



City of Kuopio
Urban Environment Service Area
Urban Engineering Services

Guidelines and conditions for work and occupation permits for work done on streets and in other public areas in Kuopio

Starting from 1 April 2025

Approved by the Urban Planning and City
Infrastructure Committee on 12 March 2025

Table of contents

1. PERMITS REQUIRED FOR STREETS AND OTHER PUBLIC AREAS	4
2. SITING PERMIT (free of charge)	5
3. STREET WORK AND OCCUPATION PERMIT (subject to a charge)	5
4. WORKING ON STREETS AND IN OTHER PUBLIC AREAS	7
4.1. Documents to be observed during the work.....	7
4.1.1 General regulations	7
4.2. Inspections	8
4.2.1. Initial inspection	8
4.2.2. Partial acceptance inspection	9
4.2.3. Acceptance inspection	9
4.2.4. Inspections of work lasting less than eight hours	9
4.2.5 Additional supervision visit	9
4.2.6 Closing the site	10
5. TEMPORARY TRAFFIC ARRANGEMENTS	10
5.1. Responsibility for traffic arrangements	11
5.2. Accessibility	11
5.3. Traffic control equipment.....	12
5.4 Parking.....	12
5.5. Site guidance.....	12
5.6. Site board and advertising	12
6. MAINTENANCE AND CLEANING.....	13
7. CHARGES AND THEIR BASIS	13
7.1 Inspection and supervision charge.....	14
7.2. Negligence penalty and notice of enforced compliance.....	14
7.3. Determining the charge for use	15
7.3.1. Area required for the work.....	15
7.3.2. Charge categories	15
7.3.3. Working period.....	16
7.3.4. Warranty period	16
8. REGULATIONS AND GUIDELINES FOR EXCAVATION WORK	17
8.1. Before starting work	17
8.2. General instructions for excavation work	17

8.3. Protecting the excavation	18
8.4. Excavation of an unbuilt/unpaved street.....	18
8.5. Blasting	19
8.6. Load-bearing capacity of layers	19
8.7 Filling in excavations.....	19
8.8. Paving	19
8.8.2. Excavations across a street	20
8.8.3 Temporary pavement	20
8.9. Stone pavement.....	21
8.10. Kerbs	21
8.11. Manhole covers	22
8.12. Railings, traffic signs, etc.	22
8.13. Road markings	22
9. LANDSCAPING	23
9.1. Lawn	23
9.1.1. Protection during construction	23
9.1.2. Repairing damage.....	23
9.1.3. Preparing a lawn and initial maintenance.....	23
9.2. Shrubs.....	24
9.2.1. Protection during construction	24
9.2.2. Temporary removal of shrub(s).....	25
9.2.3. Replanting of shrubs	25
9.2.4. Repairing bruises and damage.....	26
9.3. Trees	26
9.3.1. Removing/moving a tree	26
9.3.2. Protection during construction	26
9.3.3. Damage to trees.....	29
9.3.4. Planted areas and trees.....	29

1. PERMITS REQUIRED FOR STREETS AND OTHER PUBLIC AREAS

No work may be carried out or events arranged on streets or in other public areas, nor may a public area be otherwise delimited or structures, equipment, advertisements, etc. placed without a permit from the city. Exceptions include sudden repairs necessary to prevent significant damage, for which a notification must be submitted in arrears.

Permits required in public areas:

- *Siting permit*
- *Street work permit; reporting work done on a street or in a public area*
- *Occupying a street; e.g. extending a construction site fence, placing a skip or supplies/equipment on land owned by the city*
- *Permission from the landowner for the use of an area for an event, etc.*

The permit application must be submitted in electronic format at www.lupapiste.fi.

If the work will cause harm to the environment (noise, dust, vibration), it must be reported to the city's environmental protection authority. A notification must be submitted for activities such as open-air concerts, stone crushing and temporary blasting or piling lasting more than 20 working days (section 118 of the Environmental Protection Act).

The notification of temporary noise and vibration must be submitted well before the start of the event or work, but no later than 30 days before the event or work is due to start.

The notification must be submitted via the Lupapiste.fi service.

A charge in accordance with the rate approved by the City of Kuopio Environment and Building Committee applies to the processing of a notification under the Environmental Protection Act.

For dropping snow from a roof and removing icicles in a street area that will last up to 24 hours, an email notification to the maintenance unit suffices: kunnossapito@kuopio.fi. These guidelines must still be followed, however. The property owner and the party responsible for the work are responsible for the safety of street users and temporary traffic arrangements. The notification must contain the contact details of the party responsible for the work and the address of the site. The notification must be submitted before starting the work.

There is no charge for the demarcation of a public area for snow removal if the work will be carried out in the marked-off area during one working day.

Organising events: A corresponding permit or permission from the landowner is required for outdoor events, restaurant terraces, temporary sales outlets, etc. The party responsible for the work is responsible for the safety of the street users or users of other public areas and for temporary traffic arrangements.

For small events, a landowner's permit may be granted via the email notification procedure. In such a case, sending a free-form application to the city at kunnossapito@kuopio.fi suffices.

The event organiser is obligated to find out whether a formal permit is required for the event or whether the simple notification procedure suffices. Permit applications can be used to verify whether the requested area is available for the event.

2. SITING PERMIT (free of charge)

Placing a wire, cable, structure or other similar permanent structure on a street or in other public area always requires the landowner's permission. The application must be submitted well in advance of the intended start date of the work. The permit application must be submitted by email to Land Management Services at maaomaisuudenhallintapalvelut@kuopio.fi. The work must not be started before a siting and area use permit has been granted. The exact location of the wires will be determined during the work.

A layout and a cross-section showing the location of all structures and equipment on the site must be attached to the application. The drawing must be based on a sufficiently extensive up-to-date topographic base or an aerial photograph showing property boundaries and street names.

A street work permit and its appendices may be submitted simultaneously with a siting permit application.

No siting permit is required to repair an existing line, cable or other piece of equipment, or to build a plot access connection. However, a street work notification must be submitted in accordance with Section 3.

3. STREET WORK AND OCCUPATION PERMIT (subject to a charge)

The party responsible for the work must notify the city of any work carried out on a street or in another public area (Act on the Maintenance and Cleaning of Streets and Certain Public Areas [Laki kadun ja eräiden yleisten alueiden kunnossa- ja puhtaanapidosta 669/1978], section 14a). The party responsible for the work is the party on whose behalf the work is carried out (the client, the developer). The submission of the notification or permit application may be outsourced to a contractor (with a power of attorney), but this will not assign the liability according to law.

29 November 2024

Below, the term "party responsible for the work" refers to the recipients of all permits mentioned in these guidelines and other responsible persons.

Work subject to notification includes any work carried out on a street or in another public area that requires occupation of the street, such as:

- *Construction, repair and maintenance of a property where the work is carried out in a demarcated part of a street or public area*
- *Water pipeline, electricity, telecommunications, district heat and sewer connections of properties*
- *Installation of municipal engineering in a public area*
- *Erecting scaffolding in a street area*
- *Lifting that takes place in a street area*
- *Storage of construction materials and pallets in a street area*
- *Storage of construction site huts/construction vehicles in a street area*

The permit application must be submitted at least 21 days prior to the start of the work. A discount on the permit charge applies to applications submitted on time.

The work can be started as soon as the permit has been granted and the initial inspection has been performed. However, if the application is not processed within 21 days of submission, the work can be started after the expiration of the time limit. Sudden emergency work carried out to prevent significant damage caused by a broken piece of equipment or structure must be reported via [Lupapiste.fi](https://lupapiste.fi) no later than the working day following the start of the work. The notification must contain the same information as a permit application.

The permit application must contain the following:

- *The area and how it will be used during the work*
- *Start date and estimated duration of the work*
- *Traffic management plan during the work**
- *Party responsible for the site (applicant and/or contractor)*
- *Party paying for the permit*
- *If necessary, the positioning of equipment and structures, etc.*
- *Whether it is construction related to the city's own projects (e.g. the building of an optical fibre network, the street lighting network, etc.)*

The following must be attached to the application:

- A copy of the siting permit decision or the number and year of the decision (not required for notifications concerning the construction or repair of plot access connections or for notifications submitted simultaneously with an application for a siting permit decision).
- Any other permits or notifications for the work such as a notification of noise.
- A layout and a cross-section showing the location of all structures and equipment on the site. The drawing must be based on a sufficiently extensive up-to-date topographic base or an aerial photograph showing property boundaries and street names.

**The person planning temporary traffic arrangements must have the necessary qualifications, e.g. they must have completed the Road Safety 2 course or the street work card training arranged by the Association of Finnish Cities and*

29 November 2024

Municipalities.

Several small simultaneous repairs or modifications (e.g. the replacement of manhole covers or valves) can be combined in the same notification. All works must be identified in the notification and simultaneously performed in the same city district.

If necessary, the permit conditions may be supplemented during the execution of the work if the nature of the work changes or the public interest, road safety or other reasons require amendments. The party responsible for the work must also be able to present the street work permit decision to third parties.

4. WORKING ON STREETS AND IN OTHER PUBLIC AREAS

4.1. Documents to be observed during the work

- Guidelines and conditions for work and occupation permits for work done on streets and in other public areas in Kuopio and regulations based on it
- The currently valid building regulations and environmental protection regulations of the City of Kuopio
- General quality requirements for infrastructure construction (Infra rakentamisen yleiset laatuvaatimukset 2024; hereinafter referred to as "InfraRYL 2024")
- Temporary traffic arrangements on streets and in public areas by the Finnish Municipal Engineering Federation (Tilapäiset liikennejärjestelyt katu- ja yleisillä alueilla. Suomen kuntatekniikan yhdistyksen julkaisu 1/2013)
- General work specification for landscaping (Viherrakentamisen yleinen työselostus VRT '17)
- General work specification on the maintenance of landscaped areas (Viheralueiden kunnossapidon yleinen työselostus VKT 2021)
- Asphalt contract documentation 2016 and work specification by the Association of Finnish Cities and Municipalities (Asfalttiurakan asiakirjat 2016, työselostus. Suomen Kuntaliiton ohjeita)
- Asphalt norms by the Advisory Council for the Paving Industry (Asfalttinormit 2023, PANK ry)
- Planning of road markings by the Finnish Transport Infrastructure Agency (Tiemerkintöjen suunnittelu. Väyläviraston ohjeita 30/2020)

4.1.1 General regulations

The party responsible for the work must ensure that those carrying out the work have been familiarised with working in a street area and with the temporary traffic arrangements in place. Those working on streets must have completed

the Road Safety 1 course or the street work card training arranged by the Association of Finnish Cities and Municipalities, and have sufficient skills to properly landscaping elements.

The party responsible for the work must organise the activities in a manner which retains unobstructed access to the properties on site and ensure that their waste management remains in working order, as well as ensure that the properties affected by the work will be notified of any noise, dust and traffic disturbances caused by the work.

The site must have a site board of at least 500 x 700 mm which indicates the client, the purpose of the work, the name and telephone number of the person responsible for the work and the estimated completion date of the site. If the work will take less than a month, the name and telephone number of the party responsible for the work suffice.

If the street work permit requires fencing of the work area due to the central location of the site, the protection of the cityscape, traffic safety or other reasons, fences must be erected before starting the work.

4.2. Inspections

4.2.1. Initial inspection

If necessary, an initial inspection will be arranged before the starting of the work. The party responsible for the work must submit an order for an initial inspection approximately a week prior to the start of the work with the maintenance services (hereinafter "the permit authority").

The inspection will cover the quality and condition of asphalt and stone pavement and lawns, etc., as well as the locations and condition of traffic control devices, road markings and fixtures. The inspection will also cover the quality, condition and locations of trees, shrubs and other plants and vegetation, and the need to protect them. The implementation of temporary traffic arrangements and their accessibility will also be reviewed.

If any of the structures on site are substandard to such an extent that their restoration will require measures over a wider area than determined based on the provisions laid down in these guidelines, the permit authority must be contacted. The permit authority may contribute to the repair costs at its discretion. A written agreement between the parties will be made.

Before starting any work on a street, the party responsible for the work must document the initial situation by photographing the site before and after the work.

4.2.2. Partial acceptance inspection

If the work has to be interrupted due to winter or any other reason, a partial acceptance inspection will be arranged to determine the extent to which the site is fit for traffic. Areas to be opened to traffic must be paved with temporary paving in accordance with the instructions of the permit authority. Accrual of the charge may be interrupted in terms of those parts of the site that are fit for traffic during the period of interruption. Excavations must be protected and the roots of plants protected from frost damage in winter.

It is the responsibility of the party responsible for the work to request a partial acceptance inspection.

4.2.3. Acceptance inspection

It is the responsibility of the party responsible for the work to request an acceptance inspection.

The site must be restored and all damage repaired before the final inspection.

4.2.4. Inspections of work lasting less than eight hours

In the case of short-term work that lasts less than eight hours and where no excavation work is carried out, the permit authority may issue a permit to start the work without an initial inspection. The party responsible for the work must submit a notification via [Lupapiste.fi](https://lupapiste.fi) in accordance with Section 3.

However, the party responsible for the work is responsible for the safety of the site and the realisation of traffic arrangements. After completion of the work, a notification must be submitted to the permit authority, who will decide whether an acceptance inspection is necessary. The same guidelines and quality requirements of the city as for long-term work must be followed in the case of short-term work.

The party responsible for the work must document the initial situation and outcome by photographing the site before and after the work.

4.2.5 Additional supervision visit

If additional supervision visits to the site are necessary, a charge of EUR 150 in accordance with the price list will apply.

The permit authority will perform warranty inspections before the expiration of the warranty period. If the work has caused any damage, the party responsible for the work must be informed, and the damage must be repaired within the given time limit.

4.2.6 Closing the site

The right to use a leased site associated with a street work permit will end when the acceptance inspection has taken place, any defects and deficiencies observed during the inspection have been corrected, the site has been restored, and any and all damage to the site has been repaired.

If no site acceptance inspection has been performed, a representative of the city must be notified of the completion of the site no later than the next business day following the completion date.

5. TEMPORARY TRAFFIC ARRANGEMENTS

Temporary traffic arrangements must be realised in accordance with the guideline on temporary traffic arrangements on streets and in public areas (Tilapäiset liikennejärjestelyt katu- ja yleisillä alueilla 2013).

A drawing of the temporary traffic arrangements must be attached to the permit application. If the work is carried out in several stages, there must be a plan for each stage. If the work involves excavation, the plan must include an adequate report of how the excavations will be protected.

Particular attention must be paid to ensuring safe, accessible and smooth public transport, and the use of pedestrian and cycling routes. Persons with reduced mobility and visual impairments must also be able to safely use the pedestrian routes.

In addition, the traffic arrangements must remain functional in the dark and under different weather conditions. Access routes must be fenced so that persons with visual impairments will also be able to safely use them.

If traffic arrangements in any areas specified by the city as part of the high-quality cycling network or an accessible route must be made, these routes must be given priority. If necessary, the space available to motor traffic must be limited to ensure the continuity of these routes. Such routes are indicated in the City of Kuopio map service at <https://kartta.kuopio.fi/link/2g8Zw5>.

A review of a traffic arrangement plan submitted by the party responsible for the work is included in the price of the permit. If there are any deficiencies in the plan, the applicant must submit a corrected plan as an attachment to the application.

Instructions given by the police must also be followed in all temporary traffic arrangements.

5.1. Responsibility for traffic arrangements

The approved traffic control plan included in the street work permit must be followed during the work. **The responsibility for traffic arrangements and their functionality always lies with the party responsible for the work.** The party responsible for the work must appoint a competent person responsible for occupational safety and health and the temporary traffic arrangements of the site.

The responsible person must supervise the site traffic arrangements and ensure that the arrangements are kept up to date and the site is restored after the work is completed. The responsible person is also responsible for ensuring that traffic signs and traffic control equipment remain in good working order outside regular working hours.

If traffic needs to be completely interrupted, the permit authority, the emergency response centre, the police, public transport operators, the Finnish Federation of the Visually Impaired and the media must be informed at least two days prior to the cut-off time.

All instructions concerning traffic arrangements given by the permit authority must be followed.

If the instructions are not followed, the permit authority has the right to have traffic arrangements put in place or have any unnecessary arrangements removed at the expense of the party responsible for the work. (Section 14b of the Act on the Maintenance and Cleaning of Streets and Certain Public Areas [Laki kadun ja eräiden yleisten alueiden kunnossa- ja puhtaanapidosta 669/1978])

If the traffic arrangements or repeated negligence to comply with the instructions pose a risk to road safety, the work on site may be interrupted and a negligence penalty imposed. (Section 16 of the Act on the Maintenance and Cleaning of Streets and Certain Public Areas)

The permit authority will issue a written warning for the first observed defect or act of negligence. A second defect or act of negligence will result in a negligence penalty of EUR 1,000, and subsequent defects or acts of negligence in a negligence penalty of EUR 2,000.

If the traffic arrangements or the failure to implement the necessary traffic arrangements on site pose a safety hazard, the work may be interrupted. (Section 16 of the Act on the Maintenance and Cleaning of Streets and Certain Public Areas)

5.2. Accessibility

Special attention must be paid to the accessibility of temporary traffic arrangements. Access routes must be at least 1.5 metres wide, and the recommended width is 1.8 metres. The free height must be 2.2 metres.

If the access route is long (approx. 15 metres), a wider starting point must be provided. The walking surface must be flat, with a maximum tolerance of 20 mm. The surface must not be slanted by more than 2% and the longitudinal gradient must not exceed 8%. These guideline values also apply to ramps. The walking surface must be

hard and not slippery even in the rain. The minimum width of ramps and bridges over excavations is 1.2 metres to allow for walking with a guide dog or an assistant. A long ramp must have a platform for resting every six metres. Curved ramps are not allowed, and turns must take place on intermediate platforms. If the ramp is not limited by a solid wall, there must be a protective edge of at least 50 mm at its edge to prevent wheelchairs and prams from slipping off the ramp. Access routes must be fenced so that persons with visual impairments will also be able to safely use them.

Temporary footbridges or platforms for pedestrians must have a solid floor.

5.3. Traffic control equipment

Fixing of temporary signs onto existing traffic signs, traffic light posts or other traffic control equipment, lampposts or trees on site is not allowed. Traffic signs and other traffic control devices must not be obstructed and traffic control devices must not be removed without permission.

If necessary, the equipment must be moved to a more visible location in accordance with the decision on temporary traffic arrangements.

Any road signs damaged by the work must be replaced at the expense of the party responsible for the work.

The traffic control equipment used must be of an approved design and placed in accordance with the approved traffic control plan.

Rope or tape must not be used to demarcate pedestrian routes. Reflective construction site fencing approved as a traffic control product must be used. Using excavated soil, mesh fencing, light strips, rope or tape to protect excavations is not allowed.

5.4 Parking

Parking inside the site is allowed, provided that the area required for parking is part of the occupied site.

A separate permit is required for loading and unloading if the loading or unloading operations cannot be performed in accordance with the Road Traffic Act (Tieliikennelaki 729/2018).

5.5. Site guidance

If signposting is required to access the site, this must be mentioned in the traffic arrangement plan. The instructions given must be followed when placing the

5.6. Site board and advertising

The minimum size of the site board is 500 x 700 mm, and it must indicate the contractor, the purpose of the work, the name and telephone number of the party responsible for the work, and the estimated completion date. If the work will take less than a month, the name and telephone number of the party responsible for the work suffice. The site board must be erected before starting the work.

No digital billboards or any other advertising devices may be placed on the occupied site under these work permit terms and conditions, except for a site board containing the construction site information.

6. MAINTENANCE AND CLEANING

The party responsible for the work must handle the temporary traffic arrangements and the maintenance and cleaning of the site area at its own expense. The party responsible for the work is also obliged to remove, at its own expense, any snowbanks created by ploughing from the sides of the site fences if they obstruct public traffic. The site and its surroundings must be kept clean during the work.

7. CHARGES AND THEIR BASIS

Under Section 14b of the Act on the Maintenance and Cleaning of Streets and Certain Public Areas (Laki kadun ja eräiden yleisten alueiden kunnossa- ja puhtaanapidosta 669/1978), a municipality is entitled to charge costs arising from the review of notifications concerning work done on streets and in other public areas and costs arising from the supervision of such works.

A municipality may also apply a charge to the demarcation of a street or public area as a construction site. The charge must be based on the duration and scope of the work and the location of the site.

The charges do not apply to street projects or joint projects of the City of Kuopio Urban Engineering Services.

No charges will not be imposed for any period during which the site is occupied for reasons beyond the control of the party responsible for the work. Such reasons include but are not limited to a recently discovered historical monument that is protected by law, or the municipality requiring the simultaneous installation of other lines or equipment for which reason

the site cannot be closed or the work cannot proceed.

The charges can be viewed on the City of Kuopio website under [Kaivuluvat ja alueiden käyttöluvat \(Excavation permits and right to use sites\) - Kuopio](#).

A map of charge categories is available in the City of Kuopio map service at <https://kartta.kuopio.fi/link/2g8Zw5>.

7.1 Inspection and supervision charge

The fixed street work permit inspection and supervision charge is EUR 200 per permit. The fixed charge covers three inspection visits (the initial inspection, the acceptance inspection and the warranty inspection on site) and a traffic management plan review.

If an additional supervision visit to the site is necessary, a separate charge of EUR 150 will apply. A single charge applies to permits applied for at the same time for the same site. If one or several of the three inspection visits do not take place, the difference will not be refunded to the party responsible for the work.

7.2. Negligence penalty and notice of enforced compliance

Section 16 of the Act on the Maintenance and Cleaning of Streets and Certain Public Areas (Laki kadun ja eräiden yleisten alueiden kunnossa- ja puhtaanapidosta 669/1978): *If a person takes any action in violation of this Act or any provisions under this Act, or neglects a duty imposed in this Act or in a provision based on this Act, the municipal supervisory authority may oblige him or her to perform his or her duty under the threat of a fine or under the threat that the municipality will perform the work at his or her expense. Similarly, for special reasons a recalcitrant person may be ordered to abstain from performing an act under the threat of a fine.*

Unauthorised work on a street is subject to a negligence penalty of EUR 1,000.

If a defect or act of negligence is discovered at a site with a valid street work permit, the permit authority will issue a written warning for the first defect or act of negligence. A second defect or act of negligence will result in a negligence penalty of EUR 1,000, and subsequent defects or acts of negligence in a negligence penalty of EUR 2,000.

A negligence penalty may also be charged from joint projects of the Urban Engineering Services.

If a defect or act of negligence leading to a negligence penalty is discovered at a site that is part of a joint excavation project or similar project where no main contractor has been named, the project operators will be jointly and severally liable for the negligence penalty.

In addition to the negligence penalty, a damage charge of EUR 1,500 will be charged for any damaged trees in accordance with Section 9.3.4.

All instructions given by the permit authority must be followed. If the instructions are not followed, the permit authority has the right to have the measures needed for the site to comply with the permit conditions done at the expense of the party responsible for the work.

7.3. Determining the charge for use

The charge for the use of a site is determined based on the duration of the work, the size of the site and the location of the site as euros per day per charge category.

The permit application must be submitted at least 21 days prior to the start of the work. A discount on the charge for use will be granted for applications submitted on time based on the date of receipt of the application and the starting date of the work as follows:

- When an application is received 22 days or earlier before the start of the work, a discount of 20 % will apply.
- If a pavement or cycle route has to be cut off due to the work but an access route is built by erecting scaffolding (during a facade renovation, for example), a discount of 50% from the charge for use will be granted.
- If the construction of a telecommunications or electricity network is carried out jointly by two or more operators, a discount of 50% from the charge for use will be granted.

The maximum total discount is 70%.

7.3.1. Area required for the work

The applicant must indicate the scope of the area required for the work. The construction site must be kept as small as possible to minimise disruption to traffic.

A site consists of a limited area that is part of the same work package and is not open to the public. The minimum width of a site for excavation work is 2.5 metres. The surface area required for the installation of cured-in-place pipes, directional drilling, etc. is obtained by adding up the *total number of excavations and work areas* associated with the work.

When installing cables into an existing equipment shaft, the working area is 10 m² per shaft.

The site may only be used for the purpose specified in the street work permit. If the scope of the site differs from that specified in the application, the permit authority may change it in arrears to correspond to the actual site.

7.3.2. Charge categories

A map of charge categories is available in the City of Kuopio map service at <https://kartta.kuopio.fi/link/2g8Zw5>.

Charge category I

Charge category I includes street areas marked in red in the street work permit charge map and public areas within these areas.

Charge category II

Charge category II includes streets and roads marked in blue in the street work permit charge map, pedestrian and cycling routes, and public areas within these areas.

Charge category III

Charge category III includes streets marked in green in the street work permit charge map and all public areas not included in categories I and II.

If work is performed at the border between two categories, the charge will be determined based on the category with a higher impact.

7.3.3. Working period

An estimated working period (start and end date) will be specified in the street work permit for the work. The party responsible for the work must request an acceptance inspection, on the basis of which the total duration of the work on which invoicing will be based will be determined.

The working period will be considered ended when an acceptance inspection according to Section 4.2.3 has taken place or the site has been handed over in accordance with Section 4.2.6.

If the work has to be interrupted due to winter, a partial final inspection in accordance with Section 4.2.2 may be requested. At the partial final inspection, the site must be fit for traffic. No charge will apply for the period of suspension provided that the site has been restored to working order.

7.3.4. Warranty period

The warranty period is *three* (3) years. The warranty period starts when the site is accepted in accordance with Section 4.2.3. If the work involves

29 November 2024

landscaping, the warranty period expiry date is 30 September each year.
The warranty period for landscaping is two full growing seasons.

The permit authority will inspect the warranty items before the end of the warranty

period. If there is any damage on site, the party responsible for the work will be informed, and the damage must be repaired within the given time limit. If the repairs are not performed, the permit authority will carry out the work at its own expense and recover the costs from the applicant. A negligence penalty due to a violation of the permit conditions will also be charged.

8. REGULATIONS AND GUIDELINES FOR EXCAVATION WORK

8.1. Before starting work

Before starting excavation work, the party responsible for the work must ascertain the boundaries of properties, the locations of cables and other underground equipment and structures (e.g. electricity and telecommunications cables, district heat, water and sewer pipelines, defrosting systems, traffic control systems, building structures and any reserve pipes) and take into account instructions of the network owner regarding the protection and relocation of the structures.

8.2. General instructions for excavation work

Storing excavated soil on the construction site is not allowed. However, if the dumping of soil will not cause any inconvenience, an agreement on on-site storage of the excavated soil to be returned to the excavation may be made with the permit authority.

The minimum depth at which cables must be laid is 0.7 metres. In ditches, structures must be placed at least 1.2 metres below the street surface (Fig. 1).



Figure 1. Minimum depths

The discharge of runoff water and water pumped from the excavation must not interfere with traffic or cause any harm to the environment. An agreement on the discharge of water to a storm drain must be made with the owner of the drain.

The excavation must be wide enough to allow for mechanical compaction on both sides.

The excavation work must be carried out in accordance with the street work guideline, InfraRYL 2024 and the planning documents.

The minimum distance between the excavation and trees is 2.5 metres.

8.3. Protecting the excavation

The site must be closed off with protective fences, barriers and poles in accordance with the guideline on temporary traffic arrangements on streets and in public areas (Tilapäiset liikennejärjestelyt katu- ja yleisillä alueilla 2013). The protective fences around the excavation must be equipped with a reflective material and have a minimum height of 110 cm. Rope and plastic tape may only be used for optical traffic control, not for protecting the excavation.

The party responsible for the work is responsible for ensuring that the protection of the excavation remains in good condition at all times, including outside regular working hours.

8.4. Excavation of an unbuilt/unpaved street

On unbuilt streets, the excavation depths must take into account the final elevation of the street, the preparation depth and transition wedges. The depth of the bottom of the excavation must be determined based on design against frost heave so that there will be no need to replace soil subject to frost heave during the construction/renovation of the street. The permit holder is responsible for the abovementioned works at its own expense.

8.5. Blasting

Blasting operations must be carried out in accordance with the currently valid laws and regulations.

8.6. Bearing strength of layers

Prior to final paving, the (loose) layers underneath the pavement must comply with the bearing strength requirements of InfraRYL 2024.

If necessary, the permit authority may order measurement of the bearing strength at random locations to be carried out at the excavation site. If measurement results are not provided despite a request or if the bearing strength does not comply with the requirements, a longer warranty period will be imposed for the site.

If the measurement results comply with InfraRYL 2024 or studied comparison results, the permit authority will pay for the measurements; otherwise the costs will be borne by the party responsible for the work.

8.7 Filling in excavations

The filling of the excavation must be done without mixing the layers of the street. The party responsible for the work must survey the locations of new or relocated lines at its own expense before the excavation is covered.

The excavation must be filled in and compacted in accordance with InfraRYL 2024. The thickness of the layers must comply with the existing layers.

The sub-base must be crushed rock, crushed gravel or gravel, and the drainage course filter sand. Excavated layers of the street may be used in the sub-base and drainage course, provided that they have not been mixed.

The base course must always be made of new material.

The aggregate screening results must be submitted to the permit authority upon request. Using thermal insulation in road construction is only allowed in exceptional cases.

In case of doubt, additional instructions must be requested from the permit authority.

8.8. Paving

Paved areas must have a final pavement within 14 days of the completion of the excavation work, or the party responsible for the work must give the permit authority a valid reason for the delay in paving in advance.

The edges of the asphalt pavement must be cut straight at a distance of at least 0.5 m over the load-bearing edge of the excavation. The joint facing the traffic must be chamfered so that there will be no sudden shock when driving over it.

If the edge of the excavation has collapsed, the edge of the pavement must be cut straight as described above, so that it is at least 0.5 metres wider than the collapsed edge over the full length of the excavation.

All joints, including construction joints, must be straight and parallel to the street or perpendicular to the direction of travel. Sharp construction joints must be chamfered in the direction of travel with cold patching mix, for example.

Pavements, pedestrian and cycle lanes, coloured pavements and pedestrian crossing platforms must always be paved across their full width.

In a green strip, the excavation must be far enough from the edge of the pavement to avoid damage to the pavement.

The new pavement must match the old one at least in terms of colour, thickness and quality.

8.8.1. Longitudinal excavations along a street

On carriageways, the pavement must be laid in such a manner that there will be only one longitudinal joint in the pavement, located in the centre of the carriageway.

8.8.2. Excavations across a street

If, after the cutting of the edge of the pavement, separate islets of old pavement that are less than 10 m² in size are left next to the excavation, these areas must be repaved after the excavation has been filled in. The narrowest area to be paved with asphalt is one metre in width.

8.8.3 Temporary pavement

Temporary pavement may only be used if the actual pavement cannot be laid due to reasons such as winter conditions. An agreement on not laying the actual pavement must be made with the permit authority on a case-by-case basis. The pavement must be of the same thickness as the wearing course surrounding the excavation. The temporary patching mix must be non-staining. The temporary and final pavement of the excavation must be level with the old pavement.

The party responsible for the work must ensure that the temporary pavement will remain in a roadworthy condition and smooth.

The use of temporary pavement must be indicated with traffic signs (e.g. the roadwork sign [142] or the pothole sign [141]).

8.9. Stone pavement

Before starting any repair work on stone pavement, the surrounding pavement must be removed at least as described in Section 8.8 Paving so that the repaired surface of the excavation will be smoothly connected to the surrounding old pavement.

Concrete and natural stone pavements must be replaced with products of the same quality (colour, shape, material and pattern) as the removed pavement. The demolished materials must be reused, provided they are not damaged or worn (carriageways).

8.10. Kerbs

Any kerbstones that have moved during the excavation must be restored to an elevation corresponding to the elevation of the street. If there is any

doubt about the position of the kerb (in the lateral direction or in terms of elevation), repair instructions must be requested from the permit authority.

In all cases, repair measures must be carried out in such a way that the alignment appears natural in a visual inspection. Kerbstones of the original style must be used.

If a kerbstone was broken or damaged during the excavation work, the party responsible for the work is obliged to replace it with a corresponding intact equivalent kerbstone at its own expense.

If kerbstones are missing at pedestrian crossings, they must be installed if necessary. An agreement on the installation must be made with the permit authority. An agreement on the costs of the work will be made with the city.

8.11. Manhole covers

All manhole covers to be installed on streets (or in other public areas) must comply with the enclosed table.

Table 1. Required elevation of manhole covers measured from the top of the new pavement

Permissible elevation downwards from the level of the straight edge (mm)

Cover type	In a lane or other access route	Right next to the kerb on the carriageway	In a parking or yard area
Floating solid cover	5–10	5–15	5–20
Floating grate cover	5–10	5–20	5–30
Stepwise adjustable solid cover, fire hydrant or shutoff	5–15	5–20	5–30
Stepwise adjustable grate cover	5–15	5–20	5–30

The bearing strength requirement for manhole covers in street areas is 40 tonnes. Old solid covers must be replaced with floating covers at the expense of the equipment owner.

The party responsible for the work must contact the owner of the structure.

8.12. Railings, traffic signs, etc.

Any railings, traffic signs and other equipment and fittings damaged by the work must be repaired or replaced (no traces of the damage must be visible in the final result). Existing traffic signs and other traffic control devices must not be obstructed. If

necessary, the devices must be moved to a clearly visible location specified by the permit authority.

The permit authority has the right to repair such equipment and fittings at the expense of the permit holder if the permit holder fails to perform the repairs despite a request to that effect.

8.13. Road markings

Road markings must comply with the road marking guidelines of the Finnish Transport Infrastructure Agency (Tiemerkintöjen suunnittelu. Väyläviraston ohjeita 30/2020). Any damaged or altered road markings must be repaired/restored as soon as possible after the work is completed. The work must be ordered from a contractor approved by the City of Kuopio. Permanent markings must be identical to the ones in place prior to the excavation work.

9. LANDSCAPING

The VRT '17 and VKT 2021 guidelines must be followed in landscaping

9.1. Lawn

9.1.1. Protection during construction

Moving in lawn areas must be avoided and lawn areas must not be used as storage areas. If necessary, lawn must be protected with a temporary fence.

9.1.2. Repairing damage

Any damage caused by the work must be repaired by planting new grass seeds, except in R1 areas, where the patching must be done by using sod. The substrate in a patched area must be at least as deep as in the surrounding area, or at least 20 cm in areas R1 through R3.

Only commercial substrate may be used.

In all cases, the substrate of the damaged area must match the existing substrate; excavated soil must not be used.

9.1.3. Preparing a lawn and initial maintenance

Sown lawn

The subsoil must be levelled and a layer of substrate spread on top.

When compacted, the thickness of the substrate must be at least 20 cm. The substrate must consist of fertilized and limed planting mix that complies with the quality requirements of substrates in landscaping (VRT '17 and InfraRYL 2024).

The substrate must be levelled and compacted by rolling it with, for example, a grid roller weighing approximately 80 kg (Fig. 2). 20 grams of grass seed per square metre must be sown. After sowing, the seeds must be covered by lightly raking them to a depth of about one centimetre. After covering the seeds, the sown area must be rolled again.

The finished lawn must not contain any loose stones and must be flat to make it suitable for mechanical maintenance. Grasses of categories R1 to R3 must not contain any visually visible unevenness or pits.

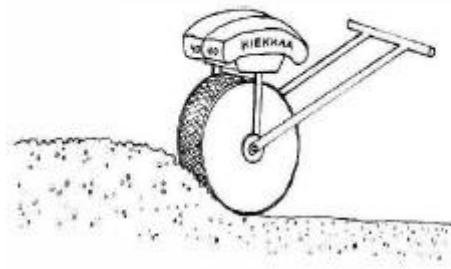


Figure 2. Compacting with a grid roller

Sod

Sod must be used in areas of high importance to the urban landscape, i.e. R1 areas in parks and areas prone to erosion.

The lawn must be green after the warranty period and have a green cover of more than 90%.

The work must be carried out in accordance with VRT '17 and InfraRYL 2024.

9.1.3 Meadows and open green spaces

Meadows and open green spaces must be restored according to instructions given by the city. For example, in dry flowering meadows, low-nutrient topsoil and a suitable meadow seed mix must be used, and the meadow must be sown in spring, summer or late autumn just before winter.

9.2. Shrubs

9.2.1. Protection during construction

Individual shrubs and groups of shrubs

Individual shrubs and groups of shrubs must be protected with a solid and sturdy board/plank fence (height 1.5 m), unless otherwise agreed with the permit authority.

The fences must be placed so that the shrubs are clearly located inside the fencing (Fig. 3).

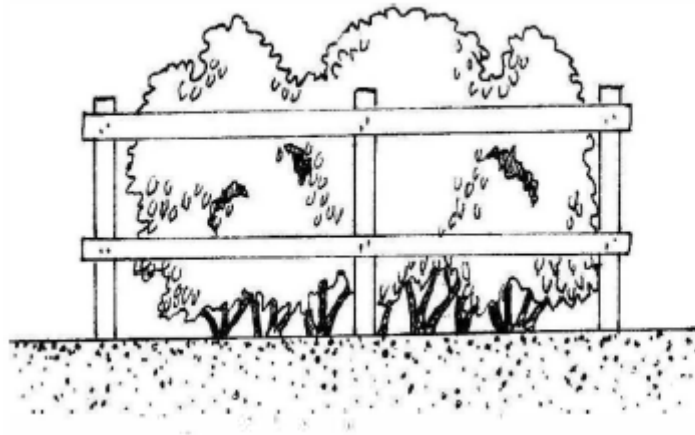


Figure 3.

9.2.2. Temporary removal of shrub(s)

A separate agreement with the permit authority must always be made on the transplanting of shrubs. When moving shrubs during the growing season, special attention must be paid to watering and the maintenance of moisture. The shrubs must be moved with a clod of soil to a shady place and their roots covered with moist peat compost mixture (Fig. 4). The roots must be watered well before covering them with compost.

The healed-in shrubs must be watered once a week. After transplanting, any dry and damaged branches must be removed.

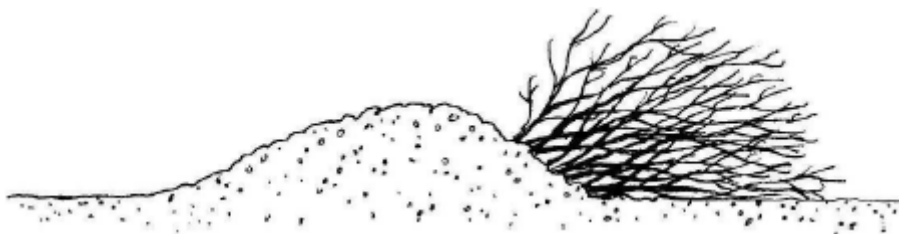


Figure 4. Transplanting of plants

9.2.3. Replanting of shrubs

Shrubs must be replanted at their former spacing and depth so that the roots are covered with soil. Shrubs must not be planted too deep, i.e. the soil should be at the level of the

root crown. The substrate around the shrub must be compacted by lightly treading. After planting, the shrubs must be watered well (min. 10 litres of water per shrub). Container-grown plants must be used in central areas during the summer months.

9.2.4. Repairing bruises and damage

The party responsible for the work must remove any damaged and dead shoots by cutting or sawing. If a shrub has been badly damaged due to the construction site, it must be replaced at the expense of the party responsible for the work.

9.3. Trees

9.3.1. Removing/moving a tree

Felling or moving trees without permission is prohibited. If the work requires the removal of a tree, this must be mentioned in the permit application and a separate permit for felling the tree must be obtained.

9.3.2. Protection during construction

Individual trees

Crown

Branches must not be removed, broken or tied. If there is not enough space for machinery under the canopy, for example, the permit authority must be contacted.

Trunk

The manner in which the trunk is to be protected will be decided when the excavation permit is granted. There are two ways to protect the trunk of a tree:

Method 1. By building a sturdy board fence around the tree up to the edges of the canopy (Fig. 5).

Method 2. By protecting the trunk with uniform boarding. The boarding must extend to the lowest branches of the tree, max. four metres from the ground (Fig. 6). The boards must be tied together with wire, for example, at four to five points. Cushioning must be installed in between the tree and the boards. The protection of the trunk must be checked at least every six months to ensure that the boarding is not damaging the trunk and that the branches cannot rub against the boarding in the wind causing damage.

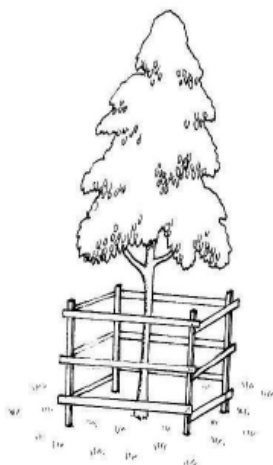


Figure 5.



Figure 6.

Root system

Excavation must not be carried out closer than 2.5 metres from a tree trunk. If excavation closer than this is necessary, an agreement with the permit authority must be made.

If the work involves moving in the area of a tree's root system, the roots must be protected by building a load-bearing protective layer on top of them. The width of the root system must be considered equal to the width of the canopy. A layer of insulation or reinforcement (e.g. filter fabric) must be placed over the existing soil. A layer of gravel or crushed stone (grain size 16/32 mm) must be placed on top of the insulation layer. The layer must be at least 250 mm thick (Fig. 7). Removing the protection must not cause any damage to the roots or trunk of the tree.

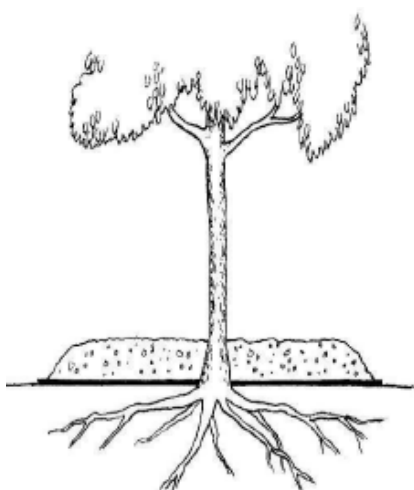


Figure 7.

If large roots are revealed during the excavation work (> 4 cm in diameter), the edges of the excavation must be supported (Figs. 8 and 9) and the roots must be protected by covering them with moist peat.

Roots exposed in winter must be immediately protected by covering them with burlap or peat and temporarily covering the excavation to prevent frost damage.

Any damaged roots must be cut back until healthy wood is revealed before filling in the excavation.

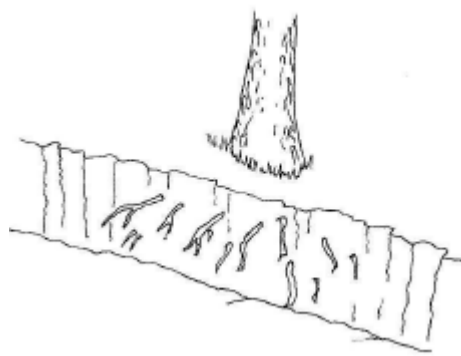


Figure 8.

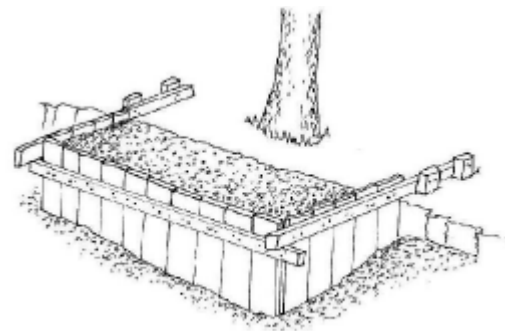


Figure 9.

Stands

Groups of trees must be protected with a sturdy board/plank fence. The fence must be 1.5 metres in height and extend to the outer edge of the canopy (Fig. 10). No construction materials, etc. must be stored in the fenced-in area.

Using machinery or driving vehicles in the protected area is not allowed

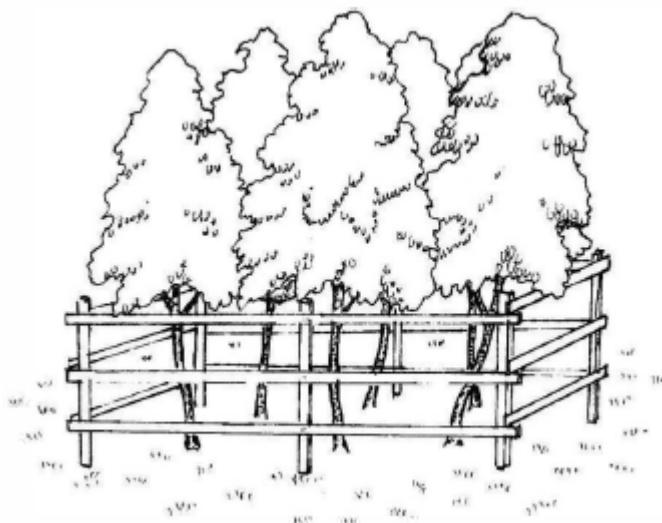


Figure 10.

9.3.3. Damage to trees

The party responsible for the work must immediately report any damage caused to the permit authority. The city will repair the damage and replace the damaged trees at the expense of the party responsible for the work. Particular attention must be paid to changes in the surroundings of a tree, which may lead to a risk of the tree falling, for example (if the root system is damaged, the tree may fall).

9.3.4. Planted areas and trees

Any destroyed or damaged flower beds must be replaced in accordance with the permit authority's instructions.

The charge for bark or root system damage is EUR 1,500 per damaged point. If the damaged bark covers more than half of the circumference of the tree, the tree may have to be replaced.

A dead or badly damaged tree should primarily be replaced with a tree of the same size. For example, the replacement of a large tree costs around EUR 10,000. The permit authority will assess whether the tree needs to be replaced. Matters influencing growth will be checked at the latest in connection with the warranty inspection.

The work area must be repaired so that it complies with the instructions within the agreed time limit.