

For discussion
on 26 February 2019

**LEGISLATIVE COUNCIL
PANEL ON DEVELOPMENT**

**Proposed Amendments to
the Building (Construction) Regulations,
and the Building (Minor Works) Regulation**

PURPOSE

To provide further facilitation to the industry, bring greater convenience to members of the public and keep in pace with the latest technological advancements and societal needs, we propose legislative amendments be made to amend the Building (Construction) Regulations (Cap. 123 sub. Leg. B) and Building (Minor Works) Regulation (Cap. 123 sub. Leg. N) where details are enclosed in **Annex A** and **Annex B** respectively. This paper seeks Members' views on the proposals.

ADVICE SOUGHT

2. Members' advice is sought in respect of the legislative amendment proposals as detailed in **Annexes A and B**.

Development Bureau
February 2019

**For discussion
on 26 February 2019**

**LEGISLATIVE COUNCIL
PANEL ON DEVELOPMENT**

**Proposed Amendments to
Building (Construction) Regulations (Cap. 123 sub. leg. B)**

PURPOSE

This paper seeks Members' views on a proposal to revamp the extant Building (Construction) Regulations (Cap. 123 sub. leg. B) ("B(C)R") for implementing a performance-based building control system and enhancing standards on the design and construction of buildings, streets, building works and street works under the Buildings Ordinance (Cap. 123) ("BO").

BACKGROUND

2. Broadly speaking, the B(C)R governs –
 - (a) the design and construction of buildings, streets, building works and street works;
 - (b) the materials used in building works or street works;
 - (c) the dead loads, wind loads and imposed loads on buildings, streets, building works and street works;
 - (d) the requirements for site investigation, bulk excavation, foundation, site formation work, and structural use of concrete;

- (e) the requirements for sites, walls, floors, external walls, cladding, curtain walls, retaining walls, roofs of buildings, protective barriers, chimneys, wells, and building works in connection with lifts and escalators; and
- (f) the fire resisting construction for buildings.

3. The extant B(C)R was first enacted in 1956 and was substantially amended in 1975 and 1990. It comprises both prescriptive and performance-based provisions. The performance-based provisions specify the objectives and functional requirements instead of prescribing the detailed technical requirements. As stated in paragraph 1 above, the proposed revamp seeks to change the current prescriptive provisions in B(C)R to performance-based ones as far as practicable on the following grounds –

- (a) it is in line with international practices whereby the expected performance of the design and construction of buildings, instead of definitive requirements, is mandated to facilitate innovations and advancements in building technology, as well as to provide flexibility;
- (b) the proposed revamp does not alter the objectives of the BO or reduce the control of the Building Authority (“BA”). As with the current practice, codes of practice and practice notes will be issued on an administrative basis by the BA to provide guidelines, standards and technical specifications, the compliance with which would be regarded by BA as satisfying the performance-based requirements set out in the regulations¹; and
- (c) the proposed revamp to a certain extent is reflecting the current practices whereby the BA exercises his discretion

¹ It is open to registered building professionals (viz. Authorized Persons, Registered Structural Engineers or Registered Geotechnical Engineers registered under the Buildings Ordinance to demonstrate that there are other means of achieving the objectives and functional requirements set out in the performance-based provisions.

under section 42 of the BO to permit modifications to certain prescriptive provisions and accept alternative yet agreeable approaches proposed by registered building professionals. The proposed revamp would provide clarity as to the criteria against which the proposed design and construction of buildings would be considered for approval.

4. It should be noted that certain extant prescriptive provisions which could not be replaced by performance-based ones (e.g. loads imposed on buildings) would be retained to ensure the integrity of the current regulatory regime of B(C)R will not be compromised.

PROPOSED AMENDMENTS

5. Most of the provisions in the extant B(C)R have been in use for over 28 years. Practitioners have expressed concern that the existing prescriptive provisions are not conducive to innovative building design. With advancements in building technology and developments in international building codes and standards, a complete review of the extant B(C)R has been conducted with a view to ensuring that the statutory requirements meet modern-day requirements and international standards on construction quality and safety. Opportunity is taken to also revamp the extant B(C)R by transforming some of the prescriptive-based provisions into performance-based ones to allow flexibility in building design and facilitate the adoption of innovative building technologies.

6. As compared with the extant B(C)R, the revamped B(C)R seeks to –

- (a) turn the remaining prescriptive provisions into performance-based provisions as far as practicable. As with the present practice, BA will issue codes of practice as needed to provide detailed technical guidelines on the new performance-based provisions;

- (b) enhance standards on building construction by adding new definitions and provisions which meet modern-day requirements and align with prevailing legislations;
- (c) introduce new provisions to require adequate means of access for maintenance at the exterior of buildings for better protection of workers' safety;
- (d) remove obsolete and redundant provisions; and
- (e) restructure the extant B(C)R for a coordinated and coherent presentation.

The New B(C)R

7. We propose that a new set of regulations be made to replace the extant B(C)R. The new B(C)R contains eleven parts, the contents of which and the major changes made are summarised in the ensuing paragraphs.

Part 1 – Preliminary

8. Part 1 of the revamped B(C)R provides for commencement and the meanings of expressions used in other parts. Amendments are highlighted as follows -

- (a) removing the extant definitions of “masonry” and “plain concrete”, which become redundant and will no longer appear in the revamped B(C)R;
- (b) adding new definitions which will appear either in this part or the relevant parts of the revamped B(C)R to complement the performance-based approach, namely “associated equipment or machinery”, “cumulative adverse effects”, “designed distributed imposed load”, “inaccessible area”,

“inaccessible roof”, “minor retaining wall” and “products of combustion”; and

- (c) revising the definition of “cinema” to tally with the Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations (Cap. 123 sub. leg. I) for consistency, “cladding” and “curtain wall” for clarity, and “dead loads” to tally with the Code of Practice for Dead and Imposed Loads 2011 (“the Loads Code”).

Part 2 - Materials

9. The extant performance-based requirements for materials remain unchanged in this part. The extant prescriptive requirements for materials namely cement, sand, water, materials for damp proofing, chunam, aggregate, admixtures, reinforcement, prestressing tendons and concrete under the extant B(C)R will be transformed into new performance-based provisions, with the added requirement that the suitability and performance of materials must be verified by recognised tests.

Part 3 - Loads

10. This part provides for requirements in dealing with dead loads, imposed loads and wind loads in building design and construction. The requirements for imposed loads stipulated under the Building (Construction) (Amendment) Regulation 2011 will largely be retained. The revamped B(C)R also seeks to include requirements in dealing with loads of new usages such as sauna rooms, columbaria and open areas in gardens and their corresponding imposed load requirements, which have been already specified in the Loads Code². The requirements on wind loads and the display of the designed imposed loads are slightly amended to set out the performance-based requirements.

² The Loads Code provides guidelines on determination of dead loads and minimum imposed loads for design of building, building works, street and street works. Compliance with the requirements of the Loads Code is deemed to have satisfied the relevant provisions of the Buildings Ordinance and the related regulations.

Part 4 - Design and Construction

11. This part covers the performance-based requirements for the design and construction of engineering proposals to be submitted to BA. In addition to the existing requirements for design to comply with the laws of mechanics and recognised engineering principles, the requirement to design buildings in compliance with recognised engineering practices is also mandated to reflect the existing practices. Other key changes are highlighted in ensuing paragraphs.

12. This part will set out the requirements that the structure of any building, street, building works and street works must fulfill the performance-based requirements for its strength as well as its serviceability. The structure must be capable of safely sustaining and transmitting to the ground the loads it has taken up in such a manner so as not to render inadequate the factor of safety of itself or the adjoining structures. Furthermore, the structure must not cause deflection and deformation that would adversely affect its intended use and performance or that of the adjoining structures. Moreover, the prescriptive requirements for resistance to sliding, uplift and overturning are removed. Corresponding performance-based requirements are introduced.

13. This part will also set out the requirements that appropriate construction methods and precautionary measures must be adopted so as not to cause stability danger or damage to structure under construction or the adjoining structures. The performance-based requirements will apply to the construction of superstructure and foundation works. The prescriptive requirements for striking formwork will be replaced by a relevant performance-based requirement.

Part 5 - Site Investigation

14. This part is amended with textual refinement only as the extant provisions are already performance-based.

Part 6 – Foundation

15. The prescriptive requirements for foundations in the extant B(C)R will be replaced by the new performance-based provisions and be supplemented by a code of practice. The part will also include requirements for on-site tests and proof tests on foundation units, which basically follow the extant regulations. As a consequence, the extant definitions of “ultimate bearing capacity” and “working load” are to be removed since they no longer appear in the revamped B(C)R.

Part 7 - Site Formation Work

16. The extant performance-based requirements for site formation works and retaining walls remain unchanged. Other prescriptive requirements on retaining walls under the extant regulations will be replaced by new performance-based provisions.

17. Restrictions and geotechnical controls on bulk excavations in area number 1 of the scheduled areas set out in Schedule 5 to the BO (i.e. the Mid-levels area) are imposed under the extant regulations to safeguard the stability of land in that area in view of past failure of slopes. It is proposed that the extant provision be amended to a performance-based provision to provide that “bulk excavation carried out in area number 1 of the scheduled areas must be limited to such level as to minimise the cumulative adverse effects on the overall stability of the hillside”. Upon commencement of the revamped B(C)R, tentative bulk excavation limit of the Mid-levels area would be published. Registered building professionals appointed by owners shall propose the bulk excavation level under their development and demonstrate that the proposed excavation works would minimise the cumulative adverse effects on the overall stability of that area. It will provide clarity and flexibility to practitioners yet the BA’s control of excavation works will not be inferior to the current standards.

Part 8 - External Walls, Cladding and Curtain Walls

18. The performance-based requirements for external walls, cladding and curtain walls under the extant regulations are proposed to be slightly amended for better regulatory control. The remaining prescriptive requirements in the extant regulations under this part will be replaced by performance-based provisions, i.e. instead of prescribing the minimum thickness of external walls built by masonry, plain concrete or reinforced concrete, we propose requiring that external walls be constructed by materials that are suitable for the construction of the external walls. Specifically, the amended provision provides that such materials should be permanent, non-combustible and impervious. Detailed technical requirements would be set out through codes of practice and practice notes.

19. At present, it is not a statutory requirement to provide means of access for maintenance to the exposed sides of external walls, cladding and curtain walls (“external features”). To encourage building design to cater for such need, the BD has since early 2016 implemented that in considering applications for exemption of components of the exterior of buildings, such as air conditioners platforms and curtain walls, from gross floor area and site coverage calculations, the provision of ancillary facilities for safe access for repair and maintenance of such exterior components is one of the pre-requisites. As a further step to protect workers’ safety, we propose performance-based provisions to mandate the provision of adequate means of access for maintenance to external features under the revamped B(C)R. A new code of practice on design for safety for external maintenance promulgating the deemed-to-satisfy requirements for compliance with the said new provisions will be issued by BA .

20. As external wall will be subject to the control of performance-based requirements in the revamped B(C)R, the extant prescriptive regulation requiring no timber in wall is no longer required and will be removed. The testing requirement in the extant B(C)R will be removed as BA already has the power to impose conditions for

performance tests under the BO.

Part 9 - Fire Safety

21. The regulation for fire resisting construction is already performance-based and therefore only minor textual revisions of the extant regulation are proposed. The functional requirements on maintaining the stability of buildings in case of fire will be introduced in this part.

Part 10 - Occupant Safety

22. This is a new part which covers the provisions in the extant regulations relating to the safety of occupants of the building. It is proposed that the extant regulation be amended by specifying the objectives and conditions on the provisions of protective barriers. It is also proposed that performance-based provisions on surface paving works at external area and the construction of balcony (including utility platform) and verandah be imposed, while the other extant regulations remain basically unchanged in the revamped B(C)R.

23. The performance-based requirements for building design and construction in connection with lifts and escalators in the revamped B(C)R will be identical to the extant regulation, except that the extant prescriptive requirements on preparation of the notice cautioning the use of lifts in case of fire and the entering of the restricted space of lifts and escalators are replaced with the performance-based provisions whereby the format of such notice is no longer prescribed. Moreover, the obsolete requirement for skirting against the wall will also be removed.

Part 11 - Miscellaneous

24. The extant regulations for ground treatment, provisions of wells, chimneys and fireplaces, and harbourage of vermin, which are basically performance-based, will be grouped under this part. The existing performance-based requirements will be suitably refined whereas

the prescriptive parts therein are to be replaced by new performance-based provisions. Besides, a new provision is proposed to control the design of large-sized ducts allowing person's entry for maintenance and to set out the performance-based requirements on providing access opening and bearing the weight of the person. Similar control on ventilating ducts as set out under the extant Regulation 4(1)(e)(iii) of the Building (Ventilating Systems) Regulations (Cap. 123 sub. leg. J) ("B(VS)R") will be repealed as a consequential amendment as detailed in paragraph 25 below.

Corresponding Amendments

25. The corresponding amendments to the Building (Administration) Regulations ("B(A)R") (Cap. 123 sub. leg. A) and B(VS)R are proposed as below-

- (a) updating the cross reference to the revamped B(C)R in B(A)R; and
- (b) removing the extant requirements under B(VS)R on large-sized ducts which will be covered under Part 11 of the revamped B(C)R as mentioned in paragraph 24 above.

IMPLICATIONS OF THE NEW REGULATION

26. It should be emphasised that notwithstanding the change from prescriptive requirements to performance-based requirements for some of the provisions, the objectives of the BO will remain unchanged and the degree of BA's control will not be diminished. The revamped B(C)R will not limit BA's powers to disapprove submissions under the BO. It is BA's intended framework of control to align requirements for provision of minimum standards with up-to-date industry practice. Codes of practice and practice notes will be revised and updated by BA so that the guidelines, standards and technical specifications as satisfying the relevant performance-based requirements could be made known to

stakeholders. It is anticipated that there will be no resource implication as a result of the legislative amendments.

PUBLIC CONSULTATION

27. The proposed amendments to the B(C)R and the implementation arrangements were discussed at the Building Sub-Committee of the Land and Development Advisory Committee and the Authorized Persons, Registered Structural Engineers & Registered Geotechnical Engineers Committee comprising representatives from relevant professional bodies and associations of the building and construction industry. Members of these two committees were generally supportive of the proposed amendments.

LEGISLATIVE TIMETABLE

28. The proposed amendments to extant B(C)R, B(A)R and B(VS)R with the corresponding commencement notices will require negative vetting by the LegCo, with the following proposed legislative timetable –

Publication in the Gazette (amendment regulations and commencement notice for the amended B(C)R, B(A)R and B(VS)R)	first half of 2019
Tabling of amendment regulations into the LegCo for negative vetting	first half of 2019
Commencement Date	12 months upon Gazette

29. It is proposed that the revamped B(C)R be commenced in 12 months after its gazettal to allow sufficient time for the stakeholders to familiarise with the change.

ADVICE SOUGHT

30. Members' advice is sought on our proposed amendments to the revamped B(C)R. Subject to Members' comments, the Government will finalise the amendments to the extant regulations with a view to tabling the new Building (Construction) Regulation in the Legislative Council in the near future.

Development Bureau
February 2019

**For discussion
on 26 February 2019**

**LEGISLATIVE COUNCIL
PANEL ON DEVELOPMENT**

**Proposed Amendments to
Building (Minor Works) Regulation,**

PURPOSE

This paper seeks Members' views on a proposal to amend the extant Building (Minor Works) Regulation (Cap. 123 sub. leg. N) ("B(MW)R") for inclusion of more minor building works items into the Minor Works Control System ("MWCS") to facilitate the public to carry out such works lawfully.

BACKGROUND

2. Before the implementation of the MWCS, all building works, with the exception of exempted works as defined under section 41 of the Buildings Ordinance ("BO") (Cap. 123), required the prior approval and consent of the Building Authority ("BA") before commencement. Otherwise, regardless of the scale of the works, they would be regarded as unauthorised building works ("UBWs") and would be subject to enforcement action by the Buildings Department ("BD").

3. The MWCS came into full operation on 31 December 2010. The MWCS provides an alternative to the above statutory procedures for building owners to carry out small-scale building works in a lawful, simple, safe and convenient manner. With the MWCS, building owners may carry out minor works ("MW") under simplified requirements without the need to obtain prior approval and consent of the BA before the commencement of such works.

4. The MWCS is regulated by B(MW)R. The B(MW)R provides for the classification and details of MW covered under the MWCS, the simplified requirements for carrying out such works, registration of MW contractors, and duties of building professionals and registered contractors in carrying out such works. Under the B(MW)R, MW are classified into three classes (i.e. Class I, II and III, with more controlling measures imposed on Class I works) according to their nature, scale and complexity, and risk that they may pose. The works under each class are further categorised into seven types (i.e. Types A to G) that correspond to the specialisation of works in the industry.

5. Irrespective of their classification, all MW are required to be carried out by prescribed registered contractors¹ (“PRCs”). If the works is a Class I MW item, the owner will have to engage a prescribed building professional² (“PBP”) to design and supervise the carrying out of the MW. The PBPs or PRCs are also required to make appropriate submissions that contain details of the MW concerned to BD for record before the commencement (for Classes I and II MW only) and after the completion of works (for all MW). Under the MWCS, BD will check all submissions to ensure qualified personnel is appointed and will conduct audit checks against the submissions with necessary site inspections. BD will require the PBPs and PRCs to rectify any irregularities identified. Depending on the seriousness of the irregularities, PBPs and PRCs may be sanctioned under the BO. On the other hand, BD has published user-friendly pamphlets to facilitate building owners, tenants, PBPs, PRCs and other stakeholders to understand their obligations and responsibilities under the MWCS. Guidelines have also been published to remind practitioners on the relevant considerations and good practices.

6. MWCS has proven to be a simple and convenient channel in carrying out minor building works. Its implementation is generally welcome by both the industry and the public. Since its implementation

¹ PRCs include Registered General Building Contractors, Registered Specialist Contractors registered to conduct a certain category of specialised works, as well as Registered Minor Works Contractors registered to conduct certain class/type/item of MW.

² PBPs include Authorized Persons or Registered Inspectors and, where applicable, Registered Structural Engineers and Registered Geotechnical Engineers.

on 31 December 2010 and up to December 2018, over 800 000 MW submissions have been received. The majority of these submissions are related to minor building works involving windows, repair to structural elements, drains and supporting frames of air-conditioning units, etc.

PROPOSED AMENDMENTS

7. There are other types of amenity features that are similar in nature and scale to the extant items under MWCS. Amendments to the B(MW)R are therefore proposed to extend the coverage of the MWCS to these features to streamline approval process and facilitate early implementation of such minor works so as to bring greater convenience to members of the public.

8. The major elements of the proposed amendments are as follows -

- (a) designation of more types of amenity features and minor building works as MW or designated exempted works (“DEW”)³, and amendment to or repeal of certain extant items for streamlining purposes;
- (b) designation of certain existing unauthorised minor amenity features as Prescribed Buildings or Building Works (“PBW”) under the validation scheme as detailed in paragraph 11 to 13; and
- (c) corresponding amendments to regulation 7 of Building (Planning) Regulations (Cap. 123 sub. leg. F) (“B(P)R”) to align with the present amendments and allow certain new MW items to project from external walls of the building over street.

9. Transitional arrangements will also be put in place to ensure smooth transition from the current MWCS regime to the new regime. A summary of the changes in the number of MW, DEW and PBW items

³ DEWs are building works that are very simple and of a very small scale. Such works may be carried out without the approval of plans, consent to commence works, or appointment of PBPs or PRCs under the BO. They even need not follow the simplified requirements under the MWCS given their simple nature, insignificant structural implications and low risk to safety.

arising from the proposed amendments is at **Appendix I**. Details of the proposed amendments are elaborated below.

Addition and Simplification of MW and DEW Items

10. New greening features such as planters, ponds or fountains, trellises and metal frames for growing of plants will be included in the proposal to promote a green and quality environment. In addition, various amenity features such as retractable awnings, supporting structures and metal casings for building services installations, and window security grilles are included in the proposal to improve the standard and quality of the building. To enhance building safety and facilitate building maintenance, works such as erection of small-sized reinforced polyester water tanks, cat-ladder for maintenance, repair or replacement of curtain walls and windows or window walls are proposed to be included in the proposal. Details of the proposal are given in **Appendix II**.

Additional PBW under the Validation Scheme

11. The extant MWCS provides for a validation scheme for three types of UBWs, namely unauthorised supporting frames for air-conditioning units, drying racks and canopies as PBW. After the validation, such UBWs meeting the prescribed description and erected before the commencement of MWCS on 31 December 2010 will not be served a removal order under section 24 or a warning notice under section 24C of the BO.

12. The validation scheme aims to allow the continued use of such existing unauthorised minor amenity features after safety inspection and necessary strengthening, as well as certification by PBP or PRC so as to avoid waste. While the legal status of such validated UBWs will remain to be unauthorised, the validation scheme seeks to provide a pragmatic way to deal with the numerous existing UBWs that are of lower safety risk and meet the genuine needs of building occupants.

13. We therefore propose extending the validation scheme to cover an additional nine types of unauthorised minor and genuine amenity features erected before the commencement date of the amended B(MW)R by

designating them as PBW.

Corresponding Amendments

14. As corresponding amendments to the inclusion of new and amended MW items, we proposed amending regulation 7 of the B(P)R such that (a) metal ventilation ducts and the associated supporting structures; (b) supporting structures for antennas and transceivers for public telecommunications services; (c) supporting structures for light fitting; and (d) retractable awnings will be permitted to project over street when meeting certain dimensional and positional requirements. The proposed extension of validation scheme to cover the nine features as mentioned in paragraph 13 will also require corresponding amendments to Schedule 8 to the BO.

PUBLIC CONSULTATION

15. We consulted the Building Sub-Committee of the Land and Development Advisory Committee, the Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers Committee and the Technical Committee of MWCS on the proposal. Members of these committees, comprising different professional bodies, associations of the building and construction industry and trade associations, generally supported the proposal.

LEGISLATIVE TIMETABLE

16. The proposed amendments to Schedule 8 to the BO require a resolution to be passed by the Legislative Council (LegCo) whereas the amendments to the extant B(MW)R and B(P)R together with the commencement notice for the amended B(MW)R, B(P)R and Schedule 8 to the BO will require negative vetting by the LegCo, the proposed legislative timetable is as follows -

Moving the motion at LegCo (positive vetting for resolution of amending Schedule 8 to the BO)	first half of 2019
Publication in the Gazette (amendment regulations and commencement notice for the amended B(MW)R, B(P)R and Schedule 8 to the BO)	first half of 2019
Tabling of amendment regulation into the LegCo for negative vetting	first half of 2019
Commencement date	second half of 2019

IMPLEMENTATION

17. To ensure a smooth transition for MW commenced before the operation of the amendment regulation and avoid undue disruption to the Registered (Minor Works) Contractor (“RMWC”) and confusion to building owners, we proposed that suitable transitional provisions be included in the legislative amendment proposal and publicity and public education be carried out. Details are set out in ensuing paragraphs.

Minor Works Commenced before the Operation of the Amendment Regulation

18. We propose adding transitional provisions to the B(MW)R such that where the carrying out of the MW has commenced before the coming into operation of the amendment regulation, RMWC can continue to carry out the MW.

Registration as RMWC and Updating of the Register

19. According to the existing MWCS, a contractor is required to apply for registration as RMWC for a particular class/type/item of MW as per their qualifications and experience. Contractor companies may apply for registration as RMWC(Company) (“RMWC(Co)”) for relevant types of MW under one or more classes, while individual practitioners may apply for RMWC(Individual) (“RMWC(Ind)”) for respective Class III MW items only. To minimise inconvenience to the industry and avoid confusion to building owners who intend to engage a RMWC, a transitional arrangement is proposed so that existing RMWC(Co) and RMWC(Ind) will not be required to submit applications afresh for registration to carry out the new or amended MW items of the same class or type upon commencement of the amended B(MW)R, as follows –

- (a) Existing RMWC(Co) which have been registered according to the class (i.e. Class I, II and/or III) and type of MW (i.e. Types A to G), are considered competent and will be allowed to carry out all the new and amended MW items under the same class and type of MW for which they have already been registered. No change to the register⁴ of MW contractors (“Register”) is required.

- (b) Existing RMWC(Ind) possessing the requisite experience and qualification for a specific trade division are considered competent to carry out any new and amended Class III items⁵ within such trade division. Upon commencement of the amended B(MW)R, the existing RMWC(Ind) will be regarded as registered also for the relevant new and amended Class III MW items. The Register will be updated to reflect all corresponding new and amended Class III MW items that the RMWC(Ind) may carry out. Furthermore, BD will arrange for replacement of registration cards to the existing RMWC(Ind) by phases.

⁴ Under s.2 of B(MW)R, register means the register of MW contractors kept under s.8A(1)(c) of the BO. Under s.8A(1)(c) of the BO, the BA is to keep a register of MW contractors who are qualified to carry out MW belonging to the class, type and item specified in the register in which they are registered.

⁵ Under the MWCS, RMWC (Ind) may only carry out Class III MW.

Publicity and Public Education

20. Upon the making of the amended B(MW)R, BD will conduct public education and publicity programmes for practitioners, property management agencies and the general public to promulgate the amended MWCS. In addition, BD will update the Technical Guideline on MWCS and publish pamphlets with general guidelines on the new arrangement.

21. Taking into account the time needed to complete these preparatory work, we propose commencing the amended regulation three months after its enactment.

ADVICE SOUGHT

22. Members' advice is sought in respect of the above legislative amendment proposal. Subject to Members' comments, the Government intends to finalise the proposed legislative amendments per the timetable as set out in paragraph 16 above.

Development Bureau
February 2019

Summary of Changes in the Numbers of Minor Works, Designated Exempted Works and Prescribed Building or Building Works Items¹

Table 1: Summary of the Change in the Numbers of the Minor Works (“MW”) Items in the Proposed Amendments to Schedule 1 to Building (Minor Works) Regulation (“B(MW)R”)

	Class I MW items	Class II MW items	Class III MW items	Total MW items
1. No. of extant MW items	44	40	42	126
2. No. of MW items to be repealed²	4	0	5	9
3. No. of new MW items	17	27	24	68
4. No. of MW items to be amended	16	16	18	50
Total = (1) - (2) + (3)	57	67	61	185

Repealed MW Items: 1.13, 1.18, 1.19, 1.29, 3.9, 3.10, 3.14, 3.15 and 3.28.

Amended MW Items: 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.11, 1.12, 1.15, 1.17, 1.25, 1.26, 1.27, 1.28, 1.30, 1.36, 2.2, 2.6, 2.7, 2.8, 2.10, 2.11, 2.13, 2.14, 2.15, 2.17, 2.22, 2.28, 2.29, 2.31, 2.34, 2.36, 3.2, 3.4, 3.5, 3.6, 3.8, 3.11, 3.12, 3.19, 3.25, 3.26, 3.27, 3.29, 3.31, 3.32, 3.34, 3.38, 3.41 and 3.42.

New MW items: 1.45 to 1.61, 2.41 to 2.67 and 3.43 to 3.66.

¹ Exact number of items is subject to change during finalisation of the drafting of the amendment Regulation.

² The works under the repealed MW items have either been subsumed under the amended MW items or new MW items.

Table 2: Summary of the Change in the Numbers of the Designated Exempted Works (“DEW”) Items in the Proposed Amendments to Schedule 2 to B(MW)R

	Total DEW items
1. No. of extant DEW items	15
2. No. of new DEW items	14
3. No. of extant DEW items to be amended	8
Total = (1) + (2)	29

Amended DEW items: DEW 5, 6, 7, 9, 12, 13, 14 and 15

New DEW items: DEW 16 to 29

Table 3: Summary of the Change in the Numbers of the Prescribed Building or Building Works (“PBW”) Items in the Proposed Amendments to Schedule 3 to B(MW)R

	Total PBW items
1. No. of extant PBW items (Household)	4
2. No. of extant PBW items (Signboard)	6
3. No. of new PBW items (Amenity Features)	19

The proposed 19 nos. of new PBW items include the following types of amenity features -

- (a) Solid fence wall, mesh fence, metal railing or pole
- (b) Trellis
- (c) Canopy
- (d) Metal gate at fence wall
- (e) Supporting structure for a radio base station
- (f) Supporting structure or metal casing for a building services installation
- (g) Supporting frame for a light fitting or an air-conditioning unit projecting from the external wall of a building
- (h) External metal ventilation duct and the associated supporting structure or frame
- (i) Retractable awning for an opening in the external wall of a building

**Addition and Simplification of
Minor Works and Designated Exempted Works Items**

Planters, ponds or fountains; trellises; and metal frames for growing of plants

1. Greening can bring various environmental benefits such as mitigating heat island effect and reducing solar heat gain of buildings while providing pleasing aesthetic view to the built environment. To facilitate the installation of common types of greening, it is proposed to designate the erection or alteration of small fixed planter on roof as a Class I minor works (“MW”) item. The removal or repair of planters on roof will be designated as a Class III MW item whereas a new Class II MW item and a new designated exempted works (“DEW”) item will be added for erection, alteration, repair or removal of planters, ponds or fountains on-grade depending on its size.

2. Furthermore, one new Class I MW item, two new Class II MW items and one new Class III MW item for the erection, alteration, removal or repair of trellises for growing of plants on roofs or in gardens on-grade are proposed.

3. To facilitate the growing of plants on the external walls of buildings, a new DEW item is proposed for the erection, alteration, repair or removal of metal supporting frames for such purpose at the external walls of a building at low level.

Roof finishes

4. The extant MW item 2.34 and DEW item 7 cover the laying, repair or removal of external rendering, external wall tiles and roof tiles of a building. As timely and proper repair and maintenance of roof finishes including waterproofing, screeding and roof tiles is essential, taking into account the loading implication to the parent building, it is proposed to designate a new Class I MW item for the laying or repair of

roof finishes (if the thickness of the newly laid or repaired roof finishes is greater than that in the original design), and amend the extant Class II MW and DEW items for carrying out such works (if the thickness of the newly laid or repaired roof finishes will not exceed that in the original design).

Water tanks

5. To facilitate irrigation of greenery and installation of water tanks as a fire safety provision, it is proposed to designate the erection or alteration of reinforced polyester water tanks of not more than 4.5 cubic metre (“m³”) to be placed on-grade and on a slab (other than a cantilevered slab) of buildings as a new Class I MW item. Besides, removal of water tank (including a concrete water tank) of not more than 9 m³ is proposed under the same MW item.

Windows or window walls

6. The extant MW item 2.8 covers the construction, alteration or repair of any window or window wall with structural elements spanning not more than 6 metre (“m”) and meeting certain size limits. Cases not meeting the above criteria will require prior approval and consent from the Building Authority (“BA”).

7. Repair or replacement of windows or window walls, including their components, are common works items. While the restriction on the construction and alteration of window should be maintained, to facilitate the repair or replacement of window in accordance with the original design, it is proposed to amend the extant MW item 2.8 such that the repair and replacement of a window or window wall with structural elements spanning not more than 6 m could be carried out irrespective of its size. A new Class I MW item has also been added for the repair or replacement works involving structural elements spanning more than 6 m provided that the original design is adhered to.

Curtain walls

8. Timely and proper repair and maintenance of curtain walls are important and essential as they serve as the external envelope of a building. Currently, such works do not come within the purview of the MWCS or exempted building works and are subject to the approval and consent process under the BO. To facilitate the carrying out of the repair and replacement works, it is proposed to designate a new Class I MW item for the repair or replacement of curtain walls in accordance with the original design provided that the works do not involve the replacement of supporting structures and any structural elements of the curtain walls connecting to the parent structure.

Protective barriers

9. The extant Class I MW item 1.6 covers alteration or removal of protective barriers but does not cover its erection. Noting the erection of protective barriers is often associated with the erection of internal staircases or formation of floor openings which are already Class I MW items, it is proposed that the scope of this item be amended to cover as well the erection of such protective barriers to cope with the trade practice.

Solid walls, mesh fences, metal railings or poles

10. Erection, alteration or removal of solid fence walls and mesh fences of certain size and construction method located on-grade are already extant MW items but those on roofs are not. To facilitate the erection of such features on roofs of buildings (usually for demarcation of areas under different ownership), we propose including them in the MWCS as new Class I, II or III MW items depending on the height of such features. Moreover, poles on roofs or on-grade are also proposed as a new Class I, II or III MW item depending on its height. The removal or repair of features on roofs is also proposed as separate Class II or III MW items depending on its height.

11. Addition of railings or mesh fences on top of existing approved solid fence walls on-grade is common for enhancing security. Two new

MW items, one each in Class I and II are therefore proposed for such works.

12. Two new Class II MW items and one new Class III MW item are proposed to enable the removal and repair of mesh fences on-grade of height not more than 10 m. A new Class I MW item and a new Class III MW item are proposed for repair of solid fence walls on-grade depending on its height.

13. Besides, to allow more flexibility without compromising building safety, the description of relevant MW items and DEW items will be amended to allow the lower part of mesh fences, metal railings or poles be constructed as solid walls.

External metal structures for access for maintenance

14. To facilitate the repair, replacement or removal of external metal structures for access for maintenance, a Class II MW item is proposed for such purpose provided that the works are carried out in accordance with the original design.

15. Besides, the erection, alteration, repair or removal of external cat-ladders projecting from the external wall of height not more than 3 m from the adjoining ground will be designated as a new DEW item; the erection or alteration works of the same at a higher level will be designated as a new Class II MW item and its repair or removal a new Class III MW item.

Minor projections

16. Works concerning minor non-load bearing features at the external walls outside window openings such as window security grilles in residential developments and wind guards for windows in machine rooms require prior approval and consent from the BA currently. We propose designating such features located not more than 3 m from the adjoining ground or roofs and having a projection of not more than 300 millimetre (“mm”) as a new DEW item, except for those projecting over street or common parts of a building whereas a new Class II MW item

will be designated for wind guards located more than 3m from the adjoining ground or roofs.

Large internal metal ventilation ducts

17. Under the extant Building (Ventilating Systems) Regulations (Cap. 123J) (“B(VS)R”), ducts of any ventilating systems which people may enter are required to be constructed to bear the weight of any person who may so enter. However, there is no express provision stipulating the size of ducts that people may enter. On the other hand, the installation of internal ducts of normal sizes not involving the structure of any building are regarded as exempted works under section 41(3) of the BO. To protect the workers working in such ventilation systems and to strengthen its quality control on works, it is proposed to designate large internal metal ventilation ducts having the smallest cross-sectional dimension of more than 900mm as Class I or II MW item depending on its size and height. Besides, a new Type H¹ MW is proposed for installation of internal ventilation ducts and fire dampers in a ventilation system.

Supporting frames for antennas, transceivers or light fittings

18. The use of mobile services and wireless telecommunications services has become an integral part of people’s daily life. Telecommunications operators need to continue expanding and upgrading their networks, increasing their network coverage, capacity and speed, and deploying new technologies for meeting the needs of the public and supporting smart city developments. Furthermore, the deployment of the next generation of mobile services based on fifth generation (“5G”) technology is expected to involve a large number of small cells (radio base stations with low emission power) at street level to support high speed, high capacity and low latency connections close to mobile users. It is considered that streamlining the approval for installation of

¹ Type H MW is a new type of MW relating to ventilation system inside a building, e.g. metal ventilation ducts and its associated supporting structures, and fire dampers of a ventilation system. Given the qualifications required of such works, Type H MW could be conducted by a Registered Specialist Contractor (Ventilation Works) (“RSC(V)”) if such works is inside the building. For such works outside the building which may pose more safety concerns, the RSC(V) should register as a Registered Minor Works Contractor.

telecommunications facilities like antennas and transceivers of small cells on external walls of buildings would facilitate the developments concerned thus meeting increasing public expectation and underpinning continuous economic growth.

19. Under the current B(MW)R, supporting structure for antenna and transceiver can only be erected on roofs or on-grade of private buildings if the works are to be carried out under the MWCS. It is proposed to include the metal supporting frames for antennas and transceivers for public telecommunication services projecting from the external walls of buildings as MW (with certain limitations on the projection of the frame and the weight of the antenna/transceiver). Commerce and Economic Development Bureau has given policy support to the proposal to facilitate the provision of telecommunications services and underpin other smart city initiatives in the 5G era. Innovation and Technology Bureau has also given its policy support to such proposal for enhancing the digital connectivity of the city.

20. Similar to the existing radio base stations, the level of non-ionising electromagnetic radiation from these small cells would need to comply with relevant Code of Practice² issued by the Communications Authority in accordance with the relevant exposure limits as advised by the Department of Health to safeguard public health and safety.

21. The erection, alteration or removal of projecting frames from external walls of buildings for light fittings or ventilation ducts or associated supporting frames which are common minor amenity features will also be designated as Class I, II or III MW or DEW item depending on its projection, height-level of installation and weight.

Supporting structures or metal casing for building services installations

22. Erection, alteration or removal of supporting structures for building services installations (“BSI”) such as air-conditioners, water

² The Communications Authority has issued a "Code of Practice for the Protection of Workers and Members of Public Against Non-Ionizing Radiation Hazards from Radio Transmitting Equipment" which gives guidance for the protection of workers and members of the general public from exposure to radiofrequency electromagnetic fields so as to provide a safe and healthy working or living environment under all normal conditions.

cooling towers, solar water heating systems, photovoltaic systems, antennas or transceivers etc. on roofs and on-grade have already been designated as MW items individually. It is anticipated that new items of similar nature will still need to be designated as MW items from time to time. To simplify the regulatory system, general MW items to collectively control the supporting structures or metal casing for various similar and commonly encountered BSI³ are proposed. Corresponding extant MW items will therefore be repealed.

Retractable awnings

23. Retractable awnings projecting from the external wall of a building provide the benefits of protection from the sun while keeping the interior cooler and lowering the energy cost. It is therefore proposed to designate the erection, alteration and repair of such minor amenity features as a new Class II MW item and its removal as a new Class III MW item.

External claddings

24. The extant Class III MW item 3.31 allows for the erection, repair or removal of any cladding fixed to the external wall of a building provided that the distance between any part of the cladding and the adjoining ground or floor is not more than 6 m. It is proposed to extend the scope to cover the metal claddings fixed to canopies, covered walkways, horizontal screens or hung underneath the soffit of a balcony or verandah of the same height. Besides, to facilitate timely repair, replacement or removal of non-metal cladding and metal cladding of similar configurations at higher level, it is proposed to designate such works respectively as a new Class I MW item and a new Class II MW item provided that the works are carried out in accordance with the original design.

Routine maintenance of slopes or retaining walls

³ The new definition of BSI will be introduced to the amended B(MW)R. BSI includes any air-conditioning unit, water cooling tower, solar water heating system, photovoltaic system, antenna, transceiver, light fitting, pump set and their associated pipes and ducts but excludes water tank, lift, stairlift, lifting platform, ventilation duct, radio base station and drainage pipes, which are controlled under separate MW items.

25. To encourage building owners to carry out timely and proper maintenance works to their slopes or retaining walls, it is proposed to designate certain routine repair works as a new Class III MW item.

Surface drainage channels

26. It is proposed to designate the addition, alteration, repair or removal of surface drainage channels on-grade having a depth of not more than 0.3 m as a DEW item provided that the works do not involve any slope or soil retaining structures. Such works for channels on-grade deeper than 0.3 m will be covered by the extant MW items on underground drains.

Repair of structural elements

27. To facilitate the repair of structural elements in accordance with the original design, it is proposed to expand the scope of the relevant extant MW items such that the recasting works, works involving the dismantling the whole of the floor or roof and the associated core drilling works (in relation to repair works) can be carried out under the extant MW item 1.17 whereas the repair of minor concrete projections on external walls can be carried out under the extant MW item 2.17.

Formation of openings on non-load bearing external walls

28. To facilitate the formation and reinstatement of small-size openings on non-load bearing external walls of buildings for the passage of services and pipeworks which are common and of low risk, it is proposed to designate such works as two new Class III MW items and amend the extant MW items 1.15, 2.13, 2.14 and 3.11 accordingly.

Shallow excavation

29. With due regard to the special geological conditions of Area No. 1 (Mid-levels area) and the safety and stability of railway structures in Area No. 3 (Railway protection areas) of the scheduled areas in Schedule 5 to BO, excavation works in these areas, however shallow, require BA's

approval and consent for the commencement of the works. Taking into account the minimal impact of the shallow excavation on the stability of the hillside in Mid-levels and the underground railway structures, it is now proposed to permit such works within these scheduled areas to be carried out under the MWCS, on a par with the non-scheduled areas.

30. Similarly, for the extant MW items 1.25, 1.26, 1.36, 2.28, 2.29 and 2.36 concerning the addition, alteration, repair or removal of underground drains, a condition has been imposed to set out the minimum distance between the excavation and any structure or building to be at least equal to the depth of the excavation. The intention of this condition is to prevent extensive excavation for full length of underground drain from affecting the stability of adjacent structures or buildings, in particular the retaining structures. Taking into account the lower risk imposed by shallow excavation, it is therefore proposed to amend this condition so that such restriction will only be applicable to the distances between the excavation works and any retaining walls or slopes.

Laying solid screeding

31. The extant Class III MW items 3.41 and 3.42 stipulate that light weight screeding should have a density of not more than 650 kilogram per m³. The purpose is to regulate the thickening of floor slab within a flat. Since the implementation of such control in October 2012, the industry has commented that flexibility should be allowed for the use of screeding with higher density. To facilitate the industry in carrying out such works without affecting the structural safety of the parent structures, it is therefore proposed to amend these Class III MW items to relax the screeding density limit with certain control of its thickness.

Designation of registered specialist contractors as prescribed registered contractors

32. To facilitate a registered specialist contractor whose name is entered in the demolition works category in the specialist contractors sub-register (“RSC(D)”) to carry out precautionary measures prior to demolition of a building, section 28 of B(MW)R is proposed to be amended such that RSC(D) could carry out the extant MW items 1.2 and

2.1 on formation of slab openings without the need to register as a RMWC given an RSC(D) is adequately competent to carry out such slab opening formation works.