

PARTICULAR SPECIFICATION

APPENDIX AD

GENERAL CONDITIONS AND REQUIREMENTS FOR WORKS WITHIN 50 METERS IN THE VICINITY OF HDB PROPERTY

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1. General

This set of general conditions deals with the procedure to obtain clearance from HDB for any engineering work which may affect HDB property or the safety of HDB residents.

2. Correspondence

All correspondence shall be addressed to Director, Building & Infrastructure Department, HDB.

3. Engineering Works

“Engineering works” refer to any kind of building or civil engineering construction work (temporary and permanent) or which may affect or is likely to affect the structural integrity of the HDB property or the safety of HDB residents. Works including but not limited to those on foundation, basement, piling, trenches, retaining structure and superstructure are included. “Site” means the place where the works are carried out.

4. Submission of Engineering Works Plan

The Agencies / Qualified Person in charge of the engineering works shall submit to HDB an engineering works plan before the commencement of work. The engineering works plan shall be prepared, signed and supervised by the External Agencies/QP.

- a) Layout plan including site boundaries and cross-sectional details of works;
- b) Layout plan and cross-sectional details of retaining structure and temporary support;
- c) Method Statement of Construction including the types of equipment to be used;
- d) Method Statement of temporary and permanent works for excavation and construction;
- e) Design calculations for work which affects HDB property;
- f) Soil investigation report of site;
- g) Proposal for monitoring the effect of the works on HDB property;

- h) Condition survey of HDB property including photographs by an independent party with appropriate qualifications before and after construction work.

5. Construction of Engineering Works

The External Agencies/QP shall be fully responsible for the construction of all the work as shown in the engineering works plan. The External Agencies/QP shall also be responsible for carrying out the works in the manner as stated in the Method Statements.

6. Instrumentation and Monitoring

The External Agencies/QP shall ensure that the proposed works do not affect the integrity or stability of the foundation and structure of HDB buildings. Hacking to existing HDB structures is not permitted. The minimum distance from existing edge of columns to proposed excavation/piling is 6 m. During the progress of the engineering works the External Agencies/QP must provide adequate means of instrumentation to monitor the effect of the engineering works on HDB property. The External Agencies/QP shall submit the type and location of such monitoring instruments and frequency of reading to HDB for clearance. The physical movement to be monitored shall include but not be limited to the following:-

- a) lateral deflection of retaining structure;
- b) vertical deflection of column of HDB property/building;
- c) settlement of apron slab and beam of HDB property/building;
- d) levels of road or carpark or sewer manhole adjacent to HDB property/building;
- e) ground water level below/adjacent to HDB property/building;
- f) Vibration movement in HDB property/building.

The instrumentation readings shall be recorded and reviewed by the External Agencies/QP, and he shall submit a report to HDB within a week of recording.

7. Alert (Trigger) and Work Suspension (Allowable) Instrumentation Level

The External Agencies/QP shall establish Alert and Work Suspension levels for the instrumentation reading of the physical movement mentioned in Clause 6. These Alert and Work Suspension instrumentation level readings shall be agreed upon with HDB before the commencement of Engineering works. On reaching a Work Suspension (Allowable) level at any location on site, the External Agencies/QP is required to inform HDB through handphone and email immediately and follow up with a report to HDB reviewing the movement and predicting further movement up to completion of construction. Where necessary, the External Agencies/QP shall submit to HDB for clearance, a proposal to limit further movement or additional monitoring. On reaching a Work Suspension level at any location, the External Agencies/QP shall cause the work to be stopped. The External Agencies/QP shall immediately inform HDB and implement measures to stop further movement. The External Agencies/QP shall allow the work to continue only if the measures implemented are proved to be effective. The monitoring of movements shall be inclusive of another 6 months of monitoring after end of backfilling, shall be submitted to HDB.

8. Piling and Pipe Jacking Works

The External Agencies/QP shall ensure that the method of piling, piling operation and pipe jacking do not affect the structural integrity or stability of the existing HDB buildings or any building under construction. Piling shall generally be constructed by nondisplacement techniques such as augering. The stability of the ground shall be ensured by the use of appropriate measures designed by the External Agencies/QP. Notwithstanding the method used in the piling work, the External Agencies/QP shall review and closely monitor the technical parameters and Instrumentation level as stated in the Clauses 6 and 7 above. The External Agencies/QP shall ensure that the noise generated as a result of the piling work is also kept to a minimum and within the limit set by the Relevant Authority as stated in Clause 16 of these conditions.

The External Agencies/QP shall check the as-built plans on piling, footing, pile-cap and all related plans of the affected structures to ensure that their works do not encroach into existing piles, footings, pile-caps and other structures. A confirmation that such checks has been carried out shall be submitted to HDB (Building & Infrastructure Department) before work commences.

9. Excavation Work

The External Agencies/QP shall ensure that excavation work does not cause the lowering of ground water table nor any lateral soil movement. If the lowering of ground water table or soil movement is expected, the External Agencies/QP shall submit to HDB detailed calculations showing expected scale and magnitude, and the resultant load imposed on HDB building. The conditions of instrumentation and monitoring set out in Clauses 6 and 7 of these conditions shall also apply to excavation work.

10. Vibration

The External Agencies/QP shall ensure that the proposed works or method of working does not cause undue vibration or unease and discomfort to HDB residents and damage to HDB property. The External Agencies/QP shall take steps to minimise the magnitude and frequency of any such vibrations.

If vibration is expected from the proposed works, the External Agencies/QP shall submit to HDB detailed calculations showing the magnitude, frequency and the resultant load imposed on HDB property. The condition on instrumentation and monitoring contained in Clauses 6 and 7 of these conditions shall apply.

11. Storage of Material

The External Agencies/QP shall ensure that there is no storage of any explosives on site. He shall also ensure that the storage of any dangerous goods or highly flammable material complies with the requirements prescribed by the relevant authority. The External Agencies/QP shall also ensure that there shall be no storage or stockpile of excavated earth on site. If storage of earth or any material is expected, the External Agencies/QP shall submit to HDB detailed calculations on the resultant load imposed on HDB buildings.

The External Agencies/QP shall also check the bearing capacity of the ground and ensure that there is no ground upheaval or soil failure on HDB property. The conditions on instrumentation and monitoring contained in Clauses 6 and 7 of these conditions shall apply to storage of material.

12. Traffic

The External Agencies/QP shall ensure that the various construction activities carried out on site do not pose any danger to vehicles and HDB residents. The construction activities shall also not impede pedestrian movement or vehicular traffic. Adequate road signages, blinker lights to alert motorists and the public shall be installed at the work area. The External Agencies/QP shall obtain the necessary approval from the relevant authority for any road or traffic diversion.

13. Drainage

The External Agencies/QP shall ensure that all temporary or permanent run-off from the development site does not discharge into HDB property. He shall also ensure that there is no blockage or disruption to the existing drains serving HDB property.

14. Blasting

The External Agencies/QP shall ensure that no blasting work is carried out on the site.

15. Operation and movement of heavy plant

The External Agencies/QP shall submit a detailed risk analysis report on the use of heavy construction plant such as mobile crane, tower crane, piling rigs etc. The External Agencies/QP shall propose precautionary measures to safeguard the existing HDB property and the safety of HDB residents.

There shall be a full time lifting supervisor to supervise the lifting operation of the crane. The lifting supervisor shall ensure that there is no oversailing of the jib of the crane over any HDB property. No lifting activity shall be allowed without the supervision of the lifting supervisor. The External Agencies/QP shall ensure that the lifting supervisor possesses a certificate on Safety Instruction Course for lifting supervisors. Notwithstanding the above, the External Agencies/QP shall seek approval from the Ministry of Labour in compliance with the Factories Act and its subsidiary legislation including but not limited to the Factories (Building Operations and Works of Engineering Construction) Regulations (Cap. 104 Rg. 8) and other safety requirements as stipulated by the relevant authority.

For the purpose of this condition an "Approved Person" means any person who is approved by the Chief Inspector by a certificate in writing for the purpose of carrying out examinations and tests of hoists and lifts, lifting gear, or lifting appliances and lifting machines as defined in Section 7 of the Factories Act (Cap 104).

16. Avoidance of nuisance and pollution

The External Agencies/QP shall take steps at all times to avoid nuisance of any nature and minimise any noise and pollution, arising from the works. There shall be no refuse burning at the site. The External Agencies/QP shall further ensure that at all times the noise and pollution levels arising from the works shall not exceed the levels as prescribed by the relevant authority.

17. Site Boundaries

The External Agencies/QP shall ensure that all construction activities are carried out and confined within the site boundaries and that hoardings are erected along the site boundaries. The External Agencies/QP shall further ensure that the following requirements for hoarding are followed:

- a) The hoarding must be erected along the site boundaries at the commencement of works;
- b) The hoarding must be properly maintained throughout the construction period and be removed and cleared away from site on completion of work.
- c) All hoarding material used shall conform to the fire rating requirements prescribed by the relevant authority.

18. Land Matters

The owner/developer shall obtain prior written clearance from HDB, if it becomes necessary for any reason whatsoever, to enter HDB land or reserved sites under its management, or if such land is otherwise affected by the works.

19. Consultation with Town Council

The owner/developer shall obtain written clearance from the Town Council if common property managed by the Town Council is affected by the proposed works. This written clearance must be obtained before the commencement of work. The current general conditions imposed by the Town Council as well as any variation thereafter shall be deemed to form part of these Conditions.

20. Reinstatement

The External Agencies/QP shall ensure that no existing services provided by HDB/Town Council or HDB property is affected/damaged by the proposed works. The External Agencies/QP shall further ensure that any existing services, facilities or property damaged/affected are reinstated without undue delay to the satisfaction of HDB/Town Council.

21. Insurance Policy

The developer/owner shall furnish to HDB proof of a public liability insurance policy with an adequate sum insured to cover all risks arising whether directly or indirectly from the works.

22. Effect of Clearance

Any clearance given by HDB/Town Council pursuant to these conditions is for the sole purpose of protecting HDB property from Engineering Works in the vicinity and shall not in any way be construed as approval/endorsement of such works.

23. Approval by the relevant authorities

Notwithstanding the above conditions, the EXTERNAL AGENCIES/QP shall seek approval from the relevant authorities and comply with their requirements in respect of all their proposals.