

Residentcentric worksite experience

A guide for street work planners, clients and contractors







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1 Introduction

- 1.1 Mayor's greetings
- 1.2 Developing the worksite experience
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1.1 Mayor's greetings

The City of Helsinki has set a strategic goal of being the most functional city in the world. We have already achieved our vision in many aspects. Nonetheless, we still have areas for improvement – some of them requiring significant changes. We have received a lot of feedback and messages lately from residents irritated by street works and the disturbances the work causes. In this regard, the City is not functioning as residents would like and as our strategy requires.

Street infrastructure is vital for the City. We need to take care of it and develop it to meet modern demands. The increasingly digital world also needs a functional world below the streets to work properly.

Helsinki is growing significantly, which requires several street work sites in itself. One of the challenges is also that many of the streets in the inner city are starting to need renovating.

I started an extensive project in spring 2019 with the aim of reducing the harm caused by street works. This guide is a part of the project. The key goal of the guide is to contribute to improving residents' experiences of street work.

In addition to the experiences of street work, we will also focus on the basics. The negative effects of the work need to be anticipated, disturbances reduced and lead times shortened.

A worksite is an important communication channel in itself. It is easier to accept the disturbances caused by a worksite when communications are well taken care of: exceptional arrangements are functional, the worksite signs are high-quality and up-to-date, the worksite is clean, and the workers take the needs of the local residents and companies into consideration.

This guide to worksite experience has been implemented through means of service design in co-operation with interest groups. Our next goal is to ensure that the carefully-planned instructions are also followed extensively at different worksites.

Therefore, I am challenging all parties involved in worksites in Helsinki street areas to read this guide carefully and use its contents. It is essential that we set first-class worksites as our shared goal and aim for this in our everyday work with the seriousness it requires. This way, our journey towards becoming the most functional city in the world will be even more credible.

JAN VAPAAVUORI

MAYOR CITY OF HELSINKI



focus group interview

2 online surveys for residents

worksites observed

10 personal interviews

1,549 respondents in online surveys

2,007
suggestions
from residents

1.2 Developing the worksite experience

The most important focus of the strategic vision for becoming the most functional city in the world is allowing all residents to enjoy a functional and meaningful everyday life. Street work sites have a crucial role to play in achieving this objective. With clean and well-communicated street work sites, we can keep our shared urban environment functional, pleasant and safe.

There are hundreds of worksites constantly underway in Helsinki. To many residents, street work sites are 'a necessary evil' that disturbs everyday life and requires exceptional arrangements Although worksites are temporary, some of them may be in place for years. Even a short-term worksite at a public transport junction may affect tens of thousands of residents and passers-through daily.

Worksites are complex entities. Even the smallest worksites may affect several actors from local residents to companies and occur simultaneously with other worksites. From a resident's perspective, a successful worksite disturbs everyday life as little as possible. At its best, a worksite is a natural-feeling and functional part of the developing urban space.

Worksites impact residents' everyday life, which is why their point of view needs to be considered in the planning, implementation and development of worksites. A resident-centric worksite is functional, safe, open and accessible for all users.

This guide on resident-centric worksites helps worksites and their planners, contractors and clients improve residents' experiences of worksites in practical ways. The guide is based on a study carried out using the methods of service design, implemented by the City of Helsinki in collaboration with design agency Pentagon Design. In the study, practical experiences and development suggestions were collected from residents. In addition to this guide, concrete and tested worksite solutions were compiled from the information collected. Since developing worksites and best practices needs constant work, the guide will be updated as experience is gained.

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1.3 How to use this guide

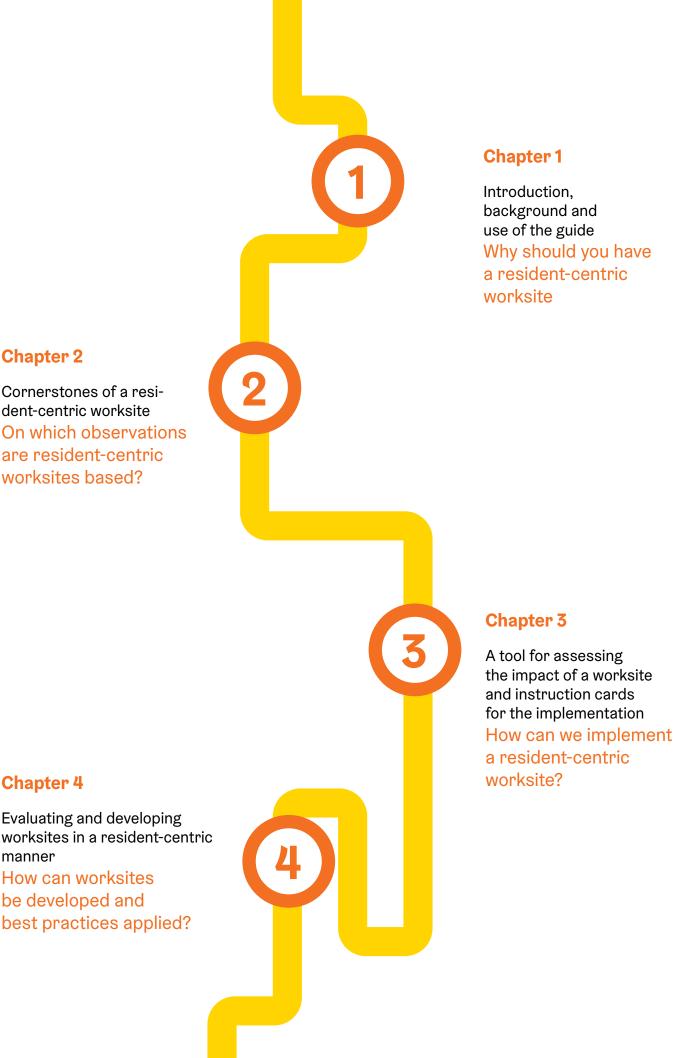
This guide is intended to instruct street work planners and contractors on how residents can be taken into consideration in the planning, implementation and development of worksites. It offers researched information and a selection of practical actions to improve the worksite experience.

Chapter 2 describes how different user groups see a functional worksite. The chapter includes information on the factors of a resident-centric worksite, as well as matters that need to be considered during the work. All worksites are different in terms of duration, size and location. That is why the means for improving worksite experience are also variable.

Chapter 3 presents a tool for assessing the impact of a worksite. The chapter also includes a selection of instruction cards based on the impact assessment.

The cards contain practical solutions for improving worksite experience and information on planning and implementing them. The cards are divided into two levels: the basic level and the additional level. With the cards and the new criterion for worksite experience, residents are given a central role in the development of worksites. These methods help us raise worksite quality to a level of which we can be proud.

For our resident-centric worksites to succeed, we need to measure the success and implement best practices to develop future worksites. The evaluation of worksite experience is covered in further detail in Chapter 4.



Chapter 2

Chapter 4

manner

Evaluating and developing

best practices applied?

How can worksites be developed and

Cornerstones of a resident-centric worksite

On which observations are resident-centric worksites based?



Plan a resident-centric worksite

- 2.1 Keep the residents in mind
- 2.2 Factors of a resident-centric worksite
- 2.3 Planning and co-operation are keys to a successful worksite

2.1 Keep the residents in mind

For a worksite to be functional for everyone, its development and implementation need to take five essential user groups into account, in particular.

These user groups include local residents and other local actors, people with reduced mobility or functional impairment, children and young people, public transport users, and visitors to the city. When worksites are as pleasant, safe, accessible and clear as possible, we will have great conditions for creating a truly functional worksite environment for all residents.



Residents on the street

Worksites always have a particular impact on the everyday lives of the local residents, as well as the well-being and business of the entrepreneurs and employees in the area. This user group values the reduction of irritants such as dust and noise, as well as upto-date communications and engagement.

AThe services in the area must remain accessible even during the work. That is why the routes, signs and communications need to be as clear as possible. The worksite needs to be arranged so that people can access their homes and workplaces primarily by foot, bicycle and public transport.

Pay special attention to:

- reducing noise and other sensory effects
- allowing residents time to prepare for known disturbances and interruptions
- ensuring that the communications are up-to-date, multi-channel and easily found
- engaging the affected residents in the planning of the worksite.

This is particularly important when:

- there are many residences on the street
- there are extensive business operations and/or services on the street.



People with reduced mobility or functional impairment

When a worksite is accessible for people with reduced mobility or functional impairment, such as wheelchair users or people with another kind of impairment, it will also be accessible to other residents. During the planning, people with reduced mobility or functional impairment need to be listened to as much as needed. Everyone operating on the worksite needs to know the accessibility practices agreed on and commit to them.

The worksite needs to announce any significant changes through multiple channels and in a timely manner. The solutions decided on the worksite need to comply with the accessibility requirements set for the worksite area.

Pay special attention to:

- engaging residents and co-operating with them at various stages of planning and implementation, if possible
- ensuring the accessibility of the routes and preventing people from tripping, falling or colliding with objects
- ensuring that the signs and traffic lights are clear, discernible, readable, uninterrupted, contrasted and multisensory
- communicating via multiple channels.

This is particularly important when:

 there are services intended for older people or the disabled, sheltered housing or health services near the worksite.



Children and young people

Worksites need to be safe and feel safe, particularly for children and young people. Safety is increased by factors such as low speed limits, visible pedestrian crossings, clear routes through the worksite, good lighting and intact fences.

Active communications before starting work at the worksite and during the work ensure that parents and children can prepare for changes and get to know the worksite at home. Full consideration of children and young people requires co-planning, proactivity and agreeing on how communications responsibilities are divided with day care centres and schools.

Pay special attention to:

- prioritising walking, baby prams and cycling – remember that children aged under 12 are allowed to cycle on pavements, even at worksites
- co-operation and up-to-date communications with the local schools and day care centres
- highlighting pedestrian crossings.

This is particularly important when:

 there is a school, day care centre or children or young people's activities near the worksite.



Passers-through include pedestrians, public transport passengers, cyclists and e-scooter users. Passers-through may not be familiar with the area, which is why it is particularly important to have clear signage and access to services.

When planning the worksite, you need to identify the most important routes used by passers-through in the worksite's area of impact. People need to be able to pass through the worksite as safely, accessibly and easily as possible. In addition to signs, this is also facilitated by sloping the kerbs, wide paths, worksite fences and paying attention to cleanliness and order at the worksite.

Pay special attention to:

- co-operating with HSL on matters related to public transport and communications about the worksite's impact
- the routes and signs that direct people through the worksite, as well as clearly separating pedestrian and cycling routes from vehicle traffic
- the locations, safety and cleanliness of the temporary public transport stops.

This is particularly important when:

- the street is a significant entry route into the city or a cycling route
- the street is a significant public transport route
- there are one or more public transport stops on the street
- the street is in the city centre.



There are special needs related to serving visitors to the city at worksites in particular areas. For example, worksites affect the image of Helsinki for tourists who arrive in Helsinki via the Port, even if they visit the city only briefly. At their best, worksites also indicate a constantly developing and the world's most functional city where urban environment is looked after.

Pay special attention to:

- people who do not speak Finnish or Swedish: also use English and symbols in the signs and communications whenever possible
- a spirit of customer service in all communications
- communicating route changes and stops' new locations together with HSL.

This is particularly important when:

- the worksite is located in the city centre or near hotels, attractions or tourism hubs (such as harbours and railway stations)
- there is a stop used by charter buses on the street.



2.2 Factors of a residentcentric worksite

The goal is to have worksites impact the everyday life of residents and the urban environment as little as possible. At its best, residents' experience of a worksite is positively surprising and successful.

As a part of the worksite experience development project, a survey was carried out for residents. In it, five essential factors were identified regarding the success of a worksite in residents' eyes. The focus, target level and methods related to the factors vary by worksite. You can read more about them in Chapter 3.

The areas are not listed in order of importance.

1. Accessible, open and up-to-date communications

Good worksite communications are implemented via various channels and in accordance with the directive on accessibility.

The goal of worksite communications is to offer information on the worksite, its progress, and potential disturbances for residents and interest groups, as well as an opportunity for residents to have open dialogue regarding the worksite. Successful communications create a positive image of the worksite and also of the city as a whole.

Open and up-to-date worksite communications also help gain positive media coverage and hence significant reputation benefits.

2. Clear and proactive signage

A worksite is a temporary and varying entity that inevitably causes deviations from the routes of various modes of transport and passers-through.

Clear and proactive signage increases both the safety of the worksite and the pleasantness of the experience. Signage is made clearer by legible texts, adapting the font size to the reading distance, structuring the information by level of importance and reducing it to the essentials.

Aspects such as sufficient light-dark contrast, use of symbols and taking multilingualism and multisensory experiences (such as using audio) into account makes signage more accessible.

Proactive signage means signage that starts well before arriving at the worksite. When street works, exceptional arrangements and alternative routes are communicated to passers-through and vehicle drivers sufficiently early, they will have time to react.

3. Easy and accessible routes

The routes through the worksite and exceptional routes need to be easy to use, accessible and safe for all passers-through and modes of transport. To make pedestrian routes accessible to all, they need to be planned and implemented with special attention to people with reduced mobility or functional impairment.

The accessibility criteria defined in the SuRaKu cards and the City of Helsinki's urban space instructions need to be fulfilled even in temporary worksite environments.



1. Accessible, open and up-to-date communications



5. Agile and engaging development





2. Clear and proactive signage

4. A pleasant and safe environment



3. Easy and accessible routes



Worksites always cause some level of temporary disturbance. Nonetheless, they can also be a pleasant environment and a clean and natural-feeling part of the city space.



This means the appropriate consideration of route width, worksite fences, route sloping, and the materials and maintenance of route surfaces, among other things. This way, it can be ensured that people using a wheelchair or walking with a pram can easily traverse the route from start to finish.

In addition to this, the design of the fences needs to take people with visual impairment into consideration, with the barrier attached to a solid bar that clearly separates the worksite. The white cane used by some people with visual impairment can only detect obstacles that are at ground level. The white cane used by some people with visual impairment can only detect obstacles that are at ground level.

Easy routes are functional and safe for other modes of transport than walking, from cyclists to public transport. Cycling is a particularly vulnerable mode of transport, which is why it is essential to consider it. This can be done through prioritised modes of transport and routes that are separated clearly through differences in levels, barriers or coloured sections.

4. A pleasant and safe environment

Worksites always cause some level of temporary disturbance. Nonetheless, they can also be a pleasant environment and a clean and natural-feeling part of the city space. A worksite may even create a feeling of safety and trust among residents.

For example, separating the worksite with fences makes it clearer and also more pleasant. At their best, fences can prevent noise and dust. Safety, clarity and cleanliness often increase the pleasantness of a worksite.

The safety of the worksite and the feeling of safety for residents can be advanced with various small measures. Examples of these measures include unobstructed views of pedestrian crossings, sufficient lighting, speed displays, speed bumps for vehicles, and pedestrian paths that are clearly separate from cycling paths.

In cases of long-term and substantial worksites in residential areas, it is particularly important to pay attention to comfort and minimise stimuli. These measures are significant for the residents and other actors in the area. For example, noise levels should be controlled by keeping the residents and times of day in mind.

The pleasantness of the urban environment during a worksite can be influenced with small measures, such as having trees on the street, increasing the number of bins and having graphic illustrations on the fences.

5. Agile and engaging development

At resident-centric worksites, residents are involved in the planning and implementation of the worksite arrangements, particularly if the worksite has a high level of impact. Measures such as resident committees, online surveys, social media discussions, and using experts by experience in the planning of worksites are excellent ways of engaging residents.

You cannot always get it all right first time, so worksites need to be developed based on the feedback from residents. By engaging, anticipating and developing, worksites can be improved even when they are underway. Best practices can also be transferred to future worksites.

2.3 Planning and co-operation are keys to a successful worksite

Street work sites vary by location, size, complexity and impact, among other qualities. That is why the implementation of a resident-centric worksite starts with in-depth surveying, anticipating and planning. A successful worksite experience is created through co-operation between all parties involved. The residents are a key partner in this.

The permit application process is only a part of your worksite. With good advance planning and communications, you can ensure that your worksite will be successful for everyone.

Before the work:

- Learn. Familiarise yourself carefully with your worksite's area of impact: the operations and people in the area. Find out if the area of impact includes residences, business premises, schools, day care centres or other essential services. When planning the worksite arrangements, pay attention to the facts learned above and how the worksite will affect moving about in the area.
- Aim for coordination. Learn about the other worksites and area reservations in your worksite's area of impact. For your part, plan the coordination, timing and potential shared operations with these worksites or reservations.
- Pay attention to communications.
 Contact all key actors whose operations your worksite will affect. For example, HSL will help you communicate to public transport users regarding the changes caused by the worksite.

Before the work

During

- Plan your worksite's stages, schedule, logistics and area restrictions carefully and proactively.
- Assess your worksite's impact using the tool introduced in Chapter 3 of this guide. Apply the actions on the instruction cards presented in the guide based on your worksite's assessed level of impact.
- Observe the current status and residents of the area. How do residents move about in the area of your future worksite? Which shortcuts do people take to cross the street? How do times of day and congestion affect the operations in the area?
- Prepare and engage. Involve experts and residents in the planning of your worksite, for example regarding the assessment and application of accessibility solutions. Test solutions with users and develop them iteratively, which means progressing and testing solutions stage by stage.
- Ensure safety both at the worksite and its area of impact.
- Aim to minimise adverse effects. What ways can your worksite reduce traffic and noise disturbances?
- Communicate about your worksite openly and early. Inform the local residents and operators of your worksite's schedules and events well in advance. Keep this in mind in the permit application phase! Take care of the start and end in co-operation with HSL.

the work

After the work

During the work:

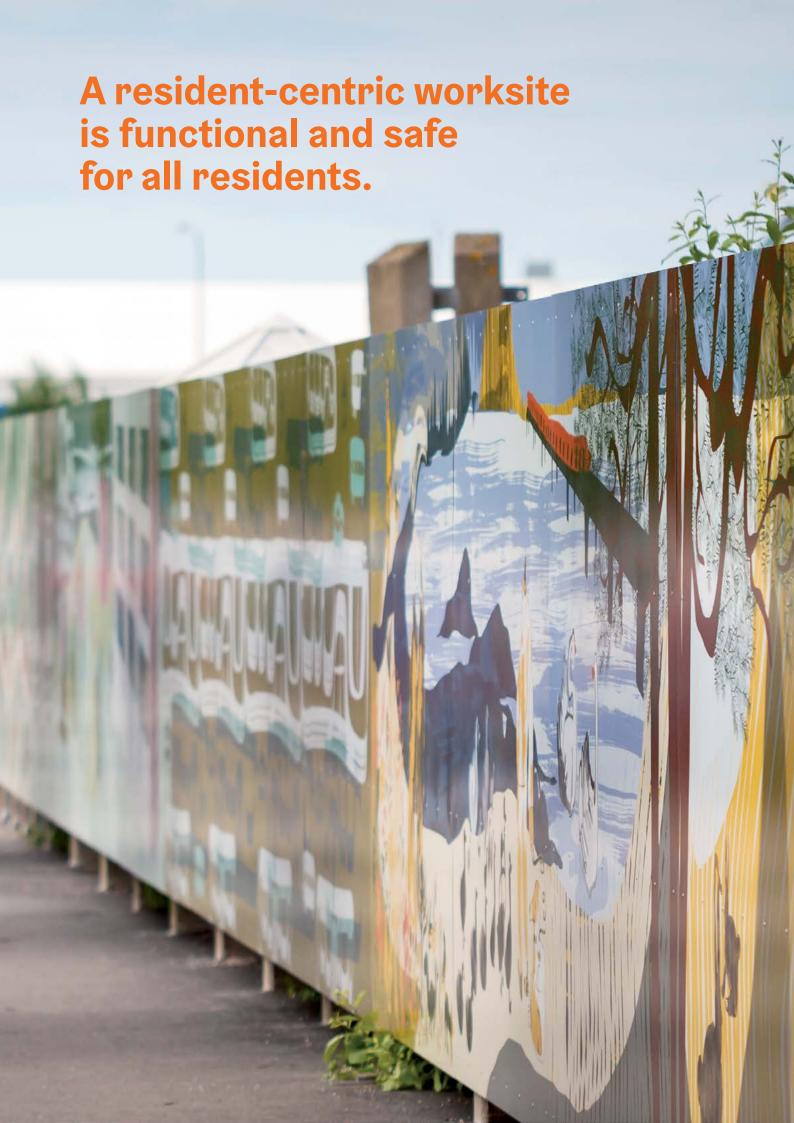
- Keep to the schedule. Implement your
 worksite in accordance with the planned
 schedule. If your schedule changes,
 inform the City of this according to the
 permit terms, and also inform the parties affected by your worksite as soon as
 possible.
- Maintain. Keep your worksite clean, correctly restricted and safe. Monitor and supervise your worksite. Ensure that the criteria compiled in this guide are met throughout the worksite process.
- Release any unused worksite areas for normal use as soon as possible.
- Monitor the progress, arrangements and changes of the other worksites in your worksite's area of impact. Plan your work around them.
- Communicate your worksite's progress to residents actively and through multiple channels. Potential disturbances need to be announced in advance. Contact HSL about the effects and changes caused by the work regarding public transport.
- **Develop** your worksite based on the feedback from residents.

After the work:

- Restore excavated surfaces to the quality level agreed in the permit terms as soon as possible.
- Clean up immediately after the work, thus ensuring normal use of the area.
- Inform the City and, if necessary, the people in the area of impact, of your worksite being completed. When the work ends, remove the exceptional arrangements and inform HSL.
- Evaluate the success, functionality and effects of your worksite. You can use the evaluation form at the end of this guide.
- Record the most important lessons learned and methods used and apply them on your future worksites.







Helsinki

3 Residentcentric implementation

- 3.1 Instruction cards for implementation
- 3.2 Decision tree for the instruction cards

3.1 Instruction cards for implementation

In addition to the general and statutory instructions, worksites in the City of Helsinki follow the basic-level instruction cards presented in this guide. The basic-level cards are on a white background. With them, residents can be taken into consideration better than before.

Basic level: white cards

Applicable on all work sites

Α

Accessible, open and upto-date communications

A1.1.	Worksite sign	A1.5. Maps	A
A1.2.	General information of the worksite		
A1.3.	Resident communications		
A1.4.	Tone of the communications		

В

Clear and proactive signage

B1.1.	Advance signs	B1.4.	Signs for relocated crossings	B1
B1.2.	Pedestrian and cycling signage at the worksite			
B1.3.	Signs at relocated stops			

C

Easy and accessible routes

C1.1.	Prioritising modes of transport	C1.6.	Excavation bridges	C
C1.2.	Pedestrian routes and crossing	C1.7.	Bicycle racks	
	the street	C1.8.	Paying attention to public transport	
C1.3.	Cycling routes	C1.9.	Entrepreneurs' needs	
C1.4.	Surface quality of passageways		<u> </u>	
C1.5.	Excavations	C1.10.	Properties' needs	

D

A pleasant and safe environment

D1.1.	Worksite fences	D1.5.	Lighting	D1
D1.2.			Noise and dust	-
	worksites	D1.7.	Cleanliness and arrangement	_
D1.3.	Temporary pedestrian crossings		maintenance	
D1.4.	Public transport stops	D1.8.	Speed limits during the work	_

Ε

Agile and engaging development

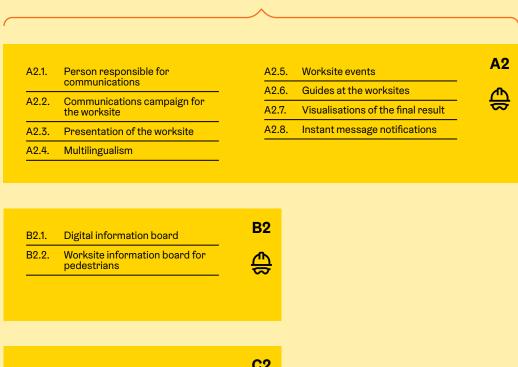
E1.1.	Testing the routes	E1

In addition to the basic instruction cards, the City may order the worksite to follow the additional-level instruction cards. The additional-level instruction cards are on a yellow background. The next page has a tool for establishing if the worksite arrangements require the additional-level methods.



Additional level: yellow cards

Implement as agreed





D2.2.	Taking children into consideration	D2.5. Speed displays	
D2.3.	Cleanliness and arrangement maintenance – additional level		_ ;
	tenance – additional level		

E2.1.	Worksite committee	E2
E2.2.	Experts by experience	(
E2.3.	Co-operation with sensitive functions	ਙ

3.2 Selection tool for additional instruction

The client will assess the worksite needs and establish the contract-specific additional-level yellow cards to be used in the implementation for each worksite, even the small and short-term ones. The basic-level instructions and requirements (the white cards) are always applied.

= Always implemented= Implemented as agreed

	Less than 24 hours
Work	Between 1 day and 1 month
duration	Over 1 month
	Over 12 months
	Point-like single location
Worksite size	Intermediate: 10 metres—length of an entire block
	Wide: covering different sides of the street–several blocks
	A busy location, for example with many residences, services or other operations
	A sensitive area, for example near a day care centre, school or sheltered housing
	A challenging location in terms of traffic (a traffic hub, main street or similar)
Worksite location	The location intersects with or directly affects another worksite
	The location makes it more difficult to access operations: it may be difficult to enter a brick-and-mortar shop, for example
	There are one or more public transport stops in the worksite area
	The worksite affects essential cycling and pedestrian connections
	The worksite significantly affects the movement of tourists
Special	Location in the pedestrian city centre
qualities of the	Location near a public transport terminal
worksite	The worksite area includes a significant cycling route
	There are notable attractions or other locations of special interest near the

A	Viestin	ıtä					
A2.1 Person responsible for communications	A2.2 Communications campaign for the worksite	A2.3 Presentation of the worksite	A2.4 Multilingualism	A2.5 Worksite events	A2.6 Guides at the worksites	A2.7 Visualisations of the final result	A2.8 Instant message notifications
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cards

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B2.1 Worksite information board for pedestrians	B2.2 Digital information board	
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D2.1 Highlighted crossings	D2.2 Taking children into consideration	D2.3 Cleanliness and arrangement maintenance additional level	D2.4 Noise barriers	D2.5 Speed displays	
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	E Kehittäminen				
	E2.1 Worksite committee	E2.2 Experts by experience	E2.3 Co-operation with sensitive functions		
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A. Accessible, open and up-to-date communications

A1.1 Worksite sign

Worksite signs are used whenever the worksite lasts a month or longer. At shorter-term worksites, a small worksite sign as presented in A1.2 can be used.

Worksites that last less than a month may also use worksite signs if the location is significant or central. The worksite sign needs to be placed so that it can be read easily and does not pose a risk to traffic. At large worksites, the number and locations of the signs need to planned so that the worksite information is visible from multiple directions.

The worksite sign needs to include the following information:

- Start date, completion date and, if available, a plan of the stages and schedule of the site.
- The name of the site, purpose of the work and permit ID of the worksite.
- An illustration of the site, a high-fidelity map image or a plan drawing adjusted to the sign's dimensions. In the case of minor standard work (such as cabling), the illustrations created for standard works at other worksites can also be used, if needed.
- The party responsible for the work: (for example, City of Helsinki / Urban Environment Division).
- Telephone +358 (0)9 310 22111.
- The web address hel.fi/katurakentaminen (or the website of the project).
- Phone numbers of the main contractor and the site supervisor.
- Instructions for joining an instant messaging group, if available.
- HSL is the party in charge of exceptional arrangements in public transport and announcing them.

The information on the worksite sign must always be in both Finnish and Swedish, and, if necessary, also in English. If the worksite sign should be ordered from the Sign Services of Stara, Stara will take care of having the texts translated.

→ Instructions on worksite signs (in Finnish):
www.hel.fi/kaupunkiymparisto/fi/julkaisut-ja-aineistot/ohjeita-suunnittelijoille/
tyomaatauluohjeet

A1.2 Small worksite sign

This card concerns worksites planned in advance where workers will have more than one shift and where there are people moving about. The worksites mentioned above need to include a worksite sign in accordance with this card, at the minimum.

The sign needs to include the most important worksite information clearly on the standard sign template or similar. The sign needs to be at least size A3.

Pay attention to clarity, discernibility, legibility, font size and contrasts. At the minimum, the sign needs to include the following information in Finnish and Swedish:

- 1. work duration and estimated end date
- 2. purpose of the work and permit ID of the worksite
- 3. contact information of the persons responsible.

A1.3 Resident communications

The residents, companies and other operators in the area need to be informed of the worksite at least a week before the start of the work. The announcement about the start of the work needs to include the exact start date, estimated duration, work done at the site, exceptional routes, potential changes to public transport and stops, daily schedule, estimated date and time of noisy work stages, and the contact information of the contractor and the developer.

The suitable communication channels will be chosen in co-operation with the client's communications. Communications regarding public transport will be implemented together with HSL. In the case of sensitive locations (such as schools, day care centres, hospitals and nursing homes), you need to prepare to separately negotiate on the working hours and taking these locations into consideration. The completion of the worksite, as well as any disturbances and delays during the work, also need to be announced in co-operation with the client's communications.

A1.4 Tone of the communications

Communications need to be clear, simplified and comprehensible. Try to use active voice instead of passive voice. For example, do not write "municipal infrastructure is being rebuilt in the area"; say "we are renewing water pipes and sewers" instead.

A1.5 Maps

When the work is about to start, the contractor is obligated to produce an illustrative and clear map of the worksite for resident communications. A map of any significant changes to traffic arrangements also needs to be made. Agree with the client as to whether changing traffic arrangements need to be communicated regularly with maps.

A. Accessible, open and up-to-date communications

A2.1 Person responsible for communications



The person responsible for worksite communications is a person appointed to this task by the contractor. This person will be closely involved in the everyday work and meetings of the worksite. They will implement the worksite's communications plan in co-operation with the client's communications and other parties. When an individual is specifically in charge of communications, the communications from the worksite to the residents will be functional and up-to-date.

A2.2 Communications campaign for the worksite



A worksite with significant impact needs to involve a plan for a communications campaign that can make use of the digital advertisement boards in the city, or the contractor's own digital screens in the worksite area and its vicinity. The methods, duration and scope of the communications campaign should be agreed on with the client.

A2.3 Presentation of the worksite



The worksite can be presented more extensively with the help of a container or a wall. The presentation entity should include more details about the work being done and its stages, special qualities and plans. The presentation should also include the planned results of the worksite and their effects on residents

A2.4 Multilingualism



The worksite signs and other signage should take residents, visitors and tourists into consideration in Finnish, Swedish and English. If necessary, the instructions can also be in additional languages requested by the client. Communications are supported with illustrative icons and pictograms.

A2.5 Worksite events



The contractor can agree with the client on holding events for the residents and passers-through. The events may include an opening ceremony on the worksite's start date, residents' evenings and on-call hours at the worksite.

A2.6 Guides at the worksites



During the first few days of the worksite, the site should have guides dressed in yellow vests. The guides will provide guidance for residents, answer their questions and distribute maps of the worksite area

A2.7 Visualisations of the final result



Produce high-fidelity illustrations of the worksite's end results. The illustrations can be used in the worksite communications from the pedestrian signs to online communications. The illustrations can be connected to the information board for pedestrians (B2.1) and/or the presentation on the worksite (A2.4).



A2.8 Instant message notifications



In challenging locations, you can use notifications via SMS or an instant messaging service as agreed on. Many worksites have a WhatsApp group where worksite schedules and status information are shared at least once a week. The worksite sign and the City's website should include instructions on joining the WhatsApp group.

B. Clear and proactive signage

B1.1 Advance signs

If the worksite will disturb traffic in a significant manner, the signage should start well ahead of the worksite. Cyclists, pedestrians and drivers should be warned of the worksite in advance so that they have the opportunity to switch routes, if necessary.

B1.2 Pedestrian and cycling signage at the worksite

Traffic sign #142 (Street works) must always be used when working on a pavement or cycling path. On pedestrian and cycling paths, the lowest edge of the sign needs to be at a height of 2.2–3.2 metres.

Signs must not be attached to the posts of fixed traffic control devices, and they must not create an visual obstruction or a collision risk. The signs need to be installed so that they can withstand wind or a snow load without falling over or becoming loose. The signs are installed next to the route, for example on the worksite fence or a separate column.

The signs for temporary traffic arrangements are yellow and black. Their text size is usually 80–200 millimetres. On signs intended for pedestrians and cyclists, the text size is usually 60–80 millimetres. Traffic signs need to show pedestrians and cyclists the routes through the worksite in a clear and uninterrupted manner.

B1.3 Signs at relocated stops

If public transport stops need to be relocated or removed, their original location must include signage directing users to the next stop and showing the walking time to the next stop. Signage and the relocation of the stops are agreed on with HSL.

→ More information and contact details (in Finnish): www.hsl.fi/asiakaspalvelu/urakoitsijoille

B1.4 Signs for relocated crossings

Relocated and temporary pedestrian crossings are announced with a sign that shows the direction of and the distance to the alternative crossing. The sign is placed at the location of the removed crossing (example image below).



B1.5 Taxi ranks

Taxi ranks to be relocated should be given a new location. The worksite should have directions to the relocated taxi rank.

B2.1 Worksite information board for pedestrians





Pedestrian junctions should have a worksite information board installed at a readable level. In addition to the worksite information, the horizontal board should include a map, adjusted to the terrain's direction, which shows the current location with the 'You are here' dot. The map will also include the pedestrian and cycling paths, distances to key destinations in metres and minutes, key landmarks, and an arrow pointing north.

If you have applied 'Visualisations of the final result' (A2.3), place the visualisations next to the information board, unless agreed otherwise.

→ More information and instructions: kymp.viestinta@hel.fi

B2.2 Digital information board





The key pedestrian junctions should include digital information boards with a map of the worksite area and current information about the progress, stages, safety, local services, and engagement opportunities, for example.

C. Easy and accessible routes

C1.1 Prioritising modes of transport

The general principle of transport planning in Helsinki is looking after the needs of pedestrians, which are second only to the rescue and maintenance needs of properties. After pedestrians, the needs of cycling traffic, public transport, business-related deliveries and private cars are taken into account, in this order. The same order of priority must also be applied at worksites.

→ Helsinki's Development plan for mobility (2015, in Finnish)

www.hel.fi/hel2/ksv/julkaisut/los_2015-4.pdf

C1.2 Pedestrian routes and crossing the street

Whenever possible, pedestrians should be directed past the worksite along a consistently marked route which has been separated from the road with barriers. Otherwise, pedestrians should be directed to the other side of the street at the permanent crossings.

The free route intended solely for pedestrians must be at least 1.5 metres wide and 2.2 metres high. If a wider space cannot be arranged, the pavement can be 1.2 metres wide. When narrowing routes, you should pay attention to how the route can be maintained. If the narrowing prevents normal equipment from being used in maintenance, it may affect the distribution of maintenance responsibilities. The distribution of liabilities will be set during the agreement phase.

Pedestrians must never have to pass the worksite via the road among other traffic. The main pedestrian route must be as clear as possible. Pedestrians must be offered a sufficiently dense selection of routes where the worksite or road can be crossed safely. The routes must also be developed further during the work.

→ Check the current and specific instructions at (in Finnish): pyöräliikenne.fi

C1.3 Cycling routes

On most streets, cyclists normally use the road, in which case cycling traffic can be considered when making the traffic arrangements for the road. On the busiest streets, cycling traffic has its own lane separate from motor vehicles. The routes can be one-way or two-way. In Helsinki, pedestrians and cyclists are usually also separated from each other. Each worksite needs to ensure that cycling connections continue logically in relation to the direction of movement. Cyclists must have access to the side streets.

Cyclists and pedestrians should be separated even whilst work is underway at the worksite. This may require temporary narrowing of the routes, or borrowing space from the street parking, for example. The width of the cycling lane is based on the number of users. However, a two-way cycling lane must be at least 2 metres wide.

In exceptional situations, a combined route must be so wide that both modes of transport have room. The route must always be at least 3 metres wide. However, if the section of the route is short and there are relatively few pedestrians, a width of 2.5 metres will suffice.

Cyclists can be directed to the road if the road is calm and has a low speed limit. The main route for pedestrians and cyclists must be as clear as possible. Cyclists must be offered a sufficiently dense selection of routes where the worksite or road can be crossed safely. Routes must also be developed further during the work.

→ Check the current and specific instructions at (in Finnish): pyöräliikenne.fi

C1.4 Accessibility

The routes intended for pedestrians and cyclists must have a barrier or fence by the traffic signs directing people to the route. The barrier or fence must be located exactly at the pedestrian crossing so that a visually impaired person can reach the correct route.

The lower edges of the signs attached to the barrier or fence must be at least a metre above the ground. If people moving on roads, pedestrian routes or cycling routes need to be directed over the kerb, the road and the kerb need to be sloped to the same height with a step of three centimetres.

Things such as cable channels also need to be sloped. If traffic lights are being used at the worksite, they must also comply with the accessibility instructions.

C. Easy and accessible routes

C1.5 Surface quality of passageways

The surface of the pedestrian and cycling paths needs to be even, and the routes need to slope sufficiently gently so that people using a wheelchair or moving with a pram can move about as smoothly as possible. The paved pedestrian or cycling routes must not have sections with a gravel surface as this makes movement more difficult for wheelchair users, for example. On temporary routes, stone dust can also be used to cover the route.

If there is an excavation on the route, a bridge or a temporary cover needs to be placed over it for the duration of the work. If the area needs to left unsurfaced for 24 hours, at the maximum, it needs to be marked with traffic signs and highly visible protective devices.

The seam of the surface must not have a step. An unsurfaced section cannot be left in a long slope as it can be dangerous for cyclists or roller-skaters. Sharp asphalt seams must be sloped in the direction of movement at the angle specified in the instructions. This can be done with cold patching mix, for example.

C1.6 Excavations

An excavation on or by a pedestrian or cycling route must be bordered with a railing or a fence so that people cannot fall into the excavation. When choosing a safeguard, consider how well it stays in place.

C1.7 Excavation bridges

An excavation on a pedestrian or cycling route should be covered with a temporary bridge. The bridge's surface structure must not have gaps, and there must not be a groove between two bridges as it may be dangerous to cyclists. The surface of the bridge must not be slippery in rain or other conditions.

The temporary bridge must be at least 1.5 metres wide. The bridge should be built at the level of the route, but if this is not possible, the bridge's slope must be 1:10, at the maximum. If the cover of the excavation bridge is not bordered by a fixed wall, the edge of the cover must have a protective edge of at least 5 centimetres in height.

An excavation bridge intended for pedestrians must have a handrail on both sides, at the height of 0.9 metres. If cyclists are also using the bridge, the top edge of the handrail must be at a height of 1.2 metres, and the bridge needs to be wider. The handrail of the excavation bridge should always have a section that prevents people from falling through the railing. If the excavation is more than 1.5 metres deep, the handrail of the bridge needs to be at least 1.2 metres high.

C1.8 Bicycle racks

If bicycle racks need to be removed for the duration of the work, a temporary bicycle rack should be installed near the worksite. It needs to have room for as many bicycles as the removed rack. In the case of city bike stations, contact HKL to decide on an alternative location.

C1.9 Paying attention to public transport

If there is public transport operating on the route, you need to negotiate on the effects with HSL, HKL and/or the Linja-autoliitto association before making traffic arrangements. As for tram and bus stops, the traffic arrangements must take the following matters into consideration:

- Pedestrian connections to the stops must remain, and they must be accessible.
- The stops should be close to their normal locations to keep public transport on schedule.
- The stops must remain in operating condition.
- When relocating stops, sufficient directions need to be provided (B1.4).
- → Detailed card and advance notification times: D1.4
- → More information (in Finnish): https://www.hsl.fi/asiakaspalvelu/ urakoitsijoille
- → Contact information: HSL: infra@hsl.fi, HKL (metro and trams), Linja-autoliitto (long-distance transport)

C2.1 Overhead passages



If pedestrians have to cross the worksite, build an overhead passage. The passage will be planned on a case-bycase basis according to instructions.

C1.10 Entrepreneurs' needs

As for the businesses on the street, the worksite arrangements need to take the following matters into account:

- Usable access to all business premises on the street needs to be organised for the entire duration of the work.
- The requirements of goods transport need to be discussed with business operators.
- The visibility of the business operators on the street must be disturbed as little as possible.
- Business operators' opinions need to be taken into consideration both before and during the work.

C1.11 Properties' needs

As for the properties on the street, the worksite arrangements need to take the following matters into account:

- Needs of rescue vehicles and services.
- Usable access to all properties and business premises on the street needs to be organised for the entire duration of the work.
- The residents and users of the properties need to have access to current information about the worksite's progress. The methods may include a WhatsApp group or a digital screen in front of the property.

D. A pleasant and safe environment

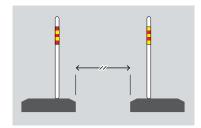
D1.1 Worksite fences

Continuous worksite fences restrict the worksite area in a clean and unbroken manner. The size, materials and colour or illustrations of a long-term fence need to fit the area.

The support bar or base of the fence must not cause a tripping hazard for pedestrians. It must also allow a consistent guide for a white cane, to the extent possible.

The minimum width must be fulfilled with the base or support of the fence considered in the calculations. When possible, the bases must be installed so that they take up as little space as possible on the route.

If movable fences are used at the worksite, opt for models similar to the image, which comply with accessibility regulations or which have a solid support bar or base.





D1.2 Pedestrian crossings at the worksites and detection thereof

Pedestrian crossings must be accessible for the entire duration of work at the worksite. Pay special attention to the evenness and slope of the routes. It is also important that the crossings in the worksite area have been implemented carefully in terms of drying, and that they have sufficient lighting.

The safety of pedestrian crossings needs to be considered with particular care near parks, nursing homes or disability services or in areas with children moving about.

The worksite fence by crossings needs to be such that drivers can see small children stepping onto the crossing. If crossings need to be closed or relocated, and there is no alternative crossing nearby, people should cross at a temporary crossing.

- → SuRaKu card 'Pedestrian crossings and pavements': www.hel.fi/static/hki4all/ohjeet/Suraku_Card-1_060208.pdf
- → Standard-project drawing for crossings (in Finnish): www.hel.fi/helsinkikaikille/fi/ohjeita-suunnitteluun/katualueiden-tyyppipiirustukset/

D1.3 Temporary pedestrian crossings

Temporary crossings must be placed in locations essential for maintaining traffic safety. Here, it is particularly important to pay attention to visibility and pedestrian routes. The permanent speed limit must be lowered at the points where it is needed. Traffic sign number 151 (pedestrian crossing) must be used to warn vehicles of the changed crossing arrangements. On a busy street, mobile traffic lights need to be used.

Relocated and temporary pedestrian crossings are announced with a sign that shows the direction of and the distance to the crossing in metres.

→ Liikenne tietyömaalla

– Tienrakennustyömaat (Liikenneviraston ohjeita,
28/2017) ['Traffic at
a street work site –
road construction
sites (Instructions
of the Finnish
Transport Agency
28/2017)']

D1.4 Public transport stops

HSL must be informed in advance of a worksite, potential route changes and stops that may need to be relocated or removed from use due to the worksite. HSL must be contacted regarding the relocation of stops or changes to bus routes at least two weeks in advance. If the worksite is by the final stop of a bus line, or buses cannot operate on the street, HSL must be contacted at least 2.5 months in advance. If the changes concern tram or train transport, HSL must be contacted at least 6 months in advance.

When a stop is relocated, the contractor will be responsible for installing a temporary stop post (at least 2.7 metres in height), a traffic sign and a base. The contractor should install a sufficient number of announcement cases on the post. The contractor will also be responsible for maintaining the stop area. After the work has been completed, the contractor will disassemble the temporary stop and return the original stop to its original condition.

HSL will move and install the destination board grid onto the traffic sign for the temporary stop at a time agreed on. The City and HSL may also decide that a canopy and/or a platform with a ramp to the bus's or tram's floor level, compliant with accessibility regulations, will be installed for the stop.

Stops must not be relocated or removed without permission from HSL. The contractor must comply with HSL's general instructions and agree on the details with HSL. The removed stop must have a sign directing users to the alternative stop. The sign must include the direction to the stop (as well as a map, if needed) and the distance in metres.

Importing worksite information into an open interface, such as HSL's Digitransit service, must be agreed on with HSL.

→ More information (in Finnish): www.hsl.fi/asiakaspalvelu/urakoitsijoille

D. A pleasant and safe environment

D1.5 Lighting

If the lighting of a pavement or cycling route needs to be removed during the work, temporary lighting must be organised to make it safe to move about in the area and cross the street. Lighting plays a central role for traffic safety and the visibility of pedestrians and cyclists at crossings.

Many paths are located along a illuminated road, and therefore do not require lighting of their own. However, if a route replacing such a path is further from the road and the road's lighting is not sufficient for the new route, the lighting needs to be secured in other ways.

Lighting needs to be considered with particular care near parks, nursing homes or disability services or in areas with children moving about.

D1.6 Noise and dust

Worksites always produce noise and dust to some extent. You can attempt to reduce them with scheduling, fences, watering the ground or other suitable methods.

→ The City's environmental protection regulations:

www.hel.fi/helsinki/en/housing/ environmental/environmentalprotection-regulations

D1.7 Cleanliness and arrangement maintenance

It is the responsibility of each worksite employee to take care of the cleanliness and functionality of the worksite in the eyes of residents. The supplies and materials stored at the worksite must be kept in order, preferable in fenced areas. Routes need to be kept clean of piles of sand or gravel, and holes must be filled without delay. The worksite can include extra sorting bins to be used by residents and worksite employees.

D1.8 Speed limits during the work

Speed limits at worksite areas need to be lowered, particularly near day care centres, schools, parks, nursing homes and disability services.

D2.1 Highlighted crossings



The visibility of pedestrian crossings in the worksite area should be taken care of with blinking lights, reflective warning posts or temporary speed bumps aimed at motorists. Comply with official requirements in the implementation.

D2.2 Taking children into consideration



Discuss with the client how children can be taken into consideration at your worksite. Methods for engaging children include see-through holes in the fences, visits to the site, worksite safety events or painting the fences, for example

D2.3 Cleanliness and arrangement maintenance – additional level



In addition to the statutory obligations of the main contractor and safety coordinator, the entire worksite should commit to regularly inspecting the arrangements related to the cleanliness and clarity of the worksite and fixing the defects observed.

The worksite needs to inspected daily or once a week, depending on its arrangements and location. Notes should be kept on the inspections, and they may be discussed at worksite meetings. When considering the suitable inspection intervals, matters such as the likelihood of vandalisation should be taken into account.

Arrangements should also be inspected after exceptional weather conditions. If necessary, an on-call person can be appointed for the worksite. This person will repair broken or otherwise dangerous arrangements at any time of day.

D2.4 Noise barriers



The worksite should be fenced as agreed with sound-damping, mobile noise barriers facing the directions where noise is produced.

D2.5 Speed displays



The worksite area should include speed displays with smiley faces. The locations of the displays will be established at the worksite.

E. Agile and engaging development

E1.1 Testing the routes

The routes planned for the worksite must be tested on the site, for example by walking or cycling. At the same time, the location of the pedestrian and cyclist signs can be determined and the access to business premises and properties by foot and bicycle can be assessed.

As for public transport, it may be necessary to arrange test drives to ensure the flow of traffic. Test drives should be agreed with HSL.

E1.2 Feedback

Worksites should monitor feedback and defect notices submitted by residents in Helsinki's feedback system. Necessary corrections should be made based on this feedback. Signage such as the information board for pedestrians and the worksite sign will encourage residents to provide feedback and include a link to the City's feedback system. You can also use QR codes.

The feedback link should be connected to a statement detailing that Helsinki is committed to responding to all feedback within five business days, in normal circumstances.

→ www.hel.fi/kaupunkiymparisto/en/feedback/ feedback/

E2.1 Worksite committee



The worksite committee will be selected through a public application process, and it should consist of residents from as diverse a range of backgrounds as possible. The committee will meet regularly with the site supervisor, the person in charge of communications for the site, and the communications body of the Urban Environment Division.

The committee will discuss positive and negative worksite experiences, collect feedback and discuss the plans for the next stages of the worksite.

E2.2 Experts by experience



Experts by experience should be used when planning the routes and signs of the worksite.

E2.2 Co-operation with sensitive functions

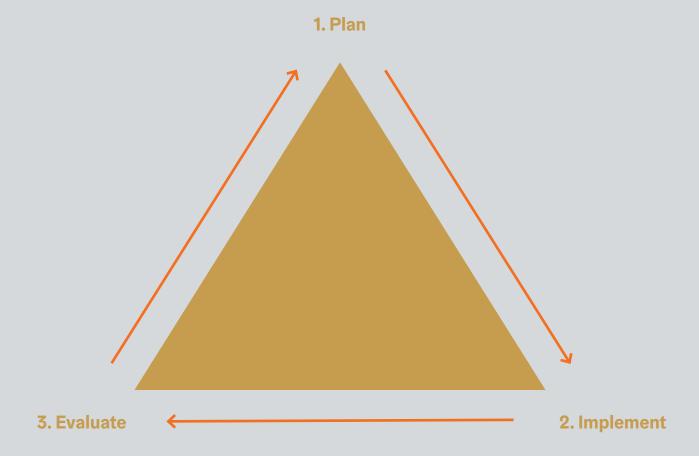


The work requires close co-operation with local schools and day care centres, from the planning stage to the further development after the worksite is completed, through co-planning methods, for example.



4 Evaluate and develop the worksite experience

- 4.1 Worksite evaluation
- 4.2 Share best practices



4.1 Worksite evaluation

Evaluation is an important stage in developing worksites to be increasingly resident-centric. In the evaluation stage, best practices and areas for improvement are written down.

Worksites are typically evaluated around the time the work is completed, but they can also be evaluated during the process. The worksite can be evaluated as an entity or by specific topic. Worksites of all sizes and types are good subjects for evaluation. Each site involves good practical tips to be shared, as well as matters that can be improved.

The next pages introduce you to the preliminary version of a worksite evaluation tool. The evaluation involves a matrix, the lines of which include the instruction cards from this guide. With them, you can evaluate the functionality of the worksite from various and diverse perspectives. The evaluation is based on the subjective observations of the evaluator. It is also recommended that residents' experiences are recorded. Residents' opinions can be requested through an interview carried out on site, an online survey or an event for residents.

At more extensive worksites, residents need to be heard systematically in the evaluation, for example through resident committees that convene regularly.

The evaluations on the worksite will be collected to be used by the City clients. The operators will go through the evaluations and agree on the future development of the instruction cards. The creation of new instruction cards will also be agreed on. The implementation of the evaluation will also be agreed on with the client.

Worksite evaluation tool | Basic level

	Evaluation of implementation
A1.1 Worksite sign	
A1.2 Small worksite sign	
A1.3 Resident communications	
A1.4 Tone of the communications	
A1.5 Maps	
B1.1 Advance signs	
B1.2 Pedestrian and cycling signage at the worksite	
B1.3 Signs at relocated stops	
B1.4 Signs for relocated crossings	
B1.5 Taxi ranks	
C1.1 Prioritising modes of transport	
C1.2 Pedestrian routes and crossing the street	
C1.3 Cycling routes	
C1.4 Accessibility	
C1.5 Surface quality of passageways	
C1.6 Excavations	
C1.7 Excavation bridges	
C1.8 Bicycle racks	
C1.9 Paying attention to public transport	
C1.10 Entrepreneurs' needs	
C1.11 Properties' needs	
D1.1 Worksite fences	
D1.2 Pedestrian crossings at the worksites and detection thereof	
D1.3 Temporary pedestrian crossings	
D1.4 Public transport stops	
D1.5 Lighting	
D1.6 Noise and dust	
D1.7 Cleanliness and arrangement maintenance	
D1.8 Speed limits during the work	
E1.1 Testing the routes	
E1.2 Feedback	

Residents' comments

Worksite evaluation tool | Additional level

	Evaluation of implementation	Residents' comments
A2.1 Person responsible for communications		
A2.2 Communications campaign for the worksite		
A2.3 Presentation of the worksite		
A2.4 Multilingualism		
A2.5 Worksite events		
A2.6 Guides at the worksites		
A2.7 Visualisations of the final result		
A2.8 Instant message notifications		
B2.1 Worksite information board for pedestrians		
B2.2 Digital information board		
C2.1 Overhead passages		
D2.1 Highlighted crossings		
D2.2 Taking children into consideration		
D2.3 Cleanliness and arrangement maintenance – additional level		
D2.4 Noise barriers		
D2.5 Speed displays		
E2.1 Worksite committee		
E2.2 Experts by experience		
E2.3 Co-operation with sensitive functions		

4.2 Share best practices

This guide on resident-centric worksite experiences will be constantly developed and complemented. We welcome new best practices from worksites in both Helsinki and elsewhere. We are also keen to receive improvement suggestions from worksite employees and residents regarding the basic and additional instructions and methods presented in the guide.

You can send comments, suggestions and best practices to:

→ kymp.viestinta@hel.fi



More information

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