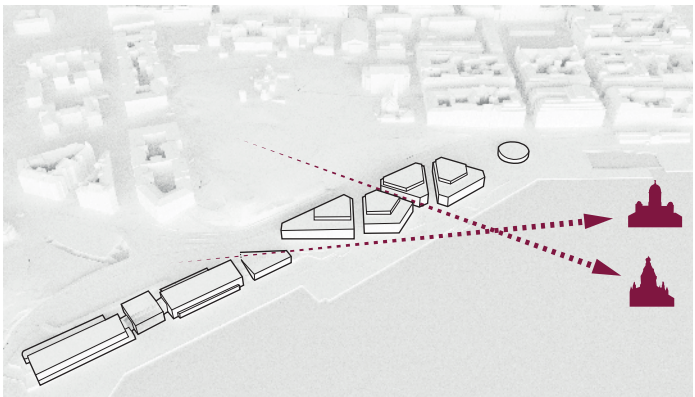


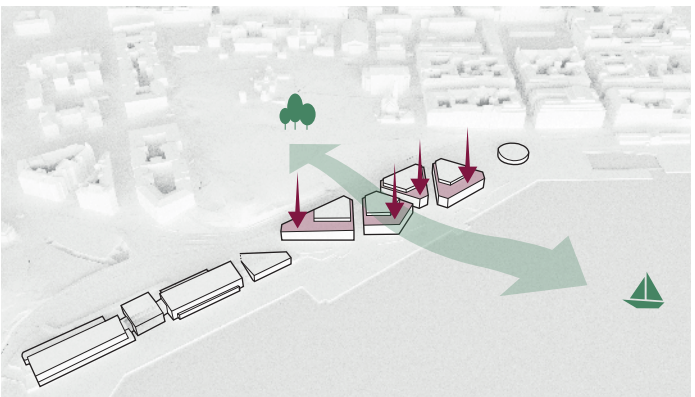
SAARET



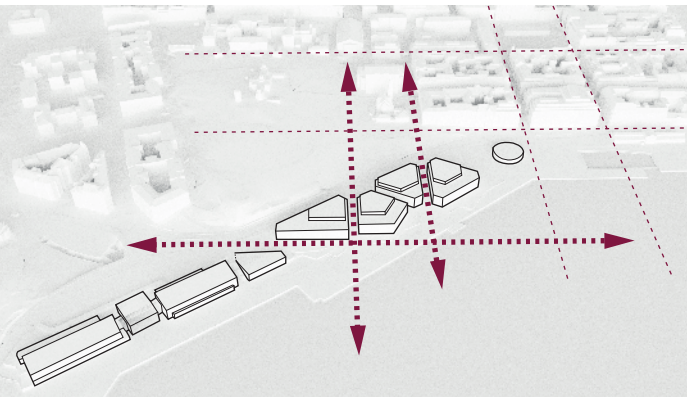
AERIAL VIEW



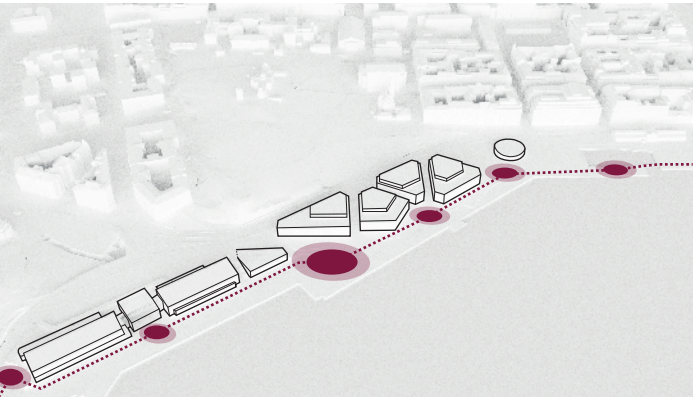
PRESERVED VIEWS
The massing is laid out in a manner that preserves and highlights the views towards Helsingin tuomiokirkko and Uspenskin katedraali.



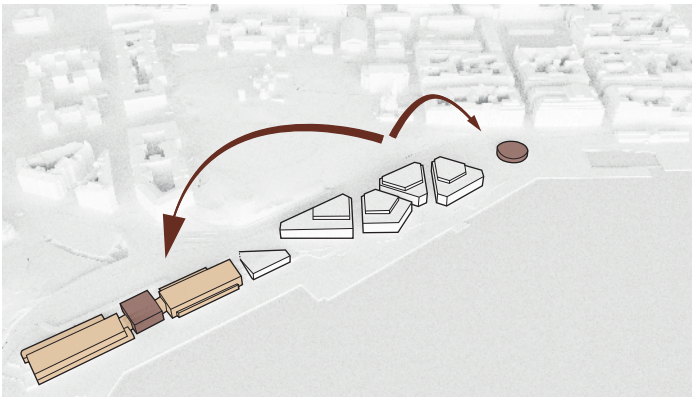
LOW PROFILE
The new buildings are kept low to preserve the water view from the Tähtitorninvuori park and also the park view from the sea.



ALIGNED WITH GRID
The new streets are laid out in alignment with the existing grid of the nearby city center. Waterviews at the end of existing streets are preserved.



ACTIVE SHORELINE
Pedestrians can move freely along a lively and active shore.



ADAPTIVE REUSE
Main part of the new Museum is located in the existing Terminal buildings. Two smaller buildings are added.

SAARET transforms a closed terminal area into a lively public waterfront. The new built landscape creates a natural continuation to the national maritime landscape of Helsinki. The combination of lowcarbon new construction and adaptive reuse form together a new landmark for climate-smart Helsinki. The future Architecture and Design-museum is a strong motor in the development of the site, and we firmly believe that it should display sustainability and resilience.

The seashore pedestrian route will join Kauppatori in the north and Kaivopuisto in the south with a rich sequence of squares and parks. Tähtitorninvuori park extends towards north and the smaller green routes reach towards the seashore.

In both ends, strong public nodes define the area and attract people into the inner parts of the site. The ground levels of the new buildings are open to the public in cafés, restaurants, galleries and shops. There are a variety of working environments from the ground level to the top floors and two hotels for visitors.



VIEW FROM THE SEA

SAARET

Overall concept & identity

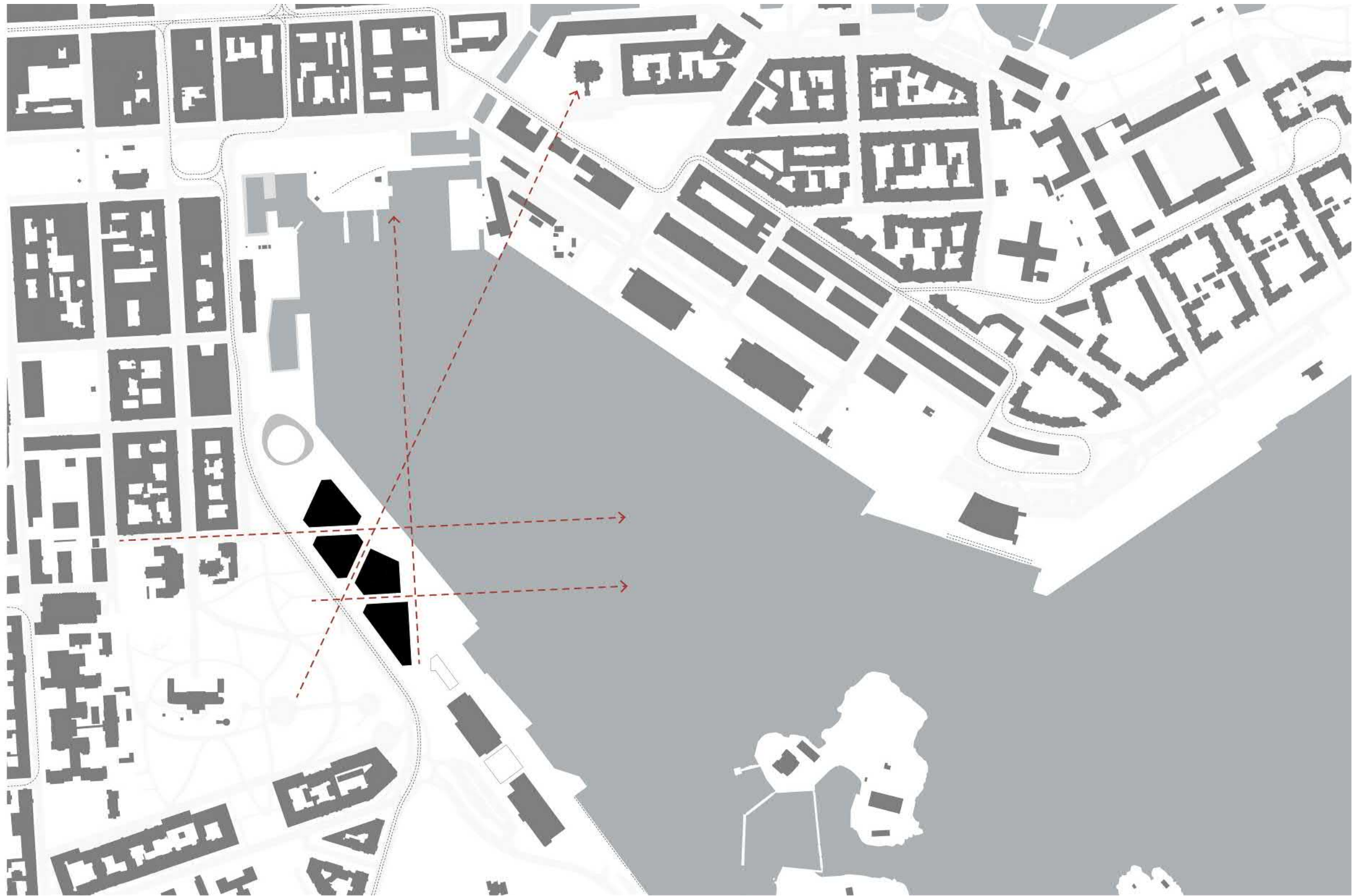
The urban structure including the new buildings is part of a larger landscape formation inspired by the cracking bedrock of the shoreline. The closed terminal area will be transformed into a lively public waterfront. The new built landscape creates a natural continuation to the national maritime landscape of Helsinki. At the same time the new buildings can be recognized as clearly distinguishable new architecture. By levelling the ground of the area with Laivasillankatu barriers are overcome and new connections bring people easily down to the water. The seashore pedestrian route will join Kauppatori in the north and Kaivopuisto in the south with a rich sequence of squares, plazas and parks.

In both ends of the competition area, strong public nodes define the renewed waterfront and attract people into the inner parts of the area. In the north the Tähtitorninvuori park spills down to the quay and extends towards the Old Market Hall. A new square for public events creates a zone between the new and the old area.

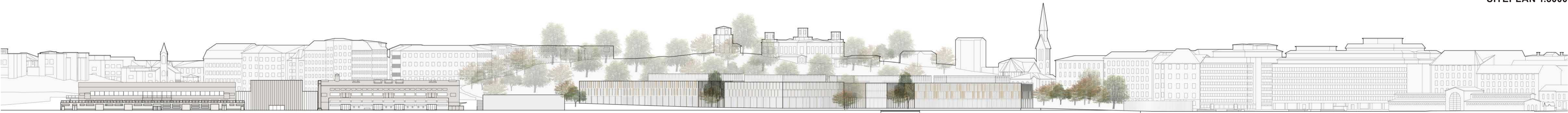
The first new building one encounters when arriving from the north is a new museum pavilion in the park. In the southern end, the old Olympia terminal and the Porthouse will be adapted and extended into another museum and exhibition center. To place the A&D museum in the reused harbour buildings would allow a solution without a heavy service tunnel which is both economic and ecologic. The museum in adapted and extended harbour buildings would certainly follow principals of climate-smart Helsinki.

To activate the shoreside of the Olympic buildings a path of different activities is created. Reused materials and containers offer flexible space for small pop-up-shops, play and seating.

The main volume of the buildings is located in four compact blocks in the middle of the area. They are carefully placed according to the views, adjacent buildings and height differences. The blocks create new places both on the seaside as well as on the Laivasillankatu side. The main pedestrian routes and human scale alleys between the new building blocks are directed towards important landmarks, such as Tuomiokirkko and Uspenski cathedral. The terraced geometry of the blocks can be seen as an abstract undulating continuation for the Tähtitorninvuori and Armi Ratia parks. Light post and beam wood structure allows flexibility of use. Wood and glass as dominant façade materials give the main identity for the area.



SITEPLAN 1:5000



ELEVATION TOWARDS THE SEA 1:1000

5

4

3

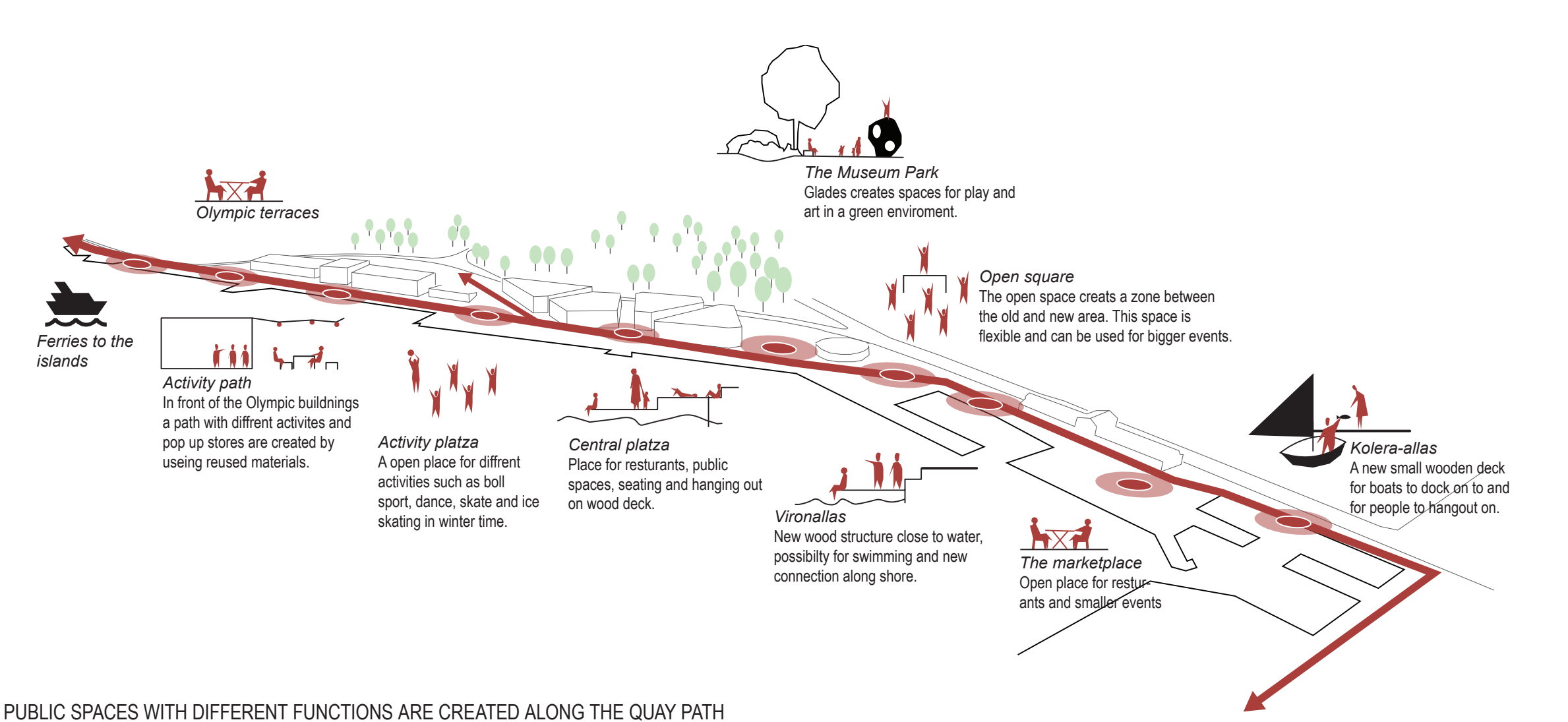
2

1

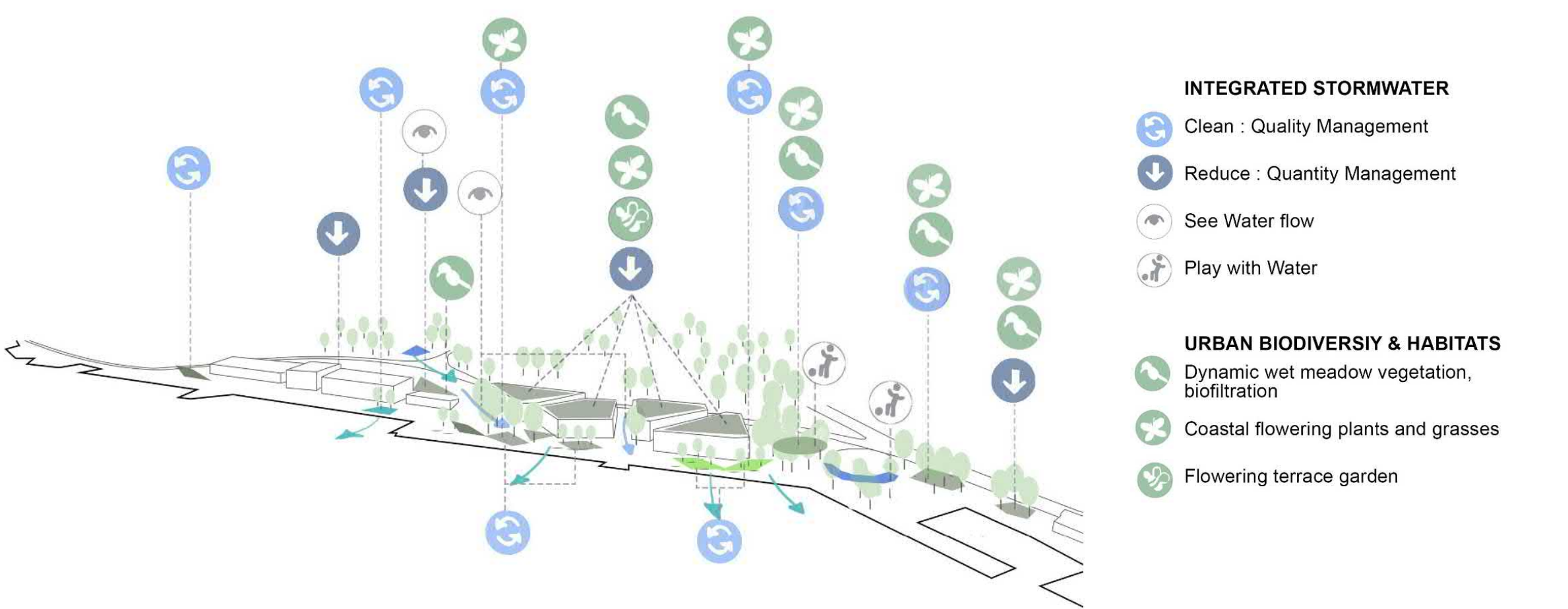




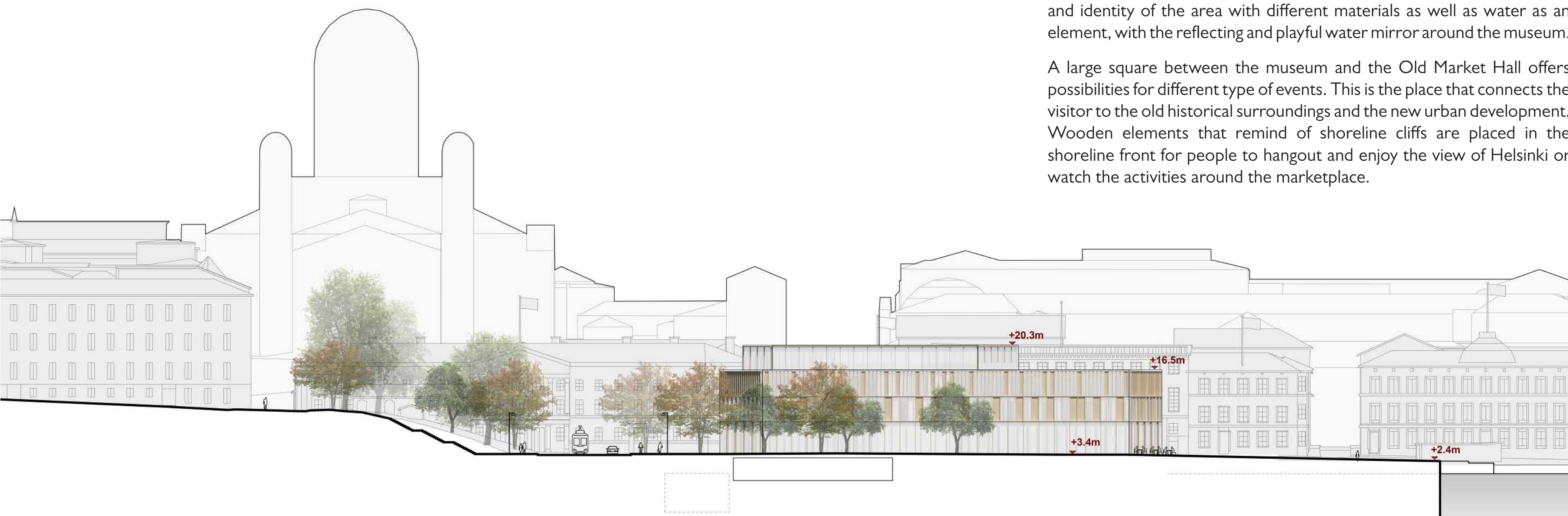
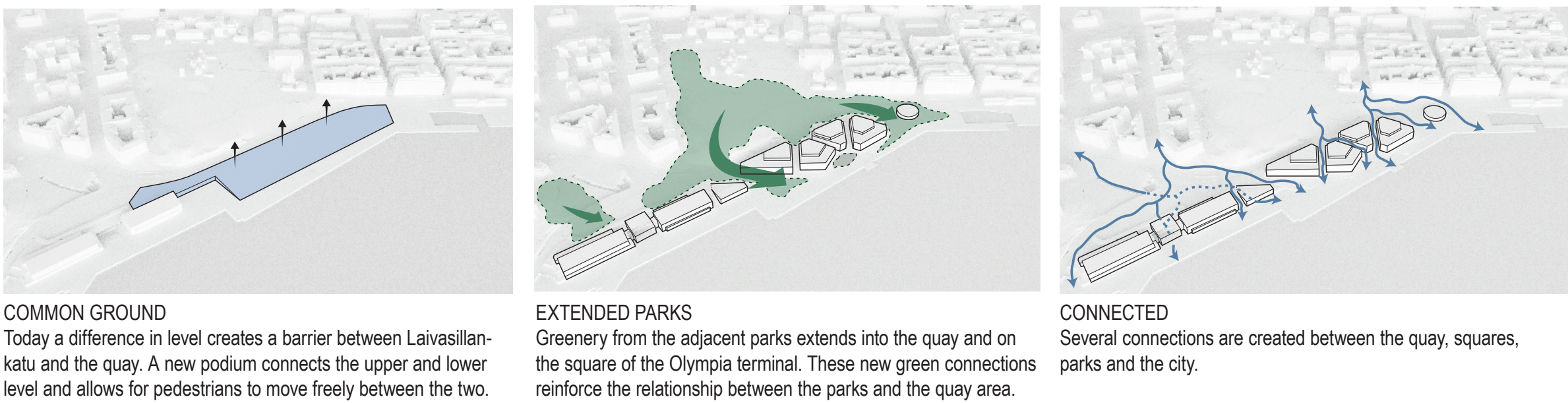
SITEPLAN 1:2000



PUBLIC SPACES WITH DIFFERENT FUNCTIONS ARE CREATED ALONG THE QUAY PATH



BIODIVERSITY AND WATER MANAGEMENT



ELEVATION THROUGH BERNHARDINKATU – 1:500

Public places

Landforms and vegetation

The landscape is inspired by the cracking granite bedrock in the shoreline of Helsinki. From the existing parks the tree canopies and abundant vegetation flows towards the sea where it transforms and meets the maritime vegetation. The greenery and stormwater can be seen in the urban cracks throughout the site.

Helsinki shoreline identity and the sea can be experienced in various ways: long vistas to the sea, touching the water and relaxing next to the water. From the seaside the silhouette of Tähtitorninvuori rises above the green roofs of the new development. The physical and visual connections from the surrounding parks, Tähtitorninvuori and Aino Ratia Park, are created and strengthened.

The new layer of urban nature includes different types of meadows and trees that improve microclimate and creates habitats and shelter for different species. By creating new habitats with specific vegetation and decaying trees the new development improves the living conditions of endangered local species such as aphid Lipaphis alliariae and moths Catoptria fulgidella and Depressaria chaerophylli. The rooftop terraces invite birds, insects such as bees to stay and are part of the buildings nutrition and food cycle by using compost from building and producing honey, herbs and vegetables for the restaurants and employees.

The new green elements are part of areas stormwater management system. The stormwater will be guided into the vegetated urban cracks and used as a resource for recreation and urban play. The new city spaces and the blue and green elements enables dynamic and transformative spaces that offer memorable experiences for multiple user groups throughout the year. The reformed harbor brings together nature, people and art.

The waterfront

The Waterfront walk connects various functions along the shoreline, partly in two levels. In the north the Quay Park continues with wooden terraced stairs and area for terraces. A large wooden deck acts as a node point for several paths and activities. The waterfront walk continues through The Activity plaza and continues as an Activity Path in front of the Olympia Terminal and new Museum. The rough harbour character is emphasized with reused materials such as bricks and wood along the activity path. In the Activity Plaza it is possible to skate, parkour, kickboard and play or just sit in the terraced grading and watch the harbor activities. The old quay is preserved in the shoreline throughout the area.

The Museum Park and Museum Square

The new museum will be a part of the new Quay Park that is an urban extension of the Tähtitorninvuori Park. It will be a vibrant place for exhibitions, play and art in a green environment. The Quay Parks green glades are created by minor changes in the topography. With the new topography stormwater can be harvested in the rings around the glades that can be flooded during heavy rainfalls. The glades are surrounded by trees, perennials and bushes to create a diverse greenery that filter the stormwater and offer shelter and food for various species. In the glades, different activities such as exhibitions and play can take place. A long wooden bench along the southern part of the main glade offers place for seating and gatherings.

The surroundings of the museum enhance the different historical layers and identity of the area with different materials as well as water as an element, with the reflecting and playful water mirror around the museum.

A large square between the museum and the Old Market Hall offers possibilities for different type of events. This is the place that connects the visitor to the old historical surroundings and the new urban development. Wooden elements that remind of shoreline cliffs are placed in the shoreline front for people to hangout and enjoy the view of Helsinki or watch the activities around the marketplace.

Olympia Square

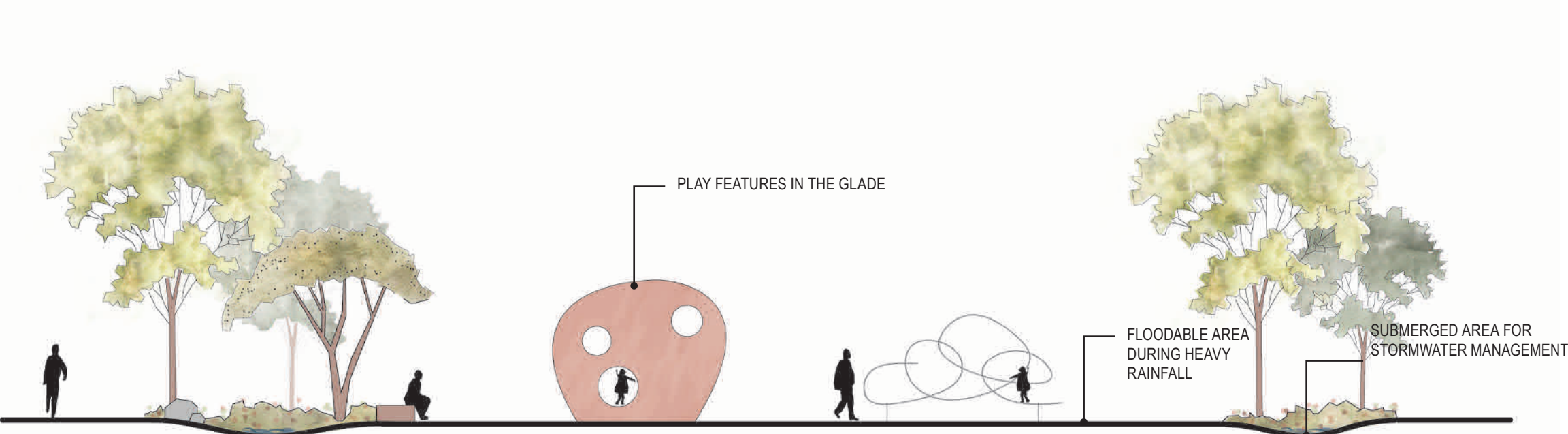
The Olympia Square is located next to the Laivasillankatu in front of the old Olympia Terminal Buildings and the Museum's new entrance. The square has many roles in addition to act as an entrance square. It connects the Tähtitorninvuori Park and Armi Ratia Park with greenery. The tree canopies offer also shelter and relaxing seating areas for individuals and groups. The Museum is connected with the underground spaces to the shaft with valuable existing rough features and a new wide wooden ramp that connects the Armi Ratia Parks both sides and the Kaivopuisto Park area. The Olympia Square as well as the shaft area can be used for several purposes such as outdoor exhibitions and events.

Old market Hall and cultural environment

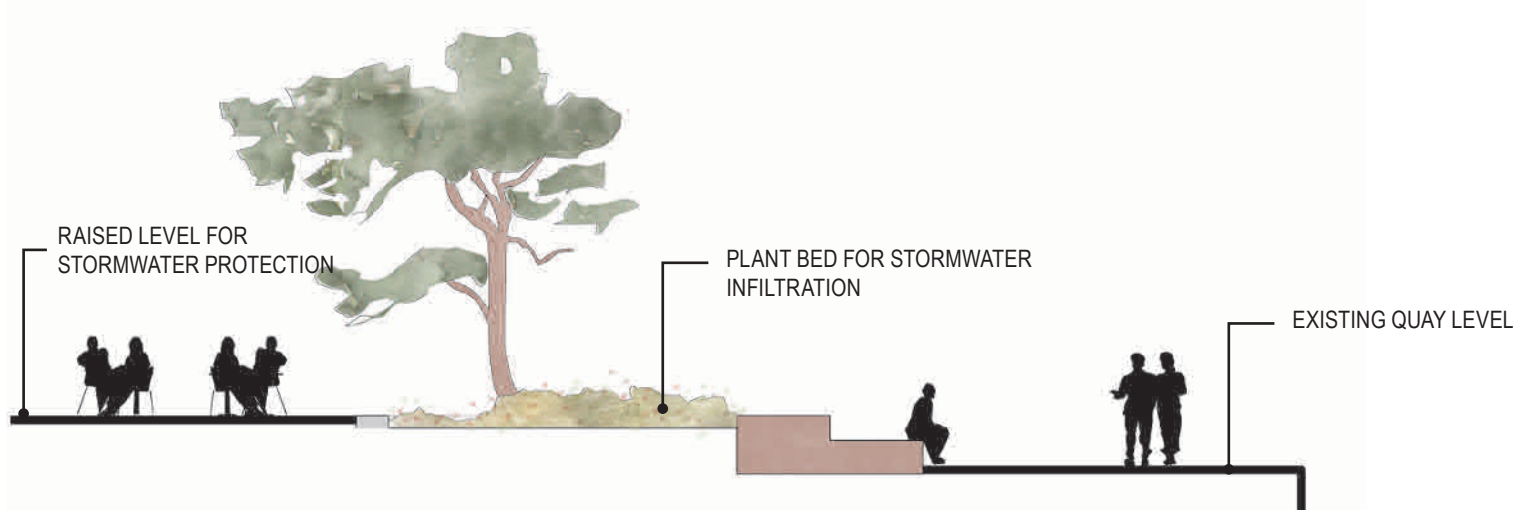
The significant cultural environment is treated with respect. In the immediate surroundings of the Old Market Hall there are only minor changes. The ground material will be change from asphalt to the same granite stones as the Kauppatori square.

To bring people closer to the water a wooden deck is docked on to the existing last step of the quay in the both pools. In the north pool the wooden deck creates a possibility for boats to dock and people to hangout. The wood deck in Vironallas connects the shoreline for pedestrians and gives possibility to swim in the pool without disturbance of boats. A larger wood deck is created in the south part of the pool to give people the possibility to sit in the sun close to the water.

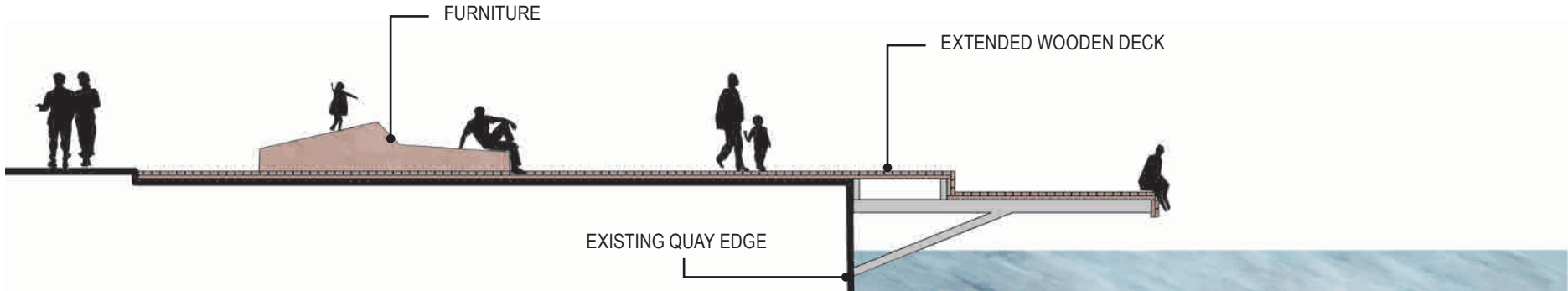
The Old Market Hall will remain in its' original use and the outdoor areas in front will strengthen the concept. Lyypekinlaituri will be reserved as well for light and temporary structures.



MUSEUM GLADE



QUAY IN FRONT OF NEW BUILDINGS



DECK AT CENTRAL PLAZA



VIEW FROM LYPPEKINLAITURI



SITEPLAN 1:2000

	Bld.	Bld.	Bld.	Bld.	Bld.	
	Pavillon	Porthouse	Entrance	Olympia	Basement	Total
Plan 1	800	1 860	760	2 300	13 180	18 900
Plan 2	-	2 140	700	2 560	-	5 400
	800	4 000	1 460	4 860	13 180	24 300
	Total m2					

New	Museum	800	-	1 460	-	-	2 260
Reuse	Museum	-	4 000	-	4 860	-	11 140
New	Commercial	-	-	-	-	2700	2 700
Reuse	Commercial	-	-	-	-	3 450	3 450
Reuse	Parking	-	-	-	-	2 850	2 850
Reuse	Service	-	-	-	-	1900	1 900
		800	4 000	1 460	4 860	13 180	24 300
	Total m2						

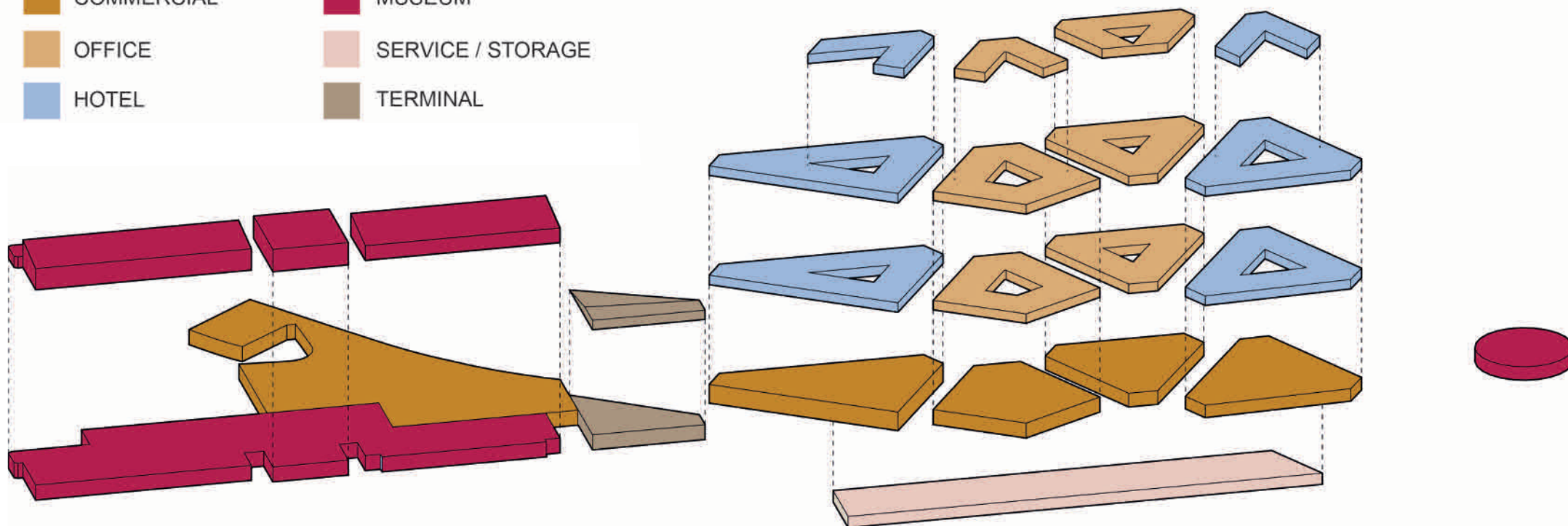
Cars	2				70	72
Bikes	10				285	295

	Bld.			Bld.	Bld.	Bld.		Bld.				
	1	Hotel	Rooms	2	3	4	Hotel	Rooms	Terminal	Total		
Plan 0										4 215		
Plan 1	2 385	1 000		1 930	2 100	2 550	1 000		550	9 515		
Plan 2	2 250	2 250	65	1 850	1 975	2 350	2 350	75	1 450	9 875		
Plan 3	2 250	2 250	65	1 850	1 975	2 350	2 350	75		8 425		
Plan 4	740	740	10	1 115	790	830	830	15		3 475		
	7 625	6 240	140	6 745	6 840	8 080	6 530	165	2 000	35 505		
	Total m2											

	Bld.			Bld.	Bld.	Bld.		Bld.				
	1			2	3	4	Hotel	Terminal	Total			
New	Hotel	6 240	-	-	-	-	6 530	-	-	12 770		
New	Commercial	1 185	-	-	1 130	1 300	1 350	-	-	4 965		
New	Office	200	-	-	5 615	5 540	200	-	-	11 555		
New	Terminal	-	-	-	-	-	-	2 000		2 000		
New	Basement	-	-	-	-	-	-	-		4 215		
		7 625			6 745	6 840	8 080	2 000		35 505		
	Total m2											

Cars	20			15	20	20		20	95
Bikes	60			150	140	70		30	450

COMMERCIAL	MUSEUM
OFFICE	SERVICE / STORAGE
HOTEL	TERMINAL



Functions

The ground level of the area will be reserved for public and commercial function throughout the area. Museums in both ends of the competition area serve as attracting nodes.

Architecture and Design museum

We propose two alternatives

- Museum in two locations - new museum in the northern multi-functional exhibition hall and main museum in the adapted and extended port terminal buildings.
- One museum in the north as requested in the competition program with service tunnel.

The four blocks

The ground levels will be reserved for public functions such as commercial spaces, exhibitions, galleries, restaurants and cafés as well as working spaces. The basements will be connected as one, minimized space containing logistics and storages, technical spaces as well as bicycle parking. The 2nd – 3rd floors are flexible spaces suitable for different types of working and hotel use. The prime location has the potential to attract a dynamic mixture of Nordic headquarters, smaller businesses and creative communities. The roof floors are withdrawn from the façade line creating terraces for various uses. In addition to the terraces there will be multifunctional green roofs and solar panels.

The high-speed vessel terminal

The reservation for the new terminal is located in the north end of the Port Terminal building front. The two-level building can be accessed from both Laivasillankatu and quay levels. It is placed in the sea front in line with the terminals as low mass in order not to interrupt important views. The roof of the terminal is accessible to the public creating another unique place along the seashore route.

The Olympic terminal and the Port House

For the adaptive reuse we propose two alternatives

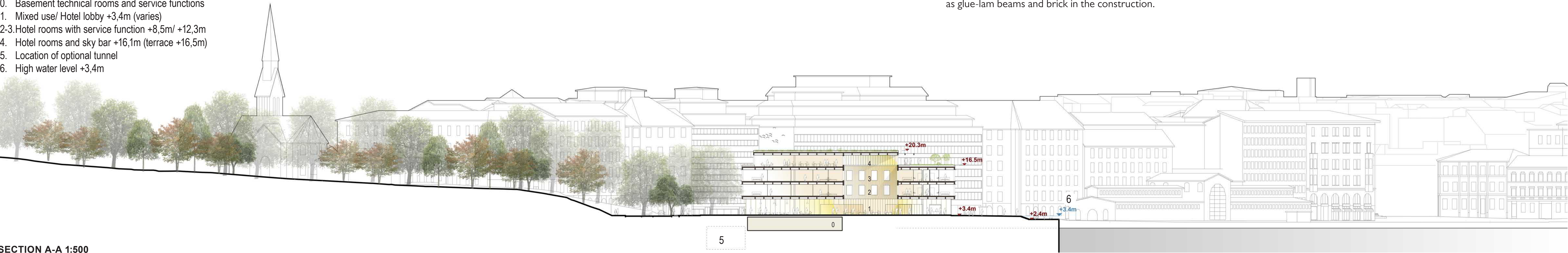
- Architecture and Design Museum in the reused buildings and the addition.
- Multipurpose exhibition and venue center such as Baltic see center or E-games center.

In either case the exhibition buildings will be connected to the city from all directions. The main entry is placed in the middle of the Olympia terminal and the Porthouse in a new wood-glass building which can be accessed from both levels. We propose to use recycled building parts and materials from the demolished M4 terminal such as glue-lam beams and brick in the construction.

In our vision the new Architecture and Design Museum could be located on both the designated northern site as well as in the adapted port terminal buildings. We see great potential in combining these old buildings, new additions, unique underground spaces as well as recycled materials in combination with new architecture. The other option is to build the Architecture and Design Museum completely as a new structure in the northern site, as requested in the competition program, and another multipurpose exhibition center in the old terminals. In both options, the two nodes will also strengthen the public routes and activities in between.

House 3. Legend to Section

- Basement technical rooms and service functions
- Mixed use/ Hotel lobby +3,4m (varies)
- Hotel rooms with service function +8,5m/ +12,3m
- Hotel rooms and sky bar +16,1m (terrace +16,5m)
- Location of optional tunnel
- High water level +3,4m



VIEW FROM THE CENTRAL PLAZA

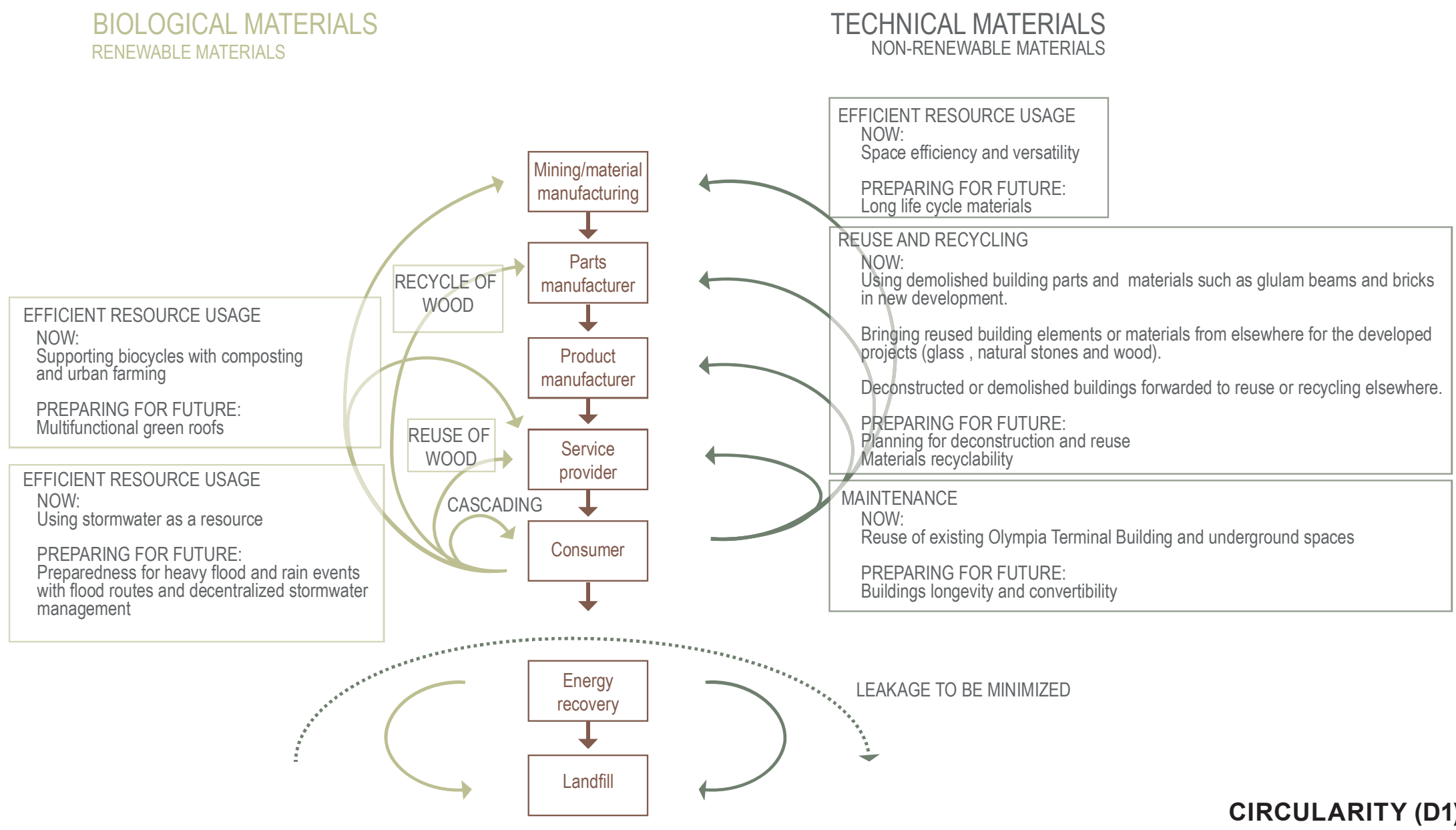




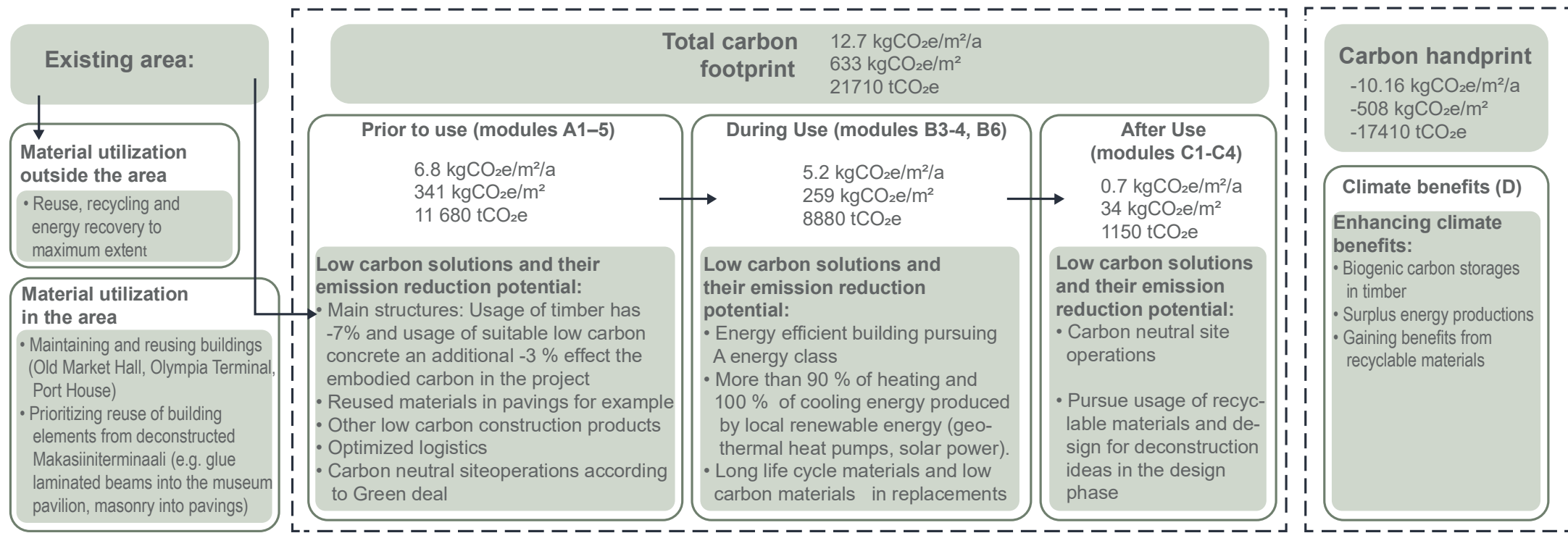
VIEW FROM KAUPPATORI



ELEVATION TOWARDS CITY CENTER – 1:500



CIRCULARITY (D1)



CARBON FOOTPRINT (D2)



VIEW FROM TÄHTITORNINVUORI PARK

Sustainability

The new development includes actions on all the aspects of strong sustainability, ecological, social & cultural, and economic. The urban structure is not just minimizing the negative impacts but is also enhancing the positive impacts by partnering with the nature: sun, wind, water and the flora & fauna.

Climate change adaptation aspects such as sea level rise and flood protection as well as extreme rain and heat events are considered in many ways. Blue-green infrastructure (trees, vegetation, biofiltration, nature-based stormwater solutions) integrates the stormwater management solutions to the city structure and improves the microclimate (wind, heat and air quality).

.Climate change mitigation has been considered by making most of the existing buildings with intelligent adaptive reuse and recycling material as as well as reducing CO2 emissions during the whole lifecycle with local renewable energy solutions and energy efficiency.

In the buildings, flexible solutions (floor height, structures) are considered. The proposal aims to minimize the size of service tunnel that reduces both costs and emissions. The carbon handprint has been taken into account by reusing concrete and adding carbon sinks such as trees and other vegetation and biochar that supports the stormwater management as well, in the breeding ground. The main idea has been to concentrate the building masses in a compact area to aim for resource efficiency.

All the new buildings will be targeted to achieve the best energy class A.

Energy class A will be pursued also for harbour buildings, considering possible restrictions due to preservation of these buildings. High level of energy efficiency and low energy-based carbon emissions will be achieved by investing into excellent properties of building envelopes and technical building systems together with producing local renewable energy.

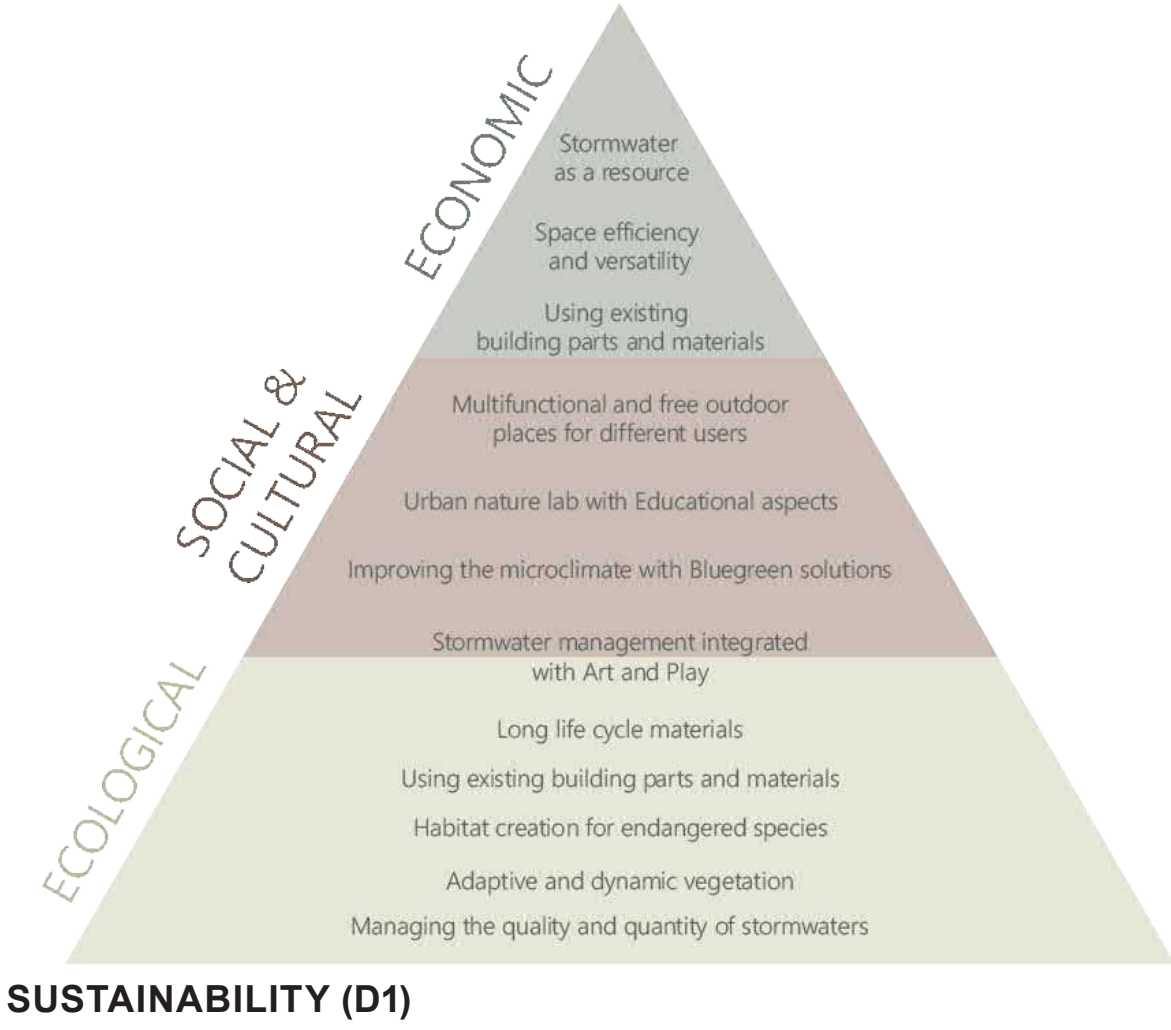
More than 90% of heating and 100% of cooling energy demand will be produced by local renewable sources, mainly based on geothermal energy supported by sea water or ambient air as a heat source. Geothermal boreholes will be recharged with excess heat from buildings and by heat taken from the sea or ambient air. Recharging the borehole field increases the total energy efficiency of the system. Excess and waste energy from buildings can be supplied into a local energy distribution network to benefit all the buildings in the area. Building integrated solar panels will be used to produce renewable electricity for the buildings. Excess electricity will be sold to public grid.

The goal is to build as self-sufficient block with renewable energy sources as technically possible now with improving options in the future.

Carbon balance for new buildings was calculated according to the method for the whole life carbon assessment of buildings (Ministry of the Environment, Helsinki 2019). Method is adjusted to cover the development of the entire areas planned 5 new building projects.

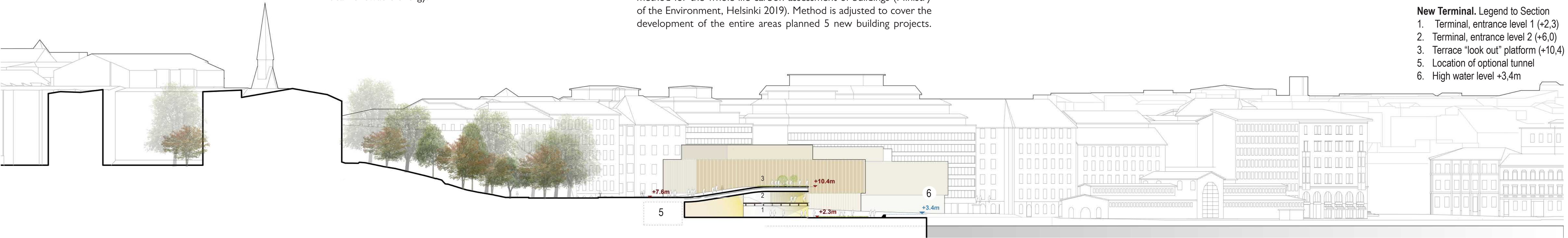
The buildings were assumed to have hybrid frame (timber, steel, concrete), piling foundation, basement floor and class A energy efficiency. Heating is provided with ground source heat pumps and solar energy is provided. The results and accounted low carbon solutions or solutions that can be accounted later are presented in the diagram D2.

The scope of the study was adjusted to ongoing concept design phase meaning building elements lacking information and insignificant effect on the total footprint were excluded from the study (less than 5 % in total). Also, some values and quantities rely on database estimates or assumptions based on reference buildings or calculation tools. Environmental data is from Emission database for construction (typical values, SYKE 2021), product specific EPD's or other general databases.

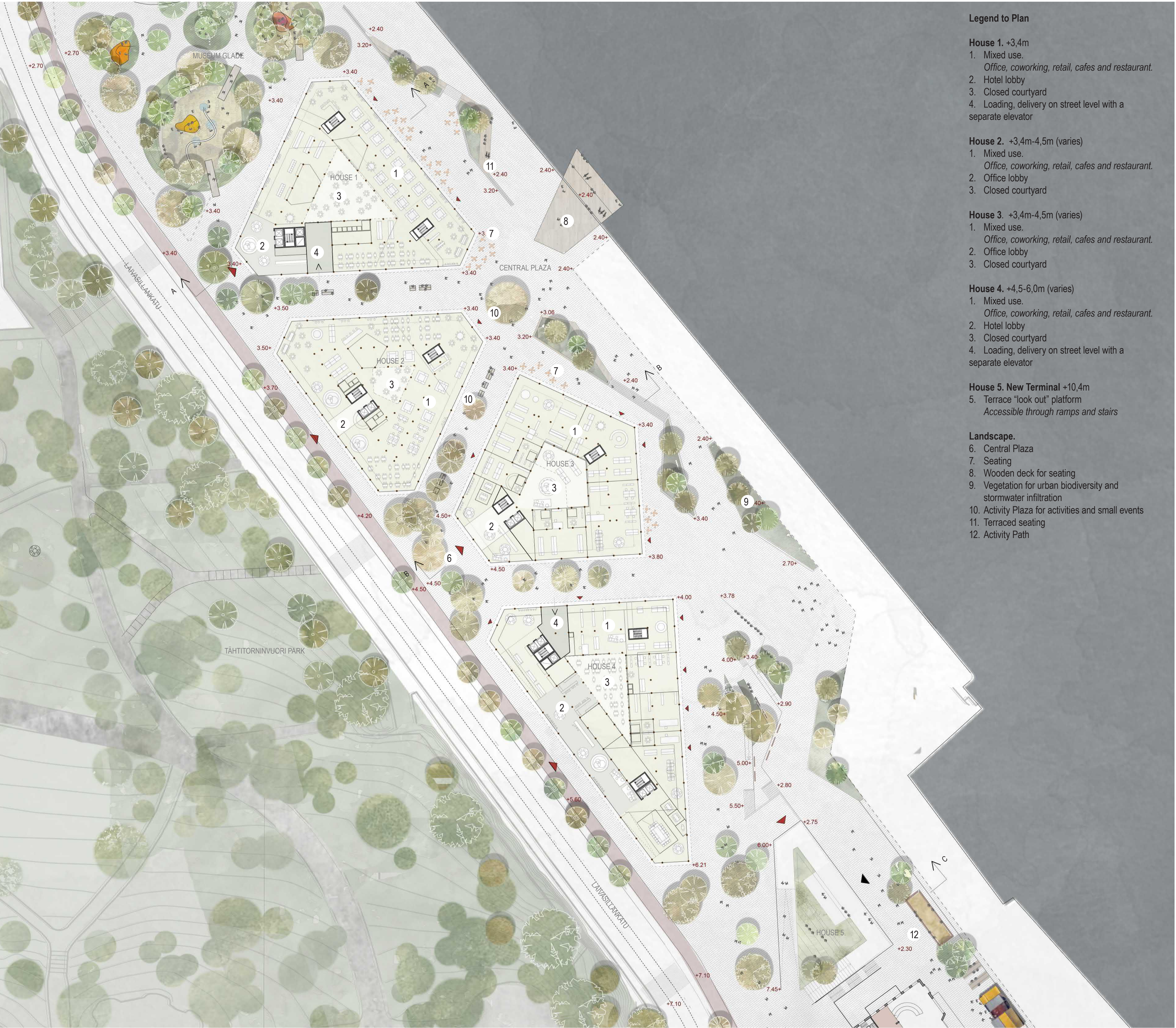


SUSTAINABILITY (D1)

- New Terminal. Legend to Section**
1. Terminal, entrance level 1 (+2,3)
 2. Terminal, entrance level 2 (+6,0)
 3. Terrace "look out" platform (+10,4)
 5. Location of optional tunnel
 6. High water level +3,4m



SECTION C-C – 1:500



PLAN 1:500 – GROUND LEVEL

Legend to Plan

House 1. +3,4m
1. Mixed use.
Office, coworking, retail, cafes and restaurant.
2. Hotel lobby
3. Closed courtyard
4. Loading, delivery on street level with a separate elevator

House 2. +3,4m-4,5m (varies)
1. Mixed use.
Office, coworking, retail, cafes and restaurant.
2. Office lobby
3. Closed courtyard

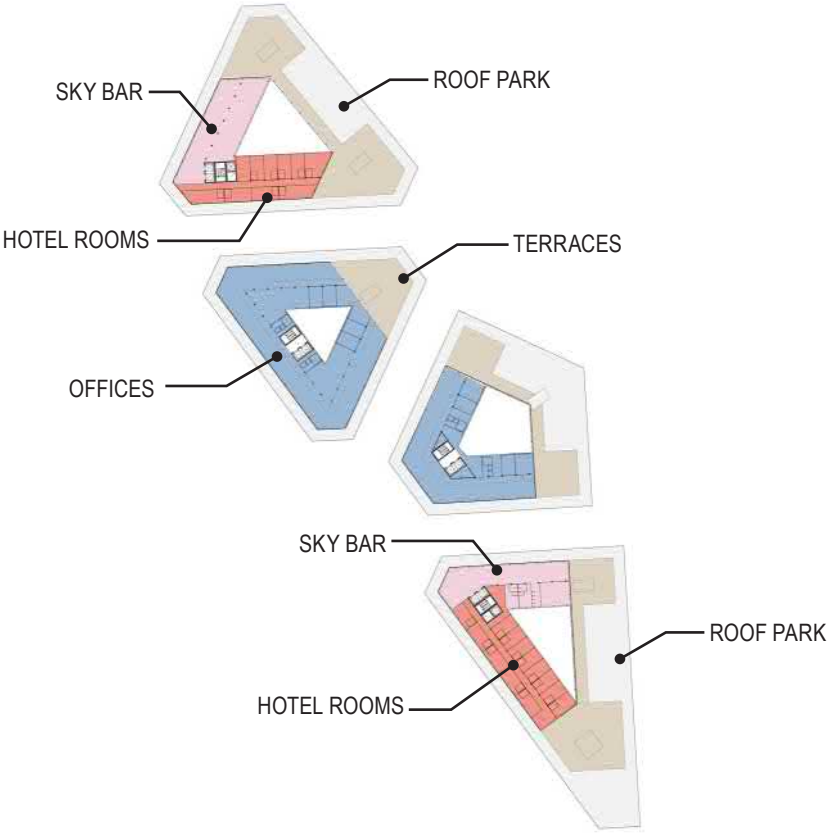
House 3. +3,4m-4,5m (varies)
1. Mixed use.
Office, coworking, retail, cafes and restaurant.
2. Office lobby
3. Closed courtyard

House 4. +4,5-6,0m (varies)
1. Mixed use.
Office, coworking, retail, cafes and restaurant.
2. Hotel lobby
3. Closed courtyard
4. Loading, delivery on street level with a separate elevator

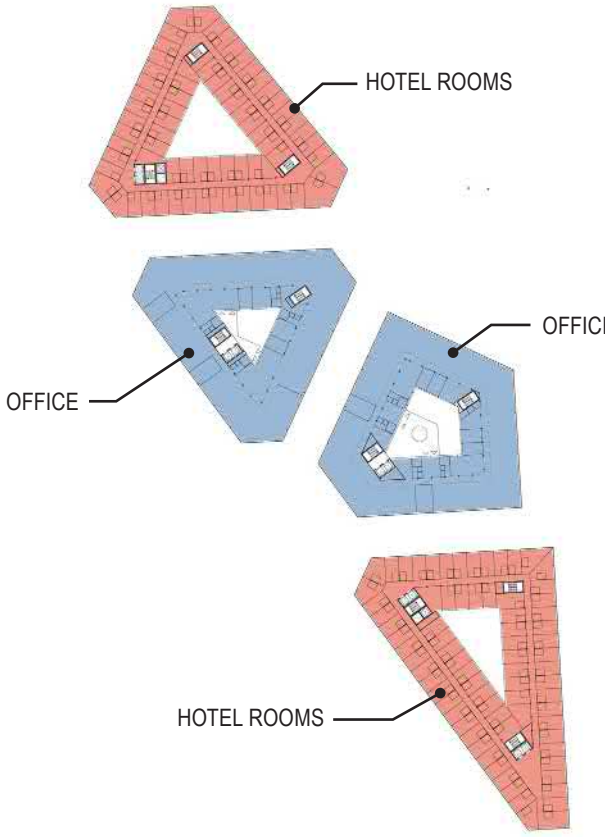
House 5. New Terminal +10,4m
5. Terrace “look out” platform
Accessible through ramps and stairs

Landscape.
6. Central Plaza
7. Seating
8. Wooden deck for seating
9. Vegetation for urban biodiversity and stormwater infiltration
10. Activity Plaza for activities and small events
11. Terraced seating
12. Activity Path

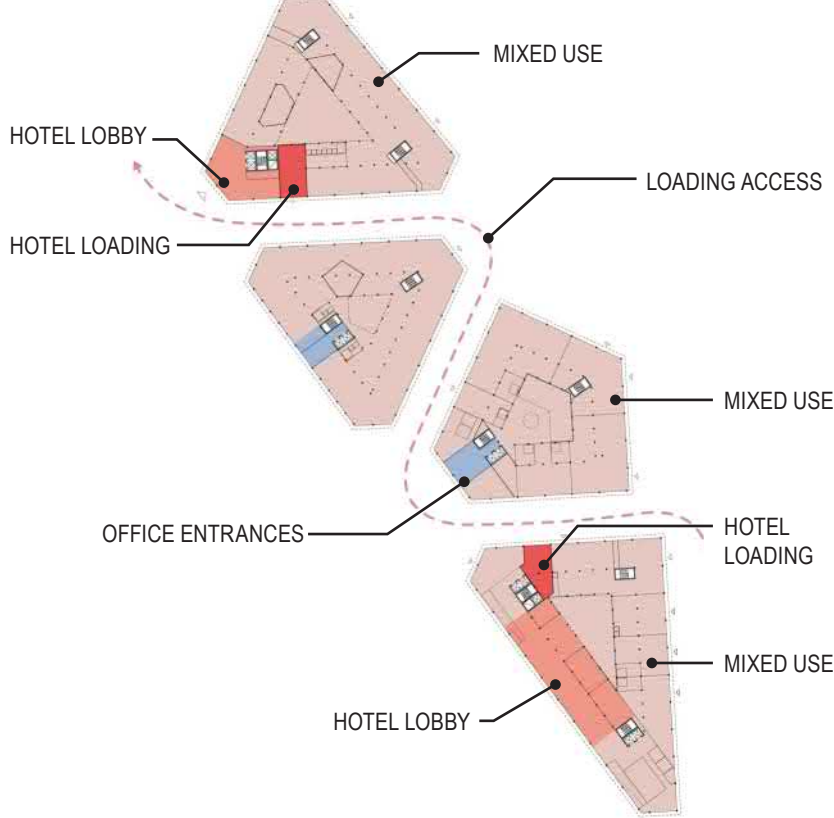
TOP FLOOR



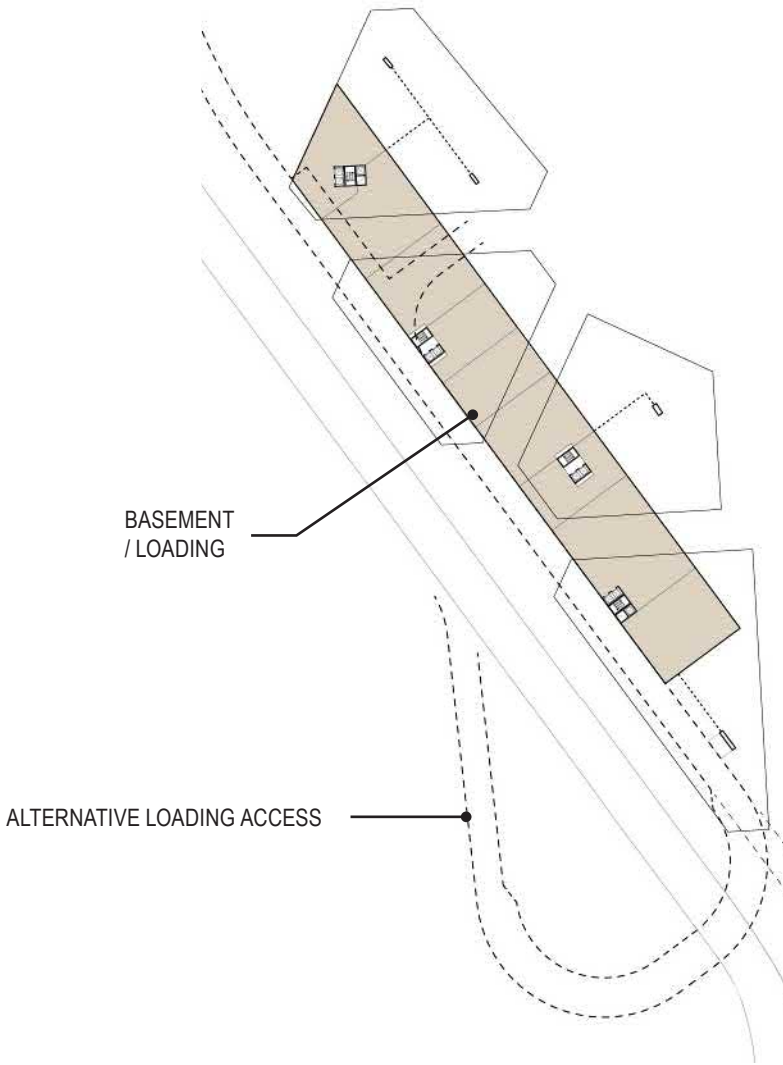
LEVEL 2-3



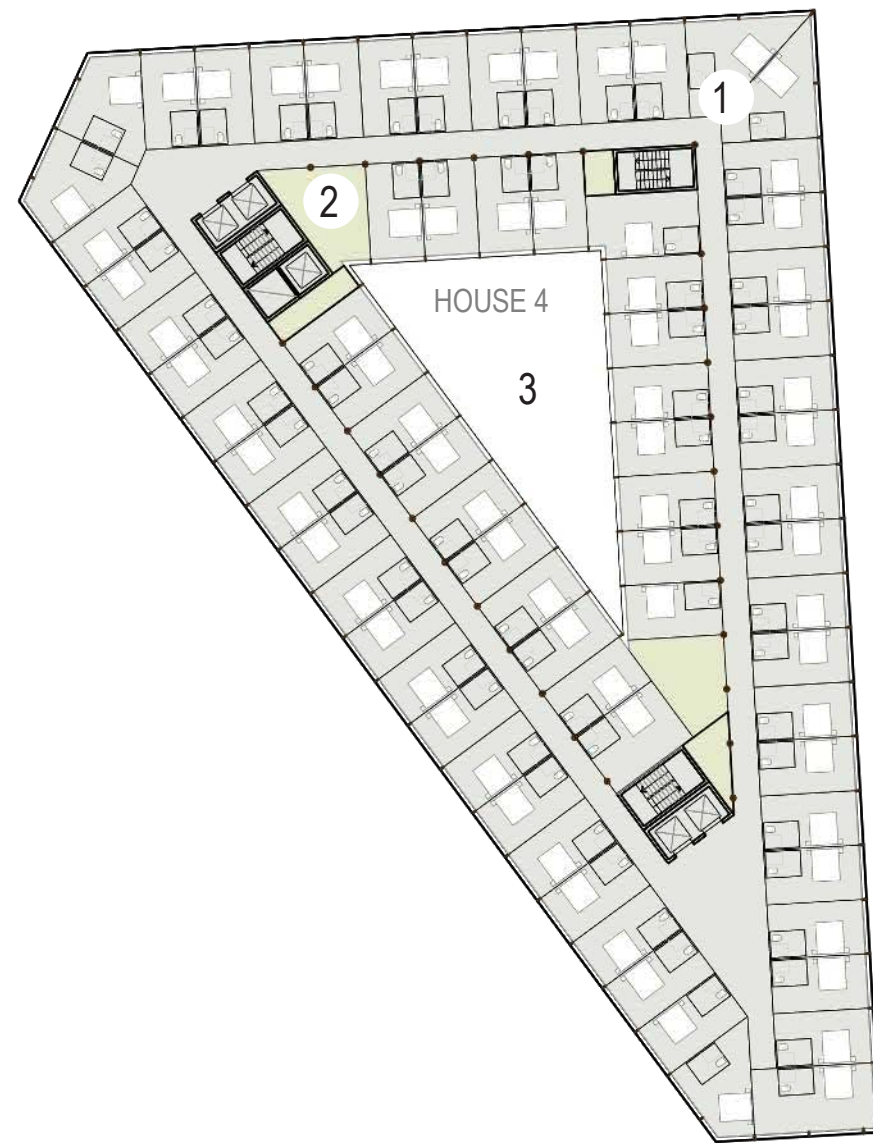
GROUND LEVEL



BASEMENT LEVEL



FUNCTIONS 1:2000



Legend to Plan

House 1. +8,5m/ +12,3m

1. Hotel rooms
2. Service functions
3. Closed courtyard

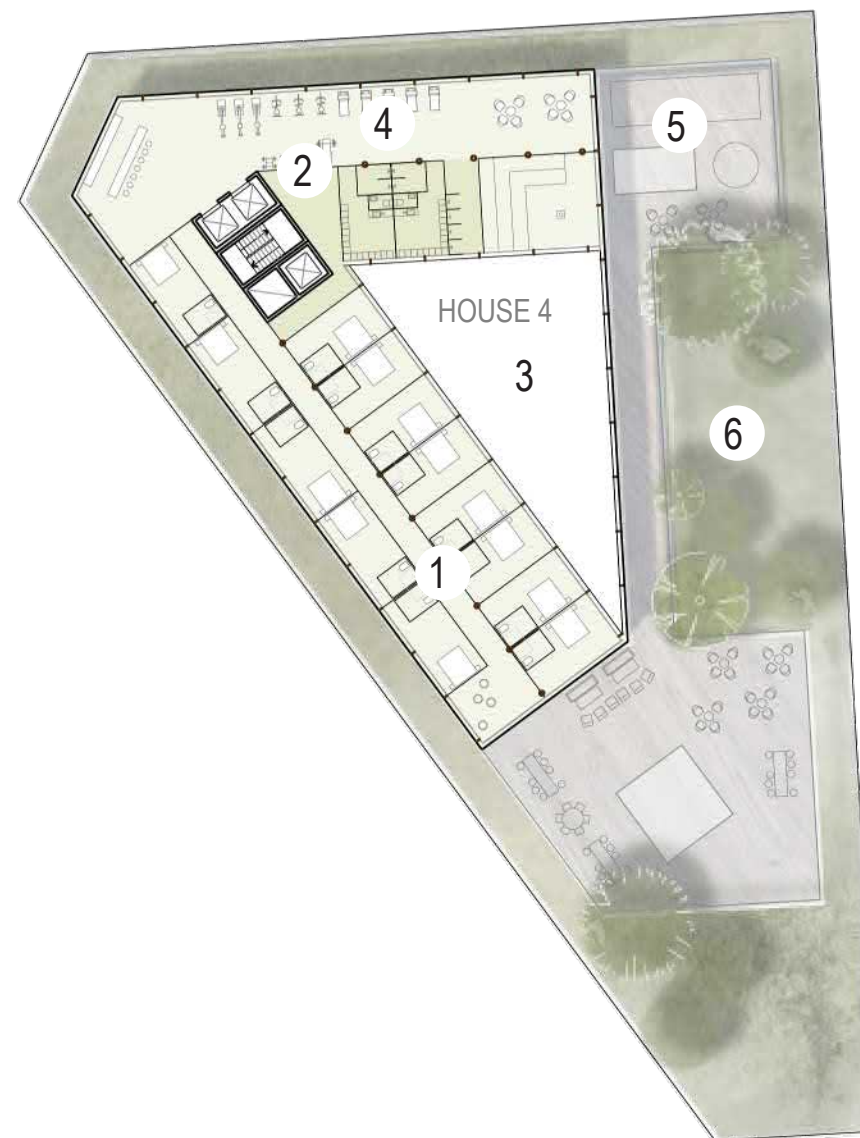
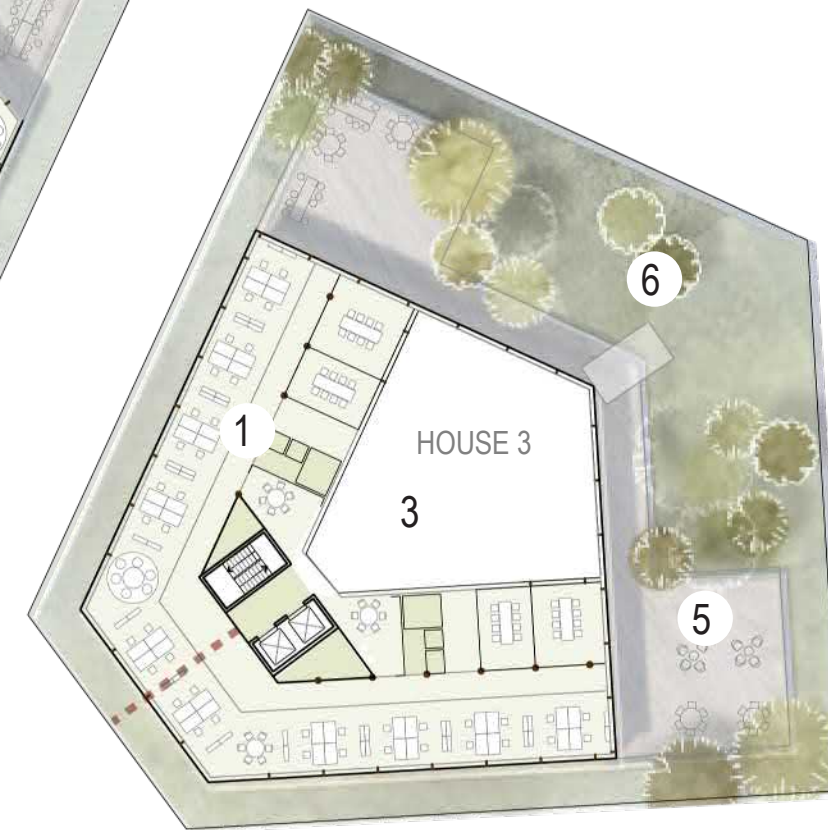
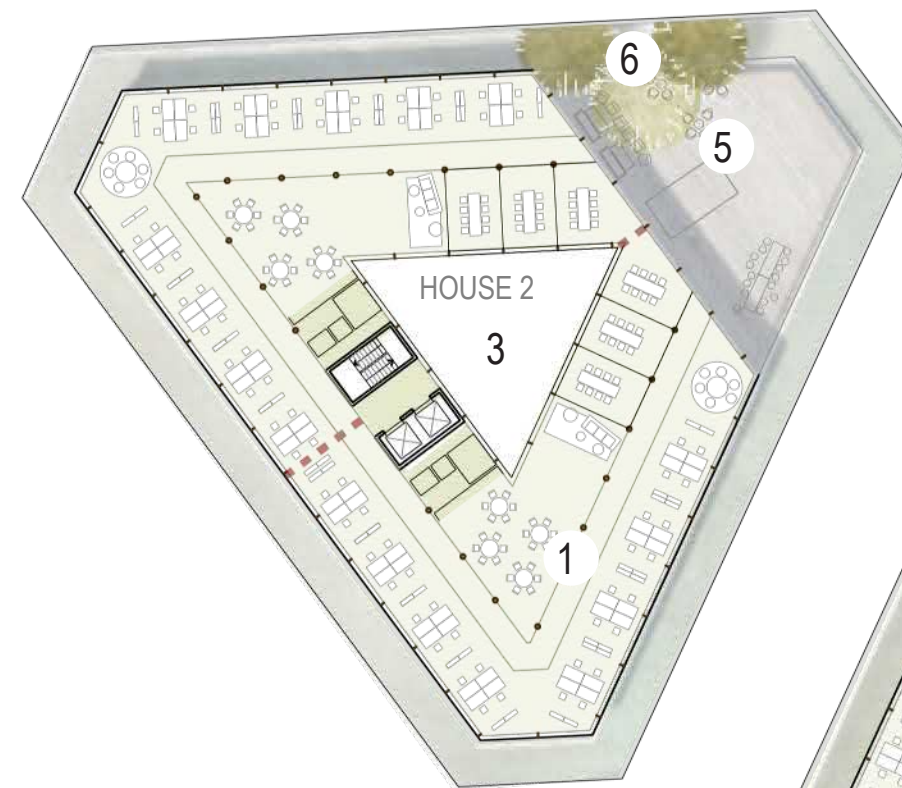
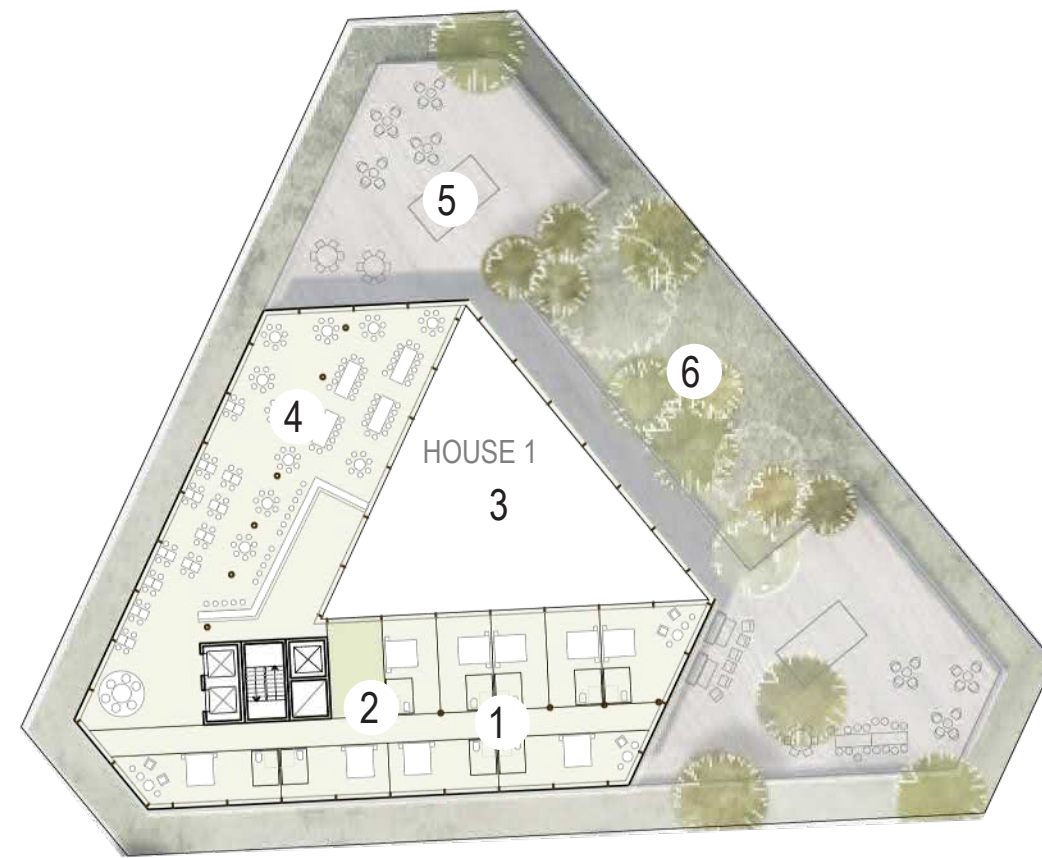
House 2-3. +8,5m/ +12,3m

1. Office
2. Closed courtyard, entrance

House 4. +9,0m/ +12,8m

1. Hotel rooms
2. Service functions
3. Closed courtyard

PLAN 1:500 – LEVEL 2-3



Legend to Plan

House 1. +16,1m (terrace +16,5m)

1. Hotel rooms
2. Service functions
3. Closed courtyard
4. Sky bar and relax
5. Terrace
6. Green roof

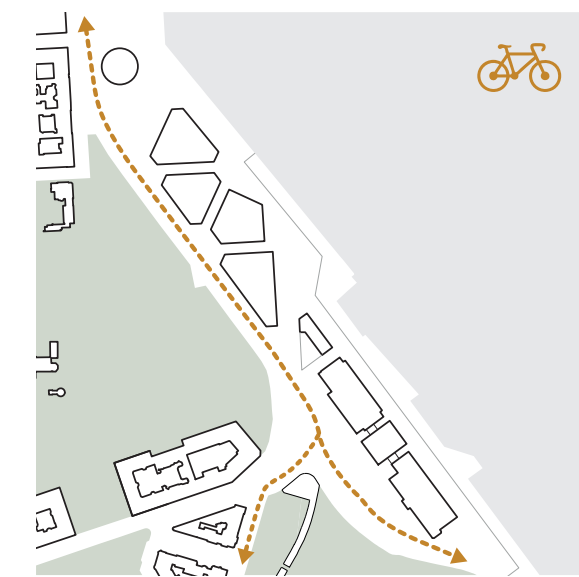
House 2-3. +16,1m (terrace +16,5m)

1. Office
2. Closed courtyard
5. Terrace
6. Green roof

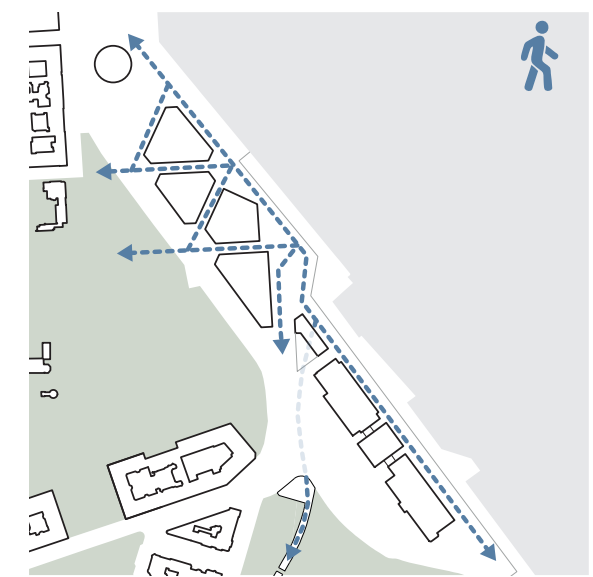
House 4. +16,6m (terrace +17,5m)

1. Hotel rooms
2. Service functions
3. Closed courtyard
4. Sky bar and relax
5. Terrace
6. Green roof

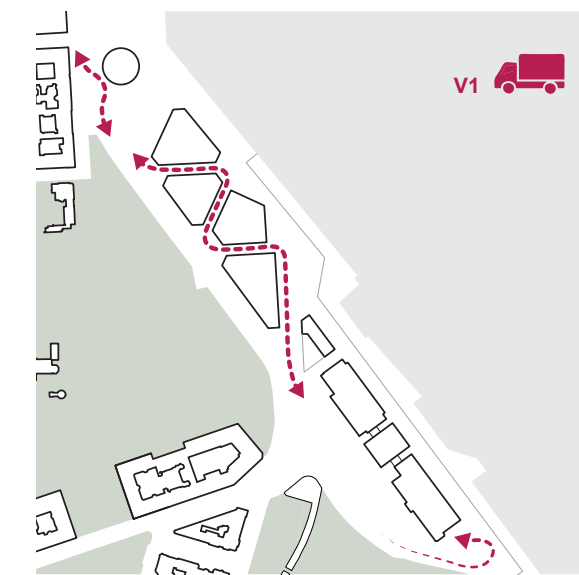
PLAN 1:500 – TOP FLOOR



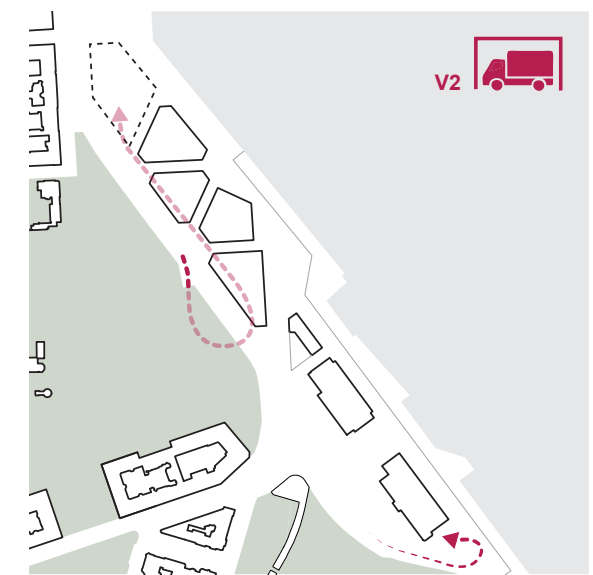
BICYCLE ROUTES



PEDESTRIAN ROUTES



LOADING ACCESS



ALTERNATIVE LOADING ACCESS

Traffic

Museum service traffic is arranged from the most southern end of Olympia Terminal building. New buildings are served through alley between new buildings and connected to Laivasillankatu from both ends. Service hours will be limited in early mornings and afternoons so that it won't disturb pedestrian traffic.

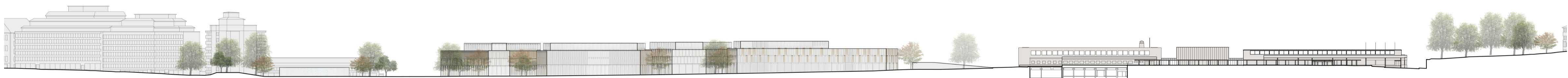
In option, service traffic will be arranged via service tunnel connected to the Tähtitorninvuori parking facility and from the southern existing service access which is connected underground to building cellars and to the reused Porthouse as well as the Olympia terminal.

Parking will be arranged in existing Tähtitorninvuori parking facility. Some handicap and stop-off slots will be arranged closer to buildings. Drop-on-off traffic is arranged in front of Olympia Terminal for two busses and six taxi's. Busses serving Cruise ship passengers will be placed in front of Cruise ship on pier level.

Area will have excellent pedestrian and bicycle connections which glues the area to the existing network.



STREET SECTION 1:200



ELEVATION TOWARDS LAIVASILLANKATU – 1:1000



PLAN 1:500 – ENTRY LEVEL

- Legend to Plan
- New Terminal.** +6,0m (varies)
1. Entrance level 2
- Port House.** +8,8m
2. Exhibition space
- Entrance Building.** +8,8m
3. Entrance lobby
- Olympia Terminal.** +8,8m
4. Workshop
5. Exhibition space
6. Exhibition / Multipurpose space
7. Museum Shop
8. Museum Café
- Landscape**
9. Olympia Square
10. Daylight opening to groundfloor, light art during dark
11. Round seating element
12. Art pavement in Museum entrance
13. Connection to underground area
14. Drop off area for busses and taxis
15. Terraced stairs for seating
16. Activity Path with reused material such as bricks, containers for pop up stores, swings, tables with seating, pocket parks and boule.

Heritage and Sustainability

Adaptive reuse

The Olympia Terminal and the Port House form together with the canopy are treated as on entity. Together they form a great platform for developing a museum relevant to our time. The spaces with high conservation values in the Olympia Terminal are transformed into the main entrance and public areas of the museum and the Port House is renovated to its storage origin which allows high exhibition space to be placed in two levels. The adapted and extended exhibition center can serve as the museum of architecture and design or alternative exhibition purposes such as the Baltic sea center or the Helsinki E-sports center.

The listed canopy marks the main entrance as it does today. Additional construction both underground and above ground allow better connections and flexibility. At the same time, they subtly transform the identity of Port Terminal and Port House into an interactive place of exhibitions.

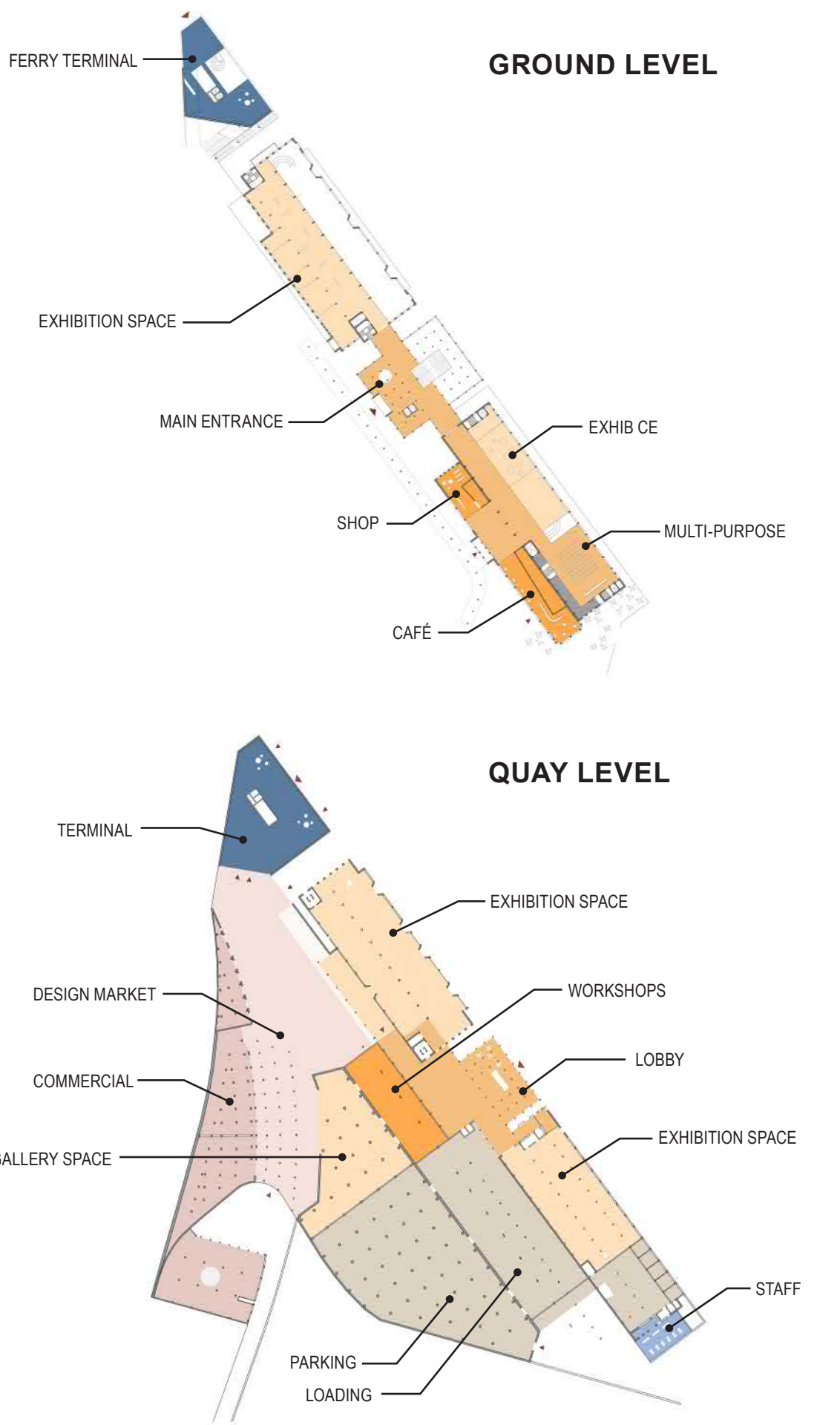
The museum of architecture and design can take place either completely in the northern part of the competition area as stated in the competition program, or it can be placed in both the northern exhibition pavilion and in the Port terminal buildings.

Old Market Hall and cultural environment

The significant cultural environment is treated with respect. In the immediate surroundings of the Old Market Hall there are only minor changes. The ground material will be change from asphalt to the same granite stones as the Kauppatori square.

To bring people closer to the water a wooden deck is docked on to the existing last step of the quay in the both pools. In the north pool the wooden deck creates a possibility for boats to dock and people to hangout. The wood deck in Vironallas connects the shoreline for pedestrians and gives possibility to swim in the pool without disturbance of boats. A larger wood deck is created in the south part of the pool to give people the possibility to sit in the sun close to the water.

The Old Market Hall will remain in its' original use and the outdoor areas in front will strengthen the concept. Lyypekinlaituri will be reserved as well for light and temporary structures.



FUNCTIONS 1:2000





PLAN 1:500 – QUAY LEVEL



SECTION D-D – 1:500

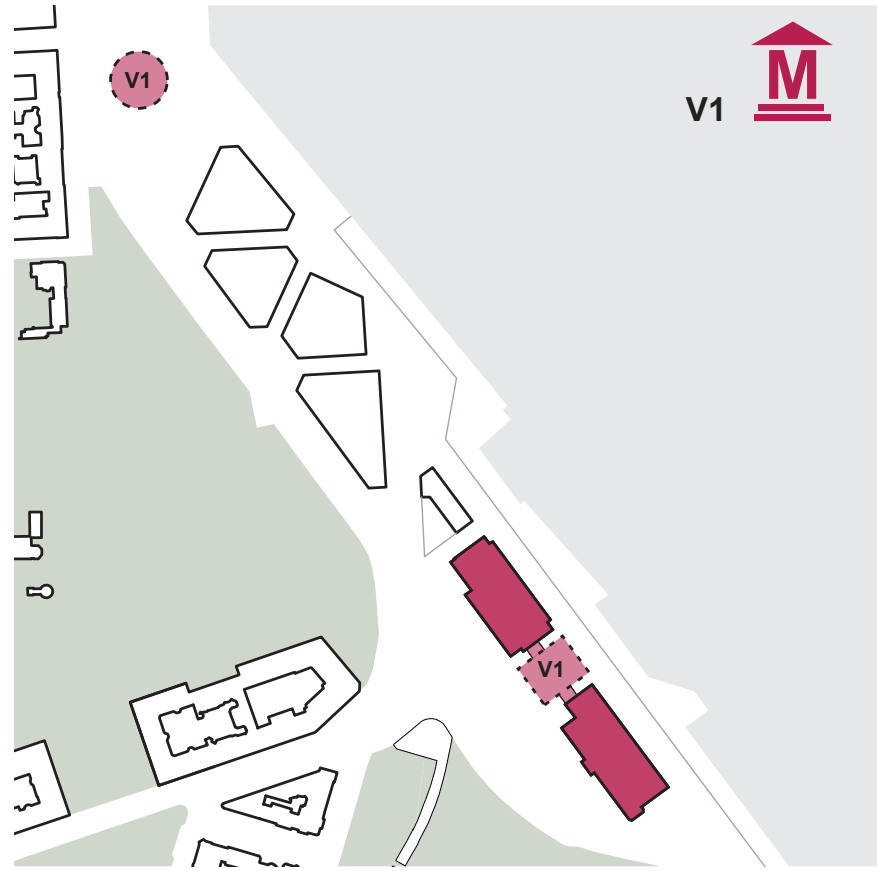
Legend to Sections

- Port House.**
1. Exhibition space
2. Commercial
Design market

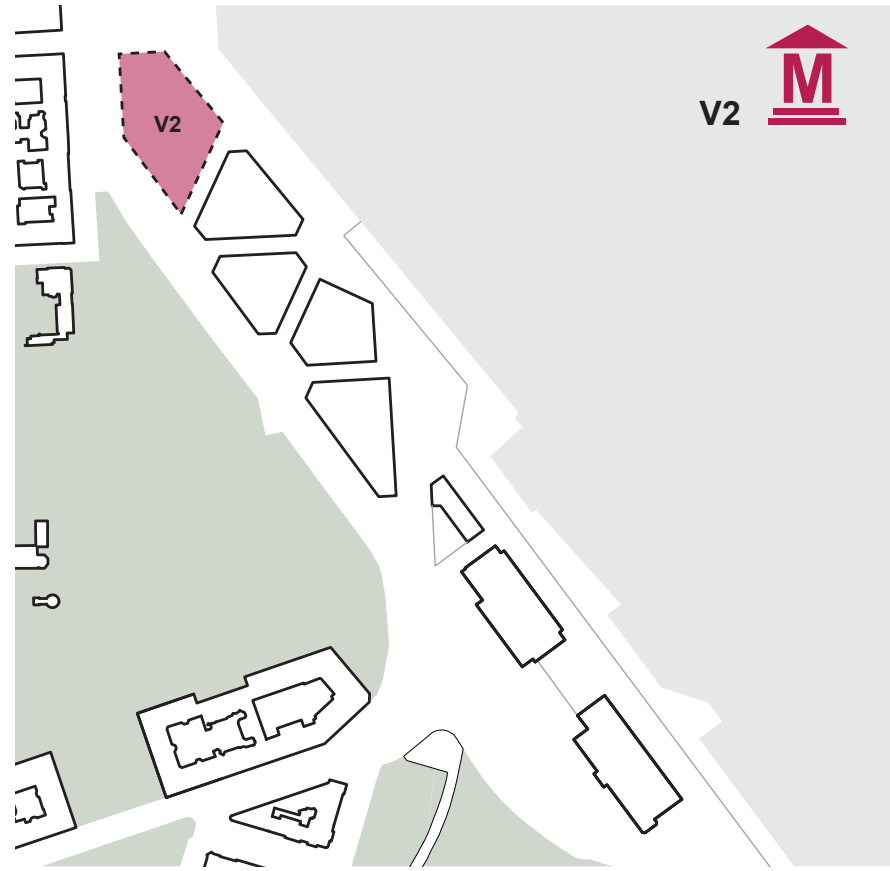
- Entrance Building.**
3. Entrance lobby
4. Workshop
5. Gallery space



SECTION E-E – 1:500



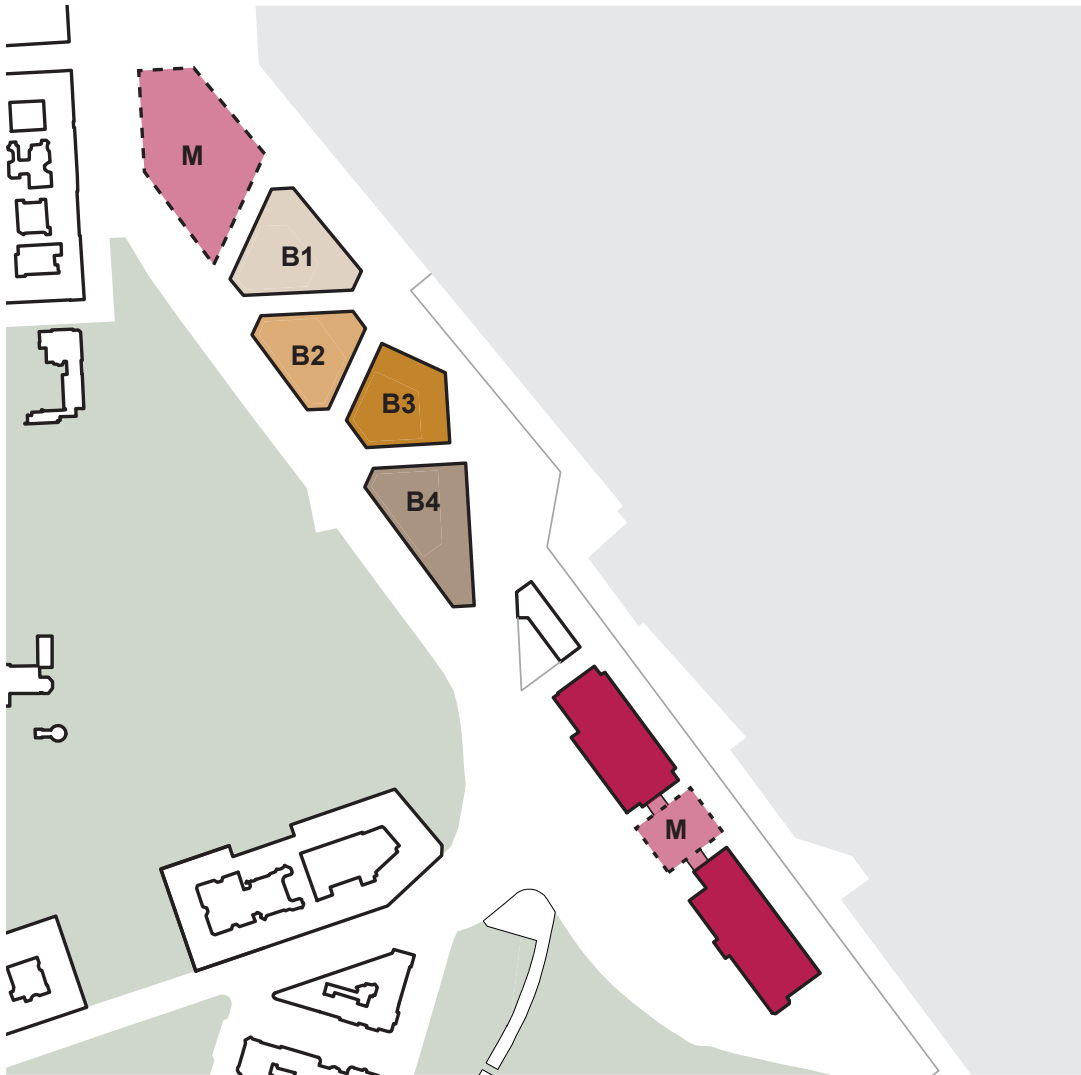
ALT 1 – Olympic terminals transformed into new museum + pavilion in the north end.



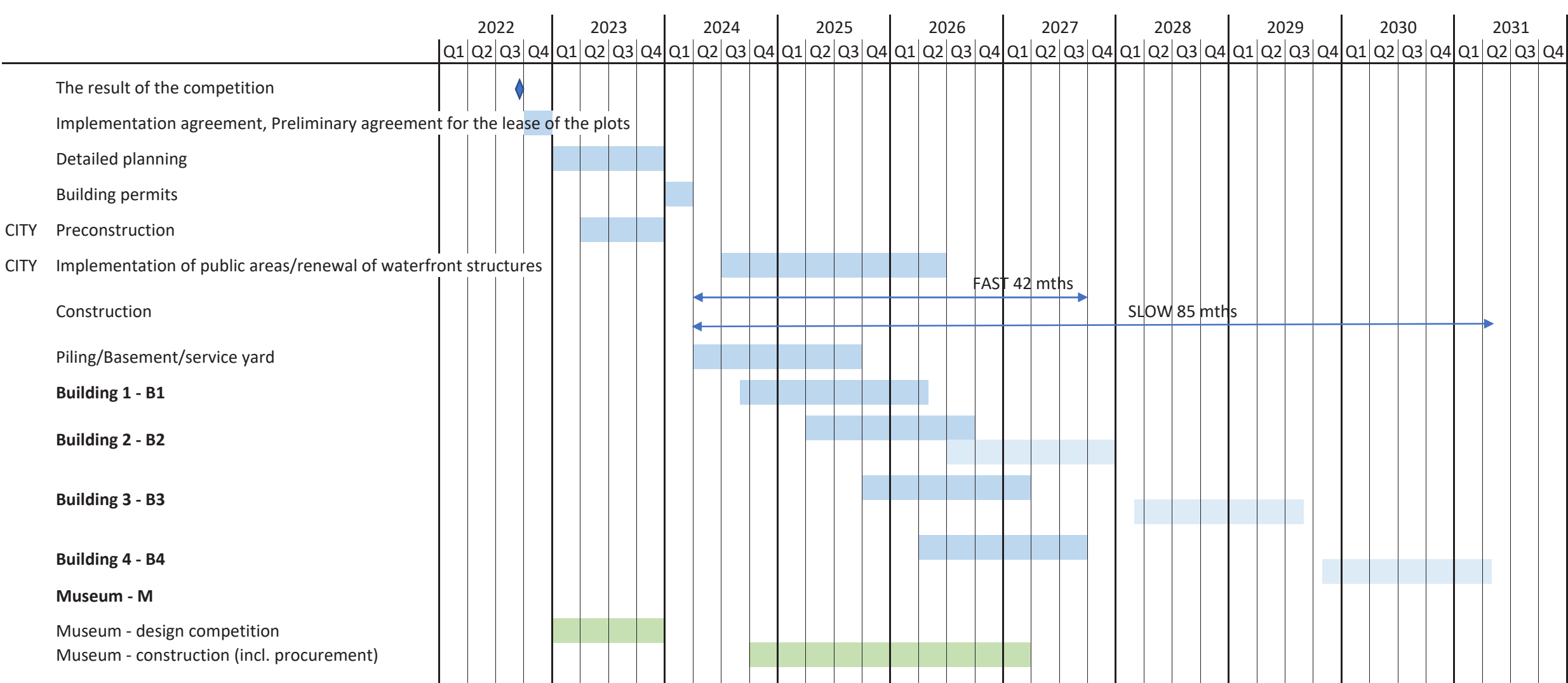
ALT 2 – New museum in the north end of the site.

Museum in two locations – Main Museum in the adapted and extended port terminal buildings and a multifunctional exhibition hall in the northern park. Museums in both ends of the competition area serve as attracting nodes.

Possibility to place one museum north with a service tunnel as requested in the competition program. In this case, the Porthouse and Olympia terminal are left for other usage.



PHASING DIAGRAM



IMPLEMENTATION SCHEDULE

Technical feasibility

Construction

There is a long heritage of wooden and hybrid structures on the competition site, such as the wooden warehouse in the late 19th century and the innovative steel-wood roof structures of the Old Market Hall. It is a natural continuation to introduce contemporary wood and hybrid construction for the new buildings. The bearing frames of the new buildings are wood-concrete hybrid frames, the facades are of wood and glass.

In addition to using low carbon building materials, we propose to use as much recycled materials as possible from the to be demolished M4 terminal.

Principles of maintenance and parking & preliminary parking calculations for each building

Museum service traffic is arranged from the most southern end of Olympia Terminal building. New buildings are served through alley between new buildings and connected to Laivasillankatu from both ends. Service hours will be limited in early mornings and afternoons so that it won't disturb pedestrian traffic. In option service traffic will be arranged via service tunnel which is connected underground to building cellars and to new museum.

New development creates need for max 170 car slots. Parking will be arranged on existing Tähtitorninvuori parking facility with total 140 slots. Some handicap and drop-off slots will be arranged closer to building entrances. Bike parking for total 745 bikes will be integrated in new and existing buildings both above and under ground.

Public pedestrian and cycling routes

Pedestrian and bicycle route will pass area in sea front, providing access straight from the Old Market Hall and reconnecting to Kaivopuisto sea shore route. Area is also connected to Laivasillankatu high quality bike line.

Key technical solutions and innovations, foundation engineering and structural solution

The new buildings on Makasiiniranta will be built on pile foundations. Both the basement and the ground floor are made entirely of concrete, e.g. taking into account flood, collision and stability risks. Low-carbon products are preferred when choosing concrete. The frame of the upper layers is implemented as a hybrid frame, so that the columns are timber-structured, the beams are steelstructured and the midsoles are wood-concrete composite structures. The joint structure has been chosen instead of a pure wooden midsole for better technical properties, e.g. vibration and fire resistance, due to. The upper floor is made of multi-layered wood. The hybrid body enables minimized carbon emissions without compromising on technical requirements.

Noise and air quality impacts

Air quality today from street traffic emissions is rather good, annual average nitrogen dioxide levels are around 15 µg/m³ (limit 40 µg/m³). Emissions from nearby cruise ship traffic are known to contribute air quality negatively and may need to be evaluated later in more detail.

Noise from street and tram traffic exceeds daily average 65 dB near Laivasillankatu street, leading to special noise insulation requirements of hotel façade or other sensitive spaces. Tram traffic may cause rather high noise maximum levels on the street-side facades, and also cause ground borne noise and vibration, which needs to be assessed later. If cruise ships are staying overnight at Makasiinilaituri, low frequency noise from auxiliary engines may also need to be analyzed separately.

Phasing of the implementation and the estimated implementation schedule

The central part of the competition area, where the main volume of the new buildings are placed, can be implemented in four different phases. The museum can be implemented independently regardless of the other phases, but the service traffic solution needs to be designed in co-ordination.

Fire and rescue solutions

AAll buildings are reachable with firetrucks and skylift through alleys and public areas around building.

New Buildings:

Fire class of buildings P2. Main purpose office / hotel. Protection level automatic fire extinguishing equipment that allows the use of wood on the façade and inside. Maximum area of fire compartment (square meters): Office 2400 m² and hotel 1200 m². Load-bearing structures R60 (can be wood). Fire class EI60. Class requirements for internal surfaces: office D-s2, d2 and hotel C-s2,d1. The exit distance may be office 60 m and hotel 45 m

Old building + new part

Fire class of building P1. Main purpose assembly and retail space. Maximum area of fire compartment (square meters): 2400 m² or 12 00m² with automatic fire extinguishing equipment. Fire load groups:

Facilities of less than 600 MJ/m² include accommodation, workplaces, car shelters and some assembly and business premises, such as restaurants and stores of fire compartment sizes up to 300 square meters. -> Fire class EI60

Spaces belonging to the fire load group of 600 MJ/m² or more but not more than 1,200 MJ/m² are warehouses of up to 50 square meters and some of the assembly and commercial spaces, such as exhibition halls and stores with fire compartment sizes of more than 300 square meters. -> Fire class EI90

If the building is equipped with automatic fire extinguishing equipment, then all spaces EI60.

Feasibility, flexibility and potential for development

The footprint, height and bearing structure of the four new blocks allow large flexibility for different functions as well as future alterations. The facades, materials and structural principals are chosen in order to allow future changes as well as assembling and disassembling.

Business ideas

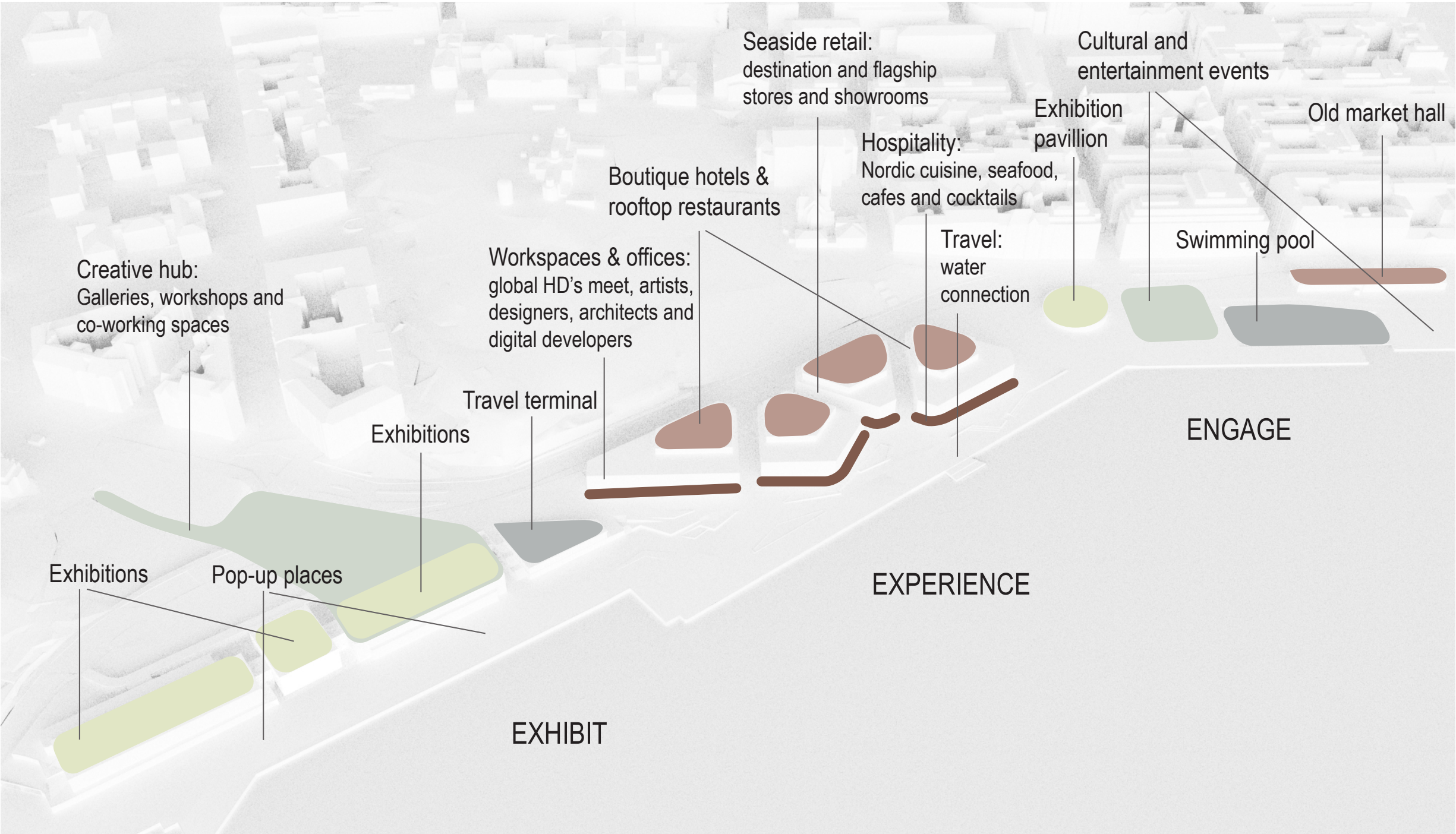
Makasiiniranta provides an ideal location for creative industries cluster and supporting commercial activities. Together with the upcoming A&D museum they form an attractive new design district, a platform which enables different ideas to collide. A strong brand and distinctive identity will add value in the form of attractiveness, user experience and economic viability of the area.

Makasiiniranta area positions itself on the city, national and global level as a hot spot of design and creativeness. The business concept itself consists of three key value propositions that are the common drivers of different functions located in the area

- Exhibit: showcasing the Finnish and Nordic design
- Experience: providing unique experiences for the users and visitors
- Engage: enabling co-creation and collaboration in physical and digital spaces

Makasiiniranta area will establish a flexible frame for different kinds of commercial and non-commercial uses. Some of the key functions are:

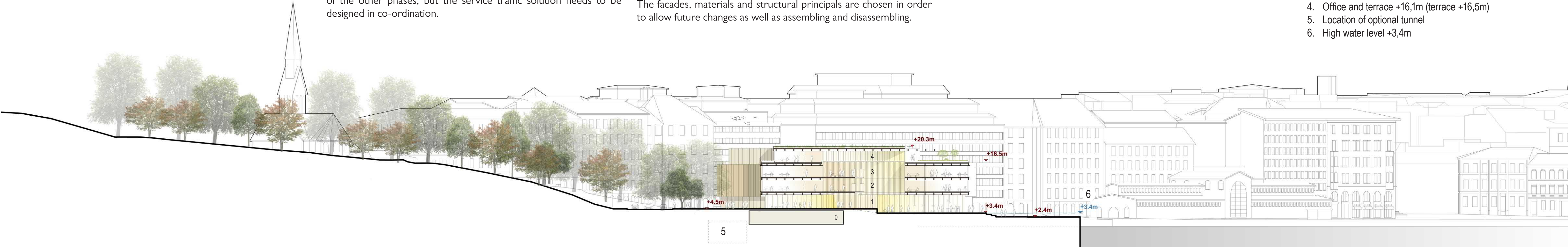
- Offices: HQ's, artists, designers, architects and digital developers alongside with other inner city office users creating creative urban area for different types of businesses
- Hotel: boutique hotel reflecting Nordic design
- Hospitality: Nordic cuisine, seafood, cafes and cocktails
- Retail: destination and flagship stores and showrooms
- Galleries, workshops and co-working spaces
- Cultural and entertainment venues



COMMERCIAL DIAGRAM

House 3. Legend to Section

0. Basement technical rooms and service functions
1. Mixed use (Commercial and office space) +3,4m-4,5m (varies)
- 2-3. Office +8,5m/ +12,3m
4. Office and terrace +16,1m (terrace +16,5m)
5. Location of optional tunnel
6. High water level +3,4m



SECTION B-B +1000