized Persons and Registered Structural Engineers No 234 (PNAP 234) 'Geotechnical Manual for Slopes - Guidance on Interpretation and Updating' issued by the Buildings Department in June 1999. With regard to guidance as to the maintenance of slopes, see Guide to Slope Maintenance (GeoGuide 5).

In addition, the Practice Note for Authorized Persons and Registered Structural Engineers No 183 (PNAP 183) 'Keeping Buried Services out of Slopes' issued

by the Buildings Department in June 1995 provides guidelines on keeping buried services out of slopes and on dealing with cases where it is not possible to do so. See generally the Practice Note for Authorized Persons and Registered Structural Engineers No 168 (PNAP 168) 'Registration of Slopes and Retaining Walls' issued by the Buildings Department in August 1994 and as revised in February 2002.

[27A.03] Subsection (1): In the opinion of the Building Authority

In view of the wording 'where in the opinion of the Building Authority' the question as to whether a slope or structure is liable to become dangerous or not is to be judged subjectively from the view of the Building Authority: see *Lee Kai Yuen v Building Authority* (unreported, Appeal Case No 34 of 1997). Also see [16.12] above.

[27A.04] Natural, formed, or man-made land, or earth or any earth-retaining structure

This section was considered in the context of dangerous hillsides in *Government Teachers' Co-operative Building Society Ltd v A-G* [1986-88] CPR 12, [1987] 3 HKC 530 (CA).

[27A.05] Damage

As to the meaning of 'damage', see *Smith v Brown* (1871) LR 6 QB 729; *R v Poulter* (1887) 20 QBD 132; and *Ranigar v Frigmobile Pty Ltd* (1983) Tas R 113.

[27A.06] Property

This is defined in s 3 of the Interpretation and General Clauses Ordinance (Cap 1) to include: (a) money, goods, choses in action and land; and (b) obligations, easements and every description of estate, interest and profit, present or future, vested or contingent, arising out of or incident to property as defined in para (a) of this definition.

[27A.07] Order in writing

See [3.54] above.

[27A.08] Owner

See [2.22] above. In *The Incorporated Owners of Pine Hill Villa v Building Authority* (unreported, Case No 157-99) the appellant challenged an order issued under the first limb of s 27A (ie served on the owner of the land) on the ground that the orders should not have been served only on the basis of where the slopes lay. The appellant argued that under a government lease condition, the adjoining owners should be responsible for maintenance of the slopes and the order in question ought to have been issued to them. According to the Building Authority's

internal guidelines set out in the 'Principles in Determining Maintenance Responsibility for the Purposes of a Dangerous Hillside Order' contained in the Slope Safety Section Manual, s 5 No 2, where the dangerous slope/retaining structure falls within the lot boundary, the order under s 27A will be served on the owner of the land but where such structure falls outside the lot boundary, such order will be served on those who, under the lease terms, have an obligation to maintain the same. In the *Pine Hill Villa* case the Tribunal held that the appellant failed to discharge the burden of proof that the adjoining owners are persons, who under the terms of the government lease, were under an obligation to maintain the slope in question and the order could only be issued to the appellant, being the owner of the land on which the slope was situated. While acknowledging the unfairness in requiring the appellant to carry out investigations on the stability of the subject slope, which was formed by and for the benefit of the adjoining owners, the Tribunal held that consideration of such matters couldn't override the clear provisions in s 27A and the appellant would have to seek his redress in some other way. See also [51.01] below.

[27A.09] Obligation to maintain

For cases on the word 'maintenance', see *Sevenoaks, Maidstone & Tonbridge Railway Co v London Chatham & Dover Railway Co* (1879) 11 Ch D 625; *Galashiels Gas Co Ltd v O'Donnell* [1949] AC 275; *Day v Harland & Wolff Ltd* [1953] 2 All ER 387; *Haydon v Kent County Council* [1978] 2 All ER 97.

[27A.10] Registered

This is defined in s 3 of the Interpretation and General Clauses Ordinance (Cap 1) to mean, when used with reference to a document, registered under the provisions of any law applicable to the registration of such a document.

[27A.11] Final and binding

As to the meaning of 'final', see [7.31] above. In *Tang Wong Shi v Lai Chi Chin* (1911) HKLR 1, the court considered the principles governing the distinction between a 'final' decision and an 'interlocutory' decision. One test was whether the decision, as made, finally disposed of the rights of the parties; if it did, it ought to be treated as final. Another test was whether the decision left the rights of the parties uninvestigated and undetermined, and avowedly left those rights to be determined in some other proceeding; if it did, it was not final.

[27A.12] Liable to become dangerous

See for example *Government Teachers' Co-operative Building Society Ltd v A-G* [1986-88] CPR 12, [1987] 3 HKC 530 (HC).

[27A.13] Likely

See [16.30] above.

[27A.14] Risk of injury to any person or damage to any property

For cases on the meaning of 'damage', see *Smith v Brown* (1871) LR 6 QB 729; *R v Poulter* (1887) 20 QBD 132; and *Ranigar v Frigmobile Pty Ltd* (1983) Tas R 113.

[27A.15] Person who under the terms of a Government lease is under an obligation to maintain the land or structure

See for example *Government Teachers' Co-operative Building Society Ltd v A-G* [1986-88] CPR 12, [1987] 3 HKC 530 (HC) discussed in JA McInnis, *Hong Kong Construction Law* (LexisNexis Butterworths, 1996), XXI [790]-[831].

For cases on the meaning of 'terms and conditions', see *London County Council v Bermondsey Bioscope Co Ltd* [1911] KB 445, (1910) 80 LJKB 141; *R v London County Council* [1915] 2 KB 466.

In *Lee Kai Yuen v Building Authority* (unreported, Appeal Case No 34 of 1997) an order issued against the appellant under s 27A, in respect of an earth-retaining structure that was partly within the boundary of his property and partly within the boundary of government land leased to the Urban Services Department. The Building Authority notified the Director of Urban Services of the need to maintain the structure, however, he was not convinced it was his department's responsibility. On appeal, the Tribunal concluded that the responsibility for the structure and maintenance of the subject structure was vested jointly in both the appellant and the Director of Urban Services, but nevertheless, recognised that the Building Authority was not in a position to issue a s 27A order to the Director due to a legal technicality arising out of ss 2, 41(1)(a) and 41(1)(c) of the Buildings Ordinance as well as s 3 of the Interpretation and General Clauses Ordinance. However, the Tribunal unanimously recommended that the Building Authority should take up the matter with the Director to convince him that his department had the responsibility jointly with the appellant to comply with the Building Authority order.

In *Building Authority v Appeal Tribunal (Buildings)* [2016] 1 HKLRD 90, [2015] HKCU 2462 (unreported, HCAL 14/2014, 22 October 2015), the Building Authority appealed against a decision of the Appeal Tribunal (Buildings) allowing an appeal against a s 27A order on the basis that a specific term of the Government lease requiring the applicant to, *inter alia*, carry out repairs of 'Walls, Banks, Cutting Hedges, Ditches, Rails, Lights, Pavements, Privies, Sinks, Drains, and Water-courses' which 'belonged and appertained' to the lots in question (the 'Lots') did not include a potentially dangerous L-shaped soil cut slope adjacent to a house that was in turn adjacent to the Lots. After referring to *Barlow v Rhodes SC 3 Tyr 280*, (1883) 1 C&M 439, Au J held that the Tribunal was correct to hold that the word 'appertaining' was synonymous with 'belonging' but that it was wrong to hold that this only meant those 'Walls, Banks, Cutting Hedges, Ditches, Rails, Lights, Pavements, Privies, Sinks, Drains and Water-courses' that fell or lay within the Lots. The word 'belong' bore the ordinary and natural meaning of 'be rightly assigned or appropriate to as an adjunct' or 'pertain or relate to' or 'be connected as a member, part, inhabitant, dependency etc'. In other words, something could be regarded as 'belonging' to a principal matter if it were part and parcel of the principal matter by being substantially connected to or dependent on the principal

matter. Thus, where it could be shown by evidence that a certain feature, even if it lay outside the Lots, was indispensable to the construction of the buildings of the Lots and/or essential to the survival of the buildings and structures on the Lots, it was likely that such a feature could be regarded as 'appertaining' or 'belonging' to the Lots and therefore part of the term of the Government lease.

[27A.16] Government lease

See [16.47] above.

[27A.17] Definitions

For 'Building Authority', 'Land Registry', 'owner', 'regulations' and 'specified', see s 2(1) above.

[27A.18] Subsection (2): Approval

See [4.15], [14.05] and [15.09] above.

[27A.19] To carry out investigation and submit proposals for approval

In *The Incorporated Owners of Nos 60B, 60C, 62B, 62C Leighton Road and The Incorporated Owners of Nos 62, 62A, 64, 64A Leighton Road v Building Authority* (unreported, Case No 112-99) the Tribunal directed the Building Authority to withdraw an order issued under s 27A(2) against the appellant. The Tribunal held that the appellants, who were the owners of a lower wall, had good grounds for feeling aggrieved by the issue of dangerous hill side orders because the Geotechnical Engineering Office ('GEO'), when recommending the issue of orders to the Building Authority was wrongly under the impression that an upper wall and an adjacent building, not belonging to the appellants, were constructed before the lower wall. The evidence proved that if the GEO had been aware of this fact at the time when consideration was given to the recommendation to be made to the Building Authority, the recommendation might have been different. Given the fact that the upper wall and the adjacent building were indeed constructed after the lower wall, the Tribunal held that the GEO would have to take into account the design and construction of the upper wall and which was tantamount to imposing a surcharge on the lower wall. The Tribunal also concluded that the GEO had to reconsider whether the dangerous hillside orders should have been served on the owners of the lower wall at the outset.

[27A.20] In relation to

Matters 'relating to' or 'in relation to' an issue must themselves exist at the same time as that issue. See *Re Morphet* (1845) 2 Dow & L 967 at 978, per Coleridge J. See also *British Electric Traction Co v Inland Revenue* [1902] 1 KB 441.

[27A.21] Within such time

See [3.60] above.

[27A.22] Subsection (2A): Refuse

As to appeals from decisions of the Building Authority, see s 44(1) below.

[27A.23] Writing

See [3.54] above.

[27A.24] Subsection (2C): Carried out to such standard acceptable to the Building Authority

The Building Authority will potentially consider a wide variety of sources in confirming standards. See notably Compaction of New Fill Slopes: Public Works Departmental Technical Circular No 13/78; Maintenance and Control of Stability of Land: Lands and Works Branch Technical Circular No 9/87; Prior Approval System for Permanent Prestressed Ground Anchors (PASA): Public Works Departmental Technical Circular No 2/89; Permanent Reinforced Fill Structures: Works Branch Technical Circular No 19/91; Control of Visual Impact of Slopes: Works Branch Technical Circular No 25/93; Soil Testing Standard (Phase 1 Test): Works Branch Technical Circular No 6/94; Second Edition to Guide to Retaining Wall Design (Geoguide 1): Works Branch Technical Circular No 7/94; Restrictions on the Use of Hand-dug Caissons for Foundations and Geotechnical Works: Works Branch Technical Circular No 9/94; Standards of Good Practice for Maintenance of Man-made Slopes and Retaining Walls: Works Branch Technical Circular No 9/96; Independent Checking of the Design, Erection, Use and Removal of Temporary Works: Works Branch Technical Circular No 15/96. In addition one should see also Geospec 1 - Model Specification for Prestressed Ground Anchors; Geospec 2 - Model Specification for Reinforced Fill Structures; and Geoguide 5 - Guide to Slope Maintenance. Note also that there is a Geotechnical Control Office which issues GEO reports such as GEO Report No 1 Rainfall & Landslides in 1984; GEO Report No 7 Aggregate Properties of Some Hong Kong Rocks; GEO Report No 13 Mineralogical Assessment of Creep-type Instability at two Landslip Sites; GEO Report No 15 Assessment of Stability of Slopes Subjected to Blasting Vibration; No 47 Stability of Submarine Slopes; No 52 Investigation of Some Major Slopes Failures Between 1992 and 1995; No 56 Application of Prescriptive Measures to Soil Cut Slopes, etc.

See also *HKSAR v Liem Hung and Others* [1999] HKCU 1534 (unreported, HCMA 554/1999, 22 December 1999) and *Liem Hung and Others v HKSAR* (unreported, FAMC 29/1999, 31 January 2000).

[27A.25] Subsection (2D): Cause

See [18.07] above.

[27A.26] Registered by memorial in the Land Registry

See [26.15] and [33.39] below.

[27A.27] Subsection (3): Building Authority may ... carry out or cause to be carried out

As to appeals from decisions of the Building Authority, see s 44(1) below.

[27A.28] As he considers to be necessary or expedient

Compare to [16.12] above.

[27A.29] Cost of such work or investigation shall be recoverable

The liability arising out of a building order made pursuant to s 27A creates a real and subsisting claim or charge imposed on the premises that may be registered with the Land Office as an encumbrance under sub-s (2D): *Lam Mee Hing & Anor v Chiang Shu Yin* [1995] 3 HKC 247 (HC). The encumbrance can be discharged by the owner of the individual unit liable for a share of the expenses under the deed of mutual covenant agreeing to be responsible for the apportioned costs of the necessary remedial works: *Lam Mee Hing & Anor v Chiang Shu Yin* (above). See also *Active Keen Industries Ltd v Fok Chi Keong* [1994] 1 HKLR 396, [1994] 2 HKC 67, [1992-93] CPR 478 (CA); and *Wah Ying Properties Ltd v Sound Cash Ltd* [1994] 1 HKC 786, [1994-95] CPR 461 (HC). An account cannot be disputed on the ground that the work was performed under a general contract entered into at a time when labour and materials were more expensive, the prices not being unreasonable (*Debenham v Metropolitan Board of Works* (1880) 6 QBD 112). See also [14.12] above and the general note to s 24 above. As to recovery of costs of works generally, see ss 32A, 32B and 33 below.

In *Hu Mei Yu Anastasia v King Best Enterprise Limited* [2000] HKCU 503 (unreported, HCA 9317/1998, 10 July 2000), it was held that the owner's liability arises from the registration of the order under s 27A and that s 33(8) below is concerned with quantum and not liability.

[27A.30] From that owner or person

Namely, the owner or person referred to in sub-s (1). See also *Wah Ying Properties Ltd v Sound Cash Ltd* [1994] 1 HKC 786, [1994-95] CPR 461 (HC).

[27A.31] Subsection (3A): Registered with the Land Registry

See [26.15] and [33.39] below.

[27A.32] Cost of any work or investigation ... under subsection (3) shall be recoverable

See [27A.36] above. As to recovery of costs of works generally, see ss 32A, 32B and 33 below.

[27A.33] From any person who, as at the date of completion of the investigation or work

See *Wah Ying Properties Ltd v Sound Cash Ltd* [1994] 1 HKC 786, [1994-95] CPR 461 (HC).

[27A.34] Person

See [3.05] above.

[27A.35] Subsection (3B): Certificate

See [3.74] above. See also [16.09] above.

[27A.36] Opinion

See [16.12] above.

[27A.37] The cost thereof shall be recoverable

See [27A.36] above. As to recovery of costs of works generally, see ss 32A, 32B and 33 below.

27B. Danger to buildings caused by abstraction of groundwater from wells

- (1) Where in the opinion of the Building Authority-
 - (a) a building is dangerous or is liable to become dangerous; and
 - (b) the cause of its being dangerous or liable to become dangerous is, wholly or partly, the abstraction, whether continuing or past, of groundwater from a well situated in area number 2 of the scheduled areas,
 the Building Authority may, by order in writing, declare that the building is dangerous or liable to become dangerous.
- (2) An order under subsection (1) shall be served on the owner of the well.
- (3) An order under subsection (1) may-
 - (a) require the owner of the well to ensure that such abstraction cease permanently;
 - (b) state that the Building Authority proposes to carry out such works as specified in the order to close

- the well and such other works as he considers necessary for the purpose; and
- (c) specify as regards any requirement made under paragraph (a) or matter specified in paragraph (b), the period within which such requirement must be complied with or work is to be commenced, carried out or completed.
- (4) Notwithstanding anything in this section, where the Building Authority considers that there is an emergency due to the abstraction of groundwater from a well referred to in subsection (1)(b) he may, for the purpose of closing that well, carry out or cause to be carried out such work as appears to him to be necessary having regard to the emergency and may do so without an order under subsection (1) or any other notice to the owner.
- (5) The decision of the Building Authority that an emergency exists shall not be subject to an appeal under s 44.
- (6) Nothing in this section shall be construed as limiting any power of the Building Authority under s 26 as regards a building affected by abstraction of groundwater.

(Added 77 of 1994 s. 10)

[27B.01] Enactment history

This section was added pursuant to the Buildings (Amendment) Ordinance 1994 (77 of 1994) s 10, commenced 2 September 1994, to empower the Building Authority to declare by order a building to be dangerous due to abstraction of water from a well and to require the owner to cease abstraction of water from a well and to require the owner to cease abstraction of the water permanently and to carry out such work as he considers necessary to close the well.

[27B.02] Cease permanently

For the meaning of 'cease', see *Walsh v Secretary of State for India* (1863) 10 HL Cas 367; and *Great Western Railway Co v Midland Railway Co* [1908] 2 Ch 644.

[27B.03] Proposes

As to the meaning of 'propose', see *Re Trustees of Magdalen Charity; Hastings v Shelover* [1968] 19 P & CR 389.

[27B.04] Having regard

As to meaning, see *Elwes v Hopkins* [1906] 2 KB 1. 'Having regard' is not synonymous with 'taking into account'.

[27B.05] Subject to an appeal

See generally *Hung Hsing Construction Co v Director of Public Works* [1964] HKLR 831 (FC). As to the meaning of 'appeal', see [7.30] above.

[27B.06] Subsection (1): Opinion

See [16.12] above.

[27B.07] Writing

See [3.54] above.

[27B.08] Definitions

For 'Building Authority', 'building', 'dangerous building', 'scheduled areas', 'owner' and 'specified', see s 2(1) above.

[27B.09] Subsection (3): Ensure

See [17.22] above.

[27B.10] As he considers necessary

Compare to 'as in his opinion' in [16.12] above.

[27B.11] Subsection (4): Cause

See [18.07] above.

[27B.12] As appears to him (ie the Building Authority)

See also 'as in his opinion' in [16.12] above.

27C. Water pipes, drains or sewers laid in slopes, etc

(1) If-

- (a) a water pipe, drain or sewer of any building is laid in, on or under the ground in or in the vicinity of any natural, formed or man-made land, or any earth-retaining structure; and

- (b) subject to subsection (12), in the opinion of the Building Authority any leakage, defect or inadequacy of the water pipe, drain or sewer may result in a landslip of the land or a collapse of the structure, either totally or partially, and such landslip or collapse may cause, or may be likely to cause, a risk of injury to any person or damage to any property,
- (2) the Building Authority may make and serve on the owner of the building such order as referred to in subsection (2). The order shall be in writing and may require the owner of the building-
- (a) to appoint an authorized person to carry out such investigation in relation to the water pipe, drain or sewer as may be specified in the order;
 - (b) to cause such investigation to be commenced and completed within such times as may be specified in the order;
 - (c) to cause a written report on the findings of such investigation to be prepared by the person appointed to carry out the investigation, and to submit such written report to the Building Authority within such time as may be specified in the order; and
 - (d) to submit for approval by the Building Authority proposals for work to be done to remedy any leakage, defect or inadequacy of the water pipe, drain or sewer, based on the findings of such investigation, within such time as may be specified in the order.
- (3) Where proposals for work are submitted pursuant to an order under subsection (1), the Building Authority may-
- (a) approve the proposals;
 - (b) require amendments to or substitution of the proposals; or
 - (c) refuse the proposals.
- (4) On giving approval to proposals for work required to be submitted under subsection (2), the Building Authority may by order in writing served on the owner referred to in subsection (1) require the carrying out of such approved work within such time as may be specified in the order.
- (5) All investigation and work specified in an order under this

- section shall be carried out to such standard acceptable to the Building Authority and in compliance with regulations.
- (6) The Building Authority may, upon the service of an order under subsection (1), cause the order to be registered by memorial in the Land Registry against the building to which the order relates.
- (7) Where the owner referred to in subsection (1) cannot be found or fails to comply with the requirements of an order served under this or any part of the order or where there is a failure to comply with the requirement of subsection (5) or where proposals submitted under this section are refused, the Building Authority may, without further notice, carry out or cause to be carried out-
- (a) all or any part of the investigation or work specified in the order;
 - (b) such other investigation as he considers to be necessary or expedient; and
 - (c) such work as he considers to be necessary or expedient to remedy the leakage, defect or inadequacy, having regard to the findings of the investigation in relation to the water pipe, drain or sewer, whether such investigation is carried out by the owner referred to in subsection (1) or by the Building Authority,
- and, subject to subsection (8), the Building Authority may recover the costs of such investigation and work from that owner.
- (8) If the order has been registered with the Land Registry in accordance with subsection (6), the cost of the investigation or work that the Building Authority carried out or caused to be carried out under subsection (7) shall be recoverable from any person who, as at the date of completion of the investigation or work (as the case may be), is the owner of the building to which the order relates.
- (9) A certificate purporting to be under the hand of the Building Authority and stating the date of completion of the investigation or work carried out under subsection (7) shall be prima facie evidence of that fact.
- (10) In cases of emergency, the Building Authority may carry out or cause to be carried out such investigation and work in respect of any leakage, defect or inadequacy of the water pipe, drain or sewer referred to in subsection (1) as

- may appear to him to be necessary by reason of the emergency either with or without notice to the owner referred to in that subsection, and the cost of such investigation and work shall be recoverable from that owner.
- (11) The decision of the Building Authority that an emergency exists shall not be subject to an appeal under section 44.
- (12)
- (a) If the Building Authority is of the opinion that no leakage, defect or inadequacy of the water pipe, drain or sewer referred to in subsection (1)(b) is likely, no order shall be served under subsection (1).
 - (b) In forming his opinion under paragraph (a), the Building Authority may have regard to all matters which he considers relevant and on which information is available to him, and such matters include but are not limited to-
 - (i) the age of the water pipe, drain or sewer; and
 - (ii) records of investigation and maintenance works in respect of the water pipe, drain or sewer.
- (Added 55 of 1996 s. 7)

[27C.01] Enactment history

This section was added pursuant to the Buildings (Amendment) (No 2) Ordinance 1996 (55 of 1996) s 7, commenced 1 November 1996 (LN 384 of 1996). One of the main objects of the amending legislation was to make owners of buildings responsible for investigating leakages, defects or the inadequacy of drains or sewers of their building, where such drains or sewers are laid in or in the vicinity of any slope or earth-retaining structure. If the 2 requirements under sub-s (1) are satisfied, the Building Authority may by an order require an investigation relating to the drain or sewer to be carried out and the findings to be reported. This section also empowers the Building Authority to carry out the necessary investigation if the owner fails to comply with the order or in the cases of emergency, and to recover the cost of such investigation.

[27C.02] General note

See the Code of Practice on Inspection and Maintenance of Water Carrying Services Affecting Slopes.

[27C.02A] Drain

See the definition in s 2(1) and [2.14] above.

[27C.03] Opinion

See [16.12] above.

[27C.04] Likely to cause

See [16.30] above.

[27C.05] A risk of injury to any person or damage to any property

For cases on the meaning of 'damage', see *Smith v Brown* (1871) LR 6 QB 729; *R v Poulter* (1887) 20 QBD 132; and *Ranicar v Frigmobile Pty Ltd* (1983) Tas R 113.

[27C.06] Definitions

'water pipe', 'drain', 'sewer', 'building', 'Building Authority', 'owner', 'specified' and 'regulations', see s 2(1) above.

[27C.07] Writing

See [3.54] above.

[27C.08] In relation to

Matters 'relating to' or 'in relation to' an issue must themselves exist at the same time as that issue. See *Re Morphet* (1845) 2 Dow & L 967 at 978, per Coleridge J. See also *British Electric Traction Co v Inland Revenue* [1902] 1 KB 441.

[27C.09] Cause

See [18.07] above.

[27C.10] Written report

Expressions referring to 'writing' are, unless the contrary intention appears, to be construed as including references to other modes of representing or reproducing words in a visible form: see the Interpretation and General Clauses Ordinance (Cap 1) s 3.

[27C.11] Prepared

As to the meaning of the word 'prepare', see *Calabria v R* (1983) 151 CLR 670.

[27C.12] Person

See [3.05] above.

[27C.13] Within such time

See [3.60] above.

[27C.14] Approval

See [4.15], [14.05] and [15.09] above.

[27C.15] Subsection (3): Refuse

As to appeals from decisions of the Building Authority, see s 44(1) below.

[27C.16] Subsection (5): In compliance with Regulations

See 'regulations' in [4.13] above. See for example, Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations (Cap 123I).

[27C.17] Subsection (7): Building Authority may ... carry out or cause to be carried out

As to appeals from decisions of the Building Authority, see s 44(1) below.

[27C.18] Subsection (8): The cost of such investigation and work shall be recoverable

See [27A.29] above. As to recovery of costs of works generally, see ss 32A, 32B and 33 below.

[27C.19] Prima facie evidence

This means evidence which, if not balanced or outweighed by other evidence, will suffice to establish a particular contention.

[27C.20] As may appear to him to be necessary

Compare to [16.12] above.

[27C.21] Have regard

See [8B.19] above.

[27C.22] May have regard to all matters which he considers relevant

The Building may have regard to a wide variety of technical circulars among other matters. See for example Maintenance of stormwater drainage systems and natural stream courses: Lands and Works Branch Technical Circular No 10/88; Monitoring and Maintenance of Horizontal Drains: Works Branch Technical Circular No 10/91; Abatement of Sanitary Nuisance from Defective Drains and Sewers in Private Streets and Service Lanes: Works Branch Technical Circular No 3/92; Drainage Impact Assessment Process for Public Sector Projects: Works Branch Technical Circular No 18/95; and Standards for Good Practice for Maintenance of Man-made Slopes and Retaining Walls: Works Branch Technical Circular No 9/96. See also [237A.28] above for other references.

[27C.23] Available

'Available' does not mean 'existing'. It means 'in such a condition as that it can be taken advantage of': see *Devitt v Mutual Life Insurance Co of Canada* (1915) 33 OLR 473 at 473, per Riddell J.

[27C.24] Include but are not limited to

The meaning of the word 'include', see cases: *Kwong Kwan Nang Louis v Commissioner of Inland Revenue* [1989] 2 HKLR 326, (1989) 2 HKTC 562 (CA); *A-G v Ng Kwan* [1987] 1 HKC 183 (CA); and *Dilworth v Commissioner of Stamps* [1899] AC 99.

[27C.25] Records

Section 1A of the Land Registration Ordinance (Cap 128) defines 'record' to include not only a written record but any record conveying information or instructions by any other means whatsoever.

28. Drainage

- (1) All drainage works for any building shall, save as provided by regulations, be carried out by the owner of such building to the satisfaction of the Building Authority and in compliance with regulations. (Amended 44 of 1959 s. 12)
- (2) Where in the opinion of the Building Authority any group of buildings may be drained more advantageously in combination than separately he may-
 - (a) by an order in writing served on the owners of such buildings require to be carried out the necessary drainage works under a combined plan approved by him; or

- (b) carry out or cause to be carried out such works and recover the cost thereof from such owners.
- (3) Where in the opinion of the Building Authority the drains or sewers of any building are inadequate or in a defective or insanitary condition he may by an order in writing served on the owner of such building require-
- such drainage works as may be specified in the order to be carried out;
 - an authorized person to be appointed to carry out such investigation in relation to the drains or sewers of such building as may be so specified; and
 - the submission for approval by the Building Authority of proposals for drainage works to be carried out to remedy the inadequacy or the defective or insanitary condition, being proposals based on the findings of the investigation, within such time or times as may be specified in the order. (Amended 42 of 1992 s. 3; 77 of 1992 s. 3)
- (4) Where proposals for drainage works are submitted pursuant to an order under Subsection (3), the Building Authority may-
- approve the proposals;
 - require amendments to or substitution of the proposals; or
 - refuse to approve the proposals. (Replaced 77 of 1992 s. 3)
- (5) On approving any proposal for drainage works required to be submitted under Subsection (3), the Building Authority may by an order in writing served on the owner referred to in that subsection require the carrying out of such approved works within such time as may be specified in the order. (Added 77 of 1992 s. 3)
- (6) All investigations specified in an order under this section shall be carried out to such standard acceptable to the Building Authority and in compliance with the regulations. (Added 77 of 1992 s. 3)
- (6A) The Building Authority may, upon the service of an order under this section, cause the order to be registered by memorial in the Land Registry against the building to which the order relates. (Added 55 of 1996 s. 8)

(7) Where the owner referred to in subsection (3) cannot be found or fails to comply with any requirements of an order served under this or where there is a failure to comply with any requirement in subsection (1) or (6) or where approval is refused for proposals submitted under this section, the Building Authority may, without further notice, carry out or cause to be carried out-

- all or any part of the drainage works or investigation specified in the order;
- such other investigation as he considers to be necessary or expedient; and
- such drainage works as he considers to be necessary or expedient to remedy the inadequacy or the defective or insanitary condition, having had regard to the findings of the investigation in relation to the drains or sewers of the building, whether such investigation is done by the owner referred to in subsection (3) or by the Building Authority,

and, subject to subsection (7A), the cost of such drainage works or investigation shall be recoverable from that owner. (Added 77 of 1992 s. 3. Amended 55 of 1996 s. 8)

- (7A) If the order has been registered with the Land Registry in accordance with subsection (6A), the cost of any drainage works or investigation that the Building Authority carried out or caused to be carried out under subsection (7) shall be recoverable from any person who, as at the date of completion of the drainage works or investigation (as the case may be), is the owner of the building to which the order relates. (Added 55 of 1996 s. 8)
- (7B) A certificate purporting to be under the hand of the Building Authority and stating the date of completion of any drainage works or investigation carried out under subsection (7) shall be prima facie evidence of that fact. (Added 55 of 1996 s. 8)
- (8) In cases of emergency the Building Authority may carry out or cause to be carried out such drainage works as may appear to him to be necessary by reason of the emergency either with or without notice to the owner referred to in subsection (3) and the costs thereof shall be recoverable from that owner. (Added 77 of 1992 s. 3)
- (9) The decision of the Building Authority that a particular

case is one of emergency shall be final and binding on all persons. (Added 77 of 1992 s. 3)

(Amended 44 of 1959 s. 12)

[28.01] Enactment history

Subsection (1) was amended pursuant to the Buildings (Amendment) Ordinance 1959 (44 of 1959) s 12, commenced 1 January 1960, which inserted, 'save as provided by regulations'. This subsection limited the Building Authority to considering drainage works in relation to any building alone and should be construed singularly. Compare *Chesterton Rural District Council v Ralph Thompson Ltd* [1947] KB 300 which held under s 21 Building Act 1984 that in deciding whether satisfactory provision for drainage had been made the local authority could only consider the drains of the particular building and not the general system of drainage.

Subsection (3) was amended pursuant to the Buildings (Amendment) Ordinance 1992 (42 of 1992) s 3, commenced 22 May 1992; and the Buildings (Amendment) (No 2) Ordinance 1992 (77 of 1992) s 3, commenced 16 October 1992. s 3 of Ordinance No 42 of 1992 added 'or sewers' after 'drains'. This gives the Building Authority the express authority to deal with defective or insanitary drains and sewers. See also s 33 below for validation of everything that the Building Authority had done or that had been done on his behalf in this connection prior to the enactment of this provision.

See the application of s 28(3)(b) in *Guang Zhou Real Estate Development (Hong Kong) Company Limited and Anor v Summit Elegance Limited* [2000] HCU 621 (unreported, HCA 1531/1998, 7 August 2000).

Subsection (4) was substituted pursuant to the Buildings (Amendment) (No 2) Ordinance 1992 (77 of 1992) s 3, commenced 16 October 1992.

Subsections (5) and (6) were added pursuant to the Buildings (Amendment) (No 2) Ordinance 1992 (77 of 1992) s 3, commenced 16 October 1992.

Subsection (6A) was added pursuant to the Buildings (Amendment) (No 2) Ordinance 1996 (55 of 1996) s 8, commenced 13 September 1996 (LN 384 of 1996). One of the main objects of the amending legislation was to render the person who at the completion of the drainage works or investigation was the owner of the building liable for the cost of such drainage works or investigation which the Building Authority was authorised to carry out under the present Ordinance. Previously, for any work carried out by the Building Authority under sub-s (5), the Building Authority was empowered to recover the cost from the person upon whom the relevant order was served prior to the commencement of the work or investigation. With the enactment of Buildings (Amendment) (No 2) Ordinance 1996, the Building Authority may, subject to the registration of the relevant order with the Land Registry, recover the cost from any person who is the owner of the building as at the completion of the drainage works or investigation.

Subsection (7) was added pursuant to the Buildings (Amendment) (No 2) Ordinance 1992 (77 of 1992) s 3, commenced 16 October 1992. Whilst preserving

the power of the Building Authority to require drainage works to be carried out on buildings with defective drains or sewers, s 3 of Buildings (Amendment) (No 2) Ordinance 1992 amends this subsection to enable the Building Authority to require the carrying out of investigations on such buildings and the submission of proposals for drainage works. This subsection was then amended pursuant to the Buildings (Amendment) (No 2) Ordinance 1996 (55 of 1996) s 8, commenced 13 September 1996 (LN 384 of 1996). See the enactment history for sub-s (6A) above.

Subsections (7A) and (7B) were added pursuant to the Buildings (Amendment) (No 2) Ordinance 1996 (55 of 1996), commenced 13 September 1996 (LN 384 of 1996). See the enactment history for sub-s (6A) above.

Subsections (8) and (9) were added pursuant to the Buildings (Amendment) (No 2) Ordinance 1992 (77 of 1992) s 3, commenced 16 October 1992.

[28.02] Subsection (1): General note

In order to facilitate the maintenance of common drains the Buildings Department has issued a Practice Note for Authorized Persons and Registered Structural Engineers No 211 (PNAP 211) 'Planning and Design of Drainage Works' in August 1997 and revised in June 1999. It stipulates common underground drains for all developments shall run in a space or land, which is sterilised or otherwise designated as a common area of the development, or alternatively provisions are made to enable access for inspection and repair: see para 3.

[28.02A] Drainage works

Included in the definition of 'building works' in s 2(1) above.

[28.03] Save as provided by regulations

The proviso acts as a limitation on the power of the Building Authority to carry out drainage works under the section. Regulations passed under s 38 of the Ordinance include the Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations (Cap 123I). These Regulations address drainage in particular in Part IV. Thus, for example, under regs 40 and 41, the disposal of foul water and disposal of surface water respectively is restricted. The regulations in effect limit building drainage requirement in those cases where there are no public sewers within 30 meters of the building. Thus, in such cases, the Building Authority may instead issue an order permitting a septic tank or cesspool alternative. In general, the obligation to provide public sewers falls on the Drainage Services Department. See the Water Pollution Control Ordinance (Cap 358) and the Water Disposal Ordinance (Cap 354).

[28.04] Provided

For cases which consider the meaning of 'provide', see *Finch v Telegraph Construction and Maintenance Co Ltd* [1949] 1 All ER 452 at 454, per Devlin J; and *Norris v Syndic Manufacturing Co Ltd* [1952] 1 All ER 935 at 941, per Romer LJ.

- with a well-keyed surface to the bottom layer and with lapped daywork joints; and
- (c) where the surface gradient exceeds 1 in 2, be adequately restrained from slipping.
- (2) A weep hole, with an internal diameter of not less than 50 mm, shall be provided to every 1.5 m² of the face of chunamed surface and in areas of localized seepage.

PART III

LOADS

15. Resistance to sliding, uplift and overturning

- (1) Except where otherwise provided in these regulations, a building, street, building works or street works shall be so designed and constructed that-
- (a) the resistance to the sliding force acting thereon shall be not less than 1.5 times the sliding force due to any loads;
- (b) the resistance to the uplift force acting thereon shall be not less than 1.5 times the uplift force due to any loads; and
- (c) the resistance to the overturning moment acting thereon shall be not less than 1.5 times the overturning moment due to wind loads and 2 times the overturning moment due to loads other than wind loads.
- (2) The resistance to the uplift force shall be calculated as the sum of the downward force due to the minimum dead loads plus that due to any permitted anchoring resistance.
- (3) The resistance to the overturning moment shall be calculated as the sum of the stabilizing moment due to the minimum dead loads plus that due to any permitted anchoring resistance.

16. Dead loads

- (1) In calculating dead loads, the unit weights of the materials shall be based on reliable data.
- (2) When the position of permanent partitions is indicated on the plan of a building, the weights of those partitions shall be included in the dead loads.

17. Imposed loads

- (1) The imposed load on any building, street, building works or street works shall be the greatest applied load likely to arise from the intended use or purpose of the building, street, building works or street works (including forces exerted by the adjacent ground), but subject to this regulation-

- (a) the minimum imposed load on a building or street shall be-
- (i) the distributed load specified in column 3 of Table 1 applied uniformly on plan; or
 - (ii) the concentrated load specified in column 4 of Table 1 applied on plan over any square with a 50 mm side (or over any square otherwise specified in that column) or the line load specified in that column, (L.N. 3 of 2011)
 - (iii) (Repealed L.N. 3 of 2011)
- whichever shall produce the most adverse effect;
- (b) (Repealed L.N. 3 of 2011)
 - (c) where the floor of a building is to support partitions but the position of the partitions is not indicated on the plan of the building, the weight of such partitions shall be regarded as imposed distributed load applied uniformly on plan and shall, in addition to other imposed loads, be- (L.N. 3 of 2011)
 - (i) not less than 1/3 of the weight per metre length of the partitions uniformly distributed per square metre; and
 - (ii) not less than 1 kPa if the floor is used for office purposes; (L.N. 3 of 2011)
 - (d) where the floor of a building is to support any equipment, machinery or display item that will result in a greater imposed load than that specified in Table 1, the load of any of those items has to be considered in determining the imposed load on the floor. (L.N. 3 of 2011)

TABLE 1
Minimum Imposed Loads

1 Class No.	2 Usage	3 Distributed load to be applied uniformly on plan kPa	4 Concentrated load in kN to be applied on plan over any square with a 50 mm side (unless otherwise specified in this column), or line load in kN per metre length
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1	Floors for- domestic use; dormitories; private sitting rooms, bedrooms and toilet rooms in hotels, motels and guesthouses; wards, bedrooms and toilet rooms in hospitals, nursing homes and residential care homes for elderly persons	2.0	2.0
2	Floors for- medical consulting or treatment rooms; hospital operating theatres and X-ray rooms laboratories; light workrooms with neither central power-driven machines nor storage; offices for general use; rooms for lightweight electrical and electronic installations	2.5	3.0
	Floors for— banking halls; kitchens and laundries not in domestic buildings	3.0	4.5
3	Floors for— childcare centres and kindergartens billiard rooms and bowling alleys; classrooms, lecture rooms, tutorial rooms, computer rooms and reading rooms without book storage; dance practice rooms; leisure, recreational and amusement areas that cannot be used for assembly purposes	2.5	3.0
	Floors for—	3.0	4.5

Floors for—	4.0	4.5
assembly areas with fixed seating(1);		
chapels, churches and places of worship with fixed seating(1);		
restaurants, night-clubs, lounges, bars, canteens, fast food shops and dining rooms not in domestic premises		
Floors for—	5.0	4.5
art galleries and museums;		
grandstands;		
public halls;		
theatres and cinemas		
Floors for—	5.0	4.5
assembly areas without fixed seating(1);		
dance halls;		
footbridges between buildings;		
footpaths, terraces, plazas and areas used for pedestrian traffic;		
gymnasias;		
karaoke establishments and discotheques;		
refuge floors		
Floors for—	7.5	9.0
stages and television studios used as stages		
4. Floors for—	5.0	4.5
department stores, supermarkets, markets and shops for display and sale of merchandise		
5. Floors for—	5.0	4.5
library rooms with book storage (excluding library stack rooms);		
offices for storage and normal filing purposes		

Floors for—	3.5 for each metre of storage height(2) but not less than 10.0	to be determined according to the weight of storage material, but not less than 9.0
(a) stack rooms in book stores and libraries		
(b) old storage	5.0 for each metre of storage height(2) but not less than 15.0	to be determined according to the weight of storage material, but not less than 9.0
(c) paper storage in printing plants	8.0 for each metre of storage height(2)	to be determined according to the weight of storage material, but not less than 9.0
(d) battery rooms and uninterruptible power supply rooms	10.0 for each metre of storage height(2)	to be determined according to the weight of storage material, but not less than 9.0
(e) general storage other than those specified in (a), (b), (c) or (d) immediately above, including storage in warehouses	2.5 for each metre of storage height(2)	9.0
Floors for—	7.5	9.0
plant rooms, boiler rooms, fan rooms, motor rooms and the like		
Floors for—	5.0	9.0
workshops, factories and other buildings or parts of buildings of similar category for industrial use—		
(a) for light weight loads		
(b) for medium weight loads	7.5	9.0
(c) for heavy weight loads	10.0	9.0
(d) for printing plants	12.5	9.0
6. Areas for—		
car parking, carriageways, floors, driveways and ramps used by vehicles—		
(a) for vehicles not exceeding 3000 kg gross weight	3.0	20.0 to be applied on plan over any square with a 200 mm side (instead of a 50 mm side)
(b) for vehicles exceeding 3000 kg gross weight	to be determined according to recognized engineering principles	to be determined according to recognized engineering principles

7.	Inaccessible roofs (where no access is provided except such access as may be necessary for maintenance work only) with a slope—		
	(a) of or less than 5°	2.0	1.5
	(b) greater than 5° but less than 20°	0.75	1.5
	(c) of or greater than 20° but less than 40°	linear interpolation from 0.75 to 0 according to the slope	1.5
	(d) of or greater than 40°	0	1.5

	Accessible roofs (where access is provided in addition to such access as may be necessary for maintenance work only) with a slope—		
	(a) of or less than 20°	2.0	1.5
	(b) greater than 20° but less than 40°	linear interpolation from 2.0 to 0 according to the slope	1.5
	(c) of or greater than 40°	0	1.5

8.	Floors for—		
	Utility platforms	same as the floors to which they give access but not less than 4.0	line load of 2.0 kN per metre length to be applied along the outer edge
	Floors for—		
	Balconies	same as the floors to which they give access but not less than 3.0	line load of 2.0 kN per metre length to be applied along the outer edge
	Stairs, landings and corridors	same as the floors to which they give access but not less than 3.0 and not more than 5.0	4.5

Notes: (1) Seating is regarded as fixed if the removal of the seating and the use of the relevant space for other purposes are unlikely to occur.

(2) Storage height (貯存高度) means the height of the space between the following: the floor, and a physical constraint to the height of storage formed by a ceiling, soffit of a floor, roof or other obstruction. (L.N. 3 of 2011)

(1A) The greatest applied load mentioned in subregulation (1) must be derived from reliable data obtained from a source

recognized by the Building Authority. (L.N. 3 of 2011)
 (2) (a) Except as provided in paragraphs (b), (c), (d) and (e), in calculating the total imposed load on any column, pier, wall or foundation, the distributed imposed load on the roof and every floor carried thereby may be subject to the reductions specified in Table 2.

(b) Where a single span of beam supports not less than 45 m² of floor at any one level the distributed imposed load for the purpose only of determining the design of the beam may be subject to a reduction of 5% for each complete 45 m² of that floor so supported but not more than 20% in all.

(c) The reduction specified in paragraph (a) or (b), whichever is the greater, may be taken into account in calculating the total load on any column, pier, wall or foundation.

(d) For factories and workshops designed for a distributed imposed load of 7.5 kPa or more the total imposed load shall not be reduced below that obtained if all the floors had been designed for a distributed imposed load of 7.5 kPa without the reduction specified in Table 2.

(e) No reduction of the imposed loads shall be applied with respect to-

- (i) plant or machinery which is specifically allowed for; or
- (ii) floors of factories and workshops designed for a distributed imposed load of less than 7.5 kPa; or
- (iii) floors used by vehicles; or (L.N. 3 of 2011)
- (iv) office areas used for storage and filing purposes; or
- (v) forces produced by dynamic effects; or (L.N. 3 of 2011)
- (vi) floors used for storage purposes; or (L.N. 3 of 2011)
- (vii) loads from partitions the positions of which are not indicated on the plan of the building. (L.N. 3 of 2011)

TABLE 2
Reductions of Total Distributed Imposed Loads

Number of floors (including the roof) carried by the member under consideration	Percentage reduction of total distributed imposed load on all floors (including the roof) carried by the member under consideration	
	Classes 1, 2, 3, 4 and 7 of Table 1	Workshops and factories under Class 5 of Table 1 with distributed imposed load of not less than 7.5 kPa
1	0	0
2	5	0
3	10	10
4	15	20
5	20	
6	25	
7	30	25 maximum
8	35	
over 8	40 maximum	

- (3) Protective barriers installed to restrict or control the movement of persons shall be designed to resist the minimum horizontal imposed loads specified in Table 3 when separately applied or the wind load (where applicable), whichever shall produce the more adverse effects.

(L.N. 3 of 2011)

TABLE 3

Minimum Horizontal Imposed Loads on Protective Barriers to Restrict or Control Movement of Persons

Category	Line load to be applied at a height of 1.1 m above floor level	Uniformly distributed load to be applied on the infill between floor and top rail	Concentrated load to be applied on any part of the infill between floor and top rail
Areas where congregation of people is not expected	0.75	1.0	0.5
Areas where people may congregate but overcrowding is not expected	1.5	1.5	1.5
Areas susceptible to overcrowding	3.0	1.5	1.5

- (4) Vehicle barriers for carriageways, floors, driveways and ramps used by vehicles must be designed to withstand the

(L.N. 3 of 2011)

greatest impact force anticipated subject to the following requirements—

- (a) the minimum design impact force on vehicle barriers is to be $[0.5 M_{v2} / (\delta_c + \delta_b)]$ kN,

where—

M is the gross mass in kg of the heaviest vehicle to be accommodated,

v is the velocity of the vehicle normal to the barrier in metre per second,

δ_c is the deformation of the vehicle in mm, and

δ_b is the deflection of the barrier in mm; and

- (b) the impact force is to be uniformly distributed over any length of 1.5 m and acting horizontally at the bumper height of the vehicle. (L.N. 3 of 2011)
- (5) (a) Forces produced by dynamic effects shall be considered as additional imposed loads in the design of buildings, streets, building works and street works.
- (b) The forces produced by dynamic effects in any workshop, factory or other building for industrial use may be determined on the basis of information about the particular building, but if not so determined shall be presumed—
- (i) for the purpose only of determining the design of slabs and beams, to be an additional vertical imposed load of 2.5 kPa; and
- (ii) for the purpose of determining the design of structural frames and foundations, to be an additional horizontal force (which may be assumed not to act together with the wind load) of 10% of the vertical imposed load specified in subparagraph (i) acting simultaneously on the N number of floors which will produce the most adverse effects, where N is a whole number not less than 0.2 times the total number of floors subject to dynamic effects.

18. Wind loads

The wind load on any building, street, building works or street works shall be based on the response of that building, street, building works or street works to the velocity and gust effect of winds from any direction suitably determined from a return period of not less than 50 years.

19. Notice as to load

- (1) In every storey of every industrial building or warehouse, there shall be exhibited by the owner, at each staircase or at some other appropriate place, permanently and conspicuously, a notice in English and Chinese incised or embossed, of metal, plastic or other suitable material, in letters and figures not less than 15 mm high, stating the distributed imposed load (not including dynamic effects) for which the floor has been designed in terms of weight per square metre, in the following form-

BUILDINGS ORDINANCE

(Chapter 123)

NOTICE

The imposed load on this floor is not to exceed
.....kilograms per square metre.

建築物條例

(第123章)

告示

此樓面之外加荷載每平方米不得超逾
公斤

(L.N.98 of 1997)

- (2) Where floors of different rooms or different parts of floors have been designed for different distributed imposed loads, a notice in the form in sub-regulation (1) shall be suitably displayed in each room or on each part of the floor, as the case may be, indicating the variations.
- (3) For the purposes of this regulation the distributed imposed load designed in units of kPa shall be indicated in the notice in the form in sub-regulation (1) in units of kilograms per square metre by the conversion of 1 kPa to 102 kilograms per square metre.

PART IV

SITE FORMATION WORKS

20. Site formation works

- (1) Site formation works shall be designed and constructed so that during construction and thereafter there is an adequate margin of safety of the works and the remainder of the site.
- (2) The carrying out of site formation works shall not render inadequate the margin of safety of, or cause damage to, any building, structure, land, street or services.

PART V

BULK EXCAVATION

21. **Bulk excavation in area number 1 of the scheduled areas**
- (1) Bulk excavation in area number 1 of the scheduled areas shall not be carried out below levels determined by the Building Authority.
 - (2) For the purposes of this regulation "bulk excavation" (大型挖掘工程) means all excavation except excavation for ground investigation, public utility trenches, drains, sewers or piles.

PART VI

FOUNDATIONS

22. **Interpretation**
In this Part-
"ultimate bearing capacity" (極限承載力) in relation to ground that supports foundations, means the value of the loading intensity at which the resistance of the ground becomes fully mobilized or undergoes substantial deformation;
"working load" (工作荷載) means the loads calculated in accordance with Part III which the foundation is designed to carry.
23. **Foundation works**
Foundation works shall be carried out so as not to render inadequate the margin of safety of, or impair the stability of, or cause damage to any building, structure, land, street or services.
- (2) Where dewatering is to be undertaken, appropriate procedures shall be adopted and precautionary measures shall be provided to prevent any undue resultant deformation or other movement which could impair the stability of, or cause damage to, any building, structure, land, street or services.
24. **Site investigation**
Where foundations are to be constructed, a site investigation shall be undertaken to provide all the necessary information for the design and construction of the foundations.
25. **Allowable capacity for bearing, bond or friction of ground**
- (1) The allowable capacity for bearing, bond or friction of the ground supporting any foundation under working load shall not exceed-
 - (a) the ultimate capacity for bearing, bond or friction of that ground with an adequate factor of safety against failure; or
 - (b) the value in relation to bearing, bond or friction of that ground such that the deformation or movement (including total settlement, differential

settlement and lateral movement) will not be greater than that which can be tolerated by the building, building works, structure or street supported by the foundation,

whichever is the less.

- (2) The ultimate capacity for bearing, bond or friction of the supporting ground shall be determined by-
 - (a) suitable tests to establish the engineering properties of the supporting ground together with the application of recognized foundation engineering principles; or
 - (b) testing of the foundation on site; or
 - (c) other suitable methods.
- (3) Where the allowable bearing capacity is to be determined on the basis of the ultimate bearing capacity of the supporting ground, due consideration shall be given to all the circumstances, including the ground water conditions, the shape and depth of the foundation, the inclination and eccentricity of the loads, and the nature and slope of the surrounding ground, and, in the case of rock, the presence of dissolution features, the jointing of the rock and the spacing, dip, thickness and degree of weathering of the joints and any other relevant characteristics.
- (4) The allowable capacity of foundations for bearing, bond or friction resisting the combined effects of dead, imposed and wind loads may be increased by not more than 25% where such increase is solely due to wind loads.

26. Pile foundations

- (1) All pile foundations shall be of adequate load carrying capacity and of recognized type suitable for the ground conditions.
- (2) The allowable load on pile foundations shall be determined by-
 - (a) acceptable foundation engineering principles; or
 - (b) tests on the foundations on site,
 with an adequate factor of safety appropriate to the type of pile, taking into account ground conditions, the method of installation and group effects.
- (3) Where pile foundations are installed through a stratum which is likely to undergo consolidation after the foundations are in place-

- (a) the frictional resistance of the consolidating stratum and the overlying soil shall not be taken into account in the determination of the load carrying capacity; and
 - (b) the downward frictional force exerted from the consolidating strata and the overlying soil shall be considered as imposed load.
- (4) Subject to the provisions of sub-regulation (5), the spacing of piles shall be determined with due regard to the nature of the ground, the method of construction and the group effects and shall be sufficient to prevent damage to the piles or any adjacent construction.
 - (5) The centres of all piles deriving their resistance mainly from friction and of all driven piles shall be placed-
 - (a) not less than the length of the perimeter of the pile or 1 m, whichever is the greater, from the centres of adjacent piles; and
 - (b) not less than half the length of the perimeter of the pile or 500 mm, whichever is the greater, from the site boundary.
 - (6) Where piles are placed in such proximity that the load carrying capacity of the piles may be affected by other piles a pile group shall be deemed to exist and the allowable load on any group of piles shall not exceed the sum of the load carrying capacities of the piles in the group multiplied by a group reduction factor determined in accordance with sub-regulation (7).
 - (7) The group reduction factor shall be determined by recognized foundation engineering principles with respect to the bearing capacity and settlement of the pile group taking into account all the circumstances including the nature of the ground, the length and spacings of the piles, the size of the group and the method of construction.
 - (8) The driving of piles shall take into account the properties and deformation characteristics of the pile, hammer and cap-block in order that the driving energy will be applied in such a manner so as not to damage the material of the pile.
 - (9) Subject to the provisions of sub-regulation (8), all driven steel and precast reinforced concrete piles shall be designed with an average compressive stress on the

nominal cross sectional area at working load not exceeding- $4 u_w$

- (a) $0.4 u_w/F$, in the case of precast reinforced concrete piles; and
- (b) $0.6 f_y/F$, in the case of steel piles,

where f_y is the yield stress of the steel, U_w is the specified grade strength of the concrete, and F is the design safety factor on driving, with a minimum value of 2 for dead and imposed loads and 1.6 for combined dead, imposed and wind loads.

27. Cast-in-place concrete foundations

- (1) The concrete stresses in cast-in-place concrete foundations at working load shall not exceed-
 - (a) the appropriate limitations of design stresses of the concrete, in the case of concreting in dry conditions;
 - (b) 80% of the appropriate limitations of design stresses of the concrete, in the case where groundwater is likely to be encountered during concreting.
- (2) Subject to the provisions of subregulation (1) the average compressive stress on the nominal cross sectional area of cast-in-place concrete piles of least lateral dimension not exceeding 750 mm shall not exceed 5 MPa under working load due to dead and imposed loads and shall not exceed 6.25 MPa under working load due to combined dead, imposed and wind loads.
- (3) In-situ concrete linings in all cast-in-place concrete piles shall not be considered as contributing to the structural strength of the foundation.

28. Horizontal restraints to piles and pile caps

Adequate horizontal restraints in at least 2 directions shall be provided to individual piles or pile caps.

29. On site tests to be made where doubt exists

Where the Building Authority has any doubt as to the design assumption or load carrying capacity of any foundation, he may require tests to be made on site on the foundation or on the ground in which the foundation is placed by the imposition of a test load or any other suitable method.

30. Proof tests on foundation units

A sufficient number of proof tests are to be carried out on representative foundation units to ascertain the performance of the foundation under load by means of-

- (a) the imposition of test loads; or
 - (b) core drilling of the completed cast-in-place concrete foundation; or
 - (c) any other suitable method,
- as appropriate to the type of foundation.

31. Ground treatment

- (1) Where improvement of the load carrying capacity of the ground is to be achieved by ground treatment, adequate proof of the suitability of the method and materials to be used shall be given.
- (2) Where ground treatment has been carried out, adequate tests of the treated ground shall be carried out.
- (3) Where the ground treatment may affect any building, structure, land, street or services, adequate precautionary measures shall be taken.