OCCUPATIONAL QUALIFICATION STANDARD

Civil Engineer in Road Engineering, EstQF Level 6

An occupational qualification standard is a document which describes the set of skills, knowledge and attitudes, i.e. competence requirements, needed to successfully accomplish duties. Occupational qualification standards are used for compiling curricula and awarding qualifications.

Occupational title	Level of Estonian Qualifications Framework (EstQF)
Civil Engineer in Road Engineering, EstQF Level 6	6

Possible specialisation and titles on occupational certificate	
Specialisation	**Title on occupational qualification certificate**
Road construction and upkeep	Civil Engineer in Road Engineering, EstQF Level 6 Road construction and upkeep
Bridge construction and upkeep	Civil Engineer in Road Engineering, EstQF Level 6 Bridge construction and upkeep

Part A
DESCRIPTION OF WORK

A.1 Description of work

Civil engineers in road engineering act as specialists in the planning, design, construction, expansion, reconstruction and demolition of highways and streets, railroad embankments[1] and structures connected to roads.
A civil engineer in road engineering is tasked with developing technical solutions for road construction and the realisation of project solutions. In performing their professional duties, civil engineers in road engineering give consideration to social, economic, environmental, occupational health, occupational safety and ethical aspects, and work with specialists in related fields where necessary.
The following professional standards have been developed in the profession of civil engineer in road engineering:
- Civil Engineer in Road Engineering, Level 6
- Diploma Civil Engineer in Road Engineering, Level 7
- Chartered Civil Engineer in Road Engineering, Level 8

Civil engineers in road engineering at EQF Level 6 specialise in one of two areas:
1) Road construction and upkeep
2) Bridge construction[2] and upkeep
In addition to a specialisation, at least one of the following occupations must be chosen:
For road construction and upkeep:
a) Preparing road design documentation
b) Compiling traffic management documentation
c) Construction activity management (construction)
d) Construction management
e) Owner's supervision
f) Road upkeep
For bridge construction[2] and upkeep:
a) Preparing bridge design documentation
b) Construction activity management (construction)
c) Construction management
d) Owner's supervision
e) Bridge upkeep

Civil Engineer in Road Engineering, Level 6 is a specialist who is responsible for their own performance and that of others in the work group they manage.
The occupational qualification of Civil Engineer in Road Engineering, Level 6 entitles the bearer, on a statutory basis, to act as a competent person independently and at their own risk within the limits described as follows:

I MANAGEMENT OF (construction) ROAD CONSTRUCTION ACTIVITY, CONSTRUCTION MANAGEMENT AND ROAD UPKEEP
a) Highways which are expected to see up to 6,000 cars per day (the main route in the case of crossroads);
b) Streets which are expected to see up to 25,000 cars per day;
c) Roads without interchanges;
d) Wetlands up to 2 m deep;
e) Retaining wall embankments up to 2 m high;
f) Road subgrades up to 5 m high or hollow ways up to 5 m deep;
g) Culverts with a construction depth not exceeding 6 m from the boundary line;
h) Preparation of technical specifications for road works not requiring a building permit, no restrictions;
i) Pavement repairs at railway crossings;
j) Railway embankments which can carry rolling stock with a permissible axle load of up to 25 t and a speed of up to 120 km/h;
k) Railway embankments which may have:
- sloped railroad subgrades up to 6 m high;
- railroad subgrades with retaining walls up to 2 m high;
l) sloped railroad hollows up to 9 m deep.

II MANAGEMENT OF BRIDGE[2] CONSTRUCTION ACTIVITIES (construction), CONSTRUCTION MANAGEMENT AND BRIDGE UPKEEP
a) Crossovers with regular construction solutions (bridges, viaducts, gantries, wildlife crossings, etc.):
- that have a maximum height of 10 m above the surface of land or water;
- with a total length not exceeding 40 m;
- that have a single clear opening of a maximum of 15 m;
b) Tunnels and culverts up to 15 m wide, 7.5 m below the red line and in the first or second geotechnical category[3];
c) In bridge pillar construction in a body of water, the maximum water level does not exceed 2 m;
d) Preparation of technical specifications for bridge repairs, no restrictions;
e) All railway bridges in accordance with the above-mentioned parameters.

III PREPARATION OF ROAD CONSTRUCTION PROJECT, OWNER'S SUPERVISION AND PREPARATION OF TRAFFIC MANAGEMENT PROJECT
a) Highways which are expected to see up to 3,000 cars per day (the main route in the case of crossroads);
b) Up to the 2nd wet area;
c) Road subgrades up to 5 m high or hollow ways up to 5 m deep, incl. retaining walls;
d) Access roads and cycle and pedestrian tracks in built-up areas;
e) Pavement repairs at railway level crossings, except rails and sleepers.

IV PREPARATION OF BRIDGE CONSTRUCTION PROJECT[2] AND OWNER'S SUPERVISION
a) Crossovers with regular construction solutions (bridges, viaducts, gantries, wildlife crossings, etc.):
- that have a maximum height of 6 m above the surface of land or water;
- that have a single clear opening of a maximum of 9 m;
b) Tunnels and culverts up to 9 m wide, 6 m below the red line and in the first geotechnical category[3];
c) Construction of bridge pillars up to the 1st wet area;
d) Preparation of technical specifications for bridge repairs, no restrictions;
e) Retaining walls up to 3 m high;
f) All railway bridges in accordance with the above-mentioned parameters.

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[1] In this occupational qualification standard, railroad embankments are defined as railway and tramway embankments with their accompanying drainage systems, culverts, slopes, barriers, etc. This term does not include superstructures.

[2] In this occupational qualification standard, bridges are defined as bridges, viaducts, tunnels, wildlife crossings, gantries and culverts for any type of road (footpaths, bicycle paths, non-motorised transport routes, motorways and railways).
[3] as per EVS-NE 1997-1:2006

A.2 Tasks

A.2.1 Mandatory competences in the occupation of civil engineer in road engineering
1. Following the requirements of professional ethics
2. Professional self-improvement
3. Teamwork
4. Applying the principles of environmental protection and energy efficiency
5. Applying specialised knowledge to work
6. Digital competence and language skills

Specialised areas of work

Road construction and upkeep
A.2.2 Road construction and upkeep
1. Conducting and organising work within the limits of competence provided by the occupational qualification level
2. Verification of the high quality and compliance with traffic safety requirements of completed work and their parts
3. Determining the complex compliance/suitability of completed works
4. Arranging the transfer of completed works to the customer

Bridge construction and upkeep
A.2.3 Bridge construction and upkeep
1. Conducting and organising work within the limits of competence provided by the occupational qualification level
2. Quality control of completed works and their parts
3. Determining the complex compliance/suitability of completed works
4. Arranging the transfer of completed works to the customer

Elective areas of work

A.2.4 Preparing road design documentation
1. Compiling the road design project within the limits of competence provided by the occupational qualification level
2. Collecting and analysing source data
3. Participation in creating plans as an expert
4. Road geometry design
5. Choosing a type of pavement construction or designing pavement construction
6. Drainage system design
7. Traffic management design
8. Preparing and formulating design documentation
9. Collaboration with the design team
10. Construction cost estimation
11. Preparing demolition projects for roads
12. Compiling maintenance and operating instructions
13. Conducting designer’s supervision

A.2.5 Preparation of bridge design documentation
1. Compiling the bridge design project within the limits of competence provided by the occupational qualification level
2. Collecting and analysing source data
3. Participation in creating plans as an expert
4. Choosing, calculating and dimensioning the constructive scheme and type of bridge
5. Determining barrier solutions
6. Preparing and formulating the design documentation for the constructional part
7. Collaboration with the design team
8. Preparing demolition projects for structures
9. Construction cost estimation
10. Compiling maintenance and operating instructions
11. Conducting designer’s supervision

A.2.6 Construction management (construction)
1. Management of construction activity within the limits of competence provided by the occupational qualification level
2. Compiling tenders
3. Planning construction operations
4. Planning construction resources
5. Organising subcontractor procurements and entering into contracts
6. Procuring construction supplies
7. Organisation of construction activity and temporary traffic during construction work
8. Bridge upkeep (according to specialisation)
9. Road upkeep (according to specialisation)
10. Organising quality control and surveying
11. Preparing construction site transfer documentation
12. Arranging the transfer of the construction site

A.2.7 Construction management
1. Construction management within the limits of competence provided by the occupational qualification level
2. Preparing procurements and compiling procurement documentation
3. Compiling a schedule for construction work
4. Construction cost calculation
5. Design work preparation and organisation
6. Construction work preparation
7. Tender documentation preparation
8. Selecting contractors and preparing contracts
9. Coordinating the construction process as a representative of the customer or contractor
10. Transferring the construction site and taking it into use
11. Warranty period procedures

A.2.8 Performing owner's supervision
1. Performing owner's supervision within the limits of competence provided by the occupational qualification level
2. Developing a supervision programme
3. Verifying the compliance of the design project with requirements
4. Verifying the compliance of construction work with the contract
5. Performing and assessing quality control
6. Verifying compliance with safety requirements
7. Verifying required documentation
8. Accepting the building
9. Distributing information
10. Making proposals

A.2.9 Road upkeep
1. Organising a patrol service and road condition monitoring
2. Organising road maintenance in summer and winter
3. Organising maintenance repairs

A.2.10 Bridge upkeep
1. Organising monitoring of the conditions of bridges and their parts
2. Organising maintenance and repair work

A.2.11 Preparing traffic management documentation
1. Analysing source data from traffic research and preparing research
2. Carrying out traffic research
3. Collecting and analysing the source data for the traffic organisation project
4. Preparing traffic management documentation

A.3 Work environment and specific nature of work
A civil engineer in road engineering works both indoors and on outdoor sites. The workload may be distributed unevenly.
A.4 Tools
In addition to conventional office equipment and software, special computing programmes and equipment (measuring and marking tools etc.) are used.
A.5 Personal qualities required for work: abilities and characteristics
Engineering requires analytical abilities, accuracy, spatial imagination, creativity, independence, decision-making, adaptability and communication, leadership and cooperation skills.
A.6 Professional preparation
Civil Engineer in Road Engineering, Level 6 generally has at least applied higher education in the field of road construction. In the sub-speciality of bridge construction, (applied) higher education in general construction is considered suitable, while in the sub-speciality of railway construction, railway-specific (applied) higher education is considered suitable. In addition, vocational and professional work experience and in-service training are required in the prescribed amount according to the occupational qualification level being applied for. All requirements are specified in more detail in documentation on the procedure for granting the occupational qualification.
A.7 Most common occupational titles
designer, person performing owner's supervision, construction manager, site manager
A.8 Regulations governing profession
Building Code and its relevant implementing acts; Planning Act, Environmental Impact Assessment and Environmental Management System Act, Traffic Act, Railways Act and their relevant implementing acts; Other professional standards, guidelines and norms.

Part B
COMPETENCY REQUIREMENTS

B.1 Structure of occupation
The Civil Engineer in Road Engineering, Level 6 occupational qualification standard consists of one mandatory competence (B.2.1), two specialisation-related competences (B.2.2 and B.2.3) and eight optional competences (B.2.4-B.2.11). In order to obtain the qualification, one mandatory competence, one specialisation-related competence and at least one optional competence related to the specialisation must be certified.

B.2 Competences

MANDATORY COMPETENCES

B.2.1 Mandatory competences of civil engineer in road engineering	EstQF Level 7
1. Is guided in their work and occupational activities by generally accepted personal and occupational ethics (see Annex 1 – Engineer's professional ethics). Acts in accordance with agreements and takes responsibility for their decisions and actions. Respects and takes into account the best practice and standards underlying the behaviour of specialists in other occupational sectors. 2. Keeps up to date on technological changes and developments in the sector and contributes to the development of engineering culture directed at innovation and creativity, where possible. Maintains and develops occupational competence through constant self-improvement. Acquires new techniques and methodologies.	

3. Actively contributes to teamwork in a result-oriented manner with the goal of achieving the best possible result. Is helpful and open, sharing knowledge and experience with their colleagues. Perceives their role in the team and is able to work in a multidisciplinary environment. Leads and organises the work of working groups according to need and to the specific nature of the work: delegates tasks and responsibility, verifies implementation of agreements, motivates and advises colleagues and solves problems and conflicts that may arise in the work process. 4. Is guided by the principles of environmental preservation and sustainable development, keeps up to date on and implements the principles of energy efficiency in their activities. 5. Implements knowledge of engineering on the level necessary to accomplish duties that are within the limits of their competence and to find functioning and optimal solutions to any problems that may occur. Possesses and uses the necessary number of occupational engineering disciplines in accordance with their subspecialty in addition to the principles of natural sciences, incl. architecture, geodesy, construction geology, surface mechanics, construction physics, statics, dynamics, strength of materials, construction mechanics, material studies, concrete, wooden and stone constructions, hydraulics, hydrometry, statistics, road design and construction, general principles of traffic management and safety, construction work management and construction economics. 6. Uses a computer for information processing, communication, safety, content creation and problem-solving at the Independent user level (see Annex 2 – Scale of self-assessment in digital competence). Uses the specialty-specific software solutions, programmes and information technology tools necessary for work. Uses Estonian while working and compiling documents at least at the B2 level of language proficiency (see Annex 3) and at least one foreign language at the B1 level. Uses correct occupational terminology.

COMPETENTCES RELATED TO SPECIALISATION

In order to obtain the qualification one specialisation-related competence must be certified (B.2.2 - B.2.3).

Road construction and upkeep	
B.2.2 Road construction and upkeep	**EstQF Level 6**
1. Leads and organises work associated with road construction and upkeep according to the competence limits of Civil Engineer in Road Engineering, Level 6 listed in the description of occupational qualification standard A.1. Bears in mind the primary task, best design and construction practice, the requirements of relevant legal acts and normative documents and agreements with the customer and partners. Takes into account other parties involved in the project and is aware of the impact of their own activities on their parts of the project. 2. Verifies the high quality of the work done during construction and its compliance with traffic safety requirements within the limits of their competence and according to the requirements established in the design documentation and other normative documents and instructions. 3. Is familiar with the specific nature of the activities of other parties involved in the project, understands the project as a whole, the place of their activities therein and the connections between the parties. Ensures that the complexity of the project as a whole and the work done on other parts of the project simultaneously are taken into account when work is carried out within the limits of their competence. 4. Plans their time and resources and does their best to transfer the completed works to the customer on time and in full. Formulates the necessary documentation according to specific requirements.	

Bridge construction and upkeep	
B.2.3 Bridge construction and upkeep	**EstQF Level 6**
1. Leads and organises work associated with bridge construction and upkeep according to the competence limits of Civil Engineer in Road Engineering, Level 6 listed in the description of occupational qualification standard A.1. Bears in mind the primary task, best design and construction practice, the requirements of relevant legal acts and normative documents and agreements with the customer and partners. Takes into account other parties involved in the project and is aware of the impact of their own activities on their parts of the project. 2. Verifies the high quality of the work done during construction within the limits of their competence and according to the requirements established in the design documentation and other normative documents and instructions. 3. Is familiar with the specific nature of the activities of other parties involved in the project, understands the project as a whole, the place of their activities therein and the connections between the parties. Ensures that the complexity	

of the construction project as a whole and the work done on other parts of the project simultaneously are taken into account when work is carried out within the limits of their competence. 4. Plans their time and resources and does their best to transfer the completed works to the customer on time and in full. Formulates the necessary documentation according to specific requirements.

OPTIONAL COMPETENCES

In order to obtain the qualification at least one optional competence related to the specialisation must be certified (B.2.4-B.2.11).

B.2.4 Preparing road design documentation	**EstQF Level 6**
1. Compiles the road design project according to the competence limits of Civil Engineer in Road Engineering, Level 6 listed in the description of occupational qualification standard A.1. Completes the tasks allocated to them, working as a member of a team under the guidance and responsibility of a colleague with a higher occupational qualification level when preparing design documentation that exceeds the limits of their competence. 2. Collects and examines source data and analyses it. Determines applicable legislation, standards, rules and instruction materials and specifies their requirements for a specific structure. Determines and analyses the effects that impact structures based on the class of highway or type of street and the expected volume of traffic and load frequency with their projections. Prepares a programme of additional research, if necessary. 3. Collects and examines the source data of the plan and analyses it. Collaborates with other parties involved in the project in preparing a solution for the plan. 4. Prepares a plan and vertical solution for crossroads and road cross-sections in accordance with construction geology and other construction conditions. Prepares a variety of solutions, analyses them and chooses between them. 5. Chooses a type of pavement construction or designs pavement construction based on the expected volume of traffic, weather conditions, geodetic substrate, optimal cost, etc. 6. Designs systems to direct water off roads and road constructions and watercourse fortifications based on water flow conditions. 7. Carries out traffic research based on the chosen methodology and research plan involving the relevant specialists. Examines the source task and data of compiling the traffic management project, analyses it and compiles a plan of action. Plans appropriate traffic management. Performs permeability control calculations and determines the service level, if necessary. Prepares and formulates the traffic management design documentation. 8. Designs or prepares specific parts (traffic management, car parks, other squares, road structures or accessories, landscaping, street lighting or plot distribution plan) in addition to the main solution and in accordance with the source task. Involves other specialists, if necessary. Prepares drawings and explanatory notes according to the design stage, explaining and justifying the choices made. Formulates and archives documentation. 9. Collaborates with other parties involved in the project, participates in design and expert assessment meetings, etc. 10. Calculates the amount of work done and the estimated cost of the project. 11. Prepares a road demolition project, if necessary. 12. Compiles instructions for the use and upkeep of roads, if necessary. 13. Performs supervision during construction activities and provides consultation on project-related issues.	
B.2.5 Preparation of bridge design documentation	**EstQF Level 6**
1. Compiles the bridge design project according to the competence limits of Civil Engineer in Road Engineering, Level 6 listed in the description of occupational qualification standard A.1. Completes the tasks allocated to them, working as a member of a team under the guidance and responsibility of a colleague with a higher occupational qualification level when preparing design documentation that exceeds the limits of their competence. 2. Collects and examines source data and analyses it. Determines applicable legislation, standards, rules and instruction materials and specifies their requirements for a specific structure. Determines and analyses the effects that have an impact on the structures (constant and variable load, load combination, service life, environmental impact, factors due to water flow in the watercourse, watercourse process projection, etc.). Prepares a programme of additional research, if necessary. 3. Collects and examines the source data of the plan and analyses it. Collaborates with other parties involved in the project in preparing a solution for the plan.	

4. Selects a possible constructive scheme, type of facility (bridge or viaduct) and materials based on the source data. Calculates and dimensions supporting structures, bases of structures, retaining walls and foundations. Decides on the technology to be used to carry out the work. 5. Determines barrier solutions based on source data (architecture, function and safety requirements of barrier, quality class, longevity, environmental impact, etc.) and the project as a whole. 6. Prepares and formulates the final construction design in accordance with the stage of design and applicable requirements. Involves other specialists, if necessary. Prepares sketches and explanatory notes explaining and justifying the choices made. Formulates and archives documentation. 7. Collaborates with the parties involved in the project, participates in design and expert assessment meetings, etc. 8. Prepares a demolition project for a structure, if necessary. 9. Calculates the amount of work done and the cost of construction. 10. Compiles instructions for the use and upkeep of structures, if necessary. 11. Performs supervision during construction activities and provides consultation on project-related issues.
B.2.6 Construction management **EstQF Level 6**
1. Leads construction activities related to their specialisation according to the competence limits of Civil Engineer in Road Engineering, Level 6 listed in the description of occupational qualification standard A.1. Completes the tasks allocated to them, working as a member of a team under the guidance and responsibility of a colleague with a higher occupational qualification level when doing work that exceeds the limits of their competence. 2. Examines design and procurement documentation and other relevant materials. Estimates the capacity of the tender and requests a quote for the necessary materials, equipment and contractor work. Determines potential administrative costs, profits and the level of risk and provides a tender. Completes and formulates the final tender. 3. Enters into the construction contract. Compiles a plan for construction work (incl. work safety measures and a work schedule) and a goal budget. Commissions the work project if no such project has been prepared. 4. Supplies the construction site with the necessary resources (mechanisms, materials, workforce, energy, etc.). Determines the tasks and extent of responsibility of each member of the site management team. 5. Arranges for the procurement of the necessary building materials, equipment, means of transport, construction mechanisms and contractors and enters into contracts. 6. Orders or creates product sketches, ensuring their compliance with construction norms and quality requirements. Procures and/or orders the necessary construction products, organises their reception and storage. 7. Organises and coordinates construction work in accordance with the goal budget of the project. Ensures compliance with occupational health and safety requirements, traffic and environmental safety regulations and the general upkeep of the construction site. 8. Constantly ensures the proper documentation of construction work (incl. acts of work to be covered), the compliance of construction work with the contract and design and the fulfilment of construction norms and quality requirements. Conducts construction consultations, if necessary. 9. Organises condition monitoring or repairs for bridges and their parts (pillars, beams, bridge tiles, joints, support pieces, barriers, etc.) according to need, the condition requirements and their specialisation and within the limits of competence provided by the occupational qualification level. 10. Organises the following actions related to road upkeep according to their specialisation and within the limits of competence provided by the occupational qualification level: organising the monitoring needed to assess the condition of the road and the work of the patrol service that carries it out with the objective of acquiring the required amount of operative and adequate information; organising road maintenance work in both summer and winter and maintenance repairs according to the volume of traffic, amount of work and assessment of the need for maintenance repairs. 11. Organises quality control to assess compliance with construction norms and quality requirements and the performance of the necessary surveying work before the transfer of the construction site. 12. Compiles or orders the documentation necessary for the transfer of the construction site, incl. performance sketches, documentation for equipment and materials and instructions for maintenance and use. 13. Arranges for the transfer of the construction site.
B.2.7 Construction management **EstQF Level 6**
1. Leads construction work related to their specialisation according to the competence limits of Civil Engineer in Road Engineering, Level 6 listed in the description of occupational qualification standard A.1. Completes the tasks allocated to them, working as a member of a team under the guidance and responsibility of a colleague with a higher occupational qualification level when doing work that exceeds the limits of their competence.

2. Examines primary conditions (construction research, technological solution, functional and use-related quality requirements, requirements of ensuring traffic safety, etc.) and prepares the procurement or compiles procurement documentation. 3. Compiles a schedule for construction work based on their technological processes. 4. Prepares a financial plan for construction work based on the estimated cost of construction, general and personalised cost calculations and time and payment schedules and taking into account the need for self-financing and the conditions presented in the procurement documentation. 5. Formulates the principles of carrying out the construction project and plans the organisational scheme of the project. Plans the necessary permit activities, prepares a schedule for carrying out the project and the division of project contractors. Compiles a design programme. 6. Determines the principles of organisation of construction work incl. labour methods and distribution. Compiles the organisational scheme of construction work. 7. Formulates the time- and cost-related goals of construction work and prepares tender documentation based on these goals. 8. Selects the necessary contractors and enters into contracts with them if corresponding agreements have been made. 9. Coordinates construction work as a representative of the customer: communicates with contractors, the design team and the customer, holds meetings and discussions, exchanges information between the parties involved, processes additional work due to changes made to the project during construction work and monitors the compliance of the construction work with the design. 10. Carries out inspections. Organises and leads work acceptance procedures, ensures the existence of the necessary use and maintenance instructions and other documentation and their transfer to the customer or user. 11. Carries out warranty-period activities for buildings.
B.2.8 Performing owner's supervision **EstQF Level 6**
1. Supervises construction work related to their specialisation according to the competence limits of Civil Engineer in Road Engineering, Level 6 listed in the description of occupational qualification standard A.1. Completes the tasks allocated to them, working as a member of a team under the guidance and responsibility of a colleague with a higher occupational qualification level when doing work that exceeds the limits of their competence. 2. Compiles a programme of supervision procedures, bearing in mind relevant legislation. 3. Assesses the compliance of the design documentation forming the basis for construction with applicable legislation and the construction design on the basis of which a construction permit was issued. 4. Verifies the compliance of construction activities with the conditions and quality agreed upon between the construction contractor and owner/customer. 5. Verifies the compliance of structures or their parts with the design and the compliance of performance sketches and work to be covered with the requirements, design and reality. Is able to use building information modelling (BIM). 6. Verifies that traffic, environmental and occupational safety regulations and maintenance requirements are followed on construction sites. 7. Verifies the existence of construction documents drafted during construction activities and their proper and timely drafting, presentation and revision. Verifies the compliance of construction product or material documentation with requirements and the compliance of construction products or materials with requirements and the construction design according to the documents presented. 8. Assesses the level of completion of buildings and participates in the transfer of buildings or their parts. 9. Notifies the relevant persons or agencies of any deficiencies identified in the course of owner's supervision. 10. Proposes additional quality control, measurements, tests and expert analyses of construction work, if necessary.
B.2.9 Road upkeep **EstQF Level 6**
1. Organises the monitoring needed to assess road condition and the work of a patrol service that carries it out according to weather conditions, traffic safety statistics, etc. Ensures that the information received during monitoring is operative and adequate. 2. Organises road maintenance work during both summer and winter, ensuring a result that complies with road condition requirements and the existence of the resources needed to carry out the work. 3. Organises the performance of road maintenance repairs based on the load on the road, the assessment of the need for maintenance repairs, the amount of work, etc.

B.2.10 Bridge upkeep	EstQF Level 6
1. Organises condition monitoring of bridges and their parts (pillars, beams, bridge tiles, joints, support pieces, barriers, etc.). 2. Organises repairs for bridges and their parts according to condition requirements and need.	
B.2.11 Preparing traffic management documentation	**EstQF Level 6**
1. Examines the primary task and source data, selects the research methodology and compiles a research plan. Determines research area and selects necessary observation/measurement posts. Assesses land use, its changes and effect on traffic flow. 2. Assembles a research team and ensures that it is technically supplied as needed. Carries out the research. Processes, analyses and generalises the research results and compiles a report. 3. Examines the primary task and source data and compiles a plan of action. Collects additional materials and analyses them, if necessary. 4. Plans appropriate traffic management. Performs permeability control calculations and determines the service level, if necessary. Prepares and formulates the traffic management design documentation.	

Part C
GENERAL INFORMATION AND ANNEXES

C.1 Information concerning compilation and certification of occupational qualification standard and reference to classification of occupations	
1. ID of occupational qualification standard in register of occupational qualifications	22-08022024-1.22/10k
2. Occupational qualification standard compiled by:	Daniel Lõhmus, OÜ Maanteed Heiki Meos, EstKonsult OÜ Martti Kiisa, Tallinna Tehnikakõrgkool Jüri Läll, Tallinna Teede AS Tiit Metsvahi, TalTech Tõnis Tagger, Maanteeamet Pavel Karev, Majandus- ja Kommunikatsiooniministeerium Ilmar Link, TPJ Inseneribüroo OÜ Tarvi Kliimask, GRK Infra AS
3. Occupational qualification standard approved by:	Architecture, Geomatics, Construction and Real Estate
4. No. of decision of Sectoral Council	52
5. Date of decision of Sectoral Council	08.02.2024
6. Occupational qualification standard valid until	30.06.2025
7. Occupational qualification standard version no.	10
8. Reference to International Standard Classification of Occupations (ISCO 08)	2142 Civil Engineers
9. Reference to European Qualifications Framework (EQF)	6
C.2 Occupational title in foreign language	
English:	Civil Engineer in Road Engineering, EstQF Level 6
C.3 Annexes	
Lisa 1 Engineer's Professional Ethics and Code Of Conduct	
Lisa 2 Scale of self-assessment in digital competence	
Lisa 3 Language skills level descriptions	