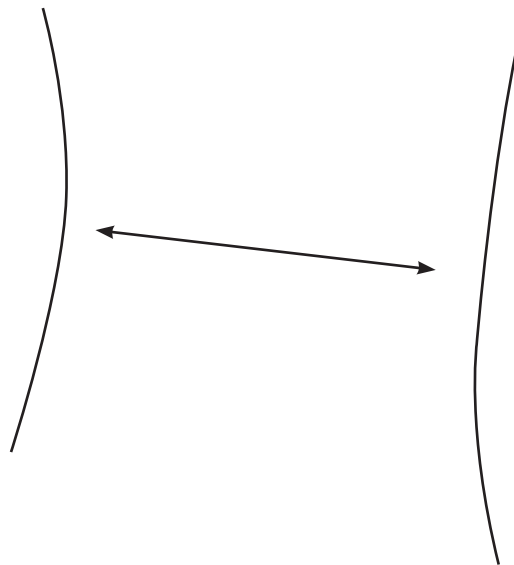


GRADUATION REPORT

CROSSING

BOUNDARIES



Jarl Stok
5846811

AR4MET110
A Matter of Scale

J.A. Mejia Hernandez
M. van der Klooster

PREFACE

Dear reader,

Before you lies my graduation project, titled “Crossing Boundaries”. This thesis represents the final requirement for obtaining my Master of Architecture degree at the Delft University of Technology. It brings together everything I have learned during my studies and shows my personal vision for architecture.

The title “Crossing Boundaries” explains the main goal of this design, which is located in Tallinn, Estonia. I wanted to explore how a modern station can be more than just a functional place to catch a train or bus. Instead, it can be a space that truly connects the city with the people who use it. By utilizing light and sightlines as active design tools, the project seeks to cross both the physical and psychological boundaries of traditional, heavy transit architecture, offering a transparent, connected, and subtle alternative.

A project of this complexity is never realized in isolation. I would like to express my deepest gratitude to my university mentors, Jorge A. Mejia Hernandez and Matthijs W. Klooster. Thank you for your constant guidance, the critical discussions, and your sharp reflections throughout this process. Our conversations really helped me shape my ideas and bring this design to life.

Furthermore, I owe a great deal of thanks to my family, my friends, and my girlfriend. Your continuous support, patience, and invaluable advice during the intense phases of this graduation project have been my foundation.

I hope you enjoy reading my graduation project.

Jarl Stok

Delft, June 2026

ABSTRACT

Historically, transportation infrastructure particularly underground transit hubs has been characterized by heavy, imposing, and closed architectural typologies. This graduation project proposes a departure from this monumental tradition. It redefines the public transit hub as a transparent, subtle, and human-centric urban node. The research explores how infrastructure can transcend its purely functional role as a machine for movement, transforming into an interconnected spatial environment that bridges the gap between the urban fabric and the human scale.

The architectural design in Tallinn is fundamentally driven by a contrasting spatial division. Above ground, the project responds to the fine-grained urban grid through the delicate insertion of three modest, small-scale buildings. These structures blend subtly into the city, forming a soft transition to the heavy infrastructure. Underground, the project manifests as a highly functional, yet it also offera a rich and pleasant spatial expierence for travelers.

By situating the large-scale functional spaces below ground, the street level is kept open and free. This allows for the creation of a new, continuous urban park landscape directly within the city center. This park functions as the ultimate connective tissue, it not only integrates the various modes of transport (train, bus, bicycle and parking facilities) but also stitches the fragmented surrounding neighborhoods back together.

The final architectural and urban experience is guided through four main spatial themes: the manipulation of light, clear sightlines, the integration of the park, and the introduction of drama to create spatial tension and a heightened sensory experience into the transit landscape.

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PART 1
Introduction

Note:
The topics from the graduation guide are replaced with the five main questions from the studio, know as the five W.
Who, What, Where, When, Why

Who

Situated within the dense urban fabric of Tallinn, a significant spatial void creates a distinct separation between the historic Old Town and the rapidly developing northern districts. The origin of this discontinuity lies in the legacy of the city’s railway infrastructure. Although portions of the historical tracks have been removed, the linear footprint of this industrial past has never been successfully reintegrated into the modern city structure. Consequently, the site remains a scar in the urban fabric, acting as a physical and psychological separation rather than a connector. The existing train infrastructure operates as a complex, threefold boundary that fragments the city:

First, it acts as a visual barrier, while opposing districts remain within sight, the lack of passability creates a frustrating condition of ‘visible but unreachable’ proximity.

Second, it functions as a topographical barrier, characterized by engineered embankments and physical obstructions that hinder pedestrian flow and break the continuity of the street level.

Third, it exists as an undefined barrier, an indeterminate spatial vacuum lacking clear ownership, program, or identity, effectively alienating the zone from the daily life of the city.



Map of Tallinn highlighting the voids between the old town and surrounding districts.

Legend
Voids
Buildings

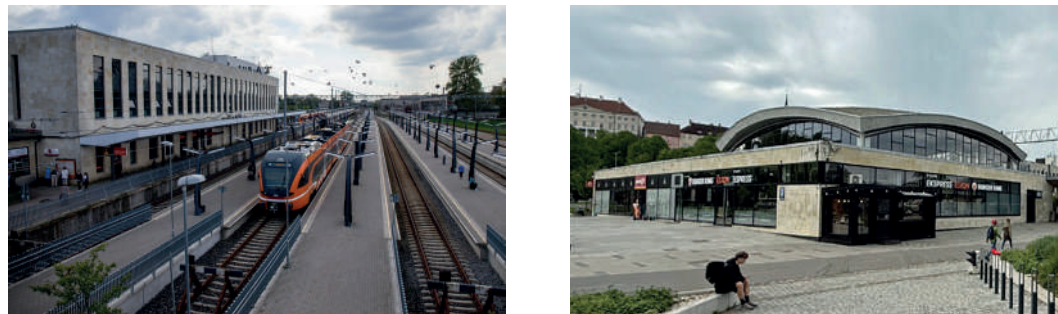
Photo's of the void between the old town and surrounding districts



What

The project entails the comprehensive transformation of the Balti Jaam terminal into a modern, integrated mobility hub. Currently, the station fails to embody the status of a capital city gateway, the arrival experience is fragmented, and the logistical routing is chaotic. The existing station pavilion, constructed in 1967 in the Soviet-Modernist style, no longer meets contemporary standards for passenger flow, accessibility, and spatial quality.

Beyond the train terminal itself, the project addresses adjacent, disconnected infrastructural elements, such as the underdeveloped regional bus terminal and the scattered surface parking surrounding the tracks. The design intervention aims to combine these disparate nodes being “the train platforms, the bus station, a underground parking garage, and the bicycle parking” into a single, cohesive multimodal hub. By bringing this together, the project transforms the existing urban void from a physical barrier into a vital civic connector, facilitating a seamless transition between the various transport modes and the surrounding public realm.



Photo's of the existing Balti Jaam station

Where

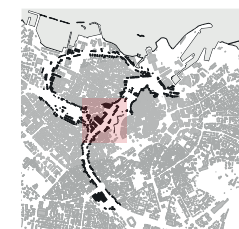
The project is strategically situated at the interface of the Telliskivi cultural area and the Kelmiküla district, extending across the perimeter of the existing Balti Jaam station towards the Old Town. Where these districts are currently severed by infrastructure, the intervention aims to spatially reconnect them. A crucial aspect of the site strategy is the incorporation of the adjacent surface parking lots and residual infrastructural plots, repurposing these terrains vagues into high-quality, programmed public spaces.



Zoom-in of three districts of Tallinn

Legend

■	Buildings
■	Roads
■	Side walk
■	Green
■	Water

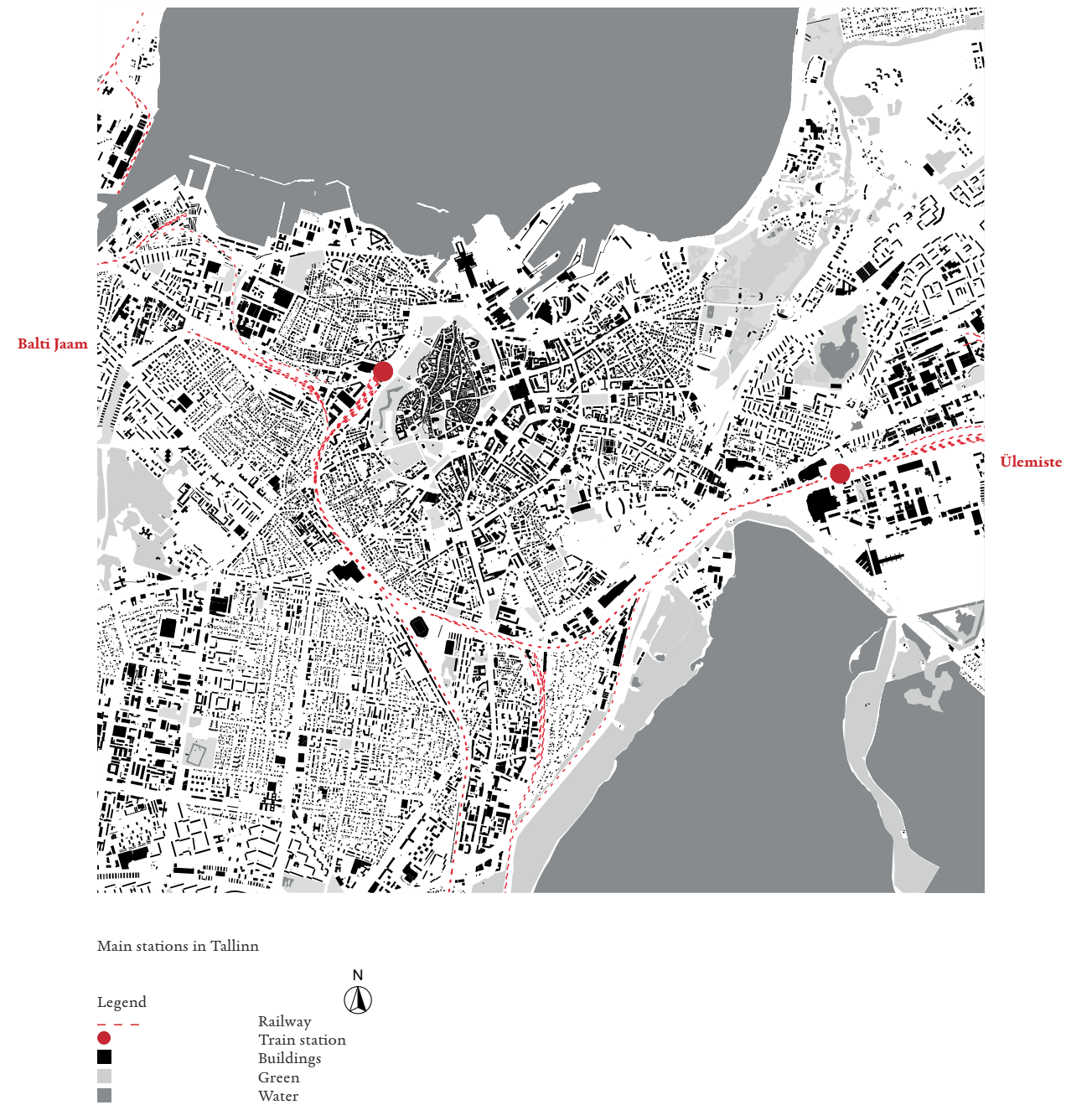


When

The realization of this project is envisioned to contextualize with the completion of the international Rail Baltica terminal at Ülemiste. Within this future logistical hierarchy, Ülemiste will serve as the high-speed international entry point, while Balti Jaam is redefined as the primary distribution hub for the city center. It will act as the crucial transfer link connecting arrivals from Ülemiste to the historic core, while simultaneously retaining its vital role as the central departure point for the national domestic rail network (Elron).

Why

The project's primary objective is to establish a defined, welcoming 'City Gate' for both residents and visitors. The historical infrastructural boundaries have resulted in a sharp spatial and social segregation between the adjacent neighborhoods. This architectural intervention presents a unique opportunity to "stitch" the urban fabric together by dissolving these physical borders. By reconfiguring the area into a legible multimodal hub, the design will not only optimize urban mobility but also act as a spatial catalyst for social cohesion, permanently bridging the gap between Tallinn's historic core and its dynamic northern districts.



PART 2

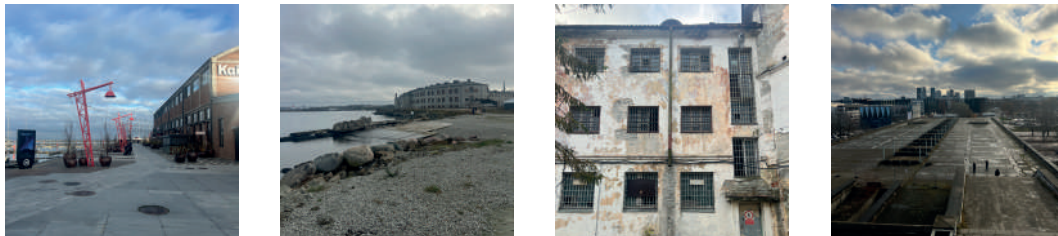
Approach

IMMERSIVE FIELDWORK

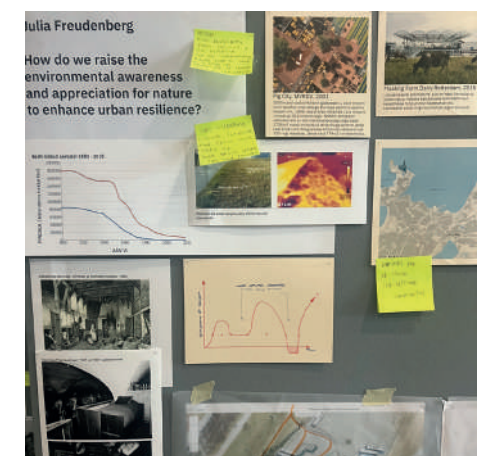
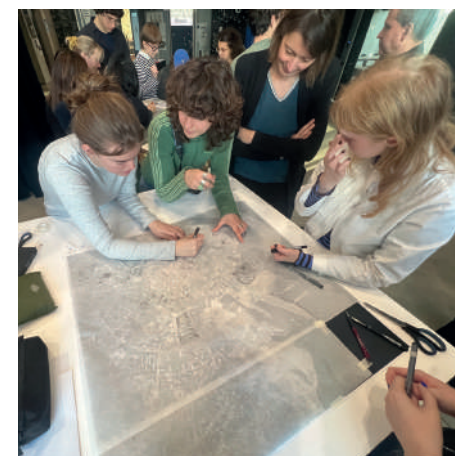
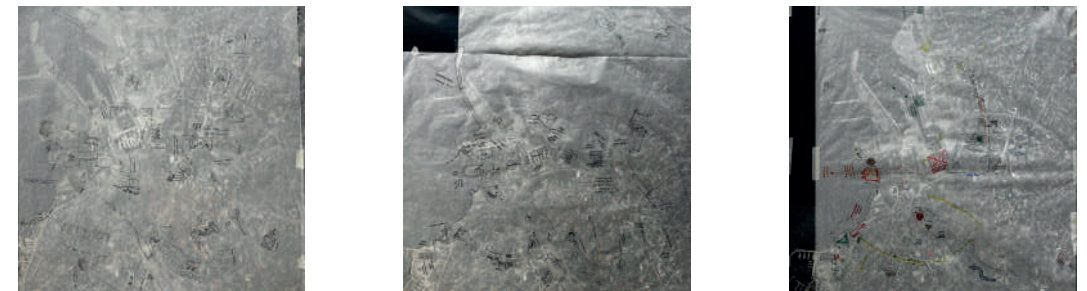
An excursion to Tallinn served as the starting point for understanding the local context. We documented the city through a series of observational city walks, quick design assignments, and analytical exercises. This approach helped us examine the urban fabric from different perspectives, specifically comparing the temporary experience of a visiting tourist with the daily life of a local resident.

As part of the site analysis, we created 'hairy drawings' layered sketches used to bring together our spatial findings from the week. Combined with interviews with local inhabitants, this hands-on approach gave us a clear view of the social dynamics in Tallinn and the specific context of our design area. Finally, an extended analytical walk along the existing railway corridor provided crucial insights into some spatial and physical urban problems that can be resolved.

Photo's of excursion in Tallinn



Hairy drawing





LAURA [1:10]



Laura carrying all her bags arriving at station

BABUSHKA [1:100]



Babushka in her selling spot with her stuff

DAVID [1:1000]



David in front of the train he coordinated

Today the 17th of November 2025, I depart from home to go home. The silver lining that trails the train that awaits me is the same that contours the plate that my parents fed me.

I step off the bus; cold air strikes my face. I walk toward the crosswalk, on one side, cars rush past, on the other, the quietness of the park and the old town, breathing slowly. I wait for the light to turn green.

Tired I awake. A punctual job yet all the people I see are a haze, no face too interesting to remember. Good and bad, kind and miserable, sober and drunk, but the route I take really is beautiful.



Train tracks awaiting, silver lining awaiting her and the light of hope.

As they bring me to Tapa, goodbyes don't get any easier and on I wait. The wait didn't get any shorter as I waited elsewhere on the Tartu-Tallinn train.



Balti Jaan, flock of people



Diversity of people catching the train

Forests, rooftops, bits of Baltic light sneaking between buildings as Tallinn shows itself off in small, quiet ways from the corner of my eyes. The tracks are my full attention, a climbing ladder I never quite reach the top of. A steady steel forward motion perpetual to me, I too run the rail. Either end of the binary it is the same, a swinging pendulum suspended by time and its duality.



Indoors of Balti Jaan station, walking on everything

Engulfed I was in the Estonian landscape as I embrace the good times spent with family. My arrival straps on my shoulder the heavy burden of leaving them behind like the backpack and armbag I was wearing. Which comes first I don't know, but it did matter and does matter as one takes away the other.



Group walking with lanterns old city

There, I place my warm socks on the ground and stand behind them, hands tucked deep into my jacket, watching people stream past. Tourists, workers, students, everyone moving, no one connecting. Rain begins to fall. The cold settles in. I stay. The socks grow wet; I do not move. Every day, week after week, the scene repeats. Nothing changes.



A hierarchical view from conductor's cabin

Forwards or backwards. Going or coming back, black or white. The only grey is the sky and that 30-minute break I get to take to experience it. Tallinn though remains beautiful and I am happy to bring to it.



People and their carried weight

Interlocked with the bones that hold me up my movement stiffens as the cold freezes the time and memories we made. Should I stay or should I go? I took the taxi instead; the promise land awaits me just one ferry away.



Group walking with lanterns old city



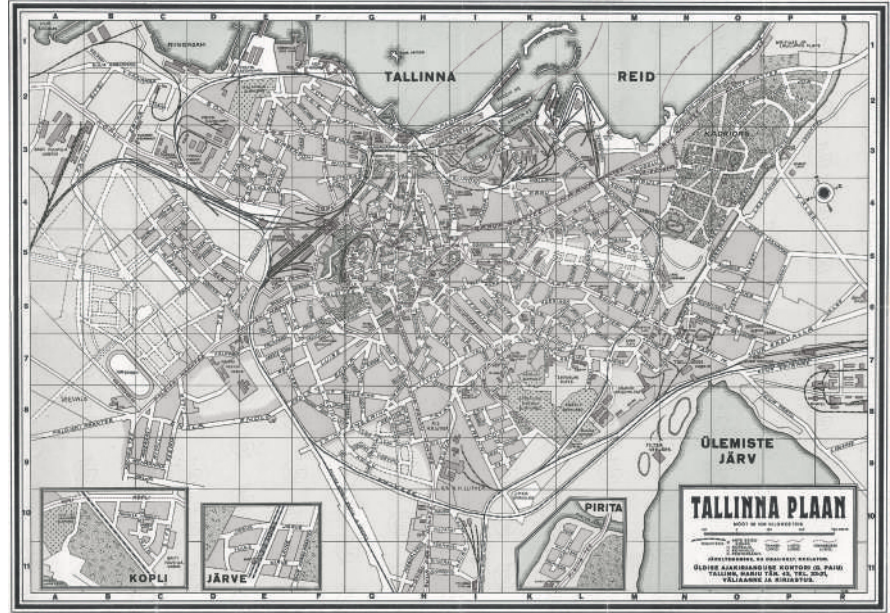
Aerial progression of the Balti Jaan cross section

Analytical walk along the railway



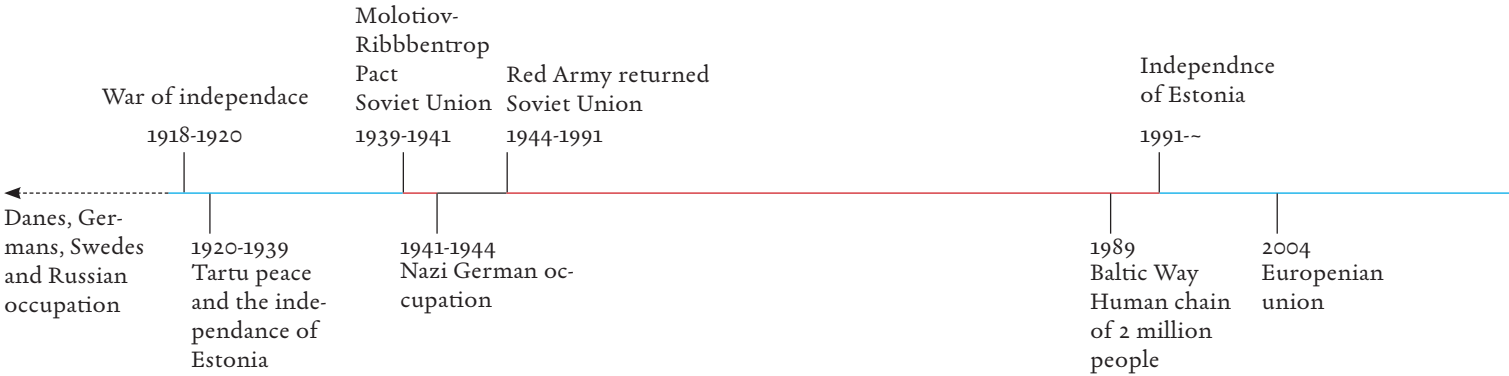
HISTORICAL & MORPHOLOGICAL ANALYSIS
Approach

To understand the origins of the urban voids identified in Tallinn, an analytical study of the city's history was conducted. By superimposing historical maps and analyzing archival photographs, the morphological evolution of the urban fabric was traced. Specific focus was placed on the city's industrial heritage and the spatial development of the railway infrastructure. Finally, compiling timelines of Estonia's national history, the industrial revolution, and local railway usage provided crucial insight into the historical evolution of the train network.

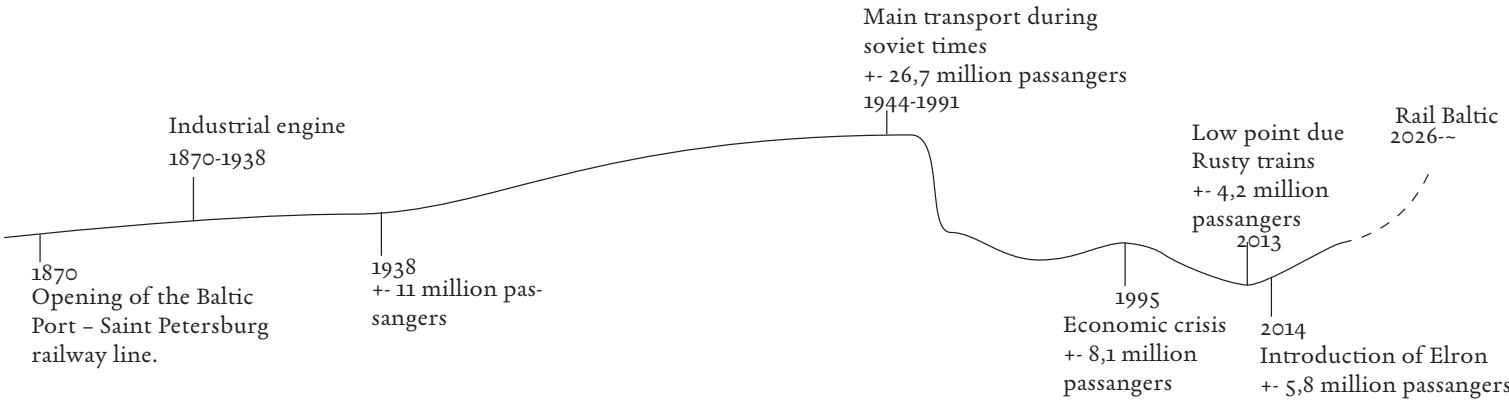


Railway system of Tallinn around 1925

Timeline of the history of Estonia



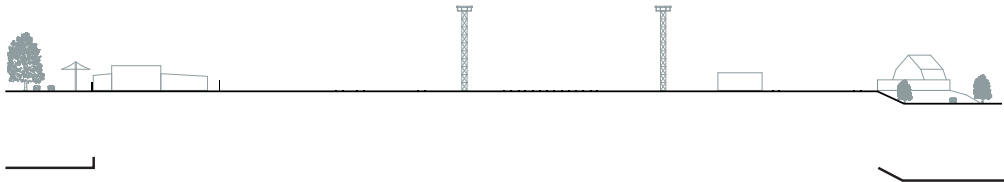
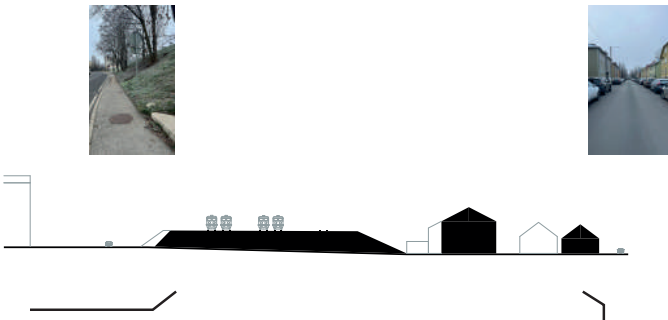
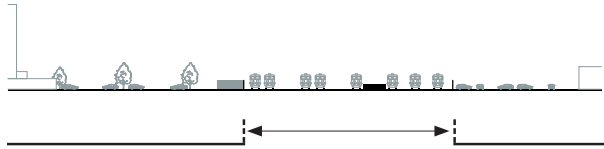
Timeline of train use in Estonia



TYPES OF BOUNDARIES

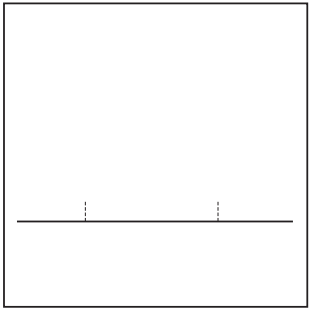
By physically following the trajectories of both active and defunct railway lines, various boundary conditions were identified. These spatial barriers were systematically cataloged and visualized through cross-sections and photography. The analysis revealed that the infrastructural edge in Tallinn is defined by three distinct types of boundaries: a visual barrier, a topographical barrier, and an undefined zone.



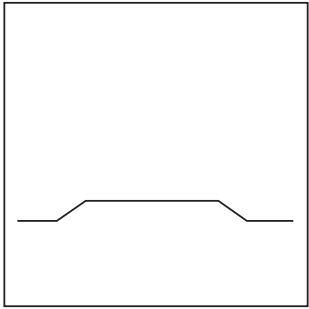


These sections are taken at locations where the railway currently acts or historically acted as a physical boundary to its surroundings. Above each section, photographs illustrate the existing boundaries, while the analytical drawings below provide a simplified visualization of these barriers.

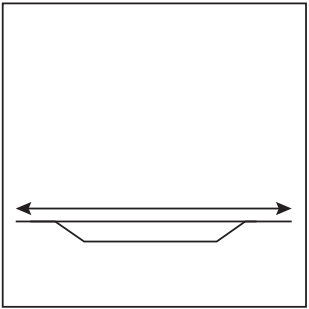
Visual barrier



Topographical barrier



Undefined zone



FUNCTIONAL ANALYSIS

For the purpose of this functional analysis, a distinct set of performance criteria was established to evaluate railway stations. The following parameters form the primary selection variables.			
- Station Typology (Configuration)			
Terminal station	Junction station	Central station	Halt stations
- Vertical Alignment (Track elevation)			
Elevated station	Groundfloor station	Underground station	
- Passenger Throughput (Daily ridership volume)			
Very large	Large	Medium	Small
- Hub Functionality (Intermodal connectivity)			
Big central hub	Central hub	Terminal specific routes	

The intersection of these variables informs the subsequent diagram. Applying this classification framework to the Tallinn Railway Station (Balti Jaam), the following characteristics are identified.

- Configuration:	Terminus (Dead-end station)		
- Track elevation	Groundfloor station		
- Scale:	Medium Capacity (20,000 – 50,000 daily passengers)		
- Role:	Central Hub (Primarydomestic capital node; non-international)		
Terminal station	Junction station	Central station	Halt stations
Elevated station	Groundfloor station	Underground station	
Very large	Large	Medium	Small
Big central hub	Central hub	Terminal specific routes	

The following stations are identified with the same characteristics as the Bali Jaam station. As an example, the design for the Groningen station has been included. This analysis has also been developed for the other stations.

Name: Groningen central station	Terminal	junction	central	halt
Location: Netherlands (Groningen)	Elevated	groundfloor	underground	
Visitors: 33.000 - 44.000 / day	Very large	Large	Medium	Small
	Big central hub	Central hub	Specific route	

Name: Wiesbaden Hauptbahnhof	Terminal	junction	central	halt
Location: Germany (Wiesbaden)	Elevated	groundfloor	underground	
Visitors: 46.000 / day	Very large	Large	Medium	Small
	Big central hub	Central hub	Specific route	

Name: Brighton central station	Terminal	junction	central	halt
Location: England (Brighton)	Elevated	groundfloor	underground	
Visitors: 42.000 / day	Very large	Large	Medium	Small
	Big central hub	Central hub	Specific route	

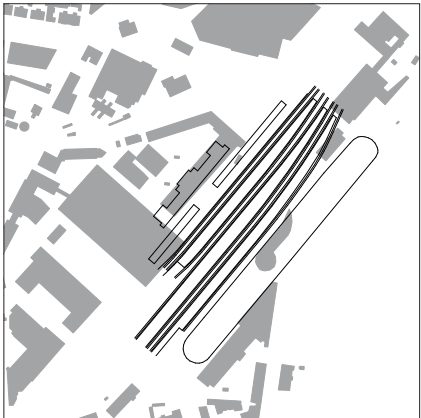
Name: Kiel Hauptbahnhof	Terminal	junction	central	halt
Location: Germany (Kiel)	Elevated	groundfloor	underground	
Visitors: 37.000 / day	Very large	Large	Medium	Small
	Big central hub	Central hub	Specific route	

Name: Liverpool Lime Street	Terminal	junction	central	halt
Located: England (Liverpool)	Elevated	groundfloor	underground	
Visitors: 42.000 / day	Very large	Large	Medium	Small
	Big central hub	Central hub	Specific route	

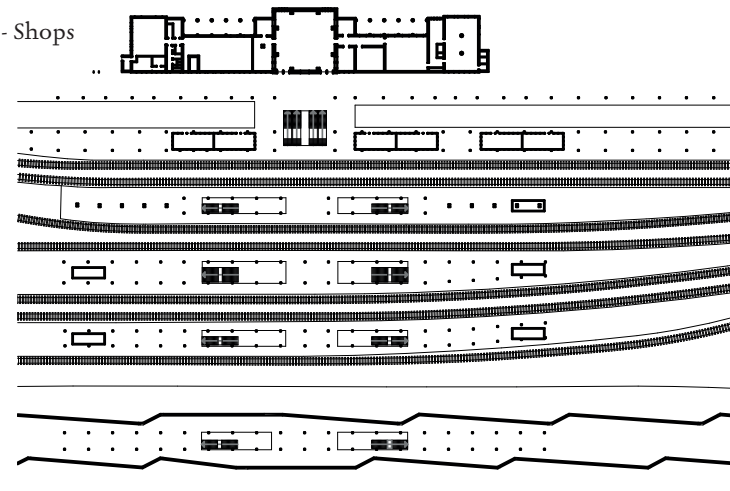
GRONINGEN CENTRAL STATION

Location: Netherlands (Groningen)
Visitors: 33.000 - 44.000 / day
Building year: 2026
Architect: Koen van Velsen architecten
Area: 80.000 m²

- Functions:
- Train station
 - Bus station
 - Bicycle storage
 - Café
 - Food
 - Shops



Situations aggregated



o. Ground floor



Characteristics of the station

Terminal	junction	central	halt
Elevated	groundfloor	underground	
Very large	Large	Medium	Small
Big central hub	Central hub	Specific route	

Based on a functional analysis of reference train stations with comparable dimensions, a comprehensive list of programmatic functions and user profiles was compiled. These requirements will serve as a foundational framework, acting as both a functional checklist and a reference guide for the next design phases.

- Users:
- Train
 - Bus
 - Bicycle parkings
 - Central square
 - Kiss and ride
 - Parking space

Station:	Bus station:	Bike storage:	Parking garage:
- Cafe	- Kiosk	- Bike repairshop	- Ticket area
- Restaurant	- Toilet	- Staff room	
- Ticket office	- Staff room	- Toilet	
- Information point	- Ticket office		
- Staff room	- Installations		
- Shops	- Waiting area		
- Toilet			
- Accessible toilets			
- Lockers			
- Cleaning room			
- Installations			
- Waiting area			

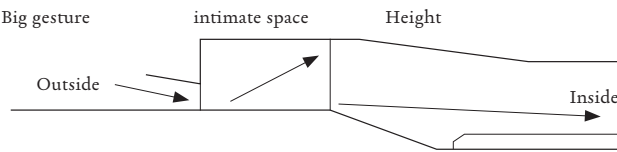
ARCHITECTURAL CASE STUDY

To define the architectural qualities and atmosphere of the station, a qualitative analysis of reference projects was conducted. These precedents provided essential design principles regarding natural light, materials, and spatial organization. The following buildings were selected for analysis:

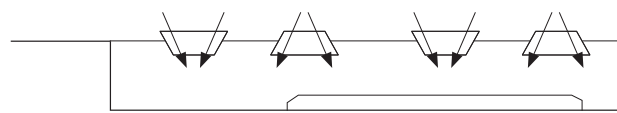
- Huelva Central Bus Station (ES)
- Sevilla Santa Justa (ES)
- Firenze Santa Maria Novella (IT)
- Delicias Intermodal Station, Zaragoza (ES)
- Basel SBB (CH)
- London Bridge Station (UK)

The following architectural qualities where concluded from this analysis:

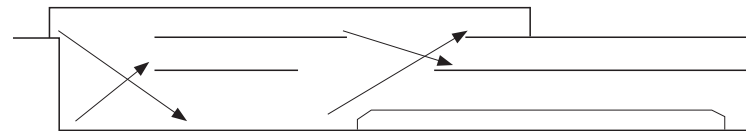
Difference in scales



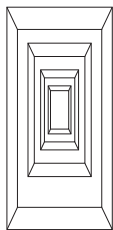
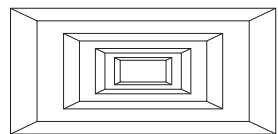
Natural light



Connection on defferent heights



Creating scenes



ARCHITECTURAL CASE STUDY

Case study: Sevilla Santa Justa (ES)

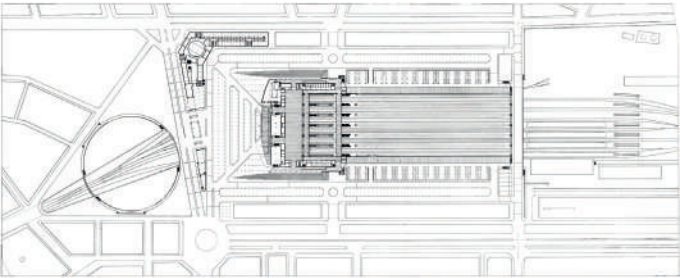
Name: 'Santa Justa'

Location: Spain (Sevilla)

Architect: Cruz y Ortiz Arquitectos

Year: 1991

Function: Railway station



Architectural quality's:

Monumental

Difference in scale

Light incidence



“STATE OF THE ART” TRANSPORTATION HUBS
The evolution of the transportation hub: From node to destination

The modern transportation hub has undergone a fundamental shift. It is no longer merely a functional processing point for arrivals and departures, it has evolved into a destination in itself. This represents a transition from a focus on pure efficiency (moving passengers as quickly as possible) to a focus on experience (encouraging users to stay, relax, and connect). In this new paradigm, the hub acts not as a terminus, but as a seamless connector between the urban fabric and global mobility networks. The Urban Zipper Model. Current state-of-the-art design is defined by the concept of the “Urban Zipper.” Historically, the station functioned as a “Gateway” a monumental facade that acted as a border between the city and an industrial warehouse of trains. The modern model dissolves this barrier. Instead of separating districts, the station functions to “stitch” different parts of the city together, repairing the urban landscape.

A Layered Landscape To achieve this integration, modern hubs utilize a “Layered Landscape.” By stacking functions vertically, architects can minimize walking distances and optimize travel time without expanding the building’s footprint. Crucially, the ground floor is treated as a continuous public space. The station square flows seamlessly into the interior and towards the platforms, removing the distinction between “outside” and “inside.”

Architecture of Flow Navigation within these spaces is driven by an “Architecture of Flow.” Rather than relying on signage, the building itself guides the passenger. The manipulation of natural light and the organic forms of ceilings and walls provide intuitive visual guidance, leading travelers naturally from the main building to the platforms.

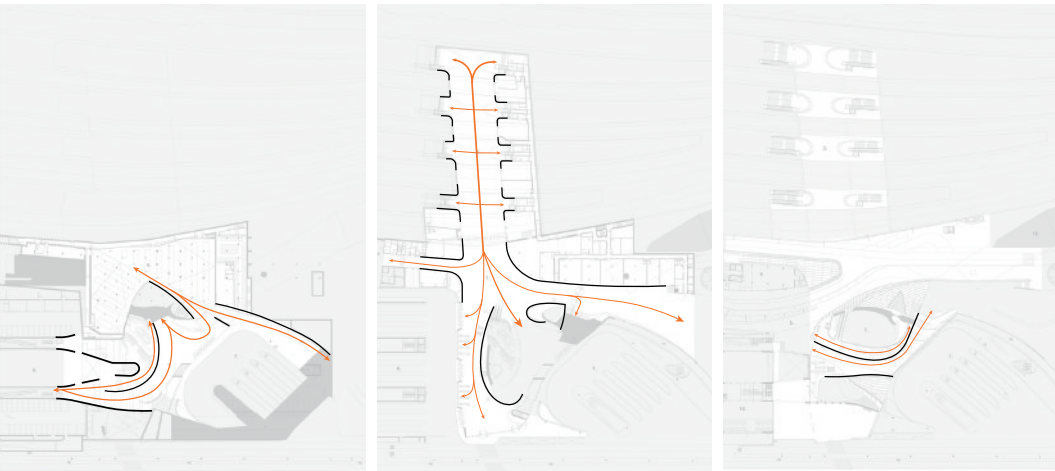
The Station as a Living Room Finally, the modern hub adopts a “Living Room” function. The use of warm, tactile materials such as wood and natural stone creates a sense of safety and domesticity, contrasting with the cold steel of the past. In this environment, the psychology of waiting changes. With the ubiquity of laptops and smartphones, the platform transforms into a temporary workspace. Waiting time becomes “quality time,” allowing the station to function as a dynamic extension of the office.

Case study’s To validate these theoretical shifts, four contemporary hubs serve as the modern “state of the art” transportation hubs. Each project emphasizes a specific aspect of the transition from processing node to urban destination.

Arhem station
Napoli Afragola
Stuttgard 21
The Oculus station

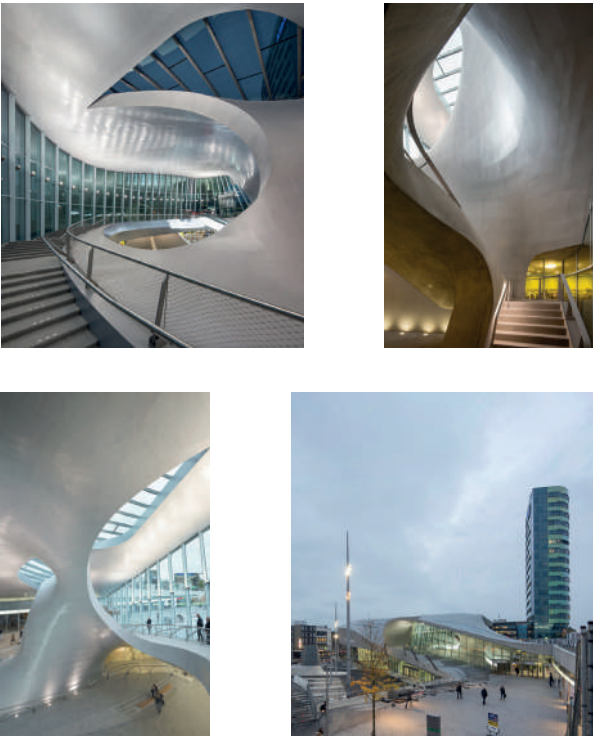
Arnhem station

Designed by UNStudio, Arnhem Central is the definitive realization of the “seamless transition.” The terminal eschews traditional columns in favor of a “Klein Bottle” geometry, where floors, walls, and ceilings form a single, continuous surface. This design physically enforces the architecture of flow, guiding passengers intuitively through the vertical landscape without the need for excessive signage, effectively dissolving the distinction between the city street and the train platform.



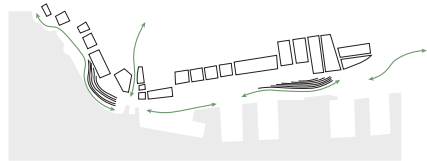
Passenger flow directed by the fluid connectivity of walls, ceilings, and levels.

"Infrastructure involves a distinct type of architecture: the architecture of flow. It is rarely static."

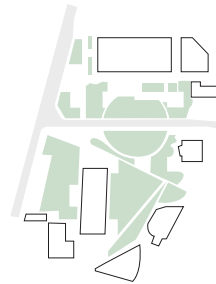


PARK DESIGN

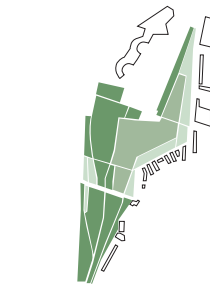
Concepts of Park Design



Organic Morphology
Brooklyn Bridge Park



Orthogonal Rigidity
Parc de la Villette



The Hybrid Framework
Park am Gleisdreieck

The spatial configuration of planes, paths, and functions within a park determines the sensory experience and the manner in which the landscape interacts with the surrounding urban fabric. The layout of a park is rarely merely aesthetic, it represents a specific design methodology that governs the relationship between the built city and open space. Within contemporary landscape architecture, three fundamental compositional variants can be distinguished.

Organic Morphology

In the first variant, there is a deliberate break from the hard, orthogonal logic of the surrounding architecture. The park is designed according to a biomorphic system, where paths and vegetation planes take on fluid, undulating forms that refer to natural processes such as erosion or sedimentation. The spatial layout works with gradients rather than sharp dividing lines, the transition from an open lawn to dense planting occurs subtly through a succession of diverse vegetation layers. This typology creates a powerful contrast with the rigid urban environment and facilitates an intuitive form of movement. The visitor is not forced into a linear pattern but is enticed by shifting perspectives and organic spaces that slowly unfold. The architectural goal here is to create a soft, secluded enclave that absorbs urban pressure and stimulates a natural perception of time.

Orthogonal Rigidity

Opposite the organic approach stands the variant organized according to strict geometric and rational principles. This approach explicitly seeks alignment with the formal language of urban buildings and extends the lines of the street plan or the surrounding building lines into the landscape. The layout is characterized by clear asymmetry, defined sightlines, and geometric planes often based on a modular grid system. The use of architectural materials such as concrete, steel, and tightly pruned hedges reinforces the definition of space. This type of park functions as an “urban room”, functions are programmatically sharp and the space possesses a strong formal identity. This strategy is particularly effective in contexts where the park fulfills a representative role and must confirm or complete the architectural order of the surrounding ensemble.

The Hybrid Framework

The third variant forms a synthesis between both extremes by combining a strict, overarching framework with a high degree of internal variation. In this system, a rigid structure (for example, an infrastructural grid or a repeating pattern of linear elements) acts as the spatial carrier. Within the “fields” of this grid, however, a fragmented landscape emerges in which each compartment can adopt its own identity and micro-ecology. This principle of a fixed structure with heterogeneous infill ensures high visual and programmatic variation within an orderly system. It allows the designer to let diverse functions, such as sports fields, wilder biotopes, and social gathering spots, coexist without losing the overarching architectural unity. This hybrid form is highly effective in a complex urban context, as it offers both the necessary legibility and the flexibility for biodiversity development and spontaneous use.

NATURAL LIGHT

Light as a Tectonic and Phenomenological Design Tool



1. The Fulton Center
(Grimshaw Architects)



2. Louvre Abu Dhabi
(Jean Nouvel)

Within architecture, light is not merely considered a quantitative, functional requirement for visibility, but rather a fundamental spatial and phenomenological design tool. The manner in which natural and artificial light is manipulated dictates the perception of scale, materiality, and spatial hierarchy. In design practice, five architectural lighting principles can be distinguished that define the interaction between human beings and the built environment.

1. Zenithal Light

Zenithal light, or top lighting that penetrates the space through roof openings or voids, generates a strong spatial hierarchy. Vertical light possesses the ability to dramatize the geometry of a space and emphasize its monumentality. Furthermore, in complex infrastructure, it functions as a crucial instrument for intuitive orientation (wayfinding). Users are subconsciously drawn to zones of high light intensity, allowing the architecture itself to direct pedestrian flows and reducing the reliance on explicit signage.

2. Filtered Light and Tactile Space

Where direct sunlight can cause glare and thermal overload, the use of architectural filters such as louvers transforms this harsh light into diffuse light. Hard, flat light quickly reduces a space to a purely visual and cold experience, whereas filtered light and the resulting rhythmic interplay of shadows enhance the tactile and multisensory qualities of the architecture. This softens the space and reintroduces a human scale to otherwise overwhelming volumes.



3. Kimbell Art Museum
(Louis Kahn)



4. Church of the Light
(Tadao Ando)



5. Kunsthaus Bregenz
(Peter Zumthor)

3. Indirect Lighting and Material Expression

The perception of gravity and materiality can be optically manipulated through indirect lighting. By washing a structural surface with light (wall-washing) rather than illuminating the empty space, the pure texture of the selected materials is accentuated. Through this technique, heavy structural elements appear to become weightless or float, strengthening the tectonic expression of the building and bringing its material (such as the grain of wood or the roughness of concrete) to life.

4. Sculptural Light and the Architecture of Shadow

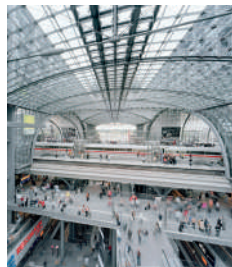
A completely homogeneous light distribution results in a flat and monotonous spatial experience. Deliberately designing with extreme contrasts between light and dark generates spatial tension and depth. Brightly lit axes guide dynamics and circulation, while the creation of semi-dark, sheltered zones within a larger public interior is essential to offer spatial intimacy and a psychological sense of refuge to the user.

5. Visual Dematerialization and the Lantern Effect

During the transition from day to night, the relationship between a building and its urban context undergoes a fundamental change. When a volume is illuminated from within behind a glass or semi-transparent facade, a process of visual dematerialization occurs. The physical barrier of the facade visually dissolves, the heavy mass recedes into the background, and the building manifests itself as a luminescent, inviting lantern that seamlessly blurs the boundary between the interior and the surrounding public realm.

SIGHT LINES

Architectural Sightlines as an Instrument for Spacial Choreography



1. Berlin Hauptbahnhof
(gmp Architekten)



2. Guggenheim Museum
(Frank Lloyd Wright)

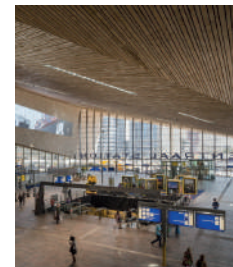
Within architecture, sightlines (the uninterrupted visual connections between the observer and a spatial target) are considered one of the most powerful instruments for the spatial choreography of a building. While physical boundaries and walls dictate physical movement, sightlines guide the gaze, spatial comprehension, and psychological experience of the user. In design practice, five fundamental principles regarding sightlines can be distinguished that define spatial choreography and user interaction.

1. Intuitive Orientation and Wayfinding

In complex, multi-layered public infrastructure, strategic sightlines are crucial for intuitive wayfinding. By making key functions (such as vertical circulation, platforms, or exits) visible from a distance, physical signage becomes secondary. The architecture itself guides the user: people are subconsciously drawn to what they can clearly perceive. This visual clarity results in an efficient, stress-free flow of movement within otherwise complicated spatial nodes.

2. Visual Stratification and Social Connectivity

The strategic placement of voids, atriums, and transparent floor slabs creates sightlines across different levels, breaking the isolation of the traditional stacked floor plan. This generates visual and social connections: users on different elevations become aware of each other's presence. This constant diagonal and vertical visibility makes the space feel dynamic, vibrant, and highly interconnected, transforming the building into a cohesive social environment.



3. Rotterdam Centraal Station
(Bentheim Crouwel Architects)



4. Canary Wharf Station
(Foster + Partners)



5. Tate Modern
(Herzog & de Meuron)

3. Contextual Framing and Urban Anchoring

Sightlines are powerfully utilized to define the transition between interior and exterior. By deliberately framing a specific part of the environment, the architecture draws the urban fabric or landscape inward. These anchors the building deeply within its context, the surrounding city effectively functions as the dynamic visual backdrop of the interior space, establishing a continuous dialogue between the building and its location.

4. Passive Surveillance and Psychological Safety

In public and subterranean infrastructure, safety is a primary concern. Sightlines play a central role in establishing natural social control. By eliminating blind corners and dark niches in favor of long, unobstructed visual axes, a system of passive surveillance is created. The ability to see and be seen from a distance significantly enhances the psychological sense of security, relying on natural control rather than artificial monitoring.

5. Axial Monumentality and Spatial Hierarchy

The establishment of a strong, symmetrical, or central axis creates a compelling sightline that directs the observer immediately toward a significant spatial focal point. This classical form of spatial choreography is employed to introduce clear hierarchy, streamline the movement of large crowds, or evoke an overwhelming sense of monumentality. It deliberately organizes the space around a single, powerful visual axis.

PART 3
Design research

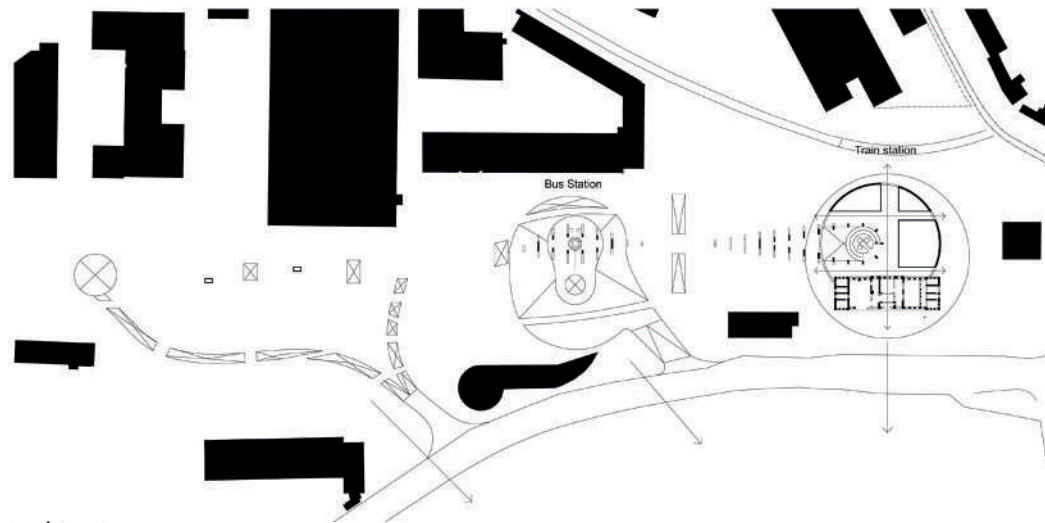
The historical analysis revealed that during the Soviet occupation, monumental and colossal structures were erected primarily to project power. Consequently, these buildings carry heavy negative associations for the residents of Tallinn, with imposing structures like the Linnahall serving as stark reminders of this era. Conversely, an examination of Tallinn's traditional urban grid reveals a fine-grained fabric composed mainly of small-scale, low-rise buildings.

These contrasting conditions became the guiding principles for the design phase. The architectural concept proposes a series of small-scale pavilions that seamlessly blend into the mass and height of the surrounding urban grid, while the distinct form of the station itself acts as a subtle landmark, signifying its civic importance. Each of these fine-grained, above-ground structures houses a specific program. However, they are all interconnected beneath the surface. Upon descending underground, the intimate scale of the pavilions transitions into a spacious, lower-level transit hub that unifies all the various transport functions.

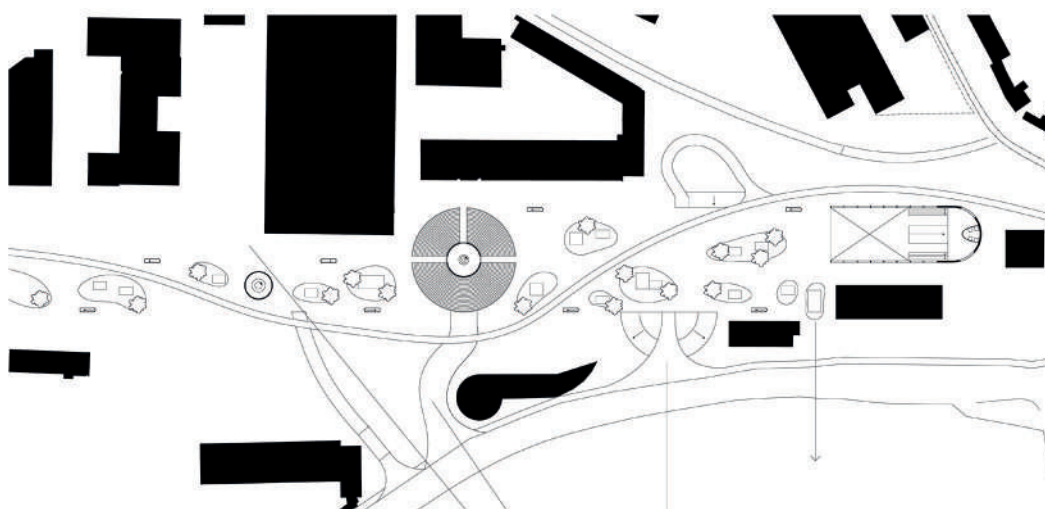
The following pages delve deeper into the design process and the evolution of the project over time. The methodology of this thesis is rooted in research by design, meaning that the theoretical investigations were continuously driven by, and tested through, iterative spatial explorations. Finally, the second half of Part 3 provides a comprehensive overview of the finalized architectural proposal, accompanied by the definitive design drawings.

SITUATION

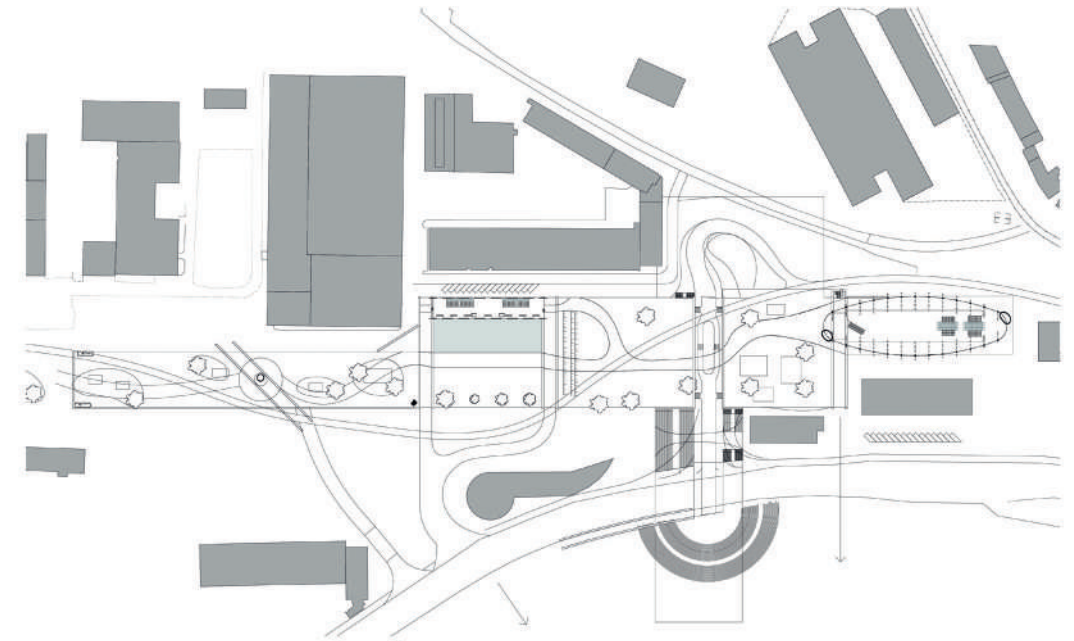
Four key phases of the design evolution are illustrated, demonstrating the transition from an initial concept of three isolated circular volumes into a cohesive masterplan. In this fully integrated layout, the architecture actively responds to its urban context, and the individual structures are spatially unified by a continuous public park landscape.



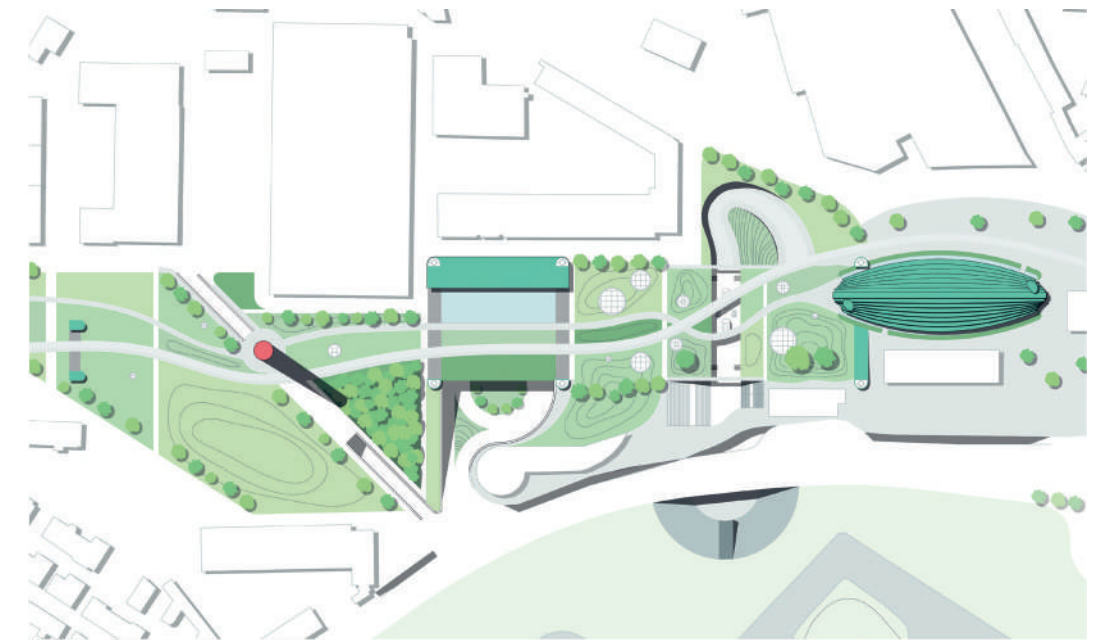
First design A1



Progressive design between A1 & A2



Design at A2

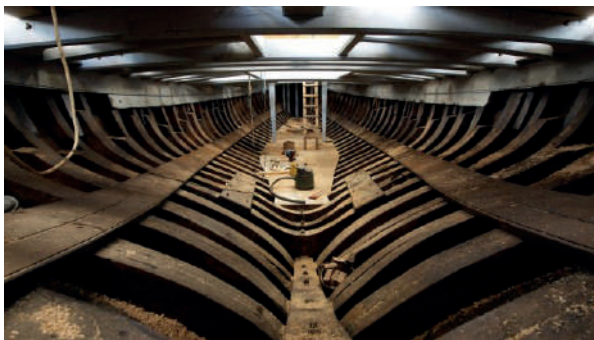


Design at A3

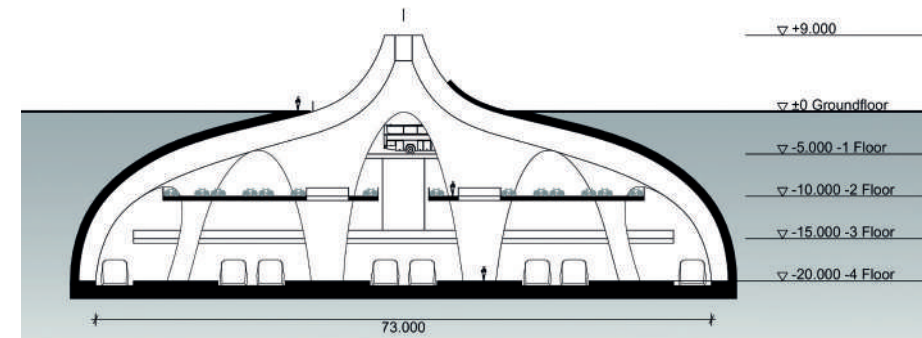
CONCEPT

The integration of a maritime motif "a conceptual nod to Estonia's rich seafaring heritage" underwent a significant transformation throughout the design process. Initially conceived as a dominant and literal feature, the concept originally manifested as a ship-like volume within the main concourse. This early concept created an experience of being inside a hull, but ultimately reduced the maritime reference to mere spatial decoration.

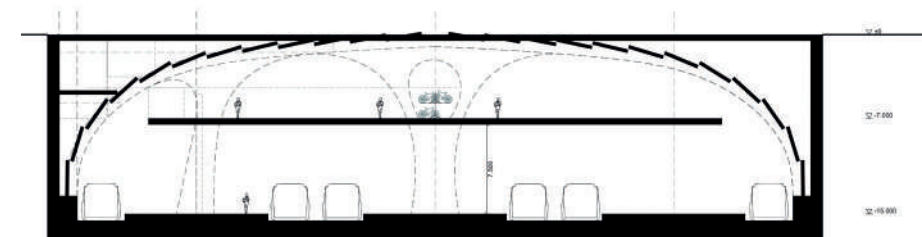
Through iterative refinement, this approach evolved into an elegant, subtle architectural gesture. The literal ship form was abstracted into a refined roof element that now serves as the primary structural framework of the station building. Consequently, the maritime concept is no longer applied as superficial dressing, but is deeply embedded in the tectonic expression and engineering of the architecture.



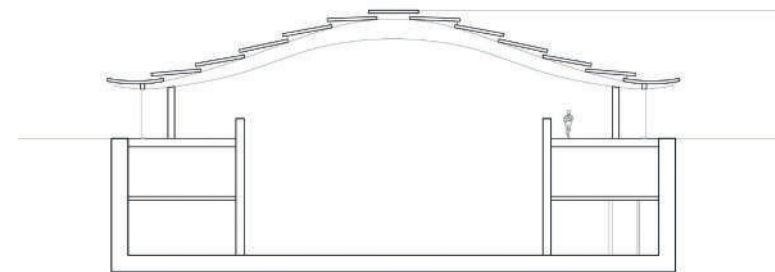
Concept of a boat that is out upside down



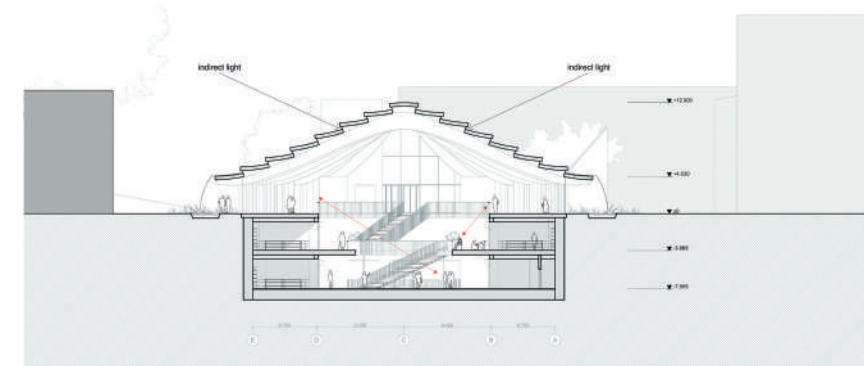
Concept of the boat at A1



Concept of the boat between A1& A2



Concept of the boat A2

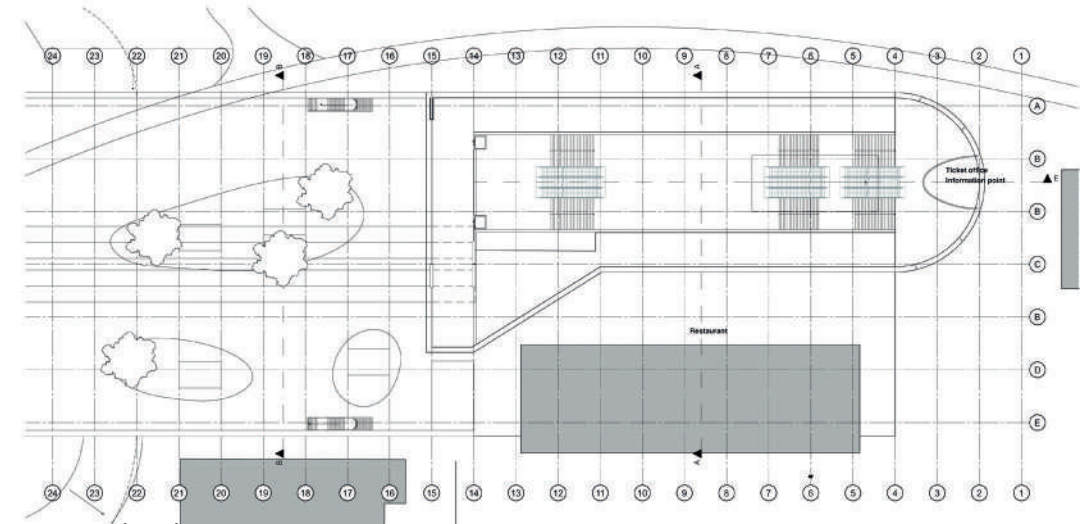
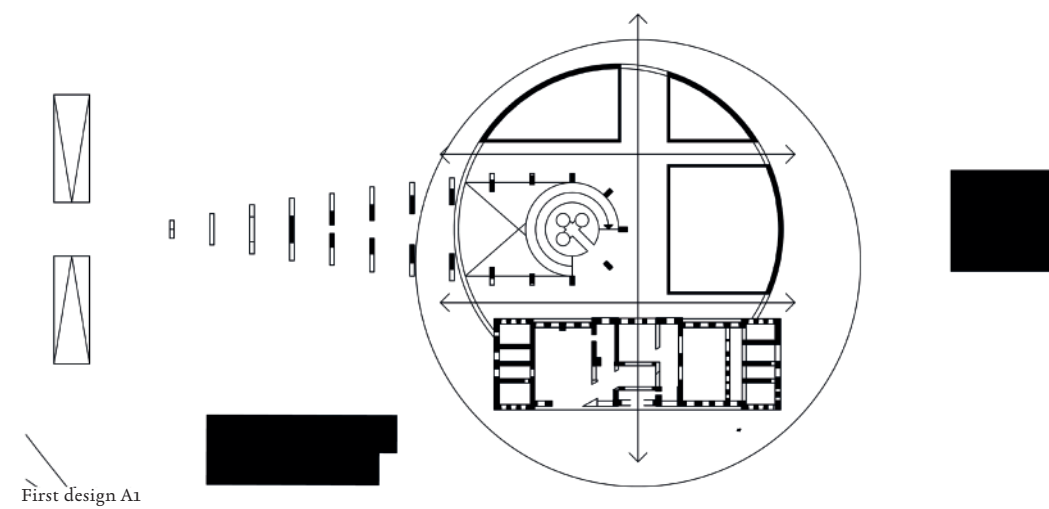


Concept of the boat A3

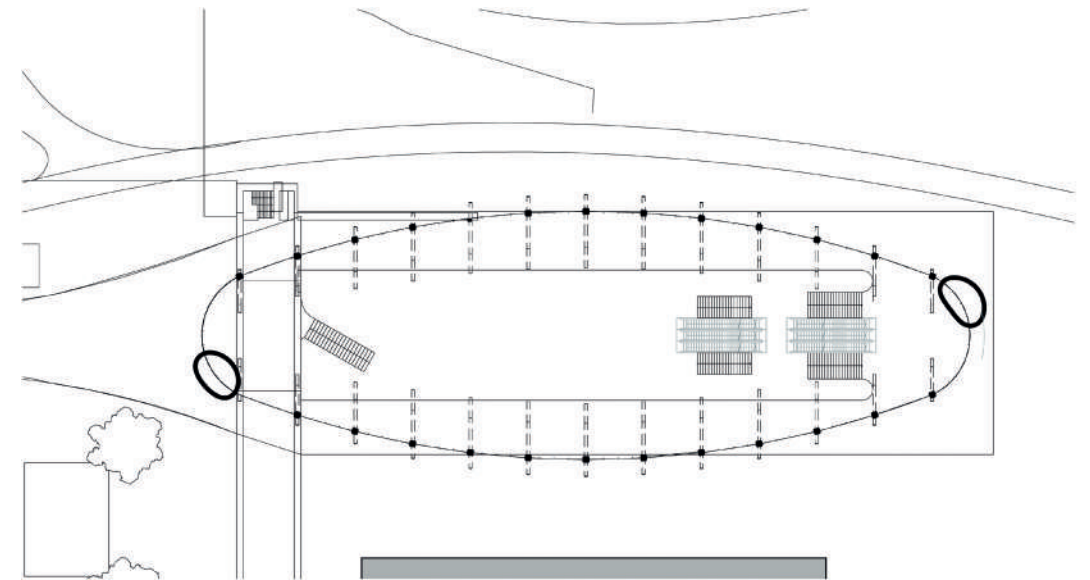
MAIN STATION

The design of the main above-ground station pavilion initially explored the integration of the new structure with the existing station building. However, it was soon concluded that separating these structures offered a new urban strategy, allowing the new intervention to manifest as a freestanding volume. Consequently, a more direct footprint emerged, which was essentially extruded upwards from the subterranean massing below.

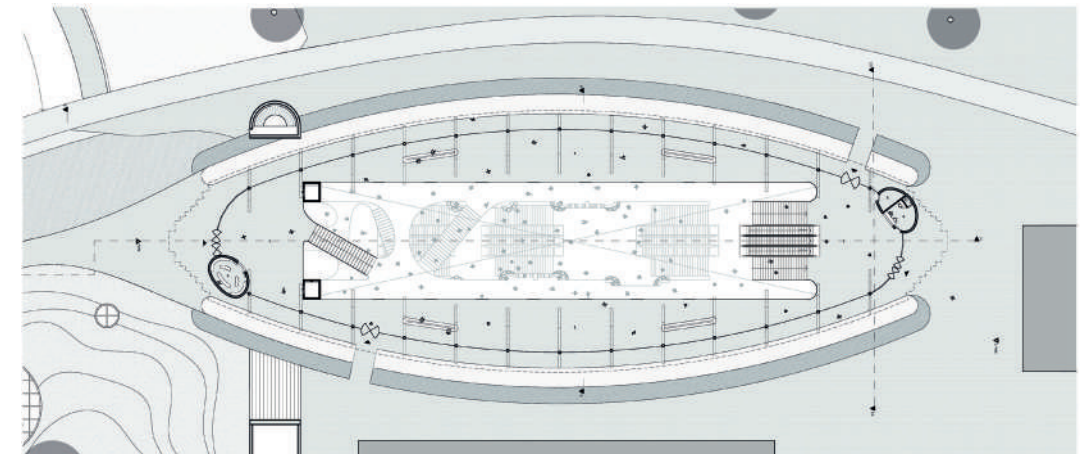
Throughout the design process, this volume was gradually sculpted into an elegant oval form. By employing a highly transparent glass facade, the physical boundary is dematerialized, allowing the interior and exterior public spaces to seamlessly blur together. Internally, the spatial layout is driven by a dynamic interplay of intersecting geometries combining orthogonal shapes, circles, ovals, and free-flowing forms. This complex geometric composition culminates in the building's distinctive architectural expression, which is organized around a monumental central void that situates the space.



Progressive design between A1 & A2



Design at A2

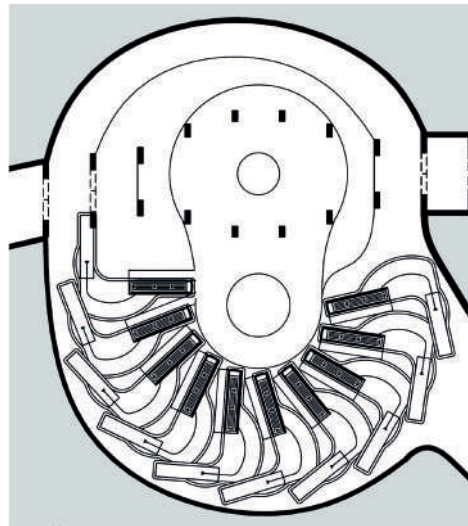


Design at A3

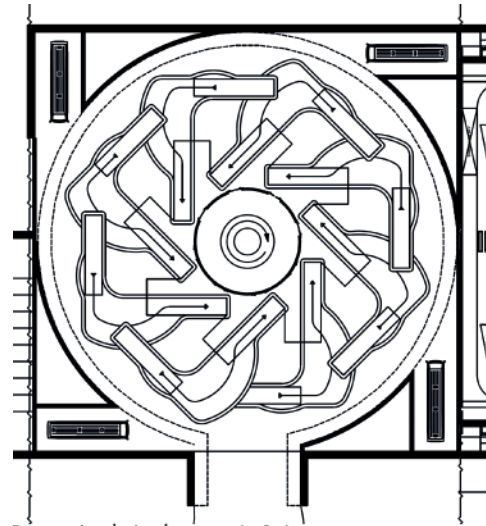
BUS STATION

The design of the bus terminal underwent the most significant transformation within the project. Rooted in the initial concept of placing three freestanding circular volumes above ground, the early design phases explored a circular typology for the bus station. Numerous spatial analyses and configurations were tested to achieve a highly functional and legible terminal within the strict diameter constraints dictated by the underlying train platforms.

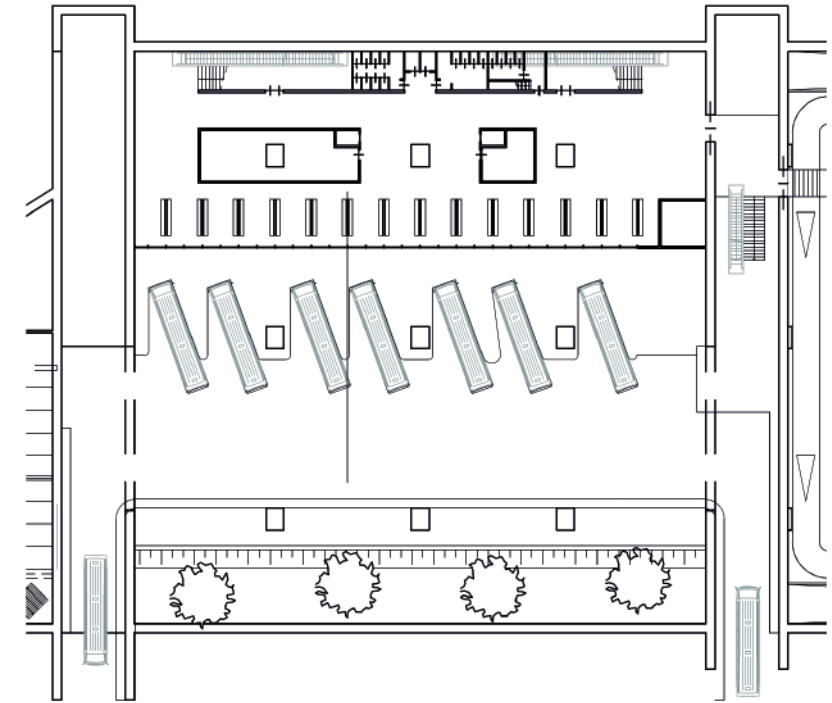
However, the severe spatial limitations imposed by this width ultimately necessitated the abandonment of the circular footprint, prompting an exploration of alternative typologies. The solution was found in an elongated, linear configuration. This revised massing not only resolves the logistical constraints but also allows the above-ground architecture to seamlessly align with the morphological grain of the surrounding urban fabric.



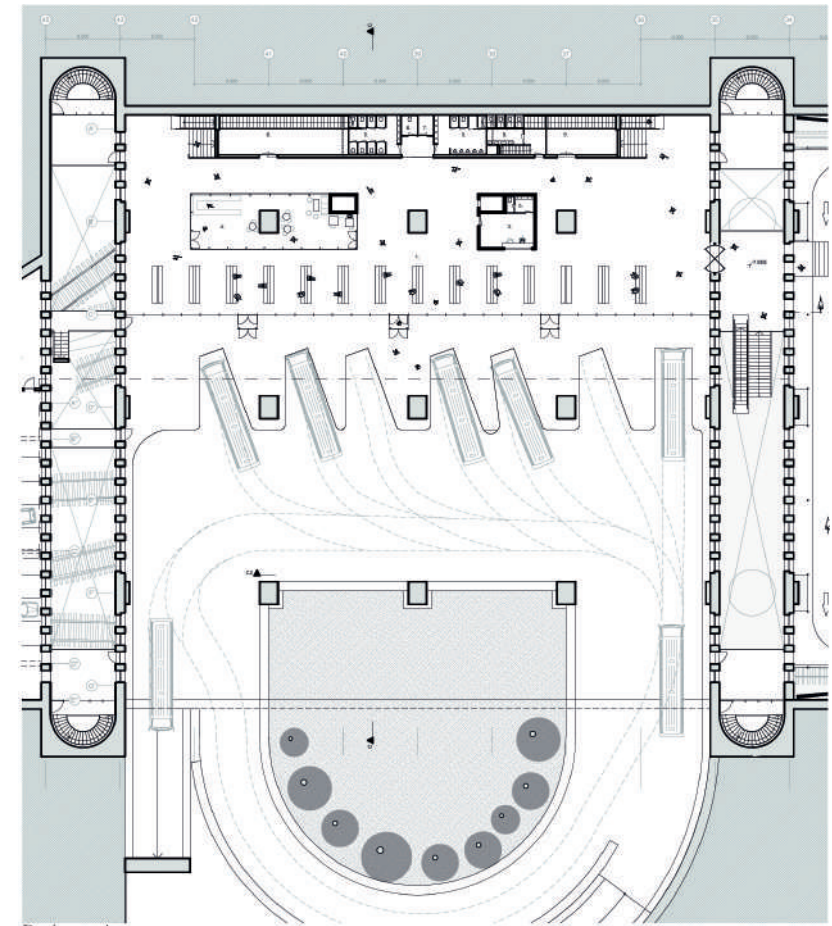
First design A1



Progressive design between A1 & A2



Design at A2

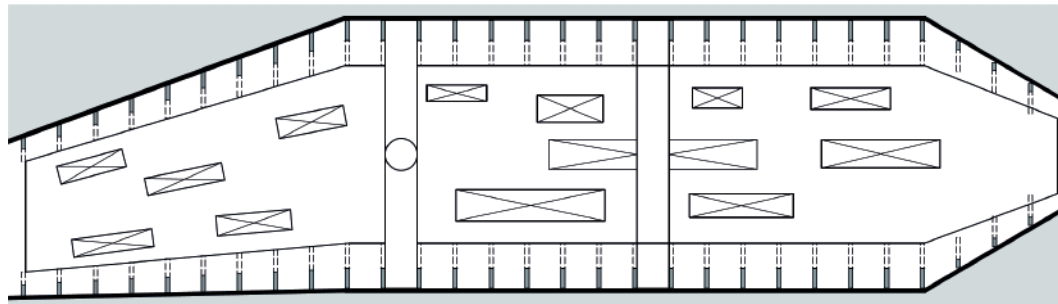


Design at A3

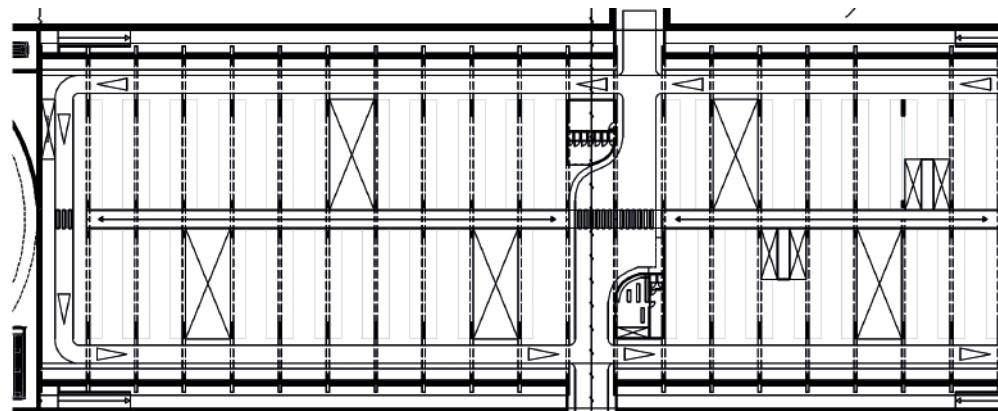
BIKE STORAGE

The design of the bicycle parking facility evolved from a generic, monolithic floor plan into a highly functional layout characterized by a perimeter circulation route and an internal parking core. A crucial aspect of this spatial organization is the vertical visual connection, which establishes a seamless connection between the bicycle facility, the train platforms, and the exterior public space.

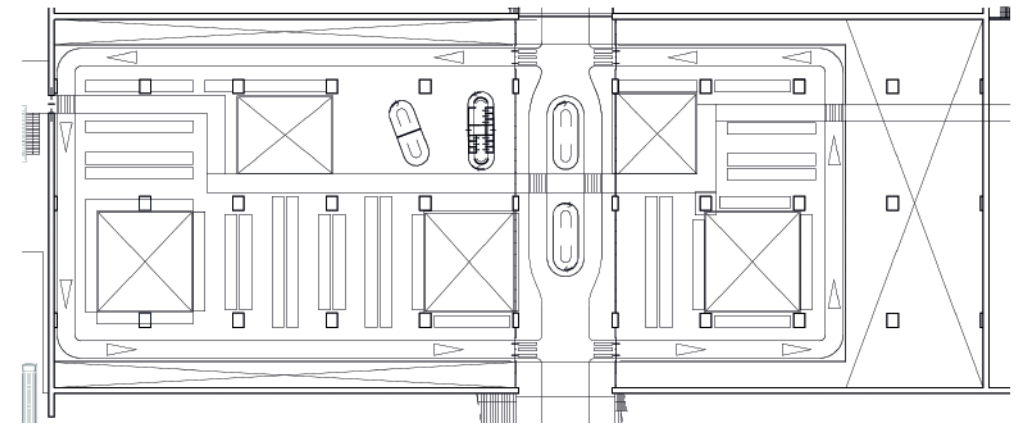
Building upon this functional base, the design was further refined to maximize spatial flexibility. While the core concept of perimeter routing and internal parking was retained, the interior storage zones were reconfigured to be fully adaptable. Ultimately, a central bicycle integrates this sunken facility with the surrounding urban fabric, effectively bridging the two sides of the city. Furthermore, strategically placed spatial voids provide visual connectivity and bring natural light down to the underlying train platforms.



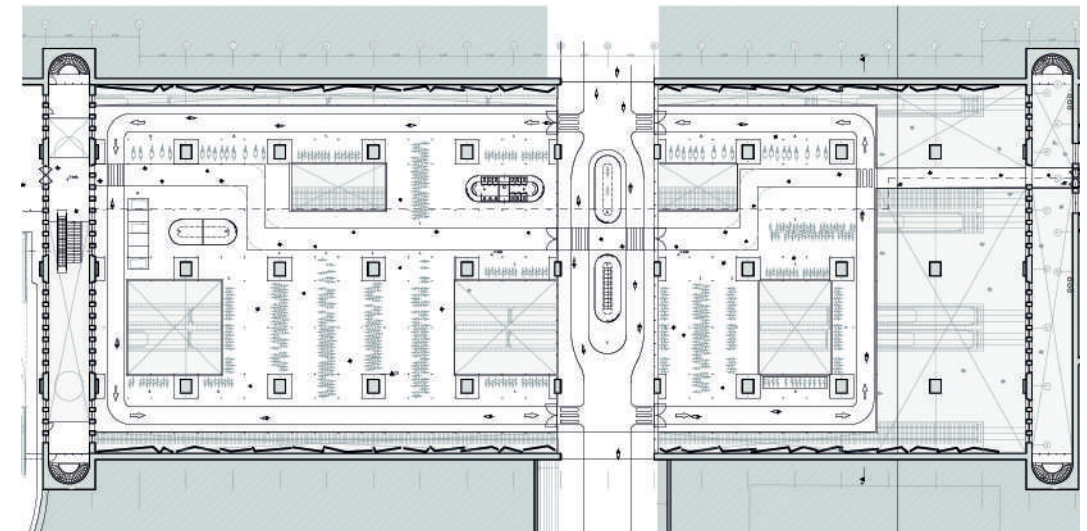
First design A1



Progressive design between A1 & A2



Design at A2



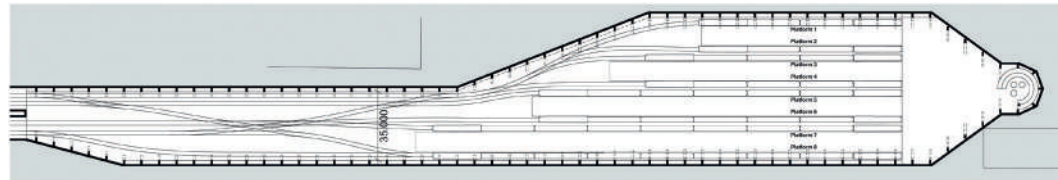
Design at A3

TRAIN PLATFORMS

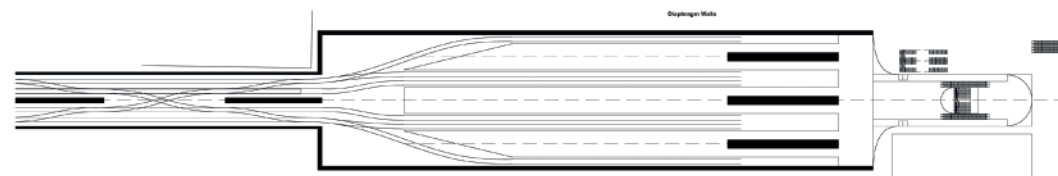
The overall morphology of the station underwent a significant transformation throughout the design process. The severe spatial constraints imposed by the existing buildings and the plot boundaries dictated that the layout of the train platforms became the primary driver for the station's dimensions. Consequently, the general volume evolved from an elongated, centralized arrival hall into a more compact and strictly orthogonal footprint.

The final structure emerged from a strategy of detaching the above-ground station from its immediate context, ensuring a sufficient spatial buffer between the new architectural intervention and the existing buildings. Furthermore, the alignment of the gently sloping subterranean tunnel was meticulously coordinated with the structural grid of the overlying parking garage, ensuring a seamless vertical alignment of the load-bearing elements.

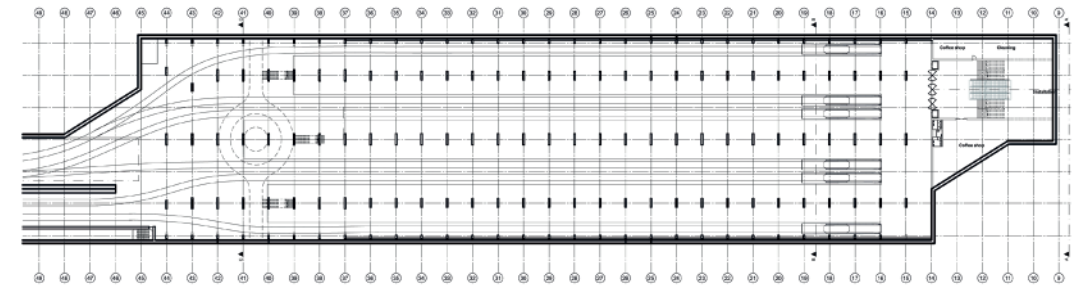
At the logistical level, the platforms are designed to accommodate trains up to 150 meters in length. Their generous width of 12 meters guarantees enough space to integrate structural columns and secondary station functions, while maintaining comfortable and unobstructed pedestrian flows along the edges.



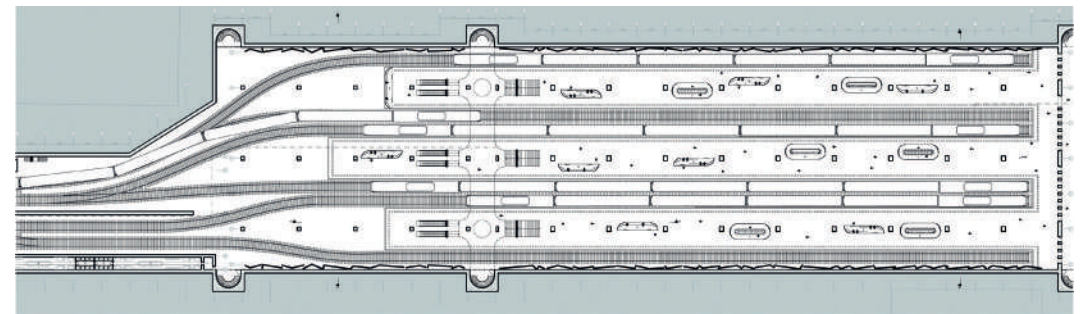
First design A1



Progressive design between A1 & A2



Design at A2



Design at A3

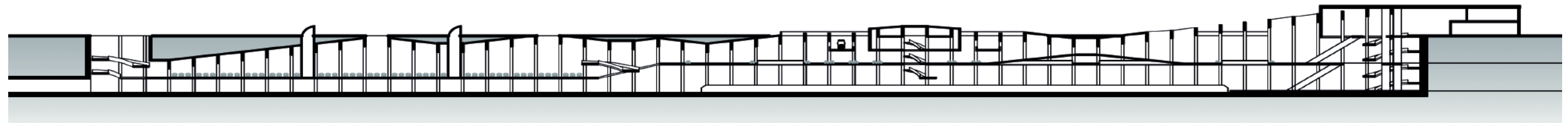
CROSS SECTION

The sectional development of the project illustrates a profound transition from an unresolved, chaotic profile (where conflicting floor levels and programs intersected randomly) to a highly rationalized cross-section. During the intermediate design phases, although floor heights were aligned, the programmatic zones still suffered from excessive overlap and lacked clear spatial boundaries.

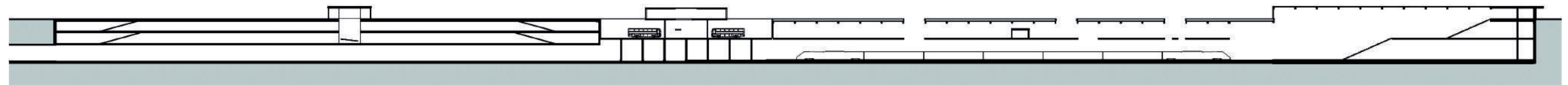
The final design elegantly resolves this by demarcating distinct functions through vertical light wells and tailored structural systems. The structural expression now responds directly to specific programmatic needs. It transitions from a rigid, pragmatic concrete grid in the parking facility to

wider concrete spans in the bus station. From there, the material shifts to an expansive, flexible timber framework in the intermediate zone, ultimately culminating in an elegant, refined wooden structure at the main station terminal.

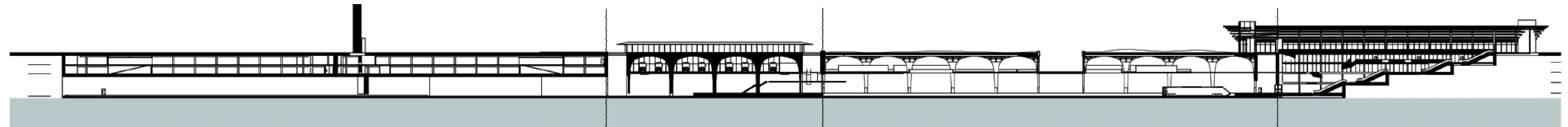
These chronological cross-sections clearly visualize the trajectory of the design process: transforming a disjointed spatial arrangement into a cohesive, fully operational transit hub characterized by absolute clarity in both form and function.



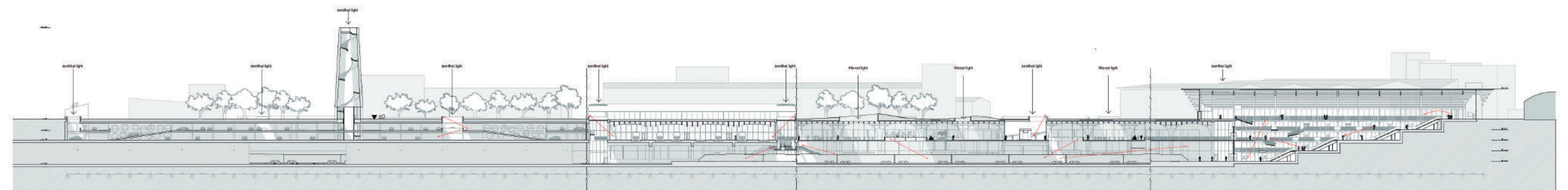
First design A1



Progressive design between A1 & A2



Design at A2



PART 3

Architectural view

Before delving into the technical documentation and spatial visualizations of the new Balti Jaam terminal, it is essential to first establish its core architectural identity. The following paragraphs will articulate the specific character, identity, style, and scale that define this intervention, explaining how the building positions itself within the historical and urban context of Tallinn.

Once this spatial and tectonic framework is established, the chapter will transition from the overarching urban strategy to the tangible architectural resolution. Through a comprehensive set of definitive drawings, sections, and atmospheric perspectives, the resulting mobility hub will be illustrated in detail, showcasing the culmination of the entire design process.

CHARACTER

The character of the transportation hub is defined by a meticulous balance between civic grandeur and individual comfort. At its core, the design is inviting; rather than functioning as a barrier, the building acts as a public gesture that draws the urban fabric inwards.

This welcoming nature is physically translated through a high degree of transparency. The transparant facades and open sightlines not only ensure social safety and natural light penetration but also expose the internal dynamics of travel to the outside world. Internally, the circulation unfolds as a fluid landscape. Devoid of hard boundaries or obstacles, the architecture intuitively guides the traveler through the space by organic lines and soft transitions, similar to the movement of the passenger flows themselves.

The spatial experience is characterized by a distinct duality of scale. On the one hand, the underground structure is grand: high spaces and expansive halls provide spatial relief and visual clarity, celebrating travel with a monumental gesture. On the other hand, the design offers an intimate, human-scale experience above ground. Through the use of warm materials, low spaces, and refined details, the human dimension is preserved. The contrast between these worlds results in a structure that impresses without intimidating.

IDENTITY

The identity of the transportation hub is not defined by imposing a new structure upon the city, but by weaving the narrative of the location into the built fabric. The design is situated in the Genius Loci (the spirit of the place), responding to both the geological and cultural history of the region.

In contrast to the trend of grand stations, this hub adopts an understated posture. The volume is fragmented into smaller, human-scale pavilions that respect the existing urban grain rather than dominating it. This deliberate fragmentation preserves crucial sightlines, creating visual corridors that frame the historic Old Town. These views serve as a orientation point, visually linking the modern traveler to the city's medieval heart.

The architectural form draws inspiration from the nation's maritime legacy. The roofscape and structural ribs appear as an abstraction of a ship's hull, referencing the historical importance of the sea to Estonians. This form is materialized through traditional timber craftsmanship. By utilizing wood not just as cladding but as a structural element, the design honors local vernacular traditions while showcasing modern engineering capabilities.

The verticality of the building articulates the passage of time through the concept of sedimentation. Materially, the structure transitions from heavy, layered limestone at its foundation (mimicking the earth's geological strata) to a finer limestone, before ultimately resolving into lighter brickwork as it ascends to go up in its surroundings. This stratification grounds the architecture both physically and metaphorically, symbolizing the deep layers of history upon which the modern city is built.

STYLE

The stylistic approach for this project is best defined as Nordic Timber Expressionism. This style represents a contemporary synthesis of regional heritage (“Nordic Regionalism”) and structural fluidity (“Expressionism”). It is characterized by the use of advanced timber engineering to create dynamic, sculptural forms that are deeply rooted in the cultural and geological context of the site.

1. Structural Expressionism

In this style, the structural skeleton is not hidden but celebrated as the primary aesthetic element. The architecture rejects the rigid “box” in favor of fluid geometries that mimic organic lines (referencing the abstraction of a ship’s hull or the ribcage of a vessel). This structural articulation allows for grand spans and soaring spaces without feeling industrial or cold. The construction itself tells a story of movement and forces, turning the static building into a dynamic, expressive sculpture that guides the sightlines and flow of the user.

2. Material Tactility

While the form is grand, the material palette is inherently intimate. By utilizing timber (Glulam or CLT) as the dominant medium, the style introduces warmth, texture, and a “human scale” to the monumental volume. This focus on materiality emphasizes craftsmanship, acknowledging the historical legacy of woodworking and shipbuilding. The visible joints and grain of the wood provide a tactile quality that creates a welcoming and domestic atmosphere, counteracting the usual anonymity of transport hubs.

SCALE

The definition of scale within a transportation hub presents an inherent architectural paradox: the structure must be grand enough to facilitate the logistical magnitude of mass transit, yet intimate enough to ensure the individual traveler does not feel overwhelmed. To resolve this tension, the design is articulated across three distinct scalar levels that interlock seamlessly.

The Urban Scale: The Understated Gesture (Macro)

At the city level, the design rejects the typology of the monolithic ‘box.’ Instead of imposing a singular, dominant volume, the massing is fragmented into a series of pavilion-like roofscapes. This understated approach ensures that the station respects the existing urban grain rather than overpowering it. By keeping the profile low and visually permeable, the critical sightlines towards the historic Old Town are preserved. The station functions not as a wall, but as a framing device for the city’s heritage.

The Building Scale: Rhythm and Structure (Meso)

Internally, the grand scale is manifested in the generous spans of the central concourse. However, to prevent this space from feeling like an impersonal hangar, the scale is modulated by the expressive timber structure. The glulam ribs structure introduce a powerful rhythm to the volume. These structural elements frame the light and organize the overhead void, rendering the immense space comprehensible. The structure acts as a visual metric, breaking down the infinite space into rhythmic, legible bays.

The Human Scale: Tactility and Shelter (Micro)

At eye level, where the user physically engages with the building, the human scale prevails. Here, the focus shifts from visual impact to tactile experience. The plinth, materialized with glass forms a transparent facade that almost not exists, the exterior flows seamlessly into the interior, almost imperceptibly. Within the vast, open expanse of the train platforms, small-scale, freestanding pavilions are introduced to create sheltered waiting areas. These intimate interventions offer passengers a place of refuge, while effectively reintroducing a human scale to the monumental infrastructural space.



Urban plan Tallinn
Scale 1:20,000

- Legend
- Walklines
 - Bicycle highway
 - Important roads
 - New housing development
 - Green corridor

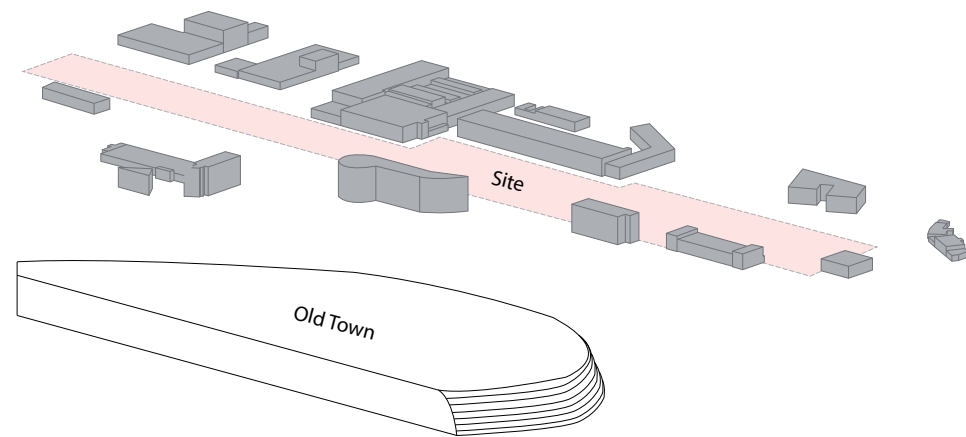


Buildings volumes
Scale 1:6,000

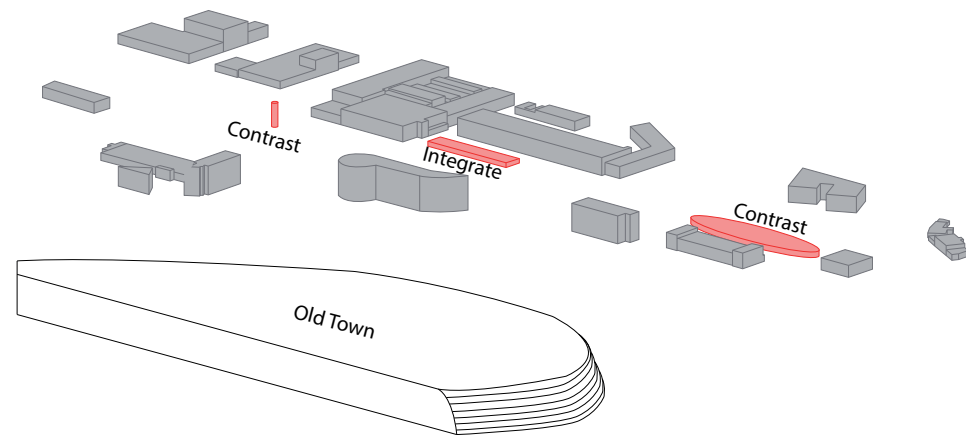
- Legend
- New buildings
 - Connection
 - Buildings
 - Green
 - Water



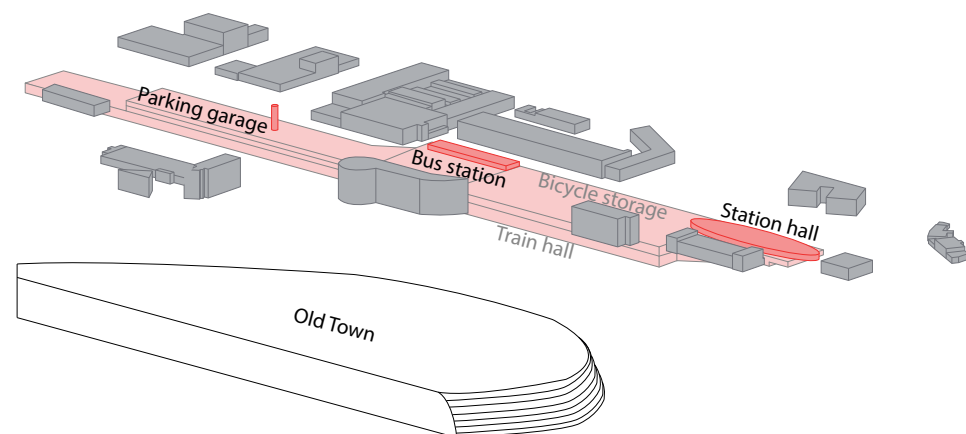
CONCEPT



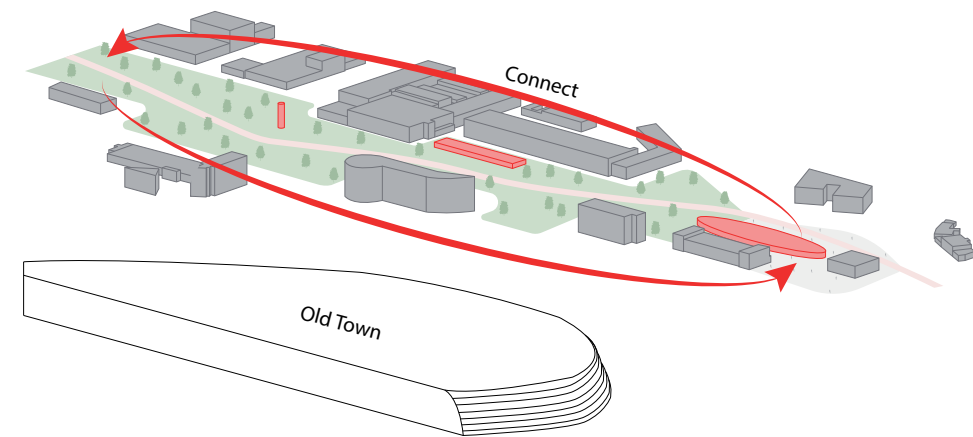
1. Project area



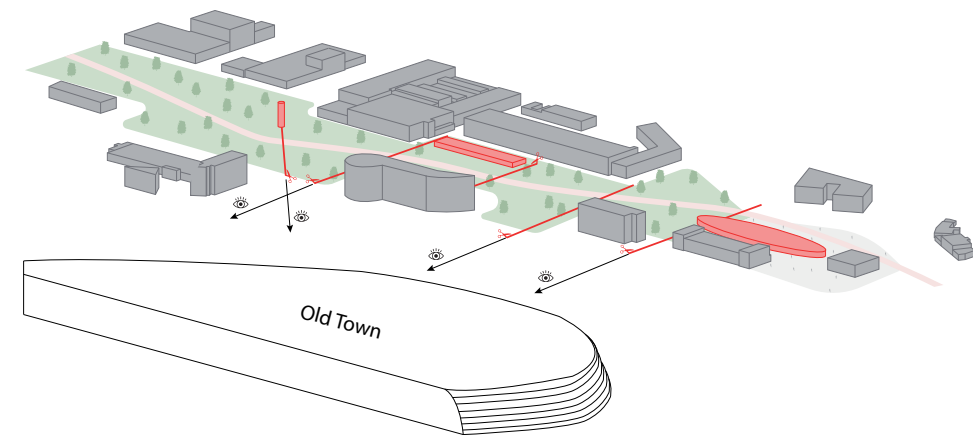
2. Building located in the surroundings



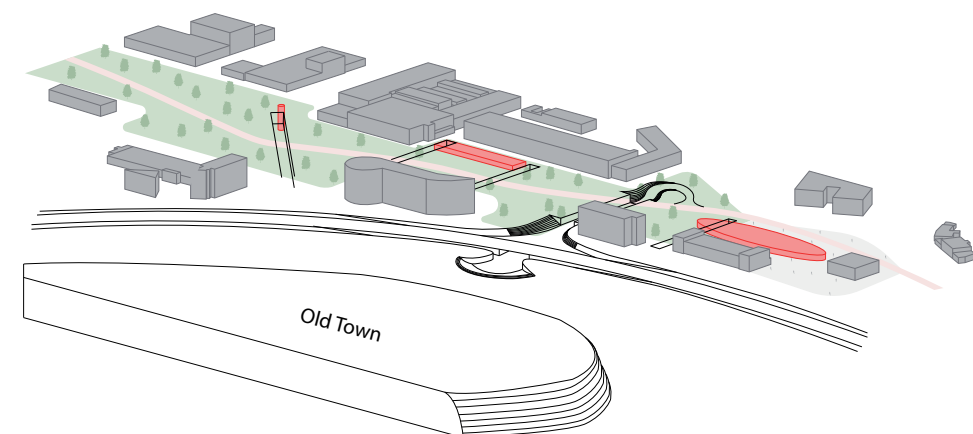
3. Functions



4. Building a park to connect the volumes



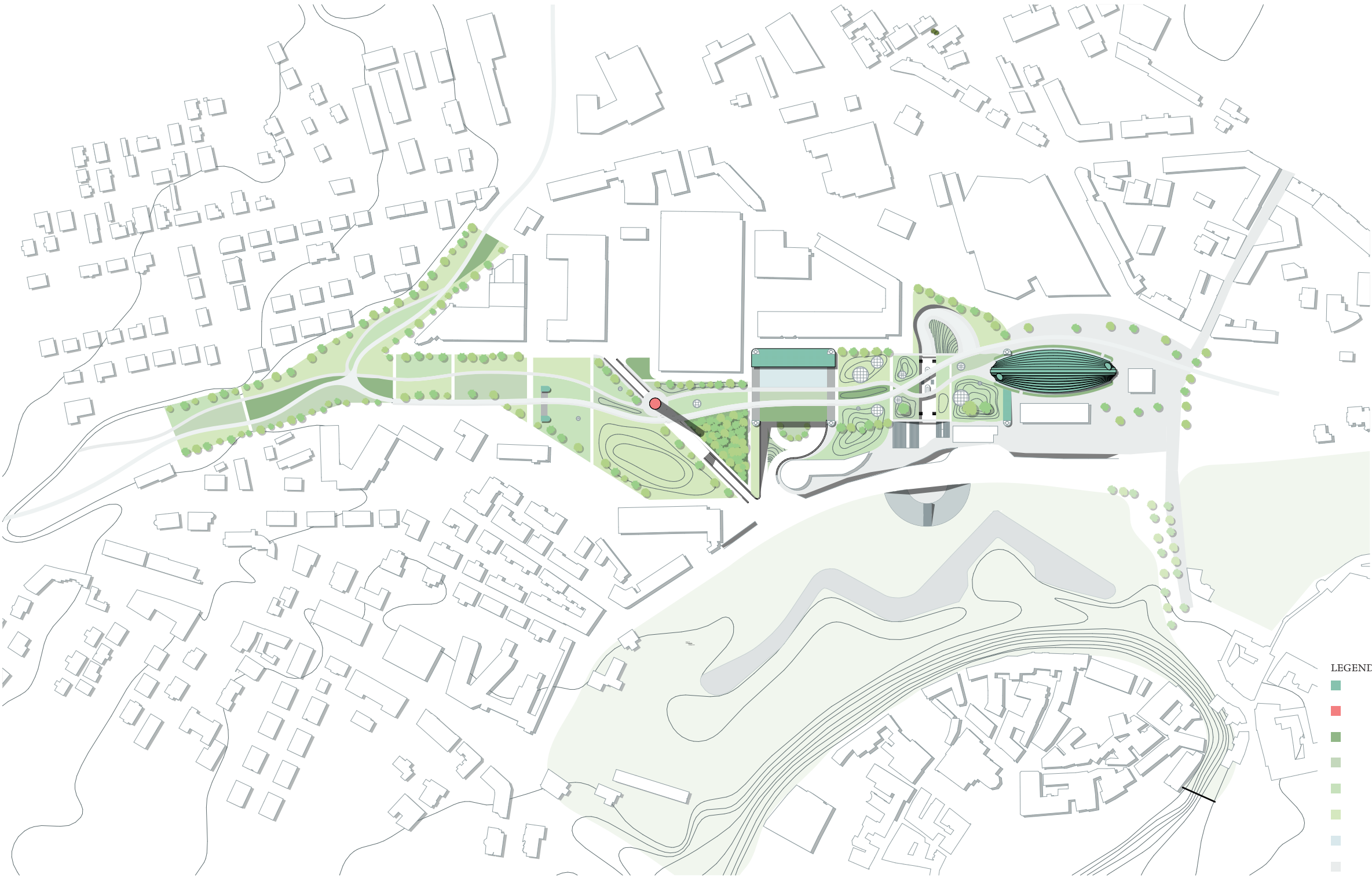
5. Connecting with the surroundings



6. Vertical connection between levels and lower floors with natural light

SITUATION

Scale: 1:4.000



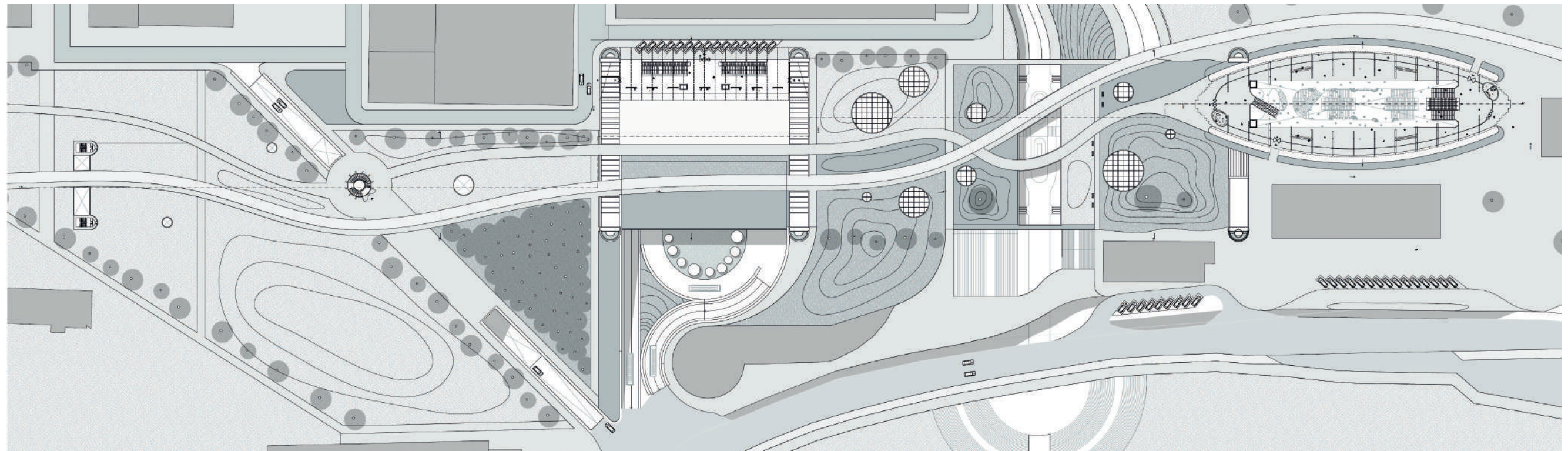
- LEGEND
- Building volumes
 - Building volume
 - Wild plants
 - Medium height plants
 - Low plants
 - Grass
 - Water
 - Pavement
 - Trees

STATION
Over view

The design is presented across multiple scales to illustrate both the broader context and the finer details. It begins with a comprehensive set of drawings that explains the overall masterplan at a 1:1500 scale. Following this, the project zooms in to a 1:200 scale to explore specific areas individually: the main station hall, the bus station, the bicycle parking and the parking facilities. Finally, the documentation provides a deep dive into the technical detailing of the main station hall. The structural and architectural principles established in these technical drawings serve as a blueprint that can be applied to the rest of the building.

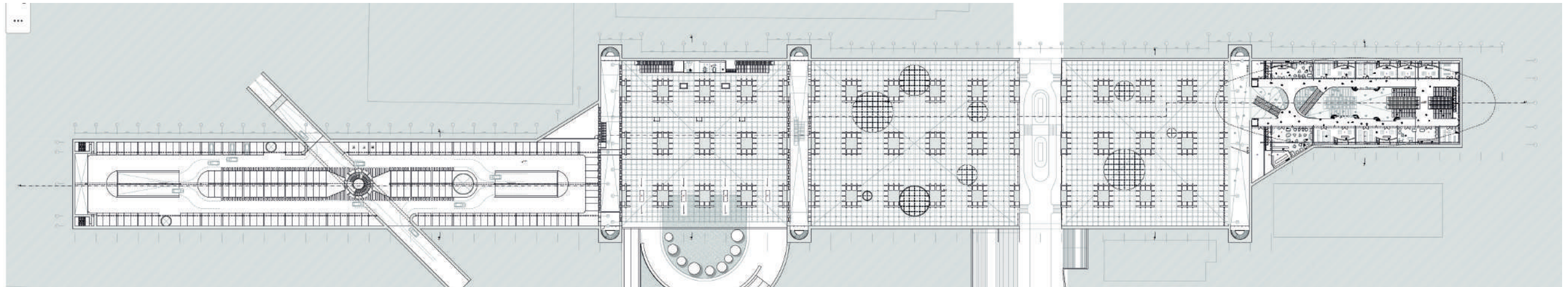
GROUND FLOOR

Scale: 1:1,500

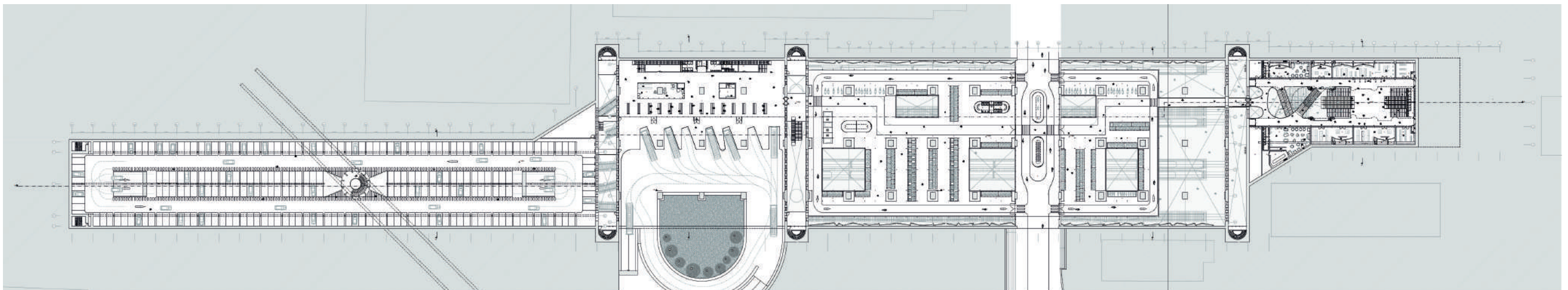


FLOORPLAN -1

Scale: 1:1,500

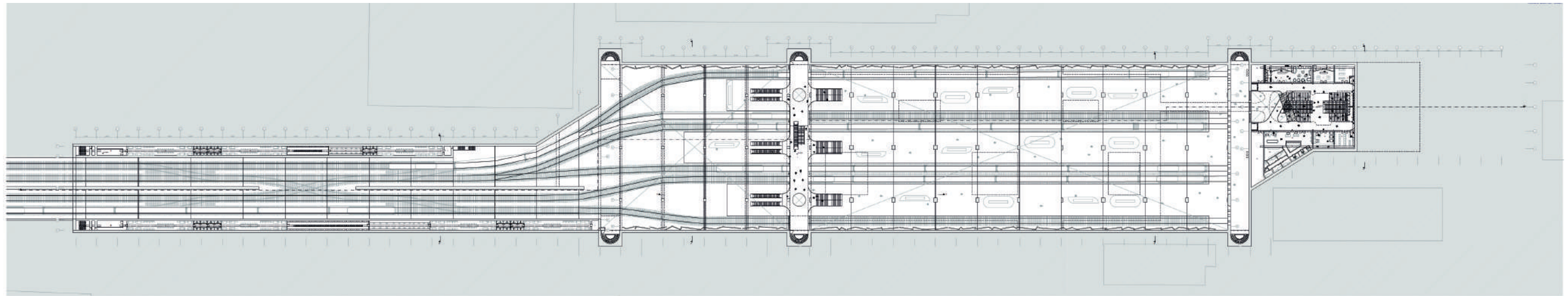
**FLOORPLAN -2**

Scale: 1:1,500

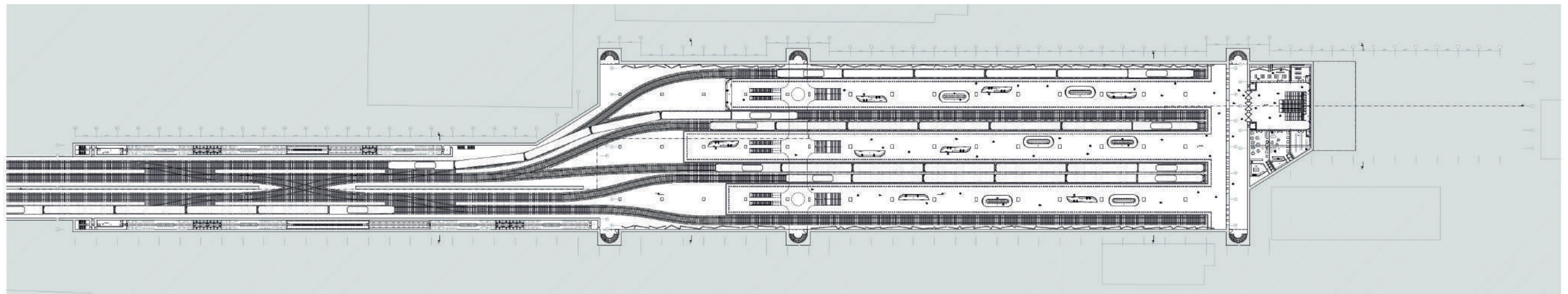


FLOORPLAN -3

Scale: 1:1,500

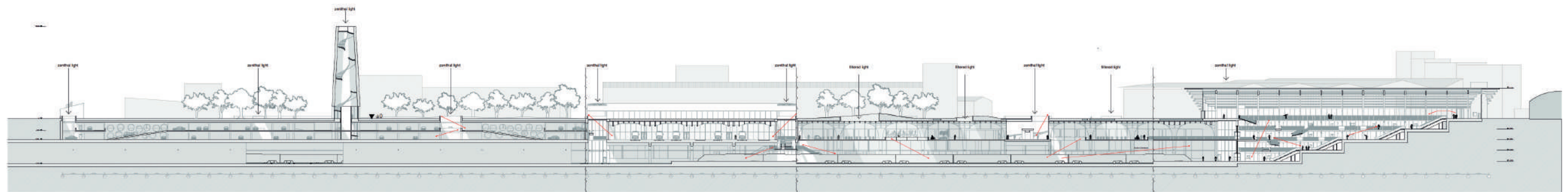
**FLOORPLAN -4**

Scale: 1:1,500

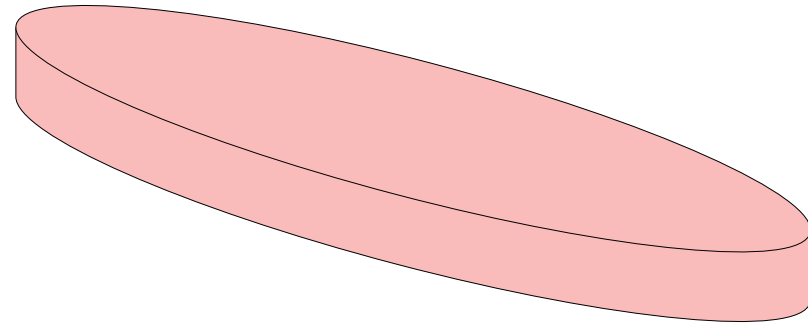


LONG DIAGONAL SECTION E-E

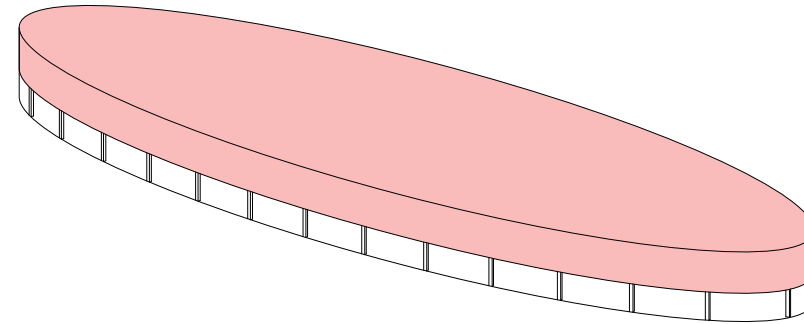
Scale: 1:1,500



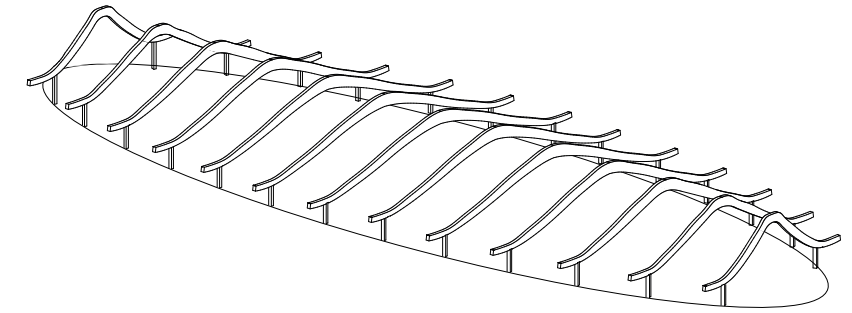
CONCEPT STATION HALL



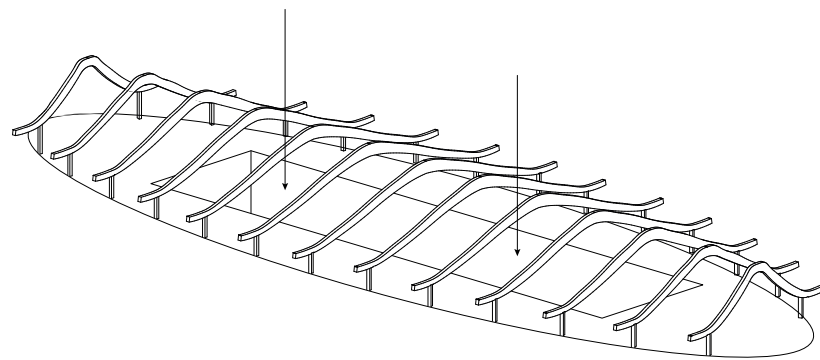
1. Distinctive shape



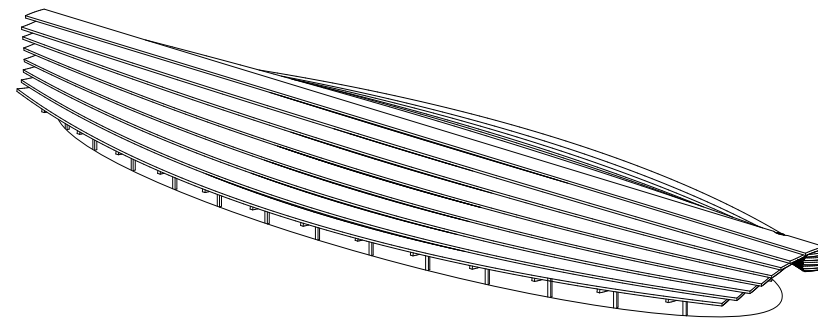
2. Raised off the floor to ensure transparency and the flow of people



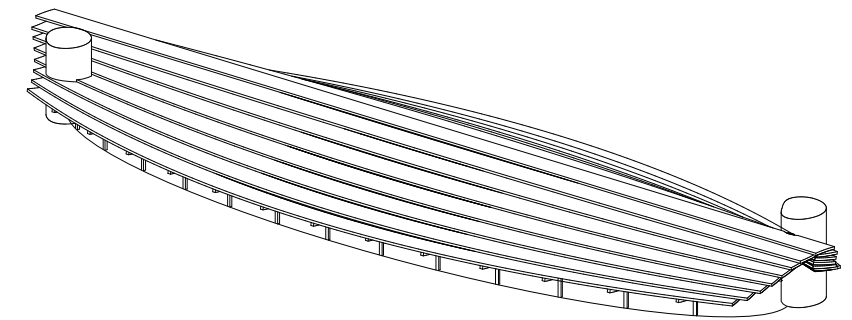
3. A clearly visible structure that references Estonia's past



4. Sunken entrance to the trains for passenger flow



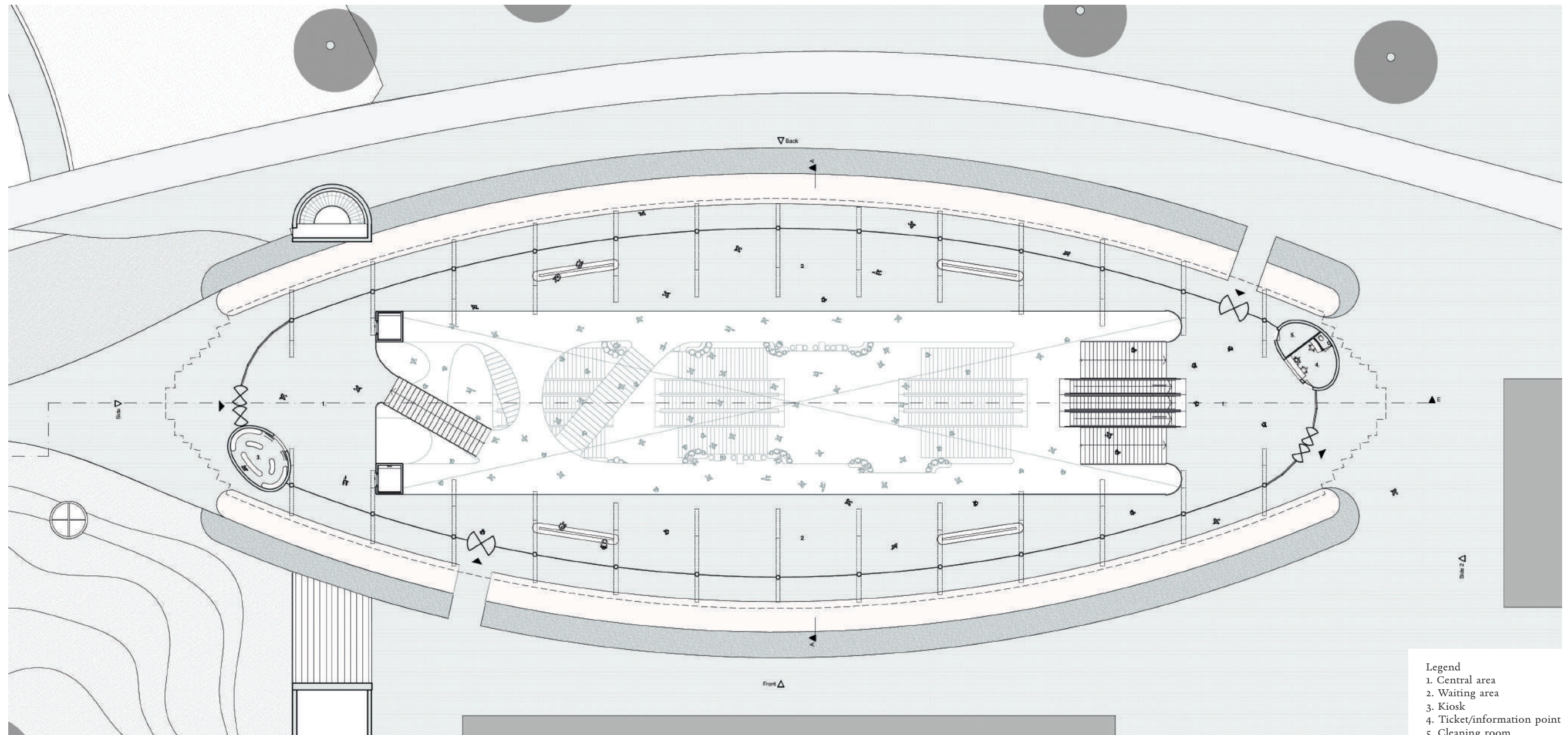
5. Curved roofs



6. Two round forms situating the building in the surrounding.

GROUND FLOOR

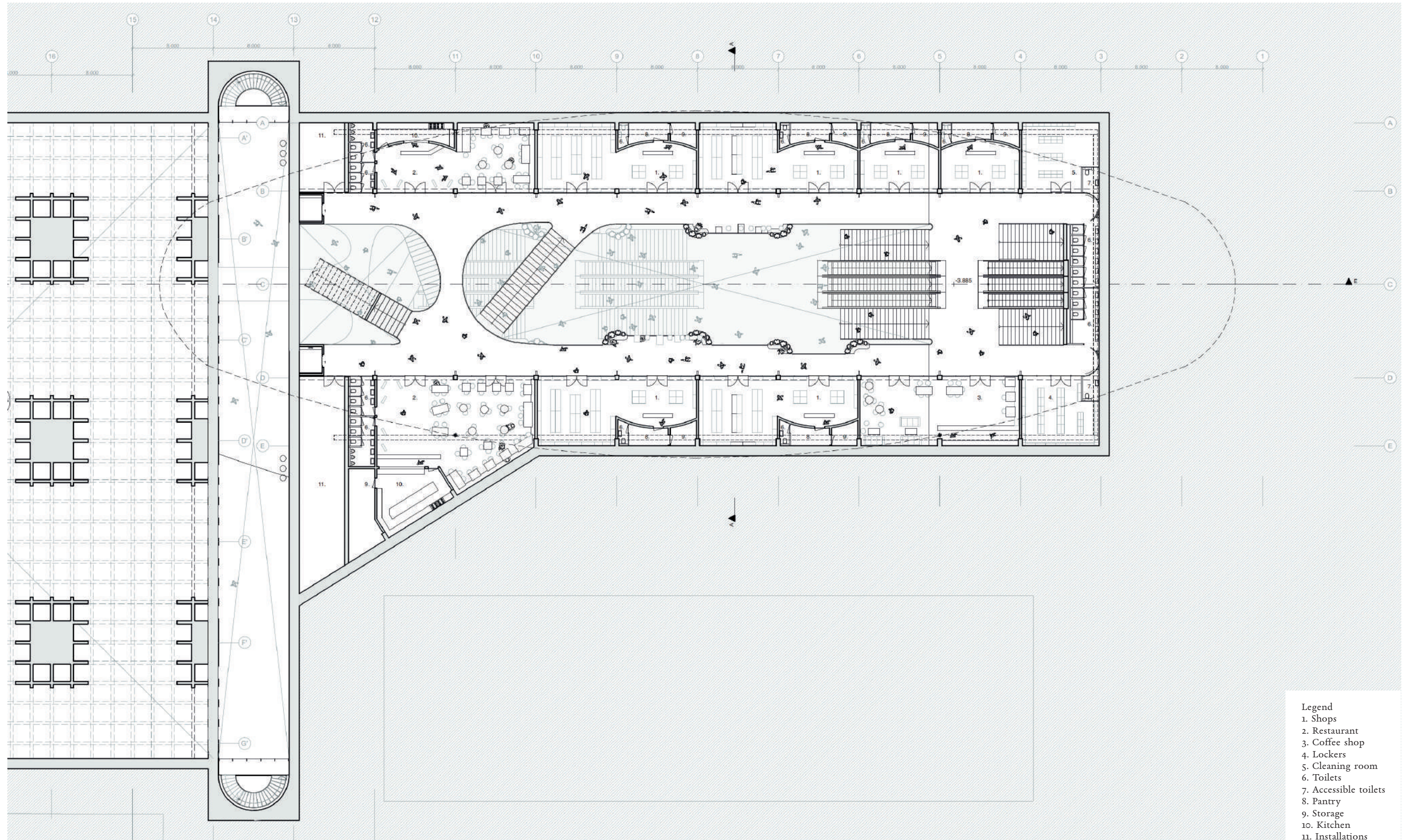
Scale: 1:400



- Legend
1. Central area
 2. Waiting area
 3. Kiosk
 4. Ticket/information point
 5. Cleaning room

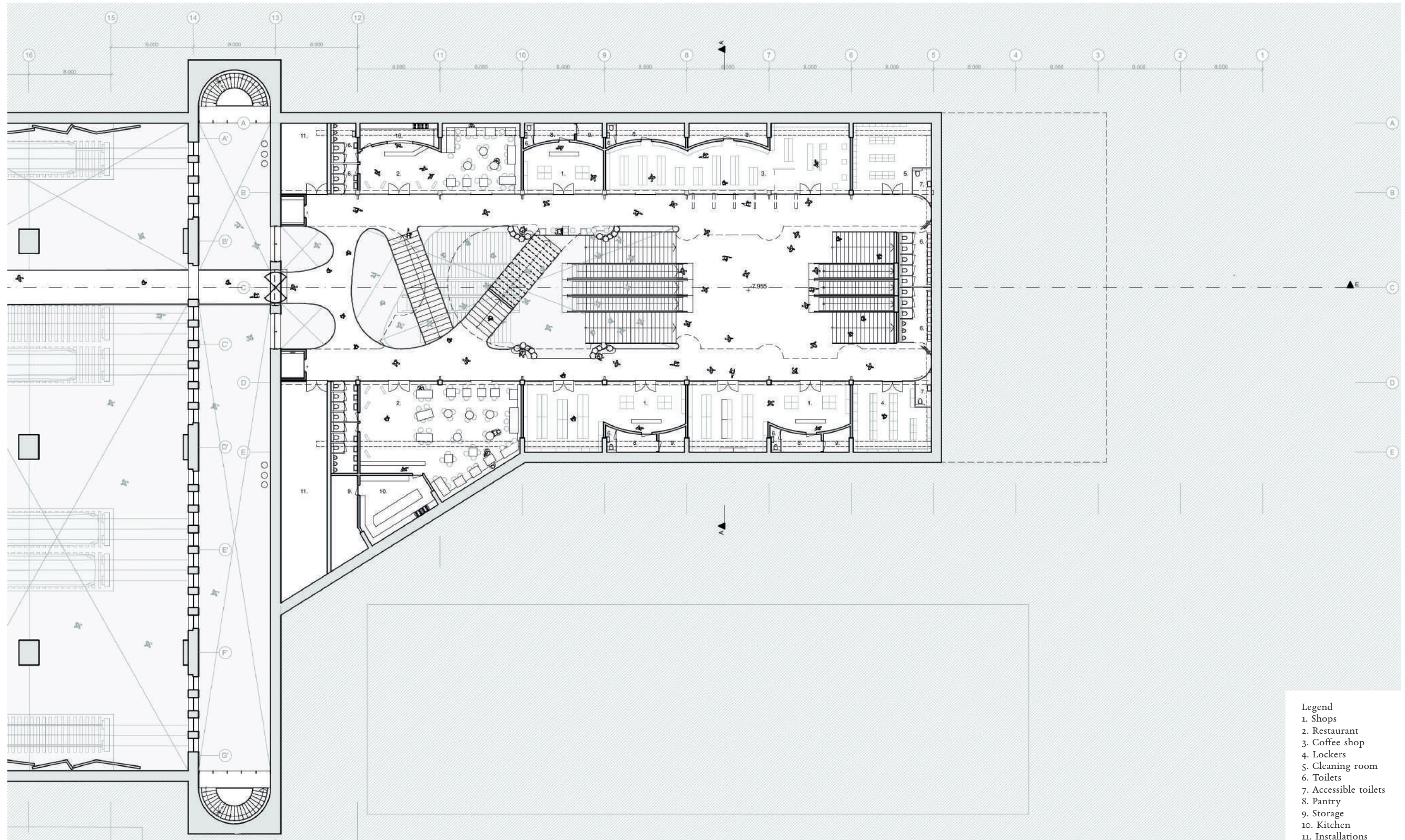
FLOORPLAN -1

Scale: 1:400



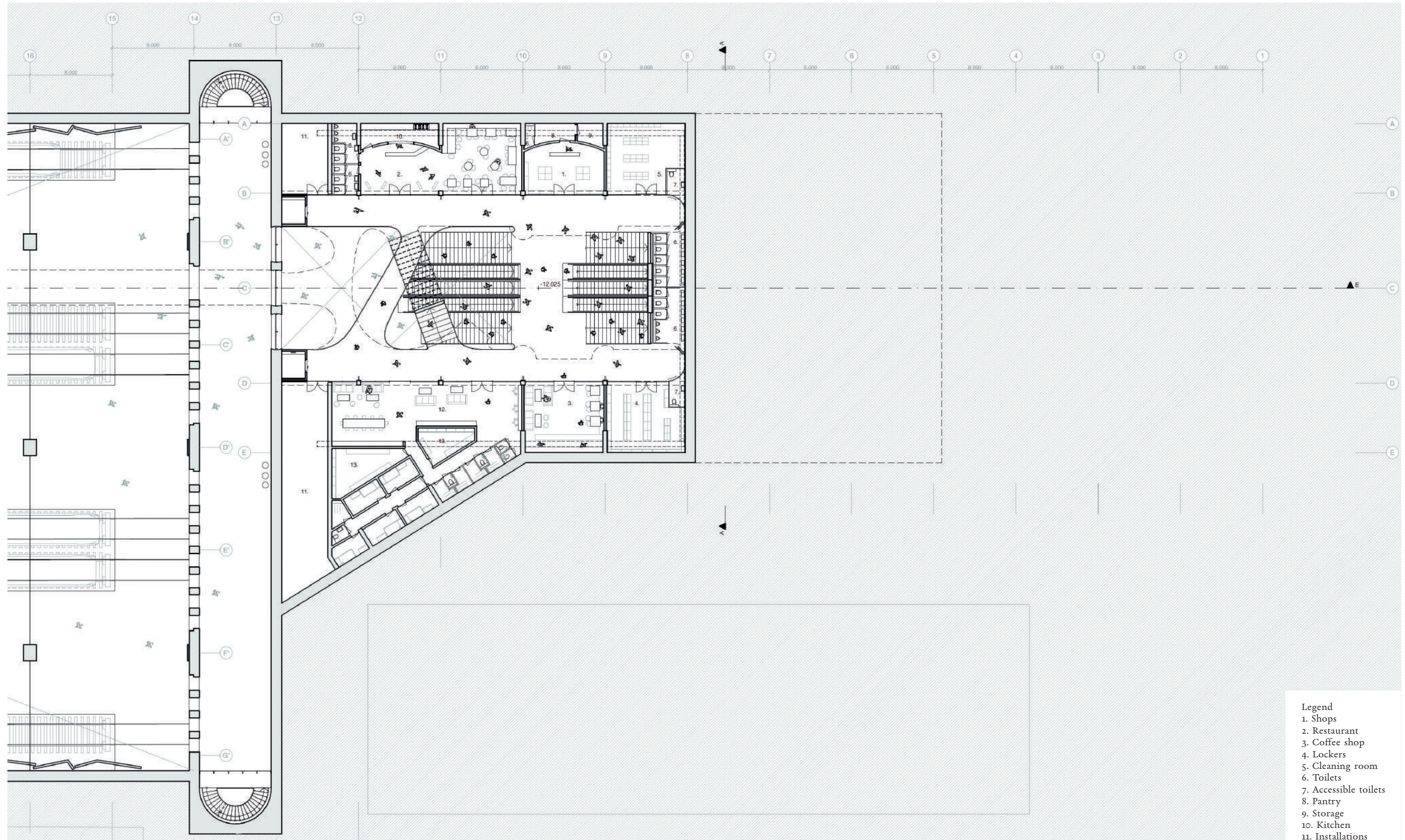
FLOORPLAN -2

Scale: 1:400



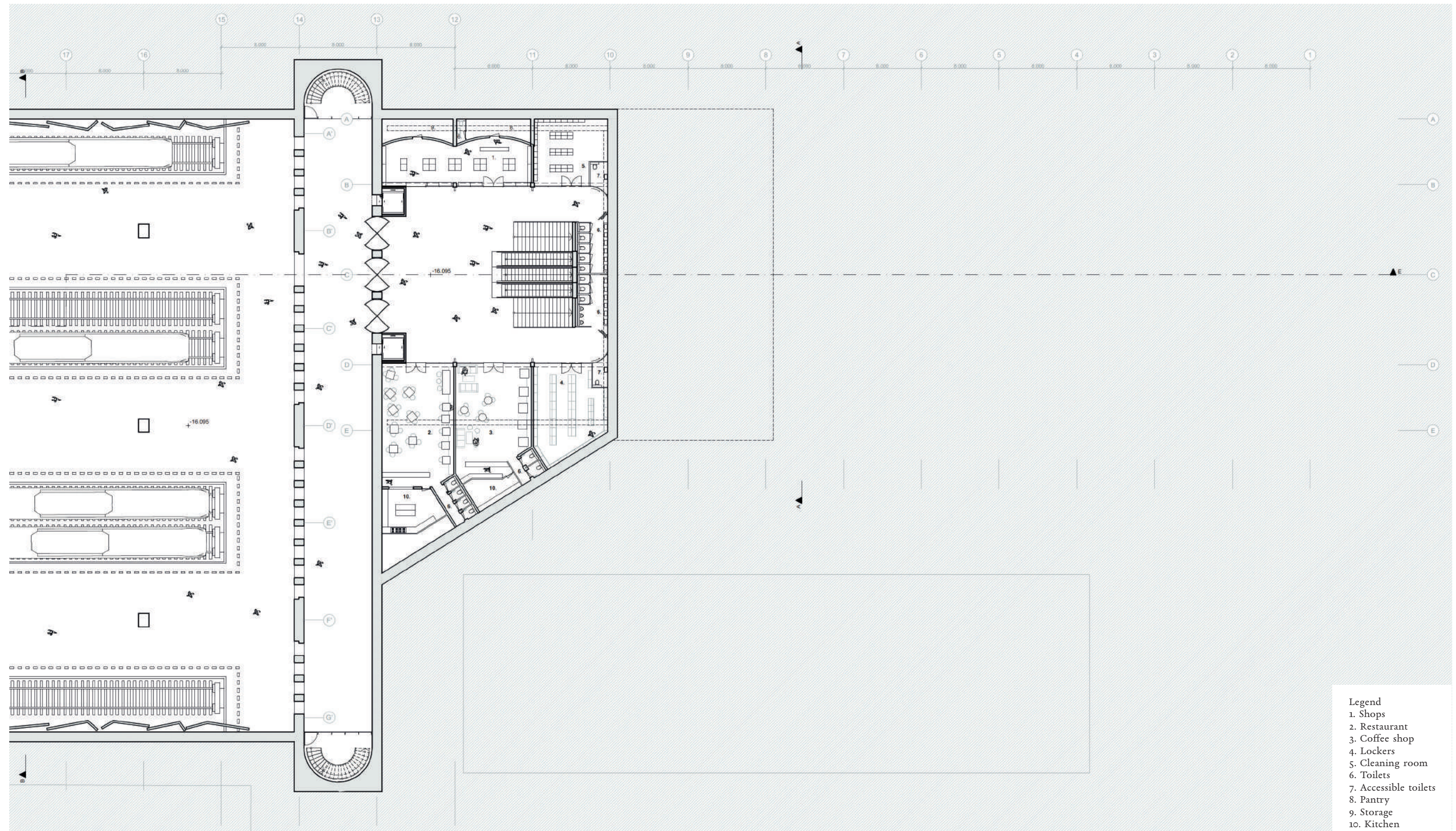
FLOORPLAN -3

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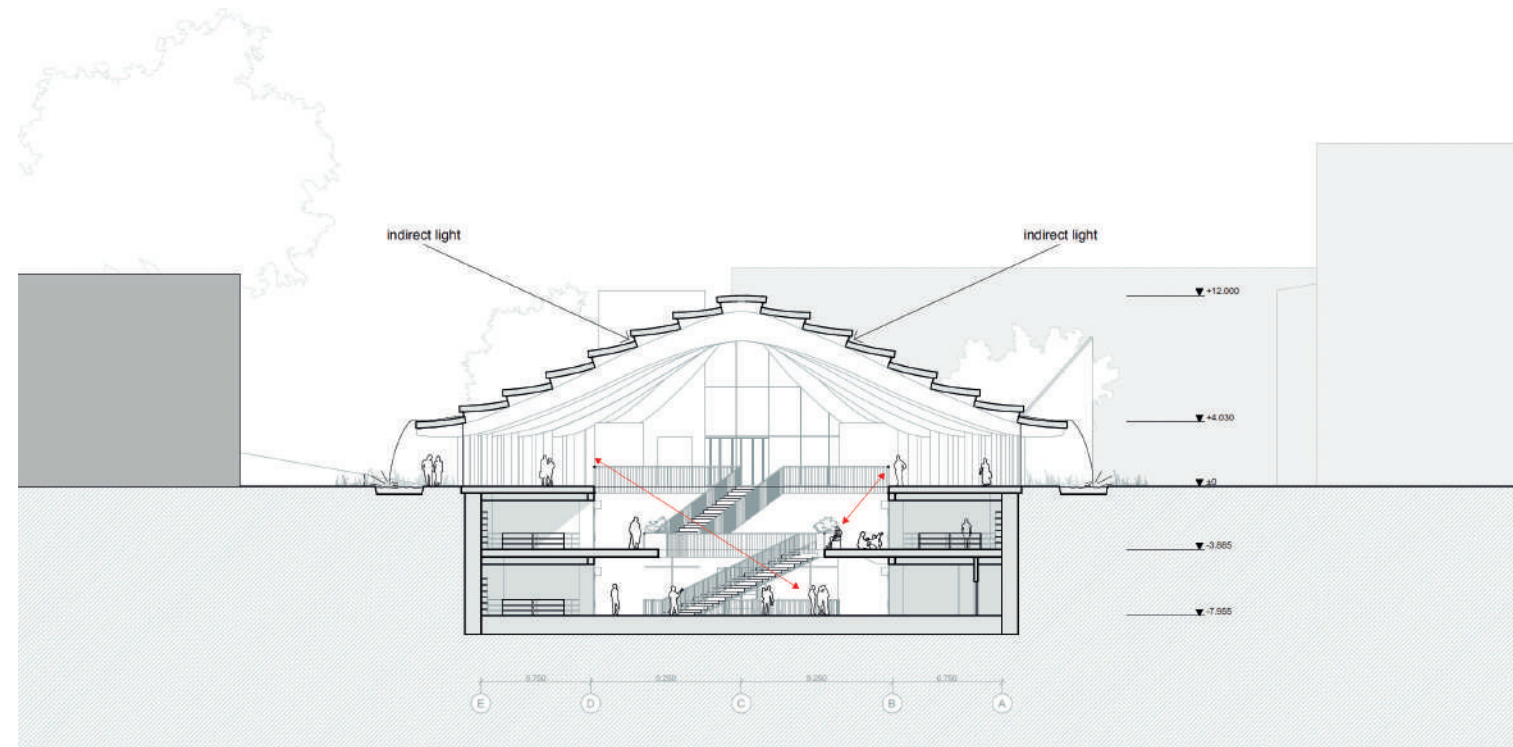
FLOORPLAN -4

Scale: 1:400



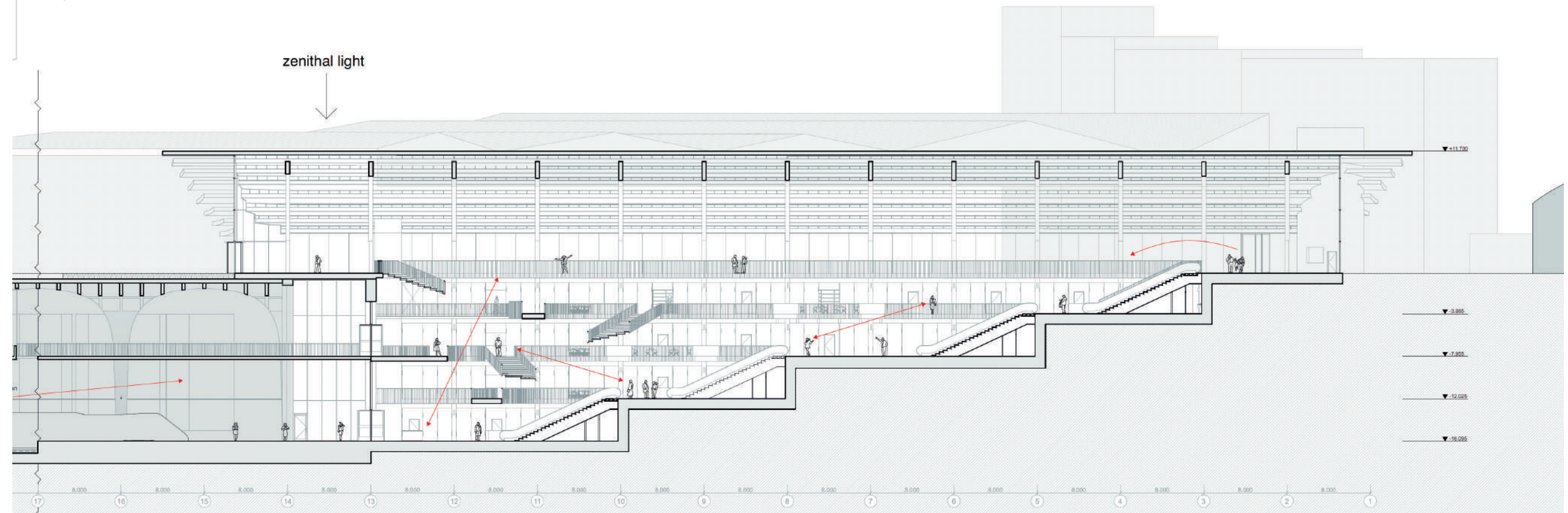
SECTION A-A

Scale: 1:400



SECTION E-E

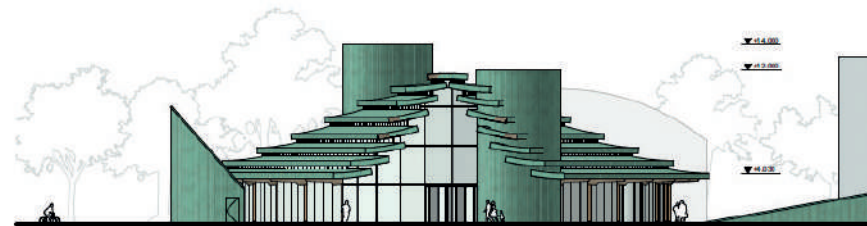
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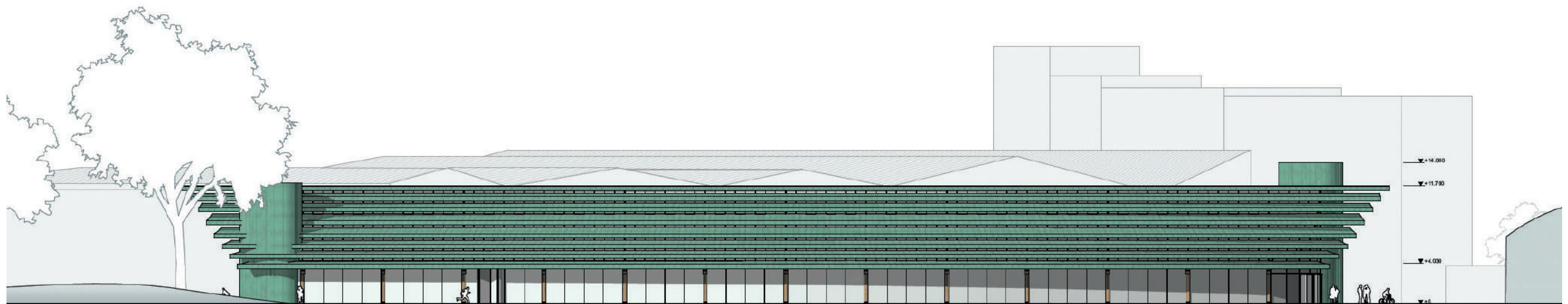
ELEVATIONS

Scale: 1:400

SIDE-ELEVATION

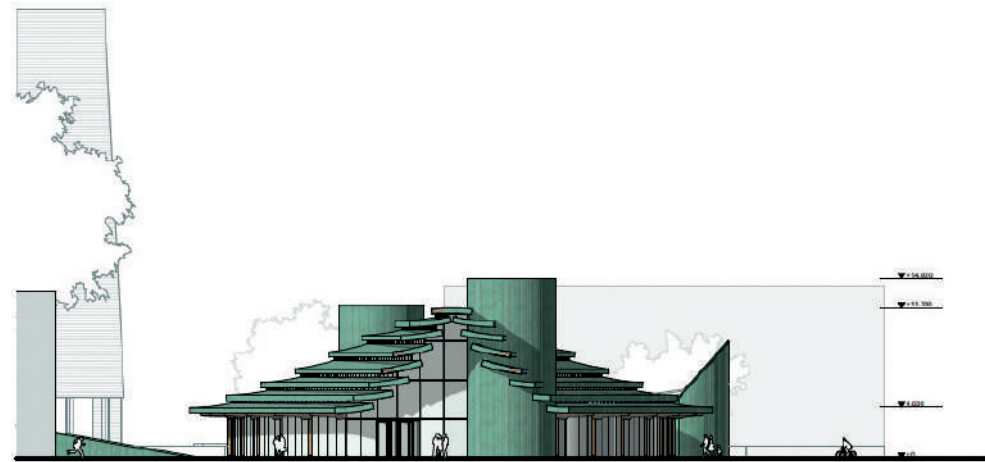
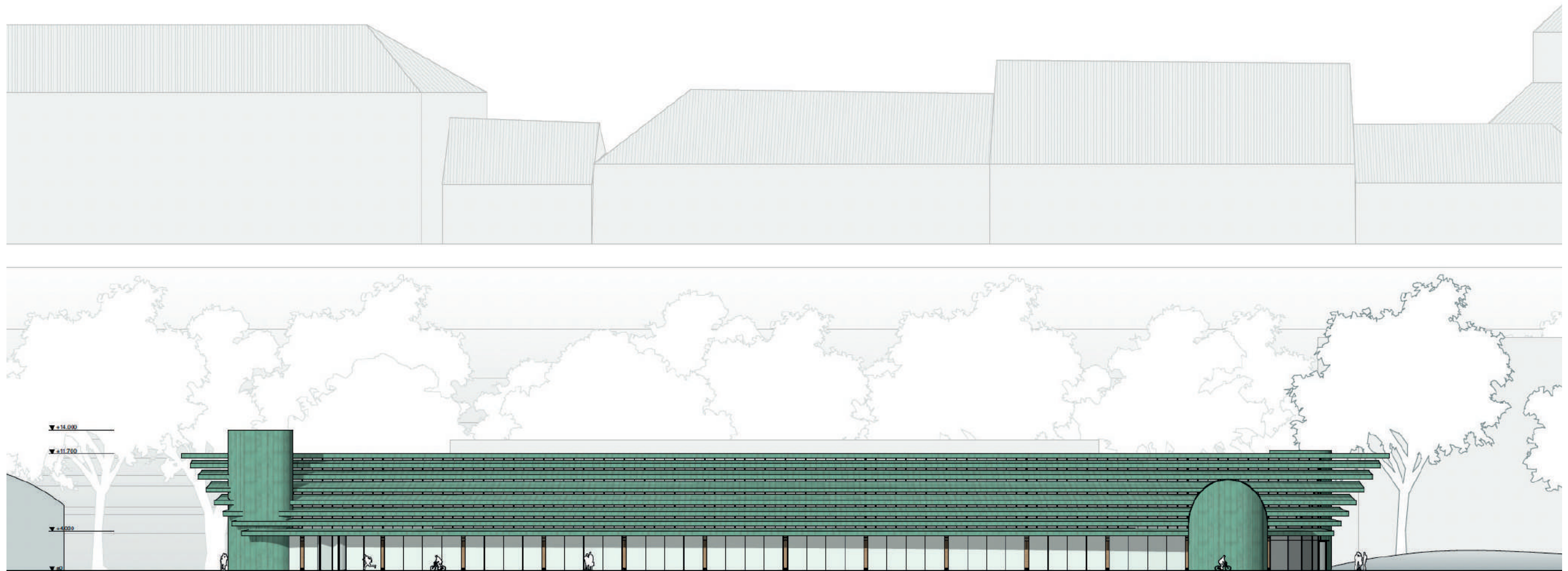


FRONT-ELEVATION



ELEVATIONS

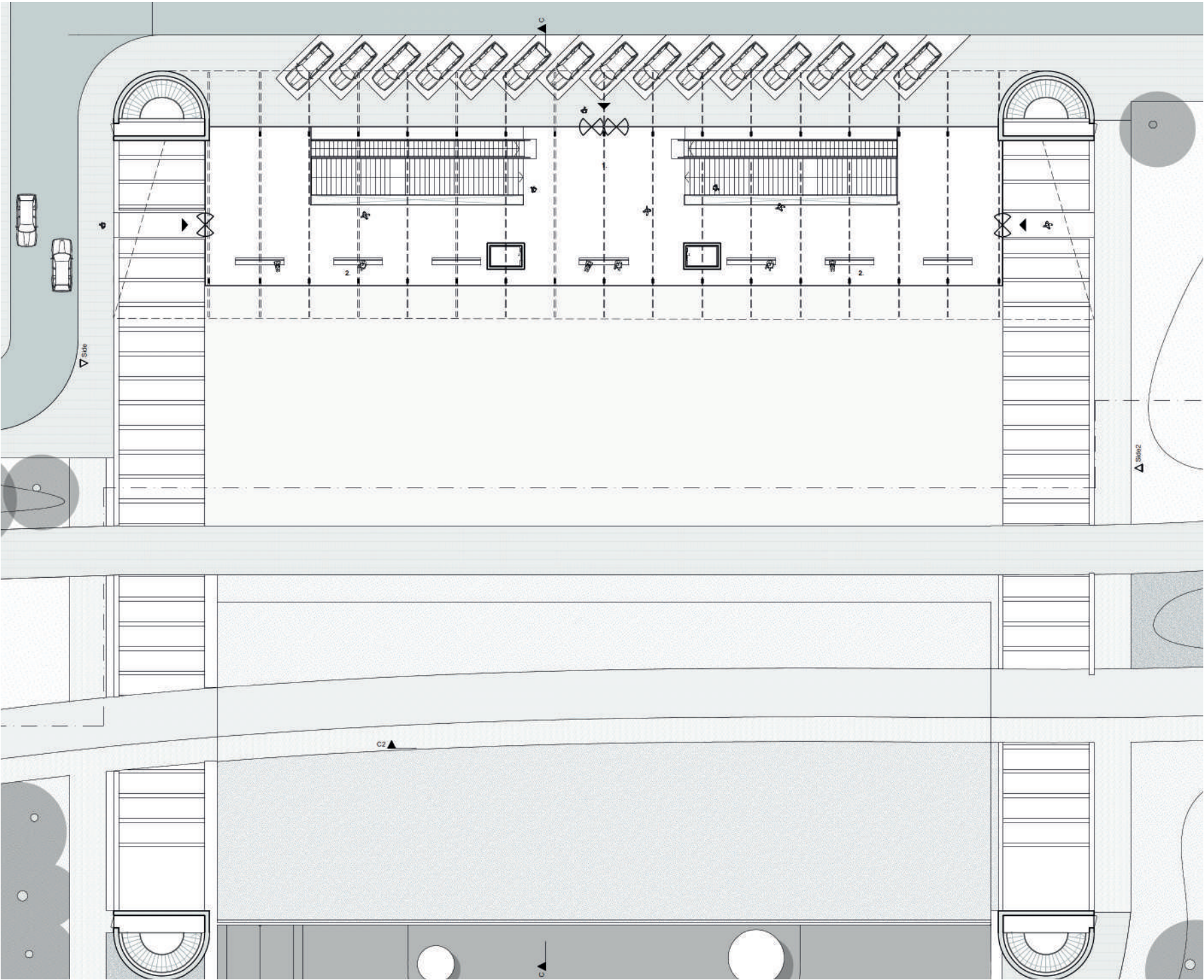
Scale: 1:400

SIDE 2-ELEVATION**BACK-ELEVATION**



BUS STATION
Groundfloor

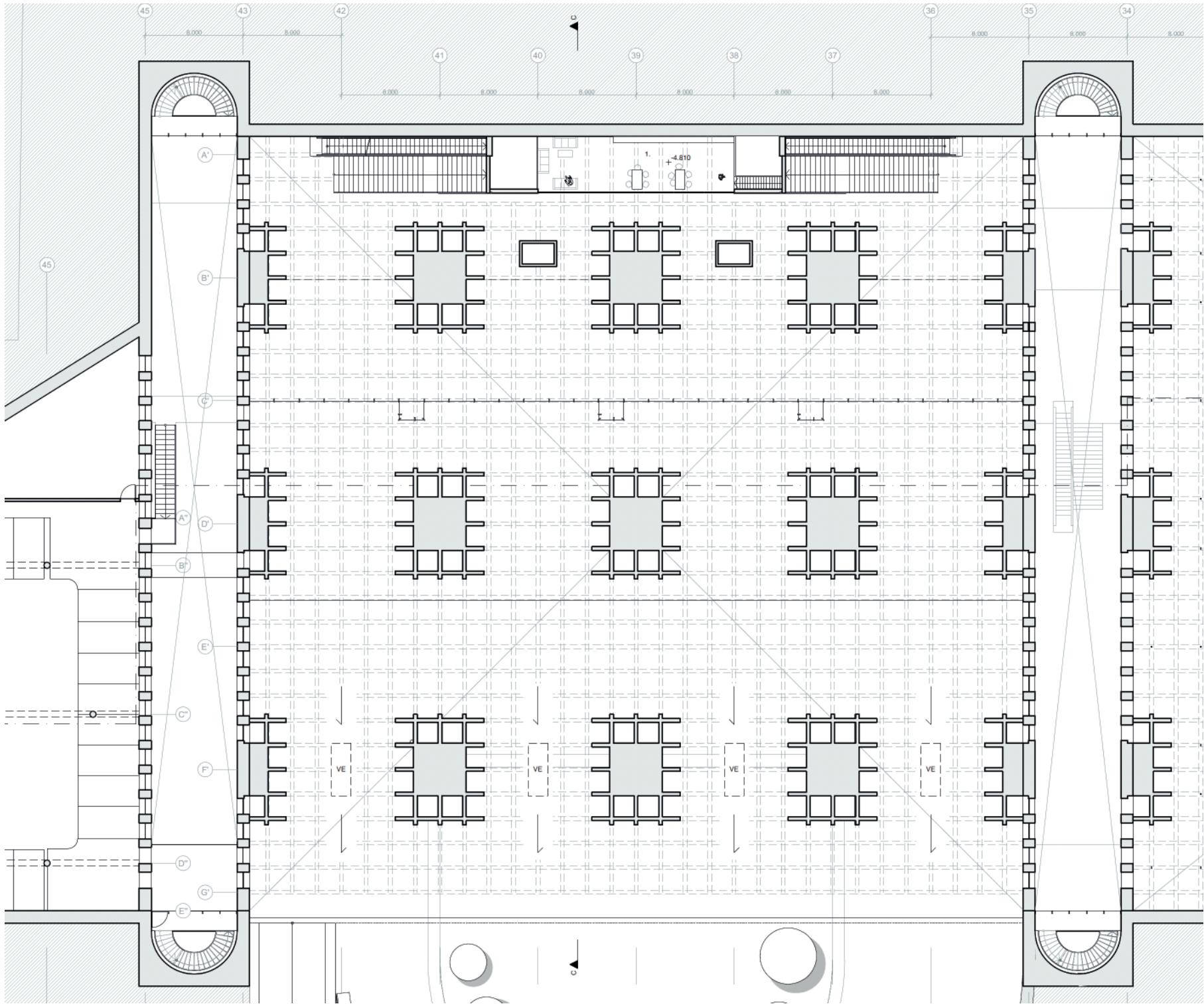
Scale: 1:400



Legend
1. Central area
2. Waiting area

FLOORPLAN -1

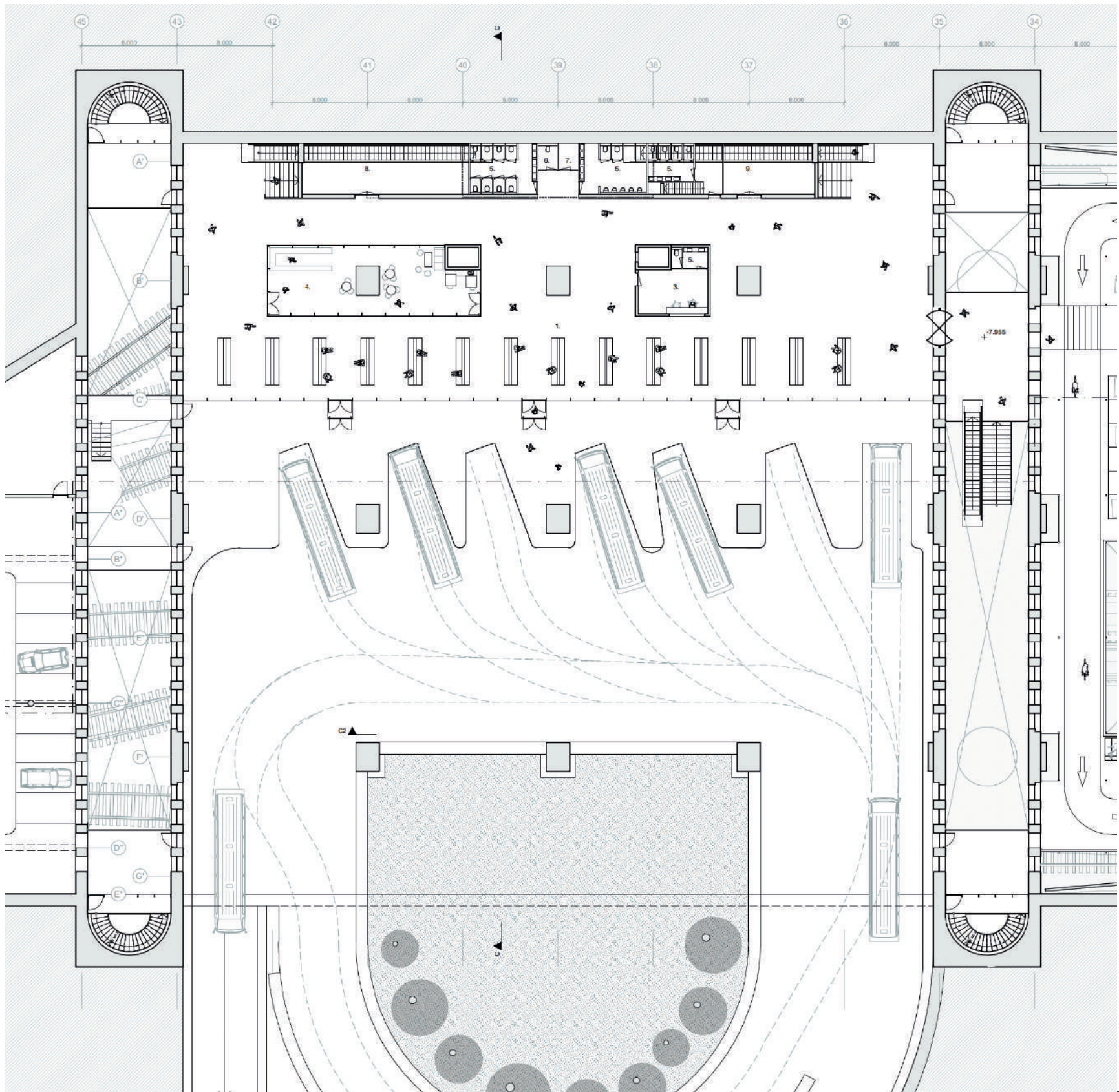
Scale: 1:400



Legend
1. Staff area

FLOORPLAN -2

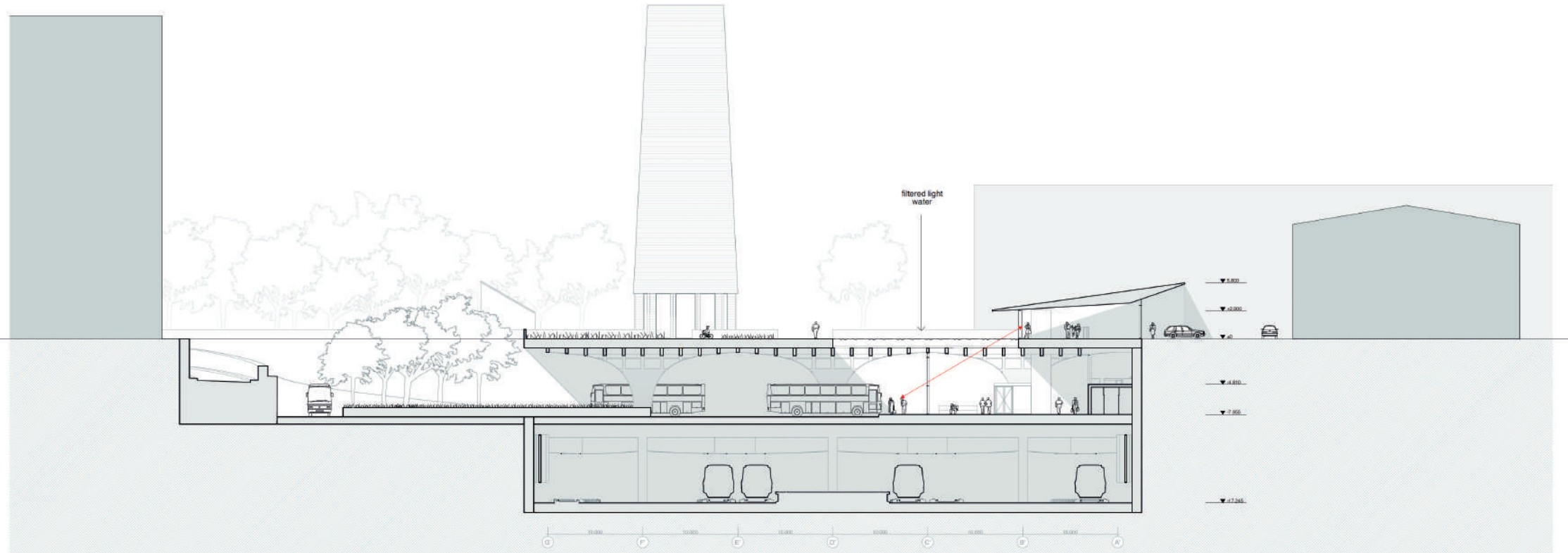
Scale: 1:400



- Legend
- 1. Waiting area
 - 2. Bus platforms
 - 3. Ticket office/ information point
 - 4. Coffee shop
 - 5. Toilets
 - 6. Accessible toilets
 - 7. Cleaning room
 - 8. Installations
 - 9. Storage

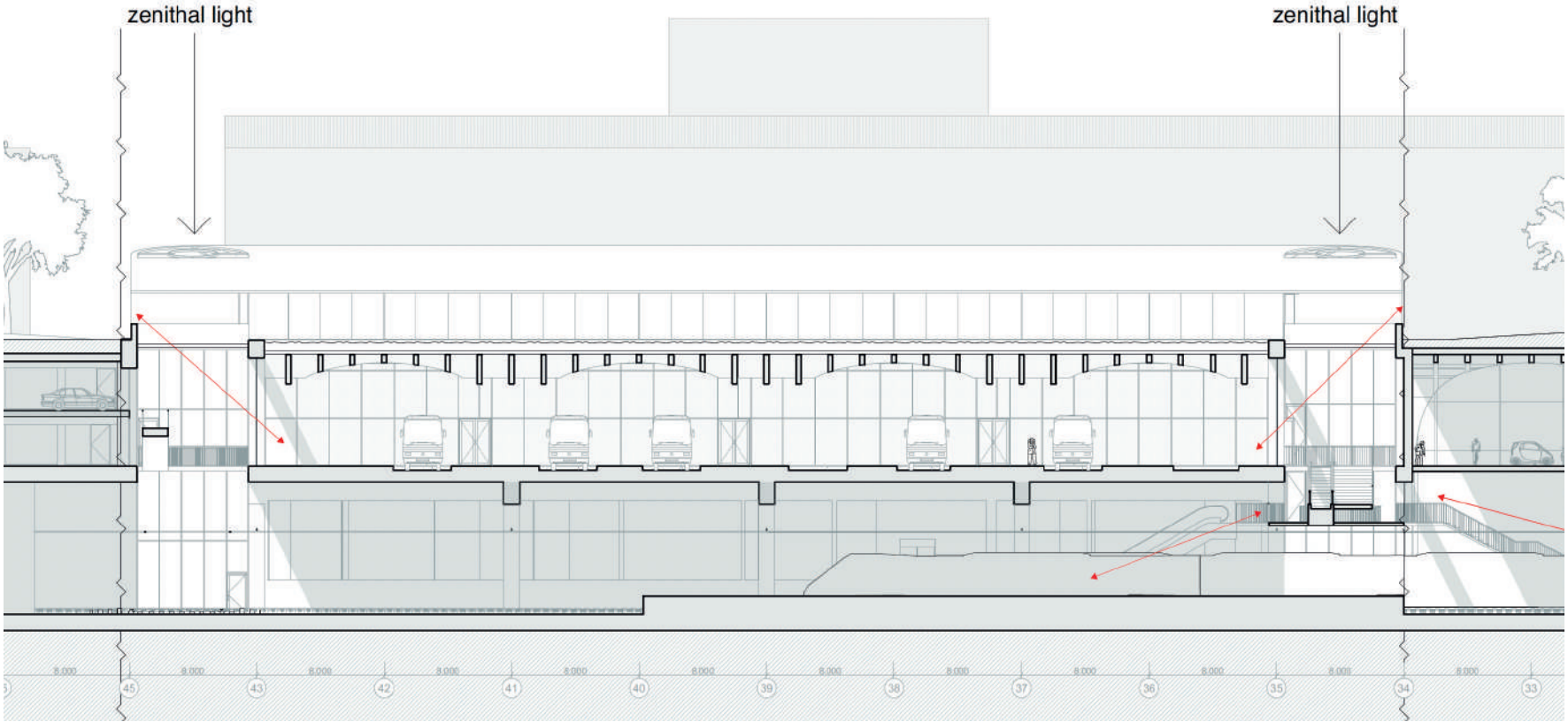
SECTION C-C

Scale: 1:400



SECTION E-E

Scale: 1:400



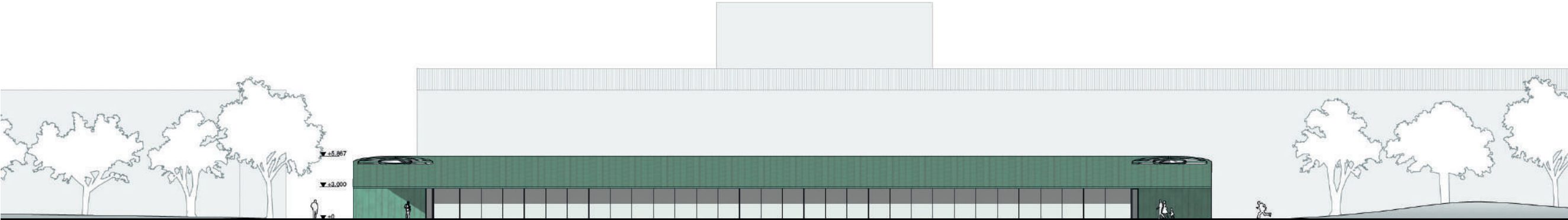
ELEVATIONS

Scale: 1:400

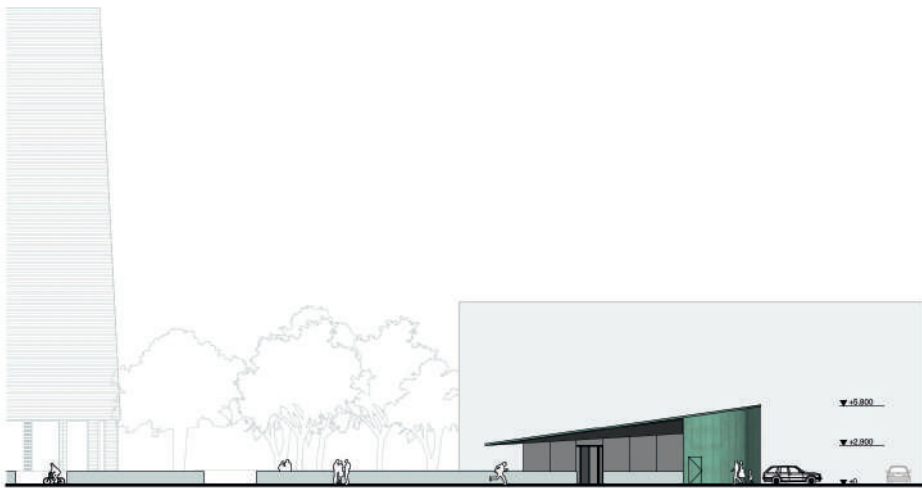
SIDE-ELEVATION



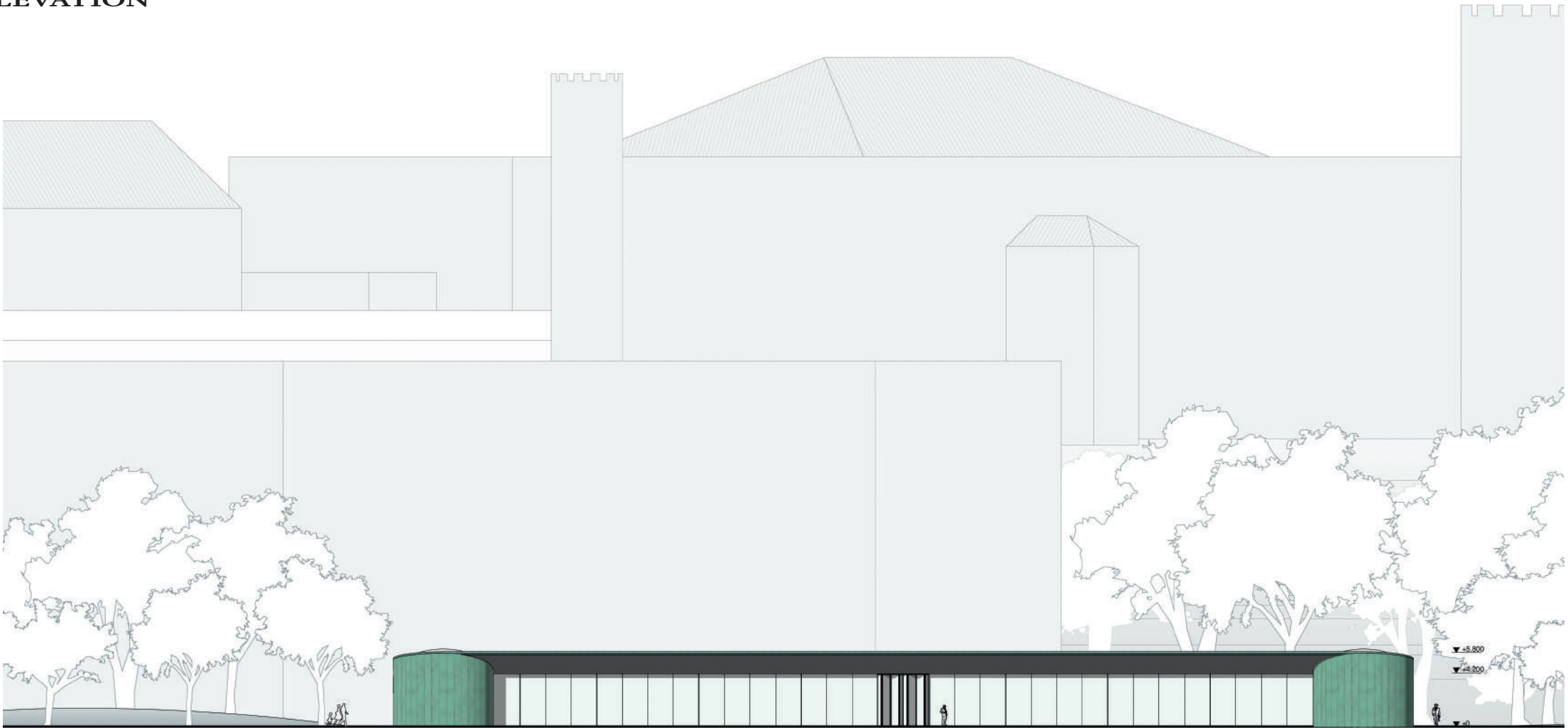
FRONT-ELEVATION



SIDE 2-ELEVATION



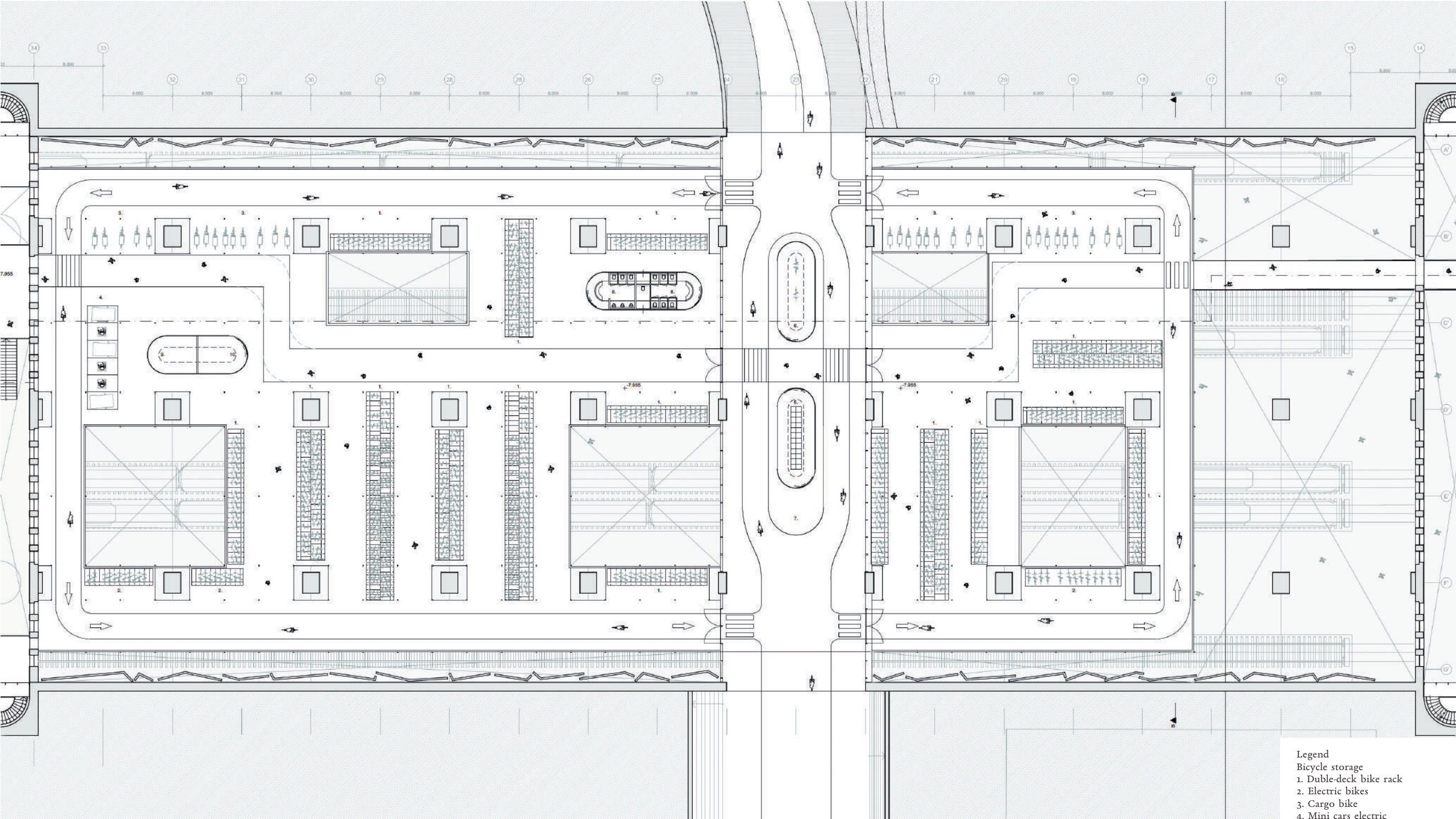
BACK-ELEVATION



BICYCLE PARKING

-2

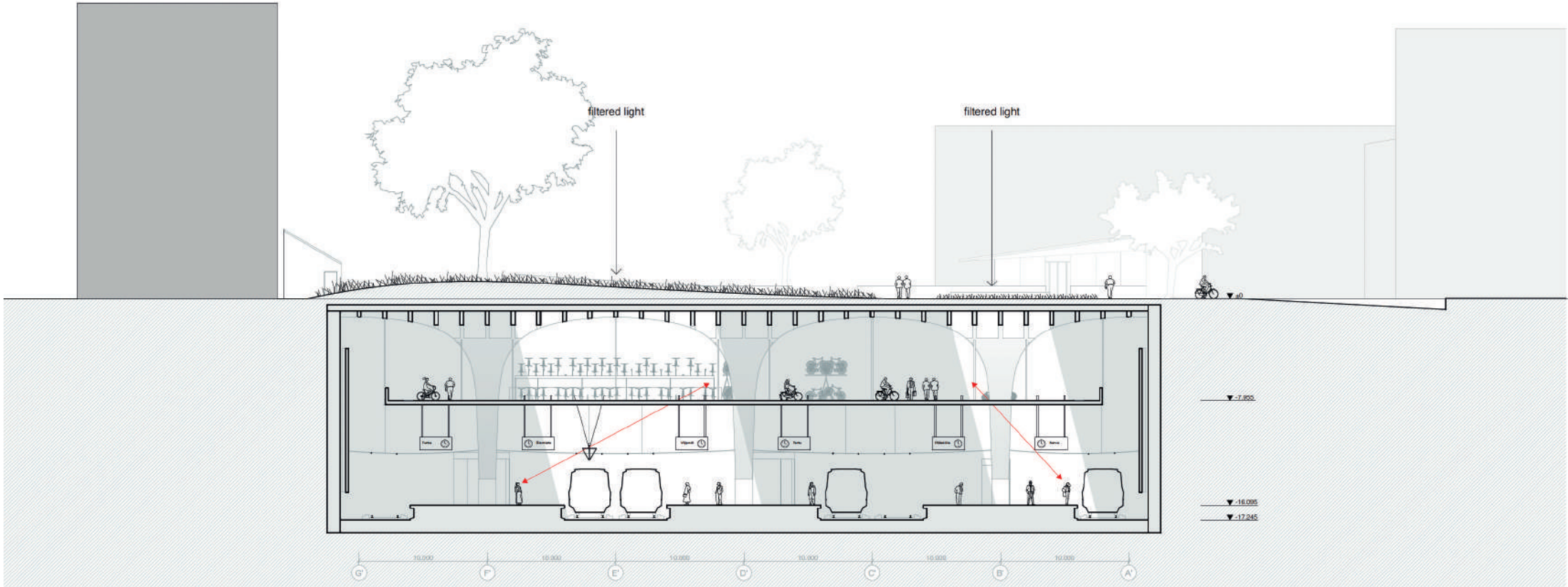
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BICYCLE PARKING

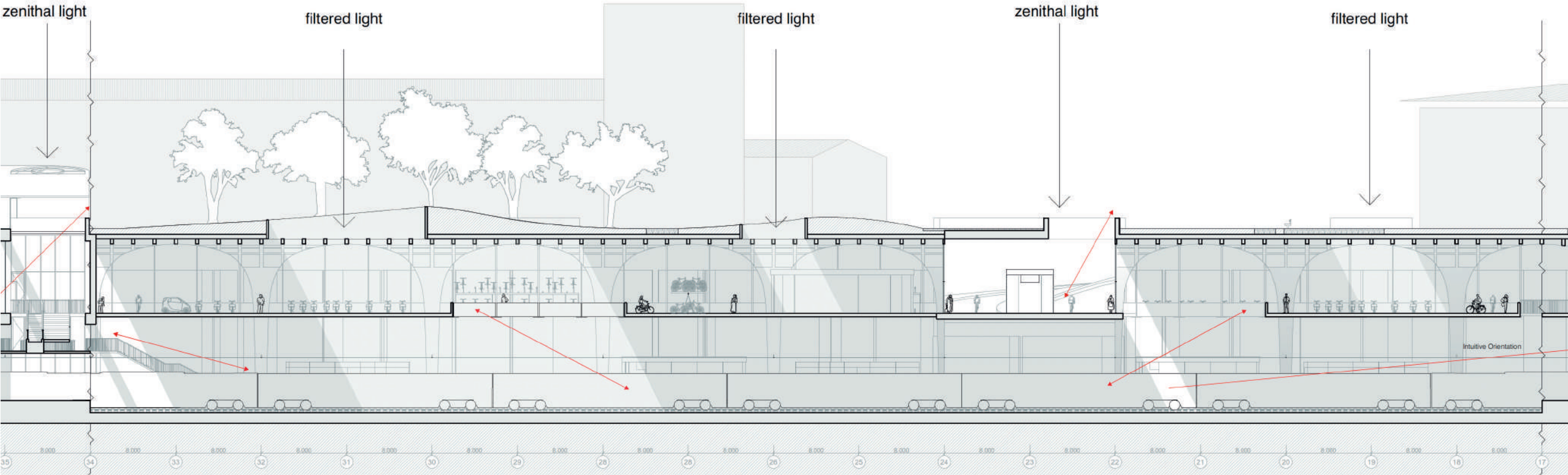
SECTION B-B

Scale: 1:400



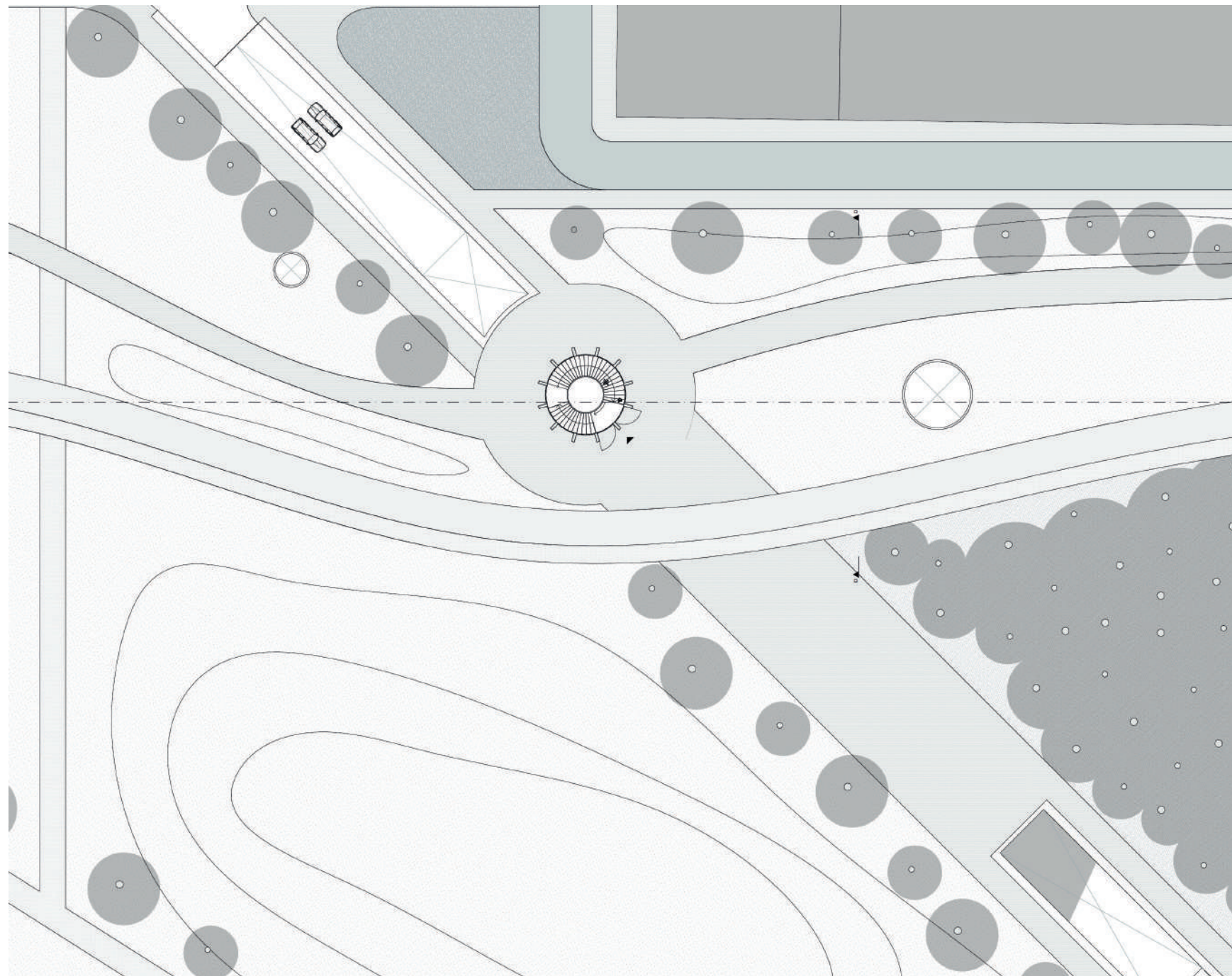
SECTION E-E

Scale: 1:400



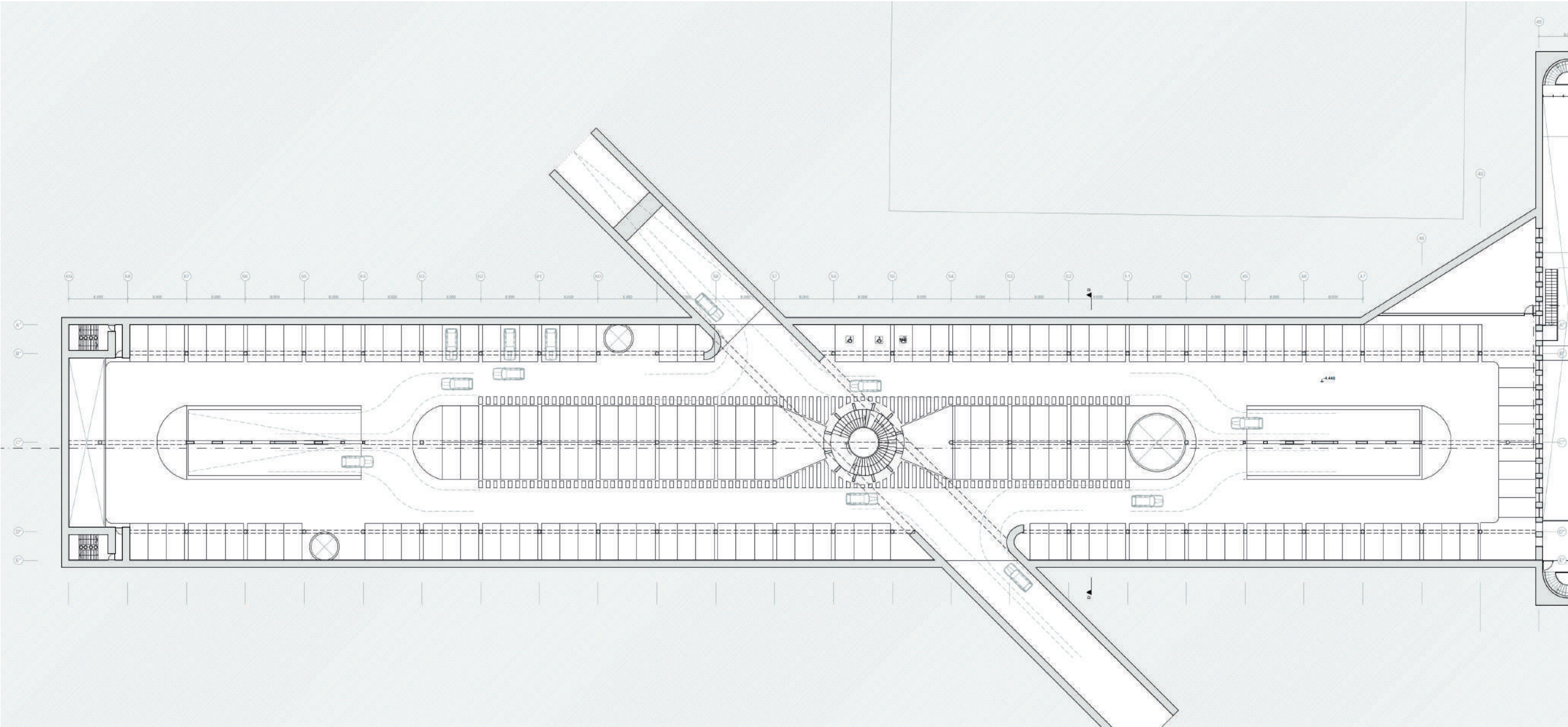
PARKING GARAGE
Groundfloor

Scale: 1:400



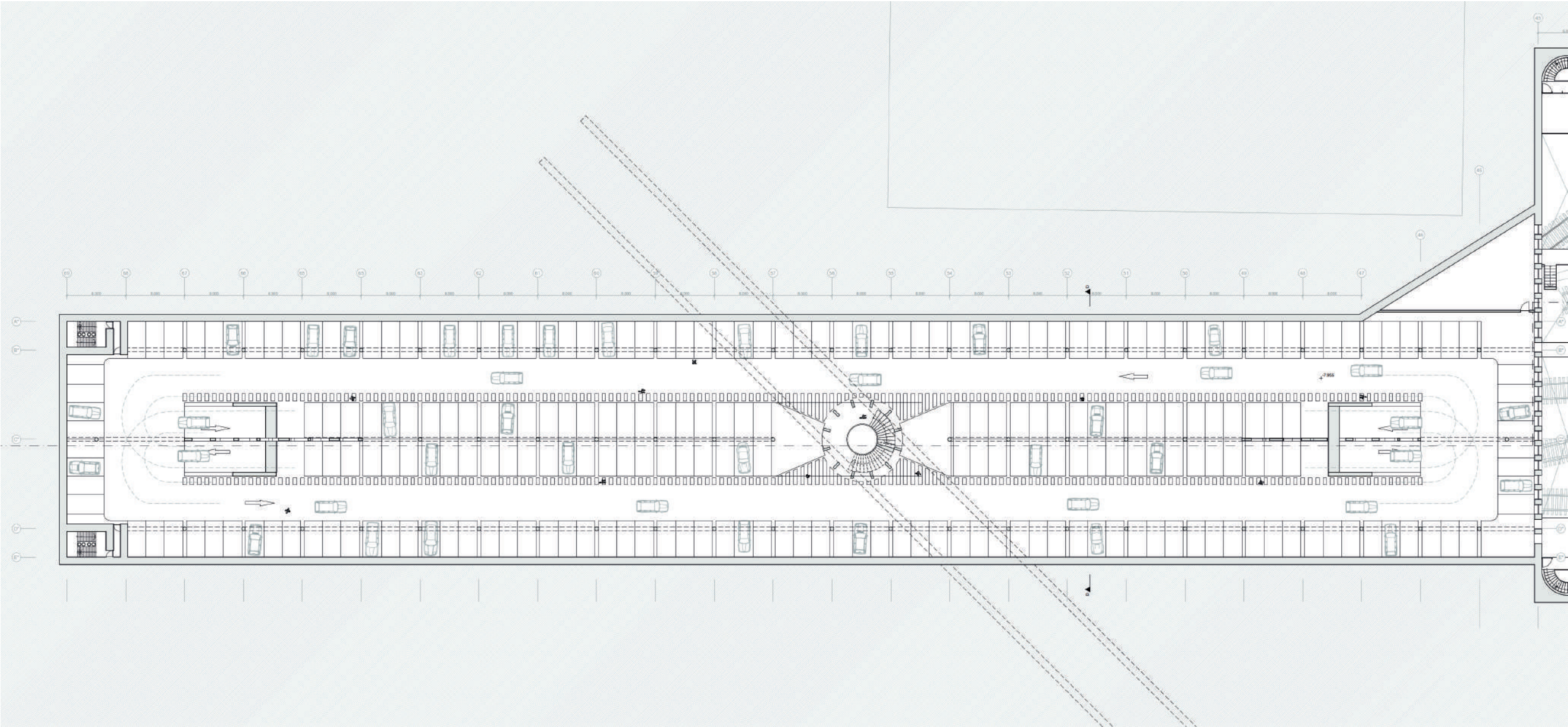
FLOORPLAN -1

Scale: 1:600



FLOORPLAN -2

Scale: 1:600



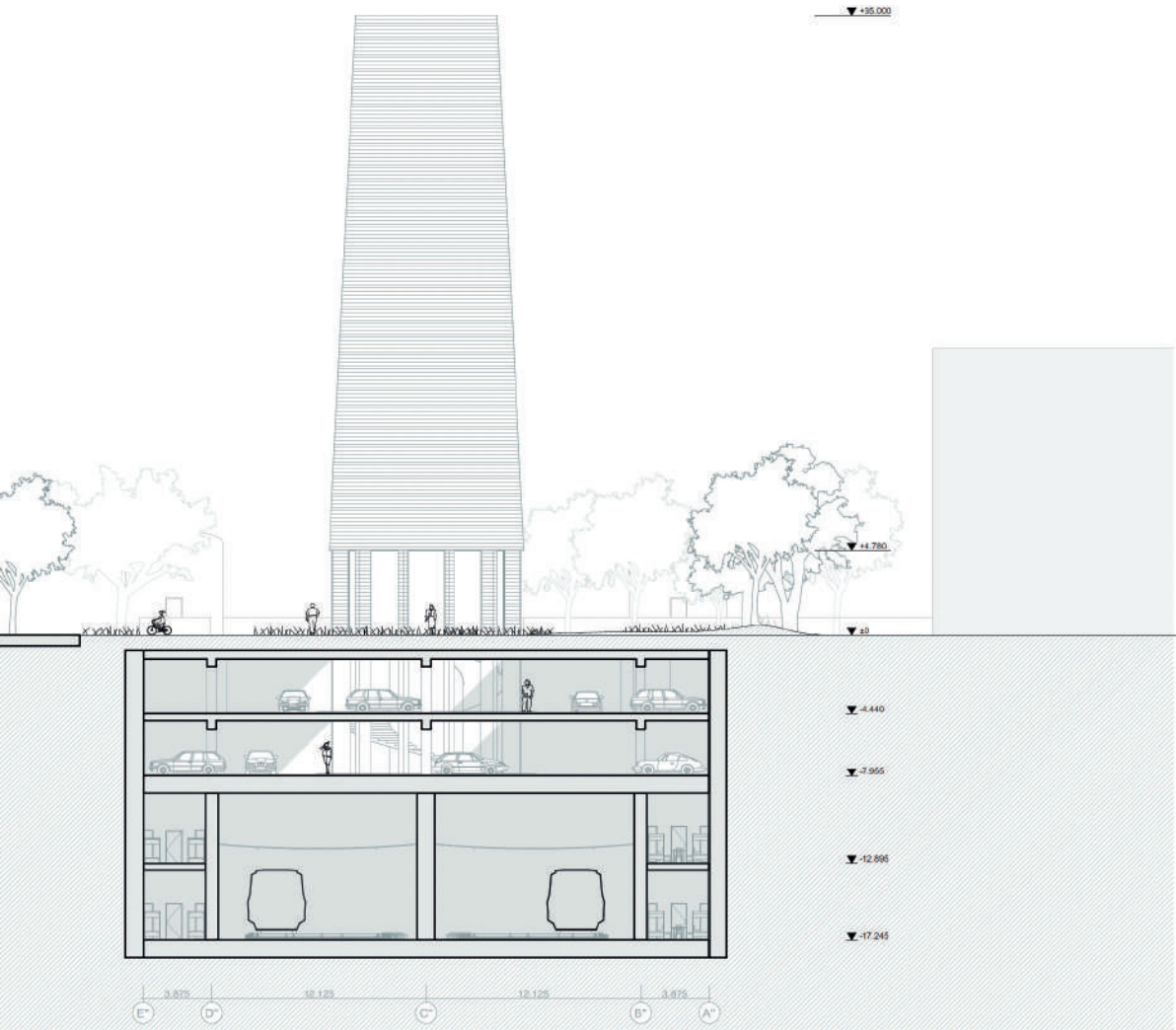
SECTION D-D

Scale: 1:400

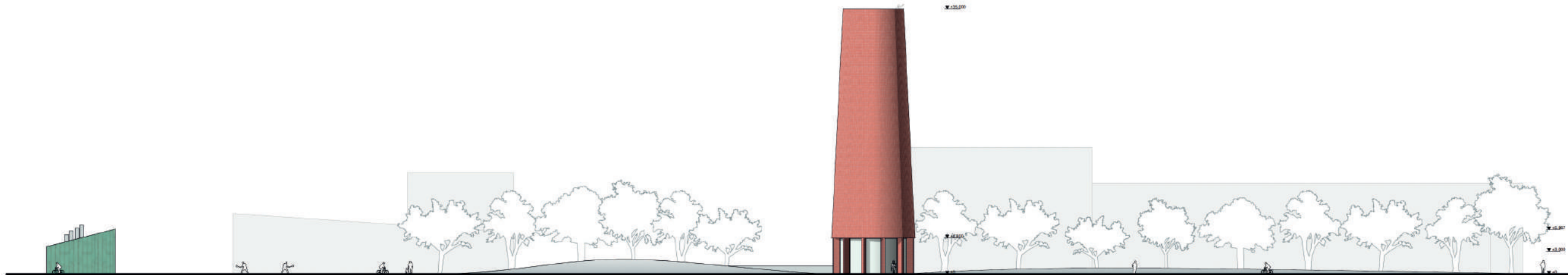


SECTION E-E

Scale: 1:400

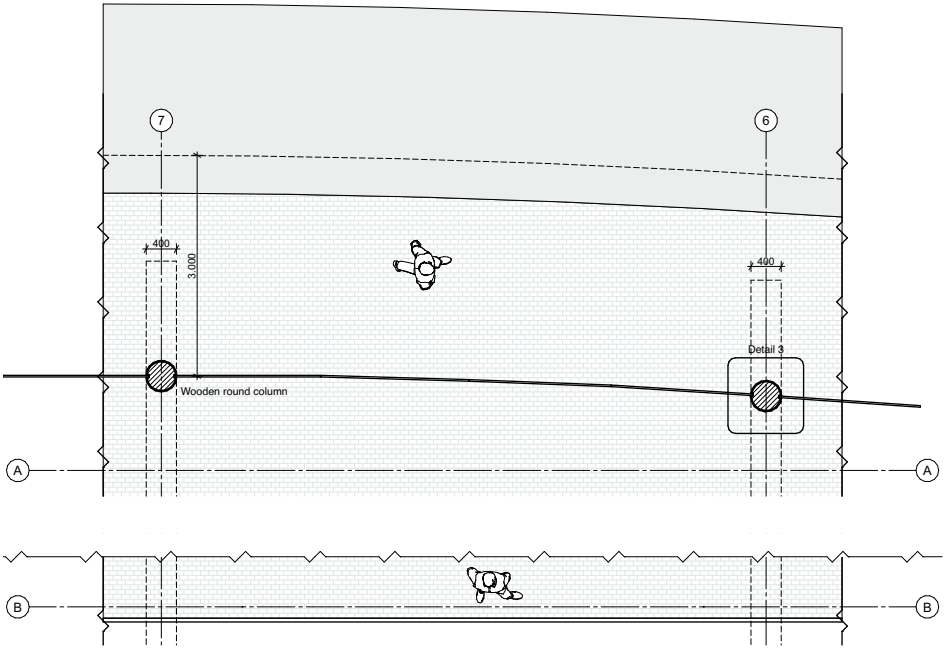
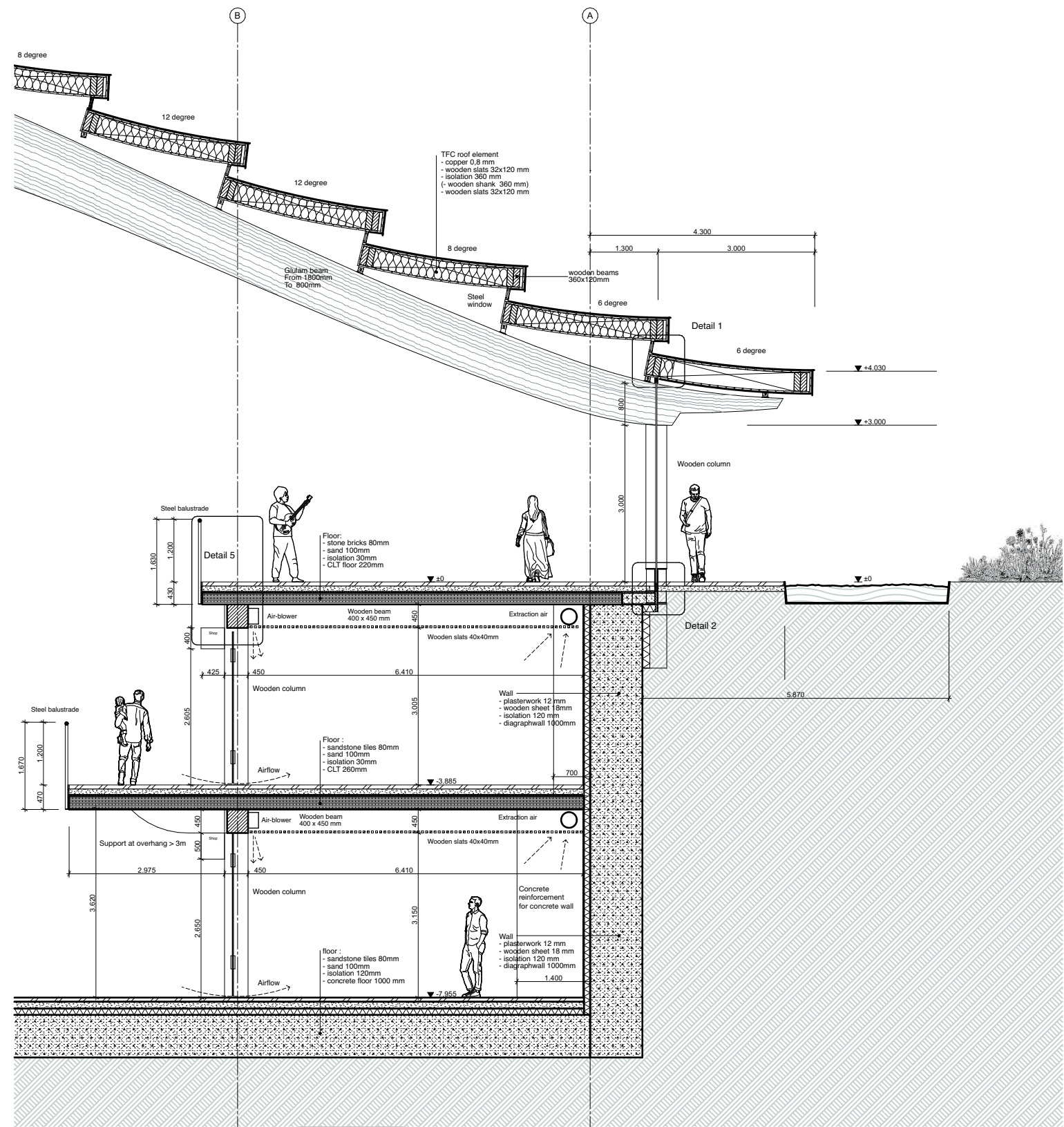


ELEVATION
Scale: 1:600



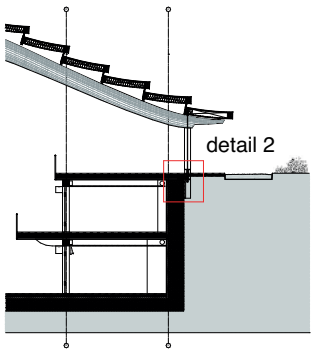
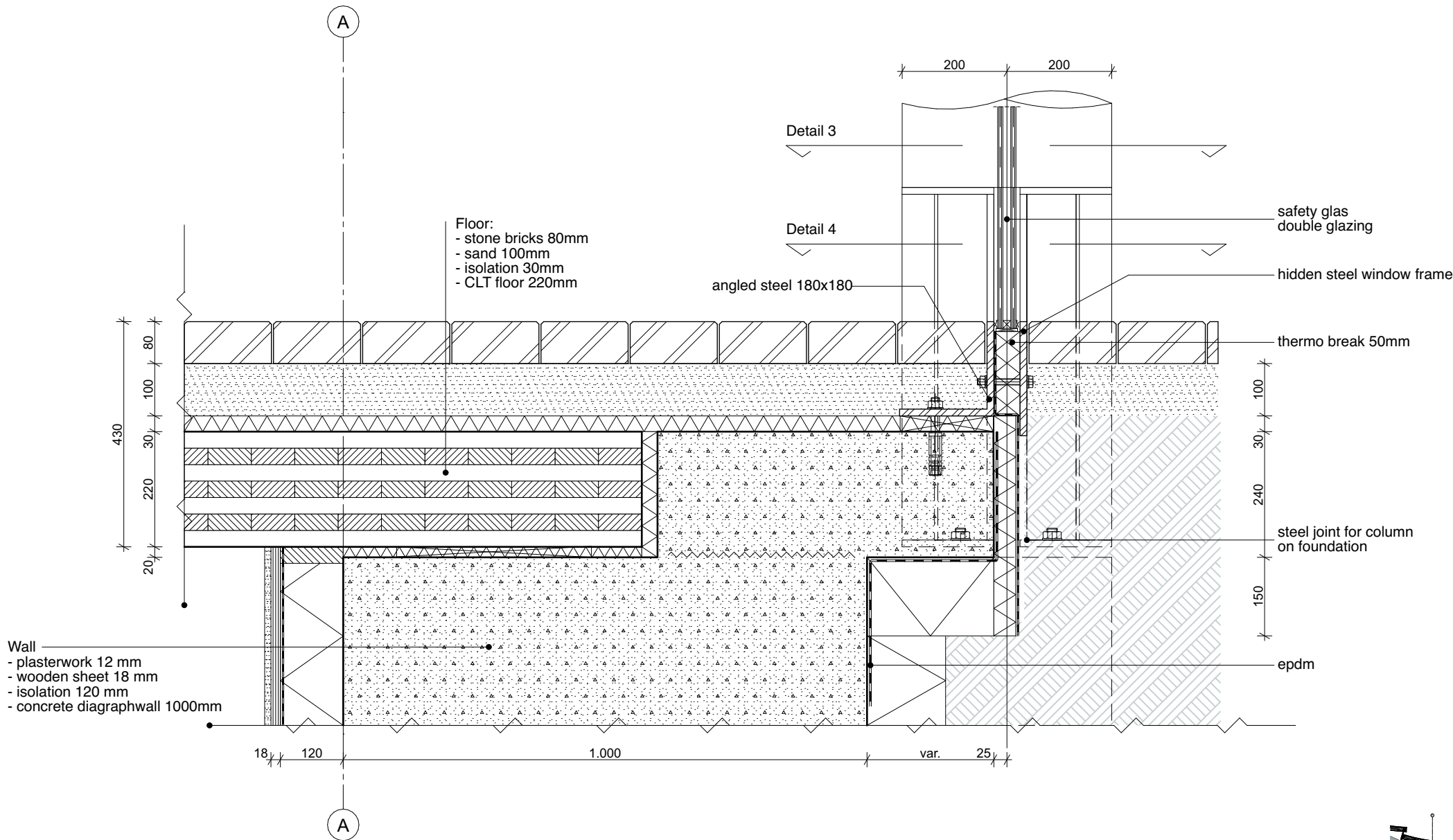
TECHNICAL DRAWINGS
FRAGMENT

Scale: 1:100



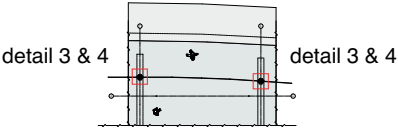
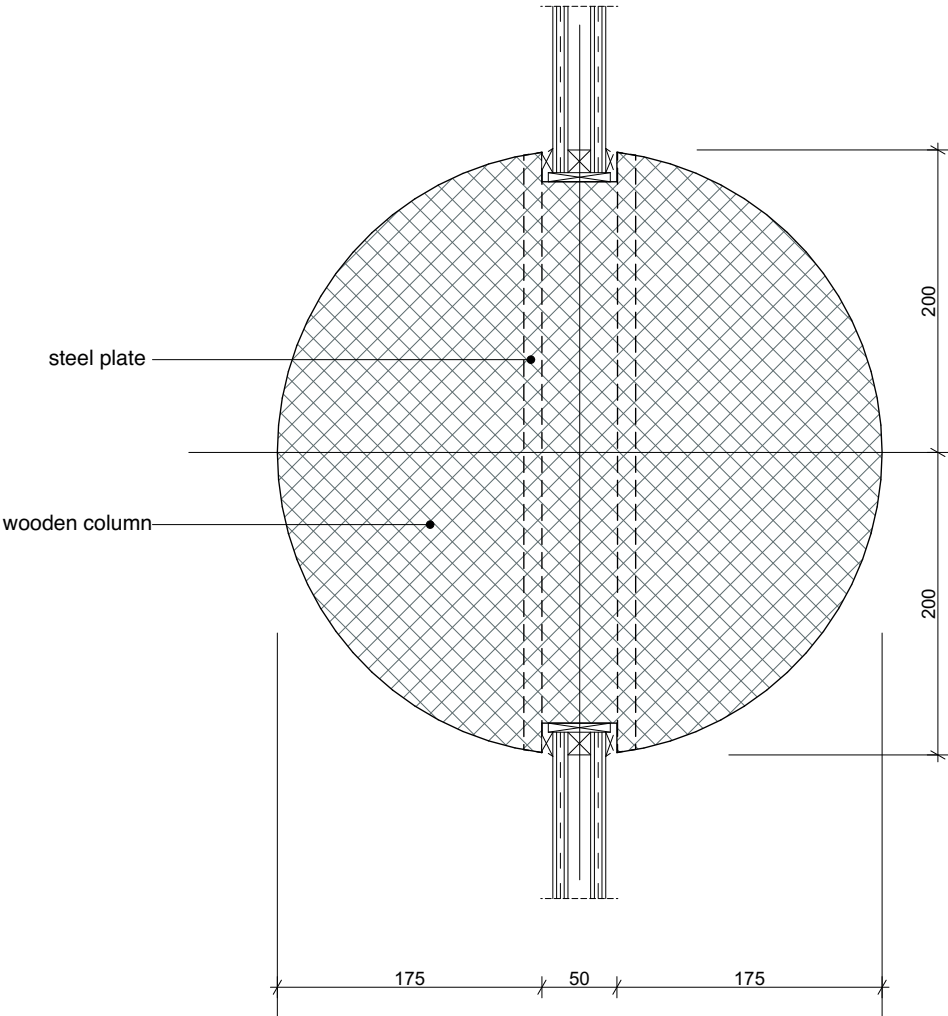
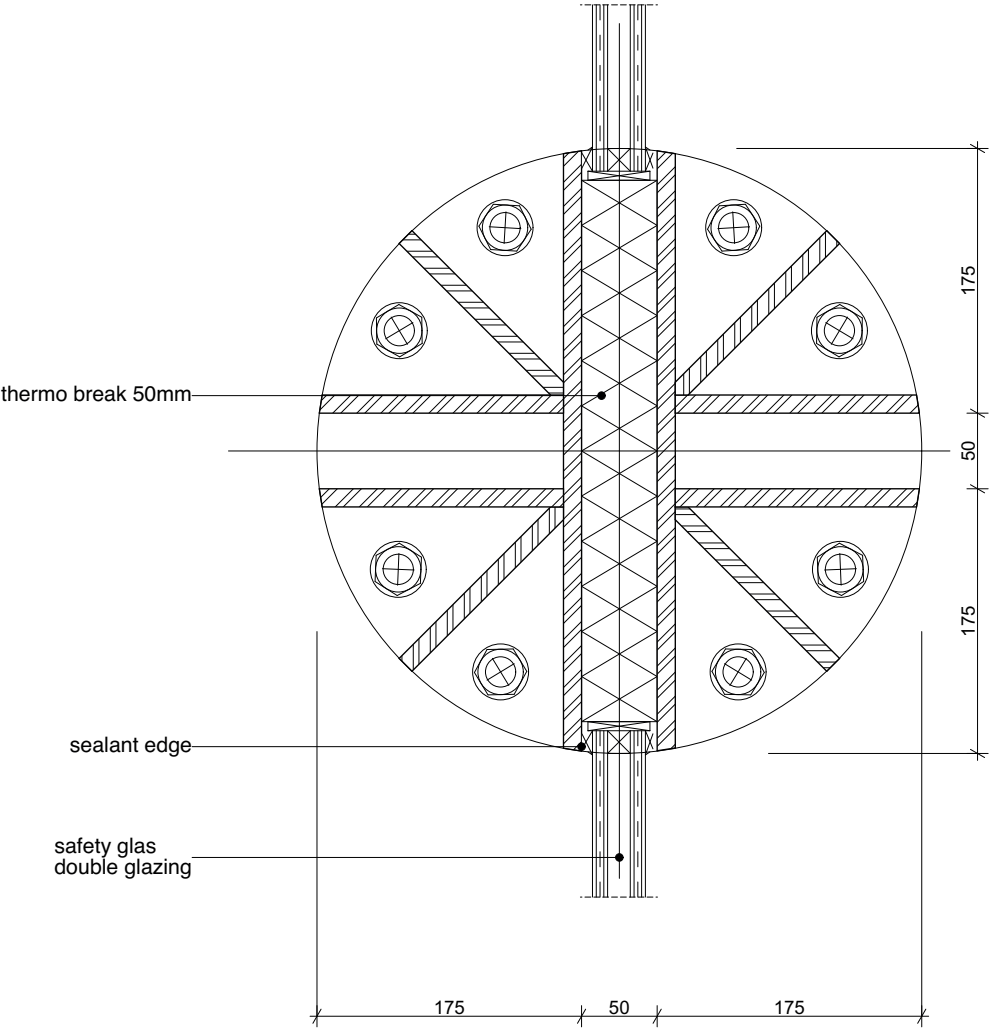
DETAIL 2

Scale: 1:10



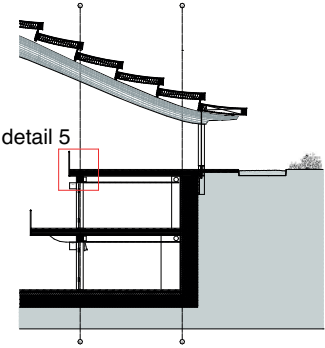
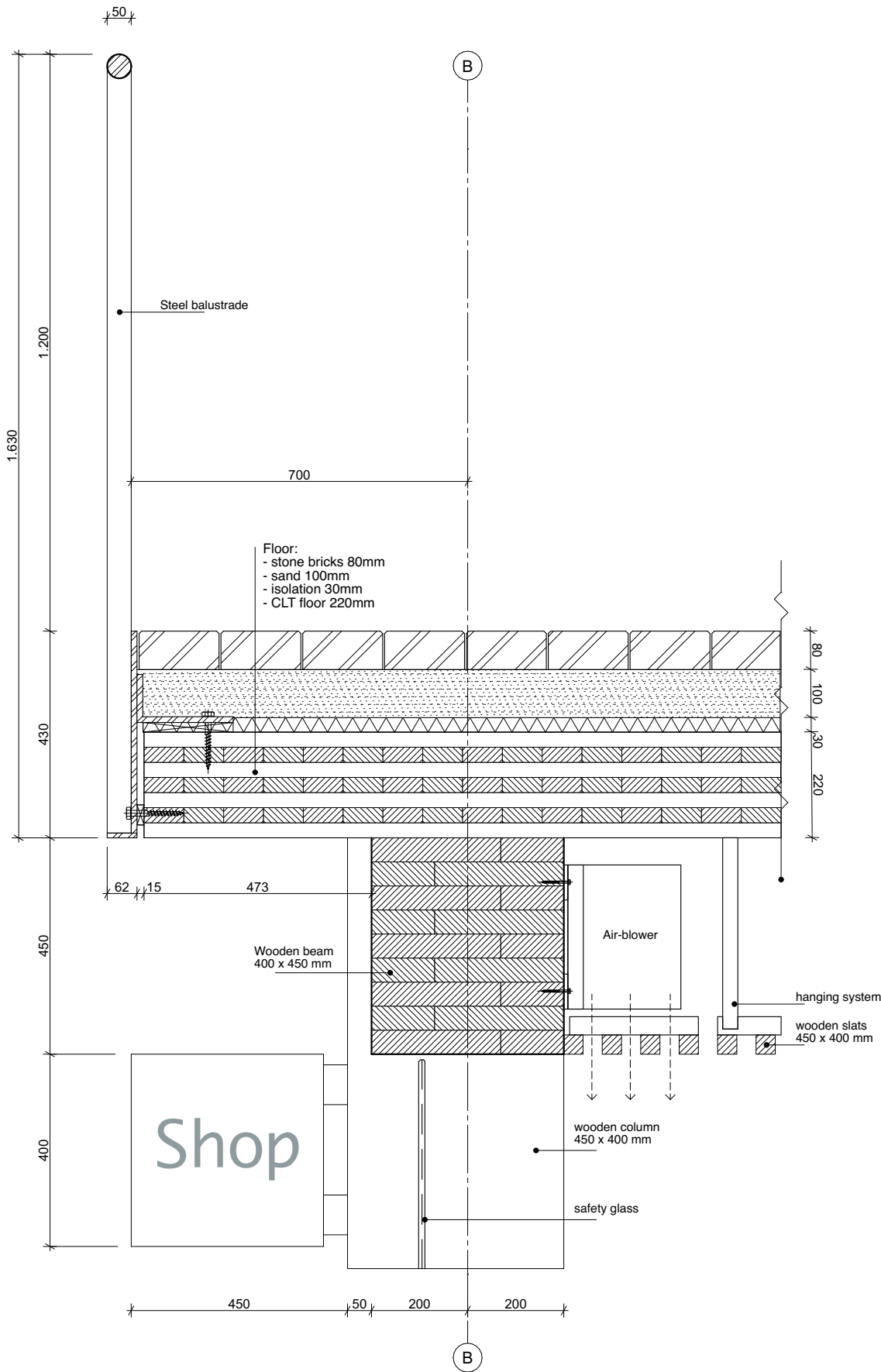
DETAILS 3&4

Scale: 1:5



DETAIL 5

Scale: 1:10



CONCLUSION

The main ambition of this graduation project was to transform the Balti Jaam terminal from an urban scar into a civic connector. Historically acting as a visual, topographical, and unde-
fined boundary, the railway infrastructure separates Tallinn’s historic Old Town from the rapidly
developing northern districts like Telliskivi. The final design successfully resolves this discontinuity.
By merging a chaotic network of disparate logistical nodes (the train platforms, regional bus stati-
on, bicycle facilities, and underground parking) into a single, coherent multimodal hub, the project
effectively "stitches" the urban fabric back together. It transitions the site from a frustrating barrier
into a welcoming, legible 'City Gate'.

Architecturally and technically, this intervention represents a well-considered and radical
departure from the heavy, imposing transit typologies of the past, specifically the existing 1967
Soviet-Modernist pavilion. The design achieves its ambitions through a contrasting spatial division.
By technically sinking the large-scale, heavy infrastructural volumes underground, the street level is
freed. This crucial maneuver allows for the creation of a connecting continuous urban park lands-
cape. Above ground, the architecture responds to the fine-grained urban grid through the delicate
insertion of three modest, human-scaled buildings. Rather than acting as monumental obstacles,
these transparent structures serve as soft thresholds that blend subtly into the city.

On an experiential level, the project proves that underground infrastructure can transcend
its purely functional role as a "machine for movement." The architectural ambitions are realized
through the careful direction of four core spatial themes. Through the strategic manipulation of
natural light, the alignment of intuitive sightlines, the deep integration of the park landscape, and
the deliberate introduction of architectural drama, the underground realm is transformed. It becomes
a psychologically safe, rich, and sensory-driven environment that prioritizes the human scale.

Ultimately, as Tallinn prepares for the completion of the international Rail Baltica terminal
at Ülemiste, this project positions Balti Jaam for its essential future role. While Ülemiste will hand-
le international high-speed arrivals, Balti Jaam is successfully redefined as the primary, democratic
distribution hub for the city center and the domestic network. The project demonstrates that by
prioritizing transparency, spatial continuity, and human experience, a complex infrastructural node
can be transformed from a dividing line into a dynamic, unifying urban environment.

ARCHITECTURAL PERSPECTIVE & FUTURE RECOMMENDATIONS

The project offers a critical reflection on the role of the architect in designing large-scale
infrastructure. Historically, the development of transit hubs has often been dominated by functional
engineering, resulting in monumental and grand structures that sever the urban fabric. This project
demonstrates that the architectural profession can reclaim these spaces by prioritizing human scale
and urban continuity.

The project advocates for a paradigm shift in how architects approach infrastructure in
historic or fine-grained cities. Instead of creating imposing new landmarks, the profession should
focus on subtle integration, blurring the threshold between the city and the interior, and utilizing
infrastructure as an active tool for social cohesion rather than segregation.

Future recommendations

Given the extensive scope of this multimodal masterplan, the design was developed across
multiple scales, focusing primarily on the overarching urban integration and the technical detailing
of the main station hall. Consequently, certain programmatic zones remain open for further archi-
tectural exploration.

In future research and design phases, a deeper investigation into the technical materializati-
on and precise detailing of these remaining areas is recommended. Developing these aspects would
elevate the entire complex to the same high level of architectural resolution as the main terminal.
Furthermore, the urban strategy surrounding the historic Old Town needs further refinement to
ensure a fully cohesive masterplan around the Old Town.

PERSONAL REFLECTION

During the project, various case studies played a fundamental role in shaping and spatially translating the design. The methodology of research by design proved to be the driving force behind this. By continuously drawing and testing the design, new spatial questions constantly emerged that required specific attention. By conducting targeted research into these findings and directly integrating the outcomes back into the project, the design achieved a level of depth and layering that ensures its ultimate architectural quality. Looking back critically at the research process, I realize there was still room for further abstract exploration. By more thoroughly analyzing the theories and spatial visions of other architects and contrasting them with my own findings, the project's theoretical foundation could have been even stronger.

Reflecting on the design process, I must acknowledge that the original assignment (designing a comprehensive multimodal hub alongside an urban park landscape) was extremely ambitious and arguably too big for an individual graduation project. The strategic decision midway through to zoom in specifically on the detailing of the main station hall was necessary to keep the project manageable. Nevertheless, my drive for perfection and spatial coherence meant that I still pushed the development of the other programmatic zones (such as the bus station and bicycle parking) to a very high level of detail.

This refusal to compromise on the surrounding spaces made the past few months exceptionally demanding and intense. Yet, I look back on this period with great satisfaction. It is precisely this broad design effort, and the depth pursued across the entire scope of the program, that ultimately paid off. It ensured that the project never feels like a collection of disconnected fragments, but rather comes perfectly together as one powerful, cohesive, and convincing spatial whole.

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