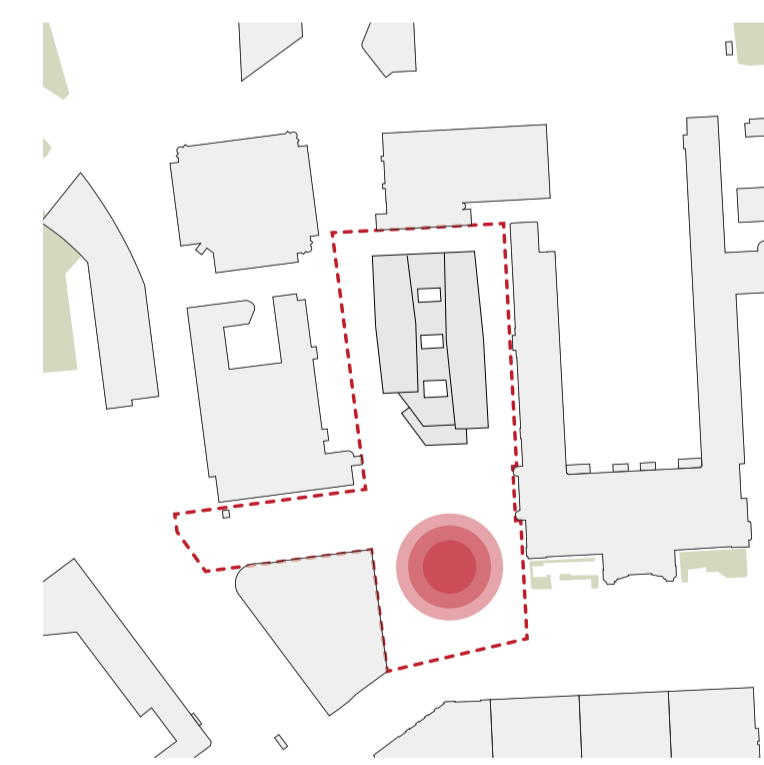
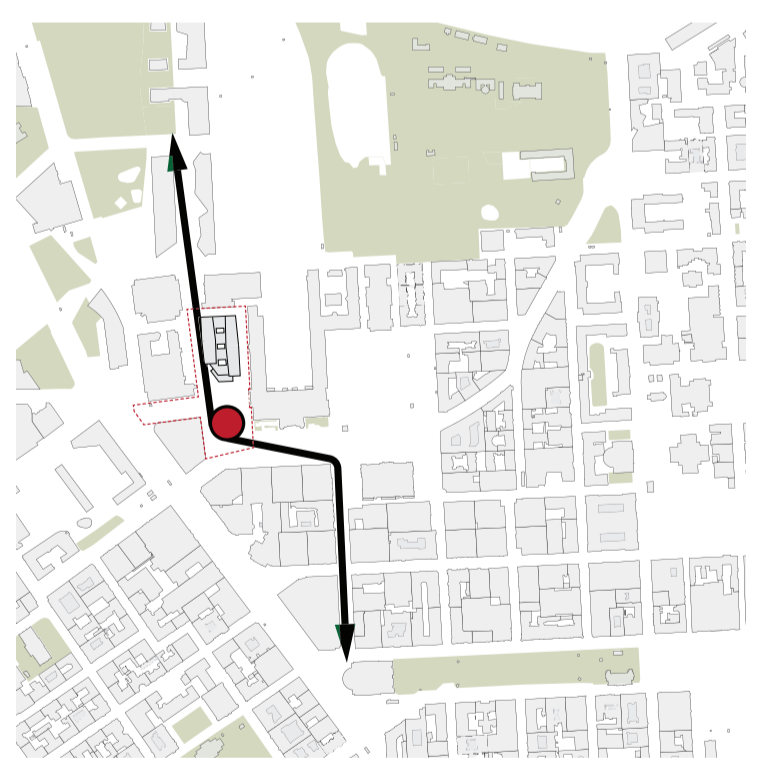
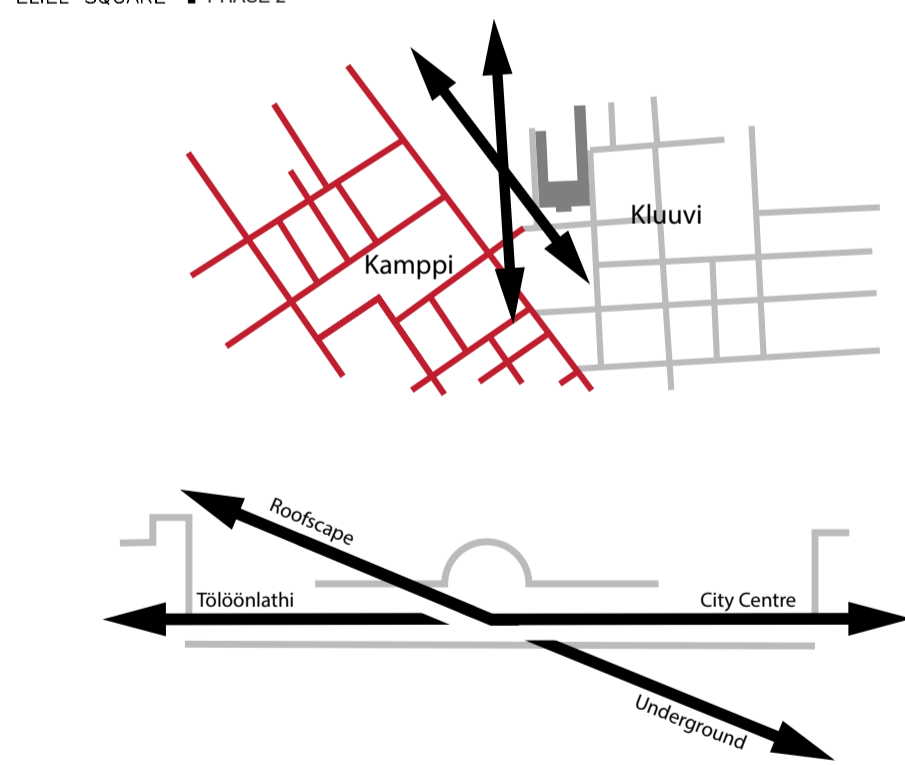




KLYYGA
ELIEL SQUARE PHASE 2



Our concept is grounded on the site and our motto is also the strategy for the project: KLYYGA – which means “the crossing” in Helsinki slang. The 2 city grids, Kluuvi following the Helsinki railway station and Kamppi defining the direction of Mannerheimintie meet at Elielinaukio and Asema-aukio. The goal for the project is to strengthen the areas’ identity by adapting to the city’s framework, revitalizing the public realm, and building a new city block. The new city block includes the Vitava building by respecting its historical affiliation and create a new belonging embedding in the neighbourhood. The overall mobility concept is to change from car traffic and surface parking and bus traffic to green mobility with walkability and bicycle lanes and a generous bicycle parking area below grade. The KLYYGA-strategy is a system of crossings to reconnect city, landscape, and people to create a more dynamic and livable area west of the historical Railway station.

The new city quarter consists of a stepping building frame embracing the listed Vitava building. The Vitava building’s angled footprint has been guiding the new quarters framework to the site history and city grid. The stepping skyline is characterized by adaption to the adjacent building heights and volumes. The building volumes are designed based on daylight qualities for interior program and the inclining facades for daylight, space, and permeability at grade. The new quarter has a strong personality with an architecturally framed base of glass and natural stone and a vertical corrugated top volume that communicates with the lines of Saarinen’s station.

The new identity for the public space is programmed for walkability, 2-wheel traffic, activities, and blue-green structures. We define a generous common and flexible urban carpet that ties the urban realm together with the buildings at grade. A new blue-green structure is introduced with rows of trees and rain beds to redefine and frame Asema-aukio as a

public plaza. The trees are embraced by built up terrain for natural systems for water runoff and habitats of urban nature and links back to the recreational green structure axis through Töölönlahdenkatu north of the site. The Post building’s parking area west of the site boundary, can easily be transformed into a larger green area and be part of the KLYYGA’s urban design vocabulary.

The sequence of public spaces is reconnected into a common urban carpet where Asema-aukio includes its new orientation point that peels up from the carpet and opens the new main entrance to the metro. The carpet also flows through the indoor/outdoor public square at Elielinaukio.

The focus in phase 2 has been the development of the volumetric massing of the city block and the public space landscape design. The evolution of the KLYYGA design is based on feedback from the jury and new insight in the program. The site development is elaborating on:

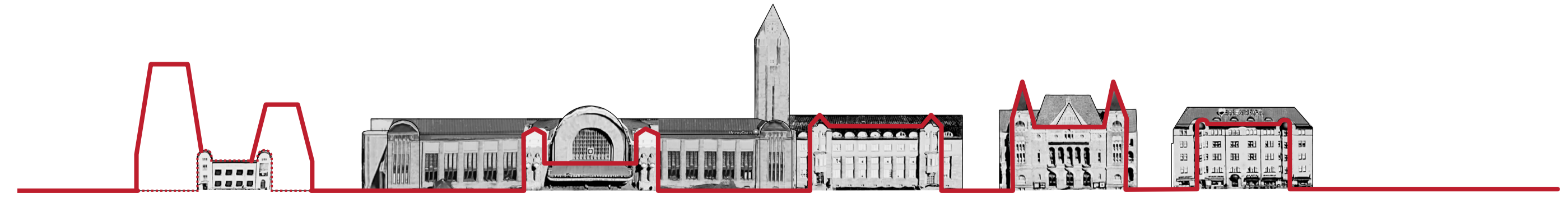
- The adaption to the Vitava building is remodeled with a clear set back of the new building.
- The two office building wings have distinguished gable motifs and define a new silhouette with a valley in between. The valley is fronted by the Vitava building.
- The terraced profile has been reduced to fewer steps with larger entities to simplify the massing. The articulated geometry still adapts to the adjacent volume heights. The new urban expression of the façade is balanced with an open base volume for public functions and a sculpted vertical façade at the top.
- The “valley” continues into the interior layout for better orientation and flexible layout of programs. The base volume has an improved internal floor height.

- The Metro station is redesigned by purification of the concept. It is embedded into the urban floor to prioritize walkability and make a beacon for Asema-aukio.
- Bicycle parking ramp moved to Postikatu.
- A new layer of blue-green structure with rain beds and green roofs makes a more resilient water management. A green framing of the urban plaza with Cherry trees redefines Asema-aukio and the visual sightlines.

The purpose of the design is to supplement, integrate and revitalize the urban fabric of the Elielinaukio and Asema-aukio area while taking into consideration the valuable surroundings. Improving the comfort, safety, and connectivity of central Helsinki’s busiest pedestrian environment in terms of pedestrian footfall. The KLYYGA project seeks to identify a sustainable design solution that offers adequate land-use efficiency, high-quality solutions for public transport, streets, and squares. The new city block offers flexibility for a large diversity of functional content, including offices, hotel, culture, shops and urban green and meeting places. The urban realm with the new city quarter is respecting the distinctive characteristics of the cityscape in downtown Helsinki, but dares to give it a new personality with the plaza carpet and new architecture. KLYYGA is adapting to fit in and add to contemporary Helsinki. KLYYGA invites to social interaction, openness, equality, and future urban dynamics.

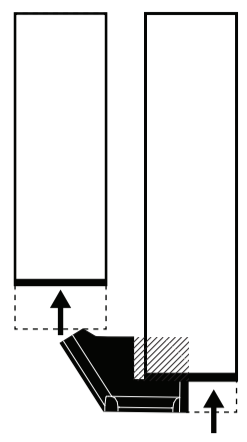
Legend:

	Train Station		Bike Parking		Tram		Assessment area
	Tram Stop		Taxi		Bicycle		Design area
	Bus Stop		Parking		Bicycle tunnel		Pedestrian internal
	Metro Station		Loading/ Unloading		Two-way car/bus		Pedestrian
					One-way car		

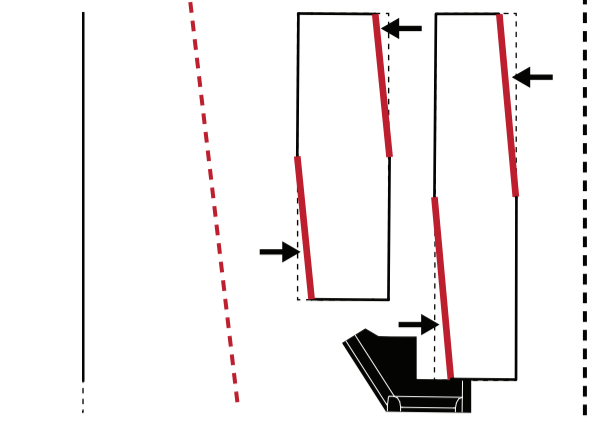


Historical skyline with the new skyline embracing the Vitava building

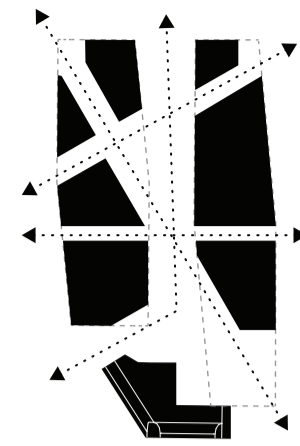
Concept build up for the new city block



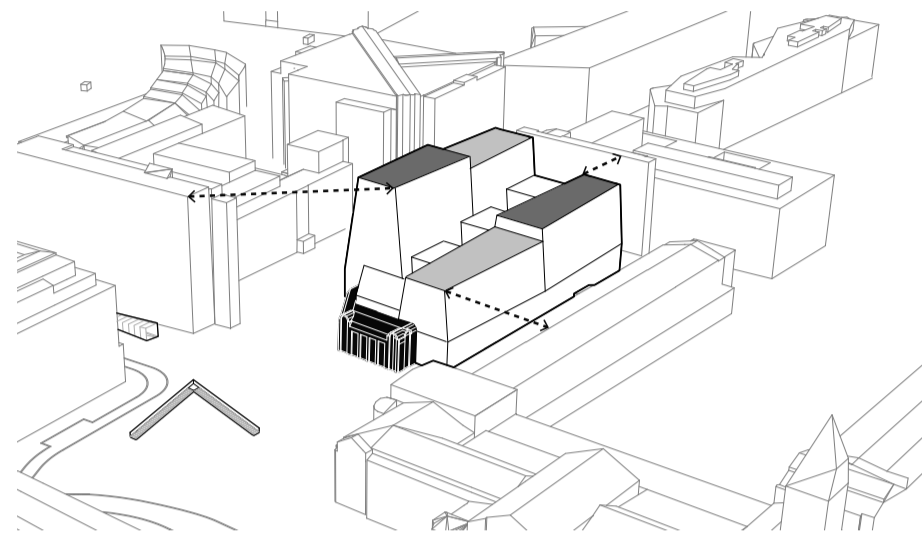
1. Respecting the position of the Vitava building with a set back of the new volumes.



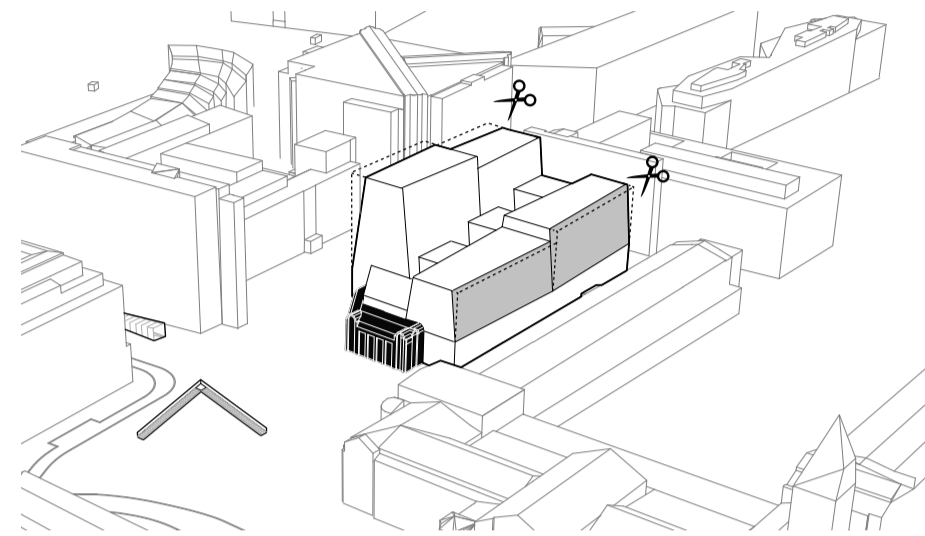
2. The footprints are pushed in with symmetrical kinks in response to the façade lines of the neighboring volumes which creates more space for the public realm.



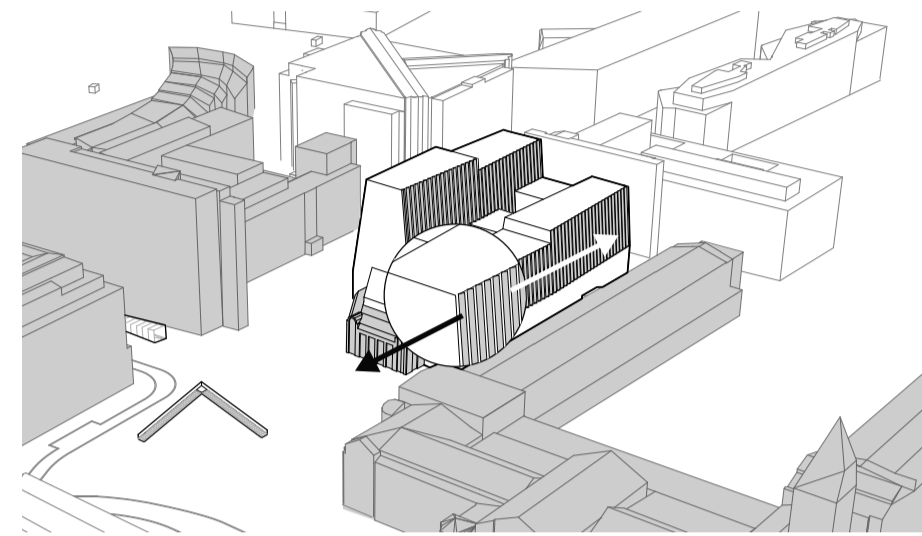
3. A porous city block makes shortcuts and connections at grade through Elielienaukio.



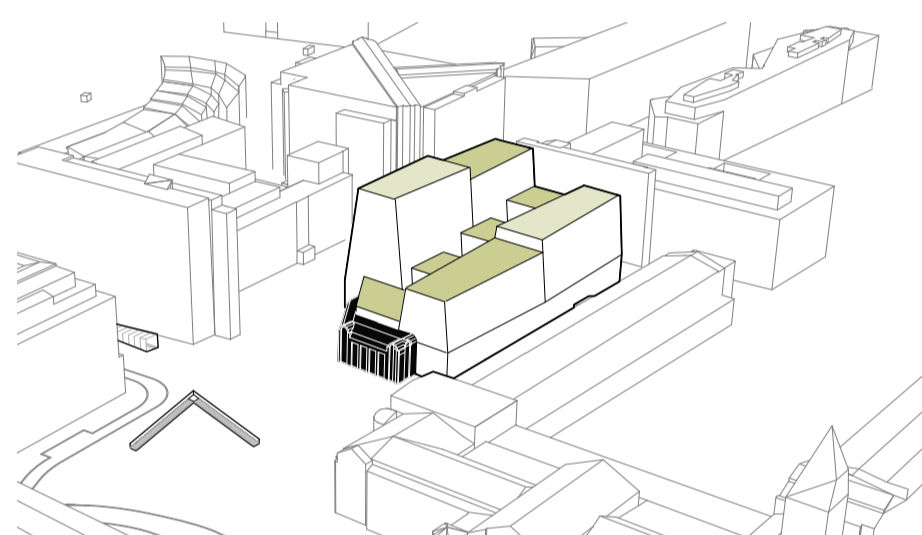
4. Relationship to the site. To unify the plot to the area, we generate a stepping gesture where heights adapt to the Railway building, the Holiday Inn hotel and the Post building. The resulting mass responds to its neighboring heights more respectfully and adds a new skyline.



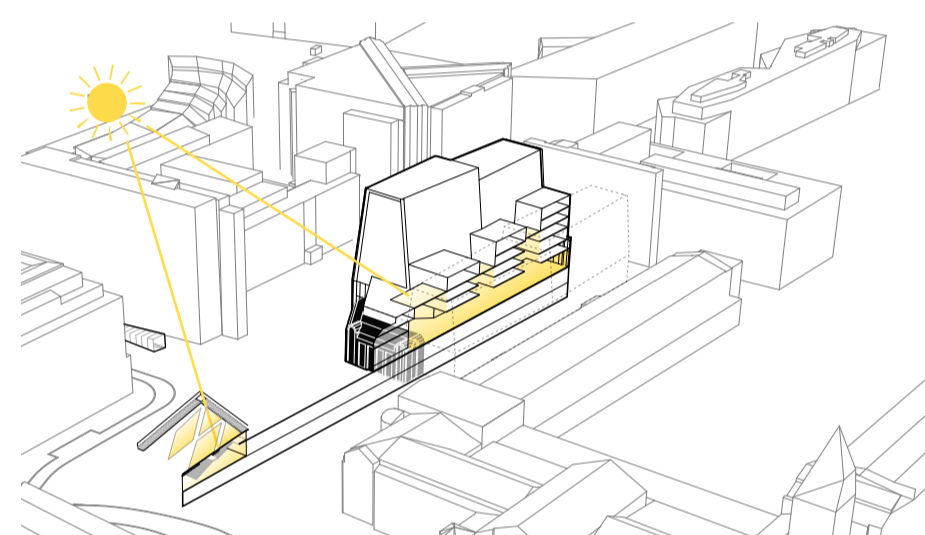
5. Tapering of the mass maximizes light to reach street level and the base corresponds with the historical eaves. The stepping volumes- and valley in between act as filters for light and visual orientation.



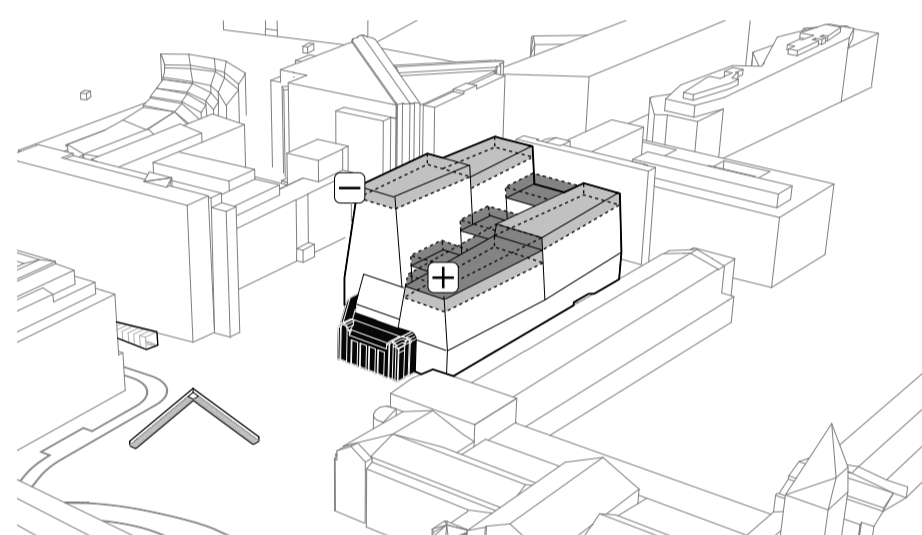
6. The pleated façade of the four top volumes is divided into vertical strips of glass and stone. The open glass faces the more modern glass buildings to the north of the site. The solid strips close the façade with a mineral face towards the more traditional brick and stone city to the south. North provides light, south shades the sun.



7. Roofs + Terraces = elevated semipublic grade. Each roof will have a unique roof garden and the new valley creates the backdrop of the Vitava building. The generous rooftop terrace on top of the Vitava building is the new "urban balcony".

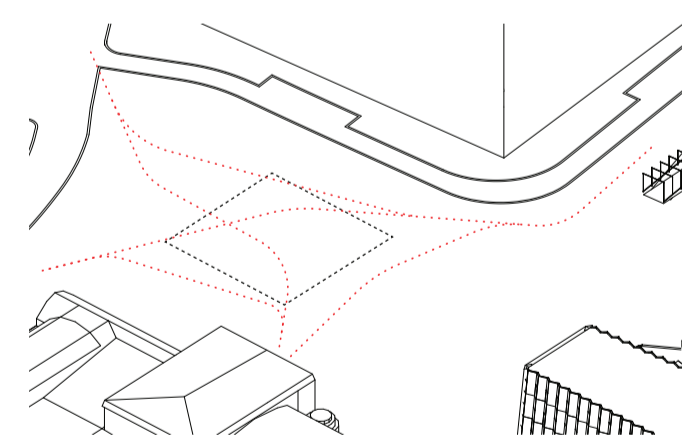


8. All program areas, entrances and circulation routes are oriented towards the central atrium "valley" that sits between the two main buildings. This allows for interactions through the whole building block and connects below grade areas to reach the transportation hub, the Metro and new retail areas.

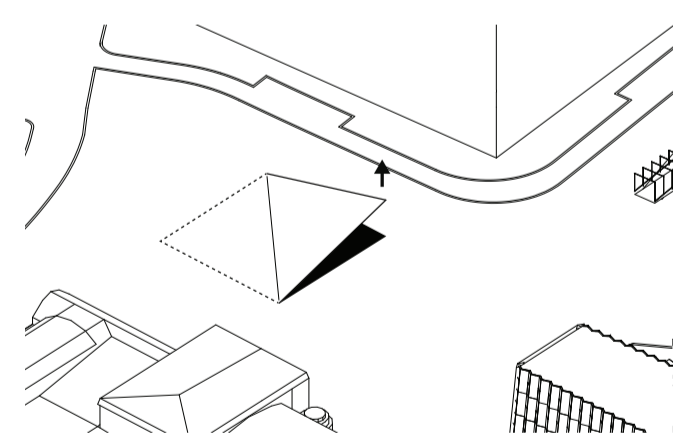


9. The KLYYGA project scheme utilizes 27.500 m2 gross floor area above ground level. The layouts of the massing has the flexibility to add or remove volumes adapting to the city scale. We recommend to rather reduce than extend the heights.

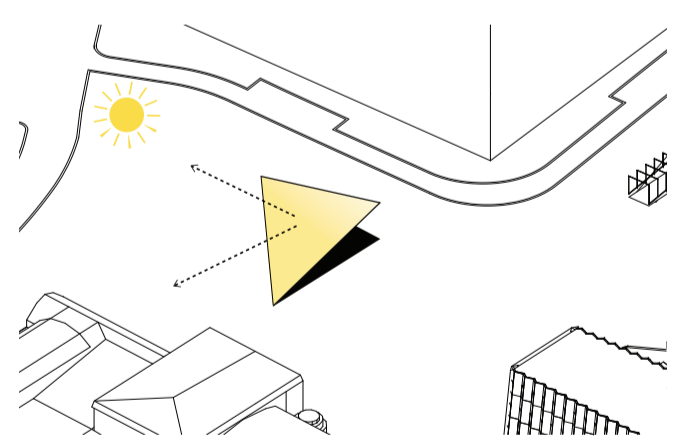
Helsinki Platform Kantti and the Metro entrance at Asema-aukio



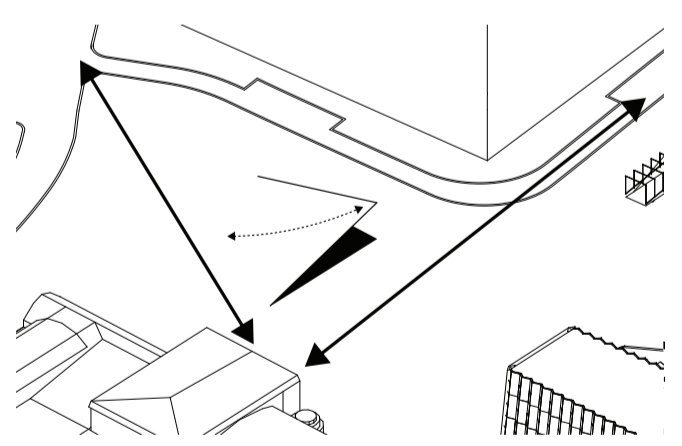
1. Pedestrian traffic flows freely over the square on a generous urban carpet.



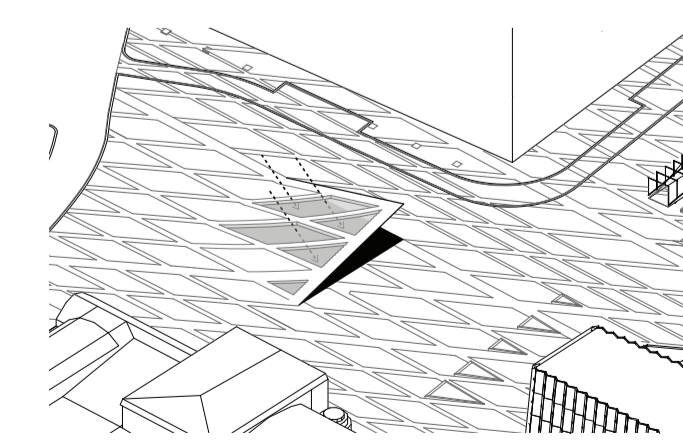
2. By cutting and lifting a piece of the urban carpet we create a Kantti - and a destination without a threshold. The entrance to the Metro and below grade areas.



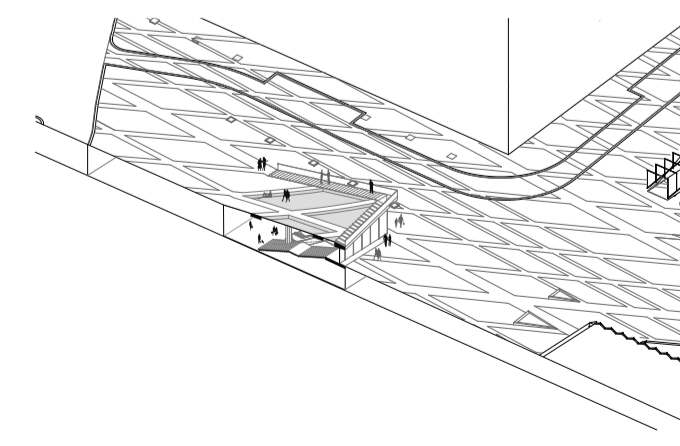
3. Maximized sun orientation for more use late fall and early spring and visual exposure to see and be seen.



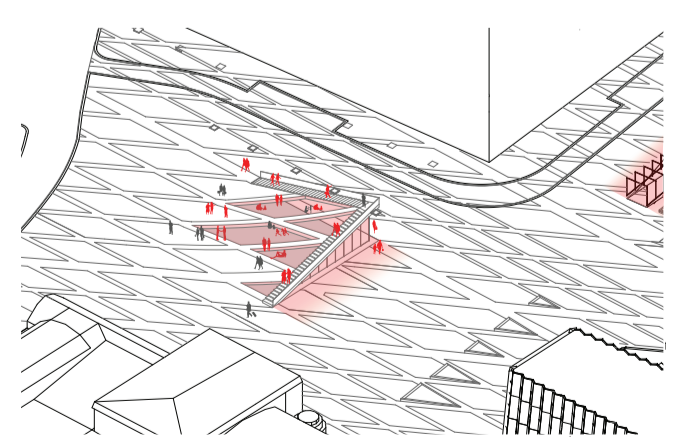
4. Short cuts at grade for easy access and slower pace at the elevated areas.



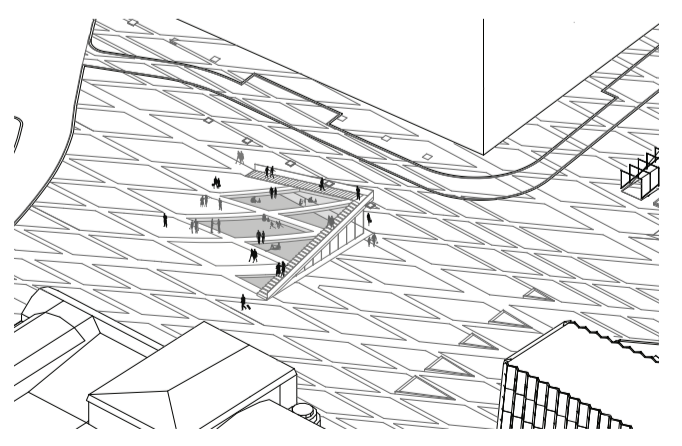
5. 360 degrees exposure and daylight into the basement makes an 24/7/365 open public feature.



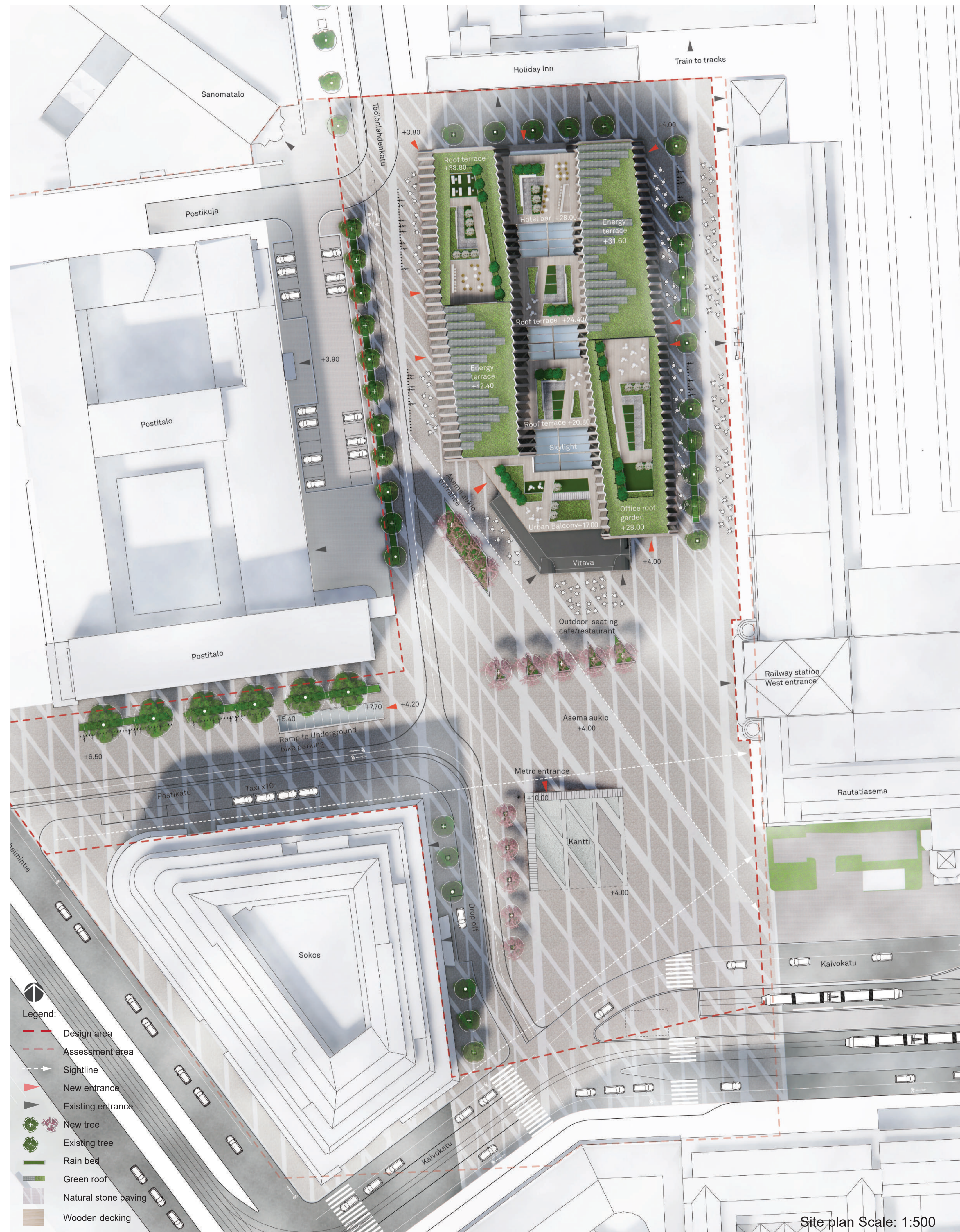
6. Section showing entrance to the Metro and easy access to transportation hub and retail in the basement level.



7. Perforated and transparent surfaces, makes visual connections and visibility. The new light beacon glows with ephemeral and ambient light design in wintertime and at nighttime.



8. Kantti is a meeting place. It's for people watching activities. It's a new viewing point and a place to hang out. It creates a new destination on the Helsinki map.

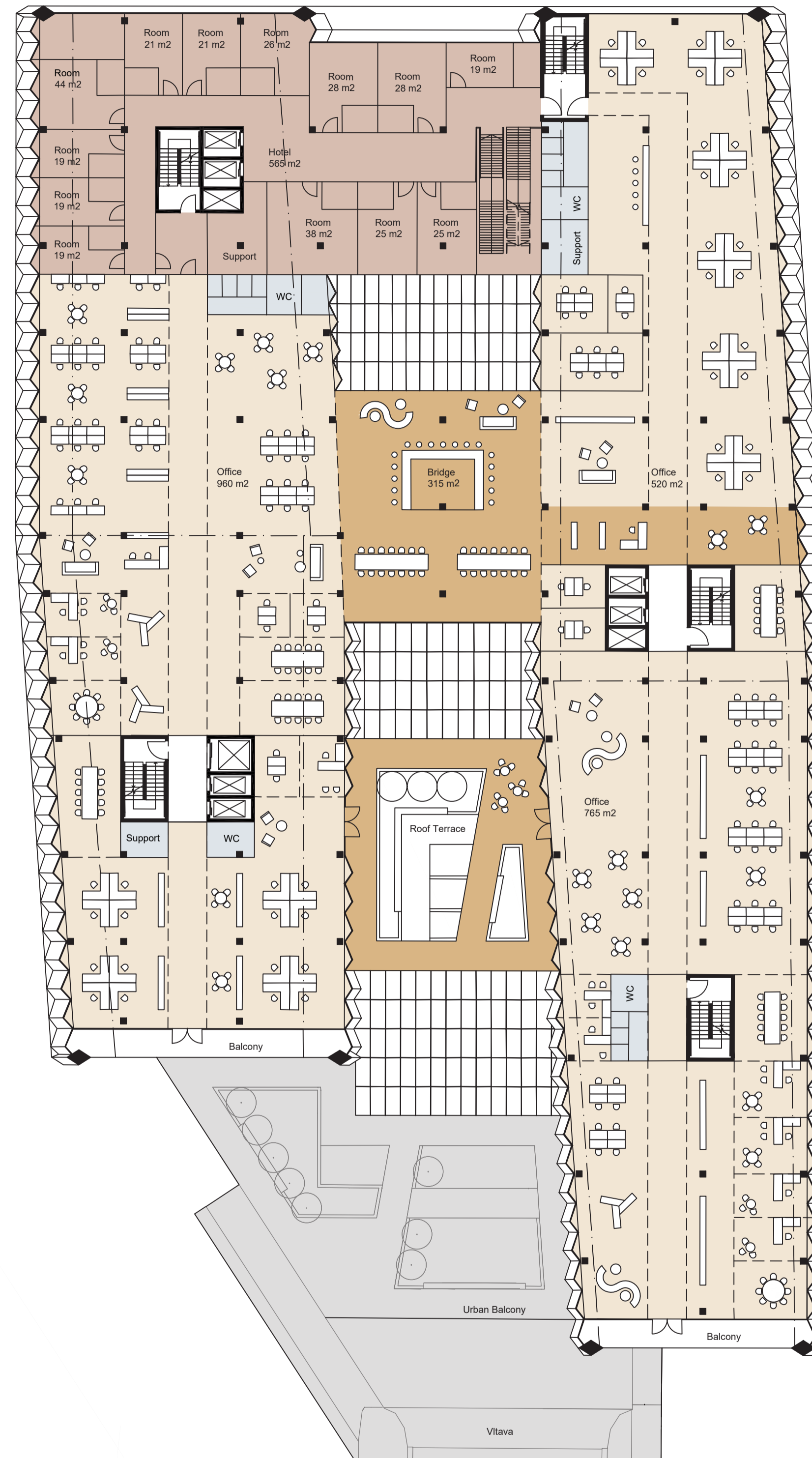


- Legend:
- Design area
 - - - Assessment area
 - Sightline
 - ▲ New entrance
 - ▲ Existing entrance
 - New tree
 - Existing tree
 - Rain bed
 - Green roof
 - Natural stone paving
 - Wooden decking

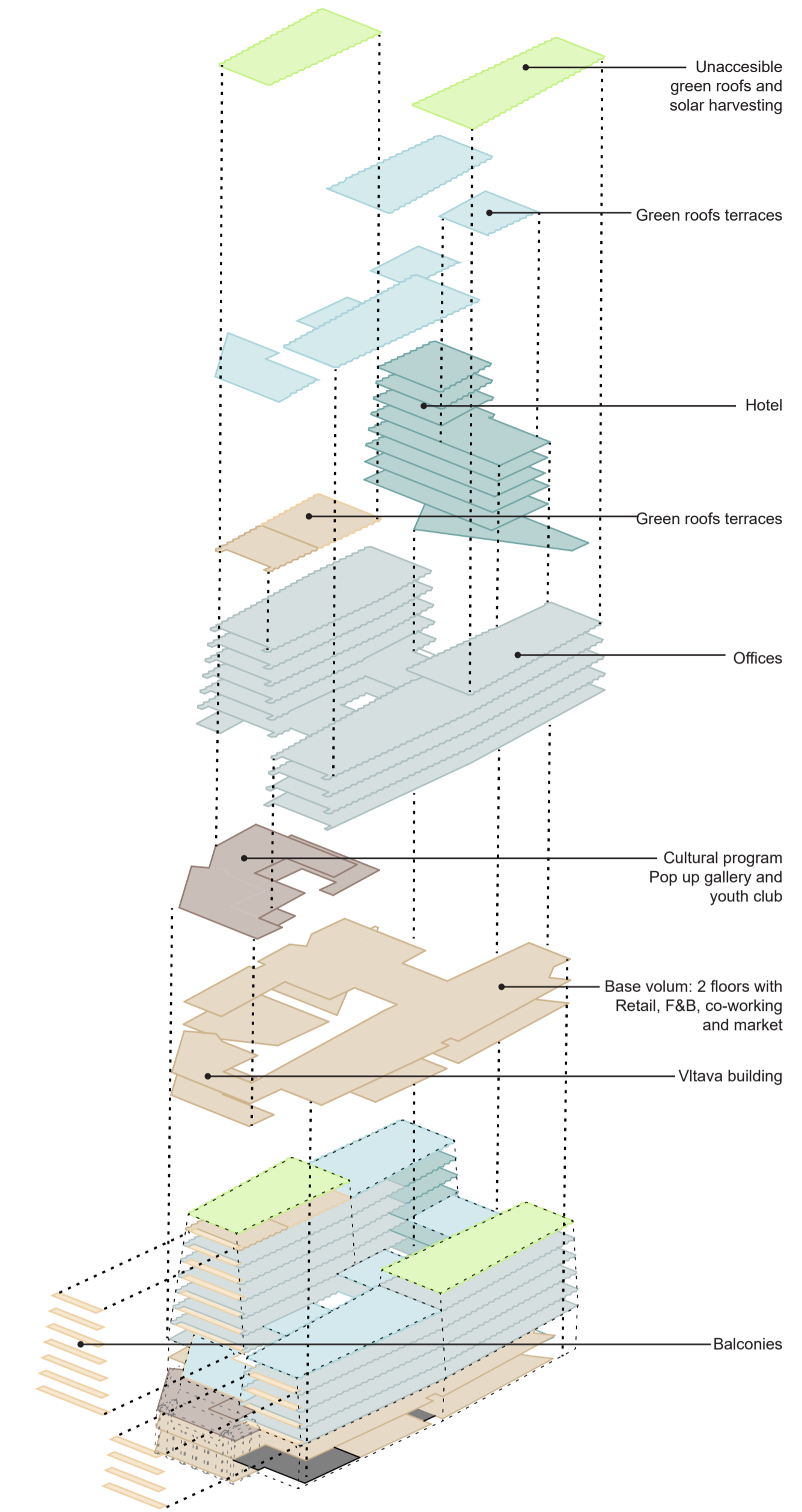
Site plan Scale: 1:500



Plan 5th floor Scale: 1:250



Program for city block



Rooftops	1 150
Roof Terraces	2 250
Recessed balconies	300
Total rooftops and balconies	3 700
Spa	300
Office	14 500
Hotel	4 200
Culture	1 400
Retail / F+B	5 200
Public concourse	1 900
Total GFA above ground	27 500
Total accessible areas	31 200

Flexible plan layouts

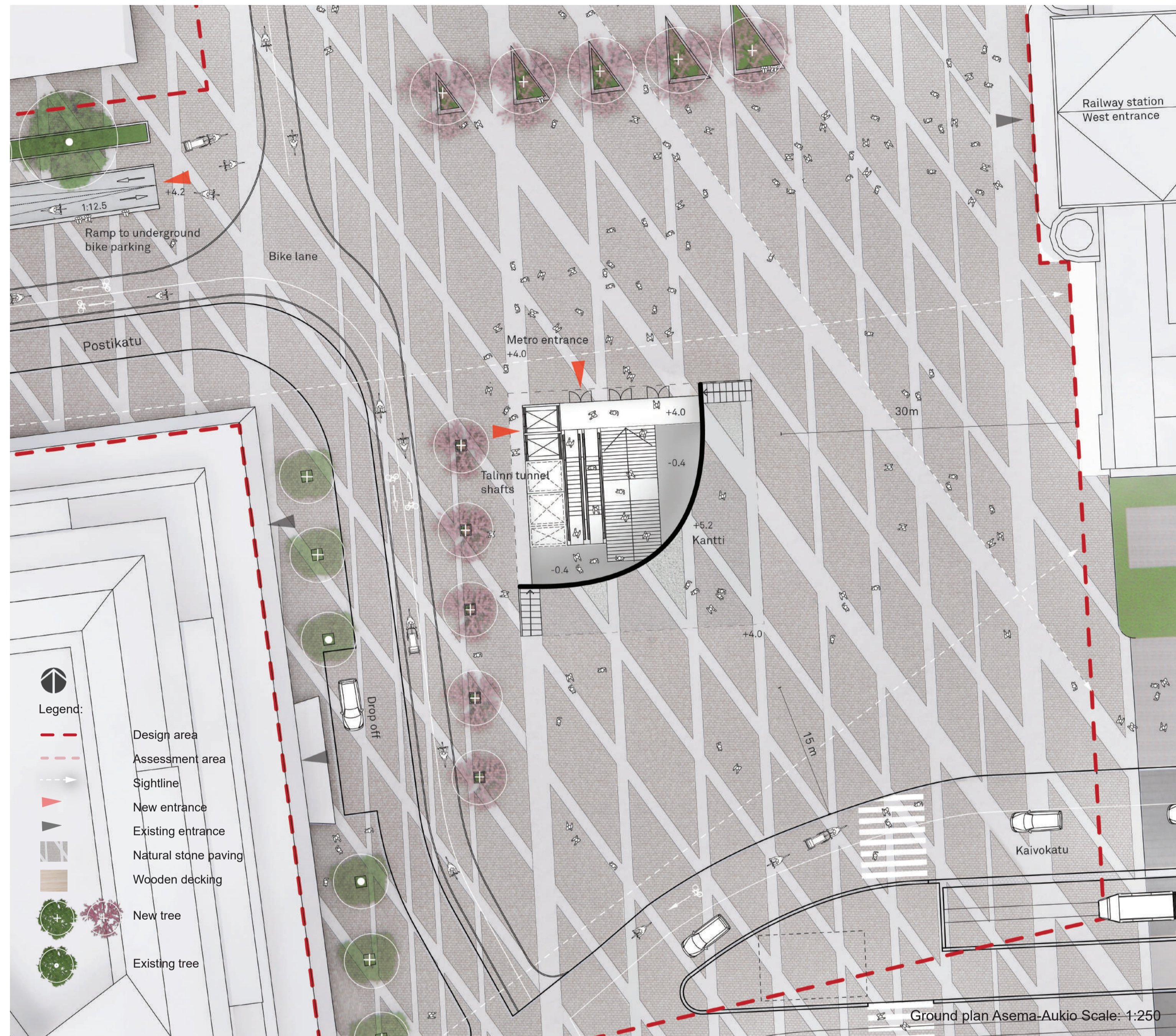
Plan showing 5th floor of the city quarter with a new boutique Hotel in prime location on the north-western corner. The hotel will have a public ground floor with reception with an open restaurant. From 2nd to 9th floor hotel rooms and a spa and rooftop bar and roof terrace at 10th floor. The hotel can easily expand to larger space if necessary for a larger tenant with the need for more hotel rooms.

The main program is offices spaces. The footprint of the two wings makes slim lamellas that frame the courtyards which provide suitable width with good daylight performance for permanent working spaces in the office layouts. The depth of the courtyard areas connects the office spaces through bridging volumes. These bridges work as common spaces for co-working, coffee stops, technical spaces and meeting rooms. The large common valley space is the vertical connector through the quarter. Flexibility in layouts and mixture of tenants can be adapted for larger or smaller areas with connections to the valley, the bridges through centrally positioned elevators and stairs.

The program

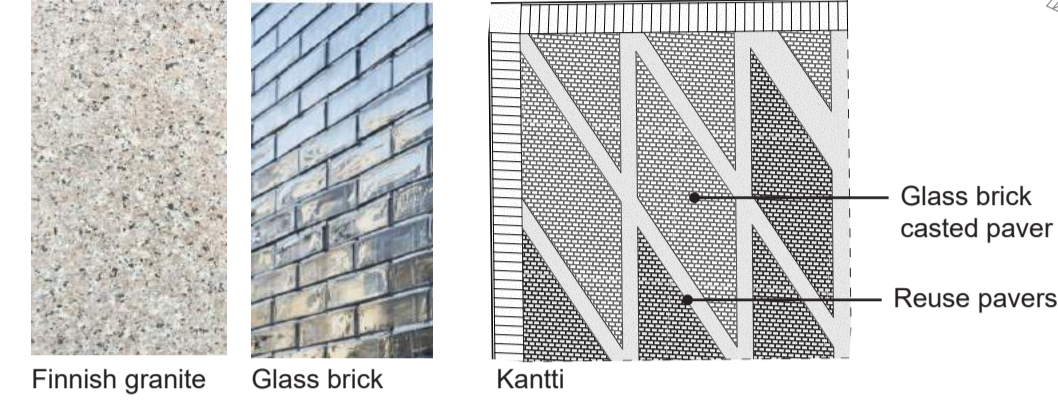
The Axonometric diagram shows the program for the whole new city block. 1st and 2nd floor make the base of the building with generous openings at grade and a seamless urban carpet stretching from the public streetscape to the indoor areas redefining the Eielienaukio public square. The public floor has a program mix of retail, F&B, co-working spaces, market space, pop up stores and the hotel lobby. The south-eastern corner has a generous stair and escalators down to the basement areas with parking, new retail and transportation hub as showed in Phase 1. The main program from 3rd floor and stepping up through the building volumes, are office working spaces. In the north-western corner facing the Holiday Inn hotel, a new hotel marks the corner with a view towards north and Töölönlahdenkatu.

The extensions that were built on the Vitava building in the 1990s and 2000s, will be removed to refine a more original building. Vitava buildings 1st and 2nd floor program will still be restaurant and outdoor cafes and bar. 3rd floor is linked to and exposed to the new interior "valley" with cultural program: a youth center and a gallery space for exhibitions that can "grow into" the common valley space. The stepping of the volume creates larger roof terraces with green roof tops and harvesting of energy. Offices spaces have access to roof terraces.



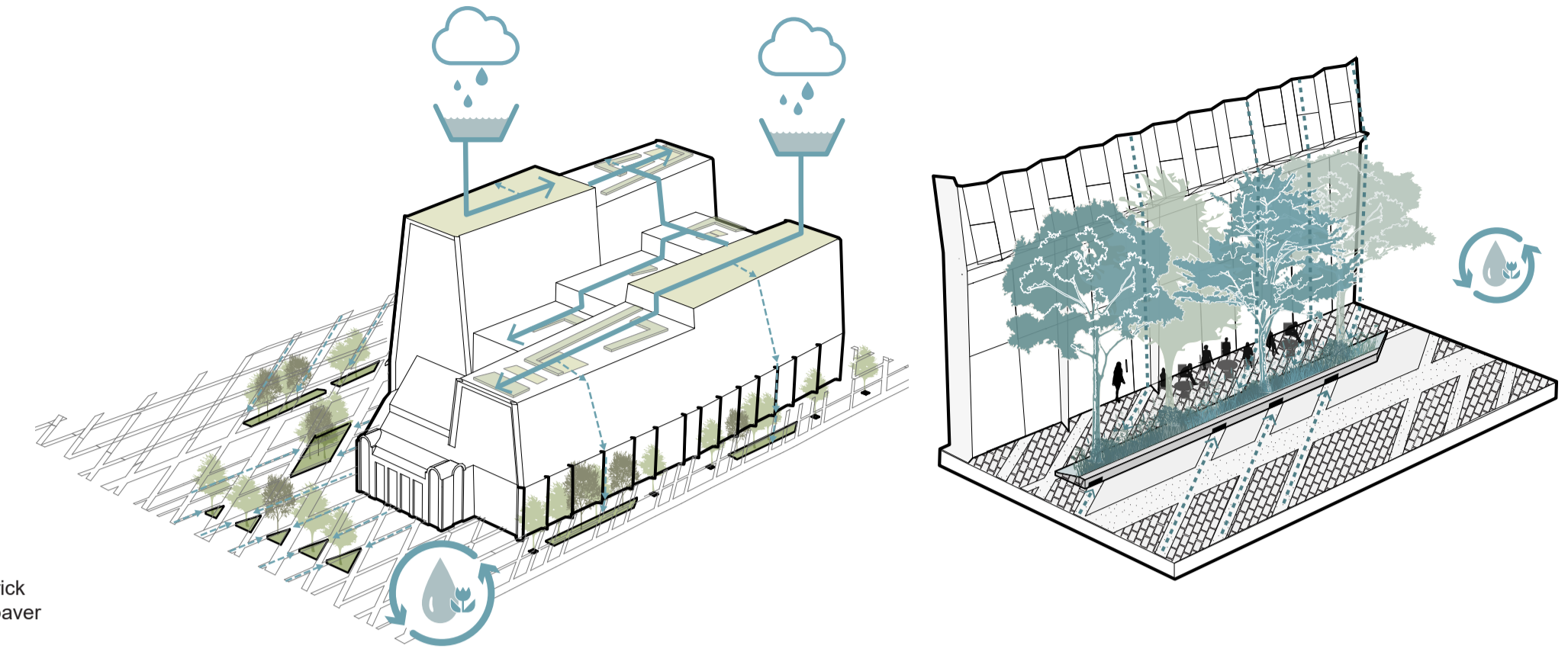
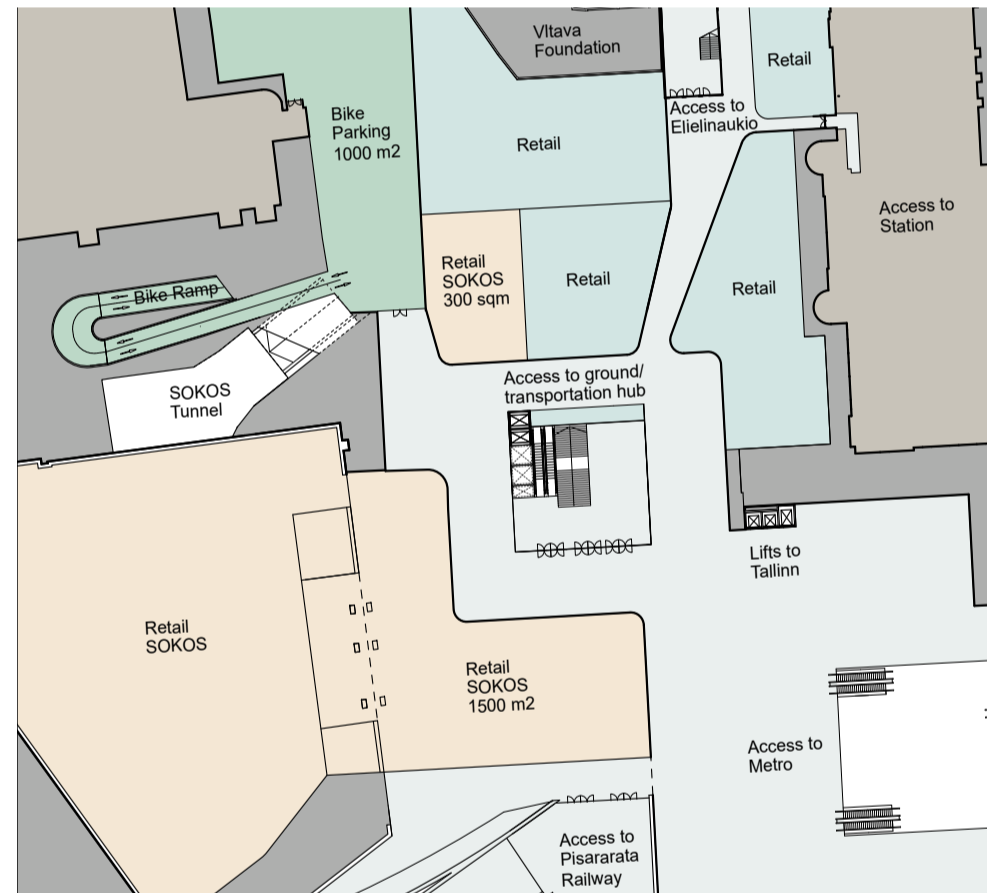
The Kantti
 "Kantti", describes the edge of a carpet and it is the name we give the urban beacon at Asema-aukio. The superimposed city grid makes the diamond shaped pattern of the urban carpet. With a surgical incision in the carpet, we create an edge, Kantti, which is lifted and opening to the Metro station underneath. The sloped surface is without a threshold and is made of natural stone but turns into a transparent surface to let daylight in for orientation below grade. In nighttime and in winter an ephemeral light design renders the beacon to give it a changing character and changing moods. The Metro entrance consist of escalators, a generous stair, a stack of elevators for accessibility to below grade transportation hub, retail and parking.

The diamond shaped glass areas in the roof of the Kantti are custom to the project and made from blocks of cast, recycled glass. The ambition is to involve Finnish glass industry in creating a unique expression of the glass that both reflects and diffuses the light. The process of recycling glass of variable color tones will provide an artistic expression to the glass with light and shadow effects. Kantti creates an edge with moods.



Transportation hub, bicycle parking and retail in the basement
 The overall mobility concept is to change from car and bus traffic to green mobility to prioritize walkability and 2-wheel traffic. Bicycle lanes are widened to 2m, with 2-ways lanes and car traffic is reduced to a minimum inside the project area. Pedestrians have the highest priority and can freely move across the new Asema-Aukio. Curb edges to bike lanes are 40mm to make an even and flexible surface that prioritizes walkability and accessibility. The bike lane west of the Kantti is followed by a one-way car lane with a drop off area east of Sokos.

The basement plan is shown as a diagram for the retail, transportation hub, Metro entrance layout and the new bike ramp under Postikatu. The existing Sokos tunnel from B2 and bike ramp fits together. Existing parking garage is reduced in size and transformed to retail area, bicycle parking and taxi drop off and layout is kept from phase 1. The transportation hub at Basement level 1 strengthened the Interconnections between the public transport systems and link the Pissaranta railway, Asema tunnel, future Tallin tunnel and the metro together with the new retail area. The entrances to the underground are easy to find east of the Viatava building and through Kantti at Asema-Aukio. Bike parking is easy to find along the new city block, but the major bike parking is below grade with a custom-made bicycle ramp in Postikatu with fast access from the bicycle lane. The ramp is 4m wide with 8% slope and leads to 1000 m2 bike parking areas with direct access to the transportation hub, retail, and Metro.

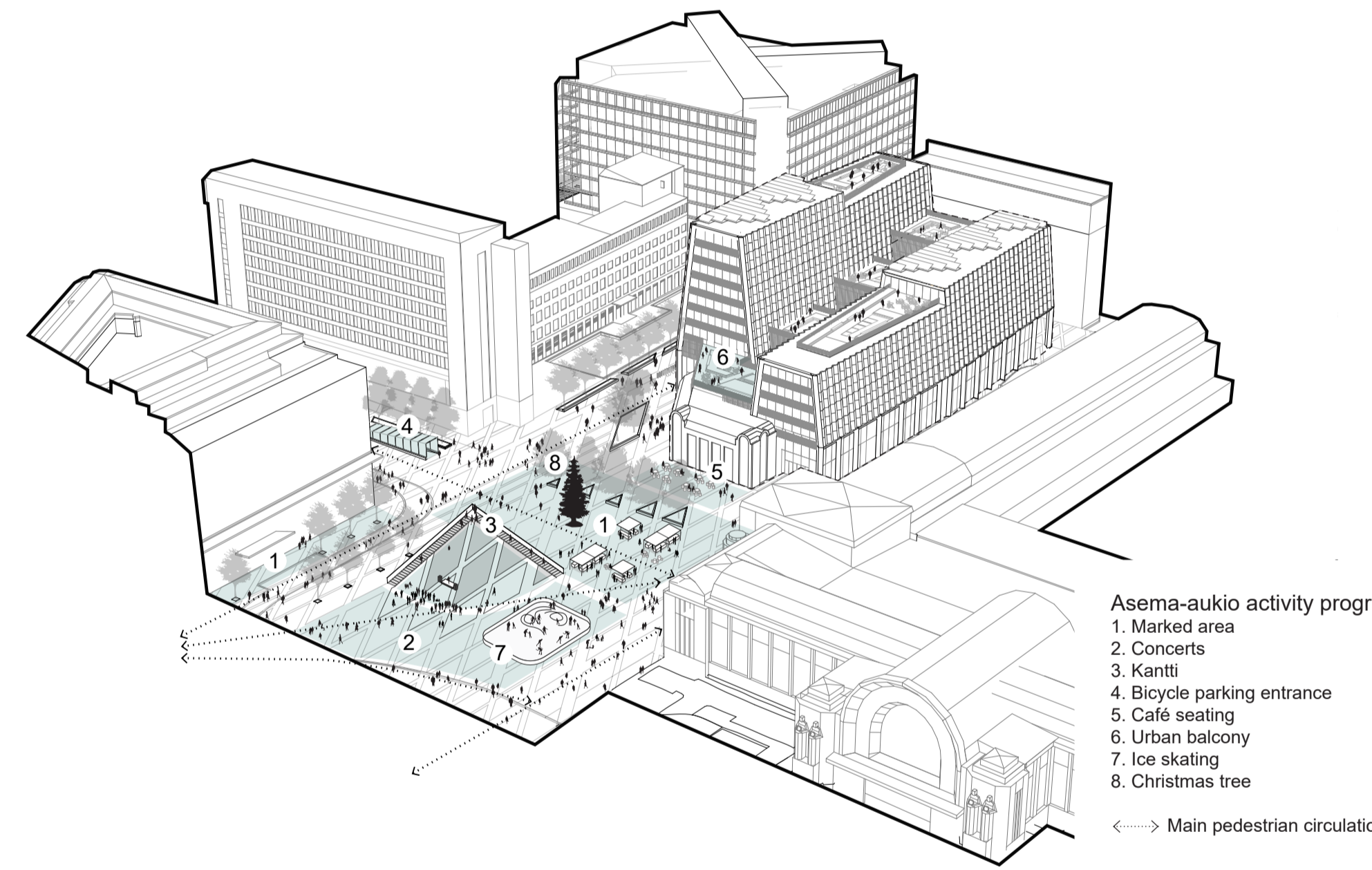


Water Management

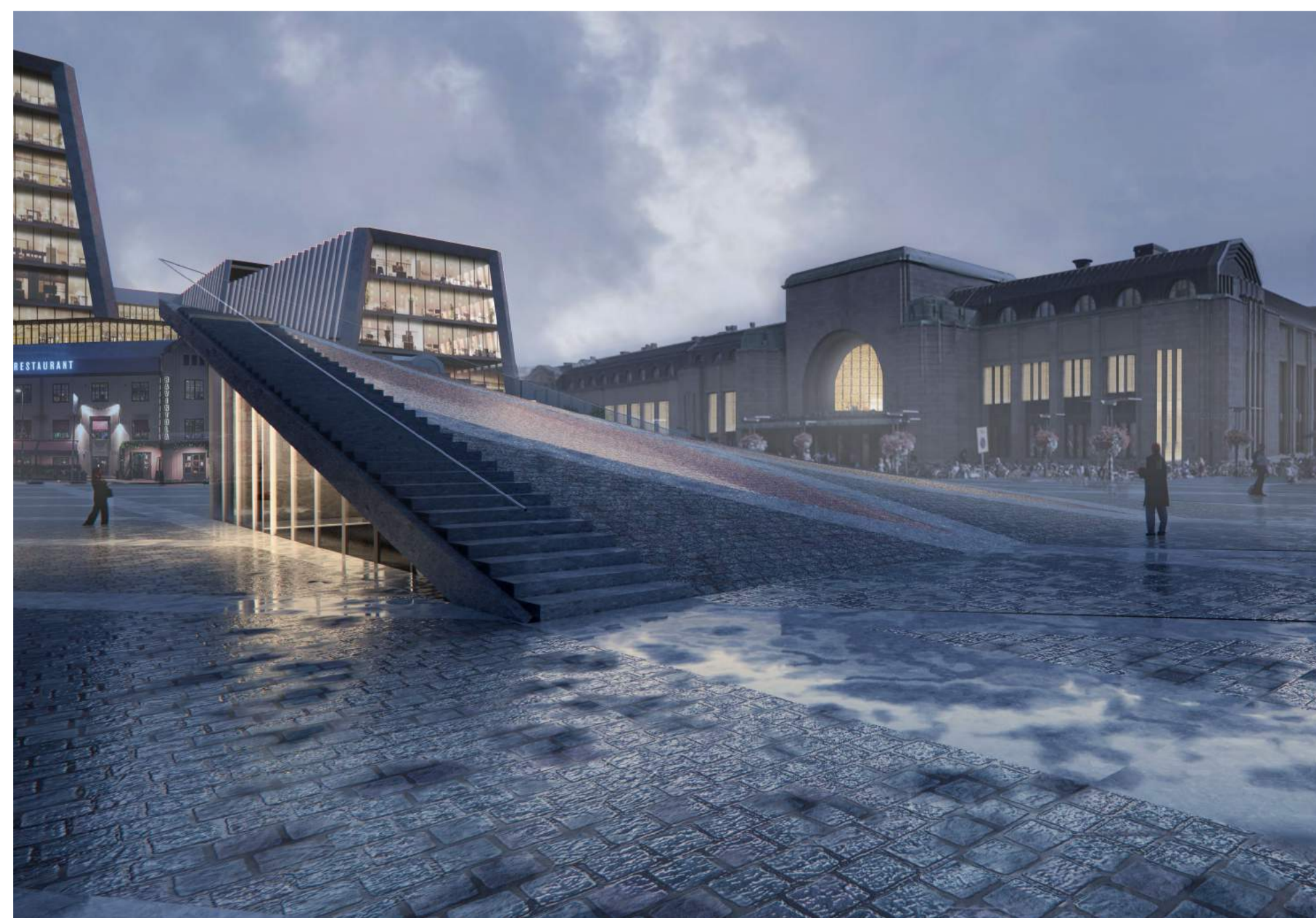
The impermeable surfaces are designed to redistribute rain and storm water due to the extensive basement system below grade. Rainwater collection and climate adaptation are the cornerstones of the landscape strategy for KLYYGA. The roof gardens and terraces collect and allow for slower infiltration of water through the soil mediums, enabling the growth of a variety of planting types. Within the rain gardens the water is first filtered through the plants before slowly transferring into the soil where it is further filtered and then stored in a reservoir system which allows for irrigation and re-use. In addition, surface run-off from the wider square is captured and transferred using the paving design to effectively collect the water in the rain gardens and planting beds.

Urban plaza program

The Urban carpet is a generous and flexible space that can be programmed through the year and days. The central location with the interchange transportation hub and generous bicycle parking, makes it easily accessible. The "Kantti" is both an urban meeting and waiting point, an elevated platform for viewing and slow space. It can act as a sloped seating area for smaller or bigger concerts, events and gatherings. The larger urban space between the railway station entrance, Viatava building and the "Kantti" makes a large pedestrian carpet for market days and events. Light festival in January, ice-skating in February, spring cherry blossom in April, flea markets in May, concerts in June-August, food markets in July-September, Halloween party in October and Christmas market with a large Christmas tree in November-December.



The Kantti light show



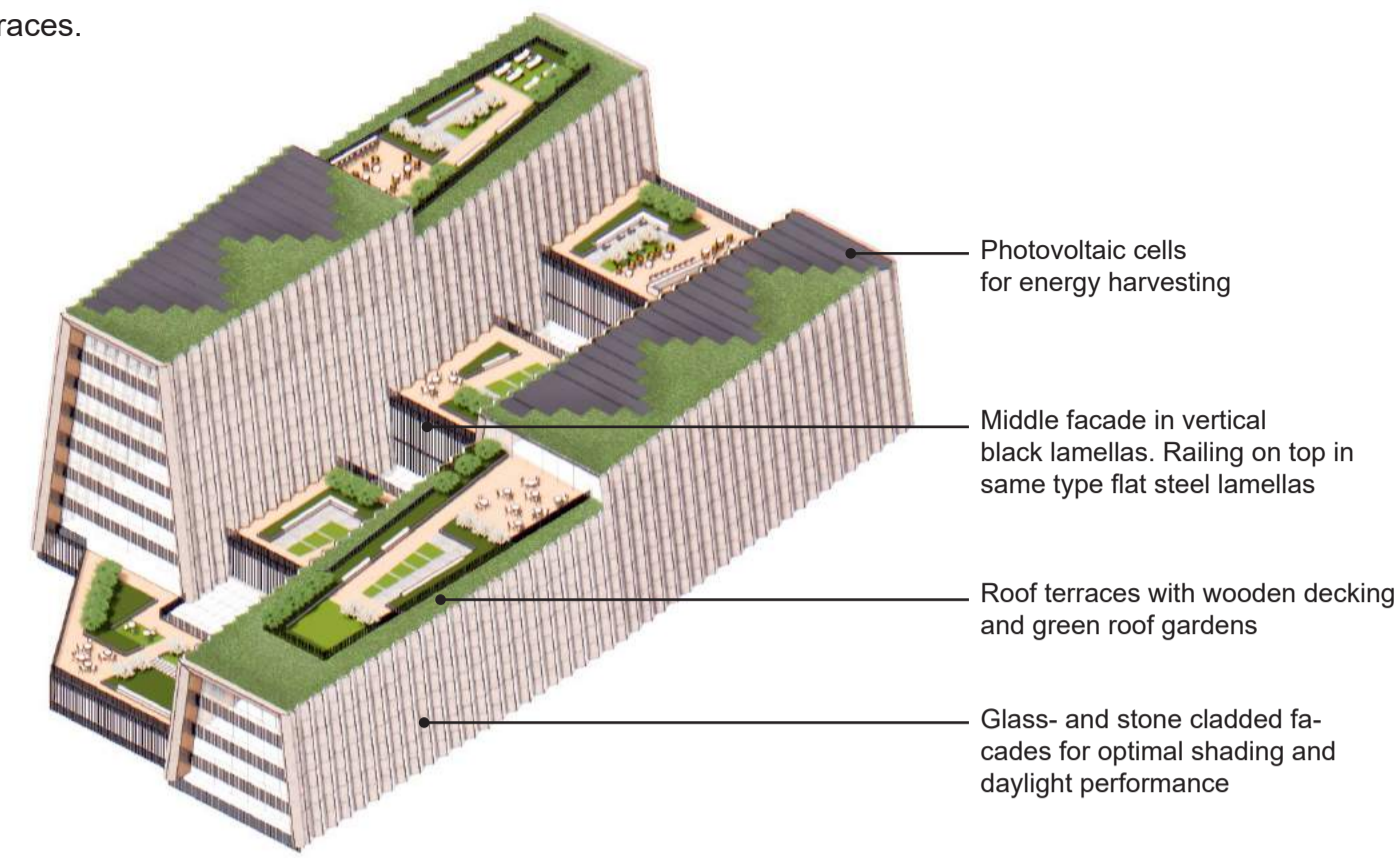
Rainy days at the Kantti and Asema-Aukio



Aerial view

Axonometry of the design concept

Top facades with roof terraces.



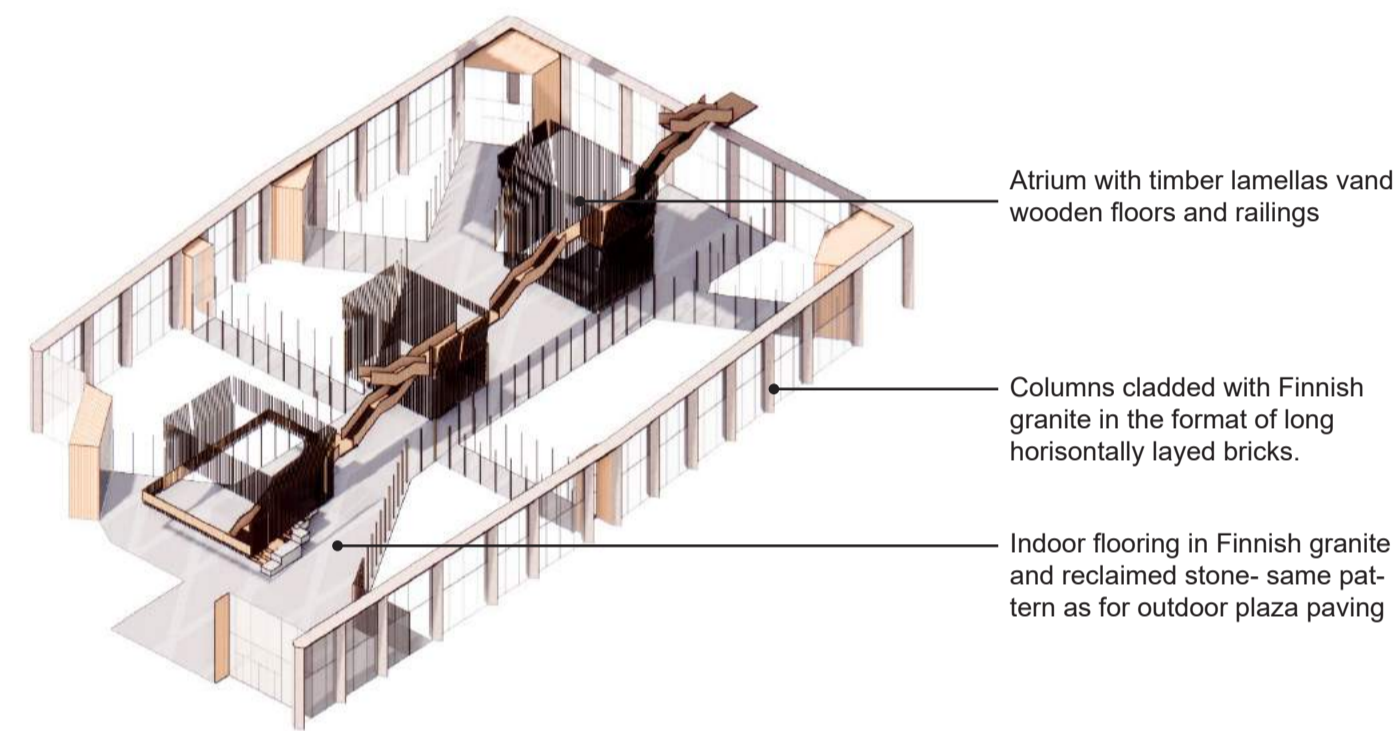
Photovoltaic cells for energy harvesting

Middle facade in vertical black lamellas. Railing on top in same type flat steel lamellas

Roof terraces with wooden decking and green roof gardens

Glass- and stone clad facades for optimal shading and daylight performance

Base and internal valley

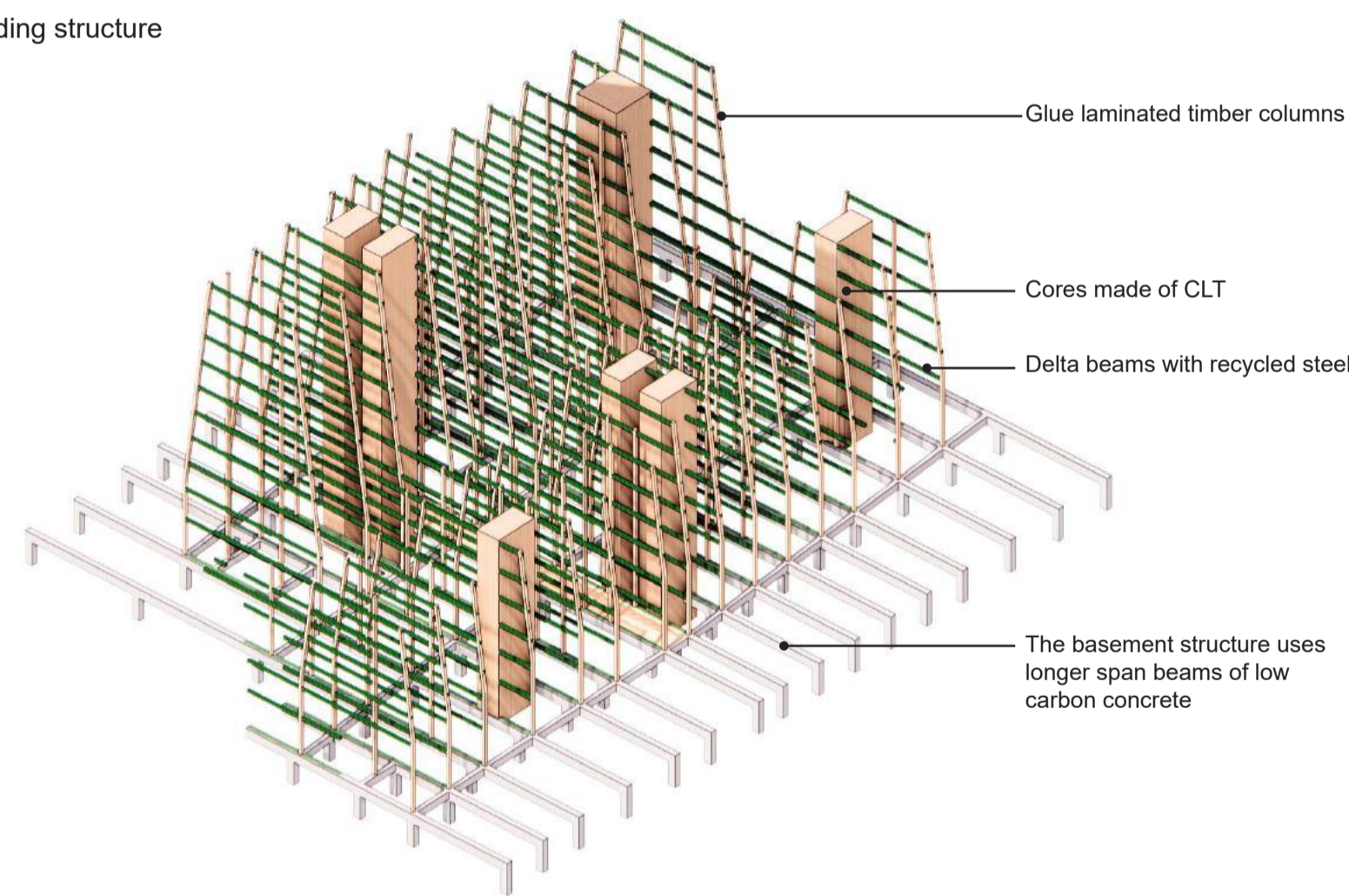


Atrium with timber lamellas and wooden floors and railings

Columns clad with Finnish granite in the format of long horizontally layered bricks.

Indoor flooring in Finnish granite and reclaimed stone- same pattern as for outdoor plaza paving

Primary building structure



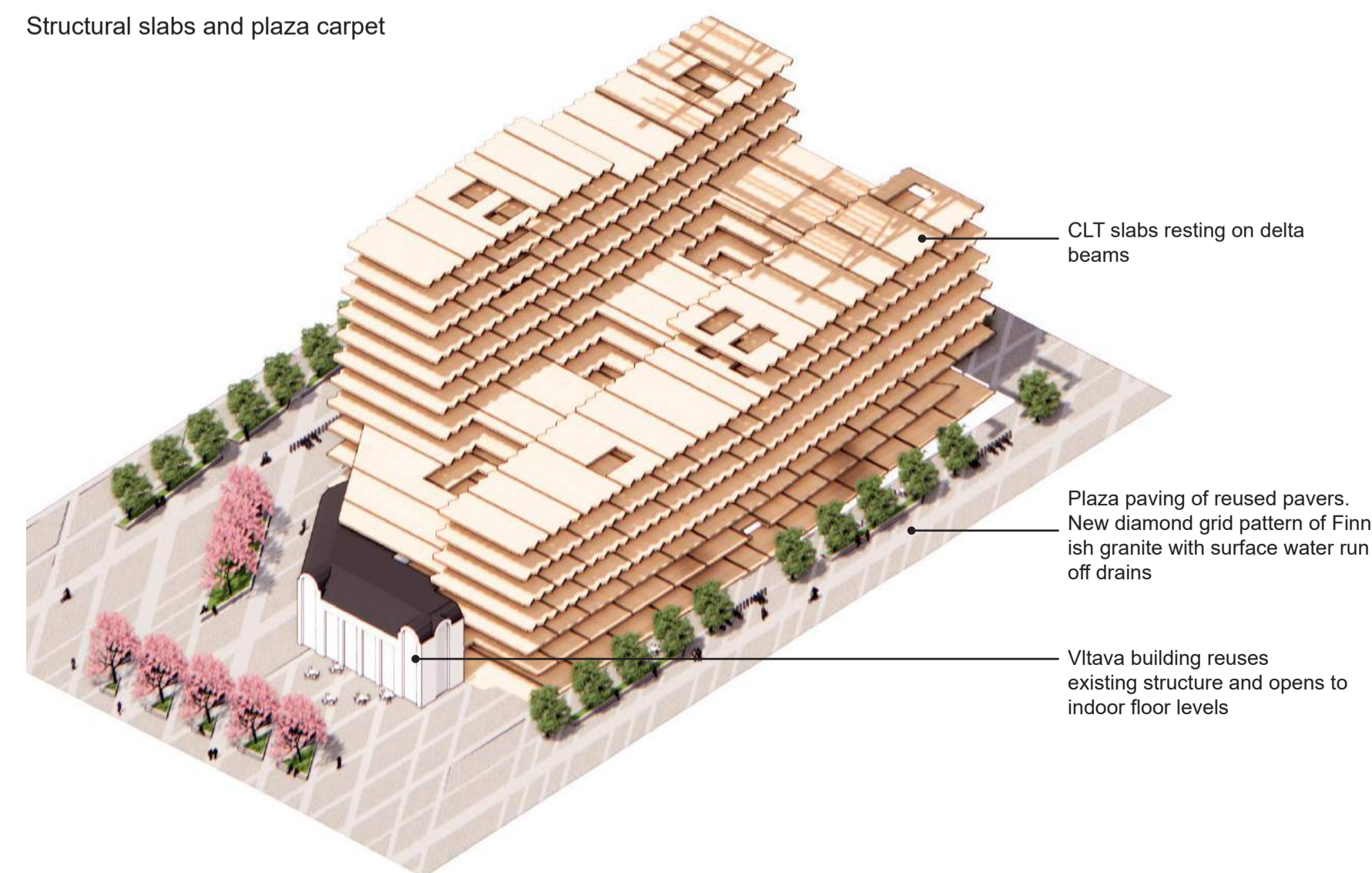
Glue laminated timber columns

Cores made of CLT

Delta beams with recycled steel

The basement structure uses longer span beams of low carbon concrete

Structural slabs and plaza carpet



CLT slabs resting on delta beams

Plaza paving of reused pavers. New diamond grid pattern of Finnish granite with surface water run off drains

Vitava building reuses existing structure and opens to indoor floor levels

Sustainable Design principles

Roof gardens: Productive and sensory Garden

The roof gardens produce a variety of fruits, vegetables and herbs for culinary uses and a taste of Helsinki. Even KLYYGAs own honey is produced in the roof terrace beehives. Here you will be able to enjoy everything from a sensual garden of fragrant herbs to a meal of locally produced vegetables. Buzzing bees and butterflies are attracted to local plants and fragrant herbs. These are vibrant roofscapes for relaxing and hanging out.

Transpiration through green roofs

Green roofs are highly effective at thermal balancing, using natural transpiration in summer to cool the roof areas that are most exposed to direct radiation, while the biological activity in the soil preserves warmth in winter.

Facade modularity

The top facade consists of a modular grid of 1.56 m, which matches to the building grid of 7.8m x 15.6m. It is designed to be flexible and accommodate multiple functions including hotel. It can also fit windows openable inward if desirable. The structural framework is from solid timber with the glazing units applied to the front with a silicone joint or exterior metal frame.

Facade Materiality and identity

The pleated facade has a strong dualism between open glass and closed stone panels. From the south the facade looks completely closed and it opens up slowly as you move passes the building towards the north. At night time light from the interior emits through the glass and washes onto the matte granite vertical walls. The vertical elements can also get added effect at night from uplights placed at the top line of the base.

The Base - Interior Valley as Public Social Arena

The generous plaza floor creates new opportunities for moving through the quarter. Flower shop pop up stores and amenities create new public activities and a relaxing atmosphere for informal meetings and breaks to take place. Co-working spaces, lounges, cultural program and retail mix with cafes, bars, take away and restaurants makes a vibrant energy during daytime, lunch hours and late nights. There is the potential to have an indoor market space in the center of the valley.

The 2nd level extends some of the shops and restaurants on ground level. It also consist of a mix of health functions such as dentist, doctor, hairdresser and informal meeting points and co-working spaces.

The Valley

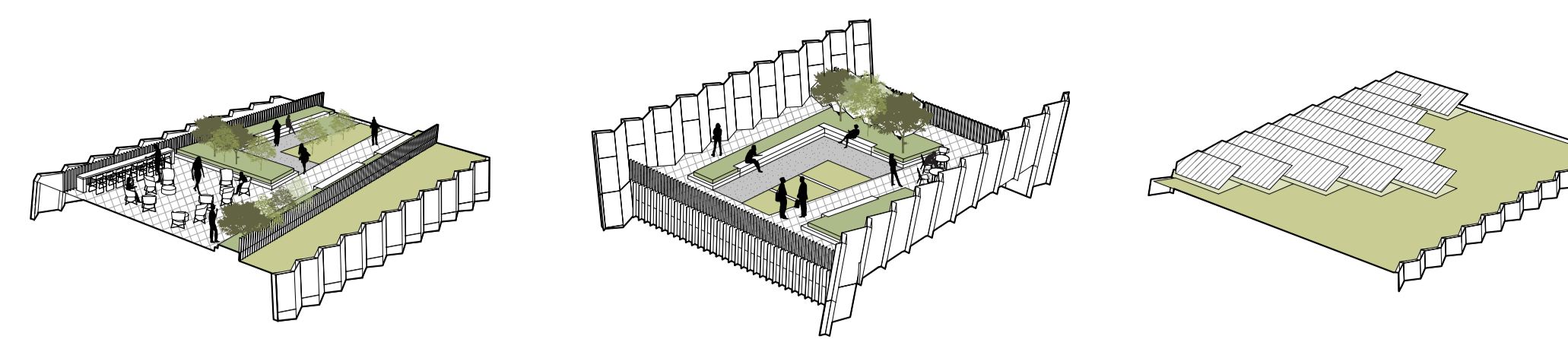
Flexibility in structure

The goal has been to design a structure with a minimum carbon footprint and maximum flexibility for functions and potential reuse of elements. The structural grid for the new building is based on a primary 7.8 x 15.6 m construction grid. The base volume floor to floor heights are 5.0 m at grade and 4.0m for 2nd floor. The typical levels, offices and hotel, floor to floor height is 3.6 m. This provides flexible use and program of the new volume. The relatively generous heights are proven optimal for slow moving air flow that reduces the energy consumption for ventilation. We suggest using an efficient mechanical ventilation with heat recovery. This will need to be studied further in future development. The structural frames are built up by glue laminated wooden columns and combined with recycled steel delta beams for maximizing ceiling height and adaptable functional program. The timber structure is modular so it can be reused for future development.

A greener frame of the urban landscape

We are creating a greener frame to the urban landscape by adding more lime trees to the existing rows of street trees and strengthen the green link towards the recreational route to the north. The street trees are grouped in common larger rain beds for more soil volume and better water handling. A richer plant selection suitable for rain beds consists of perennials, meadow grasses, lower shrubs and ground covers frames the trees and provide colors and scents, shade, filters air, makes better micro-climate and delay heavy rain and cloud bursts. Existing tree row towards north is replanted along the new building's north facade. The planters have built up terrain to create patches of local plants to attract insects and birds for an increased biodiversity. The planters create pocket landscape where people can enjoy and meet, by seating along the planter edges. They are ephemerally lit in the evenings and in wintertime. The trees will help underline the seasonal changes.

The new character tree species for Asema-aukio is a Japanese cherry tree, *Prunus sargentii*, which is a fast-growing ornamental 8-10 m tall tree suitable for urban environment. It has pink flowers in the spring and get red-, orange- and yellow-colored leaves in the fall. The cherry trees are extending the lime trees in Postikatu, underlining the visual line to the railway station and the directions in the city grids.



Roof terraces on top of the hotel with lounge garden feeling for relaxing and sharing meals.

Green roof terrace on top of the valley for common areas for offices, work space, lunch or hang out

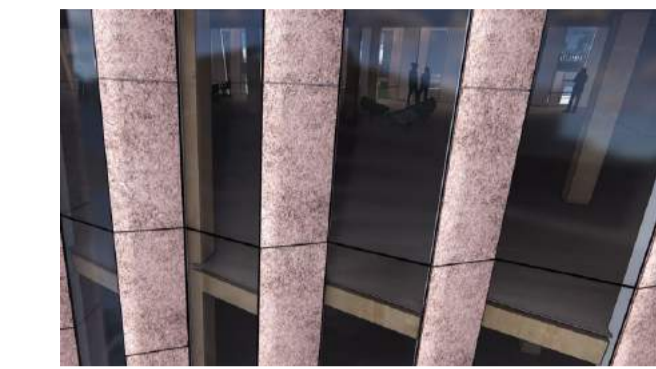
Energy harvesting with PVs in a combination with blue-green roof that can handle a future 20-year rain event and create habitats for valuable Helsinki nature.



Base columns in brick layered granite provide a tangible texture. Timber lined entrance zones and fully glazed niches invites people in.



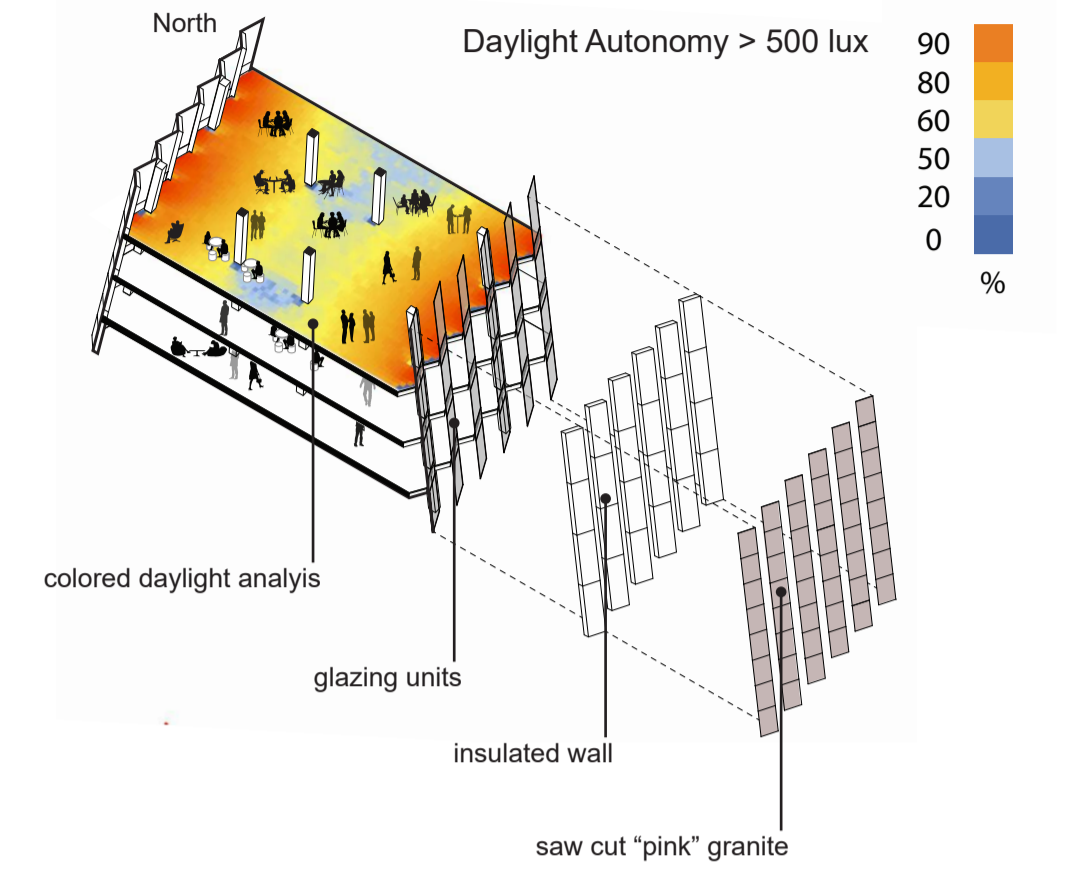
Solid panels adds sun shading from the south and daylight from the north through the glazed panels. Natural vents can be integrated into the solid panels



Granite Panels in matte sawn finish draw long vertical lines that communicate with Saarinsens station as well as the brick and stone clad city.

Shading and Daylight

The pleated facade design provides efficient shading while allowing for ample daylight to the interior of the building reducing the artificial lighting demands and therefore the overall energy consumption. Minimum daylight autonomy of 500 lux (threshold for offices) is achieved for more than 70% of the occupied time for the largest part of the floorplan.



A corrugated semi-glazed facade limits the glare-prone areas and decreases the overall glare hours by 90% compared to a fully glazed facade. The corrugated geometry is advantageous compared to a flat geometry, as it minimizes the glare discomfort without significantly sacrificing the amount of incoming daylight to the interior. The matte treatment of the granite exterior panels is also advantageous for glare reduction. A further development of the facade in next stage would be refinement of the angle of the pleat and glass to solid ratio as well as the roughness and expression of the solid surface with a balanced goal of performance, aesthetics and architectural adaption to the genus loci.

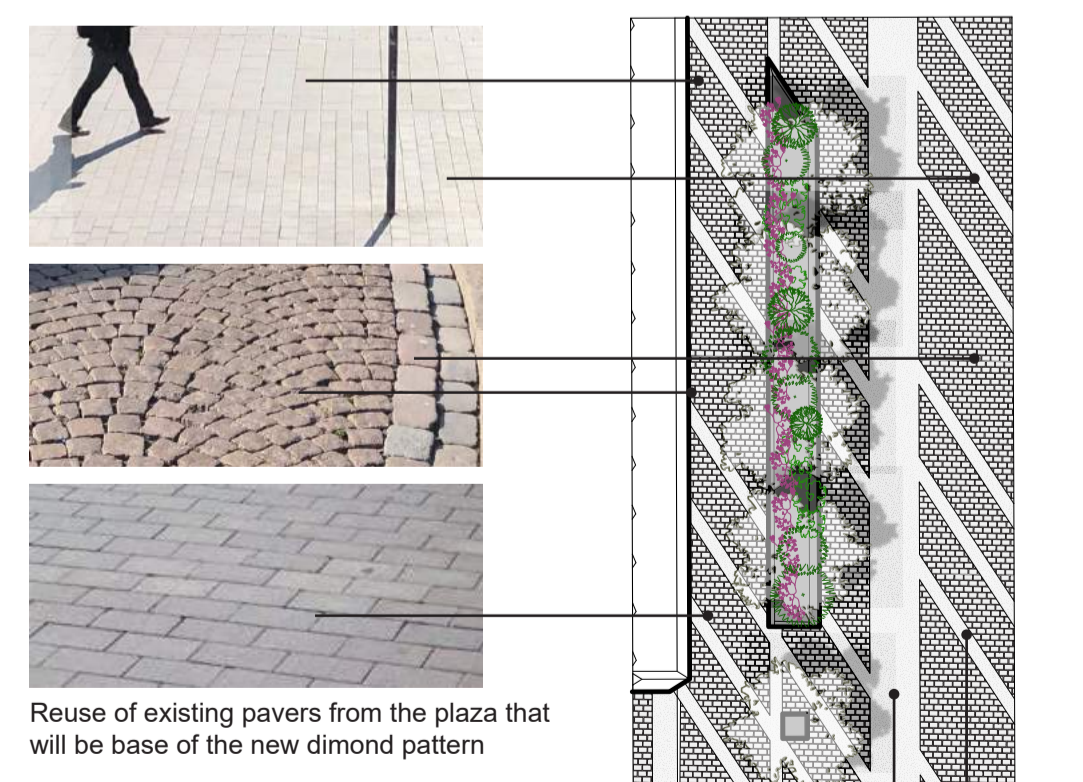
Materiality - Warm, timber core meets mineral, urban Shell.

For all components in the new built project, we propose that materials should be easily dismountable and after lifespan put into stock to be reused. This goes to both the existing materials and for all new materials used in the Elielienaukio project. The highest carbon reduction is achieved by applying structure and interior finishes in locally sourced timber. We visualize spruce as the main material. Timber columns, exposed timber slab ceilings and all facade mullions and retail interior mullions in timber. The top of the building stands out as a shimmering glass volume seen from the north and a solid stone volume from the south with a gradient of openness as you approach it adapting to the daylight situation. The base is framing large open glazing units with generous diamond shaped granite columns that relate to the minerality of the city and are welcoming to touch. For the column cladding horizontally stacked relatively small format stone allows to utilize quarry leftover formats.

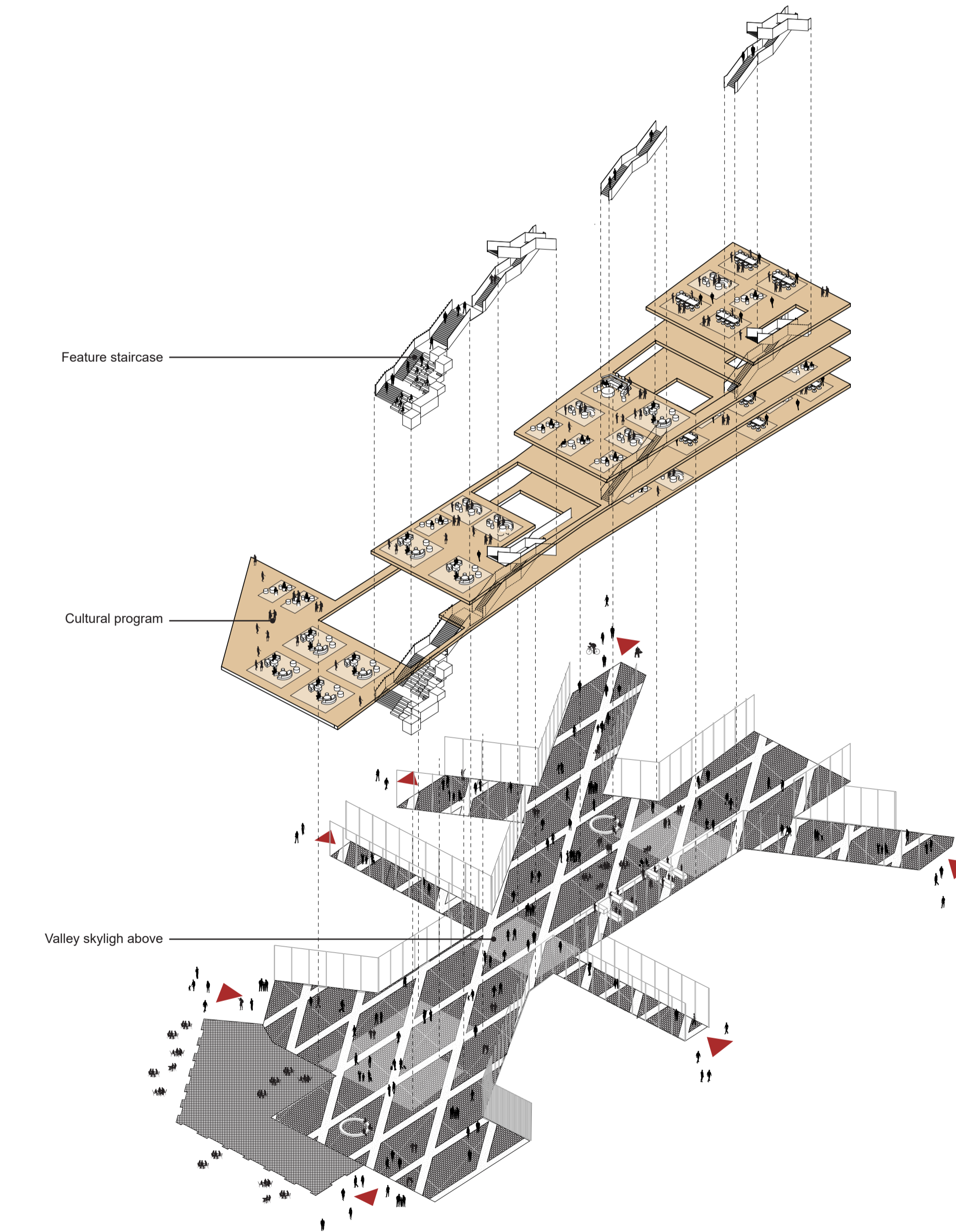
The plaza paving consists of a carpet made of durable natural stone. The framework that makes the large-scale diamond-shaped cells of the diagonal pattern are filled with a mixture of reclaimed stone from the site and reused cobble stone. The intention is to reuse as much as possible of the existing quality materials that are paving materials today. The diagonal stripes in the plaza, as well as the base column cladding and the edge of the Kantti is made of locally processed Finnish granite. We want this to have a warm tone so it blends in with the surrounding facades of the Vitava, the Post Office and the Station. The same paving flows into the atrium space with an indoor finish and interacts with the warm and soft timber interior.



Plants for rain bed in selection of green, pink and purple colours from left: Carex rhynchophylla, Molinia caerulea, Lythrum salicaria and Physocarpus opulifolius



New Finnish granite, suitable for paving and drainage channels in 3 widths: Selected lines in 2m and 1m wide stripes following the grid lines and drain lines in 50cm width



The Valley and the Vitava

As a backdrop to the Vitava building, we created a valley between the two framing wings. The valley rises towards the north through undulating roof terraces and light wells for interconnections, daylight, and orientation. Indoor the valley forms a large vertical gesture that links the different floors together. The wooden-, open valley-space makes a social arena for people to gather, meet, shop and work. The flexible atrium with generous landings, can be reprogrammed for events. These areas can also have cafes or be zoned to offices spaces and different tenants.

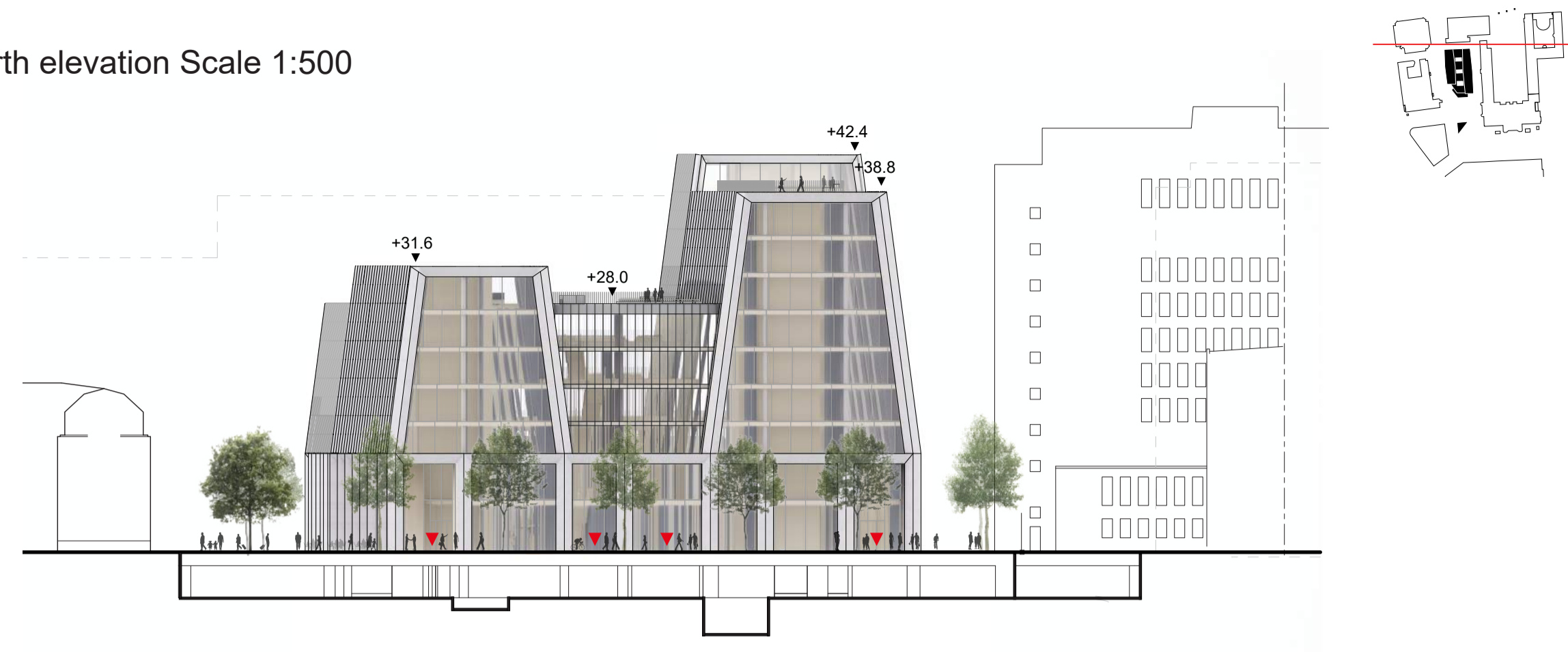
At the 2 first floors the retail areas are crisscrossed by the common urban carpet with connections to entrances to the public realm. The flexible carpet is a short

cut through the Elielienaukio and can have zones with pop up stores, marketplace, gallery space and different events through the seasons.

Relating to the Vitava building, we remove as much as possible of the additions to get back to a more original and clean architecture. This means all facade additions made in the 1990's and 2000's will be removed. Vitava buildings 1st and 2nd floor program will still be restaurant and outdoor cafes and bar. 3rd floor is linked and exposed to the new interior "valley" with cultural program: a youth center and a gallery space for exhibitions that can "grow into" the common valley space.



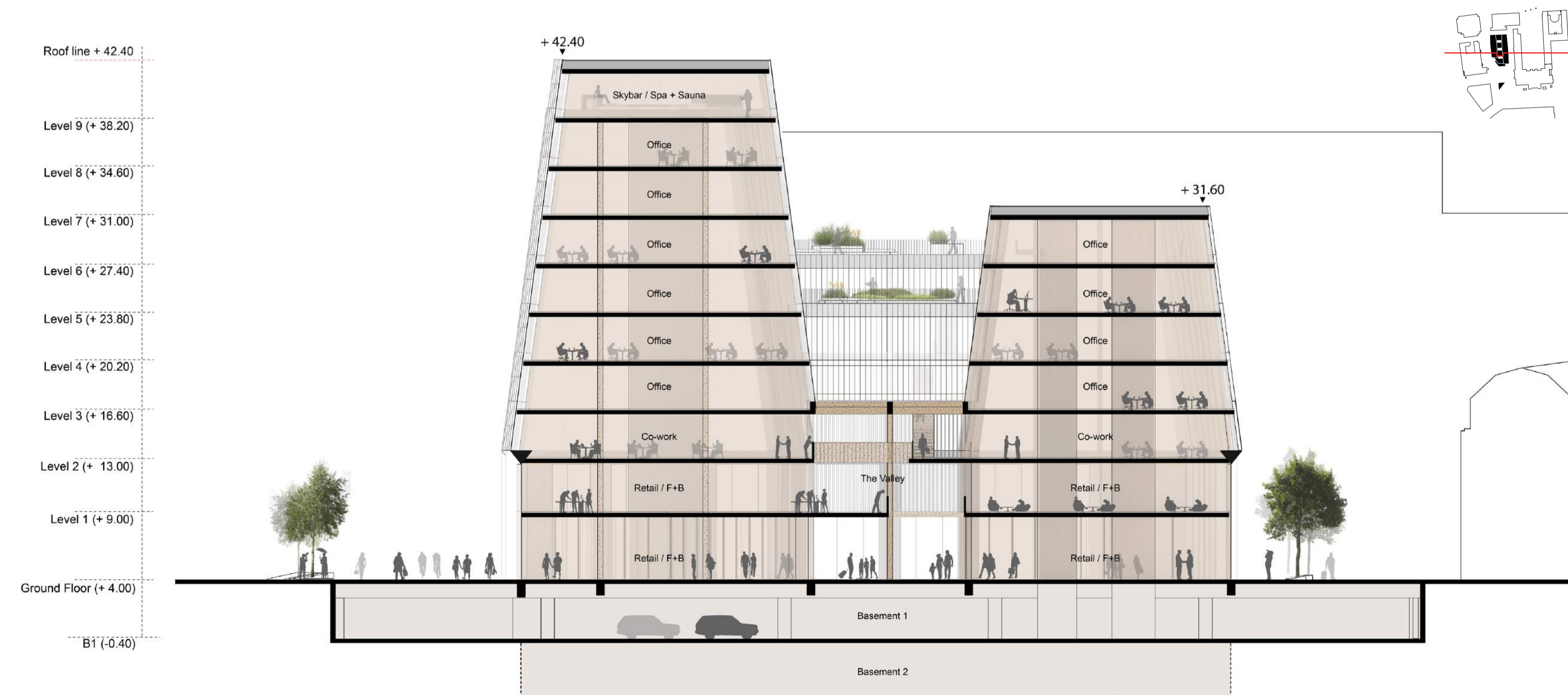
North elevation Scale 1:500



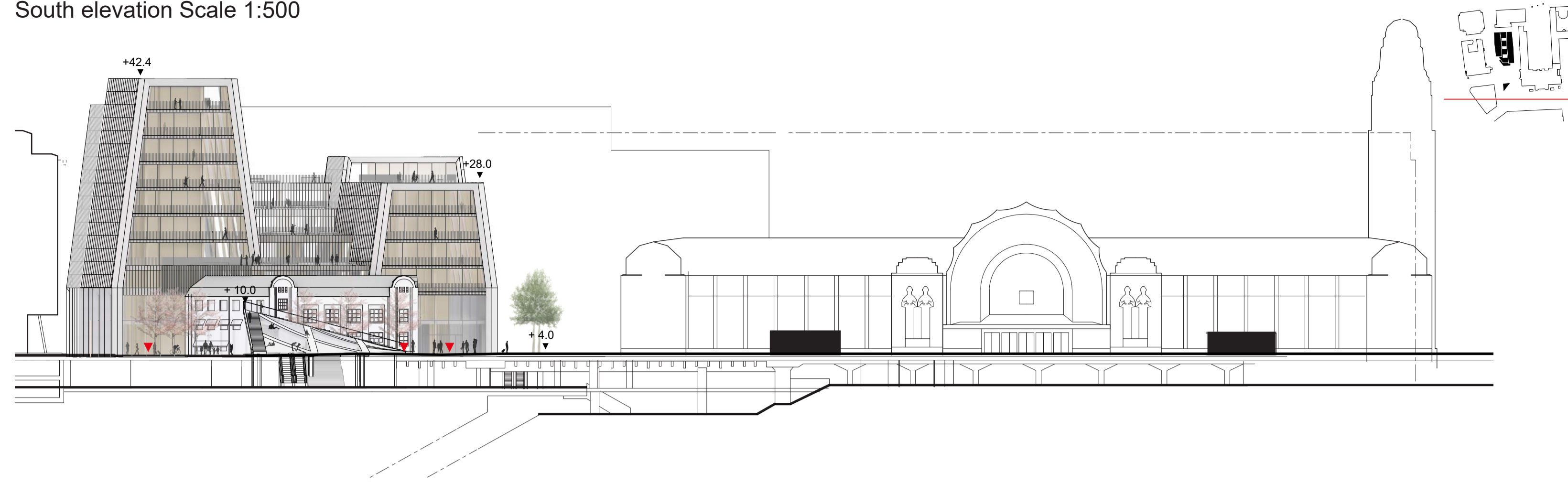
East elevation Scale 1:500



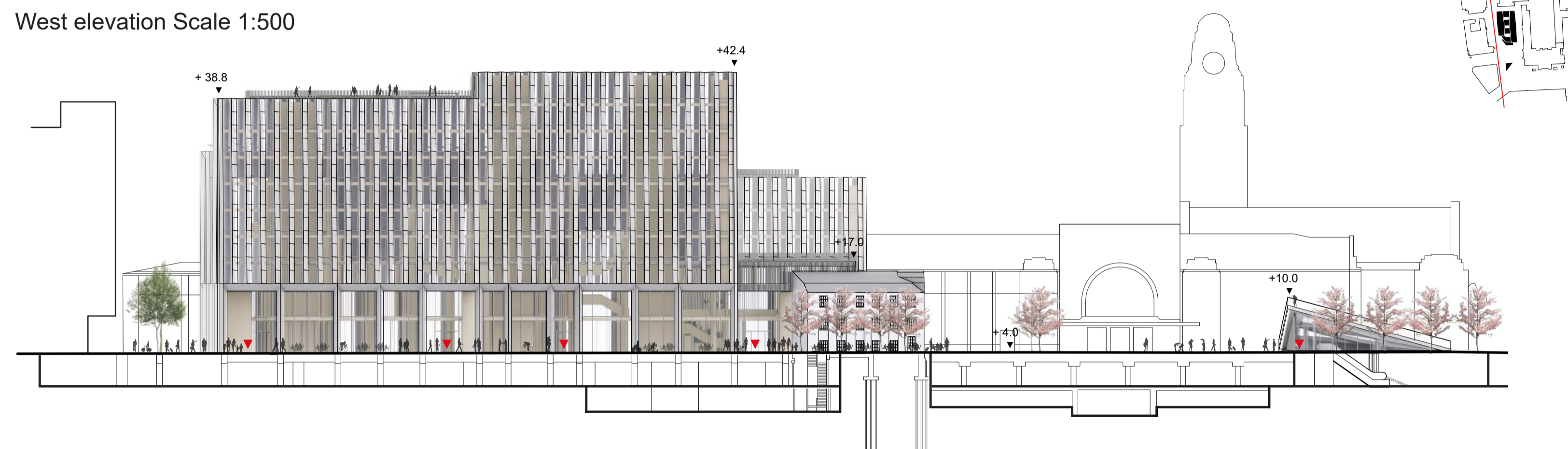
Cross section Scale 1:250



South elevation Scale 1:500



West elevation Scale 1:500



Interior view of the valley

Long section Scale 1:250

