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# Legal problems in geotechnical engineering

Le problèm juridiques en géotechnique

## Liability of a geotechnical engineer in the Turkish legal system

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ABSTRACT: In this presentation my objective is to set forth the issues and legal problems that may appear in a construction process in regards to a "building base" and regulations that exist in the Turkish legal system thereof. Therefore I shall first scrutinize regarding legal regulations for related definitions, and then focus on liabilities regulated especially as a consequence of the earthquake in Marmara Region in 1999. Thirdly, in order to clarify the questions of "who is liable" and "who carries the risk" in Turkish construction law, I will work on the qualifications of regarding contracts in Turkish legal system. Finally, I will set forth the damages and recoveries thereof.

RÉSUMÉ

## 1 DEFINITIONS

In Article 5 titled "definitions" of Development and Construction Act no. 3194 (3 march 1985 / Official Gazette: 9 may 1985 "entry into force") that apply to all developmental processes of land and constructions all over Turkey it is referred for further detailed regarding definitions to a regulation to be issued by the Ministry of Public Works. Such a regulation got into power on 2 November 1985 and in its Article 3 there exists definitions in regards to geotechnical aspects of a construction process among others. "Building" is defined here as "fixed and/or movable facilities on land or in water that may be permanent or temporary, public or private, constructed underground or over the ground ". This broad definition covers all buildings, walls, watercourses, warehouses, garages, bridges, canals, poles, columns, tunnels etc. (Özkaya 1997, 300). Another related concept is "natural base" defined as "unexcavated or unfilled state of land". Although there appears no other definition in the regarding set of norms and inspite of the fact that the concept formulated within the framework of the Regulation is too narrow, building base is one of the most important concepts of land law, such that the norm of "superficies solo cedit" of Roman Law which means that "top is subjected to the base" is valid also in the Turkish legal system (Oğuzman - Seliçi 1992, 439). This is important not only in issues regarding to property but also to liability.

## 2 LIABILITIES

In Turkey liability regarding to construction has become even a more severe issue after the earthquake dated 17 August 1999 in Marmara Region with a vast amount of loss of lives and goods. On 3 February 2000 a decree (no.595) having force of law for construction control was issued by the Council of Ministers. Constitutional Court annulled this Decree on 24 May 2001 (Decision no. 2001/90). On 29 June 2001 yet another regulation very similar to the previous one but this time in the form of an act has been issued by the Grand National Assembly of Turkey titled Act on Construction Supervision (no. 4708). Shortly after, a regulation for the procedures of construction supervision was issued on 12 august 2001 to be initially applied in 19 provinces.

Liabilities of engineers especially on geotechnical issues have been increased by the recent changes in the Turkish legal system due to above-mentioned state. In article 2 a new institution was introduced to the system: corporate bodies for construction supervision. These bodies get their titles granted from Ministry of Public Works (commission on construction supervision / article 4) and it is provided in the Act that all of the paid in capital of the corporate body should be by architects and/or engineers. Among the duties of the construction supervision bodies there exists.

- to scrutinize the reports prepared by the project designer on geotechnical characteristics of the base of the construction to be built and to report on applicabilility of the project to the related administration;
- to have experiments for base, materials and products done in laboratories in accordance with requirements and standards.

According to Article 3 of the Act on Construction Supervision liability lies on construction supervision bodies in proportion to their fault. Additionally article 9 of the same Act provides that in case of negligence or intentional malpractice of partners, managers, architects and engineers of construction supervision bodies, construction contractors, project designers and laboratory employees get criminally charged in accordance with Section 3 Part 4 of the Turkish Penal Code.

#### 3 CONTRACTS REGARDING TO CONSTRUCTION LAW

Under the light of recent regulations in Turkish law in regards to construction processes there appears to be two different types of contracts. One is the contract between an contract owner and a contractor, whereas the other is between an contract owner and a construction supervision body.

In the Turkish legal system contracts made in regards to construction are considered to be "contracts of skill", and are regulated in articles 355-371 of Code of Obligations. According to the general norm provided in Article 355, "A contract of skill is such an agreement between parties that one produces a good in return of a payment by the other party". In construction contracts contractor is the party that promises to produce a construction, whereas the contract owner is the party that promises to pay a price for the construction to be produced. An engineer acting as a contractor is liable as any other contractor on these grounds In Turkish law for contracts of skill risk lie on the contractors. In this aspect "contracts of skill" differ from other similar contracts such as "contract of service". For example, the legal relationship between a worker employed to excavate a base and his/her employer is a contract of service where the worker has the duty to excavate a given place in a given time. The worker works in dependence with the employer and is granted a payment by the end of the given time. S/he is not under an obligation to produce anything by his/her work. S/he does not carry the liability for the work s/he has done in case of the excavation to be exterminated by collapsing or flooding. On the contrary, an agreement to have a construction is a contract of skill where the contractor gets under the obligation to produce a good where s/he carries the risk. Unless it is otherwise provided in the contract or unless there appears any fault to be attributed to the contract owner, contractor has the risks as extermination of a work as a result of collapsing of ground or flooding of subterritorial waters, fire in the construction site, or harm given by his/her employees or his/her subcontractors. Contractor also carries the duty of paying necessary care to his/her work. S/he is liable for the material used or quality of work that has been done.

In article 2 and in article 5 of the Act on Construction Supervision, the contract to be done between the contract owner and the construction supervision body is named as a "contract of service". In this article it is provided that the contract owner may not appoint the contractor as an agent for him/herself. In other words, s/he may have an agent but this person can not be the contractor of that specific work. By construction supervision contract, the construction supervision body gets under a liability subjected to both the contract owner and to the Administration. The construction supervision body is not liable for damages that occur by negligence of the contract owner in taking necessary action in spite of a written warning, or damages caused by natural events as earthquake, avalanche, or flood that may occur out of the given land but effect the given construction.

#### 4 DAMAGES AND RECOVERY

As it is explained in this presentation liability is laid on the contractor in construction contract, and distributed in construction supervision contracts among construction supervision bodies, construction contractors, project designers and laboratory employees in proportion to their fault in the damages. Therefore the contract owner may demand for indemnity or for fulfillment as provided by article 368 of the Act of Obligations. In case of a damage to the third parties such as adjacent land (neighbors) same provisions apply to the persons that actually do carry the liability. High Court of Appeals, 15. Hukuk Dairesi, decision no. 1992/956 - 4497, dated 5 October 1992) .Personal injury damages of the employees are also to be covered by the contractor. Damages to be claimed for malpractice or negligence in evaluation of geotechnical conditions are mostly distributed among construction supervision bodies, project designers and laboratory employees in proportion to their contribution in the damage and may also be demanded by the contract owner in due process. Statute of limitations provide five years for contracts of skill whereas a special provision, article 3 of the Act on Construction Supervision provide 15 years for supporting parts of the construction and two years for non-supporting parts. Statue of limitations start to run at the time of the construction permit is granted.

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