

Planning principles for Makasiiniranta and Olympiaranta

**Urban Environment Committee
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Tähtitornin vuori ja Ullanpuistikko, Hoito- ja kehittämissuunnitelma (Maintenance and development plan for Tähtitorninvuori and Ullanpuistikko) (City of Helsinki, 2011)

Kauppatori, Kaupunkirakennehistorian selvitys (Market Square, report on the history of the urban structure) (Arkkitehtitoimisto Okulus, 2016)

Kauppatorin ympäristön kehittämisen kokonaissuunnitelma (Overall plan for the development of the Market Square) (City of Helsinki, 2015)

Kauppatorin alueen suunnitteluperiaatteet (Planning principles for the Market Square area) (City Planning Committee, 2016)

Kauppatori ja Makasiinirannan alue, liikenteellinen ja kaupallinen selvitys (Market Square and Makasiiniranta area, traffic and commercial report) (Ramboll Finland Oy, 2018)

Eteläsataman lahden maisemallinen tilavaraus- ja periaatesuunnitelma (Space allocation and guideline plan for the landscape features of the South Harbour bay) (Loci maisema-arkkitehdit Oy, JKMM Architects, 2020)

Eteläsataman lahden alustava teknisten tilavarausten ja toteuttamistavan periaatesuunnitelma (Preliminary guideline plan for the technical space allocation and implementation method at the South Harbour bay) (Ramboll Finland Oy, 2020)

Space allocation for a planning and concept competition, City Board 9 November 2020

Makasiini- ja Olympiarannan tilavaraus- ja periaatesuunnitelma (Space allocation and guideline plan for Makasiiniranta and Olympiaranta) (Loci maisema-arkkitehdit Oy, JKMM Architects, 2021)

Eteläsataman lahden alustava teknisten tilavarausten ja toteuttamistavan periaatesuunnitelman päivitys, Makasiini- ja Olympiaranta, suunnitelmaselostus (Preliminary update to the guideline plan for the technical space allocation and implementation method at the South Harbour bay, Makasiiniranta and Olympiaranta, plan description) (Ramboll Finland Oy, 2021)

Luonnossuunnitelma tunneliyhteydestä Tähtitorninmäen alitse (Draft plan of a tunnel connection under Tähtitorninmäki) (Afry Oy, 2021)

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1. Introduction

The western coastal zone of South Harbour is being developed into a more accessible, functional entity supporting the vitality of the city centre. The aim is to provide Makasiiniranta with a new architecture and design museum and functions that support museum activities. The area is also an essential part of the seaside trail that circles around the city. The starting point for the planning of the area is the cessation of the harbour's lorry traffic and car traffic at the South Harbour. At the same time, preparations are being made for the space allocation and operation of high-speed vessel and cruise traffic in the area.

The planning area is located in the districts of Kaartinkaupunki, Ullanlinna and Kaivopuisto in the western coastal zone of the South Harbour bay. The area extends from the Market Square's Cholera Basin to the south side of Olympia Terminal. Armi Ratia's Park and a part of the edge zone of Tähtitorninvuori Park are also included in the planning area. The area is approximately seven hectares.

Planning principles have been prepared to serve as a basis for the planning of the area. The aim of the planning principles is to guide the planning to keep the values and identity of the area, as well as the desired museum construction, as starting points for the development of the area. The key elements guiding the planning of the area are the valuable environment and scenic ensemble of the South Harbour bay, as well as principles related to traffic, such as the pedestrian environment and the continuity of the seaside trail. In addition to these, the planning must take into account the technical starting points of the area and the conditions of port operations that will remain in parts of the area. The aim is also to ensure the high quality of new construction and public space, as well as the sustainability of construction solutions. The planning principles will guide the concept and planning competition held for the area.

The planning principles are based on, among other things, the national land use guidelines, Helsinki City Plan 2016, the underground city plan, Helsinki City Strategy and the Carbon-neutral Helsinki 2035 programme. In addition to these, reports and guideline and draft plan examinations have been prepared as a basis for the planning, with themes ranging from technical and landscape perspectives and space allocation to the impact of construction in the values of the environment, such as the landscape and urban environment. The planning principles prepared are largely based on the starting points and boundary conditions produced by the reports and guideline plan examinations. The reports and impact assessments will be expanded on as the planning progresses.

There is a reservation in the area for a quality and concept competition. The competition will consist of two stages and the winner will be decided on a qualitative basis. The planning principles prepared for the area will serve as the land use guidelines of the competition assignment and must be followed in the preparation of the competition entry. The competition entries will be evaluated in two stages. Already at the first stage, the entries may be used to refine landscape and cityscape impact assessments and sensitivity analyses, for example. The impact assessment

will continue throughout the competition, and the main impacts to be assessed are included in the evaluation criteria of the competition. Once the winner has been decided, the City will make a decision on the development reservation for the winner. Land use planning in the area will continue with detailed planning. As the detailed planning process progresses, the winning entry will be developed into a reference plan to support the detailed planning process.

The area is currently largely leased to the Port of Helsinki Ltd for port operations, and there are buildings and structures, such as quays, owned by the Port in the area. The City of Helsinki owns the land. The buildings of significant conservation value located in the planning area are the Old Market Hall, the kiosk building, Olympia Terminal and Satamatalo. Other buildings and structures in the area include the facilities connected to the old railway shaft, the facilities excavated into the rock of Tähtitorninvuori, the biennial pavilion temporarily located on Lyypekinlaituri and the dilapidated Makasiini Terminal, which is planned to be demolished.

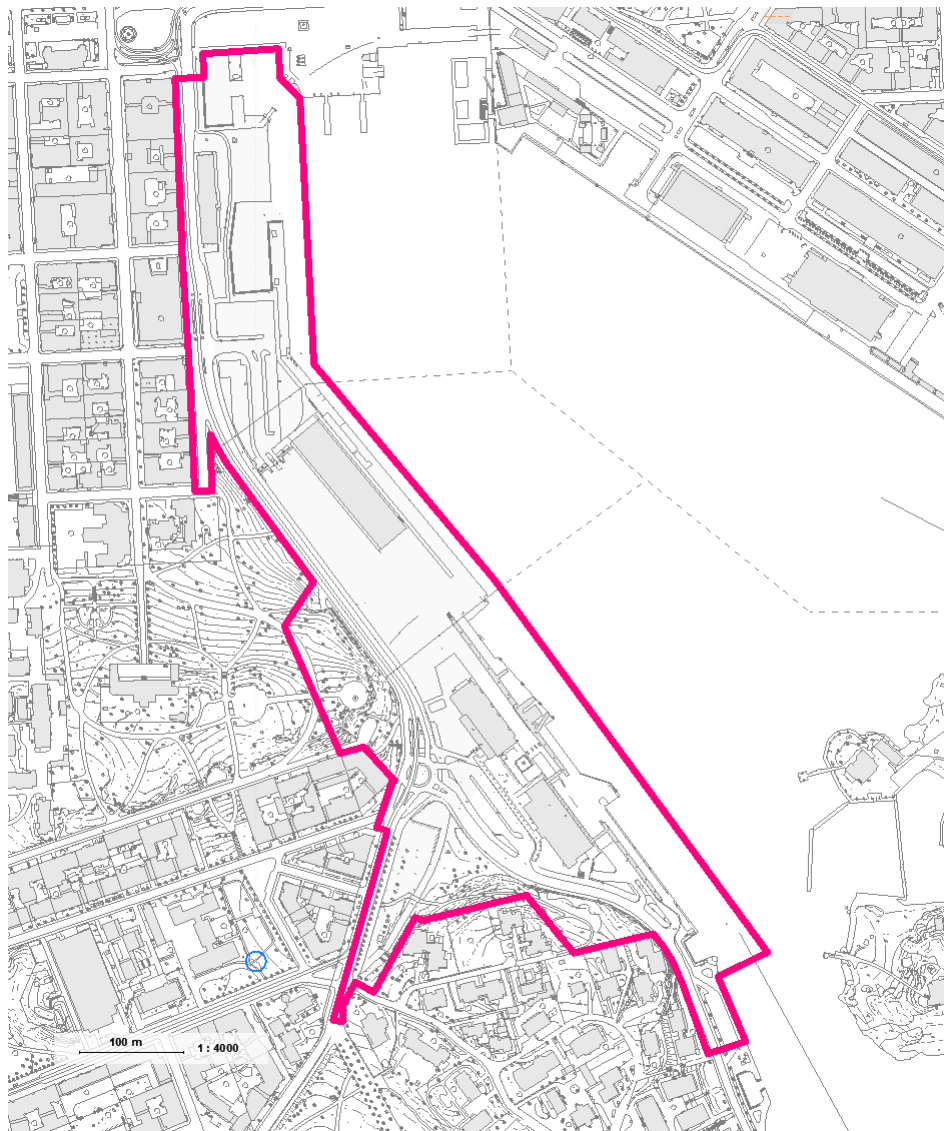


Figure 2. Borders of the planning area.

2. Planning principles

2.1. Functions

There are plans to create an internationally prominent architecture and design museum complex in the area. The museum building or similar cultural building will be implemented in the form of new construction as part of the wider development of the planning area. The museum will be located in Makasiiniranta as the northernmost new building in the area. The size of the museum is tentatively set to a maximum of approximately 9,000 m² (net area). The implementation of the museum will be decided separately later. The museum project must be able to implement the museum independently within a time frame of its choosing. A separate architectural competition will be organised for the construction of the museum.

Additionally, it is possible to plan culture, service, business and other facility construction in the area, to support museum activities (e.g. a hotel is possible). The goal is to achieve functional versatility. No housing will be allowed.

The area will be developed as an area of high-quality public outdoor spaces and connections, as well as maritime functions. The area is part of the pedestrian centre. The area is planned to be transformed into a public and comfortable walkable urban space that connects the Market Square with Kaivopuisto and provides access to the seaside.

Functionality is at the heart of the whole seaside area. The seaside must serve and attract people – the concept must enliven the area and provide a functional connection to the sea. Functions aimed at various kinds of people, such as residents of different ages, must be interlaced in order to achieve this goal. In addition to commercial services, the aim is to provide the area with opportunities for non-commercial activities. Public footpaths and squares can be placed amidst new construction either with stairs or ramps, taking accessibility into account.

2.2. Cultural environment and landscape

The significance and identity of the area as part of a nationally significant national landscape and valuable cultural environment will be taken into account in the planning. South Harbour is part of the national landscape of maritime Helsinki and a nationally significant valuable cultural environment. The location is central and symbolically very valuable and part of the maritime facade of the historical centre of Helsinki.

The aim is to preserve the character of the maritime facade of the area. In the background of the Market Square and the coastal zone are the rows of blocks of the Empire centre, the shore of Katajanokka and Eteläranta. These, along with the Tähtitorninvuori park area, frame and delimit the urban space of the harbour.

The values of the environment and its relationship with the existing environment will be taken into account in the planning solution. The planning area can be seen and experienced from all directions, and when arriving from the sea, it is located within the iconic arrival view of Helsinki. Correspondingly, the area offers exceptionally grand views of the city centre and the harbour in different directions. All construction – both buildings and urban space – must integrate

into the valuable cultural landscape. Any small-scale new construction in front of the Old Market Hall must be subordinate to the market hall.

The views of the sea and the city from Tähtitorninvuori will be preserved. The plan must integrate the new construction sites and construction volumes into their environment in such a way that the current main views are preserved. The buildings must not block the views of Helsinki Cathedral and Uspenski Cathedral. The Empire facade of Pohjoisesplanadi must remain visible above the roofs of the building masses. The buildings must be massed in such a way that the view of the water's surface in front of the Market Square and Katajanokka is maintained.

The silhouette of Tähtitorninvuori will continue to rise above the roofs of the building masses. The Tähtitorninvuori park area must retain its position in the greater landscape and the view that opens up to the area from the direction of the Market Square. It also forms the backdrop for the planning area when viewed from the sea.

Street views end with the sea. It has been a traditional feature of the urban structure of the centre of Helsinki that the sea can be seen at the end of the streets. The view of Eteläinen Makasiinikatu should therefore end with the sea, and construction should start on its south side. Construction may extend further north than the current Makasiini Terminal, but construction is not being sought in front of the Palace or by Vironallas.

New construction takes into account the street views of Laivasillankatu. Buildings must be massed in such a way that Tähtitorninvuori is visible between the buildings and, correspondingly, Laivasillankatu offers views of the sea.

The values of protected and culturally and historically valuable buildings are taken into account in the planning. Olympia Terminal and Satamatalo are marked as protected in the detailed plan with the sr-2 marking. The Old Market Hall and the nearby kiosk are culturally and historically valuable buildings.

2.3. Construction

The maximum permitted elevation for new buildings, building components and equipment is +20.0 for the entire length of the planning area. The maximum permitted elevation for buildings, building components and equipment closest to the shore is +18.0. These can only be deviated from if the solution is well-founded and takes into account the main views to be preserved and otherwise adds value to the public spaces in the area, connections through the area and the quality of construction.

Street- and square-level premises include services, shops or similar premises that are public in nature. There must be no backyards in the area. Instead, all the facades must be main facades, including the roof of the building.

Construction cannot be located on the shoreline or extend over the sea. This is due to ship traffic at the harbour.

Makasiini Terminal in the area will be demolished.

Any new deck structure must integrate with the existing deck in front of Satamatalo.

The Old Market Hall is a building valuable in terms of architecture, history and cityscape, whose conservation values are safeguarded. It is possible to think of new operations for

the Old Market Hall. At best, the long food history of the Old Market Hall will also be seen in its future use. The aim is to preserve the building's status and values in the cityscape, its interior character, some of the original interior solutions and the unique steel structures of the roof. The preservation of the market hall character of the building is desirable despite possible functional changes. Functions that change the nature of the whole building are not desirable. Maintaining the current market hall operations of the Old Market Hall requires improvements to the building services. For example, restaurant kitchen activities are very demanding in terms of ventilation but may be possible with improvements to the building services. The conservation values of the building pose a challenge for the implementation of building services. Changes in activities must be taken into account in terms of the sufficiency of maintenance and toilet facilities, among other things. The Old Market Hall can be included in the area handed over to the winner if it is part of the idea of the winning entry.

Small, pavilion-like additional construction to the Old Market Hall is possible to enable technical modernisation of the building and to improve its functionality. The additional construction must fit in with and be subordinate to the culturally and historically valuable building with a significant position in the cityscape.

On Lyypekinlaituri, the use of the area on the seaward side of the Old Market Hall is being studied. Issues to be taken into account include the preconditions related to the maintenance of the market hall, possible small-scale expansion, seaside traffic connections and scheduled waterway transport. On Lyypekinlaituri, the needs of the scheduled waterway transport terminal should be prepared for either by building a moderately sized new building on Lyypekinlaituri or as part of the Old Market Hall's operational concept. Waste management in the area must be arranged in a new building or underground.

A sufficient area at least 15 metres wide will be allocated for port operations on Olympia Quay and Makasiini Quay. The harbour area covers the entire length of Olympia Quay and 150 metres of Makasiini Quay starting from its southern corner. Within the area, preparations will be made for the pedestrian traffic of harbour passengers and the space allocations of the vessels' maintenance traffic with turning areas. The area will be separated from the rest of the public quay area as a security area to prepare for passenger and maintenance traffic connections.

In the area, preparations will be made to designate a construction site or facilities for a high-speed vessel terminal of approximately 1,500–2,000 m² in the vicinity of Makasiini Quay. It must be possible to realise the terminal later on, and sufficient space must be allocated for it. A separate and unobstructed pedestrian connection is needed between the terminal building and the harbour security area, which can be implemented e.g. as a pedestrian bridge or tube over the seaside trail. The terminal also needs to have a smooth connection to the level of Laivasillankatu.

Olympia Terminal and Satamatalo will be freed from port operations for other uses. The buildings have conservation values that must be safeguarded and taken into account in the planning. The characteristics to be preserved include the cityscape value of the buildings' facades and roofs, as well as the cohesion and openness of Olympia Terminal's passenger hall. The entrance canopy and the shape of the roof have particular cityscape value. The passenger bridges intended for harbour use may be demolished.

The potential of the facilities under Armi Ratia's Park will be investigated as part of the entity. The commercial development of the railway shaft facilities is desirable, but the matter has not been investigated in detail yet.

All equipment, structures, arrangements and staff bicycle parking related to property management and waste management will be located in buildings. Property maintenance and building services arrangements may not be located in public areas, streets, parks, squares or outdoor areas of plots. Only the waste management of the Old Market Hall may be realised underground if no new construction is proposed in the vicinity of the hall, into which the waste management would primarily be integrated.

2.4. Traffic, public spaces and connections

The area is part of the seaside trail around the southern shores of Helsinki, the conditions of which will be improved. The goal is to create a seaside trail along the seawall at quay level.

Due to elevation changes, the area is demanding in terms of accessibility. Particular attention must be paid to planning accessible routes.

The seaside must be in public use insofar as it is not reserved for the use of the harbour.

The direction of the Old Market Hall is the main direction of arrival from the city centre to the area. To the south of the market hall, there is a natural place for an entrance square for the museum or related building.

The aim is to develop Lyypekinlaituri into a functionally active seaside square. Connections from Lyypekinlaituri towards the Market Square must be developed as part of the seaside trail. A walking opportunity along the seawall is an important part of the environmental history of the Market Square area. The seawalls of Lyypekinlaituri are needed for the use of the developing scheduled waterway transport. The starting point of the Suomenlinna ferry may also be Lyypekinlaituri in the future.

It is not desirable to significantly change the shoreline, and there is no need to create additional basins.

There will be a smooth pedestrian connection from in front of Satamatalo to the seaside trail. The elevation of any extension of the deck in front of Satamatalo must be integrated or landscaped into the surrounding elevations.

Connections that are sufficiently loose in terms of cityscape and functionality will be indicated between Laivasillankatu and the seaside. This will also strengthen the pedestrian connection between Tähtitorninvuori and the shore, which is naturally located at ground level. The massing of buildings must strive not to allow the street space to become chasm-like.

Connections through the blocks will complement the connections formed by public outdoor spaces. Indoor spaces will offer alternative routes in the new block structure.

The connection from the seaside area to Armi Ratia's Park provided by the old railway shaft will be investigated as part of the entity. The goal is to create a pedestrian connection between the seaside trail and Armi Ratia's Park along the railway shaft, if it can be naturally integrated into the Makasiiniranta entity. The connection between the park and the deck in front of Olympia Terminal also needs improvement. The area will be developed as a park area that functionally and scenically connects the seaside with public outdoor spaces. Functions may be presented below the park, access to which may also be provided from above the park deck. The solutions will investigate the coordination of elevations in a way that improves outdoor connections.

The overall park-like appearance of the area will be maintained, and no changes are being sought to the park areas east of the railway shaft.

The improved fast cycling route will continue to run along Eteläranta, Laivasillankatu and Ehrenströmintie, which will calm down the quay area for slower traffic and seaside functions. The City is planning to widen the narrow pavement of Laivasillankatu starting at Olympia Terminal by 6 metres, giving a space of about 10 metres for walking and cycling. This must be taken into account in the planning. The western middle doors of the Old Market Hall have been taken out of service due to the location of the bicycle path.

Plot connections, maintenance traffic and pick-up and drop-off traffic for future new buildings will be arranged via Tähtitorninvuori and/or from the southern end of the area. The goal is to create a basement-level maintenance connection that does not restrict the opening of street-level premises on the Laivasillankatu side in the direction of the street or prevent smooth connections and views between Laivasillankatu and the seaside. The maintenance connection will be dimensioned to provide the museum with the lorry traffic it needs. In the southern parts of the planning area, the pick-up and drop-off traffic can also be handled in front of Satamatalo. In front of Satamatalo, preparations will also be made for the needs of cruise ship pick-up and drop-off traffic (buses), and a smooth pedestrian connection to Olympia Quay will be provided from the area. Museum pick-up and drop-off traffic (cars, taxis, tourist buses) can be planned near the main door at ground level.

The necessary parking spaces will be placed in a public indoor carpark, such as the Tähtitorninvuori cave and its possible extension. The number of parking spaces required will be specified according to the activities.

2.5. Civil and structural engineering

The planning will take into account the existing infrastructure maintenance networks and infrastructure maintenance projects planned for the area. HSY's plan for separate sewers will be taken into account in further planning. The need for joint planning has been identified in the solutions of HSY's projects, the planning area and the Market Square area adjacent to the planning area.

The fact that the area is located in the flood risk area will be taken into account when planning elevations. The measures to be taken will create a continuous structure to protect the entire coastal zone from the changing sea level. The lowest recommended construction elevation is +3.4 (N2000). In an area where new construction will be located, flood protection will primarily be implemented by raising the ground level to +3.4. The area to the north of the new construction area will be connected to the surroundings of Vironallas by phased elevating measures. In the area of Vironallas and the Market Square, flood protection will, at least for the time being, be carried out by means of temporary flood protection, such as flood dams. Flood protection in front of the harbour quay and Olympia Terminal can be implemented either structurally, e.g. with a flood wall, or by raising the ground level on the shore side.

The service vehicle connection to the new construction area will be located at minimum at the lowest recommended construction elevation or otherwise protected from flooding.

A flood pumping station will be implemented on the south shore, in the southwestern corner of Vironallas, for the discharge of run-off from the Kasarmitori catchment area into the sea. Run-off must be removed by pumping if flooding is simultaneously caused by the sea and a storm and the discharge of surface run-off water into the sea is impeded due to the flood

protection structures. Due to the high pumping capacity requirements, the pumping stations require large space allocations; the tentative space requirement is 15 x 15 m.

New land use in the area will require significant restoration of the waterfront and base structures. The waterfront structures in the area will be restored and their structures will also ensure area stability. Due to the clay under the mixed filler material and the rising of the level of the area, it is necessary to take care of area stability. The planning of structural solutions will be elaborated on as the land use solution becomes more detailed.

In order to refine the soil quality data in the area, more detailed geological tests will be carried out in the area.

Buildings and structures will be built on a pile foundation. Most of the area consists of mixed fill made for the use of the harbour at different times. Some of the filling work was carried out as early as the 19th century and the most recent in the 1950s. The thickness of the fillings and the clay and non-cohesive soil layers below them varies. The elevation of the rock surface in the area is approximately -10 to -25. There are old structures in the soil of the area that are either the foundations of former buildings or the foundations of quay lines.

The planning of the area will take into account the special issues of both existing and future deck structures. In addition to the clear height, the planning of deck structures will also take into account all the needs of the functions under the deck, rescue safety and the space needs of the structures and technology. The existing deck structures in front of Satamatalo and Olympia Terminal, as well as the underground facilities in the old railway shaft, will be taken into account in the planning.

Noise, air quality and other environmental impacts of land and waterway transport will be taken into account in the planning. The low-frequency noise from ships requires special structural solutions and limits the functions that can be located in the area.

When the use of old buildings changes, their harmful substances and level of contamination will be surveyed. In connection with the planning, risk areas will be identified and the suitability of the buildings for the planned use will be verified.

The extent and nature of possible soil contamination will be determined in connection with detailed planning.

In connection with the zoning of the area, the cost effects of the implementation solutions will be assessed.

2.6. Climate-smart construction

An assessment of the climate impact of the construction of the area must be provided. The construction must be conducted using a sustainable construction method and long-lasting building materials that are resistant to the marine climate, rain and sun. Attention must be paid to the recyclability of old structures in the area. Circular economy must be promoted in the demolition of buildings and structures.

In public outdoor spaces, preparations must be made for protection against extreme weather phenomena. The aim is to implement qualitative stormwater management in the planning area. Management structures can be placed in public areas, such as parks, squares and street space, taking into account their suitability for the cityscape.

When using deck structures, sufficient soil depth for planting trees must be reserved.

Further planning will investigate the possibilities for utilising local energy production.

3. Planning principles in terms of land use

The starting points for land use in the area determine the operational and cityscape goals of future construction.

3.1. National land use guidelines

The following national land use guidelines, in particular, apply to the planning of the area:

- promote good accessibility of services, workplaces and recreational areas for the various population groups
- promote walking, cycling and public transport as well as the development of communication, mobility and transport services
- site major new residential, workplace and service function areas so that they are easily accessible by public transport, walking or cycling
- safeguard the continuity and development opportunities of internationally and nationally significant transport and communication connections and the development opportunities of nationally significant ports, airports and border crossing points
- site new construction outside flood risk areas or otherwise ensure flood risk management
- prevent adverse environmental and health effects caused by noise, vibration and poor air quality
- take care of safeguarding the nationally valuable cultural environments and natural heritage values.

3.2. Uusimaa regional land use plan

In the 2017 combination of Uusimaa's regional land use plans, the planning area is defined as an area of city centre functions, the centre of the nation, an area of urban functions, a regionally significant cultural environment and a nationally significant cultural environment. In addition to these, a harbour has been designated for the area. A need for green connections has been identified to the south of the planning area.

3.3. City Plan 2016

In the Helsinki City Plan 2016, the area is marked as an area of the business and service centre (C1) and the city centre (C2), as well as a port, a water area and a recreational and green area. To the north of the area, there is a marking for a rail traffic trunk connection (metro connection in

the direction of Laajasalo). The marking of the seaside trail applies to the area. Furthermore, the area is subject to an order with legal effect to take landscapes and built cultural environments of national significance into account and to plan the shoreline as a public area in areas of new construction.

The definition of the city plan area C1 is as follows: 'A business, retail and service centre developed as a functionally mixed area of commercial and public services, offices, administration, housing, parks, recreational and outdoor services and urban culture. Ground floor premises and premises that open onto the street should be primarily designated as retail space. The area is pedestrian-dominated. The area stands out from its environment as more dense and functionally diverse. The total amount of retail and office space should not, as a rule, be reduced. Changes to the uses of buildings or their parts must ensure that they preserve the functionally diverse and mixed structure that is characteristic of the centre. Changes to intended uses must include an area assessment.'

The definition of the city plan area C2 is as follows: 'Developed as a functionally mixed area of housing, commercial and public services, offices, administration, parks, recreational and outdoor services and urban culture. Ground floor premises and premises that open onto the street should be preferably designated as retail or office space. Changes to the uses of buildings or their parts must ensure that they preserve the functionally diverse and mixed structure that is characteristic of the city centre, as well as the sufficient availability of retail and office space. Changes to intended uses must include an area assessment. Sustainable modes of transport, particularly pedestrian and bicycle traffic, will be favoured. In the areas bordering on city boulevards, the block density should primarily exceed 1.8 and, along key streets, ground floor premises and premises that open onto the street should be primarily designated as retail or office space.'

Furthermore, all types of centres are subject to the following: 'The centres will be densified and developed as urban city structure. In planning centres, special attention must be paid to the pedestrian scale as well as the effectiveness of the arrangements made for pedestrians, cyclists, parking, maintenance traffic and public transport. Parking spaces must be primarily located in parking facilities and along streets. In more detailed planning, adequate areas must be allocated to ensure appropriate public transport transfer locations and park and ride facilities. Large retail units must be integrated with housing, services or other such functions, and the street-level floors of buildings must open up onto the street. Large units must be supported by public transport trunk connections. The scaling of large consumer goods retail units must be based on local demand. The number of parking spaces will be limited.'

The definition of a port is as follows: 'The area will be developed for harbour operations, jobs and services. The premises and equipment necessary for harbour operations and technical maintenance may be built in the area.'

The definition of a recreational and green area, applying to Tähtitorninvuori Park, is as follows: 'The area will be developed as a significant area for recreation, outdoor activity, sports, nature and culture, connected to the regional green network and seaside recreational zones. The forest network presented in the City Plan theme map will be taken into account in developing the recreational and green areas. The aim is to preserve the forest-like character of the network.' In addition to this, the plans in both recreational and green areas and maritime recreation and tourism areas must ensure the preservation of cultural, historical and landscape values, as well as taking into account and preserving areas that are significant with respect to biodiversity, ecosystem service development, nature conservation, the ecological network and the forest network.

3.4. Cultural environments

The area is an important part of the cultural and historical landscape of maritime Helsinki. It is located in the area of the following cultural environment zones or inventories:

- The buffer zone of the Unesco World Heritage site Suomenlinna.
- National landscape: Maritime Helsinki (National landscapes, Ministry of the Environment 1993). Of the European capitals, Helsinki is the only one located right by the open sea. Maritime Helsinki is one of Finland's national landscapes as defined by the Ministry of the Environment. The core of the national landscape is formed by the unified Empire Centre, the Market Square and the connected Esplanade Park with its surroundings, as well as Tähtitorninmäki and the extensive Kaivopuisto, which follow the shores and dominate the view from the sea.
- Nationally significant built cultural environment RKY: According to the 'Valtakunnalliset merkittävät rakennetut kulttuuriympäristöt RKY 2009' (Nationally significant built cultural environments) evaluation prepared by the Finnish Heritage Agency, the planning area and its vicinity include several large areas of Helsinki's valuable cultural environments (Tähtitorninmäki observatory and park, Kaivopuisto, Helsinki Market Square with its buildings, Senate Square with its surroundings, the old part of Katajanokka). In addition to these, Olympia Terminal and Satamatalo located in the area form part of the Olympic Buildings, which are included in the selection of modern Finnish architectural masterpieces approved by the international DOCOMOMO organisation.
- An area of Helsinki significant in terms of cultural history, architecture and landscape culture (2002 study).
- Sites of the regional inventory in the 'Uudenmaan kulttuuriympäristöt' (Uusimaa's cultural environments) study (Helsinki-Uusimaa Regional Council 2016).
- The City Plan's Cultural Environments thematic map (City of Helsinki 2016b) has legal effect regarding the RKY areas.

The following documents have also been drawn up regarding the area:

- Valuable environments in the public areas of the City of Helsinki (City of Helsinki 2008).
- Tähtitornin vuori ja Ullanpuistikko, hoito- ja kehittämissuunnitelma (Maintenance and development plan for Tähtitorninvuori and Ullanpuistikko) (Landscape Design Hemgård 2011).
- Kauppatori, Kaupunkirakennehistorian selvitys (Market Square, report on the history of the urban structure) (Arkkitehtitoimisto Okulus 2016).

3.5. Recreational and green network 2050

On the 'Recreational and green network 2050' thematic map, the planning area is located in the 'Historical parks and urban spaces of the city centre' zone, which is being developed from the starting point of the layered cultural environment. The seaside trail runs through the area. The continuity of the seaside trail, which mainly follows the seashore, will be guaranteed. Along the seaside trail, in places with good public transport connections, space will be designated for waterway transport piers. In the immediate vicinity of the planning area is Tähtitorninvuori, which is classified as part of the city's extensive green network. To the south of the planning area is

Kaivopuisto, which is part of Central Park and is also marked as a neighbourhood park. In the direction of the sea, the planning area is bordered by Helsinki Park.

3.6. Helsinki's underground city plan

According to Helsinki's underground city plan No 11830 (entered into force in its entirety on 18 November 2011), parts of the area belong to the surface rock area of the city centre. The underground city plan includes a space allocation for a planned underground facility approximately in line with Unioninkatu in the rock of Tähtitorninvuori. In addition to this, the existing Tähtitorninvuori rock cave is marked in the underground city plan.

A new underground city plan is currently in the making.

3.7. Helsinki City Strategy for 2017–2021

A main goal of the Helsinki City Strategy has been to develop the attractiveness and vitality of the centre of Helsinki. The vision is for the attractive city centre to offer commercial services, events and recreation and be a place that brings together civic activities. One of the goals of the strategy has been to research a significant expansion of the pedestrian centre in the competition area to increase the comfort and functionality of the city centre. The coastal zone that extends from Olympia Terminal to the Market Square is being developed with the aim of creating an operational entity that supports the vitality of the city centre.

3.8. Carbon-neutral Helsinki 2035 action plan

Energy-efficient land use and city structure

Land use planning can be used to promote sustainable construction in the City far into the future. In practice, the City's neutrality objective for 2035 means that the city structure being currently planned must largely be carbon-neutral or enable the achievement of carbon neutrality.

Helsinki strives to combine renewable energy sources with energy efficiency in an optimal way, both in individual buildings and in areas. In detailed planning, the main lines are decided on, and it is ensured that a diverse selection of methods will be extensively available in the next stages of the planning process, such as plot conveyance, more detailed planning and other further stages.

With detailed planning, an energy-efficient city structure and a low-carbon lifestyle are promoted. The city centres, sub-centres and station areas are complemented with additional construction, and the housing, jobs and services will be directed towards areas with good public transport connections. The viability of the planned rail connections will be ensured by constructing station areas efficiently, whereby it will be possible to significantly reduce the energy consumed and greenhouse emissions produced by traffic and transport. The concept of low-carbon station districts (LCD Low Carbon District) can be used in the planning. Helsinki is involved in the development of the LCD concept. The planning of city blocks can be used to influence factors such as the location and direction of buildings, as well as route and parking space reservations that favour cycling. Also included are the prevention of the buildings overheating and the themes of preventing the heat island phenomenon. Green masses play a significant role in this. With detailed planning, we can promote energy-efficient construction methods and construction where the level of energy efficiency is higher than the national level, with regional characteristics taken

into account. Detailed planning is also used to promote the production of renewable energy, for example through regional or plot-specific pilots.

3.9. Helsinki high-rise construction report, City Planning Committee 13 December 2011

The planning area belongs to zone A: no new buildings will be zoned in the area that significantly deviate from the current height scale. More detailed height examinations will be carried out in connection with the detailed plan work.

3.10. Helsinki Open Space Plan

The Helsinki Open Space Plan (Vistra II) is intended as a starting point for land use planning. The development measures have been integrated into the city plan implementation programme. The plan is also a tool to help with detailed planning. The Helsinki Open Space Plan highlights the following starting points and objectives for the development of the planning area:

- The seaside trail runs through the area. The built-in shoreline is the site of a significant seaside promenade.
- The planning area commands an important view of the city skyline.
- The cavalcades of views opening up from the shores of the planning area.
- The silhouette panorama that opens up from Tähtitorninvuori across the area and is important to the identity of Helsinki.
- The planning area is bordered by the culturally and historically significant Tähtitorninvuori Park, the detailed plans for which were drawn up as early as before the Second World War.

3.11. Centre vision

'Helsinki centre vision – policies for planning land use and traffic in the city centre' is a vision for the central business district and city centre of Helsinki created jointly with residents, stakeholders and various experts from the City. It details the city plan and serves as a basis for traffic planning. The vision, its guidelines and the interaction carried out describe the goals regarding the entity in land use planning. Several of the twenty different development guidelines in the vision pertain to the planning area. Below are the main guidelines that affect the planning the most:

- Special characteristics are the starting point for development.
- The city centre is lively, open and diverse at eye level.
- The central business district and the surrounding city centre form the strongest area of business activities in the whole country.
- The extensive pedestrian centre increases social interaction and encourages mobility, outdoor activities and encounters.

- The public outdoor areas in the centre of the growing capital serve a wide range of users, are of high quality and are mostly open to everyone.
- The coastal areas are open to city residents.
- The cultural concentration of the city centre is supplemented and strengthened.

3.12. Reorganisation of port operations

In accordance with the decision of the City Council on 3 February 2021, the planning of land use at South Harbour will be continued based on the so-called centralisation scenario, moving lorry traffic related to cruise ferry traffic away from Olympia Terminal. Cruise ferry traffic to and from Stockholm will be concentrated to Katajanokka and cruise ferry traffic to and from Tallinn to West Harbour. The development of the land use of South Harbour (incl. Katajanokka), West Harbour, Jätkäsaari, Ruoholahti and Salmisaari will be continued based on this principle in order to secure the operating conditions of the Port and the overall benefits generated by the arrangement.

3.13. Detailed plans

There are several detailed plans in force in the area. In parts of the area, the current detailed plans are from 1875 or 1895. The content of the old plans is general and has little guiding effect. Newer plans in force in the area were drawn up between 1969 and 1999. The area includes extensive port areas (LS) in the areas of the current passenger ship terminals. Of the buildings in the area, Olympia Terminal and Satamatalo are marked as protected in the detailed plan with the sr-2 marking. The zoned parks in the area are Armi Ratia's Park in Kaivopuisto and Tähtitorninvuori in Ullanlinna. The area also includes water areas that have not been zoned.

3.14. Building prohibitions

The building prohibition no 12674, pursuant to section 53(1) of the Land Use and Building Act, is in force in the area for the changing of the detailed plan.

3.15. Prepared reports and guideline and draft plans

The following reports have been prepared for the area to support detailed planning and the preparation of planning principles:

Space allocation and guideline plan for Makasiiniranta and Olympiaranta (Locl maisema-arkkitehdit Oy, JKMM Architects, 2021)

The space allocation and guideline plan for the landscape features of Makasiiniranta and Olympiaranta is a continuation of the 'Space allocation and guideline plan for the landscape features of the South Harbour bay' (LOCI maisema-arkkitehdit Oy and JKMM Architects, 2020) previously ordered by the City of Helsinki Urban Environment Division. The work has produced solutions for space allocations, which have been studied at the principle level from revised starting points, as a basis for the further planning of Makasiiniranta and Olympiaranta. The guideline plan is, as the name implies, a guideline with rough space allocations for new construction and expanding functions in the area. It is not intended to be a reference plan for the actual planning of the area. The maximum amount of building right is dependent on the requirements of the building typologies to

be implemented and the conditions created for them by the area. The work seeks to reveal what effects new construction may have on the significance of the area. To illustrate this, the plan presents important views from the computer model of the area, in which the space allocations of new construction have been placed. In conclusion, the options presented in the work solve the cityscape and landscape challenges related to the construction of Makasiiniranta better than previous guideline plans, as new construction can be naturally aligned with the elevation of the surrounding areas, taking into account the sea views from Laivasillankatu. At the same time, the functionality of construction will be improved, as street-level facilities can be opened up in all directions to the surrounding public spaces, which will also have a very significant impact on the quality and comfort of the surrounding pedestrian environment. The possibility of placing the seaside trail at quay level along the entire area must be particularly highlighted, as it will allow the seaside trail to continue from the Market Square along the sea shore in the direction of Kaivopuisto. Furthermore, the new connection to the old railway shaft opens up new and interesting possibilities to explore in terms of the spaces connected to the railway shaft and the connections leading towards Armi Ratia's Park and Kaivopuisto.

Preliminary update to the guideline plan for the technical space allocation and implementation method at the South Harbour bay, Makasiiniranta and Olympiaranta, plan description (Ramboll Finland Oy, 2021)

The scope of the Port of Helsinki's operations in the harbours of the city centre has been re-evaluated, and the work is prepared around a solution in accordance with the so-called centralisation scenario, in which passenger ship traffic leaves South Harbour. From the perspective of land use potential, this new starting point opens up opportunities for re-evaluating the location of operational conditions, such as the maintenance traffic route and the seaside trail. The work has produced preliminary information on municipal infrastructure solutions, space allocations and costs from more detailed starting points as a basis for detailed planning and further planning. The document focuses in more detail on the space allocation for and implementation methods of the planning area's streets, shoreline areas, water management systems, technical maintenance networks, shoreline and quay structures, as well as superstructure and decking solutions.

Draft plan of a tunnel connection under Tähtitorninmäki (Afr Oy, 2021)

The document identifies feasible options for a maintenance traffic tunnel connection passing under Laivasillankatu. The routes do not take into account the space reserved for the underground collector street planned for the area, and some of the routes planned intersect with this reservation. The work examines four tunnel route options and presents rough estimates of the constructibility of these routes. Based on the constructibility assessment, the advantages and disadvantages of different route options are compared, particularly in terms of technical feasibility. In addition to this, preliminary cost estimates have been prepared for the feasible options.

Space allocation and guideline plan for the landscape features of the South Harbour bay (Loci maisema-arkkitehdit Oy, JKMM Architects, 2020)

The plan examines the starting points of the development of land use in the area and the conditions for implementation and produces guideline solutions for the space allocations of the area valued for its cultural history and landscape in terms of construction potential, connections, routes and flood protection. The planning area is divided into three sub-areas, each of which are given two different solution options, which are both technically feasible and of high quality in terms of landscape, as well as suitable for the character of the area. In the selection of solution options, clearly different guideline solutions have been sought, yet taking into account the starting points and objectives in each sub-area. The aim of the work is to produce easy-to-read and understandable plan material on the differences of the guideline solutions in terms of cityscape and functionality and their effects on such matters as views and floor area potential. The space

allocation and guideline plan for the landscape features of the South Harbour bay is intended to serve as a basis for further planning in the area. The plan for Makasiiniranta has been updated in 2021 to reflect the changed planning situation.

Preliminary guideline plan for the technical space allocation and implementation method at the South Harbour bay (Ramboll Finland Oy, 2020)

The plan analyses the basis of the development and the conditions for the plan's implementation at South Harbour and provides preliminary information about the area's municipal infrastructure solutions, space allocations and costs, which will serve as a foundation for further planning and the city's detailed plan. The document focuses in more detail on the space allocation for and implementation methods of the planning area's streets, shoreline areas, water management systems, technical maintenance networks, shoreline and quay structures, as well as superstructure and decking solutions. Two plan versions (VE1 and VE2) were drafted for the harbour's traffic arrangements in Makasiiniranta, based on two different land use solutions. Both versions include space reserved for an underground collector street and the necessary space for harbour traffic. The plan for Makasiiniranta has been updated in 2021 to reflect the changed planning situation.

4. History of the area

4.1. The South Harbour bay

Helsinki was founded and built as a port in 1550. When Helsinki was moved from the mouth of the Vantaa River to Vironniemi in the 17th century to create a better port, the bay of the sea was called City Bay (Stadsviken). Its shores were so shallow that it was only suitable as a harbour for boats for the residents of the coast and archipelago. As late as the 17th and 18th centuries, the area of the Market Square was below the shoreline. In the mid-18th century, the bay was called the Southern City Harbour (Södra Stadshamnen). Its status as a harbour was secondary for a long time. As traffic increased, ship moorings and harbour warehouses were built on the shores of this bay as well. After Helsinki saw its last great fire in 1808 and became the capital in 1812, the reconstruction of the city began under J. A. Ehrenström's leadership, and the shores of the bay began to be filled and equipped with quays, first made of wood and then stone. In the detailed plan prepared by the rebuilding committee, the shores and market square bordering the South Harbour bay got their names and shapes. The Market Square was not marked in the plan as a market square but instead as a southern waterfront square that took its place in the city structure as the end point of the Esplanade Park axis. Another major axis was the current Eteläranta, which runs from north to south, originally called Itäinen ranta-aukio (Eastern Waterfront Square) and from 1836 onwards Läntinen ranta-aukio (Western Waterfront Square). The aim was to make the secondary harbour first-class.

The Market Square and the current area of Eteläranta reached their final form by the middle of the 19th century. The southern part of the bay housed the shipyard Ullanlinnan Laivaveistämö, which had been operating since the 18th century and was renamed Ullanlinnan Varviyhtiö in 1847. The buildings of South Harbour were originally wooden warehouses located around what is now Eteläranta and were replaced by stone buildings in the early 19th century. On the Katajanokka side, the shores were filled and quays and handsome cargo warehouses were built on the shores. In 1900, a new custom house was built in Katajanokka. South Harbour's connections

improved considerably when a railway was built there in 1891–1894. The construction of the harbour railway required filling about half of Vironallas, and a large filling area, Keisarinluodonlaituri, was built to the north. At the same time, the harbour area was dredged and the Eteläranta side was completed. This is how South Harbour got to its current form.

In 1936, the council decided to expand South Harbour to the area of the Helsingin Lavastämö shipyard. This involved extensive railway construction that was not completed until 1952. The era of car ferry traffic between Finland and Sweden began in the early 1960s. Cargo traffic via Katajanokka was stopped and the railway there was dismantled in the early 1980s. Since then, South Harbour has been used by passenger ships and car ferries, and several terminals have operated on its shores.

4.2. Olympia Terminal (South Harbour)

The selection of Helsinki as the host of the 1952 Olympics particularly affected the modernisation of the areas bordering South Harbour. The western shore of the harbour (the shipyard area) had already been acquired by the City in the 1910s. The construction was affected by the unexpected task of organising the 1940 Olympics that Helsinki received in 1938. Construction of Makasiini Quay began at that time, but the work was halted a year later. Olympia Terminal was completed in 1952. The building was based on the winning entry of architects Aarne Hytönen and Risto-Veikko Luukkonen in an invitational architectural competition. Satamatalo was completed next to it in 1954.

The terminal and Satamatalo are a part of the gorgeous architectural development of the city's harbours. When Olympia Terminal was completed in 1952, more than 90,000 passengers passed through it annually, but only during the summer and autumn seasons. Silja Line started year-round operations from Olympia Terminal to Stockholm in 1972 and regular scheduled operation to Tallinn in 1995. The terminal and its ferry berths were renovated in 1989–1990 to accommodate larger vessels.

4.3. The Market Square and its buildings

The Market Square with its harbour basins and quays was formed during the 1810s on the basis of the detailed plan. Market trade began at the Market Square in 1818. The original elements of the Market Square – the row of bourgeois houses, the market square itself, the harbour basins and quays – are based on a detailed plan drawn up by Ehrenström and approved by the Emperor Alexander I as the basis for the construction of the capital in 1812. The system of harbour basins and quays built in the early 19th century has largely retained its original form.

On the shore of the Market Square is Keisarinluodonlaituri, 'Emperor's Islet Pier.' It got its name from an islet hit by a ship carrying Emperor Nicholas I in 1833. These days, the islet lies under filling earth brought to the shore. On the other side of the former turning railway bridge is the Cholera Basin, named after a seaman who died from cholera. The quay area between Vironallas and the former railway bridge is called Lyypekinlaituri. It was formerly used by ships sailing to Lübeck. The quay area between Vironallas and the sea is called Pakkahuone Quay.

The buildings on the west side of South Harbour in the area of Eteläranta include the city's oldest market hall from the late 19th century and, on the street, a two-storey stone house that was designed by architect C. L. Engel for sea captain Sundman in the early 19th century and has retained its original appearance. Construction of the bourgeois houses on the northern edge of the square began right away in the 1810s. The first to be completed were the Heidenstrauch House,

sea captain Castegren's house and merchant Johan Lampa's house. The Seurahuone building, designed by architect C. L. Engel, was completed in the early 1830s. The Heidenstrach House became the Imperial Palace in 1839.

After Finland gained its independence, the Imperial Palace became the Presidential Palace. One of the private houses on the edge of the Market Square became the Embassy of Sweden in the 1920s and another was bought by the state as the premises of the Supreme Court in 1933. As Seurahuone moved to new premises closer to the railway station in the 1930s, the former Seurahuone became Helsinki City Hall. Its transformation, designed by Aarno Ruusuvuori and carried out in 1965–1970, meant building a modern office building inside a historical building. Of the old interior, the banquet hall was restored and preserved.

The architectural competition for the design of the Industrial Centre – the office building of the Confederation of Finnish Employers and the connected hotel and restaurant – was won by architects Viljo Revell and Keijo Petäjä in 1949. The building represents the modern architecture of its time. The placement of the building on the plot was skilfully planned to take into account the plot's slope towards the harbour. The design sought simplicity and clarity and implemented Revell's ideas of rationality. When completed, the building was a complete work of art down to its interior designed by Antti Nurmesniemi, Olli Borg and Olavi Hänninen. The Industrial Centre is included in the selection of modern Finnish architectural masterpieces approved by the international DOCOMOMO organisation.

4.4. Tähtitorninvuori

Tähtitorninvuori once served as a watch fire post, as implied by its former name Kasaberget. Defence equipment was built on the hill in 1748 in accordance with C. A. Ehrensvärd's city fortification plan and the hill was named Ulricasborgsberget. In C. P. Hagström's city survey map of 1787, the hill is a rocky observation post. It served as the site of an optical telegraph for Sveaborg's connections during the Crimean War.

Tähtitorninvuori, which rises at the end of Unioninkatu, the north-south axis of the capital, was considered a suitable location for public buildings for which the visibility and view provided by the place were of particular importance. An observatory designed by C. L. Engel was erected on Ulricasborgsberget in 1834. Until the end of the 19th century, the observatory was a landmark visible on a bare rock over the city, which is why the place began to be called Tähtitorninvuori in Finnish and Observatorieberget in Swedish, meaning 'Observatory Mountain.' It became the official name of the hill in 1928, and the hill is also colloquially called Tähtitorninmäki (Observatory Hill).

The magistrate announced in 1883 that Tähtitorninvuori was to be made 'in terms of views and fresh air, one of the most pleasant places for outdoor recreation.' The park plan, drawn up by the City of Helsinki's first city gardener, Svante Olsson, as his first assignment, was completed in 1890. The rocks were covered with earth to make it possible to build the park. In the design of the park, special attention was paid to views and visibility. The vegetation framed rather than obscured the surrounding urban landscape, the viewing of which was facilitated by building several observation decks. After its completion in 1903, the park was the 'official' place to view the landscape of the Market Square, the harbour, Katajanokka and Kruunuvuorenselkä, and these iconic city views have been immortalised in many photographs. The importance of the cityscape was also reflected in efforts to protect the view by limiting building height in the blocks south of the hill and expanding the southern Ullanpuistikko green area.

4.5. Kaivopuisto

Kaivopuisto, located at the southernmost tip of the Helsinki inner city peninsula, was built in the style of foreign examples as the park of a well and sea spa facility for the nobility in the 1830s and was transformed into a stately public city park in the late 19th century. The spa's heyday was the 1840s and 1850s, as the high society of St. Petersburg took their holidays in Helsinki after Emperor Nicholas I had prohibited them from travelling to the spas of Central Europe. Kaivohuone is one of the oldest restaurants in the city still used for its original purpose. To the east of the park, there is a villa neighbourhood that was created at the same time as the spa. In 1886, Kaivopuisto became a public park owned by the City. The old spa building, located by the sea at the intersection of the current Iso Puistotie and Ehrenströmintie, was destroyed by aerial bombardment during the Continuation War in 1944.

The seaside boulevard of Kaivopuisto was built in the 1940s. It was renamed Ehrenströmintie in 1950 (formerly called Kaivopuiston rantatie). This gave the city's residents a public seaside route to Kaivopuisto and around it.

5. Current state

5.1. Makasiiniranta and Olympiaranta

The areas of Makasiiniranta and Olympiaranta are used by the harbour. According to condition surveys, Makasiini Terminal located in the area is in poor condition, and the plan is to demolish it. Olympia Quay is used by passenger ship traffic to and from Stockholm and Olympia Terminal acts as its passenger terminal. Satamatalo houses the Port of Helsinki Ltd's business premises. Olympia Terminal and Satamatalo are buildings of significant conservation value. The seawalls of the area from Pakkahuone Quay to the southern tip of Olympia Quay are reserved for vessel traffic and separated into a fenced security area in accordance with merchant shipping regulations. Extensive areas are reserved for the needs of the harbour's car and lorry traffic. Some of the area is used for parking. The seaside trail that circles the shores of Helsinki runs along Laivasillankatu.

Other buildings and structures in the area include the facilities connected to the old railway shaft. There are warehouses and hall buildings under the yard deck and street in front of Olympia Terminal.

5.2. Lyypekinlaituri and the Old Market Hall

The use of the Lyypekinlaituri pier has changed in recent years. The number of parking spaces in the area has been reduced and the Helsinki Biennial pavilion and connecting piers to Val-lisaari have been built in the area. In addition to this, there has been a terrace café on the pier in recent summers. The seawalls of the pier have moorings that are used as pick-up and drop-off points for charter traffic. There are some moorings for smaller vessels in Vironallas, which are intended for people stopping by in the area. In addition to this, the Finnish Lifeboat Institution's rescue station Meripelastusasema 1 operates from Pakkahuone Quay in Vironallas. The kiosk

building in the vicinity of the Old Market Hall and the remains of the harbour railway, particularly the swing bridge of Lyypekinlaituri, are culturally and historically valuable structures.

The Old Market Hall is the oldest market hall in Finland and one of the three market halls in Helsinki. Its value in terms of cultural history is indisputable. The Old Market Hall is also one of the most popular tourist destinations in Helsinki, which is unfortunately not really reflected in the sales of the vendors. There is not enough housing in the vicinity of the hall to support traditional food sales. However, cafés and lunch restaurants thrive there. The Old Market Hall is a semi-warm space that has proven to be a challenging work environment; the space is sometimes hot in the summer and respectively cold in the winter. The maintenance connections of the Old Market Hall are located at the northern and southern ends of the building. These days, the waste management of the Old Market Hall has been realised as an underground system located on Lyypekinlaituri. The current vendors of the Old Market Hall have a parking area at the southern end of the hall.

5.3. Tähtitorninvuori

Tähtitorninvuori is a park with a very varied topography. The sloping hillsides and views are special features of the park. The park has lawns, shady copses and beautiful old flora. At the highest point is the sculpture 'The Shipwrecked' erected in 1898. The place offers a sea view of the shore of the Market Square. Many of the trees and shrubs still growing in the park are rare in today's parks. These specialities include such species as the authentic Hungarian lilac, Ornäs birch, poplars, hawthorns, honeysuckles, mock-oranges and certain shrub roses.

There is a parking facility and a civil defence shelter in the rock of Tähtitorninvuori. The entrance to these is on Laivasillankatu.

5.4. Soil, structures, level and civil engineering

The soil in the area of port operations and the northern part of the planning area consists of fill from different times. The fill consists of mixed soil, the geotechnical and possibly also environmental quality of which requires examination. Under the fill, the soil consists of clay in places, which must be taken into account in the planning solution. In the area of Tähtitorninvuori to the west of Laivasillankatu, there is rock below the surface soil.

Most of the area has long been used for port operations. The structures in the current harbour area have been designed and implemented for the needs of merchant shipping and supporting land-based functions. The structures have been implemented in stages and have been repaired using different methods at different times. The waterfront structures are quay structures on pile foundations. There is a railway tunnel in the southern part of the area, which was decommissioned when the railway connection was discontinued. At the western edge of Laivasillankatu, there is the entrance to the vehicle tunnel leading to the Tähtitorninvuori parking facility. Immediately southwest of Olympia Terminal and Satamatalo is a deck structure. Right in the southwest corner of the area is an old railway tunnel that extends outside the planning area.

The area currently used for port operations is a flat area located at approximately +2, with the exception of the deck structure in the southern part. The level of the harbour yard does not meet the current flood protection requirements in terms of elevation. Laivasillankatu and Tähtitorninmäki are considerably higher in elevation than the harbour yard. Laivasillankatu is at about +3 in the north and rises towards the south, reaching about +8 in front of Satamatalo. The highest point of Tähtitorninvuori within the planning area is at about +25.

Catchment area analysis shows that the terrain of Makasiiniranta is part of the catchment area delimited by Tähtitorninvuori, Kaartinkaupunki and the eastern end of Bulevardi. The sewage system in the area is mainly a combined one, so the area's run-offs are directed to the Viikinmäki Wastewater Treatment Plant. There are overflow wells in the area, from which untreated waters are discharged into the sea through overflow pipes in the event of a flood. In the harbour area, run-off waters are currently led directly to the sea. As Laivasillankatu is higher in elevation than the area of Makasiini Terminal, the wastewater from the terminal area is pumped into the Laivasillankatu combined sewer. There is also a water supply distribution pipe on Laivasillankatu.