

Conditions and Requirements Imposed under the Buildings Ordinance upon Granting Approval and/or Consent

By virtue of section 17 of the Buildings Ordinance (BO), the Building Authority (BA) may, when approving plan submissions and/or granting consent to the commencement of building works or street works, impose conditions and requirements to ensure the standard of workmanship and the quality of materials are satisfactory, and to monitor the effect of such works. The conditions and requirements imposed are case or task specific. In general, they embrace quality supervision, qualified supervision, quality assurance and control, material testing, instrumentation for monitoring the effect of such works, record documentation, etc. These conditions and requirements should be complied with before applying for consent to the commencement, during the carrying out and/or certification of completion of the building works or street works.

Quality Supervision

2. Under the BO, the authorized person (AP), registered structural engineer (RSE) and registered geotechnical engineer (RGE) appointed for any building works or street works should provide periodic supervision whereas the registered contractor (RC) appointed should provide continuous supervision¹ to the carrying out of such works. Supervision by the AP/RSE/RGE/RC should be in accordance with the submitted supervision plan. The requirement of quality supervision forms part of the supervision plan system defined under the Code of Practice for Site Supervision 2009 and Technical Memorandum for Supervision Plans 2009. Such requirement is for the purpose of ensuring that the building works or street works are carried out in general accordance with the provisions of the BO and its subsidiary regulations, the plans approved by the BA and any approval and/or consent conditions imposed. Further guidance on quality supervision is given in Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers APP-158.

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¹ The manner of continuous supervision may vary from task to task and should be commensurate with the scale and complexity of the particular task concerned. It also depends on the specific types or stages of the works being carried out and whether any non-conformity could be readily identifiable and rectifiable during and after completion of a particular working sequence or stage of the works. In other words, any intermittent absence of a technically competent person (TCP) from a task must not be of such nature and duration as to cause any interruption to the continuous supervision of the works or there should be any chances for improper performance to arise or serious consequence to occur. For instance, critical procedure such as the connecting of steel reinforcing bars to the type 2 mechanical couplers should be supervised by full time TCP(s) of the RC during the carrying out of the task in order to meet the requirement of quality supervision and qualified supervision. On the other hand, for any procedure of a task of which the quality of the works could still be checked and inspected readily at a hold point after completion of that particular procedure and any problems and/or non-conformities encountered could be timely resolved/rectified before being covered up or proceeded to the next stage of the works (e.g. laying and fixing of steel reinforcing bars), the TCPs of various streams may exercise their engineering judgement to arrange their inspections at and between hold points of the task in order to meet the objective of providing periodic and/or continuous supervision.

Qualified Supervision

3. As the design of buildings or streets and their construction can be complex, it is necessary to provide closer supervision during certain stages of the construction process. Under item 6 of section 17(1) of the BO, qualified supervision for certain stages of construction or for some particular operations may be imposed when granting approval and/or consent.

4. With effect from 1 July 2025, for a development project of which the estimated total cost of building works exceeds \$30 million, conditions requiring the provision of qualified supervision by the adoption of the unsafe acts/dangerous situation alert system for mobile plant operation danger zone (Mobile Plant Alert System) and the unsafe acts/dangerous situation alert system for tower crane lifting zone (Tower Crane Alert System)² under the Smart Site Safety System would be imposed under item 6(e) of section 17(1) of the BO upon granting (a) the first approval of plans or major revision of plans, and/or (b) the first consent to the commencement and carrying out of building works, including demolition works, site formation works, excavation and lateral support works, foundation works, pile cap works and superstructure works² that involve the use of mobile plants and/or tower cranes. The above conditions will also be imposed in granting the first approval and/or the first consent for an alteration and addition project that involves structural works and meets such cost threshold.

5. In connection with paragraph 4 above, a declaration by the AP on whether the estimated total cost of building works (including demolition works, site formation works, excavation and lateral support works, foundation works, pile cap works, superstructure works and alteration and addition works) of such project exceeds \$30 million is required to be submitted under regulation 10 of the Building (Administration) Regulations (B(A)R) when making the first consent application for any of such works, whichever is submitted earlier. Subsequent consent application will not require further AP's declaration. Failure to submit the declaration when making the first consent application of a project may lead to refusal of the consent application under section 16(3)(b) of the BO. For a project declared to have an estimated total cost of building works exceeding \$30 million, the BA will impose such conditions upon granting the first consent for all those types of works mentioned in paragraph 4 above.

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² For superstructure works, circular letter dated 28 March 2024 already announced the mandatory requirement on the provision of qualified supervision by the adoption of the two smart alert systems for the building works involving the use of mobile plants and/or tower cranes when granting the first approval of superstructure plans or major revision of superstructure plans with effect from 1 July 2024, and the subsequent granting of consent for such works.

Quality Assurance and Control and Material Testing

6. Section 3 of the Building (Construction) Regulation stipulates that all materials used in building works or street works must be of a nature and quality suitable for their intended use or purpose; adequately mixed or prepared; and applied, used or fixed so as to perform adequately their intended functions. To ensure that the materials³ used comply with the said requirements, they must be adequately tested by recognised tests. Proper supervision, adequate quality assurance and quality control are necessary during the production and construction processes.

Instrumentation for Monitoring the Effect of Works

7. During the course of construction, AP/RSE/RGE/RC should ensure that the vibration, tilting and movements of the adjacent buildings, structures, land, streets or services and, if appropriate, the change in the level of the ground water table, caused by the construction works are properly monitored and assessed to avoid causing undue effect to the adjacent buildings, structures, land, streets or services.

Record Documentation

8. Under regulation 10 of the B(A)R, the BA may require proper documentation of record plans and reports at various stages of the works for inspection by representatives of BD and/or for certification of the completion of the building works or street works.

Summarising the Conditions and Requirements

9. To facilitate AP/RSE/RGE/authorized signatory (AS) of the RC to plan their work and understand their obligations associated with the conditions and requirements imposed under the BO as mentioned above, some common conditions and requirements on quality supervision, qualified supervision, quality assurance and control, material testing, instrumentation for monitoring the effect of works, and record documentation are summarised in **Appendix A**. The items contained therein are not exhaustive. AP/RSE/RGE/AS should always carefully study and observe the conditions and requirements imposed in the approval and/or consent letters in discharging their duties and responsibilities under the BO. They should also keep their supervision team aware of the imposed conditions and requirements and keep a copy of all the approval and/or consent letters on site for reference.

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³ Manufacturer's recommendations on installation, operation and maintenance requirements for the materials and products should be followed. In addition, the material should only be used after all testing requirements pertinent to the BO and its subsidiary regulations have been complied with and all acceptance criteria have been met. In case any material is used before testing, full traceability must be ensured so that any material identified as not meeting the acceptance criteria after testing can be rectified or replaced readily.

10. A similar practice note has been issued to AP, RSE and RGE.

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**Common Conditions and Requirements
Imposed under the Buildings Ordinance (BO)**

Under item 6 of section 17(1) of the BO, the following conditions and requirements may be imposed when granting approval and/or consent:

- (a) Qualified supervision by experienced and competent persons¹;
- (b) Qualified supervision by adopting the mobile plant alert system and/or tower crane alert system under the Smart Site Safety System (4S)²;
- (c) Sampling and testing of construction materials and standard of workmanship;

¹ Typical details of qualified supervision by experienced and competent persons that may be imposed are given below:

- (a) Qualified site supervision of the proposed type of works by experienced and competent persons as defined in items (b) and (c) below should be provided to ensure that the works are carried out in accordance with the plans approved and that the required standards are complied with.
- (b) The registered structural engineer (RSE) should assign a quality control supervisor (QCS) to supervise the works, determine the necessary frequency of inspection by the QCS which should not be less than once a week, and devise inspection checklists. The minimum qualification and experience of the QCS is to be the same as the technically competent person (TCP) of grade T3 under the RSE's stream, as stipulated in the Code of Practice for Site Supervision 2009 (Supervision Code).
- (c) The registered general building contractor (RGBC)/registered specialist contractor (RSC) should assign a quality control co-ordinator (QCC) to provide full time on site supervision of the works and devise inspection checklists. The minimum qualification and experience of the QCC is to be the same as the TCP of grade T1 under the RGBC/RSC's stream, as stipulated in the Supervision Code.
- (d) The names and qualification of the supervisory personnel representing the RSE and the RGBC/RSC respectively should be recorded in an inspection log book. The date, time, items inspected and inspection results should be clearly recorded in the log book. The log book should be kept on site for inspection by representatives of the Buildings Department (BD).

Sufficient number of QCS and QCC commensurate with the scale of the works should be assigned for supervision with the required inspection frequency for carrying out the inspection tasks defined in the inspection checklists. For certain specific tasks, the supervision requirements on minimum qualification and experience of the site supervisory personnel and the frequency level of supervision may be further enhanced. For example, in respect of Type 2 mechanical couplers for splicing steel reinforcing bars, the qualification and experience of QCC under the RGBC/RSC are revised from grade T1 to grade T3.

² Details of qualified supervision by adopting the mobile plant alert system and/or tower crane alert system under 4S that may be imposed are available in the Common Conditions and Requirements in BD website as described in paragraph 3.

- (d) Instrumentation for checking the design assumptions and monitoring the effect of the works; and
- (e) Performance review.

2. Under regulation 10 of the Building (Administration) Regulations, requirements for submitting documents and information may be imposed when granting approval of plans. Some typical examples are:

- (a) Quality Supervision Plan (QSP) to specify the details of quality supervision to be provided³;
- (b) Quality Assurance Scheme of the manufacturer to ensure the quality of production;
- (c) Documents for assessing the effect of the proposed works to the surroundings, e.g. pre-construction condition survey, monitoring records, etc.;
- (d) Certificates of the construction materials;
- (e) Strength/performance test reports;
- (f) Audit reports by RSE and authorized signatory of the RGBC/RSC;
- (g) Statement signed by RSE to confirm that the submitted documents are in compliance with the stipulated requirements;
- (h) Record plans and reports of construction; and
- (i) Declaration by the authorized person if the estimated total cost of building works of the project exceeds \$30 million.

3. Common conditions and requirements that may be imposed for specific structural materials/components, structural forms/construction methods and different types of works are available for viewing in BD website (www.bd.gov.hk) under the “Codes and references” page of the “Resources” section.

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³ As examples, QSP for tempered glass should specify the supervision details of the RSE’s and RGBC’s streams for the quality supervision of heat soak process carried out by the manufacturer, and that for Type 2 mechanical couplers for splicing steel reinforcing bars should specify the supervision details of the RSE’s and RGBC/RSC’s streams for the quality supervision of the splicing works.