

Saimaa University of Applied Sciences
Technology, Lappeenranta
Double Degree Programme in Civil and Construction Engineering

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**PLANNING OF THE CONSTRUCTION PROCESS
OF SUMMER AND DETACHED HONKA - HOUSES
IN FINLAND. GUIDELINES FOR RUSSIAN
CUSTOMERS.**

Bachelor's Thesis 2010

ABSTRACT

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Planning of the Construction Process of Summer and Detached Honka-houses in Finland. Guidelines for Russian Customers, 69 pages

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This thesis is about the planning of the construction process of summer and detached Honka houses. It was written as guidelines for Russian customers never dealt with construction in Finland. Given information can also be useful for other foreigners. The most general questions concerning construction are mentioned to provide insight into the building process, rights and duties of a developer in Finland. The attention is particularly paid to issues unfamiliar to Russian customers. This thesis will be interesting both to customers who choose construction on a turnkey basis and customers planning to construct themselves. Since each project is individual each part of the thesis contains information about authorities who can give advice on any arising questions.

The main source of information was Finnish regulations concerning construction. Different materials concerning the search of subcontractors were used on the webpages of Finnish building companies. To make the description of Acts and Decrees more understandable some pictures and charts are enclosed.

The construction of a house in Finland is a rather complicated process for a foreigner. It requires knowledge of duties, time and in most cases proficiency in the Finnish language. The correction of mistakes requires a lot of energy and nerves. Moreover, certain tasks at work can be carried out by skilled workmen only. Therefore, if the customer plans to construct himself it would take more time than if all construction work would be entrusted to one company on a turnkey basis.

Honkarakenne Oyj is one of the world market leaders in the field of log construction. With the experience and professional skills Honkarakenne Oyj guarantees quick, professional and qualitative construction of houses. Construction at the highest level in the shortest time and subject to customers' wishes is carried out by specialists of the company, constantly improving their level of skill. The experts of the company will build a safe and ecological house of your dreams.

Keywords: planning of construction, summer house, land use planning system, preparation for construction, building permit.

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1 INTRODUCTION

Nowadays the purchasing of real estate in Finland attracts great interest of Russian customers despite the economic crisis. Finnish detached houses for permanent residence and holiday houses for seasonal residence are in high demand among Russian customers. Accessibility, comfort and safety are just some of the reasons for it.

The customer can either buy a finished house or build it himself. The purchase of a finished house will not take as much time as the construction of his own house. However, it should be remembered that the house which was built according to the customer's project always gives much pleasure, because it was made in view of all customer needs. In this case, the planning of the house, finishing and landscaping meets the wishes of the customer. However, Russian customers may be faced with some problems, arising at different stages of construction, and caused by lack of knowledge of Finnish building regulations and requirements as well as by differences in the building culture.

The main purpose of my Thesis is to clarify the rights and duties of Russian customers planning real estate construction in Finland. It focuses on the regulations and rules concerning the construction of detached and summer houses.

For the successful execution of a project, effective planning is essential. The duration of construction and project costs depend on many factors. Most of them are individual and depend on the specific conditions. On the other hand, construction is impossible without some basic procedures, which are considered in my thesis.

The material is presented in a logical sequence, beginning with the planning of site purchasing and construction through to getting a new house.

2 FOREIGNERS' RIGHT FOR ACQUIRING REAL PROPERTY AND CONSTRUCTION

In Finland there are no restrictions to foreigners acquiring real property or movable property, putting them on the same footing as the Finns. The only exceptions are the Aland Islands and border zone (where there is a need to explain why housing is necessary exactly on this territory) (Константинова 2010). According to the Finnish legal system the buyer's citizenship does not matter. It should be mentioned that property in real estate or the possession of a house is not a reason for permanent residence in Finland and getting a residence permit (Nykänen 2009). Nevertheless, it gives an opportunity to request for a Schengen visa for 180 days (90 days in one half of a year and 90 in another one) (Недвижимость за рубежом).

The rules of construction are the same for Finnish citizens and foreigners. However, municipalities can establish the requirement of constant residing, for example, at the acquisition of plots intended for detached house construction, for which engineering and municipal systems were built (for example, roads, power supply, water, sewerage). This is due to the fact that at constant residing the owner of the plot and the detached house is registered in the local municipality (similar to Russian registration) and pays taxes to the municipality. A foreigner cannot be registered in the municipality and the municipality will not receive money from taxes (except the annual tax on real estate). Service lines are very costly items for the municipality. (Oma Ranta).

It should be mentioned that the possession of a summer house or detached house for permanent residence in Finland obliges the owner to maintain the state of the house in good condition. It means every house owner should take care of his property and in some cases of road leading to his house (if it is a private road) and snow removal. The right of neighbours and the right of every person to enjoy natural resources should also be taken into account.

3 PLOT PURCHASING

No matter whether a summer house or detached house is going to be built, the first stage is the purchasing of a site for construction. Also a Russian customer has a possibility to rent a plot for some period of time (usually the rental period is about 50 years). However, in practice it occurs very seldom. Therefore, this chapter is devoted to site purchasing only. In Finland land use, spatial planning and construction are controlled by the Land Use and Building Act, which came into force in 2000. The purpose of the land use planning in Finland is to create a safe, healthy, favourable living environment for life and activities of various groups and promote ecologically, economically, socially and culturally sustainable development (Land Use and Building Act §1).

3.1 Land use planning system

In the last few years, Finland has reformed its land use planning system. The new system has three levels of land use plans with a clear division of labour between them: the regional land use plan, the local master plan and the local detailed plan (Figure 3.1). In addition, the Government defines national land use guidelines that should be taken into account throughout the country in all land use decisions and land use planning. (Vatilo 2008).

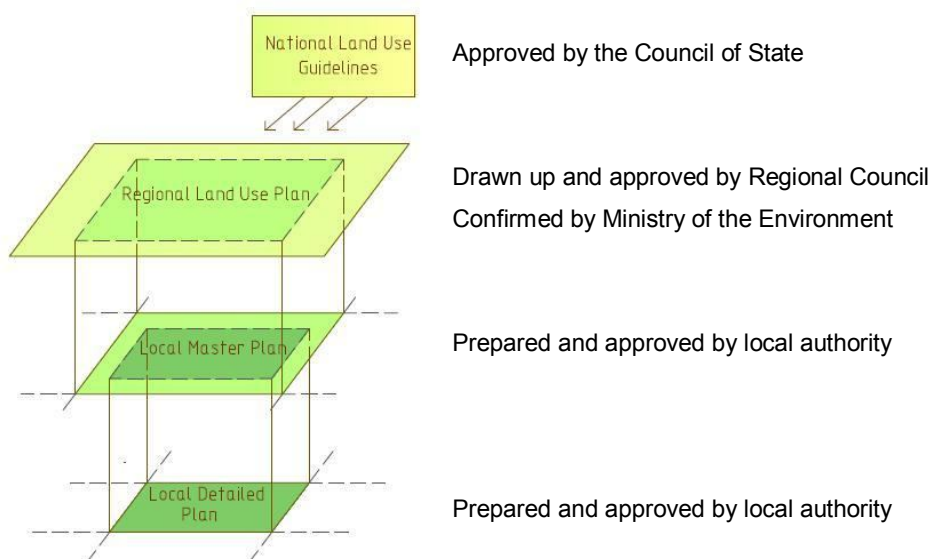


Figure 3.1 The system of land use plans

As shown in Figure 3.1, the land use planning system is hierarchical. Higher level plans steer lower plans. The national land use guidelines are implemented mainly through regional plans.

Finland's land use planning system, as defined in the Land Use and Building Act, gives municipalities a high degree of autonomy in local land use planning. Municipalities produce local detailed plans to guide construction and other land use changes in areas where land is used intensively or in sensitive areas. These detailed plans are guided by local master plans, which may be produced by individual municipalities, or by groups of municipalities in the form of a joint master plan. Municipal planning is guided by national land use guidelines issued by the national government, and by regional land use plans. (The Ministry of the Environment).

3.1.1 The national land use guidelines

The national land use guidelines are a tool the Government uses to steer policy on land use issues that are important for the whole country. The guidelines relate to the regional and urban structure, the quality of the living environment, communication networks, the energy supply, the natural and cultural heritage and the use of natural resources (Turunen 2009). National land use objectives are decided upon by the Council of State (Land Use and Building Act §22).

3.1.2 Regional land use plan

Finland is divided into 19 regions (Figure 3.2), each covered by a regional land use plan. These fairly general plans set out medium-term and long-term objectives for regional land use patterns concerning issues that affect land use planning in many municipalities. The regional land use plans are drafted and approved by the 19 regional councils, which are made up of representatives from the municipalities.

The legally binding regional land use plans are presented in the form of maps at the scales of between 1:100 000 and 1:250 000, drawn up and labelled

according to official guidelines, and accompanied by planning orders. The regional land use plans define a general framework for the more detailed local plans drawn up by the municipalities.

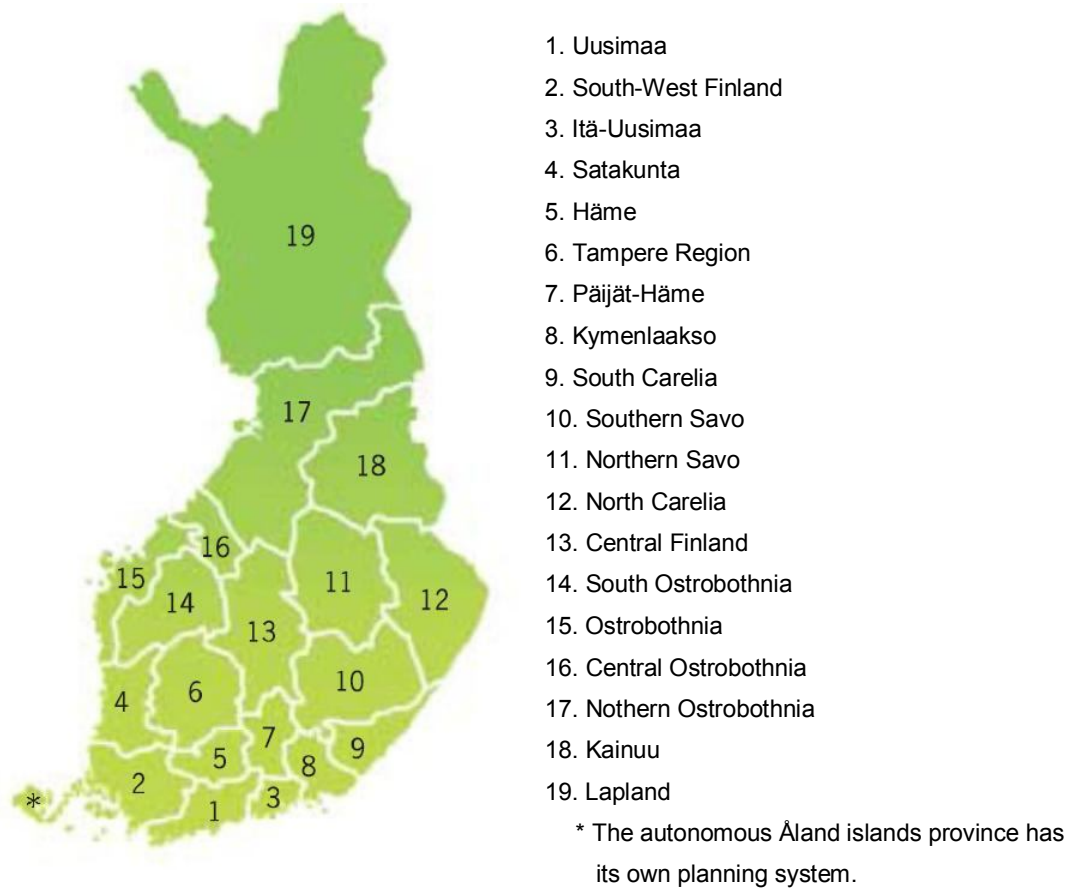


Figure 3.2 Regions of Finland (<http://www.ymparisto.fi>)

In Figure 3.2 nineteen regions of Finland are shown. The regional land use plans cover developments and issues that affect many municipalities, where effective planning solutions cannot be developed at the local level alone (for example, new main road, rail and energy infrastructure developments).

In regional land use plans some areas may be indicated as areas for recreation and conservation use, or as intended for technical needs with the restriction of construction in these areas. These zones are marked on the plan by special symbols (recreation area - V, protected areas - S).

3.1.3 Local master plan

Local master plans define land use patterns at a municipal level in general terms, allocating different areas for different land uses such as housing, traffic, services and recreation (Jarva et al., 2008).

Local master plans are presented on a map or maps of a scale that allows the principles of land use, necessary areas and other plan content to be indicated in an appropriate manner (Land Use and Building Decree §16).

When the drafting or amendment of a local master plan has been initiated, the local authority may impose a building prohibition in the area and a restriction on action. The maximum term of building prohibitions and restrictions on action is five years. While planning remains incomplete, the local authority may extend the term by a maximum of five years and the regional environment centre, under the application from the local authority and for a specific reason, for a further maximum of five years. (Land Use and Building Act §38).

Local master plans may be drawn up to cover all or part of a single municipality, or jointly by several municipalities. Jointly drafted plans must be approved by the Ministry of the Environment (Jarva et al., 2008).

The local master plan may impose restrictions on some construction works (earthworks, changing landscape, felling of trees, etc.).

The local master plans may also be produced to control land use and construction developments in specific areas such as zones along shores. A building permit for construction in shore area can be based in the local master plan which contains special provisions concerning the use of the local master plan or a part thereof as the basis for granting a building permit. The legally binding local master plans have been drawn up for a wide area of Finland.

3.1.4 Local detailed plan

A local detailed plan is drawn up for the purpose of detailed organization of land use, building and development, with the aim of designating areas necessary for different purposes and of steering building and other land use, as required by local conditions (Land Use and Building Act §50).

Local detailed plans are prepared mainly for densely populated territories. The local detailed plan is the basis of the relationship between the municipality and the owners of land in the region, and an important component in making administrative decisions.

The local authority may impose a building prohibition in an area on which a local detailed plan is being drafted or amended. Actions, which can change the appearance of the territory, also require a permission. A building prohibition is in force for the maximum period of two years. While the plan remains incomplete, the local authority may extend the term by a maximum of two years at a time. (Land Use and Building Act §53).

The local detailed plans are presented on a base map at a scale of 1:2,000 or, if the purpose or contents of the plan so requires, at a larger scale (Land Use and Building Decree §24). This plan indicates the boundaries of the areas and their purpose. It also includes information about the quantitative indicators of construction, the placement of buildings on the territory and if necessary, the type of construction.

Quantitative indicators of construction are usually expressed by special efficiency ratio (e). For example, the efficiency ratio $e = 0,4$ means that the permissible built-up area (the projection area of the building) is four-tenths ($4/10$) of the site area. Thus, in an area of 1.000 m^2 construction is allowed with gross floor area of 400 m^2 (read more about “gross floor area” in the following section). Also the permissible gross floor area can be mentioned with a number only (II 250).

It is very important that buildings may not be built in violation of the local detailed plan (Land Use and Building Act §58).

The local detailed plan also includes a key to the symbols used and written regulations. These symbols can differ slightly from symbols on the local master plan or regional land use plan.

The local detailed plan is approved by the local council (Land Use and Building Act §52).

Copies of the maps indicating the planning situation and the possibility of construction can be obtained in the local building authorities for a small fee. Many municipalities make this information available on their web pages.

3.1.5 Local building ordinances

Every municipality has its own building regulations, which may differ significantly from the building regulations of other municipalities. The building ordinance gives the necessary stipulations, due to local circumstances with regards to systematic and suitable building, taking into account cultural values and nature values, as well as the implementation and preservation of a good living environment.

Provisions of the local building regulations may be related to construction, a building size and the location of the building in the site, adaptation to the environment, methods of construction, plantings, fences and other structures, water management organization as well as any other matter concerning local construction.

Whereas regulations controlling the construction often differ in different regions and localities, all questions should be clarified in the local authorities by the location of real estate. The importance of the building ordinance is particularly emphasised outside the areas of the detailed plan.

3.1.5 Special detailed plan (shore areas)

In Finland shoreline stretches for 300,000 kilometres. Lake nature is considered as a national heritage of the country. However, house construction on the shores of lakes and rivers is allowed, although such construction is regulated by various rules and restrictions.

Buildings may not be constructed in shore areas without a local detailed plan, local building ordinances, legally binding local master plan which contains special provisions concerning the use of the local master plan or a part thereof as the basis for granting a building permit. The landowners may also take charge of drawing up a proposal for the detailed shore plan of the shore areas they own. If a legally binding local master plan or a local detailed plan for the shore area is absent, special permission from the regional environment center is required for the implementation of the new construction.

Building restrictions on shore areas do not apply to the construction required by agriculture and forestry, as well as the construction of outbuildings within the curtilage of an existing residential building (such as a shed or garage). Living spaces should not be located in outbuildings.

When a local master plan or a detailed shore plan is drawn up for the principal purpose of arranging for holiday homes in a shore area, care must be taken to ensure that the planned building and other land use conforms with the shore landscape and the rest of the environment and a sufficient amount of unbuilt and unbroken shore area remains as well as a minimum distance from buildings to the shoreline should be provided. Usually a summer house is located at a distance not less than 25 meters from the shoreline and sauna is allowed to be built not closer than 10 meters to the shoreline. The local building regulations must be also taken into account, because regulations are different in different municipalities.

A permission is also required for earthworks in the shore zone, for the excavation or construction of a large berth. It is recommended to discuss these issues with a municipal building inspector or technical director.

As it was mentioned above, landowners may also take charge of drawing up a proposal for the detailed shore plan of the shore areas they own. It can be ordered to third-party experts, for example to forestry enterprises and organizations involved in the tourism industry and interested in getting a local detailed plan of a defined territory to have the opportunity of holding an extensive construction. In such cases costs of drawing up the plan are compensated by the landowners. Municipalities usually do not make detailed shore plans, if it is not based on the public interest. Nevertheless, the municipalities can make the detailed shore plans if there is need for holiday constructions (for example, Puumala, Taipalsaari). The reason for this is taxes which would be paid by customers buying real estate in those areas.

When the local detailed plan or an amendment to it is mainly required by private interests and drawn up on the initiative of the landowner or other titleholder, the local authority is entitled to charge the costs incurred in drawing up and processing the plan to the landowner or titleholder concerned (Land Use and Building Act §59). When a local master plan is drawn up for shore areas for the principal purpose of arranging for holiday homes, no more than half of the costs of drawing up the plan can be charged to the landowners in relation to the benefit they gain from the plan (Land Use and Building Act §76).

It is important that in the shore zone special attention should be paid to the preservation of the landscape, the shape of the building, the choice of exterior cladding materials, colours and height mark of buildings. The excavation of the rocky soil, land or vegetation changes without a reasonable excuse are not allowed.

3.2 Choice of site for construction

The choice of site is a very important stage of the investment and construction process. The correct choice of land is the guarantee of success both for minimizing construction costs and a successful execution of a project.

Before purchasing a plot in Finland attention must be drawn to the following factors:

- Is the plot located near settlement or in the countryside (outside the local detailed plan),
- If there is any building right or written request was applied (can be known in the local authorities),
- What kind of building can be erected and what is the allowed gross floor area (building right),
- Has the plot any easements,
- Is the plot located near gulf, lake or river (plots located on the lake shore of the Saimaa lake system are more expensive),
- Soils and relief,
- Availability of road and road connections,
- How electricity supply can be organized (also during construction),
- How water supply and sewer can be organized (if there is a possibility of connection to centralized system or on-site technologies should be provided),
- Where the nearest services are located (shops, medical center, educational facilities),
- The sides of the horizon (where is the North and the South),
- How garbage collection can be organized.

Each of these factors has a great influence on construction costs. The most important of them are discussed in the following sections.

3.2.1 Location of the site and a building right

Plots are on sale throughout the whole territory of Finland. Certainly Russian customers are still interested in the south-eastern part of Finland near the Russian border (Figure 3.3). The reason for it is an easy availability.

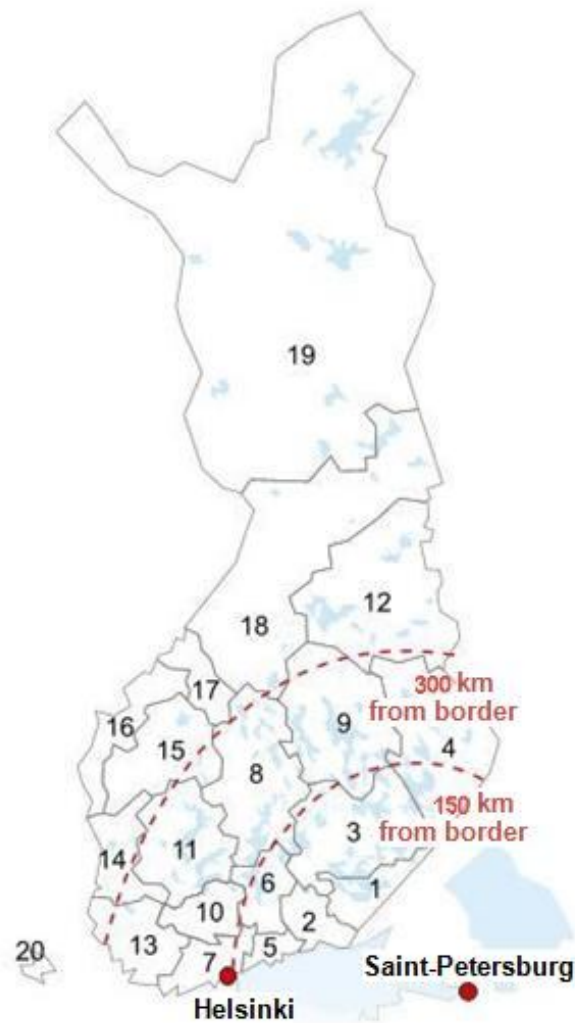


Figure 3.3 Demand for plots among Russian customers

The Figure 3.3 shows that Russian customers prefer the plots in the border area, 250 km away from the border (Эриккиля 2009), also popular provinces are Southern Savo (3) and Southern Carelia (1), the plots adjacent to Saimaa Lake or other lakes. Prices for plots go up from 15 000 - 19 000 €.

For each site the building right is determined individually. The building right is a document entitled to build some facilities on the site, and it also concerns detached and summer houses. This document is given by local authorities. In Finland most sites are sold with received building right. Typically, it is valid for 20 years without updates. Acquired plots have been known to be under prohibition on building and nothing was allowed to be built. Therefore the local detailed plan and a building right should be checked before purchasing. First of all the possibility of construction should be checked. For example, if the local detailed plan or the legally binding local master plan for shore area is absent construction is prohibited.

The local detailed plan and local building regulations always influence on:

- the size of the building (the gross floor area pointed in kem², the house can be smaller than it is allowed, but not more than it is permitted),
- the location of the buildings on the site (Figure 3.4) in relation to the shoreline and the adjacent site,
- the shape and number of storeys of the building (Roman numerals are used, for example I, II, 1/2I, 1/2 I 1/2 – meaning that one-storey building with basement and loft can be constructed),
- materials,
- the form of the roof, and
- the distances which should be left from the border of the site.

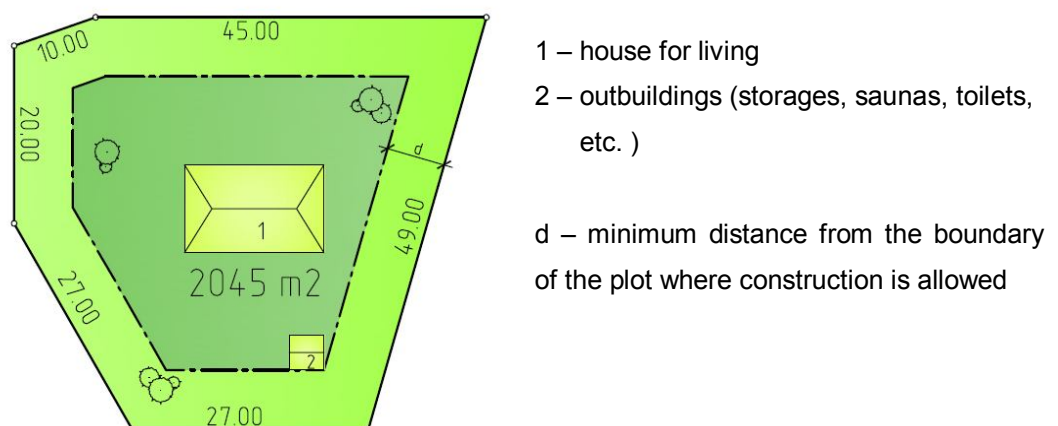


Figure 3.4 Location of the house on the site

In Figure 3.4 a plot is shown. The house and outbuildings can be erected only on the territory, marked with dark-green colour. Distance between boundary of the site and allowed area of construction is determined for firesafe reasons.

In local detailed plan areas, the suitability of a building site is resolved in the local detailed plan. Outside the areas covered by the local detailed plan, building sites must be appropriate for the purpose, fit for construction and sufficiently large, at least 2,000 m² (Land Use and Building Act §116). The minimum area of the building site is also regulated by the local building ordinances and often differs from the mentioned value (for example, in Lappeenranta it reaches 3,500 m²). In some territories the area should not be less than 5,000 m².

The cost of the site also depends on the presence (and length) of its own shoreline. In Finland all plots can be divided into 4 groups:

- plots with public shoreline,
- plots with private shoreline,
- plots located in the forest, and
- plots on the open territory, near the road.

Water space (a part of river, lake or sea) can also be a part of the site. The cost of land varies depending on the proximity to the water body. The length of the shoreline can be different. Usually it comes up to 50-70 meters. This parameter is also indicated in the local building ordinances.

The landowners are not allowed to build anything they want because of various indications in the local detailed plans and local building regulations. Since permissions for the erection of residential buildings and outbuildings are given out only to those facilities that satisfy the requirements of the local detailed plans and the local building regulations, the builder will save time and money if these requirements are checked beforehand. A special attention should be drawn up to the overall land use planning as well as enough time for designing outbuildings should be left.

3.2.2 Gross floor area

When applied to a plot or building site, 'gross floor area' means the total gross floor area of the buildings for which the permission is granted (Land Use and Building Act §115, Ympäristöopas 72).

The gross floor area of a building includes the floor areas of each storey measured to the outer face of the exterior walls, and the area of the basement storey, attic or loft in which premises for the building's principal intended use are located (Land Use and Building Act §115). For example, if habitable rooms are located in the basement or in the loft (if allowed in the City Plan) their area is usually included into total floor area. The height of the attic is also important (heated spaces the height of which is less than 1,6 m are usually not included in the floor area).

Floor area counting rules are described in "Kerrosalan laskeminen Ympäristöopas 72" and can be also mentioned in the local detailed plan and in the local building regulations. It is impossible to describe the procedure of calculation definitely, because the rules are different in different municipalities. The content of the building right and gross floor area should be checked with the local building supervision authority.

3.2.3 Easements

An easement may be established on another property for the purposes of a plot or a property used as a building site, giving a permanent right to use a building or structure or to take corresponding action (Land Use and Building Act §158).

Establishing an easement requires the interested parties to agree in writing (Land Use and Building Act §158). If the interested parties do not agree a building easement can be established by the local building supervision authority.

There are different kinds of easements. All of them are described in Land Use and Building Decree in detail. The building easement encumbering another property may be established for a plot or building site, entitling the holder to place service conduits and related equipment in a building on the encumbered property and to use an accessway, emergency shelter or parking place in a building on the encumbered property (Land Use and Building Decree §80).

A special type of easement is a building easement required by the local detailed plan. It can be established to organize waste management premises for a building; to provide access to a building for another property or for public use by pedestrians and to use a neighbouring property to provide support for building elements located on the boundary between the properties or to construct a party wall. (Land Use and Building Act §159).

According to Land and Use Building Act §158, a building easement may be established if:

- it promotes appropriate development,
- use of a property is needed by the easement holder,
- it does not cause substantial harm to the encumbered property.

A building easement can be permanent or fixed-term. It is important to remember that an easement entered in the Property Register remains in force even if ownership of the property changes.

3.2.4 Soils and relief

Soil investigation is carried out by private companies or geotechnical offices. The cost of ground survey is about 600 - 1000 € (DomInFinland). The main task is the estimation of ground conditions and finding out an appropriate type of foundation. If the customer chooses to construct the house on a turnkey basis the Honka company will take care of the selection of a contractor, otherwise the customer looks for a company himself.

In preparing the territory under the building site, unstable soil is removed and backfilled with more stable one. In Finland a bedrock is frequently located under the surface soil and expensive blasting is required. The cost of land works for the site preparation depends on the landscape, type of foundations, ground water, frost zone and varies from 1500 to 15000 € (DomInFinland).

The complexity of the plot's relief affects the cost of the construction works. It varies from 5 to 20%. Carrying out land works and the construction of the foundation usually take 1/5 of all work time.

3.3 Closure of a deal

The Finnish legislation regulates in detail the process and the form of the transaction of sale. The provisions of the legislation are required to be followed, otherwise the transaction will have no legal force. The attorney for settlement of a real estate transaction is not required by law, since the provisions of the legislation are stated so clearly and understandably, that the parties may make a purchase contract without the participation of an attorney. Besides the contracting parties the transaction should be attended by an official witness (a person who officially certifies the legitimacy of the bargain).

3.3.1 Definition of "Real Estate"

In the law system "Real Estate" means a separate unit of land ownership, which must be registered in the real estate register as an independent property. Real estate includes plot of land, buildings, structures on site and all easements, such as the right to use the roads. In practice, real estate means land or water area, or it includes both of them. Moreover, a property may consist of several separate plots. Each property is assigned to an inventory identification code, which consists of a number of municipality and three subsequent digits, for example, 091-4-72-12 or 342-407-2-59. (Шапофф 2008).

If the real estate is acquired by purchase, the customer becomes the owner of the object. In Finland the right of ownership is protected by the Constitution, and

it cannot be taken away from the owner or his heirs, with the exception of cases definitely provided by law. In practice it occurs only when the object is redeemed by its full cost, for example, by state or municipal authorities.

3.3.2 Preparation for the transaction of purchase and sale

The successful transaction of purchase and sale of the real estate is possible only through careful preparation, because not only price but also many other conditions e.g. finding out the type and state of real estate are required to be clarified. In practice a great bulk of transactions related to the real estate is carried out with the help of estate agencies, which are kept informed about the plots offered for sale. The real estate agent is usually chosen by the seller. Nevertheless, the variant when the customer concludes the contract with the realtor is also possible. By law, a real estate agent is obliged to take care of the interests of both parties – both the seller, and the buyer - irrespective of the fact who has employed him. (Шапофф 2008).

The realtor activity is monitored. Therefore a high level of professional competence of realtors is usually guaranteed. This explains the use of services of real estate agents. The realtor on the seller's behalf is obliged to provide the customer with all documents and information, necessary for final decision making. Thus, the real estate agent operates in the interests of the customer. Usually the realtor prepares the purchase contract and assists in the legal issues related to the transaction. (Шапофф 2008).

3.3.3 Seller's duties

The duties of the seller include providing reliable information about the object. Before the bargaining the seller is obliged to hand over to the customer complete information about important factors that affect the operation and cost of real estate. Importance of information is defined in accordance with the character and purpose of operating the property. For example, during the purchasing of a plot for construction of a summer house the building right and quality characteristics of the water body may be definitive.

The seller must provide the customer with the following information:

- information about the area of real estate and buildings (if any) located on the territory,
- information about the decisions made by official bodies (for example, land allocation and construction or the prohibition of construction), which limit the potential of the maintenance of real estate,
- information about mortgaging rights and other easements, including the tenant right, for example.

The seller must give this information voluntarily, and he is responsible for its reliability. (Nykänen 2009, Шапофф 2008).

3.3.4 Customer's duties

The customer must make a thorough inspection of the real estate before the conclusion of a purchase contract. The customer is not entitled to file a claim about defect that could be noticed during a thorough inspection. The customer is also recommended to check up all relevant data about the property. This information is available in the real estate register. If the real estate was not registered by seller on his name, the customer may be faced with some problems concerning official state registration of the property and at worst his right of ownership will not be acquired.

At the conclusion of the sale the following documents should be presented to the customer for acquaintance:

- certificate of the state registration, which confirms the seller's ownership of the real estate,
- extract from the real estate register, which indicates easements concerning use of road,
- map from the real estate register,
- copy of the local detailed plan or special detailed plan of shore area,
- building right (if any).

The certificate of state registration may be obtained in the land survey office and in municipal authority, the extract and map of real estate – in the land survey office and municipal real estate administration, and the local detailed plan and information about construction in municipal real estate administration or local supervision building authority. (Nykänen 2009, Шapoфф 2008).

3.3.5 Purchase contract

The purchase contract of the real estate should be concluded in writing. The seller and the customer or their representatives should sign the purchase contract in the presence of an official witness of the transaction. If the contract is not executed in accordance with these requirements, it is not obligatory for observance. If the seller or the customer has an attorney, the letter of procuration should be prepared.

In the purchase contract, the detailed description and preliminary checked identification number of the object of the real estate should be given. Also the purchase contract contains information about contracting parties, price of transaction or other compensation as well as information about possible conditions, which can terminate the contract or delay its entry into force. The parties can come to the agreement about other terms of transaction (for example, concerning electricity supply) in the free form; nevertheless it is in their interest to include these terms in the purchase contract.

One of the conditions of the purchase contract is often the fact that the seller reserves the ownership of the property until the transaction price is paid. The passing of property is valid no more than five years from the moment of the transaction. (Nykänen 2009, Шapoфф 2008).

3.3.6 Official witnesses of the transaction

The purchase contract should be assured in the presence of the parties by the signature of the person authorized on behalf of the state on the certification of

transactions. The official witnesses of the transaction may be some officials from appointed authorities, including the city council and the land survey offices. The official witness is usually invited by the seller or the real estate agent. The person certifying the transaction establishes the identity of the parties and checks the power of the attorney if the parties act as representatives of their guarantors. He also can be asked for a certificate of state registration, certificate of easements and extract from the cadastre of real estate. The reward of the person certifying the transaction amounts 77 € (in 2008) and is paid by the parties. The transaction of the purchase and sale of the real estate located in Finland can be also concluded outside the country. (Nykänen 2009, Шапофφ 2008).

3.3.7 Registration

After the settlement of the transaction the customer is obliged to register the real estate in the district survey office, in whose jurisdiction the real estate is located. The district survey office checks the legality of the transaction and enters information about the customer as the owner of the real estate to the real estate register. State registration should be applied for within six months after the conclusion of the transaction. The registration period begins from the moment of signing the purchase contract. The state registration is chargeable. The standard rate of the state duty is 65 €. The state registration is usually carried out quickly, within 1-2 weeks, depending on the workload of the district survey office. (Шапофφ 2008).

The customer should pay the tax on the transfer of ownership. The tax rate is 4% of the selling price or the market price of the property. The tax on the transfer of ownership should be paid within a month from the moment of the disposal of the property. If the transaction is arranged with the help of the real estate agent, the tax is paid under the conclusion of the transaction. (Nykänen 2009).

The application for registration should be presented to the district survey office or delivered by post or a courier. The original of the purchase contract and its

copy should be attached to the application. In addition, the customer of the real estate should present the receipt on payment of the tax to the district survey office. The necessity for representation of other documents depends on the circumstances and parties involved. (Шарофш 2008).

If the state registration is not applied for at a stated time the amount of tax will be increased. A transfer tax increases by 20 % for each six-month period of delay. The tax may be increased by 100% maximum. For example if a person has acquired the property on 1 August 2008 for 400.000 € and has requested the announcement provided by the law only on 1 September 2009, he would have to pay taxes, increased by 40%, in addition to the normal tax of 4% (16 000 €) he would pay 6 400 € more, altogether 22 400 €. (Nykänen 2009).

The conclusion of the sale of the real estate can be shown schematically as follows (Chart 3.1):

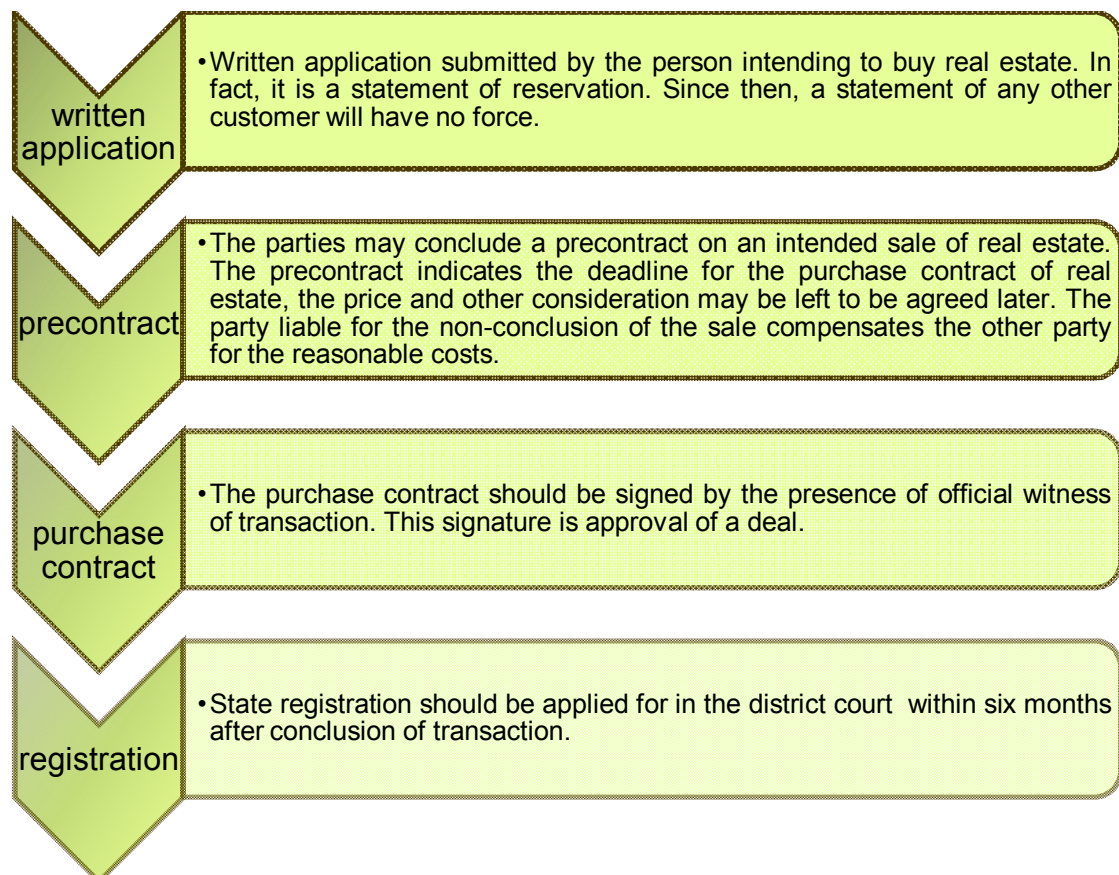


Chart 3.1 Conclusion of the sale of the real estate

Chart 3.1 shows the process of site purchasing. Each step was described in detail above. When the site has been purchased and registered the customer can choose the house.

4 CHOICE OF A HOUSE

To select a house project the construction limits of detailed plans should be considered. As it was mentioned before, restrictions for construction can be different, and they affect quantity of buildings, height of house, slope of the roof, colour and material of the house. These requirements have been established to preserve the architectural integrity of the region.

4.1 Choice of a house and the way of construction

Before estimating construction costs the house and the way of construction should be defined. This choice has a great effect on the total cost of construction. The scheme of possible solutions is shown in Chart 4.1.

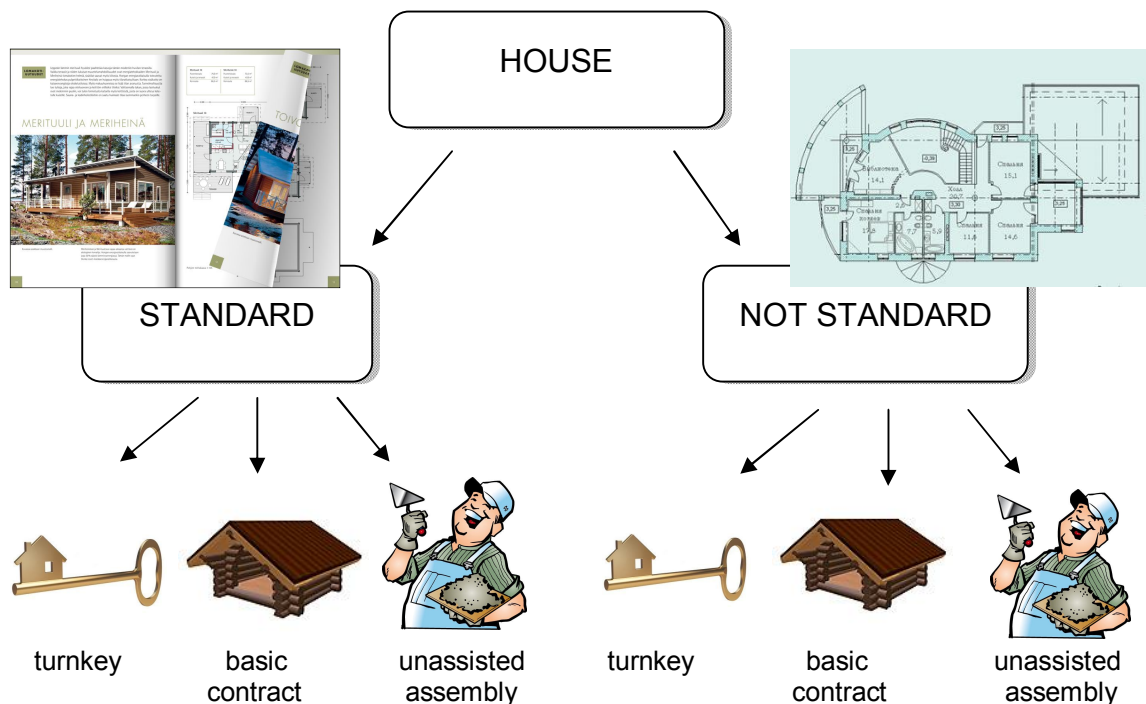


Chart 4.1 Choice of house and way of construction

Chart 4.1 shows different ways of construction. The most economical way of house planning and construction is purchasing of a standard house kit. In Finland ready-made house kits are produced in factories of construction companies. The Honka company has a large catalogue with various types of houses; many of them are available on its website. Even if the customer chooses the standard project, an experienced architect will help to correct the design of the house, so that the house will satisfy all customer needs. The main architect's task is to help in creating a suitable house for the client (Figure 4.1). In the Honka company advanced design and modelling programs are used. Therefore all chosen houses can be drawn in 3D. It provides clearness and the possibility of changing some details without any problems.

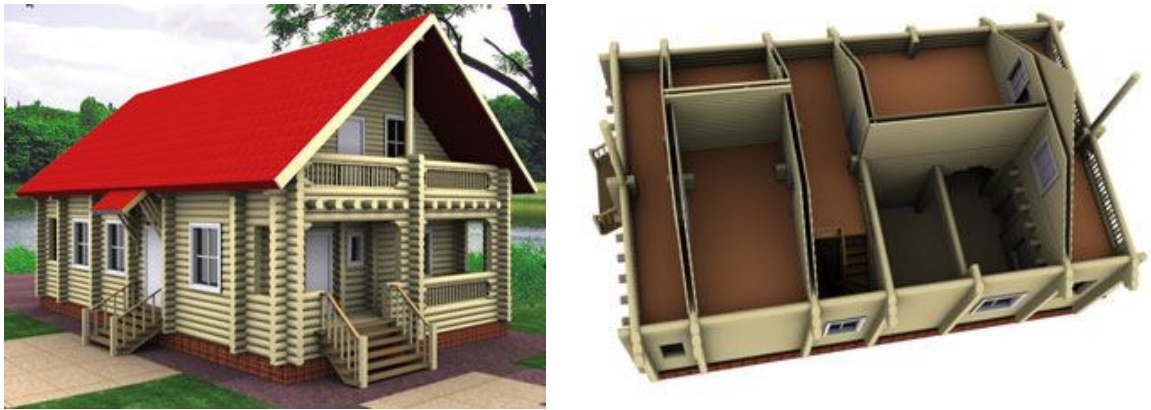


Figure 4.1 Example of a project

If the customer knows which specific house he wants, or he likes no one in the catalogue, an architect will design an individual project. Meanwhile, the customer may bring his own drawings made by himself or drawings designed by another architect. In this case, the architect makes only some changes in the project, if it is required by the local building regulations.

After selecting a house project the way of construction should be defined. The client can order a full range of construction services on the turnkey basis. It means that the Honka company will be responsible for the whole construction. So after the final inspection the customer will get keys from his completely

ready house, equipped with built-in kitchen, domestic appliances, fireplace, ventilation system, etc. The type of finishing is also defined by the customer.

The customer can also make a so-called basic contract for construction with the Honka company. This type of contact is traditionally used by Finns. It means that customer orders only the construction of foundation and house envelope (the order can be made only on some type of works). All other works such as electricity, plumbing, interior walls and etc. are carried out after the installation of the frame. When a house kit has been delivered and assembled on the finished foundation, the customer carries out other works (electricity, plumbers, interior works, decoration, installation of built-in appliances, fireplace, etc.). Such works can be entrusted to local companies operating in the region. The advantages of this scheme are the possibility of saving up to 20% of the construction costs in comparison with construction on a turnkey basis and the possibility to start construction in the current season and continue it in the next one.

The customer can also build a house himself or with the help of the representative from the Honka company. A so-called chief-master will help to carry out works correctly and quickly. The required quantity of days that the chief-installer will spend on the site is discussed. The erection of a Honka house is easy. The delivered house kit includes all necessary wooden structures and components. In addition, the wooden parts usually have ready-made sizes. However, this method of construction is a little bit difficult for a foreign client. According to Finnish legislation the developer has a lot of duties. The next step after the choice of a house is getting a building permit in the local authorities and looking for a company to install the foundation. A list of companies that are allowed to construct in this area can be received in the municipality. Each construction company has a license, and one of the conditions of getting it is knowledge of the construction process and observance of all technological requirements. The process of obtaining permits and searching companies is a complicated process for a foreign customer who does not speak Finnish and is not familiar with the building process.

4.2 Budget and influence of different factors on costs

The estimation of the total costs of construction is a quite complicated process. Each project is unique, even if the house project has been chosen from standard solutions. Customer planning the purchase and construction of house should remember that the cost of the house kit amounts to only 30 - 40% of the total construction cost and the cost of the rest of the construction works is approximately the same regardless of the supplier company (Honka). A lot of companies offer special calculators for estimating the preliminary cost of the house on their web sites. Nevertheless, the real price can vary from the calculated one slightly, because all details and specific conditions such as natural circumstances and some features of the building site cannot be taken into account by a machine. The Honka company also has a calculator in the Finnish language on its website. It is offered for free download and available after registration. The cost of a house also depends on factors mentioned in Table 4.1.

Table 4.1 Factors affecting on construction costs.

Factors	Description	Cost increase
Construction of 2-3 storeys	Construction of several storeys increases the final cost because of the intermediate floors, stairs, trusses and a crane used in construction	+ 30-50%for additional storey
Poor planning and extra square meters	5% of the total area (about 8 m ²) increase the final cost by 16 000 € - 20 000€	5% of the total area ≈ 16 000 € - 20 000 €
Unreasonably large area of wet premises	Area of wet premises can be different, sometimes 10m ² is enough, other customer wants 25m ² . Difference in price in comparison with living area is + 500 € /m ²	+ 500 € /m ²
Nonstandard project	Typical / ready-made projects designed by architects are cheaper. Using a standard project with minor modifications, the customer can save money on the services of architects	2 000 € - 10 000 €
Quantity of fireplaces and stoves		1 fireplace/stove – 2 000 - 10 000€

Shape of house	The most efficient type of house is rectangular and one-storey	1 oriel – 10 000€
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In Table 4.1 some factors affecting the construction costs are shown. These factors are related only to the design and planning of the house and do not concern relief and geological circumstances mentioned earlier. The presence of the garage, overhangs and terraces as well as chosen supply systems also influence the total cost.

4.3 Schedule of work

Making a realistic time schedule and monitoring its adherence is a condition for a successful project activity. Construction work lasts at least 6 - 12 months depending on the method of construction. A developer and main designer make a preliminary general time schedule together, which indicates tasks for each stage of construction. Different stages of work and their implementation are attached to the payment schedule. In the Honka company the delivery of construction materials does not depend on the season so in summer time it takes the same time as in winter. One important issue concerning delivery is the accessway to the site. There are no problems if the road to the site exists. Otherwise, the construction of a new road or other way of delivery should be considered. There are special cases concerning sites located on islands. It should be remembered that the delivery of materials can be organized only in winter in this case. Making the time schedule the weather conditions of the region should be taken into consideration. Sometimes construction is impossible because of weather (rain, snow). It should not greatly affect the duration of the construction process in whole. Therefore, the time schedule should include some extra days to avoid lack of coordination.

5 PREPARATION FOR PROJECT IMPLEMENTATION

A party engaging in a building project should ensure that the building is designed and constructed in accordance with building provisions and

regulations and a permit has been granted. The party should have the necessary competence to implement the project, as required by its difficulty, and access to qualified personnel. (Land Use and Building Act §119).

Therefore the main designer, who has the necessary qualifications, as well as the site manager, should be appointed for the project. The names of appointed designers have to be included in the building permit application.

5.1 Main designer

The main designer, responsible for the overall project and its quality, having sufficient education and experience in relevant project work, is required for the design of each building facility. The main designer is responsible for achieving a design solution that corresponds to the client's needs. In an ordinary building project the competency of the main designer has to be at least at the same level as the competency required to deal with the most demanding design task within the project. The main designer is also responsible for ensuring that highly specialized designers have qualifications in their field, and any special designs form a complete entity that meets the requirement set for it. The main designer also answers to the building permit authorities in regards to the proper management of his or her tasks during the design and construction of the building project. Special design is required for the installation of engineering systems (electrical work, installation of heat, water and ventilation systems).

5.2 Site manager

In any construction work requiring a permit or other approval from the authorities, there must be a site manager who is responsible for carrying out the work and for the quality of the work, who directs the construction work and ensures that work is carried out according to the building provisions and regulations, the permit granted and good building practice maintained. Depending on the complexity of the facility, specialist foremen should be used in construction work when needed. The site manager and the specialist foremen

are approved by the local building authority. Construction work may not be begun or continued without an approved site manager.

The site manager's tasks consist of the following items:

- the building supervision authority is notified of the commencement of construction work
- construction work is carried out in compliance with the permit granted for it
- necessary measures are taken to remedy defects and mistakes observed in the course of construction work
- requests for reviews required under the building permit are made in good time
- approved drawings and necessary special drawings, an up-to-date building inspection report, any test results and other necessary documents are available on the building site (Land Use and Building Decree §73).

6 PERMISSIONS

In Finland there are many kinds of permissions concerning construction. All projects involving construction need building permits or action permits. In more simple cases filling the notification will be sufficient. A landscape work permit is required for the excavation and construction work that are changing the landscape, felling trees and suchlike activities. Building permits, action permits and demolition permits are approved by the local building supervision authority. Landscape work permits are considered either by the local building supervision authority or by another authority, if it is determined by the first one (Land Use and Building Act §130). Also if a legally binding local master plan or a local detailed plan is not in force in the area and the application concerns an area that is covered by a nature conservation programme approved by the Government or located in a landscape conservation area under the Nature

Conservation Act the regional environment centre should be asked for an opinion.

A building permit and supervision relating to the construction is chargeable. The amount of fee is set by the relevant municipality. The average fee is about 500-1000 € for a building permit (also depends on the area), an action permit costs about 100-300 €, and notification is less than 100 € (Oma Ranta). Below each permit is considered in details.

6.1 Building permit

A building permit is the most important document entitled to build a defined house with taken into account the architecture, planning, etc. The building permit is given out when the specific plans of a house are presented, usually for a period of three years since its approval.

A building permit is required:

- for the construction of a new building,
- for repair and alteration work which is comparable to building construction,
- for extending a building,
- for increasing its gross floor area (for example, reconstruction of cold attic space to warm one),
- for works if it is obvious that the work may affect the safety or health conditions of those using the building,
- for significant changing of the intended use of a building or part of it (for example, renovation of a summer house into a detached house designed for permanent residence),
- when a building is intended to remain in the same location for a limited time, a time limit may be included in the building permit.

Each construction project is unique, therefore the local building supervision authority makes the final decision of the necessity of the building permit obtainment. A 'building' is a construction, structure or installation, which is fixed

or intended to remain in one place, and which is intended for living, working, storage or some other use. However, lightweight structures of minor size or smallish installations shall not be considered buildings unless they have special impact on land use or the environment (Land Use and Building Act §113). The decision if a structure should be considered as a building is made according to the local building ordinances. It is clear that the building permit is always required for summer houses and cottages, designed for living. On the contrary, the regulations concerning auxiliary structures such as barns and warehouses are often different in different municipalities, and it is ordinary that one municipality will require a building permit for such a structure, and an action permit or just a notification will be enough for another one.

During repair works and reconstruction attention is drawn to the volume and quality of work, as well as costs. The complete overhaul of a building usually requires a building permit. On the other hand, if the project includes only cosmetic repairs, not affecting the structures, construction works can be carried out without building permits and other permissions. Before starting any repair work it should be found out if a permission is required at the local building supervision authority.

6.1.1 Necessary documents for a building permit

Building permits must be applied for in writing. Every local building supervision authority usually has a ready-made form for building permit applying, where required documents are listed.

The application should be in the Finnish language in a single copy and contain the following information:

- personal information, telephone number and e-mail,
- information about the building site,
- explanatory note about the project,
- information about the head designer and specialized designers,
- information about the person who can give additional information (for example, the authorised representative or the general designer).

The application for a permit must also be signed and dated by the landowner (or owners, each separately).

The following documents should be attached to the application:

1. Ownership Certificate of the plot (plot map on a scale of 1:500). It is a certificate, which indicates the judicial acts of property registration with real estate and must be dated not earlier than 1 month before the filing of the documents. A copy of the plot map (1 pc.) must be verified by two persons. This plot map may be obtained in the local authority. If the ownership is not registered in the district survey office, an attested copy of the contract of land sale is sufficient.
2. Report about the hearing of the neighbours (if needed). Neighbours must be notified when an application for a building permit is submitted, unless the notification is clearly not necessary with regard to the neighbours' interest, due to the smallness or location of the project, or to the contents of the plan. 'Neighbour' refers to owners and other titleholders of adjacent or opposite properties. The notification may be posted as an ordinary letter. The notification of neighbours can be organized by municipality, but in this case the applicant will be charged a fee. Neighbours are allowed to enter their objections in seven days. When needed, inspection of the building site can be carried out, during which neighbours' inquiry is possible. At the building site the information about the project and contact phone number should be presented, for example, in the form of a warning board (Land Use and Building Act §133).
3. Copies of the local detailed plans. Maps can be obtained in the local authority or in the land survey office for a small fee.

4. Official building permit drawings, verified by the main designer's signature. These architectural drawings include:
- Site plan or so-called location plan (2-4 pc). Drawings are carried out on a scale of 1:500-1:1000. Drawings should indicate the roads, existing buildings, as well as the building or structures to be constructed or demolished. Drawings should indicate the distance to the nearest boundaries or to the shoreline and also the main dimensions of buildings and structures;
 - Plan drawings. Drawings are carried out on a scale of 1:100. Plans must be drawn of all floors of the building, basement, roof space and roof. The floor plans normally show intended use of rooms and spaces, overall dimensions of the building and parts of the building, the levels of floors and landings;
 - Sections. Drawings are carried out on a scale of 1:100. Section drawings must be prepared of all necessary points to show the construction and characteristics of the building;
 - Facades. Drawings are carried out on a scale of 1:100. The elevation drawings must show that the architecture of the planned construction fulfils the requirements of beauty and harmony taking into account the building itself and its relationship with the surrounding buildings and the landscape. Elevation drawings must be prepared of all sides of the building together with the visible parts of the roof.

Detailed information about drawings can be obtained in the local authority.

5. RH1. RH1 is filled to transfer information in a system of registration of the population. This form can be found in the technical office of the municipality.
6. Plans of surveys: (of sewer system), of wastewater treatment, of the water system and electric service and the explanatory notes for them.

7. Other explanatory notes, depending on the situation and the municipality (certificate about easements, if any; permission of the environment center; ground investigation report on the building site). It is recommended to entrust filing an application for a building permit to a Finnish-speaking representative. In this case a proxy is required. If the representative is absent, an interpreter is needed. ([Russia Services](#)).

6.1.2 Validity of a permit

Construction work should be begun within three years and completed within five years. These periods begin when the permit has become legally valid. Otherwise the permit expires. The local building supervision authority may extend the validity of a permit if the legal conditions required for building are still met. (Land Use and Building Act §143).

6.1.3 Right to commence

Construction can be begun when the decision of the permit came into force and if it has not been appealed in time. However, the permit authority can grant a permit to carry out construction work before a decision on a building permit has become legally valid if the applicant provides acceptable sureties as security against any harm, losses or costs caused by revoking the decision or amending the permit (Land Use and Building Act §144). A security cost is established by the local building supervision authority. It is about 500-2000 € for ordinary projects and in the case of large projects it can reach tens of thousands of euros.

In compliance with provisions on landscape work permits, excavating, felling of trees and other corresponding preliminary work may be carried out before construction work begins. The piling of a building's foundations may also be carried out before construction work begins in accordance with the piling plans submitted to the local building supervision authority (Land Use and Building Decree §72). But if the building permit is not granted the developer will be accountable for returning landscape to the beginning position.

6.2 Action permit

An action permit is required to erect or locate a structure or installation that cannot be considered a building, or to alter the outward appearance or layout of a building.

Instead of a building permit, an action permit is required:

- for masts, containers and smokestacks installations,
- to install or locate a structure that is not considered as a building,
- if the action has an impact on nature, townscape or landscape or on the use of surrounding land areas,
- for activities altering the appearance of a building when a building permit is not required,
- for rearrangement of dwellings in a residential building,
- for changing the colour of facades and etc.

The most common activities that may require the active permit are the construction of the jetty, installation of the antenna, changing the facade of the building (for example, the shape of the roof of buildings, colour, building material). The construction of fences may also require an active permit, it depends on the location of the fence. Property owners are entitled to erect a fence on the boundary of their property, unless otherwise stipulated in the local detailed plan or the building ordinance, or decided by the local building supervision authority (Land Use and Building Decree §82). In the Finnish traditional style it is not generally accepted to build a massive fence.

According to Finland's water legislation, water permits are required for all activities affecting constructions in water. These activities include the construction of jetties, bridges, dams, waterways, log-floating routes, drainage ditches, canals, weirs and sluices. During the construction near the water body the regulations of the Water Act should be taken into account in addition to the basic rules of construction.

The local building regulations may provide a simplified procedure for getting active permits if the activities are small. For each of the activities an authority notification can be used in some cases instead of the required active permit.

6.3 Landscape work permit

Earth works, tree-felling or corresponding action altering the landscape may not be carried out without a permit in areas:

- covered by a local detailed plan,
- covered by a local master plan, if the plan so stipulates, nor
- where a building prohibition is in force for the purpose of drawing up a local detailed plan or a local master plan.

No permit is required to carry out work that is in accordance with a building or action permit that has been granted, or to take action that has only minor impact. (Land Use and Building Act §128).

6.4 Deviations

Depending on the situation, a right to deviate from the permit may be granted by two different authorities, by the local building authorities or by the regional environment center (Land Use and Building Act §171). Nevertheless, the law provides certain exceptions when the right to deviate may be granted only by the regional environment center. These cases are as follows:

- construction of a new building in a shore area where the plan is not in force,
- greater than minor deviation from the gross floor area permitted in the local detailed plan,
- deviation from a plan regulation on the conservation of a building, or
- deviation from a building prohibition issued for the purpose of approving a local detailed plan (Land Use and Building Act §171).

The local building authority makes decisions in other special cases.

A special permit is usually requested on matters relating to the powers of the regional environment center, for example, a deviation from the requirements of the local detailed plan, the construction in a shore area or in respect of a building prohibition. The grant of special permission for the deviation from the established regulations requires the availability of specific reasons set forth by the applicant and evaluated by the authority. Special reasons may be different. In practice, the most common causes are deviations from the building regulations, such as building height, distance from neighbours, etc.

The deviation must not:

- impede planning, the implementation of plans or other organization of land use,
- hinder the attainment of the goals of nature conservation, or
- hinder the attainment of goals concerning the conservation of built environment (Land Use and Building Act §172).

Before a matter concerning deviation is resolved, neighbours and others on whose life, work and other circumstances the project may have significant impact must be given at least 7 days to enter objections. The notification may be sent as an ordinary letter (Land Use and Building Act §173, Land Use and Building Decree §86). When the deviation has substantial bearing on land use in a neighbouring municipality, its opinion must also be obtained (Land Use and Building Act §173).

The deviation decision is sent to the applicant, to those who have entered an objection in the matter and to different authorities (Land Use and Building Act §174). The charge issuing a permit may be different in different municipalities (it is about 200 €). A favourable decision of the regional environment center costs 390 € and negative decision costs 190 €.

The local building supervision authority may grant a building permit in the case of minor deviation from provisions, regulations, prohibitions and other restrictions concerning buildings (for example, building height, floor area, etc.). In addition, minor deviation from the technical and corresponding requirements

of a building requires that the deviation does not set aside the essential requirements of the building (for example, fire safety, sanitary code, insulation, etc.) (Land Use and Building Act §175).

7 PREPARATION FOR CONSTRUCTION

There are several questions that should be considered before construction works are begun. Firstly, questions about accessibility to the site should be clarified. The delivery of building materials is impossible without a road. Also before construction the site should be prepared properly. Special attention should be drawn to getting a permit for tree-felling. When the site is ready for construction an initial meeting is held. Main issues concerning the construction and allocation of responsibilities are cleared up. Each issue is considered in a more detailed way after this.

7.1 Roads

When purchasing a site it should be taken into account how a road to it is organized or can be organized (Figure 7.1). If the site is located inside the local detailed plan, passage is available as a rule. The road should be carried to each site, this is due to the need for the approach of public services, ambulance, and the possibility of the delivery of building materials during construction.



Figure 7.1 Making a decision how a road can be organized

In practice access to a site can be organized by public (government) road, municipal road, other private road (co-operative road) or by means of the construction of a new connection. The new connection requires a permit.

Government roads are available for all participants of road traffic. Maintenance of such kind of roads is provided by National Road Service. Municipalities are responsible for designed streets located in their territory. Private roads are roads that are maintained by property owners and other road partners. Road partners are obliged to participate in the building and maintenance of the road according to the benefit each derives from the partnership. The benefits are calculated depending on the land area along the road, the estimated amount of transport and the business landowner is conducting along the road.

The application for getting a permit for road connection may be submitted or sent by post or e-mail to any office of the road administration. The application should include at least the following information:

- personal information about the applicant,
- supposed place of connection,
- purpose of connection (permanent residential house or summer house).

The permit application process is shown in Chart 7.1.

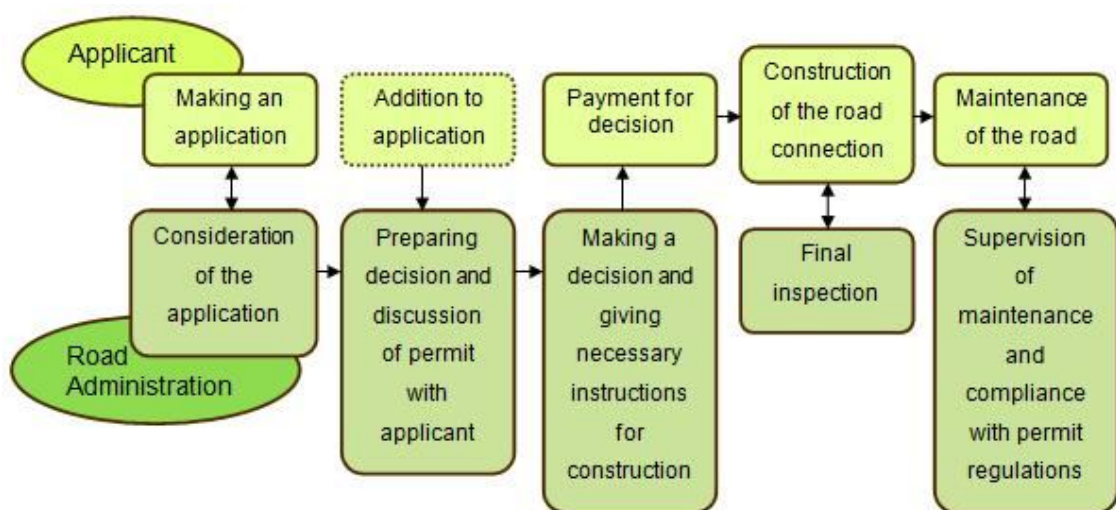


Chart 7.1 Permit application process

The application for granting a permit is considered by Road Administration. The new connection to the chosen place should provide functional access and safety. Road Administration makes a decision if such kind of connection is possible and whether better solutions exist. Local circumstances are also examined by Road Administration and in some cases necessary additional information is required from the applicant. A positive conclusion contains attached instructions for construction and maintenance as well as restrictions (for example, certain type of traffic) or setting a deadline for construction or use of connection. The validity of the permission is usually a 1-2 year period. The permission is granted for the purpose of use, which was mentioned in the application, therefore if it changes substantially a new permission should be applied. The decisions of Road Administration are chargeable. A positive permission for a private road costs 106 €, denial fee is 22 €. The construction of the connection is inspected and a supervisor checks if it complies with permit regulations. (Liikennevirasto).

If the appropriate use of property requires a passage through another property and it does not cause significant harm to anybody the landowner of the property is entitled the right to use another party's territory (Private Roads Act 358/1962 §8).

7.2 Cleaning-up

The clearing-up of the site and tree-felling are carried out at the stage of the preparation of the building site. The developer must take into account such requirements as the burning of brushwood, as well as seasonal warnings of the fire hazard in the forests and danger of grass fires in the spring. During these periods, open flame in the territory of settlements (inside the local detailed plan) is prohibited. In sparsely populated areas (outside the local detailed plan) neighbours should be notified about the firing. (Russia Services).

In the area of human settlements special attention should be drawn up to the location of trees and buildings on adjacent land plots. A landscape work permit is required for tree-felling. It is recommended to hire skilled workers for

tree-felling to avoid damage from falling trees. In the shore zones a certain number of trees should be left. Within the local detailed plan underground communications and electric cables location should be found out from the local power supply companies.

7.3 Initial meeting

Site manager notifies the building supervision authority of the commencement of construction work.

An initial meeting is to be on the building site before construction work begins. The initial meeting must be attended at least by the party undertaking the project or its representative, the main designer of the building, the site manager and the building inspector. The initial meeting is recommended to be held beforehand to identify the need of additional information to provide it in good time without the delay of construction. The obligations of the party undertaking a building project, as defined in the permit documents, key parties to the design and construction work, persons responsible for the various stages of construction and persons who carry out inspections of work phases, as well as other reports and measures intended to guarantee the quality of construction, must be noted and entered in a record. Official construction drawings must be available on the building site during the whole construction period.

After the initial meeting all participants involved into construction should know about:

- What will be done,
- Who will do what,
- When it will be done,
- Who will be a supervisor,
- Who will be responsible for different kinds of work,
- How will inspections be recorded,
- Where will documents be stored,
- Who will carry out quality control.

The construction can be started after obtaining a building permit and the start-up meeting. As it was mentioned pre-building (foundations) is possible with initial notification.

8 CONSTRUCTION

After all preparation procedures are carried out, the construction phase begins. The duration and costs of construction depend on the way of construction chosen by the customer. The easiest and fastest method is turnkey construction.

8.1 Construction process on a turnkey basis.

The building process of a wooden turnkey house can be divided into several stages. The first stage is the installation of a house foundation. The next phase is the installation of a bearing wall frame, the installation of a roof and floors. Depending on the volume of work, this step takes from 3 to 8 weeks. The installation of a roof is carried out according to the project and technical requirements of the roof of the wooden houses. The Duration of the roof installation is about 2-6 weeks. Finishing is the longest stage since it includes the installation of clean floors and ceilings, installation of stairs, mounting of windows and doors, as well as conducting all communications. Upon the completion of all work specified in the contract, the customer receives his wooden house. An act of acceptance of work is formed. The company undertakes the warranty of workload. The total construction time of wooden houses on a turnkey basis is in each case individual and depends on the volume and complexity of work. Roughly the construction of a wooden house of 300-400 m² on a turnkey basis takes 12-14 months. (Honka).

8.2 Supervision during construction

The local building supervision authority, based on the public interest, supervises building and ensures that the provisions and regulations are observed in building activities (Land Use and Building Act §124).

Supervision takes place at the stages of work and on the scale decided by the authorities, and focuses on aspects that are significant to achieving a satisfactory end-result (Land Use and Building Act §149). The quantity of inspections is indicated in the building permit. It starts from 3 upwards. In practice, the scale of supervision depends on local building supervision authority, degree of difficulty of the building project, professional skill of people responsible for the planning and implementation, area of a house and other factors influencing the need for supervision. The most general inspections during the construction of a Honka house are examinations of plot, foundation, frame and networks.

After the inspection of reinforcement and foundation works, the correct location of a building on the site and its height position are checked in accordance with the project. Drainage system, derivation of ground and surface water are also examined. Where necessary, the outlet pipes, preventing hit of radon gas in the interior of the building, are laid. The inspection of the frame is carried out right after its erection before loading structures will be hidden. As the works on the installation of engineering systems advances, the responsible site manager invites the inspector for the formal acceptance of water and waste water systems. The closing of pipes or equipment is forbidden prior to the inspection. The results of the inspection of water and waste water systems are recorded in the protocol, which is presented to the building inspector during the final supervision. The inspection of electrical equipment before implementation is carried out by a skilled electrician. He also makes the report of inspection and the final drawings. The inspection of chimneys is carried out to verify the fire safety of the building. The check-up is executed by representatives of fire supervision authority only or often together with the building inspector.

The local building supervision authority also takes charge of general steering of the building and related advisory services needed in the municipality (Land Use and Building Act §124).

The local building supervision authority may allow the supervision of construction, excluding that of a residential building, to be assigned to the developer in accordance with an approved supervision plan. When approving a supervision plan, the building supervision authority decides where supervision by the authorities is not required (Land Use and Building Act §151). A developer spending a lot of time abroad is recommended to hire an assistant-inspector, who would represent his interests and carry out inspections on the site.

8.3 Deviations during construction

The building inspector may grant an approval for the deviation from the approved design during the process of construction unless the nature of the deviation and the provisions and regulations in the permit consideration require substantial amendment of the plan and the deviation affects the interests of neighbours. Any amendments approved during the course of construction and the approving official must be indicated on the drawings. Inspected drawings must be submitted to the local building supervision authority before the final review (Land Use and Building Decree §79).

9 SERVICES

One of the most important stages during construction is providing the house with electricity, water and sewage. The Honka company carries out designing, delivery and installation of all engineering services on a turnkey basis. The company includes design, assembly and transport departments that allow carrying out all-inclusive service from design to delivery, installation and adjustment of offered equipment. Solving matters related to engineering

systems, the Honka company gets qualified contractors involved in the work. The customer also has an opportunity to choose contractors himself.

9.1 Electricity

Power supply is already required at the stage of construction in all cases without exception, and the possibility of power supply should be found out as soon as possible. Power supply can be organized in different ways (Figure 9.1).

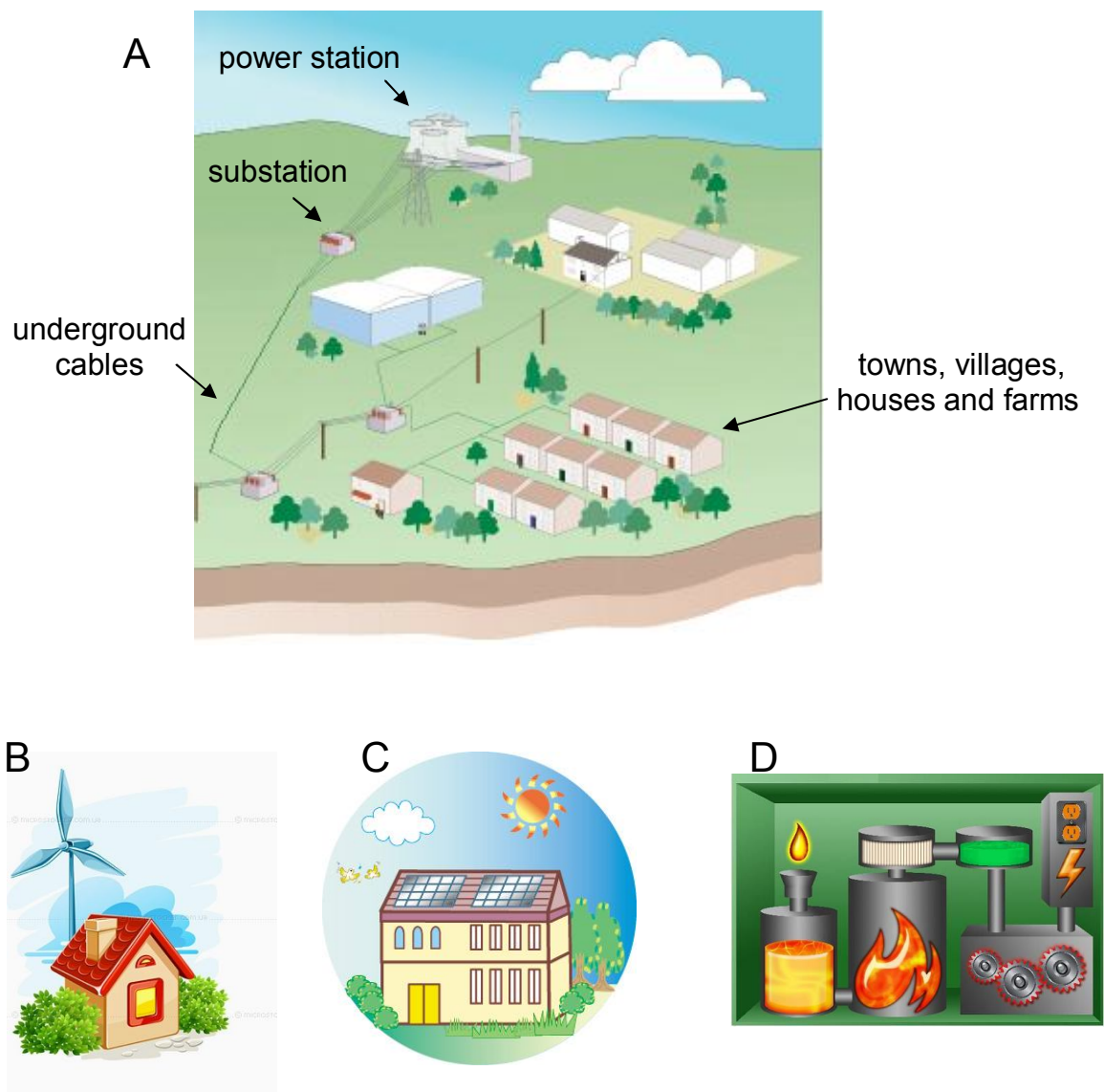


Figure 9.1 Different kinds of power supply

A – underground electric lines, B – wind-powered turbine, C – solar panels,

D - generator

If the building site is located near a power line, the facility will be connected to the electricity network after the conclusion of the contract on electricity, usually within 3 - 7 weeks. If the building site is located far from the power line or substations, the landowner has to order the construction of a line himself. The cost may be huge, and the connection time may take several months. The owner should contact the local electric power supply organization to clarify the possibility of providing with electricity and the costs. Also in the municipal authorities information about the supply organizations can be obtained.

The electricity connecting charge consists of two parts:

- payment for a connection to a power company,
- payment for the work of a specialist directly executing the connection.

Both payments can vary in size, the connection typically costs 2500 – 5000 €, and the cost of works varies from 3000 € to 25 000 € and depends on the distance from the site to the nearest substation. These works are forbidden to be carried out by yourself, a licensed firm is required. An authorized electrician will extend an electrical cable to the house and set the switchboard, then the supply energy company will connect electricity.

Alternatively, the construction of a small wind-powered turbine, the installation of solar panels or a generator that runs on gas or diesel can be considered. Energy from solar panels is enough to illuminate the house and a television set. Generators provide enough electricity for all devices in the home, including a refrigerator.

The determining factors for the selection of the electrical system are the builder's needs of electricity and the costs. Certainly costs can be reduced teamed up with other owners of land located nearby.

9.2 Water

If a residential house is erected on the territory included in the local master plan, the municipality has already built a municipal water system. The owner or occupier of a property is responsible for its water services. A contract on connecting a property to the network of a water supply plant or supply and use of the services of a plant must be made in writing or electronically.

The owner or occupier of a property to be connected to the network of a water supply plant is responsible for the water supply equipment of the property up to the connection point. A connection charge should be taken into consideration when a budget of construction is counted. The payment for water consumption is made according to municipal taxes, which each municipality sets on their own (40 - 70 € per month). Information about availability, cost and responsibility concerning connecting the house to the municipal water system can be found in the local authorities.

If a house designed for permanent residence is built on the sparsely populated area, or a cottage is located in a hard-to-reach place, for example, on an island, the question arises how to provide the house with water. When the connection to an existing municipal water supply is impossible, the decision about water supply should be made in compliance with the actual water needs and the value of the construction cost.

An alternative problem solution is the construction of the owner's well or borehole or one shared with neighbours. In concordance with Finnish laws the owner of land has the right to dig his own well, if it is not harmful for the environment. The quality of soil, water content and water quality are determining factors for the choice of well. Basic information about water quality can be obtained from the health inspector in the municipality.

The well constructed of reinforced concrete rings is cheaper than drilling a hole (both variants are shown in Figure 9.2). The cost of drilling holes for water is approximately 8000 - 15000 €.

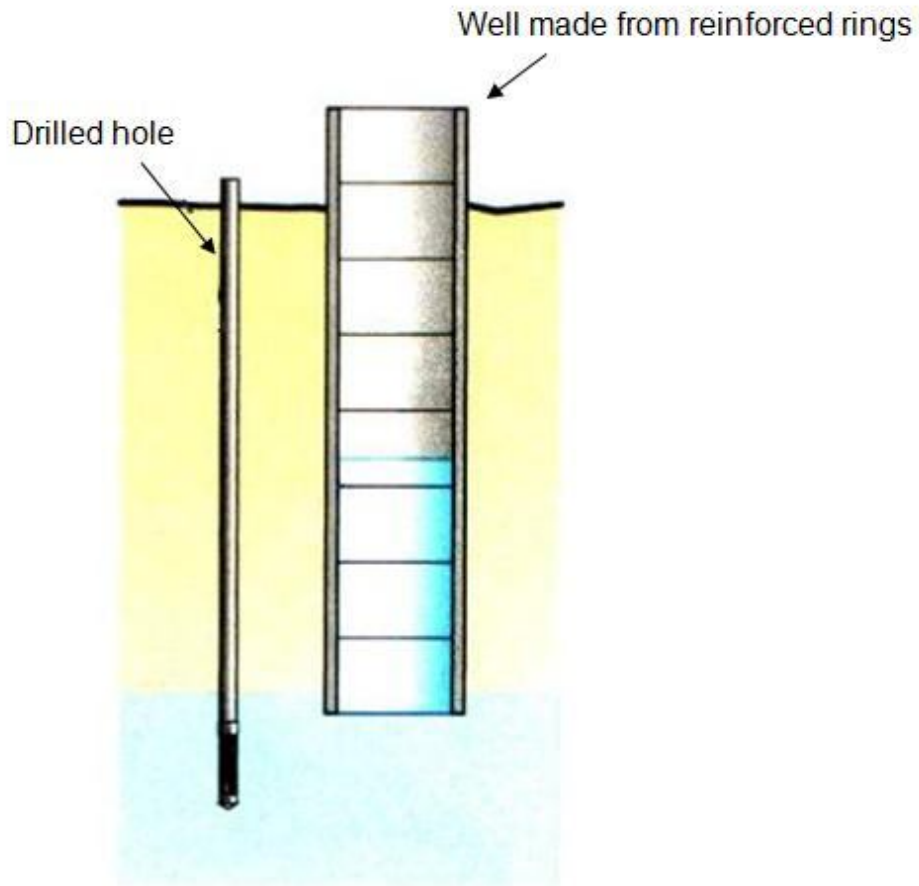


Figure 9.2 Borehole and traditional well

The depth and diameter of the drilled hole depend on the hydrogeological conditions, method of drilling and required purity of water. A well made of reinforced rings is a more traditional method of water supply. Concrete rings for wells are produced in a large range.

The way of water delivery can be different depending on the client's needs. If the amount of required water is not big, water can be driven up manually (Figure 9.3 A), by pump operated manually (Figure 9.3 B) or by usual pump switched on with a button without a holding water system to house (Figure 9.3 C). In summer houses (intended for living during 4 months per year) water supply can be organized with a street pump, switched on with a button. In case

of greater water consumption water from wells or boreholes is driven up to the house by a pumping station (a powerful pump, which maintains a constant pressure of water in the pipes, shown in Figure 9.4).

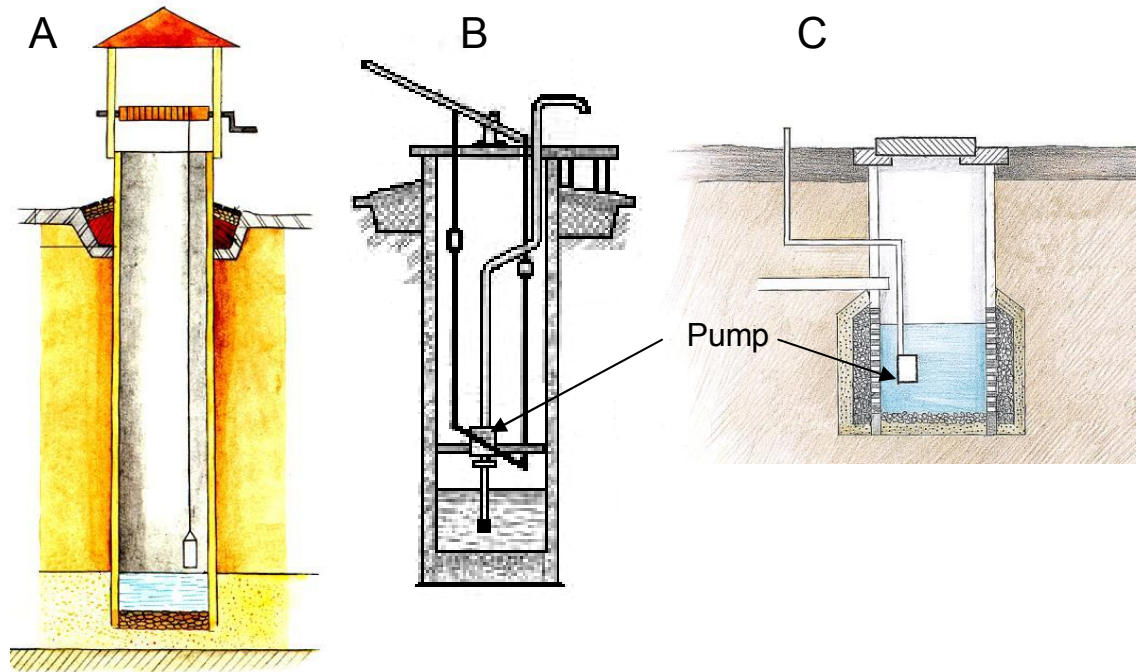


Figure 9.3 Ways of water delivery: A – manually, B – by pump operated manually, C – by pump switched on with button

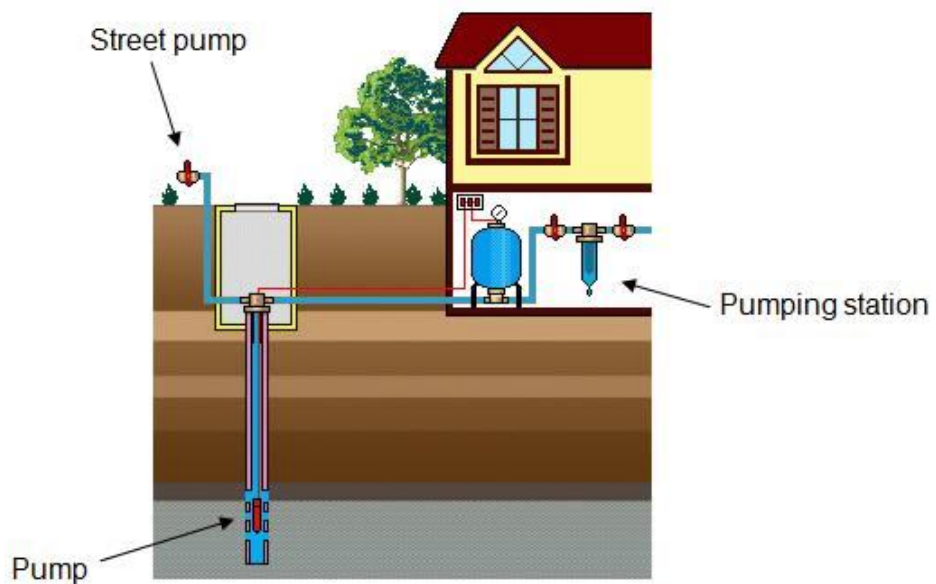


Figure 9.4 Pumping station

In Figure 9.4 automatic water system is shown. This system can be used year round. The reason for it is a special caisson above the hole which is installed to avoid freezing. This caisson can also be used for the arrangement of necessary equipment to provide required pressure. The caisson is usually made of 1 – 3 concrete rings and provided with heat insulation if necessary. A pump drives up water from wells. It has a special backwater gate. The water comes into the house by pipes. A storage reservoir makes the pressure in the system when the pump is switched off.

“Water Act” also provides an opportunity to take water on land belonging to another person, if another way to get water at a moderate cost is impossible. In this case the permission of the environmental center and permission of the landowner are required.

Regardless of the kind of water supply, additional filters may be required.

9.3 Waste Water

The Government Decree on Treating Domestic Wastewaters in Areas Outside Sewer Networks 542/2003 came into force on 1 January 2004. This Decree sets minimum requirements for wastewater treatment in rural areas as well as standards for planning, construction, use and maintenance of treatment systems. All the new buildings (built after 1 January 2004) should fulfil the requirements of the Decree immediately; the building supervision and environmental protection authorities will control this at the same time when the building permit is considered. Old wastewater systems have to fulfil the requirements before 1.1.2014. If only very small amounts of wastewater are generated, some exceptions may be granted on a case-by-case basis and it will be permissible to release 'grey waters' from kitchen and bathroom into the ground in an untreated form. However, this wastewater may not represent any pollution risk or contain toilet water. According to Finland's Environmental Protection Act, wastewater in areas not connected to any centralized sewerage system must be treated so that it does not pollute the environment and there is no risk of pollution.

The choice of the sewage treatment method depends on the following factors:

- limits and regulations given by municipal environmental authorities (municipal environmental protection regulations, municipal development programme for water supply and sewerage), other related legislation, village zoning plans,
- location (distances from wells, shores, groundwater aquifers and neighbours),
- soil type,
- the size of the usable area for the treatment system,
- time of use (only summertime and holidays or all year round),
- number of users,
- method of water supply, type of closet (separate or joint treatment for toilet and washing waters),
- how much time and efforts the owner is ready to put into maintaining and servicing processes,
- economic factors (long-time perspective).

It is recommended that homeowners seek professional consultation and help in planning and construction especially if the owner is not familiar with treatment methods and related legislation. Municipal environmental authorities and regional environment centres can help in obtaining more objective information for different solutions.

In deciding to permit the construction of a new real estate the local building supervision authority assesses whether the project of wastewater satisfies the Decree. The building permit is issued if the wastewater system has been approved. The building inspector controls the project during implementation and checks if the house owner has an operating instruction and system service manual. In some municipalities, verification is carried out by the Environmental Protection Center or water supply company.

Whenever possible it is recommended that the building should be linked up to the sewer network system. The sewer system can be maintained by a municipality or a private water cooperative society. However, long distances to the sewer system or some geographical obstacles may give rise to

unreasonably high costs. The maintenance and use is very simple and easy for the house owner. The costs of the network can be divided between many owners and also some financial support can be applied for construction. The centralized method causes no pollution risks for local wells or groundwater.

The joint sewer system can be arranged for a village or a couple of households (up to 50 people). Many commercial solutions are available. All the costs (establishment, maintenance and operating expenses) will be divided between partners. However, the positions of interested parties, the distances between these sites, the geographical forms and soil types may limit the setting of the system.

If it is not possible or relevant (for example due to high costs) for a building to join a centralized sewer system nor be a part of any other cluster system, then there is a variety of available onsite wastewater treatment systems. The following table 9.1 contains examples of wastewater treatment methods at summer cottages with different standards of equipment.

Table 9.1 Wastewater treatment systems (www.environment.fi)

Standard of equipment	Appropriate treatment method	Remarks
<p style="text-align: center;">Dry toilet + Water carried in and out (buckets and washbasins)</p>	<p style="text-align: center;">Such small amounts of wastewater can be thrown directly onto the ground, e.g. to a flower bed</p>	<ul style="list-style-type: none"> - Be sure that the washings do not run directly down to a water body - Don't throw washings on the ground near to a well - Use environment-friendly detergents - Food scraps belong to the compost bin. If you do not have a composter, use the waste container.

Standard of equipment	Appropriate treatment method	Remarks
<p>Dry toilet + Water carried or pumped in manually + Washings conducted out through a sewer (kitchen sink, washbowl)</p>	<p>Permeable ground (e.g. gravel, sand):</p> <p>Small settling tank (200-300 litres) + simple soil infiltration system (e.g. pipes with holes or infiltration through the bottom of a specially made tank)</p>	<p>- Self-made treatment systems are OK but there are also factory-made systems appropriate for use at a summer house.</p> <p>- Empty the tank once every summer. Do not bury the sludge into the ground, compost it!</p>
	<p>Aquifer areas or non-permeable ground (e.g. bedrock):</p> <p>Factory-made device, e.g. a greywater filter planned for use at a summer house</p>	<p>More information on available greywater filters can be obtained from consults and vendors and from municipal environmental authorities</p>
<p>Dry toilet + Tap water</p>	<p>Permeable ground (e.g. gravel, sand):</p> <p>Primary settling in a double settling tank + soil infiltration or Primary settling in a double settling tank + sand filtration</p>	<p>Subsurface wastewater disposal systems (infiltration or filtration plants) require a sufficient ground area (20-30m²), sufficiently far away from wells and shores</p>
	<p>Groundwater aquifer area or non-permeable ground (e.g. bedrock):</p> <p>Treatment without infiltration into the soil (e.g. sequencing batch reactor plant or biofilter) or Primary settling in a double settling tank + sand filtration (NOT soil infiltration!)</p>	<p>- Treatment plants require regular maintenance and service. In several plants, the treatment chemical must be added regularly.</p> <p>- Long absence from the summer house may weaken the treatment efficiency. Several treatment plants work normally in regular use only.</p> <p>- If the summer house is far away from population center, the service costs may be high due to long distances</p>

Standard of equipment	Appropriate treatment method	Remarks
Water closet + Tap water	The wastewater treatment system should be selected together with an expert. The choice may be restricted by the regulations of town plans and municipal environmental authorities	- If the summer house is far away from population center, the service costs may be high due to long distances - The road to the summer house must be accessible for heavy transport equipment

When only small amounts of water are handled in the location and there is a dry toilet, then it may be possible to transfer washing waters simply to the ground through a concrete sink ring or stone drainage. This is often the case in many summer cottages, which do not have any water pipes or pumps and all the waters used have to be carried into the house manually. A dry toilet can be installed in a separate building outdoors (the usual case in traditional summer cottages) or indoors. Modern dry toilets are comfortable and odourless when properly used, there are many different models and designs available on the market.

In better equipped houses (with water pipes) where the use of washing waters is higher, it is required that at least a one-stage septic tank has to be installed as a pre-treatment before the efflux enters the leach field (Figure 9.5).



Figure 9.5 A leach field (www.uponor.fi)

The system shown in Figure 9.5 is an effective solution of modern wastewater treatment. If this system is used only for the treatment of grey water a leach field should be approximately 8 meters long and a one-stage septic tank is required. The width of the trench must be at least 0.6 meters, depending on the penetration ability. Before the installing of the system the soil permeability should be tested.

In the case of a water closet there are two possible options of wastewater treatment: toilet waters transferred to a cess pool and separate treatment of washing waters (Figure 9.6) and connected treatment systems for all the household wastewater (Figure 9.7).

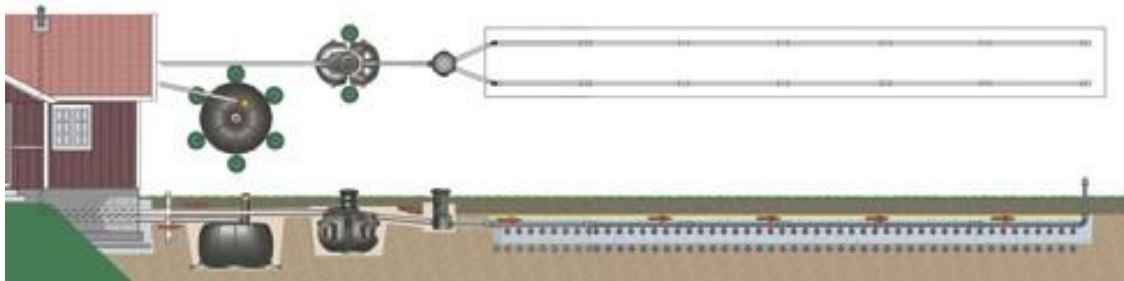


Figure 9.6 Solution in which toilet waters are led to a cess pool and washing waters to a sand filter (www.uponor.fi)

The system shown in Figure 9.6 is used, when toilet waters are led to a cess pool, it is possible to treat washing waters separately with a leach field or sand filter or package plant. The leach field is a suitable treatment for washing waters if the soil is sufficiently permeable, but not too permeable. It exploits the soil's natural purification capacity (natural microbiological processes). Wastewaters are lead through a two- or three-stage septic tank to the leach field.

If all the wastewaters emerging from a household will be treated in a combined manner, then the septic tank for pre-treatment should be a three-stage tank (Figure 9.7).

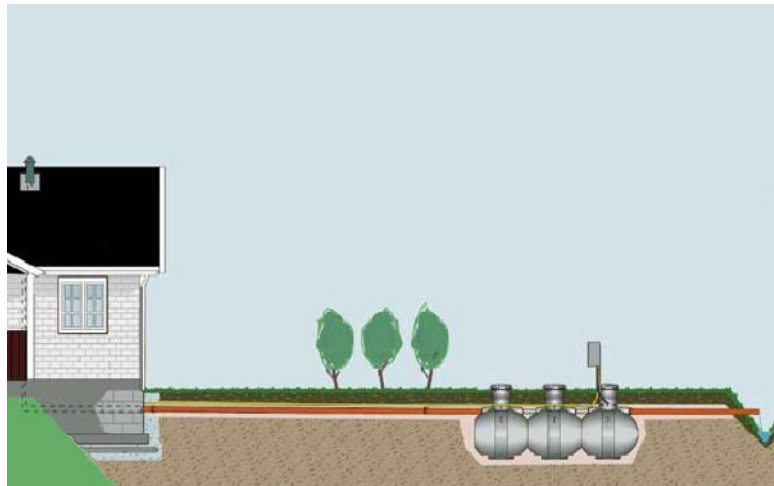


Figure 9.7 Solution in which toilet waters and washing are treated together
(www.uponor.fi)

The system shown in Figure 9.7 consists of sewage sedimentation tank, tank and process control unit. Purified water can often be led directly into the ditch, and the demolition pit is possible. Such kind of a system can be used not only in summer houses, but also in detached houses all year round.

In Table 9.2 approximate cost of the various ways of wastewater treatment are presented (<http://www.laatumaa.com/binary.aspx?Section=106&Item=718>).

Table 9.2 Approximate cost of the various ways of wastewater treatment

Way of treatment	Cost	Annual costs for service
Settling tank	600-1500 €	140-200 €
Soil infiltration	3000-5000 €	140-200 €
Sewage treatment plant	3000-7500 €	200-500 €
Cesspool	1500 € <	500-3000 €
Municipal sewage	3500 € <	500 € <

It is obvious that the requirements for wastewater systems and the costs increase as soon as the house is provided with tap water and especially with a water closet. The most expensive systems also require constant maintenance

and emptying, which increases operating costs and may require the construction of a good road.

Bathwater from a sauna should never be conducted directly into a water body. If the amount of bathwater is small, the wastewater can be conducted, e.g. by pumping, to a place that is sufficiently far away from the water body, and infiltrated into the ground. If this is not possible, sauna bathwater must be treated like other wastewater, that is, a reliable treatment system must be constructed.

10 IMPLEMENTATION

The building or its part must not be taken into use before it has been approved for use in the handing-over inspection. Inspections that are based on legislation other than the Land Use and Building Act (132/1999) and that have substantial impact on the building's safe use should be conducted before the final inspection. When applying for a final inspection, the building's instructions for use and maintenance, if such have been required, must be sufficiently complete and ready to be handed over to the owner of the building (Land Use and Building Act §153).

10.1 Building maintenance book

The use and maintenance instructions should contain the information required for the appropriate use of the building and for the performance of maintenance duties, taking into account the building's intended use (Land Use and Building Decree §66). The initial information on the care, maintenance and upkeep, as well as the goals, tasks and guidelines issued to the inhabitants and users of the information are compiled in the maintenance book. The use and maintenance guidebook has details of the lifespan aims of the building parts and facilities, their up-keep stages and the programmes for inspection and maintenance. The use and maintenance guidelines for buildings intended for

recreation and temporary residence are not required, although recommended. The existence of such instructions may be essential for a foreign developer.

10.2 Final inspection

At the handing-over stage the building is checked to see whether it has been built in accordance with the plans and operates in the intended way. When the construction is completed, the final inspection is held. The participants of this inspection are the municipal building inspector, a representative of the contractor, the site manager and the developer. During the final inspection the site manager shows to the building inspector the certificate of water and sewage systems, the certificate of the inspection of electrical equipment made by the contractor and other reports provided by the building permit. The prerequisite for the handing-over inspection is that the building work has been completed, that all parts of the building can be taken into use, and that the inspections that have been prescribed and regulated in regards to authority supervision, as well as their required actions, have been undertaken.

After the final inspection the building is considered as completely ready for operation, if during the inspection nothing else has been revealed. The warranty period starts from this moment.

The handing-over inspection must always be applied for at a time when the building permit is still valid.

10.3 Defects liability period

After the final inspection the user moves into the new facilities and the maintenance organization takes the building into its care. In the early stages of the activity it is verified that the users learn how to use the equipment and the facilities. The building is observed in order to ensure that it works in the intended way. When the defects liability period comes to an end the guarantee period inspection is held.

Measures during the defects liability period:

- to ensure that the works that have been agreed upon in the handing-over inspection have been carried out in a proper manner,
- the work period guarantee is changed to liability period guarantees,
- user-information is gathered about shortcomings and other observations during the defects liability period.

Measures after the defects liability period:

- measures caused by the continued guarantee are dealt with,
- tasks of the feed-back systems are dealt with,
- the operability of the unsecured guarantee is supervised.

11 SUMMARY

In Finland the construction process is rather complicated for foreigners. A person, who starts the construction of a summer house or a detached house, is required to ensure the fulfilment of Finnish building rules and regulations, as well as the conditions for obtaining a building permit. According to the Land Use and Building Act, construction must in any case comply with good building practice.

Good building practice includes, for example, compliance with government regulations, the use of appropriate materials, taking into account the environmental aspects and the high quality of work.

The planning of the construction process is a precondition for a successful completion of a project. The planning should be carried out at all stages of the construction process beginning from a plot purchasing. This is due to the fact that the building right is determined individually for each site. Customers should understand that they cannot build whatever and wherever. Each step should be approved by local authorities.

During construction, the developer have to solve a lot of problems, such as obtaining permits, making applications, sending requests, inviting tenders for a contract, communicating with officials and observing the laws and regulations. Also the construction of a summer or detached house requires time. Therefore, the customers who have not a permanent place of living in Finland will have some problems with the monitoring of construction. It seems to me that the easiest way of getting real estate in Finland is construction on a turnkey basis. The range of commercially available prefabricated houses is very wide and sellers of these homes provide assistance in planning and construction, for example Honkarakenne Oyj renders such services. In this case the customer only waits for the fixed data, when the house will be ready and keys can be obtained. Undoubtedly it is not the cheapest way. Nevertheless, practice shows that 80% of the customers chose this method. Each customer makes a decision by himself about what is more important to him: money or energy and anxiety.

At first sight the Finnish legislation related to construction is too strict. The reason for it is an attempt to save nature and natural resources and create a favourable living environment. It is precisely the fact that explains the willingness of foreign customers to have real estates in Finland. About 30,000 new homes have been built every year in recent years and summer houses and residential houses for permanent living are still in high demand among foreign customers.

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