



Illustration from Konepajanpasaasi



Aerial view illustration of the Pasila Machine Shop Area

The new Train Factory reflects the nature of the old workshops towards Teollisuuskatu. A row of pitched roofs mark the entrance to Konepajanpasaasi and invites people to enter the Machine Shop Area. This is the core idea of the design: to extend the old factory's atmosphere to Teollisuuskatu, to shelter the inner life of the area and to invite people in.

CITYSCAPE IDEA & HISTORIC CONTEXT

The Machine Shop Area is a historically valuable entity. The new Train Factory completes the existing outer ring of new buildings that shelter the historical built environment of the pedestrian inner courtyards.

For the new Train Factory, we have taken the old Train Factory as a starting point. The new buildings boldly borrow ideas from the old massing and facades, transforming them into contemporary brick architecture.

ARCHITECTURAL IDEA

The site is very compact and the desired building volume very large. We decided to keep building height uniform and calm, following the atmosphere of the existing Teollisuuskatu buildings and the outer ring of the Machine Shop Area. Instead of height, we decided to create a varying facade and play with the buildings' offset from the street.

The variation comes from dividing the buildings into ten slices with pitched roofs. The sequence of ten narrow masses with their own expressions creates a sheltering yet inviting facade towards the Teollisuuskatu axis. The masses form two groups with a green rooftop courtyard between them; the northern group houses the hotel, while the offices are located in the southern group. Every other building mass is set off from the street to create variation within the groups. The offsets give space for rooftop gardens and allow more daylight to enter the buildings.

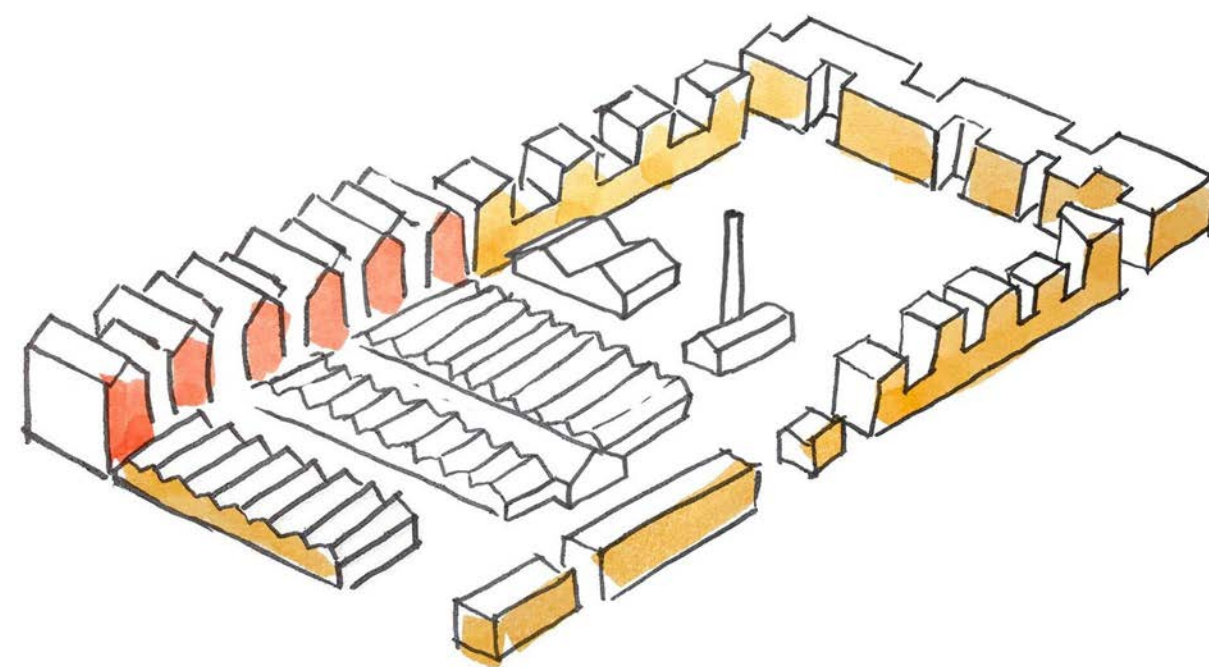
The pedestal on which the buildings are placed on respects the scale and form of the old Electric Train Building. The whole pedestal is drawn in from the lot border to create a sheltered canopy and terrace space for lively streetside functions on Teollisuuskatu.

An opening has been created in the pedestal to allow passage between Teollisuuskatu and Konepajanpasaasi, serving as a part of the recreational connection defined by the City of Helsinki. This connection running from Töyänkatu through Konepajanpasaasi to Konepajanaukio and Kotkankatu is emphasized with the use of similar materials, vegetation and design language throughout the area. With lush vegetation comprised of native pioneer species and extensive areas for outdoor seating and other activities, Konepajanpasaasi becomes the neighborhood's new focal point.

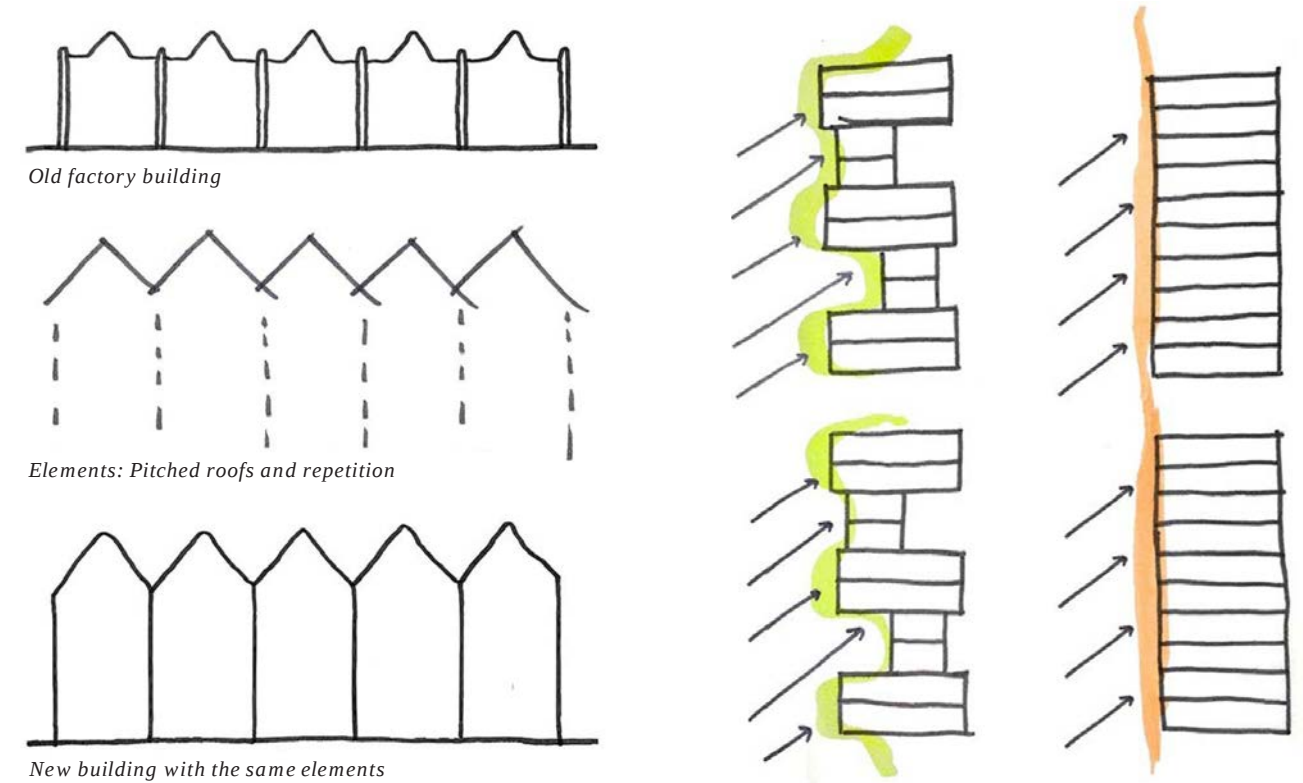
On top of the pedestal, between the building masses and groups, various kinds of green roofs and rooftop gardens are created. These areas function as lush green refuges for the office workers and support biodiversity with the diverse habitats they offer in this very urban setting.

The typologies of these areas have been designed according to their respective microclimates: the north-facing green roofs mimic the shady, cool environments of forest floors with moss, ferns and decaying logs, while the south-facing green roofs are drought resistant, sun-loving sedum roofs. The central rooftop courtyard as well as the southernmost roof garden have some larger vegetation to provide shading and wind cover, while blooming shrubs, perennials and herbs attract pollinators.

Five smaller rooftop gardens are located on the top floors of the buildings, allowing for small-scale food production which can supply the hotel's restaurants with fresh, locally produced ingredients.



The new Train Factory buildings complement the outer ring of the Machine Shop Area. Their architecture reflects the nature of the historically valuable old Assembly Hall and Paint Shop.



The massing of the new buildings boldly borrows from the old factories' themes.

The upper floors have a varied facade offset, creating a lively streetscape and allowing for views and sunlight. The ground floor is straight and drawn in to create a sheltered terrace area by Teollisuuskatu.



Illustration from the corner of Teollisuuskatu and Travessikuja



Illustration from Bruno Granholm Square



Site plan 1:1000

FUNCTIONS, EFFICIENCY AND PHASING

Our proposal fulfills the ambitious scope and functions of the competition programme, hosting a 23 430 sqm hotel, 23 175 sqm of high-level office premises and lively street level functions. The first realization phase includes the hotel at the northern end of the site. The hotel's streetside pedestal hosts retail and showroom functions.

The second phase, the office, is designed according to the competition brief's guidelines to include 1000 sqm and 1500 sqm floor levels easily divisible into tenant areas. The office's pedestal includes reception, retail, restaurant and showroom spaces opening up to the streetscape.

TRAFFIC AND SAFETY

The Train Factory block is situated at the crossroads of two important green axes. The connection from Töysäkatu to Konepajansaasi is the heart of the neighborhood, providing an important pedestrian and bicycle access from Teollisuuskatu to Machine Shop's inner pedestrian area. The main focus of traffic planning has been to ensure the safety and walkability of this pedestrian connection. This is achieved by organizing all delivery and parking of the new buildings from Traverssikuja and Bruno Grandholminkuja. Delivery on Konepajansaasi is only allowed at night-time for the old Assembly Hall and Paint Shop. The hotel and office delivery are located separately at level -1, according to their phasing. Car parking is organised on levels -2 and -3.

TECHNICAL FEASIBILITY & SUSTAINABILITY

The proposal is cost and space effective. It has a uniform building height and high level of repetition that allows for prefabrication.

The proposal is aimed to meet the BREEAM Outstanding standard in building design. We suggest low-carbon steel and concrete as a main frame material. The bricks and concrete of the demol-

ished Electric Train Building as well as recycled granite sett stones will be used in the paving of the site.

The main aspect of sustainability is to design the new buildings for the next 200 years. The building frames must be flexible for future uses and development of the design. This is taken into account in the design: the plans are repetitive throughout and easily transformable to other functions: from hotel to office, office to hotel, or both to residential.

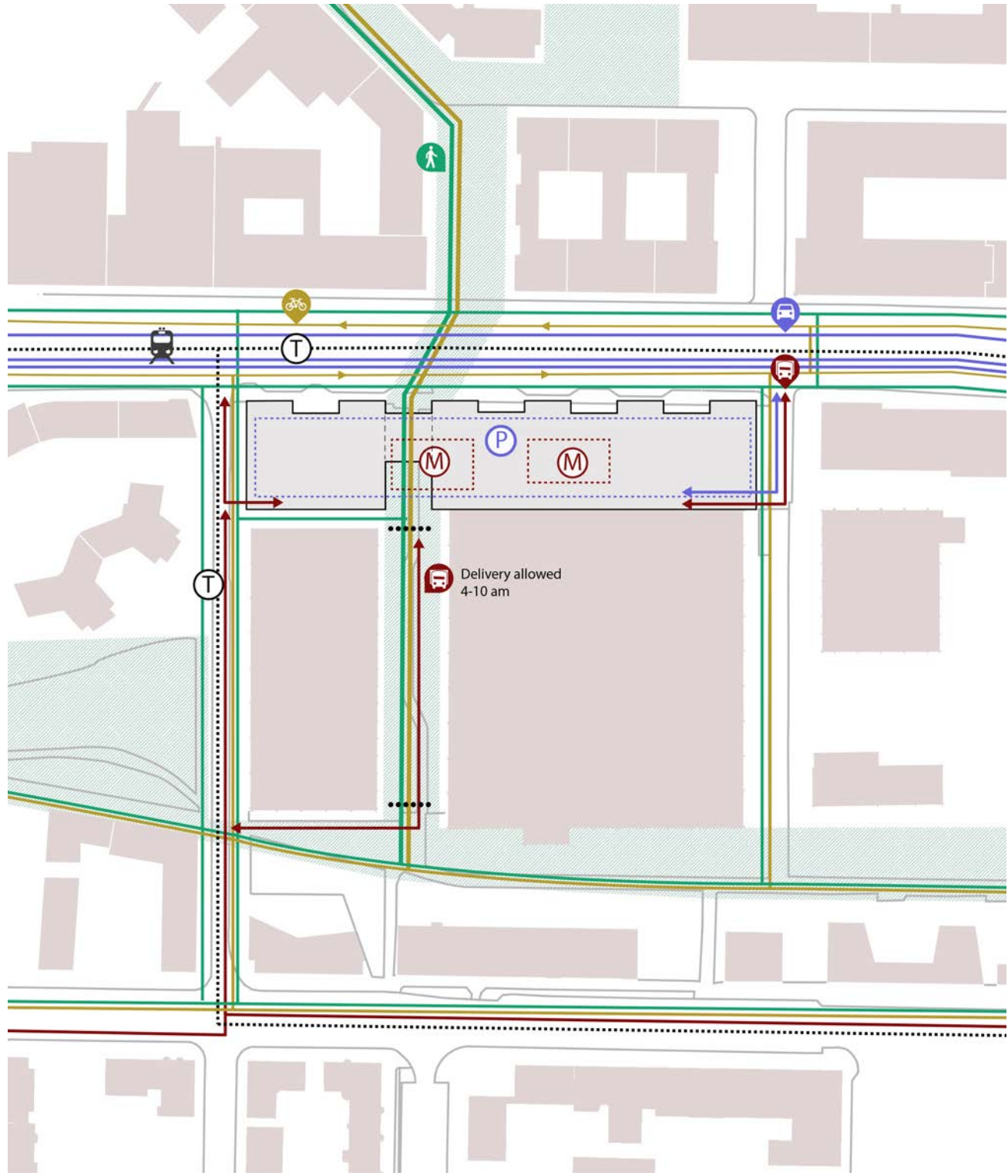
Sustainability is a key aspect of the proposal's landscape architecture. On ground level, permeable materials are used extensively to minimize stormwater runoff from the site. The pedestal's green roofs and roof gardens are an integral part of the site's stormwater management, while also adding habitats and greenery to a very urban setting, mitigating the urban heat island effect and increasing biodiversity. The use of native plants and recycled, locally sourced materials on both ground level as well as the green roofs and roof gardens decreases the proposal's carbon footprint significantly.

FACADES

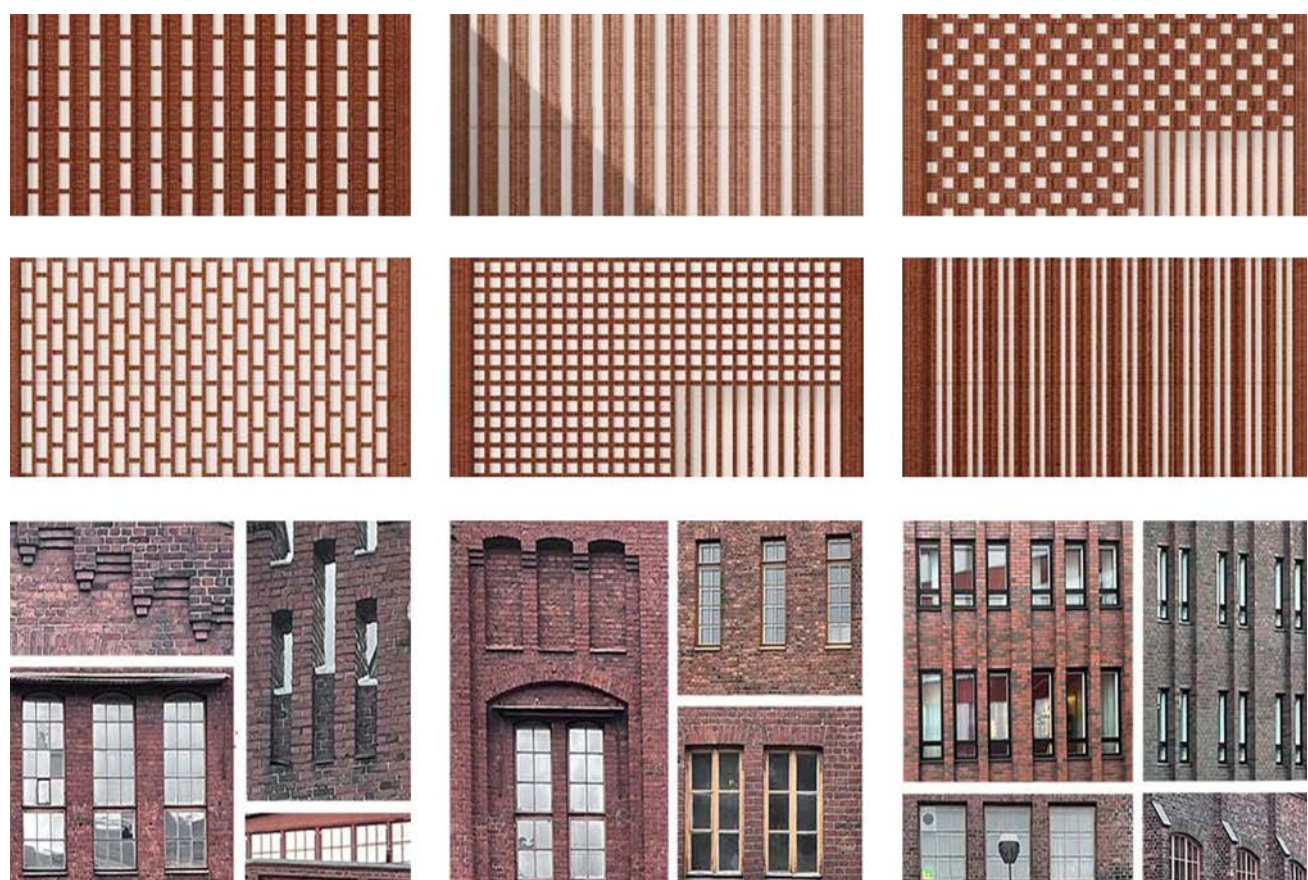
The varying brick facades draw inspiration from the surrounding old brick architecture. Each narrow house has its characteristic double facade with a glass system wall and a composition of brick sheltering it.

The facade concept easily allows for further development during the planning process without losing the proposal's character.

Viewed from the inner courtyard, the new buildings create a calm backdrop for the commercial and cultural activities of the old Assembly Hall and the Paint Shop.



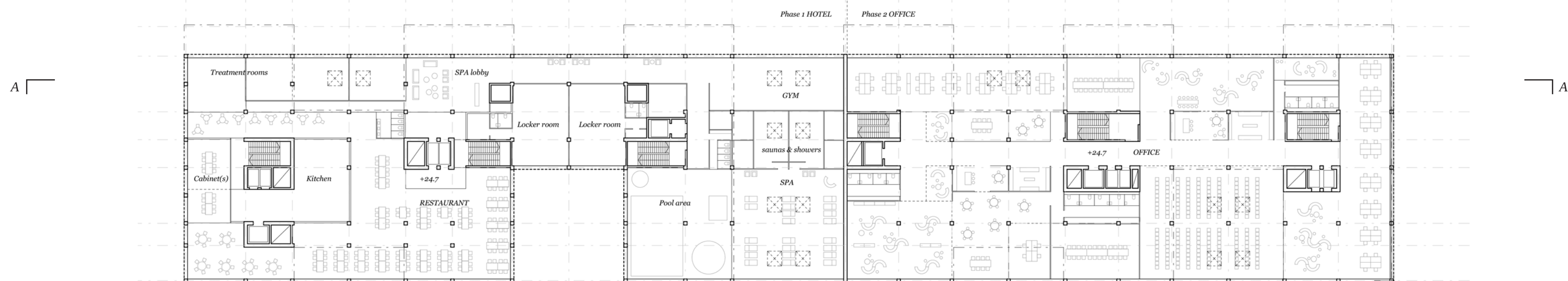
Logistics diagram



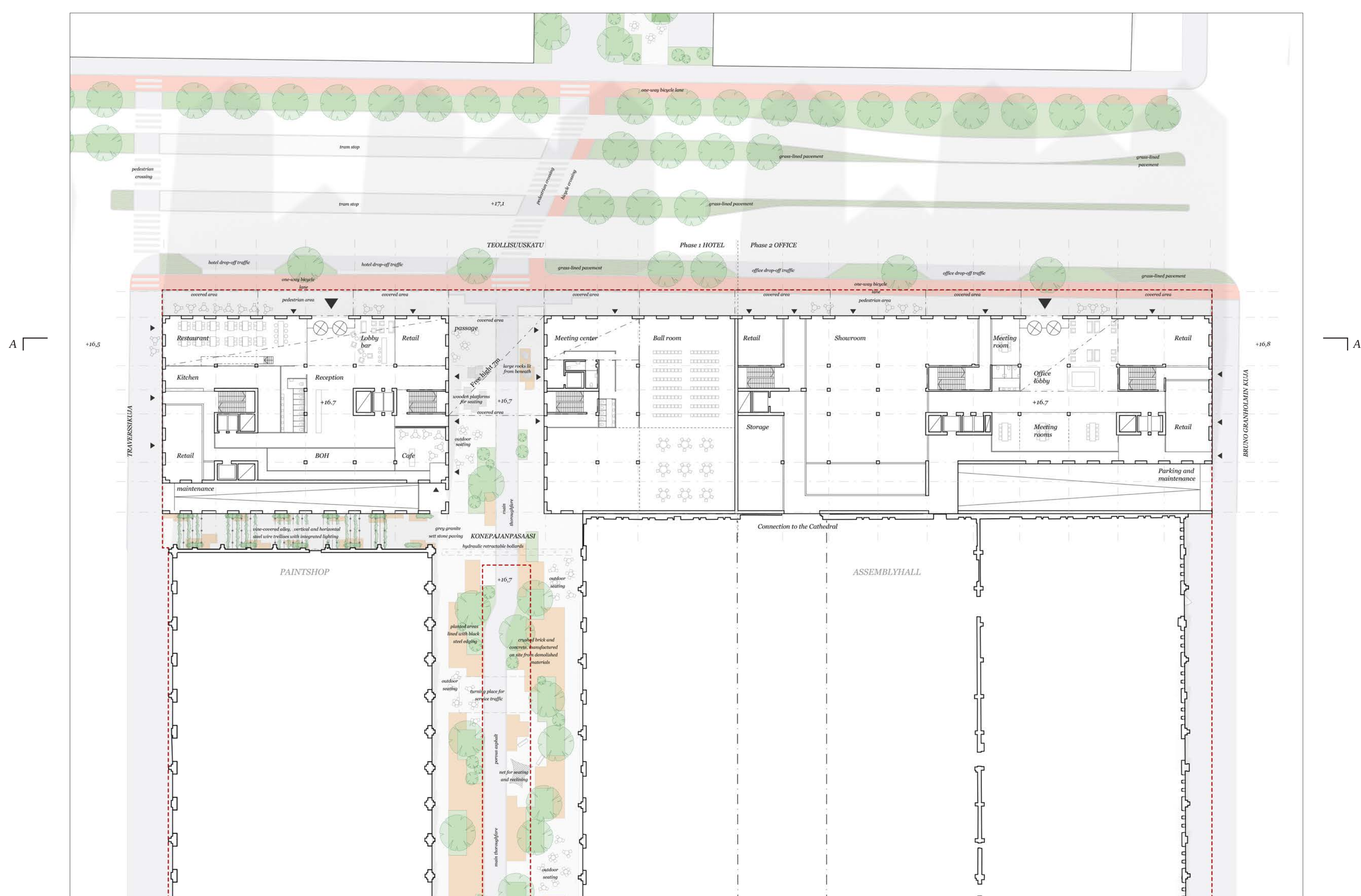
The new facades borrow their themes from the existing old brick facades in the area. Six new facade typologies compared to the existing facades themes.



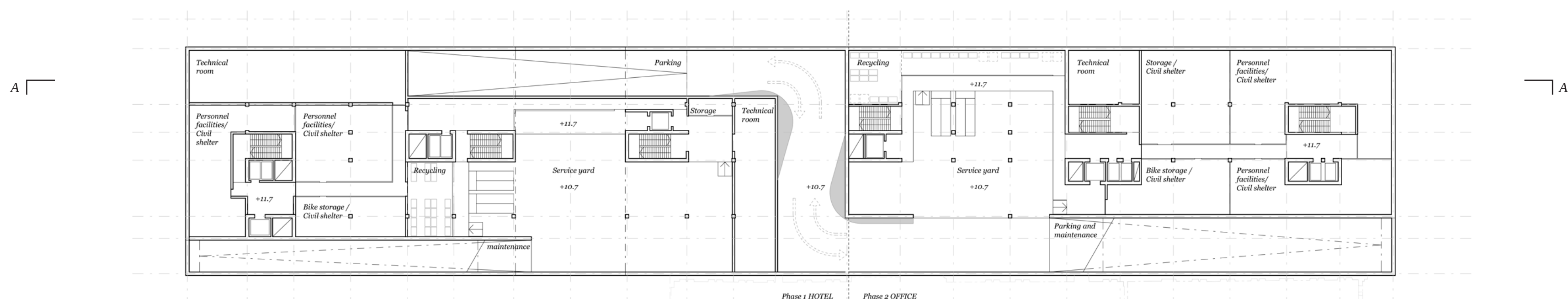
Floor plan, Typical floor 1:500



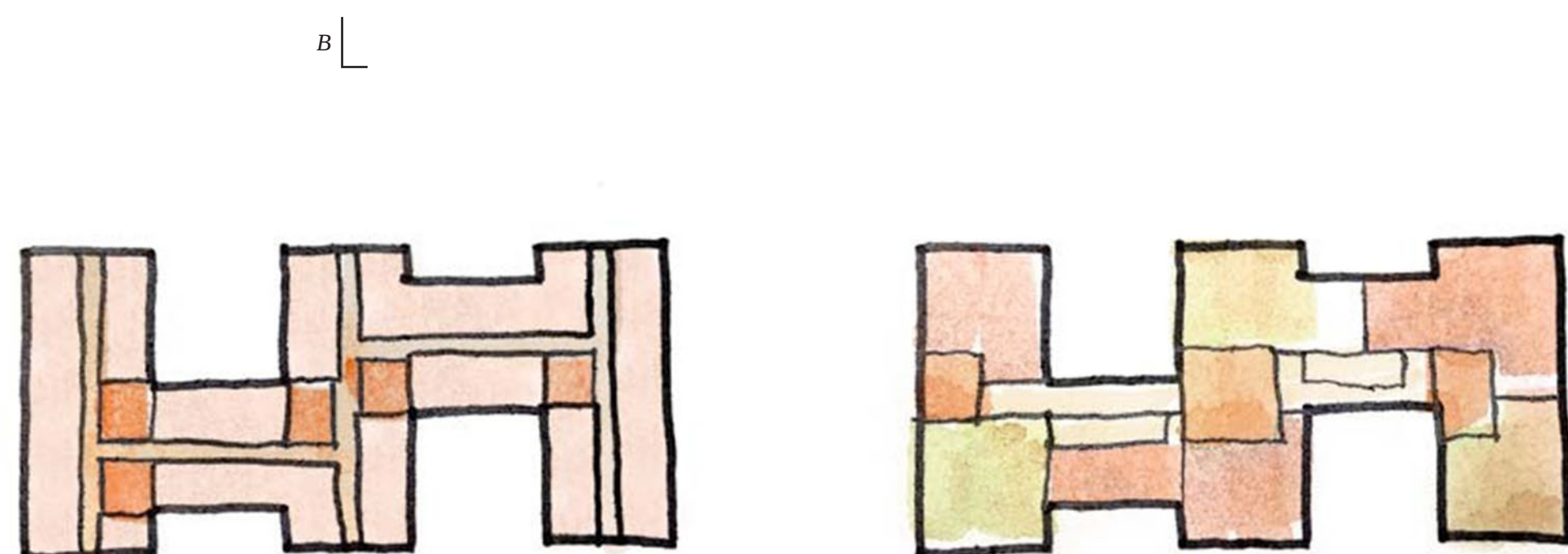
Floor plan, 3rd floor 1:500



Floor plan, Ground floor 1:500



Floor plan, -1. basement 1:500



The floor plans of the hotel and office have identical frame depths. The functions are interchangeable and flexible over time.

AREA CALCULATIONS

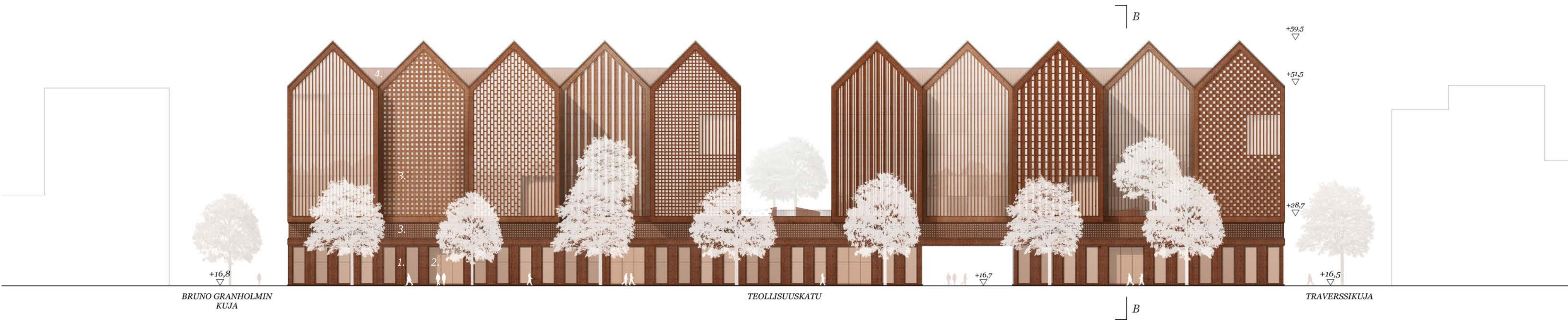
Total Gross floor area 46 605 sqm
Total Net floor area 39 685 sqm

Phase 1 / Hotel (approximately 335 rooms)
Above ground
Gross floor 23 430 sqm
Net Floor 20 300 sqm

Basement -1 2 895 (inc. Driveways)

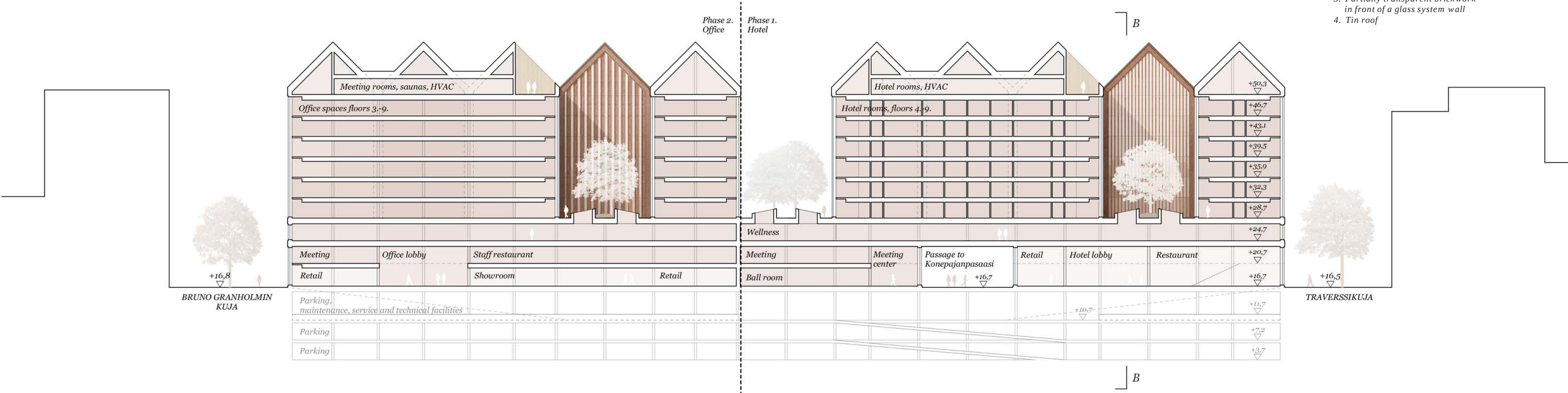
Phase 2 / Office
Above ground
Gross floor 23 175 sqm
Net Floor 19 385 sqm

Basement -1 2285 (inc. Driveways)

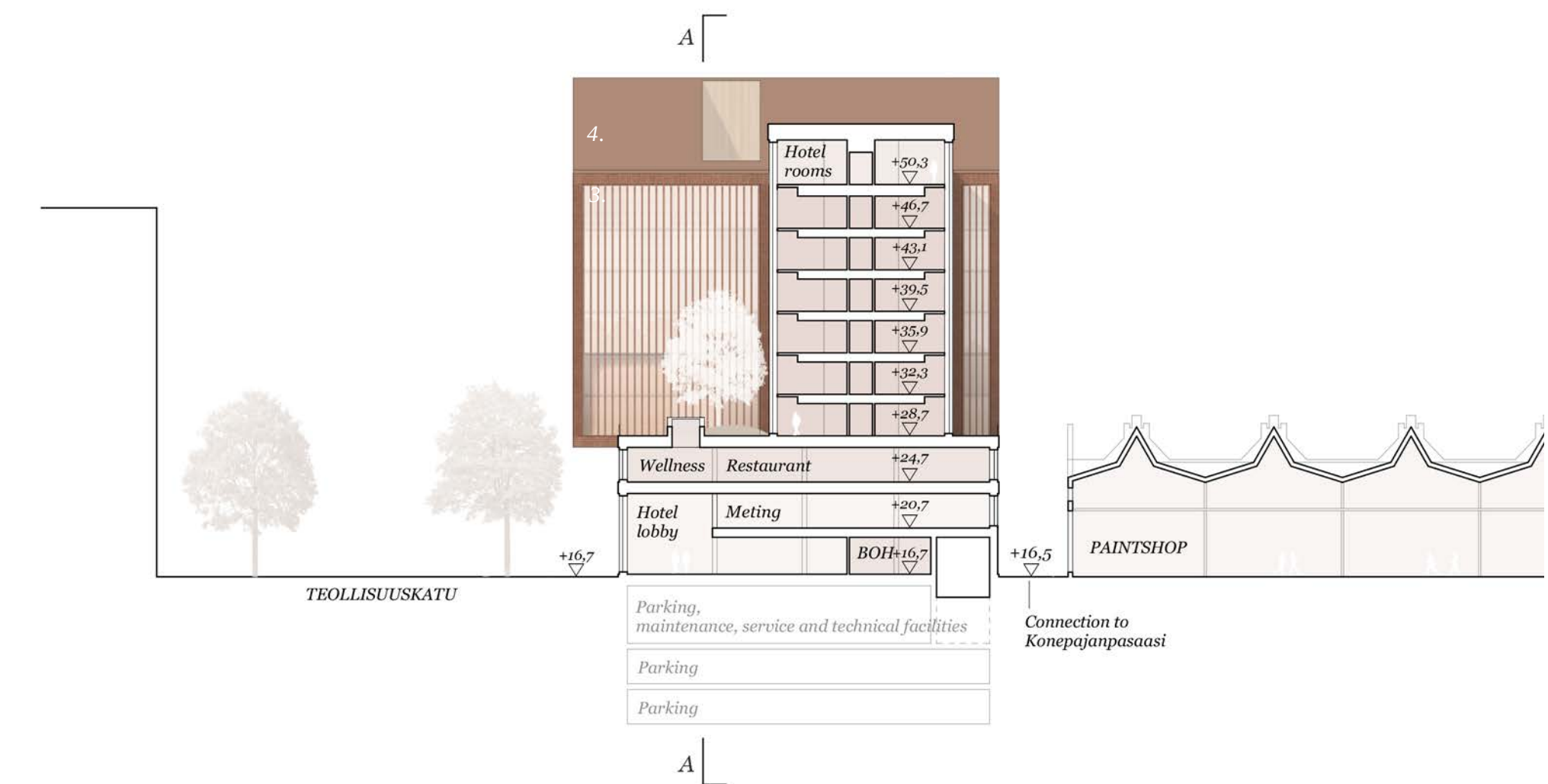


Facade towards Teollisuuskatu 1:500

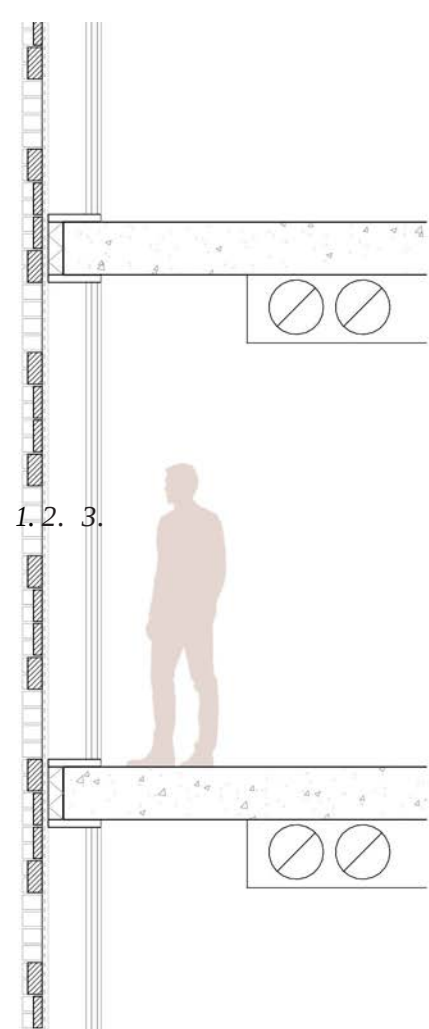
- FACADE MATERIALS
1. Red brick
 2. Glass
 3. Partially transparent brickwork in front of a glass system wall
 4. Tin roof



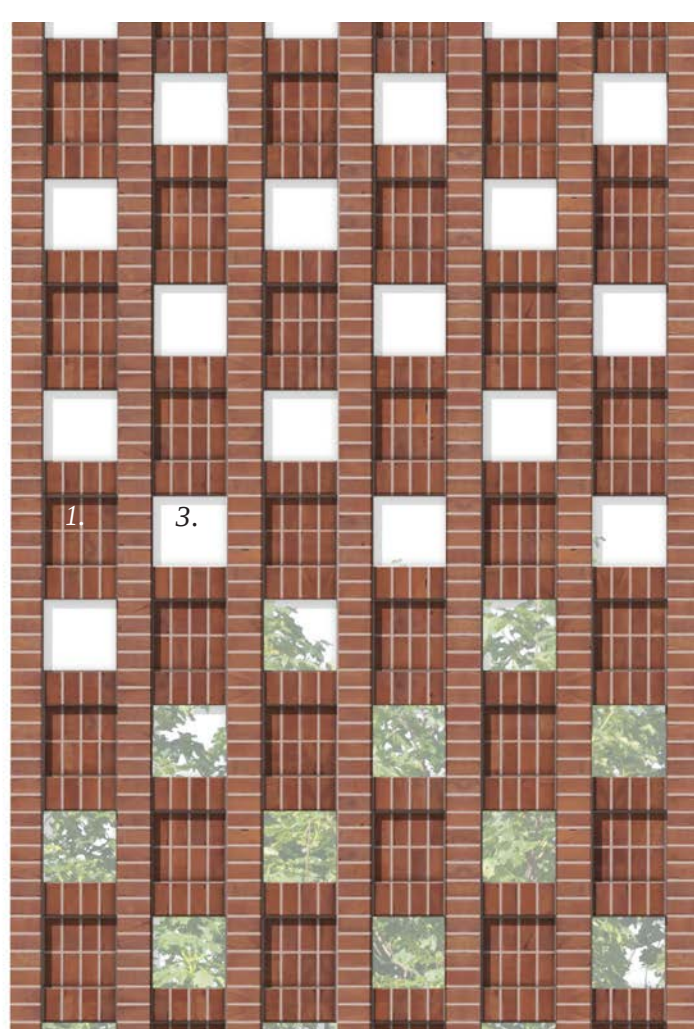
Section A-A 1:500



Section B-B 1:500



Facade Studies 1:50



- FACADE STUDIES
1. Partially transparent brickwork
 2. Steel frame
 3. Glass system wall



Illustration from Teollisuuskatu towards the passage to Konepajansaasi