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No. S 665

BUILDING CONTROL ACT (CHAPTER 29)

BUILDING CONTROL (AMENDMENT) REGULATIONS 2013

In exercise of the powers conferred by section 49 of the Building Control Act, the Minister for National Development hereby makes the following Regulations:

Citation and commencement

- **1.**—(1) These Regulations may be cited as the Building Control (Amendment) Regulations 2013 and shall, with the exception of regulations 2(a), (b) and (d), 3 to 7, 13(b), 14 and 16(a) to (m), (o) and (p), come into operation on 28th October 2013.
- (2) Regulations 2(a), (b) and (d), 3 to 7, 13(b), 14 and 16(a) to (m), (o) and (p) shall come into operation on 1st April 2014.

- **2.** Regulation 2 of the Building Control Regulations 2003 (G.N. No. S 666/2003) (referred to in these Regulations as the principal Regulations) is amended
 - (a) by inserting, immediately after the words "any changes that" in the definition of "immaterial changes", the words "do not affect the objectives and performance requirements set out in the Fifth Schedule relating to the approved plans, and that";
 - (b) by deleting the definition of "material changes" and substituting the following definition:
 - "material changes", in relation to building works, means any changes other than immaterial changes;";
 - (c) by inserting, immediately after the definition of "natural ventilation", the following definition:

- " "ready-mixed concrete" means concrete in a fresh state that is manufactured in a batching plant situated at any location, and supplied for use in an unhardened form;"; and
- (d) by deleting the definition of "structural elements".

- 3. Regulation 4(1) of the principal Regulations is amended
 - (a) by deleting the word "and" at the end of sub-paragraph (a)(iv);
 - (b) by inserting, at the end of sub-paragraph (a)(v), the word "and":
 - (c) by inserting, immediately after sub-paragraph (v) of sub-paragraph (a), the following sub-paragraph:
 - "(vi) where applicable, demolition works plans;"; and
 - (d) by deleting the words "a qualified person" in sub-paragraph (e) and substituting the words "one or more specialists in the alternative solutions".

Amendment of regulation 9

- **4.** Regulation 9(2) of the principal Regulations is amended by deleting sub-paragraph (b) and substituting the following sub-paragraph:
 - "(b) be signed and endorsed by the qualified person who prepared the detailed structural plans and design calculations;".

New regulation 10B

5. The principal Regulations are amended by inserting, immediately after regulation 10A, the following regulation:

"Particulars to be shown in demolition works plans

- **10B.**—(1) The demolition works plans referred to in regulation 4(1)(a)(vi) shall consist of or contain such of the following as may be applicable:
 - (a) demolition plans;
 - (b) instrumentation and monitoring plans.

- (2) Without prejudice to regulations 6, 7, 8 and 9, all demolition works plans shall
 - (a) be in accordance with the provisions of the Act and these Regulations and any other requirement of the Commissioner of Building Control; and
 - (b) be accompanied by
 - (i) an impact assessment report on neighbouring structures, which shall include design calculations showing the stability and adequacy of every structural element the structural continuity of which is to be truncated by the demolition works;
 - (ii) design calculations showing that the floor is capable of resisting
 - (A) the load from the debris; or
 - (B) where a demolition machine is intended to be placed on the floor of the building in accordance with the demolition works plans, the load from the demolition machine and the debris; and
 - (iii) such reports as the Commissioner of Building Control may require.
- (3) Each demolition plan shall contain such of the following as may be applicable:
 - (a) the location and site plan of the building to be demolished, which includes the distances between the building to be demolished and adjacent buildings which are not to be demolished;
 - (b) structural floor plans showing
 - (i) in respect of each area of each floor plan, the imposed load for which the floor system or part thereof has been designed;
 - (ii) the demolition sequence and demolition zone for each floor;
 - (iii) the method statement on the handling and disposal of debris;
 - (iv) the type and weight of the demolition machine; and
 - (v) the location of the temporary ramp;

- (c) a layout plan showing the demolition sequence of
 - (i) all beams;
 - (ii) all columns;
 - (iii) all walls;
 - (iv) all slabs; and
 - (v) all edge parapets;
- (d) the following information on safety and environmental protection measures:
 - (i) layout plan, details, material specifications and elevation view of shoring and temporary supports;
 - (ii) layout plan, details and material specifications of protective hoardings, covered walkways, catch platform, catch fans, scaffolding, protective screens and safety nets;
 - (iii) where a demolition machine is used, the route of safe movement of the demolition machine;
 - (iv) where a continuous beam extends from the building to be demolished to an adjacent building and the beam is to be cut off at the boundary of the buildings, the anchorage detail of the existing reinforcement bars of the beam where it is to be cut off.
- (4) Each instrumentation and monitoring plan shall contain such of the following as may be applicable:
 - (a) the layout and location of other buildings (that are not to be demolished) in relation to the building to be demolished;
 - (b) the number, types, location, details and other particulars of instruments for monitoring building and ground movements;
 - (c) the frequency and duration of monitoring;
 - (d) allowable vibration limits;
 - (e) the location of closed-circuit television cameras to monitor the progress of the demolition work, especially for demolition of high-rise buildings.".

- **6.** Regulation 18 of the principal Regulations is amended
 - (a) by inserting, immediately after paragraph (2), the following paragraph:
 - "(2A) Where the deviations involve material changes to building works other than the structural design, the qualified person appointed under section 8(1)(a) or 11(1)(d)(i) of the Act shall submit the building plans to the Commissioner of Building Control for approval before construction.":
 - (b) by inserting, immediately after the words "immaterial changes" in paragraph (3), the words "to the structural design";
 - (c) by inserting, immediately after paragraph (3), the following paragraph:
 - "(3A) Notwithstanding paragraph (1), where the departures or deviations involve immaterial changes to building works other than the structural design, the qualified person appointed under section 8(1)(a) or 11(1)(d)(i) of the Act shall only be required to prepare and submit to the Commissioner of Building Control
 - (a) the record plans;
 - (b) his certificate stating that to the best of his knowledge and belief, the departures or deviations
 - (i) have been completed in accordance with the provisions of the Act and these Regulations; and
 - (ii) do not affect the objectives and performance requirements set out in the Fifth Schedule relating to the approved plans; and
 - (c) such other certificate or document as may be required by the Commissioner of Building Control."; and
 - (d) by deleting the words "paragraph (3)(b) and (c)" in paragraph (5) and substituting the words "paragraphs (3)(b) and (c) and (3A)(b) and (c)".

- 7. Regulation 24(4) of the principal Regulations is amended
 - (a) by inserting, immediately before the definition of "resident engineer", the following definition:
 - "Building and Construction Authority Academy" has the same meaning as in the Building and Construction Authority (Registration of Construction Personnel) Regulations 2008 (G.N. No. S 642/2008);";
 - (b) by inserting, immediately after the words "local polytechnic" in paragraph (b) of the definition of "resident technical officer", the words "or the Building and Construction Authority Academy,";
 - (c) by deleting paragraph (d) of the definition of "resident technical officer";
 - (d) by deleting paragraph (f) of the definition of "resident technical officer" and substituting the following paragraph:
 - "(f) possesses a National Certificate on Construction Supervision (NCCS) from the Building and Construction Authority Academy and has at least one year of such relevant practical experience in full-time supervision of structural works in construction sites in Singapore as may be acceptable to the Commissioner of Building Control; or"; and
 - (e) by deleting the word "postgraduate" in paragraph (g) of the definition of "resident technical officer" and substituting the word "post-qualification".

New regulations 38A and 38B

8. The principal Regulations are amended by inserting, immediately after regulation 38, the following regulations:

"Ready-mixed concrete

- **38A.**—(1) No person shall use or cause to be used any ready-mixed concrete for structural elements in any major building works, unless
 - (a) the ready-mixed concrete is obtained from a plant which holds a valid product conformity certificate; and
 - (b) the specification of the ready-mixed concrete is listed in the product conformity certificate.

(2) In this regulation —

"product conformity certificate" means a certificate issued by a certification body accredited by the Singapore Accreditation Council under the Council's Accredited Scheme for Product Certification Bodies for the certification of ready-mixed concrete;

"Singapore Accreditation Council" means the national authority for accreditation of conformity assessment bodies in Singapore.

Prohibited designs for exterior of building

- **38B.**—(1) Subject to paragraph (2), no person shall install or permit the installation of any movable panel that is to be fixed on the exterior surface of a building or any part thereof.
- (2) Paragraph (1) shall not apply to the installation of any movable panel on the exterior surface of a detached, semi-detached, terrace or linked house, or any part thereof, that is used solely as a residence.
- (3) In this regulation, "movable panel" includes a board, frame, plank, pane and the like which is designed to slide along a guide or track, or pivot about a pin, and which is constructed of any material.".

- 9. Regulation 41D of the principal Regulations is amended
 - (a) by inserting, immediately after the words "approved window contractor" in paragraph (1), the words "or a builder";
 - (b) by inserting, immediately after paragraph (1), the following paragraph:
 - "(1A) Any person who desires to install, in the course of any building works, a window that is to be an exterior feature of a building, shall engage a builder to perform the installation.":
 - (c) by deleting the words "engaged under paragraph (1)" in paragraph (2A) and substituting the words "or a builder engaged under paragraph (1) or (1A), as the case may be";
 - (d) by inserting, immediately after the words "paragraph (1)," in paragraph (3), "(1A),"; and

(e) by inserting, immediately after the words "trained window installer" in the regulation heading, the word ", etc.".

Amendment of regulation 41E

- **10.** Regulation 41E of the principal Regulations is amended
 - (a) by deleting the words "approved window contractor and every" in paragraph (1) and substituting the words "builder, approved window contractor or";
 - (b) by inserting, immediately after paragraph (1), the following paragraph:
 - "(1A) A builder or an approved window contractor appointed under regulation 41D(1) to carry out the replacement or modification of windows shall, not later than 14 days after the completion of the replacement or modification works, submit a certification of the completion of work to the Commissioner of Building Control in such form or manner as the Commissioner of Building Control may determine.";
 - (c) by deleting paragraph (2) and substituting the following paragraph:
 - "(2) Any builder or approved window contractor who fails to comply with paragraph (1) or (1A), and any trained window installer who fails to comply with paragraph (1), shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000 or to imprisonment for a term not exceeding 6 months or to both."; and
 - (d) by inserting, immediately after the words "Duties of" in the regulation heading, the word "builder,".

- **11.** Regulation 42 of the principal Regulations is amended
 - (a) by deleting sub-paragraph (f) of paragraph (2) and substituting the following sub-paragraphs:
 - "(f) the record plans of the detailed structural plans, design calculations and building plans incorporating all the departures or deviations from the approved structural plans, design calculations and building

- plans have been submitted to the Commissioner of Building Control;
- (fa) such of the following clearances, permits or approvals as may be applicable have been submitted to the Commissioner of Building Control:
 - (i) clearances, permits or approvals under the Fire Safety Act (Cap. 109A) relating to fire safety from the Commissioner of Civil Defence;
 - (ii) clearances, permits or approvals under the Sewerage and Drainage Act (Cap. 294) relating to sewerage and drainage from the Public Utilities Board;
 - (iii) clearances, permits or approvals under the Environmental Protection and Management Act (Cap. 94A) from the Director-General of Environmental Protection;
 - (iv) clearances, permits or approvals under the Street Works Act (Cap. 320A) and Parking Places Act (Cap. 214) from the Land Transport Authority of Singapore;
 - (v) clearances, permits or approvals under the Parks and Trees Act (Cap. 216) from the Commissioner of Parks and Recreation; and";
- (b) by deleting paragraph (3).

- **12.** Regulation 43 of the principal Regulations is amended
 - (a) by deleting sub-paragraph (c) of paragraph (3) and substituting the following sub-paragraphs:
 - "(c) the record plans of the detailed structural plans, design calculations and building plans incorporating all the departures or deviations from the approved structural plans, design calculations and building plans have been submitted to the Commissioner of Building Control;
 - (ca) such of the clearances, permits or approvals referred to in regulation 42(2)(fa) as may be applicable have

been submitted to the Commissioner of Building Control; and"; and

(b) by deleting paragraph (4).

Amendment of regulation 50

- **13.** Regulation 50 of the principal Regulations is amended
 - (a) by inserting, immediately after the words "38(1) or (3),", "38A(1), 38B(1),"; and
 - (b) by deleting "\$10,000" and substituting "\$20,000".

Amendment of First Schedule

- **14.** The First Schedule to the principal Regulations is amended
 - (a) by deleting sub-paragraph (b) of paragraph 1 and substituting the following sub-paragraph:
 - "(b) any shaft, manhole, trench or tunnel for the purpose of laying sewer, water or other utility pipes, where the pipe does not exceed 1,000 millimetres in internal diameter, and where the building works are not located within the site of other building works that are not specified in this Schedule;";
 - (b) by deleting the words "glazed or clay" in paragraph 1(d);
 - (c) by inserting, immediately after the words "lightweight material," in paragraph 1(e), the words "or glass not exceeding a thickness of 13 millimetres,";
 - (*d*) by deleting sub-paragraph (*f*) of paragraph 1 and substituting the following sub-paragraphs:
 - "(f) any single storey open-sided shelter, gazebo and the like (whether erected on the ground or on a roof), not exceeding an area of 10 square metres;
 - (fa) any trellis;";
 - (e) by deleting the words "underground tanks" in paragraph 1(l) and substituting the words "tanks located under the ground at a depth not exceeding 1,500 millimetres";
 - (f) by deleting sub-paragraph (m) of paragraph 1 and substituting the following sub-paragraph:
 - "(m) any plinth, platform or other base not supported by piled foundation, erected for the purpose of supporting any mechanical plant, tank, equipment, machinery or other components (other than a building) not exceeding 2,500 millimetres in height;";

- (g) by inserting, immediately after the words "enclosing of" in paragraph 1(n), the words "any sides of";
- (h) by deleting the full-stop at the end of sub-paragraph (r) of paragraph 1 and substituting a semi-colon, and by inserting immediately thereafter the following sub-paragraphs:
 - "(s) the replacement or reinstatement of any railing, balustrade or similar barrier constructed of any material other than non-laminated glass, using the same material, design and fixing details:
 - (t) any single storey building used for agriculture or to house livestock, including a greenhouse or a building used to house fixed plant or machinery for the farm, provided that
 - (i) no part of the building is used as a dwelling or for the purposes of packing, exhibiting, or retailing; and
 - (ii) each point of the building is situated not less than 1.5 times its height away from any adjacent building or any route of public access; or
 - (u) any pre-fabricated swimming or wading pool placed on the ground, provided that
 - (i) the maximum depth of water contained in the pool is not more than 1,000 millimetres; and
 - (ii) where the pool is located on higher ground, the distance between the pool and any retaining structure or slope is more than 3,000 millimetres and the difference in elevation of the ground levels is less than 1,500 millimetres.";
- (i) by deleting the words "of any single storey detached booth," in paragraph 8 and substituting the words "at the ground level of any single storey detached booth, covered walkway,";
- (*j*) by deleting paragraph 10 and substituting the following paragraph:
 - "10. Erection of any single storey lean-to extension with roof covering of tiles, or of any lighter material, in any bungalow, semi-detached, terrace or linked house.";
- (k) by inserting, immediately after paragraph 12, the following paragraph:
 - "12A. Construction of temporary decking over any trench, where the width of the trench does not exceed 3,000 millimetres.";
- (*l*) by inserting, immediately before the definition of "lightweight material" in paragraph 13, the following definition:

- "agriculture" includes horticulture, fruit growing, the growing of plants for seed and aquaculture;"; and
- (m) by inserting, immediately after the definition of "lightweight material" in paragraph 13, the following definition:
 - " "non-laminated glass" means glass other than laminated glass;".

Amendment of Fourth Schedule

- **15.** Paragraph 1 of the Fourth Schedule to the principal Regulations is amended
 - (a) by inserting, immediately after the words "3 storeys" in sub-paragraph (a), the words "involving only structures that are not the subject of sub-paragraphs (b) to (k)";
 - (b) by deleting sub-paragraph (e) and substituting the following sub-paragraph:
 - "(e) single storey buildings, sheds, covered walkways and the like where the span of beams or roof trusses is not more than 15 metres or the span of any cantilever is not more than 6 metres;";
 - (c) by deleting sub-paragraph (g);
 - (d) by deleting the word "link" in sub-paragraph (h); and
 - (e) by deleting sub-paragraphs (j) and (k) and substituting the following sub-paragraphs:
 - "(j) foundation for steel tank, equipment and the like not exceeding 20 metres in height;
 - (k) gantry cranes that are independently supported, where the span between supports does not exceed 6 metres; and
 - (l) demolition of any building or structure.".

Amendment of Fifth Schedule

- **16.** The Fifth Schedule to the principal Regulations is amended
 - (a) by deleting the Schedule reference and substituting the following Schedule reference:
 - "Regulations 2, 18(3A), 26, 27, 39(1) and 41E(1)";
 - (b) by inserting, immediately after the words "attic room" in paragraph 10(a), the words "not exceeding an area of 10 square metres, built by the owner for his own use";
 - (c) by inserting, immediately after the word "lavatories" in paragraph 10(d), the words "built by the owner for his own use";

- (d) by deleting sub-paragraph (e) of paragraph 10 and substituting the following sub-paragraph:
 - "(e) store rooms not exceeding an area of 6 square metres.";
- (e) by deleting the heading immediately after paragraph 10 and substituting the following heading:

"D. Accessibility in built environment";

- (f) by deleting paragraph 11 and substituting the following paragraph:
 - "11. The objective of paragraphs 12 to 15 is to ensure that persons with disabilities are able to easily gain access to and exit from the whole or part of a building, and that persons with disabilities, children between 90 cm and 120 cm in height, caregivers of infants, and nursing women are able to carry out their activities within the building with reasonable ease.";
- (g) by inserting, immediately after the words "persons with disabilities" in paragraph 13, the words ", and sanitary facilities that are appropriate for use by children between 90 cm and 120 cm in height,";
- (h) by deleting paragraphs 14 and 15 and substituting the following paragraphs:
 - "14. Appropriate facilities for lactation and changing of diapers shall be adequately provided and be accessible for use by nursing women and caregivers of infants.
 - 15. Appropriate wayfinding guides such as signages or audible or tactile information providing directions or instructions shall be adequately provided within a building to guide persons with disabilities to spaces or facilities where or which they may be expected to work, visit or use.";
- (i) by deleting the words "paragraphs 17, 18 and 19" in paragraph 16 and substituting the words "paragraphs 17 and 18";
- (j) by deleting paragraph 19;
- (k) by deleting paragraph 26 and substituting the following paragraph:
 - "26. The objective of paragraphs 27, 27A and 27B is to protect people from injury caused by falling from a height.";
- (*l*) by inserting, immediately after paragraph 27, the following paragraphs:
 - "27A. Where a barrier is used to prevent falling from a height, the barrier shall not have any feature that facilitates the climbing of the barrier.

- 27B. Where glass is used as a part or the whole of a barrier, the glass used shall be able to withstand the loading for which it is designed and shall not be susceptible to spontaneous breakage or to shattering.";
- (m) by deleting paragraph 28 and substituting the following paragraph:
 - "28. The requirements in paragraphs 27, 27A and 27B shall not apply to -
 - (a) any roof which is accessible for maintenance purposes only and not easily accessible to the public; and
 - (b) any area where the provision of a barrier would prevent it from being used as intended, such as a loading dock or pier, platform for loading or unloading of goods, or for the boarding or alighting of passengers, stage for performance or entertainment, golf driving range, equipment pit and the like.":
- (n) by deleting paragraph 41 and substituting the following paragraph:
 - "41. A window system shall have
 - (a) window components, including fasteners, fixings, hinges and stays of adequate number, size and strength to safely support the weight of the window system and other loads imposed on it;
 - (b) a structural frame profile that is of adequate size and strength and adequately reinforced at locations where screws or rivets are to be affixed; and
 - (c) features and components to prevent the window from detaching, dislodging or falling during its intended use.";
- (o) by deleting paragraph 43 and substituting the following paragraph:
 - "43. Where glass is used as a part or the whole of the facade, roof, canopy, wall or other type of overhead glazing of a building located at a height of 2.4 metres or more, whether situated within the interior or forming the exterior of a building, appropriate measures shall be taken to minimise the risk of injury to people in the event of spontaneous breakage of such glass elements."; and

(p) by inserting, immediately after paragraph 44, the following headings and paragraphs:

"O. Protection from injury by vehicles in buildings

Objective

45. The objectives of paragraphs 46 and 47 are to protect people from injury caused by a vehicle breaching designated spaces for vehicular access in a building.

Performance requirement

- 46. Where the whole or part of a floor of a building allows vehicular access, such as a vehicle park or a ramp or route for vehicular access, appropriate barriers shall be installed to prevent vehicles from breaching the perimeter of the floor of the building.
- 47. Where any part of a building allows vehicular access near an area where people are likely to be present, such as a passenger pick-up point, a vehicle park lift lobby and the like, appropriate measures shall be taken to prevent vehicles from encroaching into such areas.".

Amendment of Sixth Schedule

17. The Sixth Schedule to the principal Regulations is amended by deleting the words "reflective glass" in paragraph (d) and substituting the words "any material".

[G.N. Nos. S 598/2004; S 549/2005; S 478/2007; S 495/2007; S 54/2008; S 250/2008; S 643/2008; S 4/2011; S 591/2012]

Made this 22nd day of October 2013.

BENNY LIM

Permanent Secretary, Ministry of National Development, Singapore.

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(To be presented to Parliament under section 52 of the Building Control Act).