

Prestressed Ground Anchors in Building Works

Permanent ground anchors in time may become defective or damaged. Hence, where approval is sought for permanent ground anchors, the Buildings Ordinance Office will require you to demonstrate that proper consideration has been given to prevent or accommodate corrosion, creep, physical decomposition of grouts and wilful or accidental damage, and all other factors which may affect the durability of the system. The general standard of provision of the anchors should be in accordance with the "Model Specification for Prestressed Ground Anchors - COO Publication No. 3/84". You will be required to furnish with the submission fully documented results of long-term performance tests in similar ground material. Each anchor will be required to pass a short-term load test and selected anchors will be required to pass a sustained load test. Provision must be made in the permanent works for periodic monitoring of anchor loads to be carried out in accordance with "Model Specification" mentioned above. It will be necessary for you to show, how such monitoring can be achieved during the life of the building, and that all anchors are made accessible.

2. The Registered Structural Engineer will be responsible for the design of ground anchors and supervision of all load testing, and will be required to submit plans and sections of the proposed anchor system showing site boundaries and geotechnical information together with his own anchor design calculations. Also to furnish with the submission, plans of all adjacent buried and surface public utility services and adjacent buried and surface structures and to demonstrate that anchors will not cause damage.


3. After installation of any anchor system, the Registered Structural Engineer should submit for record purposes to the Buildings Ordinance Office an 'as built' location drawing showing the full length and details of each anchor including :-

- (1) type of anchor and protection system including materials employed;
- (2) design load;
- (3) total length of anchor;
- (4) bond length;
- (5) free length;
- (6) angle of inclination of anchor;
- (7) descriptions of all strata encountered in drilling;
- (8) quantity of grout injected and pressures used;
- (9) dates of all stages of installation and tests; and
- (10) load test results (load-displacement plots).

4. In the past, submissions to the Buildings Ordinance Office have sometimes proposed the provision of ground anchors extending into Crown Land or adjacent private sites. You will appreciate that ground anchors can give rise to unacceptable consequences such as the obstruction of new works or new public utility services, in addition, their existence could inhibit the development of land. Furthermore, an undesirable situation could result should damage to property or public utility services be caused during installation. Therefore only in exceptional circumstances will approval be given to submissions of any new development incorporating ground anchors outside the site boundary.

5. If it is intended to use ground anchors outside the site boundary you are advised to make application to the Buildings Ordinance Office in the early stages of design. Where it is intended to install anchors in adjacent private sites you will be required to furnish with the submission proof that such works have the permission of the adjacent private owner.

6. Practice Note 1979.64 is overtaken by events and hereby cancelled. Practice Note 1983.1 and the title sheet should be amended accordingly.



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