



The Cadastral Surveyor in Finland

Kirsikka Riekkinen

Ph.d., assistant professor, Department of Built Environment, Aalto University

kirsikka.riekkinen@aalto.fi

Introduction

The Finnish cadastral system consists of the prevailing property structure, rights, restrictions and responsibilities related to land, and the processes of updating these. The main elements of the system are the cadastre, land register, and cadastral map, and these three form the land information system (LIS). The National Land Survey is responsible for maintaining all elements of the LIS since 2010, and works under the Ministry of Agriculture and Forestry. Before 2010, the registration responsibilities were given to district courts. The cadastre records information on the real estates and their features. The cadastral data includes features such as identification number, location, area, easements, and formation history of the real estate. It is linked to land register that includes the ownership and other use rights as land lease, and mortgages. The cadastral map complements the registers, showing the real estates and their boundaries on an index map. The Finnish LIS is public, and the National Land Survey provides information and sells extracts of the registers. The land register has public faith and credit, whereas cadastre does not, but data on the cadastre can be considered as being good quality. The cadastral system has developed over centuries and is based on the German type of cadastral system.

For housing, there are two main forms of ownership. The first is direct ownership, where the person(s) own the land they live on and their ownership is registered. This is the form of ownership especially for single family houses. For apartments in a multi-apartment complex, possession over an apartment comes from owning shares in an apartment house company. The apartment house company owns the building and the land (or has a leasehold on the land), and persons owning certain shares in the company gain the right to possess a certain apartment. The shares can be mortgaged. The responsibilities for maintenance are regulated by law and complemented by articles of association. The apartment house company register was established in 2019 and is also the responsibility of the National Land Survey. This register includes information on the apartment house companies, and will also include information about shareholders in these companies. It is a new and as yet incomplete register, and the transformation from paper-based to digital shares will be the individual owners' responsibility.

The Finnish system recognizes nine types of real estates, all listed in Real Estate Register Act. Out of these nine types, three can also be defined and formed as 3D real estates (plots, public areas, and expropriated units) since 2018. It is worth noting that apartments owned

and possessed on the basis of owning shares in apartment house companies are not considered as real estates or immovable property, and different legislation applies to the registration and transaction of ownership. No cadastral surveys are executed on the individual apartments. A building owned by an apartment house company, or several buildings owned by multiple apartment house companies, can be formed as 3D real estate when necessary, but for single apartments this is not possible.

In Finland, cadastral surveyors are officials working for either the National Land Survey or for municipalities. The National Land Survey is responsible for all cadastral activities, but municipalities may assume responsibility for the maintenance of the cadastre within the area of a detailed plan. In these cases, a position as real estate engineer is established within the municipal organisation. In any case, cadastral activities are regarded as part of public administration and regulated by several laws. The qualification for a cadastral surveyor is also stated in law (Real Estate Formation Act 554/1995) and for a municipal cadastral surveyor (Act on the Municipal Cadastral Surveyor 557/1995). The requirement for the qualification was under renewal in 2016, when the level of education was no longer viewed as a prerequisite for completing cadastral surveys that included complex valuation tasks (for example, expropriations or land consolidations). Since 2016 the qualification to execute any types of cadastral survey has been a degree of Master of Science (Tech), Bachelor of Science, or Technician from the field of cadastral surveying. Hence, there is no additional accreditation system such as certification or a chamber of surveyors, nor a requirement for continuous education for professionals; once the decree is completed, it provides the qualification. Employers, however, may have their own processes for ensuring the employee's capabilities, such as a probation period at the beginning of their employment.

Educational System

Cadastral surveyors are trained at two levels: the universities of applied sciences offer Bachelor of Engineering degrees (Cadastral Surveyor/Engineer), and Aalto University offers a Master of Science (Tech). Technician is an old degree, and there are no new students graduating with it. To become a cadastral surveyor, there are few various study paths to follow. The first option is to complete studies at one of the three universities of applied sciences offering the Cadastral Surveyor programme. After that, the graduate can apply for a master's programme in Real Estate Economics to complete the master's degree. Another option is to complete the bachelor's degree at Aalto University, which automatically confers the right to study in the master's programme. The third option is to complete any bachelor's degree, then apply to and complete the master's programme at Aalto University.

The curricula at the universities of applied sciences (in 2023, Metropolia University of Applied Sciences, Novia University of Applied Sciences, and Lapland University of Applied Sciences) focus on professional practices and principles, also providing some theoretical knowledge on cadastral system and land management. Education at the bachelor level at all the schools is given in Finnish or Swedish (Novia UAS), and at master level in English. The curriculum at Aalto University provides a holistic understanding of real estate and markets, focusing on the complexity of overlapping interests in the real estate market and land policies.

The Bachelor of Sciences programme takes four years at the universities of applied sciences and three years at Aalto University. Applicants to the UASs apply directly to the land surveying programme, while at Aalto University they apply to the bachelor programme in real estate economics and geoinformatics. The focus areas of the studies depend on the chosen institute. While at Metropolia UAS there is only one study path for all land surveyors, at

UAS Lapland there are optional study paths for modelling and measurements, and for land use and cadastral engineering. At Aalto University there are three possible paths for bachelor's studies: real estate economics, geoinformatics, or a combination of these two. Students apply for the joint programme and decide on the path during their studies.

Aalto University runs two master's programmes related to real estate (Real Estate Economics) and land surveying (Geoinformatics), and additionally a joint programme with the University of Helsinki (Urban Studies and Planning in Real Estate Economics). These programmes provide good skills in working as cadastral surveyor, but are holistic; if a student wants to specialize in cadastral surveying, they are encouraged to complete certain courses and also write their master's thesis on a related topic.

Aalto University was established in 2010 as a merger of three universities: Helsinki School of Economics, Helsinki University of Technology, and University of Arts and Design Helsinki. Land surveying was one of the original study programmes at the Helsinki University of Technology, dating back to 1908. The content and focus of the studies has evolved over the years, and while the focus was more on geodesy and cadastral surveying in the early years, around 2000 the cadastral surveyors were educated within the study programme of real estate economics, though still following a study path of their own. Nowadays there is no separate study path, but the curriculum is designed to give the students those skills that are necessary in executing complex cadastral tasks that often include compensation valuation. A good understanding of real estate markets, economic law, institutional structure, and real estate development are seen as essential elements.

Work

The starting point of cadastral work is that it is done by the government (National Land Survey), and by some municipalities. The National Land Survey is responsible for the mapping, cadastral, and land registration activities and works under the ministry of Agriculture and Forestry. There are a little over 300 municipalities (in 2023) in Finland, of which 70 have decided to maintain and perform the cadastral activities within their areas of detailed plans. In addition to cadastral activities, the NLS operates the land register, register of private ways, and register of transactions.

The cadastral surveys are regulated (among others) by the Real Estate Formation Act (554/1995). The cadastral surveys are different property formation surveys (such as subdivisions), property rights rearrangement surveys (such as land consolidations), declarative cadastral surveys (such as boundary redefinitions). Cadastral surveys are also done to establish new or to modify existing rights of private way, expropriate private property rights or areas of public interest and determine the compensations, or for example to establish a jointly owned forest. A more comprehensive list of the types of cadastral surveys can be found on the webpage of the National Land Survey.

Even though the majority of cadastral procedures are carried out by the cadastral surveyor only, when it comes to certain types of surveys, two trustees need to be involved. Additionally, the cadastral surveyor, or anyone whose right is impacted by the cadastral survey, is allowed to call the trustees. The trustees are laymen, appointed by municipal council, who are familiar with the local conditions. It is also important to note that the cadastral surveyor uses experts to complement the knowledge required to complete the survey or valuation, such as agricultural or forestry experts.

It is also worth mentioning that cadastral surveyors are liable for acts in office. The same rules apply to cadastral surveyors as to disqualifying judges. Another characteristic of the Finnish system of surveyors is that the decisions within cadastral procedures are taken by

the cadastral surveyor. This means that if an interested party in the procedure wishes to appeal the decisions, the appeal is typically addressed to the land court, not to the National Land Survey.

Key legislation (in Swedish and Finnish, some unofficial English translations also available). List is not comprehensive.

Banlag 110/2007

Fastighetsbildningslag 554/1995

Fastighetsregisterlag 392/1985

Jordabalk 540/1995

Lag om enskilda vägar 560/2018

Lag om inlösen av fast egendom och särskilda rättigheter 603/1977

Lag om kommunens fastighetsingenjör 557/1995

Lag om samfällda skogar 109/2003

Lag om samfälligheter 758/1989

Landsvägslag 503/2005