Regulations concerning to the construction

Rules and prescriptions

Hierarchy of law

Regulations in construction

Standards

Controlling
WHAT KIND OF REGULATIONS ARE APPLIED?
WITH WHAT PURPOSE?

planning  material
protection
standards  construction

WHAT KIND OF REGULATIONS HAVE YOU GOT
AT YOUR HOME COUNTRY?

planning  material
protection
standards  construction
ARCHITECTURAL PLANNING PROCESS
WHAT IS REGULATED?

Limitations:
• building height
• gross built area
• minimum green surface
• functional limitations – building areas

Technical requirements:
• use performances (light, air, etc.)
• energy consumption
• endurance requirements
• material quality

Heritage protection
• world heritage sites
• national listed monuments
• local listed buildings
• protected heritage area

Safety rules
• fire protection
• safeguarding
• work and use safety
• load bearing capacity
• weather resistance

Process
• documentation requirements
• process protocol

LIMITATIONS

Limitations:
• building height
• gross built area
• minimum green surface
• functional limitations – zones of utilization
  • urban (U1-U1)
  • industrial
  • agricultural
TECHNICAL REQUIREMENTS

use performances
• light (windows, artificial light)
• air
• stairs
• room areas
• universal design (for disabled people)
• parking spaces
• standards for utilization (special functions)

material quality
(performance)
• certified product (by the producer / supplier)

energy consumption
• heat insulation
• thermal envelop
• building installation system
• energy consumption of the building/
of the equipment /
of the production of the applied material

PROCEDURE FOR BUILDING CONSENT

documentation requirements
• What kind of documentations are required? In what form?
• What kind of consent/permission are required?
• What kind of drawings are required? In what form?

process protocol
Which authority is responsible for what?
What institutes/offices have to be involved?
What is the prescribed timing?
What are the cost?
Who is responsible for the controlling?
SAFETY REQUIREMENTS

- fire protection
  - materials
  - structures
  - fire extinguishing equipments
  - emergency evacuations

- work and use safety
  - health protection
  - built environment, ergonomics

- load bearing capacity
  - standards

HERITAGE PROTECTION

- UNESCO
  - world heritage sites

- national listed monuments

- local listed buildings

- blue shield
  - (protected even in case of war)

- protected heritage area

- partial protected
2 REGULATIONS FOR ARCHITECTURAL PLANNING IN HUNGARY (EXAMPLES)

acts e.g.:
• 1997 LXXVIII. Act – On the build environment
• 2001 LXIV. Act – On the protection of the cultural heritage

governmental orders e.g.:
• 253/1997 governmental order – On the national requirements of construction and shaping of settlements

ministerial orders e.g.:
• 37/2007 Order of the Ministry for Authorities – On the procedures of the local authorities and the content of the architectural documentation
• 28/2011 Order of the Ministry for Home Affairs – On the regulation of fire protection

local orders e.g.:
• 47/1998 Order of the General Assembly of Budapest City – On the frame regulations about the building process and the urban shaping of Budapest

2 REGULATIONS FOR CONSTRUCTION PROCESS

Technical requirements:
• environmental requirements (waste management)
• use of standards

Safety rules:
• fire protection
• work safety
• environment protection

Process
• documentation requirements
• process protocol
• protocol of controlling
CONSTRUCTION PROCESS
(technical requirements)

construction management
• environmental requirements (lifecycle of the applied materials)
• temporary structures (standards, duration)

material quality
• use of standards
• certifications
• performance

documentation requirements
• construction logbook
• to provide certifications by the producers or the suppliers
• statement of completeness
• permission of use

process protocol
• tender
• contract
• site arrangement – territories of responsibility
• cooperation with quality surveyor/client/architect
• hand over process

control protocol
• application of standards
• controlling methods
• quality surveyor
• to demand certifications from the producers or the suppliers
SAFETY REGULATIONS CONSTRUCTION PROCESS

environmental tasks
• treatment of chemicals / waste management

work safety
• protective equipment - PPE (mechanical/chemical harm/radiation)
• organizational tasks (site management)

fire protection
• on the site

REGULATIONS FOR CONSTRUCTION PROCESS IN HUNGARY (EXAMPLES)

acts:
• 1997 LXXVIII. Act – On the build environment
• 2001 LXIV. Act – On the protection of the cultural heritage
• 2011 CVIII. Act – On the public procurement

governmental orders:
• 191/2009 governmental order – On the construction process
STANDARDS

DEF.:

A technical standard is an established norm or requirement. It is a formal document that establishes uniform engineering or technical criteria, methods, processes and practices.

HIERARCHY OF STANDARDS

- for a product
- for a procedure

international standards

national standards

local standards

CE, EN

ANSI, NS, TSE, SA, MSZ, DIN, ON, BS

Guidelines (used by a group of company)

company standards
3 Standards

CITATION OF THE STANDARDS
in regulations

• in general -> all the concerning standards are prescribed

• with name -> a specific standard (the latest version) is compulsory

• with name and date -> a specific standard (the cited version) is compulsory

3 Standards

THE PRINCIPAL OF APPLICATION OF STANDARDS

• the use of the standards is elective – BUT only positive alteration is accepted

 to ensure the chance for development
STANDARDS OF THE EUROPEAN UNION

National standards

Have to be harmonized with the EU regulations (standards)!

If there are a harmonized standards and it is applied, the conformance mark can be applied...

...on the market in the European Economic Area (EEA)

CONFORMANCE MARK

CE = conformance mark

The manufacturer on his sole responsibility declares, that the product met the EU consumer safety requirements.

Building construction

The building is met with the EU consumer safety requirements if all used material is met with the EU consumer safety requirements:

are marked with CE marking.

or

are uniquely certified.
UNIQUE CERTIFICATIONS

International certifications e.g.:

ETA = European Technical Approval
in the basis of ETAG = European technical approval guideline
by EOTA = European Organization for Technical Approvals

National certifications e.g.:

EME = Építőipari Műszaki Engedély
(Hungarian national certification by the ÉMI institute)

CONTROLLING PROCESSES

<table>
<thead>
<tr>
<th>participant</th>
<th>controlling process</th>
<th>controlling aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>client</td>
<td>quality surveyor</td>
<td>every aspect</td>
</tr>
<tr>
<td>designers</td>
<td>architectural supervision</td>
<td>aesthetical quality/accordance with the plan</td>
</tr>
<tr>
<td>contractor</td>
<td>daily controlling routine</td>
<td>every aspect</td>
</tr>
<tr>
<td>authority</td>
<td>before construction,after hand over</td>
<td>accordance with the plan</td>
</tr>
<tr>
<td>state</td>
<td>during the construction</td>
<td>every legal aspect</td>
</tr>
</tbody>
</table>

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INNER CONTROLLING PROCESS

- client
- project manager
- controlling by the contractor
- architectural supervision
- standards
- QMS
- quality surveyor
- aesthetic control
- accordance with the plans
- continuous control of the work
- continuous control of the company
- standards
- the activity is regulated by the law
- the activity is regulated by the law
- with the plans
- the plans
- the plans

QUALITY SURVEYOR

( supervisor )

The education, the competences and the activity of the quality surveyor is legally prescribed.

Education:

- intermediate education (+ 5 year practice)
- BSc or higher degree (+ 3 year practice)

+ 6 months education as quality surveyor - exam

Competences: trained in building construction and building law
QUALITY SURVEYOR
(duties)

1. ensure professionalism
   - control of the plans in accordance with the standards and the legal prescriptions
   - proposing alteration of the plan for the client, if it is technically or financially reasonable
   - control of the assignment of the building
   - ensure the prosecution of the prescribed tests (e.g. soil mechanics)
   - controlling quality prescribed by the standards

2. following and controlling the construction work
   - continuous control of the construction logbook
   - note all failures (deficiencies and faults) in the construction logbook
   - controlling hidden structures and volume of the completed work before getting covered (e.g. reinforcement)
   - control of the conformance of the applied material (CE, etc.)
   - controlling volume of the completed work
   - informs the client if the completed work is according to the contract (volume, standards, prescriptions, etc.) – (Is it suggested for the client to pay all the bills or not?)
   - take part in the hand over process
OUTER CONTROLLING PROCESS

Local authority

- building consent → compulsory site control involved into the procedure, before any construction work are performed

- permission of use → Compulsory site visit during the procedure (control of the fulfilled building – control all aspects, that have to be authorized)

State Construction Supervision

- permission of use → probable site visit during the construction process

SOURCES