





# 1. VISION AND PHILOSOPHY OF THE DESIGN



## 1.1. AMBITION

Bearer of twenty-three-centuries of history and crossway between the East and the West, Thessaloniki is facing the historical opportunity to redevelop a crucial part of its city centre, and to turn it with this operation into a vibrant international business hub and tourist attractor.

Inspired by this vision, our project arises from the desire to take this opportunity and add a missing piece in the urban plan of the city, a living platform that will be strategically able to link, converge and orchestrate new and old urban flows, guiding Thessaloniki towards the future and providing a new lecture of its local qualities and immense heritage.

### AN ATTRACTOR AT MULTIPLE SCALES

The project has been conceived in order to meet the city's expectation and provide Helexpo a powerful urban device, necessary to mediate and strengthen multiple scales of interaction. In the project the area plays the role of a connecting link between various urban actors and typologies: the mountain and the sea, the East and West parts of the city, the large structures surrounding the plot.

The project site is transformed to an architectural catalyst, where history, economy and sustainability could work together in harmony providing a place where local, urban and international flows could cohabit. Specifically, the meticulous urban re-stitching operation carried out on what is currently an urban void, will make the project an attractor of daily and local life, capable of restructuring the disconnected urban tissues that now surround the site. This pedestrian flow, thanks to the new urban central park and related spaces, will represent the new central attractor of Thessaloniki, converging public urban life. Finally, the exhibition and welcoming spaces will make the city an international business and tourist destination, worthy of its rich and multicultural history. Thessaloniki will be a greener, more attractive, and welcoming city. A place ready to face the challenges of the 21st century.

### A VISIONARY AND HUMANE LANDMARK

The project provides a new yet humane landmark for the city, both in the architecture configuration and in the public flux. The site will become an innovative and unique exhibition centre, an iconic construction able to merge sustainability and high-standard construction technology. This new monumental yet modest presence will therefore create a place for the city to be inhabited thanks to its potential multiple use: a living organism for the city and its inhabitants, a quiet presence that acts as a platform for multiple uses and environmental regulation needs, mediating between global ambitions and local demands of inhabitants.

## 1.2. URBAN APPROACH

### STRATIGRAPHY AND LAYERS, THESSALONIKI AS A "LIVING PALIMPSEST"

Thessaloniki is a melting pot of cultures visible in its indiosyncratic urban fabric that imprints important moments in the city's history that have formed and still channel people's urban behavior and everyday's living patterns. The Helexpo site, once a rural area outside the Roman city's fortifications transversed by natural water streams coming down from Seih Sou mountain became a burial site during the Hellenistic period, later overlayed by a Jewish burial site engraving the first manmade traces, movement paths across the large area that still are relevant to date. Following the disastrous fire of 1917 a vision for a metropolitan park arouse conceived upon the premise of a major connector between the historic city center and the new city that was expanding to the east by its creator, French city planner Ernest Hebrard, who envisioned large boulevards and monumental axis in the Haussmannian manner extending his vision across the devastated historic center, only partly realized.

### THE SITE AS THE MISSING LINK BETWEEN MULTIPLE SCALES:

The Helexpo site, once an enclosed site, unconnected with the surrounding context saw its hayday as Thessaloniki rose to become a key location for the regional economy still to date calls for the necessity for an inclusive open area that will accommodate a modern Conference park in the most efficient way making it part of a public park experience that the city longs for. The project pays tribute to Thessaloniki as a "living palimpsest" integrating history as part of its making. Memory and lost opportunities of the past merge with the present, looking forward to the urban life cycle offering flexibility and adaptability for short and long time span urban transformations. Situated right between the Museum District and the University campus, one of the most important examples of Modern Urbanism in Greece the site was once home of a modern architecture experimentation whose legacy continues as the values of simplicity, expression of form, functionality and adaptation to the local climate conditions are applied to a contemporary monument for the city. The new structure is seen as a barer of a multiplicity of spatial experiences unfolding in dialogue with the park: at times pavilions, courtyards, elevated walkway echoing the cornice, terraces, passages and porches. A horizontal linear element, providing shade expands around the main conference centre and the adjacent business centre. It is a buffer zone of movement, a lively organism seen from the surrounding area offering an identity to the whole complex and a unifying simplicity. At the same time its protrusion conceals the scale and generosity of the volume of program behind only revealed once inside the flexible exhibition halls.



Thessaloniki is an inherently modern city. As most of the Greek cities the urban tissue is dense, the “polykatoikia” apartment building, a repetitive and visually chaotic typology - is dominating the urban landscape, while Thessaloniki remains among the cities with the least amount of green space per capita in Europe. In this context, the majority of the site is given to become a landmark park, drawing inspiration and reference from the paths of history: the original paths marked over time connecting the city with the surroundings, the monumental axis and the vision of connectivity through landscape of the Hebrard plan, the natural topography of the site where the streams once ran through, addressing issues of natural means of rainwater flow, ground permeability and passive sustainability. The built structures hover gently with their simple materiality over the landscape that invades through the intersitices while continuing the park inside the conference complex. Large elevated terraces, on both the Conference and Business Centre expand the park above the structures creating breath-taking lush views towards the sea and the mountain. Generous public spaces, today missing from the city’s inventory, reveal the uniqueness of this site located at the heart of the city's center. An array of functional possibilities becomes possible at the interface between the outdoor and the indoor.

Viewed from the Syntrivani Square the Business Center integrates with the University buildings at the north without challenging their history and architectural significance. All while opening up the view and movement to the new Park extending all the way to the Square surrounding the building. The whole emphasizes a global Campus quality to this development. The square that was once a congested busy crossroad will be now attributed to pedestrian movement. Greek outdoor culture - in Thessaloniki particularly - revolves around the street, the stroll, the appreciation of nature as a part of movement within the city. This project echoes this local life, the local way of making public spaces. More specifically the project resonates with the Waterfront Promenade Park contributing greatly to the identity of the city.

ConfExPark embraces existing infrastructures expanding the network of promenades and strolls into a cohesive whole. The built structure with its calm and subtlety will enhance the experience without imposing its presence at the human scale, the citizen's level. As it floats, as a snail, at the upper height, it leaves the whole ground all transparent to the public. Events and Exhibitions remain visible to the public from the park and the very outer perimeter of the site. Visitors are invited to irrigate the site from the east and west, north and south, always maintaining human scale and visual connection. The night reveals further this approach, as the "snail" floats all above an illuminated ground floor.

1.3 LANDSCAPE DESIGN AND PUBLIC SPACE

The proposed landscape intervention in site addresses the need for a cohesive and adaptive public park for Thessaloniki: its territorial, urban, and neighbourhood scales take shape in the dimensions and directions of the park, ready to welcome both ordinary activities and extraordinary exhibitions and events promoted by the vocation of this new urban centre.

The formal translation of the influence of three scales (landscape, urban, and district) occurs on three levels, i.e. topography, routing system, and vegetation and water features, which have concurred to hierarchise coherently the outdoor spaces. The topographic gradient of the ConfEx Park site is designed accordingly to its natural essence, gently sloping from the mountain seawards. Hence, allées and pathways are conceived as belvedere routes opening onto the clearings they enclose. The routing system is structured according to landscape entities, urban connections, and district necessities. The monumental allée, running through the site from north-east to south-west, connects physically and symbolically the important landscape entities of mountain Seikh Sou and Aegean Sea. The secondary allée system addresses Thessaloniki city scale through relevant urban directions, like the north-south axis parallel to Aggelaki street. The meandering system of smooth pathways introduces the neighbourhood level to the park, giving it an intimate and almost domestic importance.

The vegetation palette responds tolerantly to the temperate humid subtropical climate characterising the territory of Thessaloniki. The chosen species equipped with dense canopies, contribute to the reduction of urban heat island effect providing shade and coolness along the park allées. Ultimately, through the element of water we want to propose three moments of public and social aggregation: the two circular water fountains equipped with stone benches, positioned outside the entrances towards the core of the exhibition centre; the two rectangular water tables, through their elongated shape, accompany the visitor on his walk towards the inner core of the complex; the elliptic basins, invites visitors to interacting.



Thessaloniki - Byzantine Walls



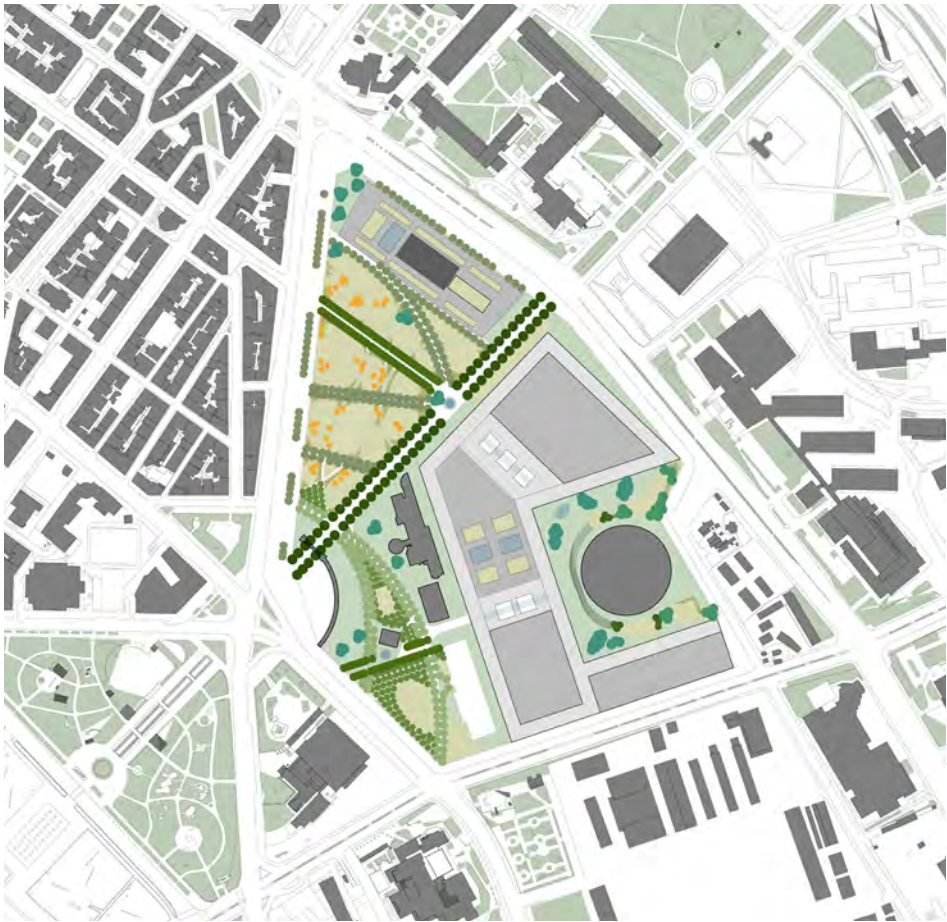
The site as a park in the Hébrard Plan for Thessaloniki - 1919



The walkway of the Stoa of Attalos



The animated roof of Bey Hamam



ConfEx Park - landscape design





1.4 A MULTIFUNCTIONAL CLUSTER

In order to reach the required complexity and interconnection, the architecture designed has been conceived as a multifunctional system, able to respond to requirements through the interaction of various components, architectural elements and layers of design.

A SEQUENCE OF MULTIPLE ACTIVITIES

The project plan is organized around a flexible sequence of multiple spaces, able to host an infinite range of activities, thanks to their generous dimensions and proportions. This flexibility is achieved with the decision to group all the required service spaces and vertical circulation into functional stripes serving and framing multifunctional buffer spaces of transit, and functional large-halls able to connect, visually and physically, the outdoor to the indoor spaces. A great feeling of lightness is hence drawn onto the landscape.

Through a rhythmic sequence of activities, the project is able to provide both efficiency and flexibility. While the whole is orchestrated around a simple and clear management of circulation flows.

AN INHABITED PERMEABLE BORDER

With the ability of closing or opening - connecting or separating - the gates and glazed skin of what we would call a functional belt act like a smart permeable border. The design mediates and fosters dialogue between the various range of public spaces surrounding the site. At times generating intimate public platforms and at others directing flows. The proposed architecture is hence envisioned as a tool of dialogue and connection between the main features of this context: the OTE tower to the AAMTH, through the Exhibition Center; from Egnatia street and the University Campus to the Confex Park through the Business Centre.

Open yet covered spaces of interconnection pay homage to the great architectural Greek heritage, looking directly at the stoà physical setting, consisting of covered walkways for public use. In classical Greek architecture, the stoà represents a simple typology, characterized at the same time by a high functional availability and a high compositional value, a framing architectural device with a rich variety of potential uses.

AN ICONIC YET UNIFYING FLOATING "SNAIL"

The sequence of service bands and multifunctional halls are covered by an inhabited functional roof. Reading as floating stripe the roof appears as an organism with a quiet and appealing presence in the landscape. It gives a clear identity to the whole project while connecting and unifying the cluster of activities required. Combining both the pleasure of an elevated walk, the outdoor meeting point of the upper level exhibition spaces, this floating structure inhabits at times the technical support (hosting structural and mechanical services) necessary to the operation of the building. Crucial to the architectural configuration envisioned, the roof is designed as an barer of human comfort and pleasure. With large open frames, it provides passers with panoramic views to the sea while protecting the exhibition spaces from the heat.

AN URBAN AND PANORAMIC PROMENADE

In a city like Thessaloniki, elevation, panorama, landscape constitute immesearable pleasures to both inhabitants and visitors of the city. The ConFex gains its identity from the proposed floating structure and its ability to act as an elevated urban public platform.

As a social condenser, this urban structure connects enclosed exhibition spaces and halls through elevated terraces. The later host open air activities and are able to extend exhibitions onto the panoramic outdoor space. At another part, by the Exhibition and Congress Center block, the roof has the fundamental role of putting connection the various services of the buildings.

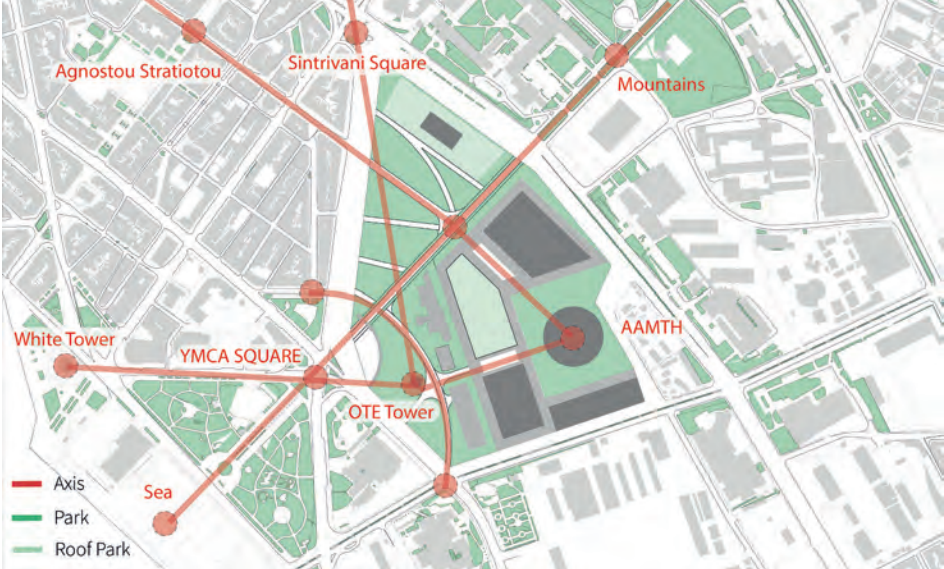
This elevated and covered-shaded space, set in a "corniche like" drawing, unfolds a beautiful "promenade architecturale". Large open windows frame panoramic views to the city, to the park. They leave the ground for the city to narrate its history and to the landscape to unfold its beauty.

THE BUSINESS CENTER : A PLACE OF CONNECTIONS AND FESTIVITIES

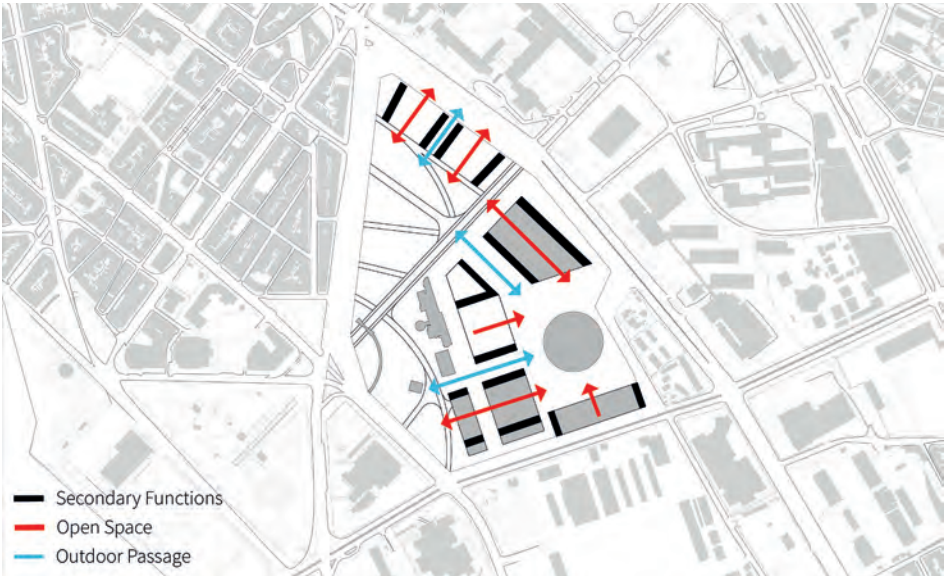
By the Business Centre the roof takes the shape of an elevated plaza catering the hotel: an open garden, linking and converging all the leisure and common activities of the program. We celebrate a the sky-bar, a restaurant, a pool, the spa. A place to network, live, meet and conclude the journey with the exhibition halls.



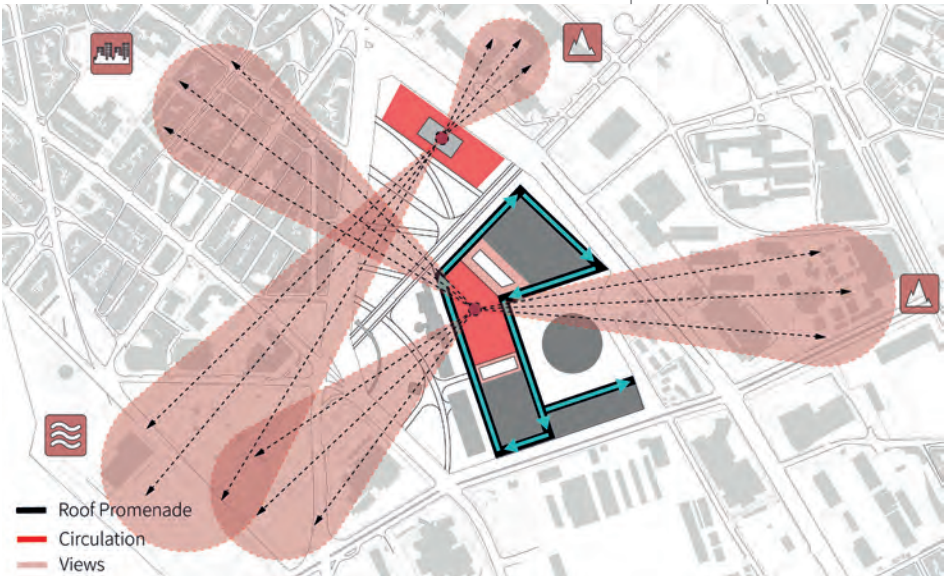
Exhibition Centre - Panoramic view from the roof terrace



Urban connections and main axes



A permeable sequence of activities



Views from the roof promenade



# 1.5 INTERNAL CIRCULATION

The project’s flows are regulated by a rational strategy of pedestrian and vehicular access. Walking from Aggelaki Street in direction of the Aristotle University, the visitor’s path to reach the Exhibition Centre is naturally directed to the main access gate, opening towards a linear covered open corridor framed by two linear foyers, that give access to the exhibition halls.

A second gate, furthermore, is proposed through a covered passage along the path that connects the AAMTH to the YMCA square. This path gives to the project an independent pedestrian access to Luxury Exhibition Centre and Congress Centre, whose foyer is organised by a pedestrian access from the important vehicular node created by 3is Septemvriou Street and Leof. Stratou Street.

The pedestrian accesses to the Business centre and the Hotel are located along a covered passage connecting Egnatia Street to the ConfEx Park. The lobby gives access to an elevated terrace and the tower hosting the hotel.

The vehicular flow is coordinated by three different entrances to access the underground parking for private vehicles, each serving an independent parking area linked to a specific program. Besides these, a separated service entrance - for underground daily delivery and storage - is located along 3is Septemvriou Street.

# 1.6 MOBILITY STRATEGY

Mobility plays a crucial role on ensuring an effective synergy and tight dialogue among all functions and polarities which compose the articulated urban framework of ConfEx Park. The mobility strategy is addressed considering the site accessibility and connectivity through a multimodal, multi-scaled and effective mobility strategy, aimed at providing an adequate response to current and future mobility needs as well as delivering high quality public realm, by enhancing an urban environment which is livable, walkable, green, smart and well-integrated with all available transport linkages and mobility services.

The project represents an extraordinary and unique opportunity to promote mobility innovation and organization, and can promote the pedestrian and cycling connection of the entire district.

With this respect, all proposed transport-related interventions are centered around four main mobility principles:

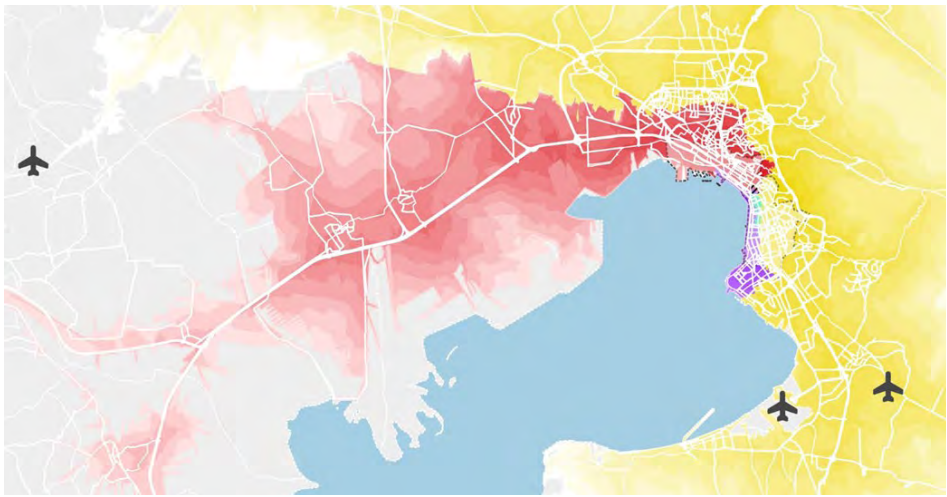
- 1-create a permeable site favoring the urban continuity;
- 2-integrate multimodal transport solutions;
- 3-make the site a destination for soft mobility;
- 4-create synergies with the surrounding functions;

The multimodal accessibility potentials of ConfEx Park are fully explored, through isochronal analysis by car, by public transportation and by soft mobility. ConfEx Park is well served by the public transportation with the planned metro stop and is located within walking distance from the city historical center where most accommodations facilities are concentrated. The vehicular traffic distribution analysis highlights that 3is Septemvriou st and Egnatia st(from south) are the main vehicular approaches to reach the site.

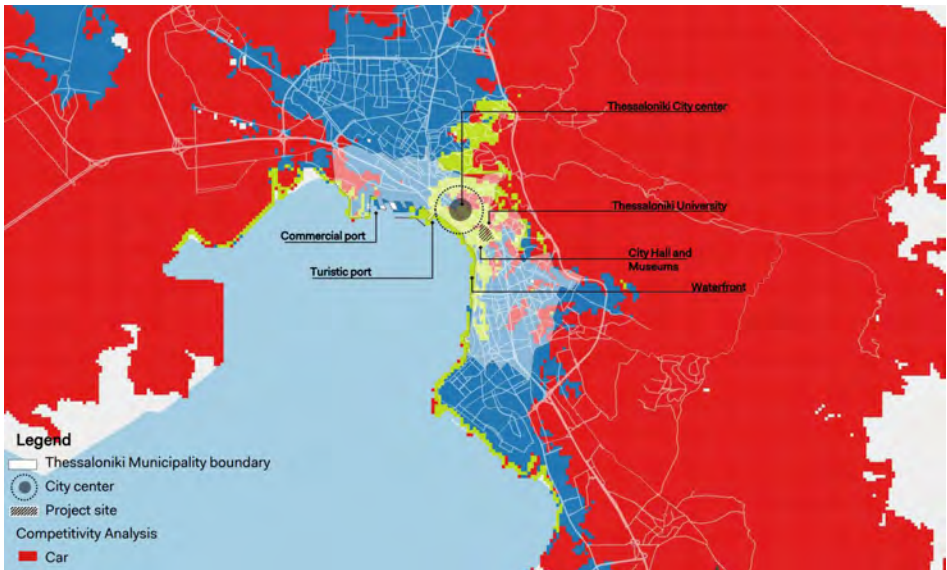
Considering the existing strengths, weaknesses and opportunities of the site, the following strategies are integrated into the project proposals:

- 1-Separate the main vehicular and soft mobility gateways to better organize the flows within the Heli-Expo area;
- 2-Create permeable site for pedestrian through strategic links across the site to stitch the surrounding urban area (university, hospital, museum, stadium, city centre, etc.);
- 3-Create pedestrian gateway and improve the pedestrian safety with pedestrian-oriented design;
- 4- Organize the mobility services around hubs;
- 5-Create synergies with the surrounding functions to increase shared parking benefits;
- 6-Separate logistics access (trucks) with visitor’s parking access;
- 7-Change of vehicular circulation in Lampraki st to allow access to logistics from 3is Septemvriou st.

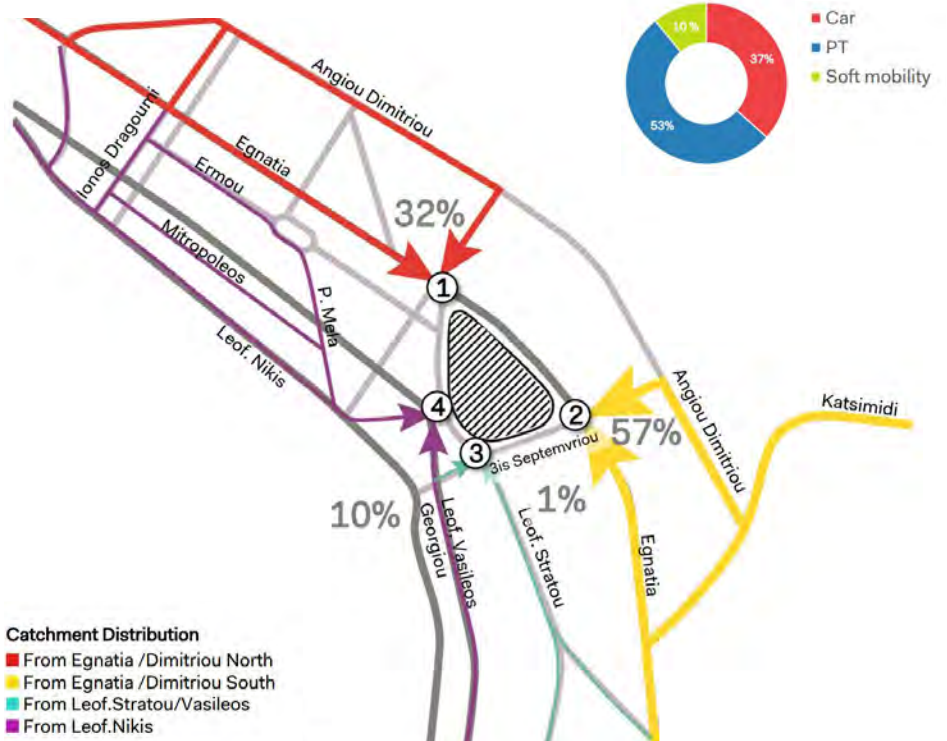
The logistic accesses are separated from the rest of the other accesses. There are two entry point: one on 3is Septemvriou street, which allows to reach three different delivery area, one for each hall; the second one on Lampraki street. Moreover, the project foresees an internal circulation that allows, when there are no exhibitions, to be used by logistics vehicles.



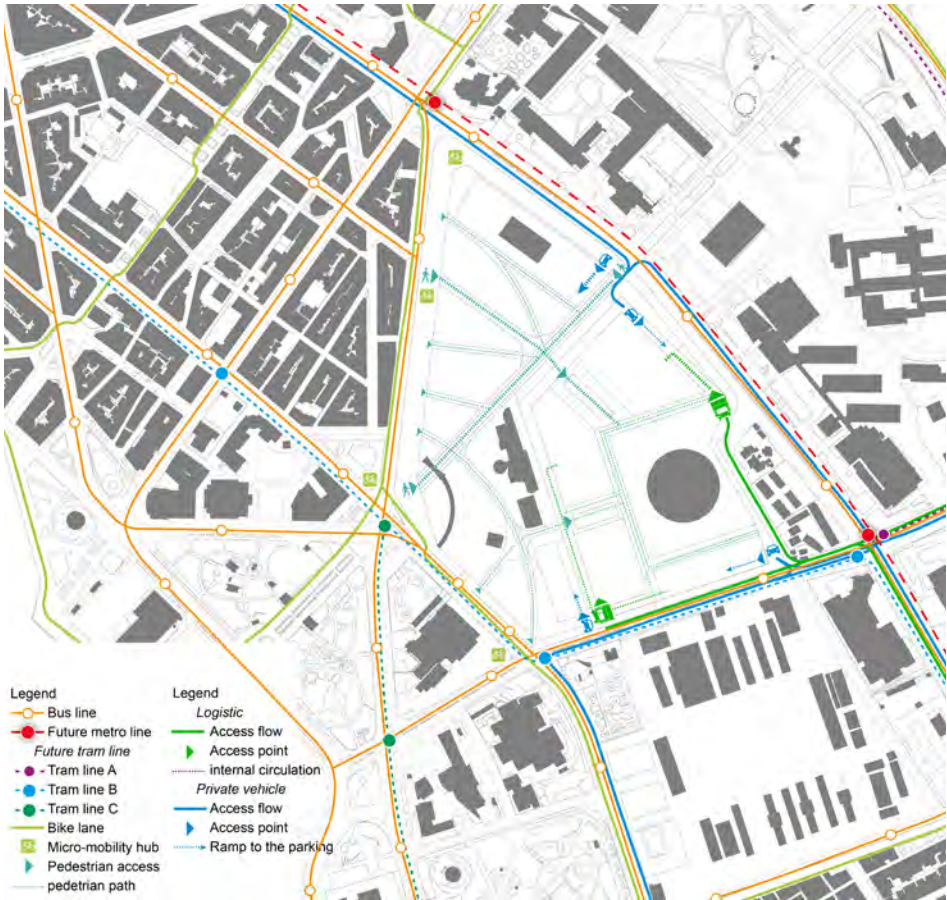
Vehicular Catchment area in 60 min from the site



Transport modes accessibility competitive analysis



Estimated vehicular traffic distribution reaching Confex Park



Mobility strategy for Confex park: public transport ,soft mobility, Private vehicle and Logistics



# 2. APPROACH TO SUSTAINABILITY

The growing concern for the environment is leading to a worldwide search for sustainable solutions. The depletion of fossil energy sources, rising energy costs and stricter legislation are urging the application of sustainable building techniques. The construction team starts from a global vision of sustainable construction. We strive to maximize the reduction of energy needs and costs over the entire life cycle. The strength of sustainable construction lies in its breadth. Working via a bioclimatic approach, doing shadow analysis, wind simulations.... The project can be fully optimized to achieve an excellent comfort by maximizing passive measures without actively using additional energy resources.

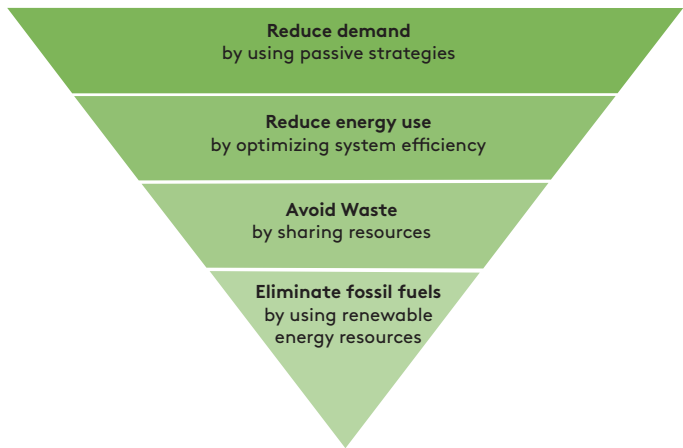
In addition to the physical benefits such as energy efficiency, human values are important, with the quality of the architecture and the connectivity of the building to its surroundings creating essential economic value.

Several topics can be used to increase the sustainability of a site:

- Energy
- Water
- Health and comfort
- Materials

## 2.1 ENERGY

The starting point of every design is to minimize the energy consumption of a building. This is the basis of the trias energetica. The first step reducing the demand of energy; not only by making a compact design and airtight outer shells, but also by finding the optimum insulation rate, thermal inertia, glazing percentages... These later items are resulted from implementing a bioclimatic approach during the design.



Secondly, the energy use will be reduced by applying passive techniques and optimizing the system efficiency. Such as implementing night ventilation that can take part of the air conditioning. Night ventilation is a free cooling of the building with the night air.

Third, we need to avoid waste. Therefore, it has been considered to combine the heat/cooling production of the different exhibition halls. This creates flexibility, redundancy and makes it possible to exchange heat/cooling between the different buildings.

Finally is to provide the rest of the demand with the least amount of fossil fuels possible, using green energy.

On this site the production of heat/cooling, will be mainly provided by heat pumps. A heat pump has the characteristic of using the necessary energy from the outside air or water to heat/cooling the building. The heat pump is electrically powered, so it is fossil free. This electrical power can be produced green, for example via the photovoltaic panels on the roofs.

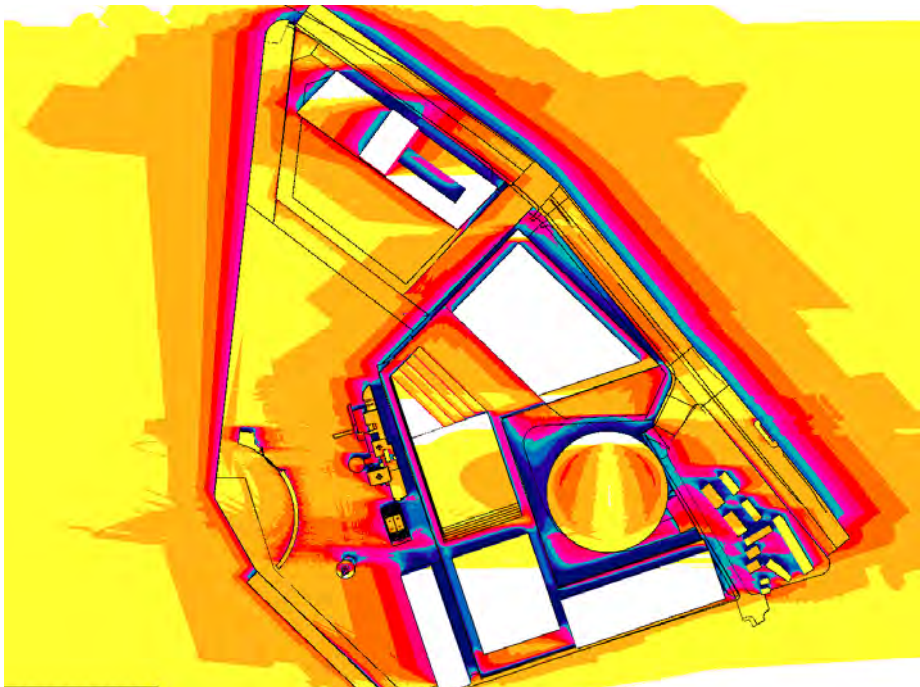
The shadow analysis can not only be used to investigate comfort or see the effect of the new site on the existing buildings, it can also give an idea on the best placement for the photovoltaic panels. For example from the simulation it is clear that the roof of Expo 1, 3 and 4 are ideal for PV panels as year round they hardly get impacted by any shade.

## 2.2 WATER

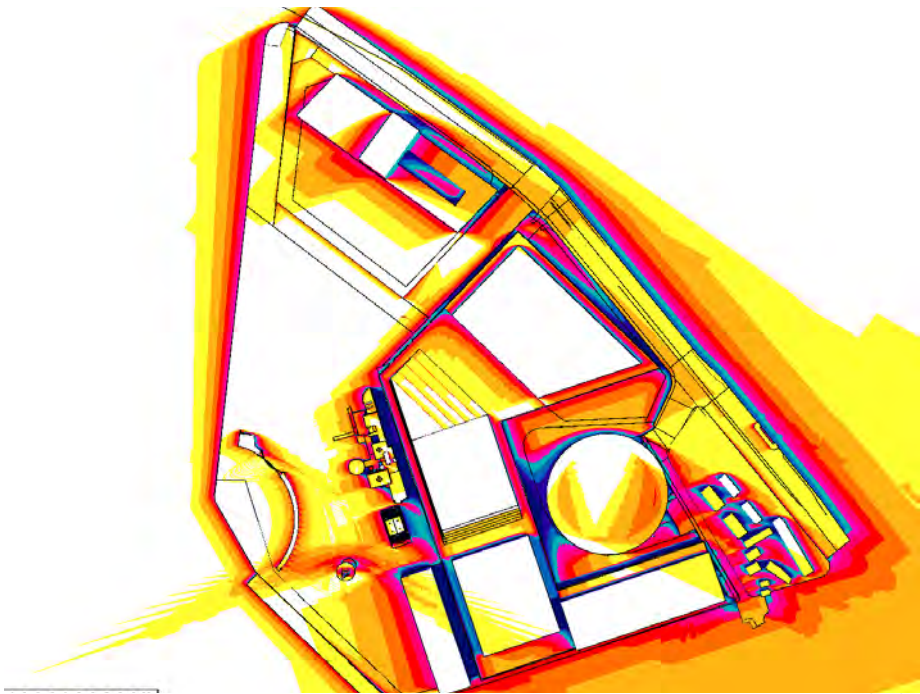
Water is the new gold of the future. Pure water is a scarce commodity and should be used sparingly.

**RE-USE OF WATER**

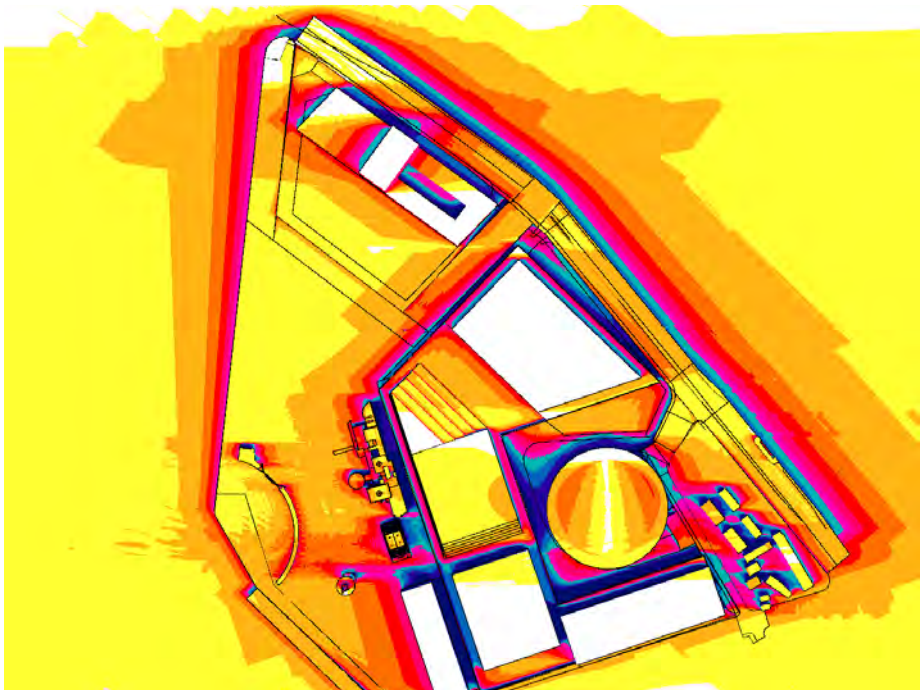
Purified grey water is used for maximum reuse of rainwater. By applying this, green roofs can be used to collect rainwater and a guarantee can be offered for the supply of the required water volumes. The sanitary fixtures will be foreseen of water-saving features to



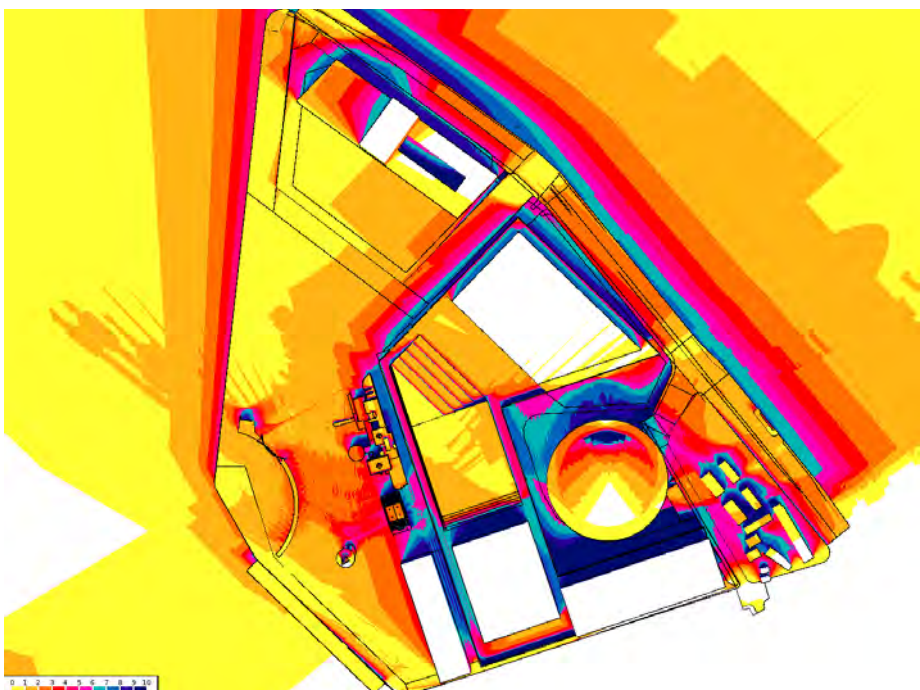
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minimize the needed water. The water still needed for the toilets, urinals, outdoor taps... will be connected to rainwater system to minimize the need of drinking water.

In addition to the beneficial effect on the warming of the environment (reduced ground reflection of the sun), a green roof has a largely buffering function for rainwater. The rainwater that falls on the roof is retained by the plants. In this way, the sewers are relieved of the need to evacuate rainwater immediately at the source of heavy rainfall. In the project we strive for as much recirculation of water as possible so that as little scarce and expensive drinking water as possible needs to be consumed. That is why there is maximum recirculation of rainwater and partly of drain water so that it can be reused.

**REPLENISHMENT OF GROUNDWATER LEVELS:**

In addition to the reuse of rainwater, the design also looks for a solution to replenish the groundwater layers, buffering rain water to reduce the stress on the sewerage system during heavy rainfalls. It is important to minimize the hard surfaces as much as possible to make this infiltration possible, by doing so, we don't only reduce flooding risks and have the possibility to replenish the groundwater levels, also the heat islands will be reduced. These surfaces can be multi-use not only as an infiltration or buffering point but can also be used in an educational and playful element.

**2.3 HEALTH AND COMFORT**

A healthy site/buildings where the users feel good determines the sustainability of a design. What would a sustainable, low-energy site be if people don't like to be there?

For the buildings on the site this can be measured with two mean parameters:

**TEMPERATURE**

By thoroughly insulating the buildings, we avoid unpleasant cold radiation from the walls, ceilings and external joinery. By making the buildings very airtight, we not only save energy but also avoid annoying draughts. At the same time, overheating gets prevented during the hot summer months by optimizing the amount of glazing and foreseeing solar protection where needed (solar glazing, external solar shading etc.). At night we can provide night cooling using the internal mass of the building to capture it. Also the free-cooling over the air handling units is possible which generates a benefit once the outside temperature is lower than the requested room temperature.

**AIR QUALITY**

The buildings are equipped with a balance ventilation system, which ensures that all the rooms are always supplied with fresh air, with little heat loss and no draughts or noise. The air flows will be regulated via CO2-measurements to optimize the air flows according to the occupancy. This reduces energy consumption without jeopardizing the air quality.

**2.4 MATERIALS**

Building is equivalent to using raw materials. However, this whole process does not have to be environmentally damaging. The use/reuse of raw materials can and should be applied in a sustainable manner. This all starts with recycling materials as much as possible; for example, the existing asphalt of the current Confexpark, will be reused as much as possible as sub-foundation, the use of blast furnace slag as an additive in concrete is encouraged...

In the construction, finishing and materialization of the construction, materials with the lowest environmental impact are chosen to the maximum extent. The environmental impact includes both production, processing, use and possible reuse in the evaluation method. The site is seen as a 'depot of materials'. By choosing to work with circularity, the material can become once again part of a new production process at the end of its life cycle. This way a contribution is made to reduce waste and limit the use of new raw materials.

**3. TECHNICAL AND STRUCTURAL DESIGN**

**3.1 HEATING/COOLING**

For the heating and the cooling of the site the options of geothermy have been investigated. To use geothermy it is important to have a balance between the heating and cooling demand to keep the temperature stable in the underground. To optimize this balance, the different buildings will be connected to exchange the energy between the different functions. Taking into account the lack of underwater streams, the option is to foresee boreholes underneath the new expo-buildings and business center. Nevertheless not the whole heating/cooling production can be produced via water-water heatpumps. The production will consist of heatpumps water/water, heatpumps air/water and additional chillers. The heatpumps also have the advantage that they can simultaneously heat and cool. During the producing the cooling the generated heat can be 'freely' used elsewhere in the building. All these equipments are electrically powered, so it is fossil free.

**3.2 Ventilation**

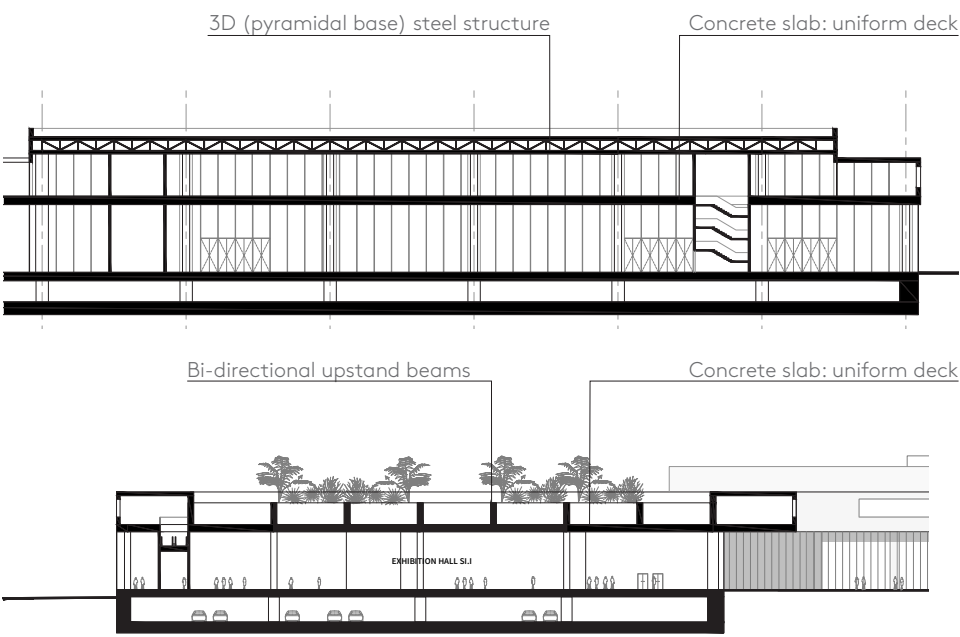
The ventilation of all buildings will be foreseen via balanced mechanical ventilation. The different buildings will all be foreseen of their separate air handling units (AHU) depending on the specific function of the different zones.

The AHU's will be foreseen with a heat recovery system (rotary wheel or plate heat exchanger) and in the exhibition halls with mixing sections to reduce the energy need. Furthermore CO2-detection will regulate the fresh air flows to optimize energy consumption without jeopardizing the air quality in the buildings.

**3.3 STRUCTURAL DESIGN**

Outside the tower multipurpose building, other constructions have one or two levels above the natural soil level. The ground level is covered by a slab supported by columns. This slab looks like a uniform deck (a common shell) all around these buildings. On their outskirts, this slab goes forward as a cantilever putting forward the character of this uniform deck.

The first level, when it exists, is erected on the mentioned slab. Depending upon configuration, the columns supporting the roof structure transmit their loads to the underlying ones (where they are superposed) or directly to the slab where they are located between.



Exhibition Centre - structural diagram

The roof of the Exhibition Hall-II consists of a slab finished off with two-directional upstanding beams, forming rectangular cells for plants.

**CONCRETE STRUCTURE**

Due to fire resistance, the slab which covers the ground floor is a concrete structure. Its thickness is designed for the span length



between columns and for the stresses developed in cantilever parts. In some areas, prestress slab and/or beam will be used. Columns supporting ground level roof are also in concrete. To minimize their size, High Performance Concrete is chosen for these structural elements. For the thick slab, hollow structure is used to reduce their weight while maintaining structural performance.

STEEL STRUCTURE

The roof structure of the first floor (where it exists) is consisting of 3D steel framing. The generator module is pyramidal, bearing loads in one or two directions depending upon geometrical configuration of the corresponding hall they are supposed to cover. This kind of structure is commonly used for large span hall inaccessible roofs. For some buildings, where the thickness of the roof structure is rather tight, more resistant elements will be used.

FOUNDATION

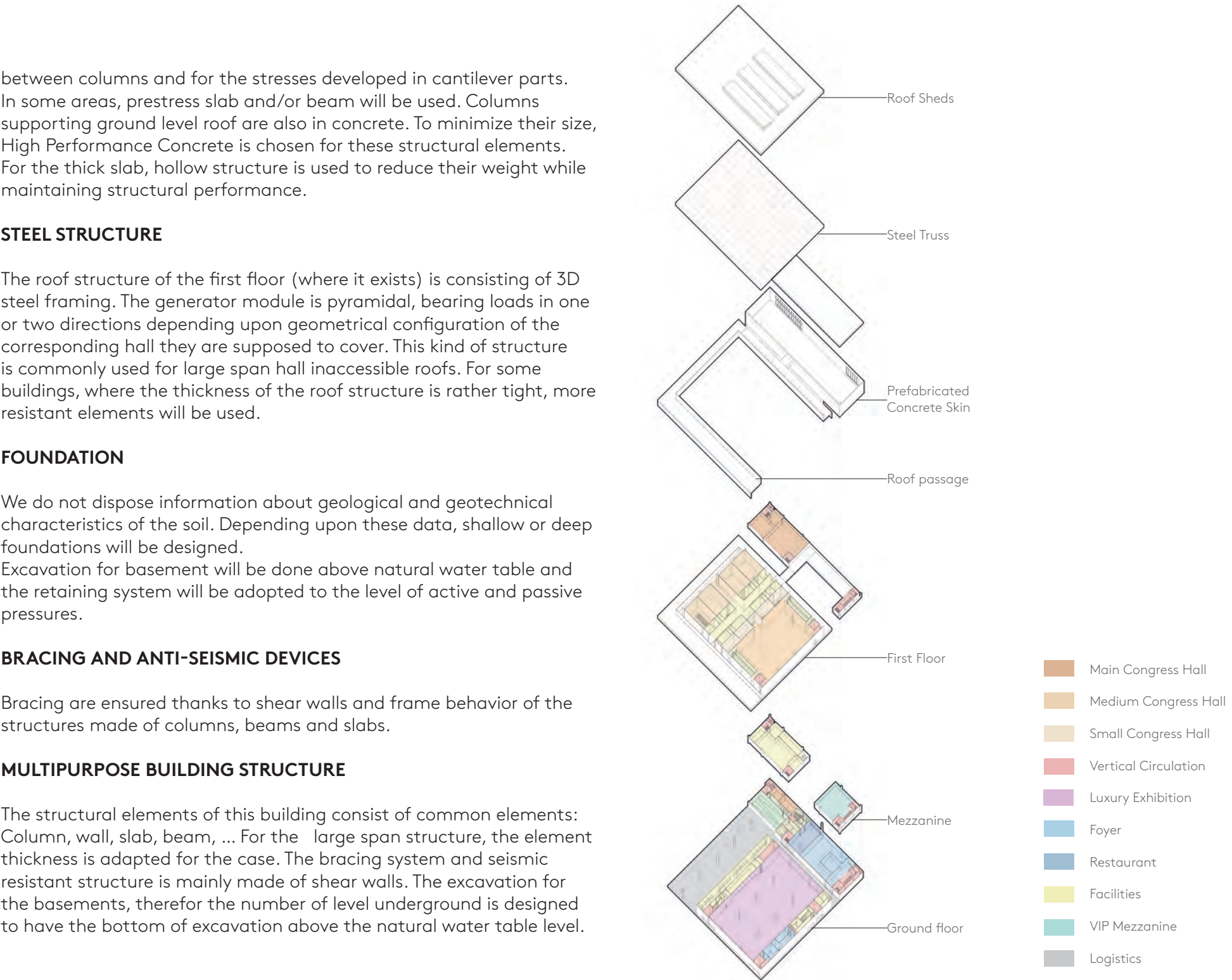
We do not dispose information about geological and geotechnical characteristics of the soil. Depending upon these data, shallow or deep foundations will be designed. Excavation for basement will be done above natural water table and the retaining system will be adopted to the level of active and passive pressures.

BRACING AND ANTI-SEISMIC DEVICES

Bracing are ensured thanks to shear walls and frame behavior of the structures made of columns, beams and slabs.

MULTIPURPOSE BUILDING STRUCTURE

The structural elements of this building consist of common elements: Column, wall, slab, beam, ... For the large span structure, the element thickness is adapted for the case. The bracing system and seismic resistant structure is mainly made of shear walls. The excavation for the basements, therefor the number of level underground is designed to have the bottom of excavation above the natural water table level.





## 4. APPROACH TO MATERIALITY AND ECONOMY OF THE PROJECT



### 4.1 MATERIALITY

Once the volumes and the program were set, the composition of the project served as a complementary element to develop the overall strategy. The simplicity of the plan was opposed by a rich and meticulous work of definition and writing of each element, each façade, each space. This research on materiality was guided by the desire to apprehend the interiority and exteriority of the building as two complementary situations, due to their spatial qualities, their scales and their functions. The choice of compactness, far from translating into a dense, blind and opaque mass, has allowed the emergence of an immaterial, changing object, an architecture made of lightness, glazing and concrete. An architecture whose game consists in blurring the tangible limits of the building by making the reading of a solid volume superfluous in the poetics of the blur and that of evanescence. To achieve this goal, we have combined thermal requirements with a graphic work that draws on the architectural and urban characteristics of the building.

The exterior façade is indeed a prefabricated soft colored concrete skin that frames the landscape and functions as a protection while offering permanent views towards the surroundings.

Our choice was to sublimate the thickness by proposing a circulation on the second floor of the project which, beyond linking the different exhibition spaces, proposes a sublime dialogue between the mineral matter of the building and the wooden, green species composing the park.

In order to assert its belonging to the site and to the Greek culture, the concrete is tinted with an off-white color in order to match the variations of colors offered by the rich natural light of Thessaloniki's geographical location. Thus, sometimes white when the sun is at its zenith, the project transcends the light variations to become gold when the sun sets.

### 4.2 ECONOMY OF THE PROJECT

Thessaloniki does not have a rich precedent of complex construction sites that require an exquisite amount of custom engineering aiming to high quality finish, practices that drives costs high and may jeopardize finish quality results.

The project has been designed upon the premise of utilizing local expertise and constructability limitations in an effort to not only to support the regional economy and align with sustainable construction practices but more importantly to keep costs and realization timing at the lowest level and provide a controlled construction process and calculated risk-management while reassure quality through approachable design and well thought and simple architectural detailing.

Having analysed the regional availability for quality production of large scale structural and façade components, more often utilized in industrial and infrastructural applications, the project has been designed to merge infrastructural engineering with architectural ingenuity in taking advantage such means of fabrication. Prefabricated Concrete elements and structural joists can arrive to the site in units sized up to 20-22m taking into account the site accessibility. Its proximity to the main Thessaloniki ring road provides sufficient access for the necessary transportation scaled trucks to arrive and depart without mobility issues.

The resulting structure hides minimalistic detailing behind its planar surfaces subtracting over-intricate elements that increase visual complexity and future maintenance practicality.

The site is located 500 meters from the sea and over time corrosion is a common issue observed. Extended research into regional built references, including the latest Waterfront Park has revealed the local capabilities and maintenance weaknesses, often resulting from discounting quality towards economy and lack detail durability. Aiming to provide a sustainable built environment, long lasting and one that will offer flexibility in reuse and future adaptability the materials and details chosen are those that reflect the reality without sacrificing a unique identity that will be given through space and public space quality versus over-designed elements.

The Park and the landscape design elements occupy almost 70% of the site and become significant factors for the overall economy efficiency and sustainability of the operation.

The proposed vegetation palette derives from a careful analysis of the local species and climate, making the proposed landscape design a crucial key-component of the economical feasibility and sustainability of the project.



No	Description	SECTORS I & II			SECTOR III		SECTOR IV		SECTOR V		TOTAL		
		Proposed by Competitor (SECTOR I)	Proposed by Competitor (SECTOR II)	Programme Requirements (SECTOR I & II)	Plot Area = 20.034,00 m²	Proposed by Competitor	Programme Requirements	Plot Area = 13.971,22 m²	Proposed by Competitor	Programme Requirements	Plot Area = 58.900,71 m²	Proposed by Competitor	Programme Requirements
A. General Metrics													
A1	Above Ground GFA (m²)	34413	10186	max 48.500	31394	max 26.750	20131	max 16.500	200	max 250	96324	max 92.000 excl. preserved bldgs	
A2	Below Ground Parking use GFA (m²)	8616	13850	-	23376	-	17396	-	0	-	58880	-	
A3	Below Ground other Aux uses GFA (m²)	6792	4245	-	7541	-	5216	-	0	-	23794	-	
A4	Net Floor Area NFA (m²)	34025	10109	-	30744	-	20114	-	199	-	95191	-	
A5	Building Coverage ratio (%) & Area (m²)	68%-18259	75%-9481	-	54%-10936	max 60% - 12.020,40	72%-1045	-	0.3%-200	-		max 45% - 64.000 excl. AAMTH – pres.bldgs	
A6	Gross Volume above Ground (m³)	354106	41671	-	161849	-	225013	-	1206	-		-	
A7	Foundations Footprint (m²)	139	152	-	504	-	100	-	0	-	-	-	
A8	Façade (m²)	13095	5709	-	4448	-	4015	-	301	-	-	-	
A9	Exterior Openings (m²)	4966	992	-	8621	-	2696	-	291	-	-	-	
A10	Accessible Roof surface (m²)	10124	9669	-	8989	-	5025	-	0	-	-	-	
A11	Inaccessible Roof surface (m²)	18396	0	-	1465	-	10608	-	0	-	-	-	
A12	Green Roof surface (m²)	8237	1906	-	7107	-	177	-		-	-	-	
A13	Balconies / Open Covered Areas (m²)	10783	9154	-	3239	Hotel: max 40% of GFA	7438	-	0	-	-	-	
B. Programme Area													
B1	Exhibition Center Area (m²)	36838	10808	47.000	-	-	-	-	-	-	-	-	
B2	Administration Offices Area (m²)	-	-	1.500	-	-	3038	-	-	-	-	-	
B3	Hotel (m²)	-	-	-	8609	7.250	-	-	-	-	-	-	
B4	Commercial Complex / Retail–Recreation (m²)	-	-	-	8200	9.000	-	-	-	-	-	-	
B5	Commercial Complex / Offices (m²)	-	-	-	11958	7.000	-	-	-	-	-	-	
B6	Multi-purpose Hall (m²)	-	-	-	3018	3.500	-	-	-	-	-	-	
B7	Conference Center Area (m²)	-	-	-	-	-	14368	10.500	-	-	-	-	
B8	Luxury Exhibition Hall Area (m²)	-	-	-	-	-	6392	6.000	-	-	-	-	
B9	Cafeteria (m²)	-	-	-	-	-	-	-	200	250	-	-	
B10	Underground Parking Area (m²)	8616	13850	12.500	23376	25.000	17396	15.000	-	-	-	-	
B11	Underground Storage Area (m²)	5507	3661	12.000	3217	3.500	2960	2.000	-	-	-	-	
C. Open Areas													
C1	Provide Area of Roadways (m²)	-	-	-	-	-	-	-	3711	-	-	-	
C2	Provide Area of Pedestrian Pathways (m²)	-	-	-	-	-	-	-	15457	-	-	-	
C3	Provide Area of other Hardscape (m²)	-	-	-	-	-	-	-	26841	-	-	-	
C4	Provide Area of green Landscape without underground buildings (m²)	-	-	-	-	-	-	-	25859	-	-	-	
C5	Provide Area of green Landscape over underground buildings (m²)	-	-	-	-	-	-	-	4000	-	-	-	
C6	Provide Area of other Landscape (m²)	-	-	-	-	-	-	-	0	-	-	-	
C7	Provide Area of Water Features (m²)	-	-	-	-	-	-	-	320	-	-	-	
C8	Provide Area of other structures (m²)	-	-	-	-	-	-	-	0	-	-	-	





## AMBITION

AN ATTRACTOR AT MULTIPLE SCALES

A VISIONARY AND INNOVATIVE LANDMARK

### A MULTIFUNCTIONAL CLUSTER

### A SEQUENCE OF MULTIPLE ACTIVITIES

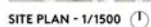
The project plan is organized around a flexible sequence of multiple spaces, able to host an infinite range of activities, thanks to their extreme level of resilience. This flexibility is achieved thanks to the choice

### AN INHABITED PERMEABLE BORDER

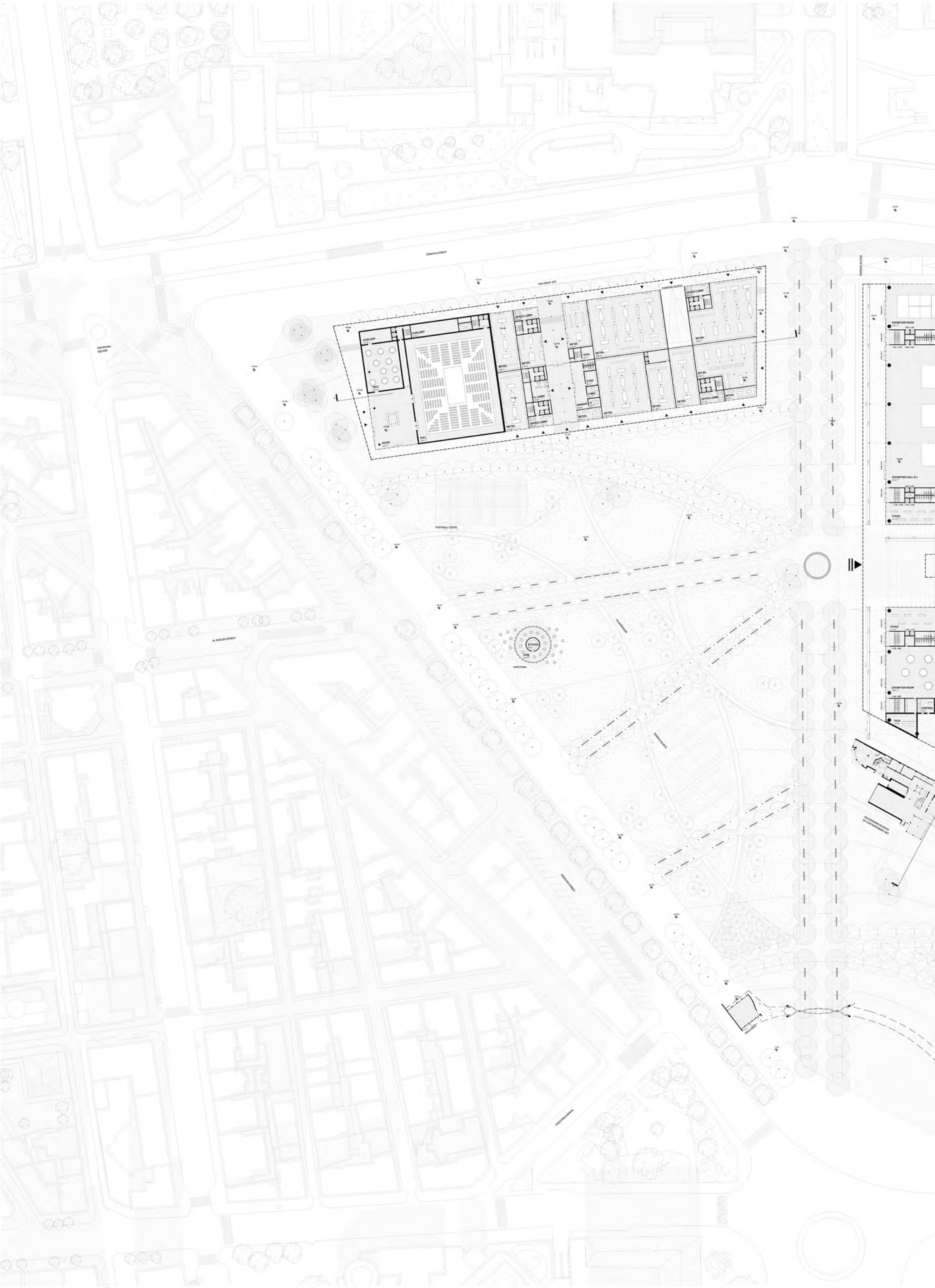
## AN ICONIC AND UNIFYING FLOATING ROOF

**AN URBAN AND PANORAMIC PROMENADE:**

While responding to a functional requirement, the roof can also be experienced as an elevated and covered walkway. This wall is marked by rhythmic openings that frame panoramic views of specific parts of the city: from the sea to the mountains, from the historical monuments of city centre to the modern ones, present on site. This extension of the park on the roof of the Exhibition Centre building, gives the opportunity of an outdoor cultural experience for visitors and an additional exhibition space that can be also used for events.

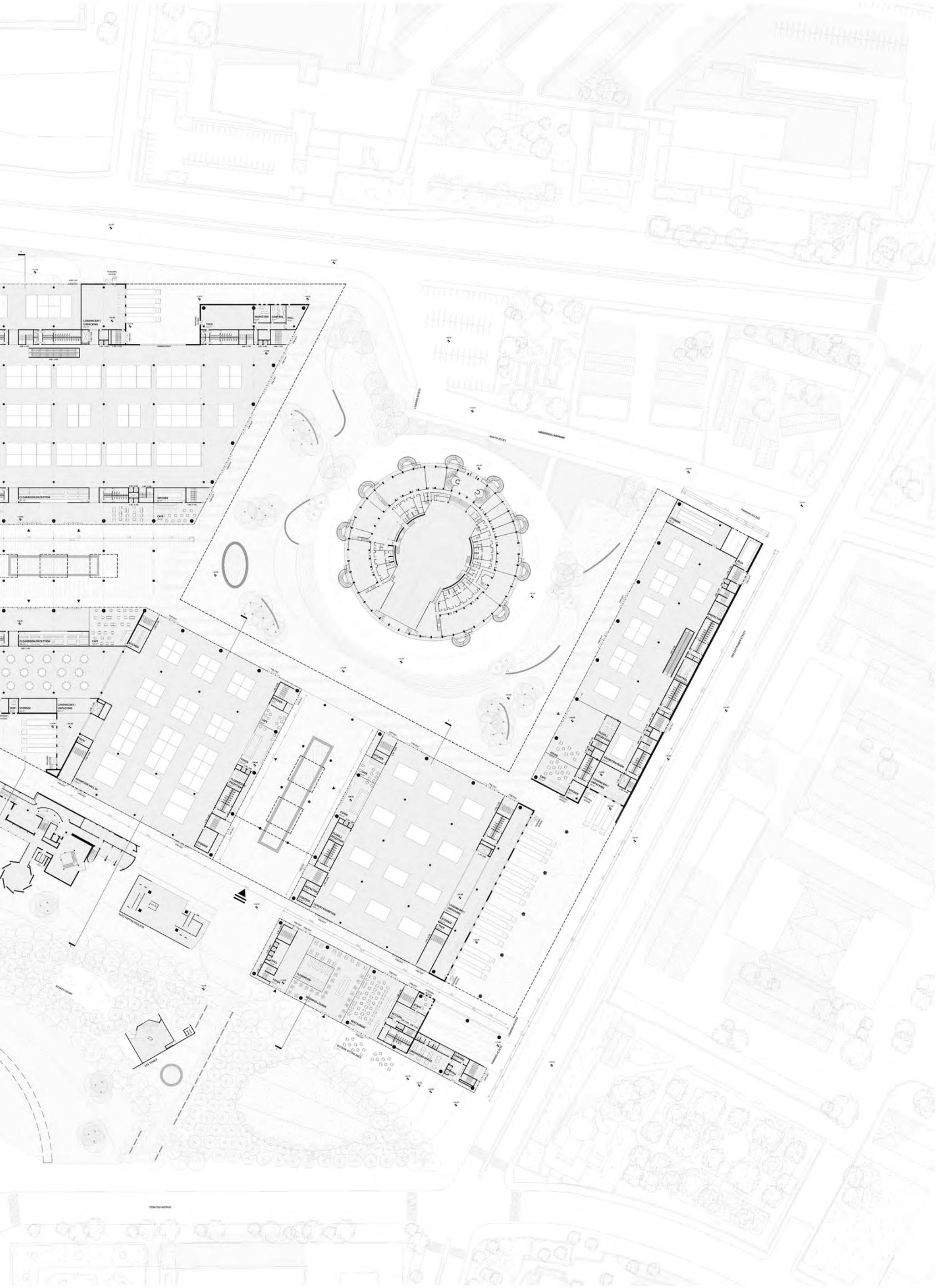






GROUND FLOOR PLAN - 1/500









The proposed landscape intervention in the ConfEx Park site addresses the need for a cohesive and adaptive public park for Thessaloniki: its territorial, urban, and neighbourhood scales take shape in the dimensions and directions of the park, ready to welcome both ordinary activities and extra-ordinary exhibitions and events promoted by the section of this new urban centre.

The formal translation of the influence of these three scales (landscape, urban, and district) occurs on three levels, i.e. topography, microclimate, and vegetation. The topography, which has conspired to hierarchise coherent the outdoor spaces.

The topographic gradient of the ConfEx Park site is designed accordingly to its natural essence, gently sloping from the mountain promontory to the sea. The topographic lines, which are the contour lines, are conceived as boulder routes panoramically opening onto the clearings they enclose. The routing system is structured according to landscape entities, urban connections, and district necessities. The monumental alley, running through the whole ConfEx Park site from the mountain promontory to the sea, is the main axis of the park. The important landscape entities of mountain Seik Su and Aegien Sea; the secondary alley system addresses Thessaloniki city scale through the discovery of its relevant urban directions, especially along the northern axis parallel to Aggeliki street; the meandering system of smooth pathways introduces the neighbourhood level within the park, giving it an intimate and almost domestic importance.

The vegetation palette responds tentatively to the temperate humid subtropical climate characterising the territory of Thessaloniki. The chosen species equipped with important and dense canopies (such as *Pinus pinus*, *Platanus occidentalis*, *Quercus ilex*, *Cedrus libani*, *Pinus halepensis*, *Calocedrus decurrens*), contribute to the creation of a lush urban heat island effect providing shade and cooling along the park's alleys. Medium and small size ornamental trees (*Olea europaea*, *Ficus carica*, *Cistus sinensis*, *Pinus dulcis*) dot the clearings with their distinctive bright and vibrant features, flowers, fruits, and berries while dense groups of shrubs (*Fatsia lenticularis*, *Myrtus communis*, *Nerium oleander*) markedly define their perimeters.

Ultimately, although and around the element of water we want to propose three moments of public and social aggregation: the circular water fountains equipped with stone basins, positioned outside the entrances towards the core of the exhibition centre, emphasize stasis and rest, highlighting the environment that welcomes them; the two rectangular water tables, through their elongated shape, emphasize the movement of the visitors; the water table in the complex; the elliptic basin, thanks to its shallow waters, invites visitors to make contact with it by approaching, creating a real scene around it.

**1. MONUMENTAL ALLÉE**

*Pinus pinaster*    *Platanus orientalis*    *Platanus orientalis*

**2. SECONDARY ALLÉE**

*Celtis australis*    *Quercus ilex*    *Quercus ilex*

**3. CROSSING PATHWAYS - ORNAMENTAL TREES**

*Olea europaea*    *Pinus caraea*    *Pinus gmelinii*    *Celtis laurata*    *Pinus sylvestris*    *Pinus densata*

**4. GROVES AND URBAN WOODS - NOTABLE TREES**

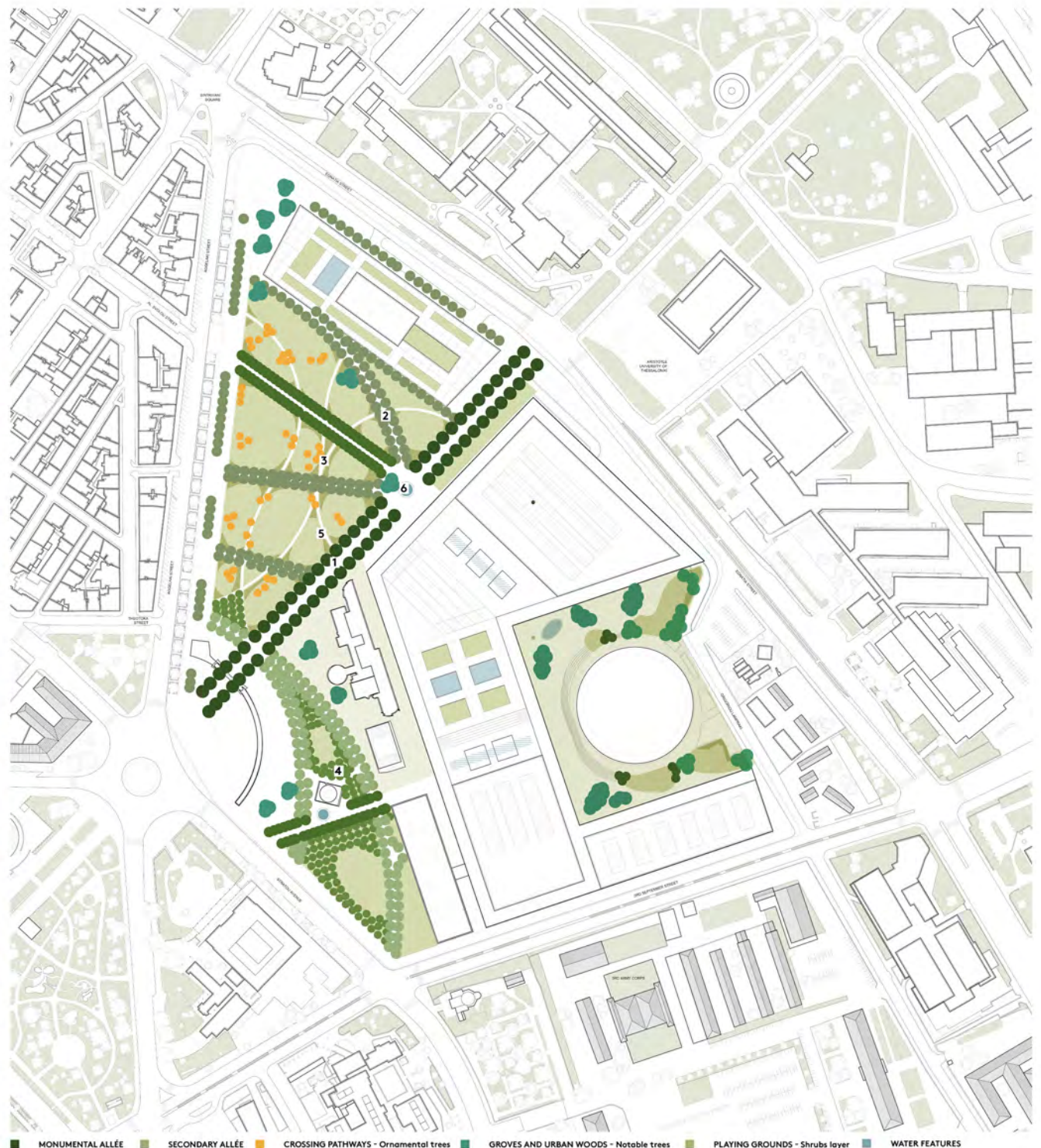
*Cedrus libani*    *Pinus halepensis*    *Pinus nigra*    *Cedrela decurata*    *Pinus nigra*    *Pinus nigra*

**5. PLAYING GROUNDS - SHRUBS LAYER**

*Platycodon grandiflorus*    *Myrica caroliniana*    *Lonicera tatarica*    *Nerium oleander*    *Vitis rotundifolia*    *Hippocrepis emerus*

**6. WATER FEATURES**

*Pinus nigra*    *Pinus nigra*    *Pinus nigra*    *Pinus nigra*    *Pinus nigra*    *Pinus nigra*

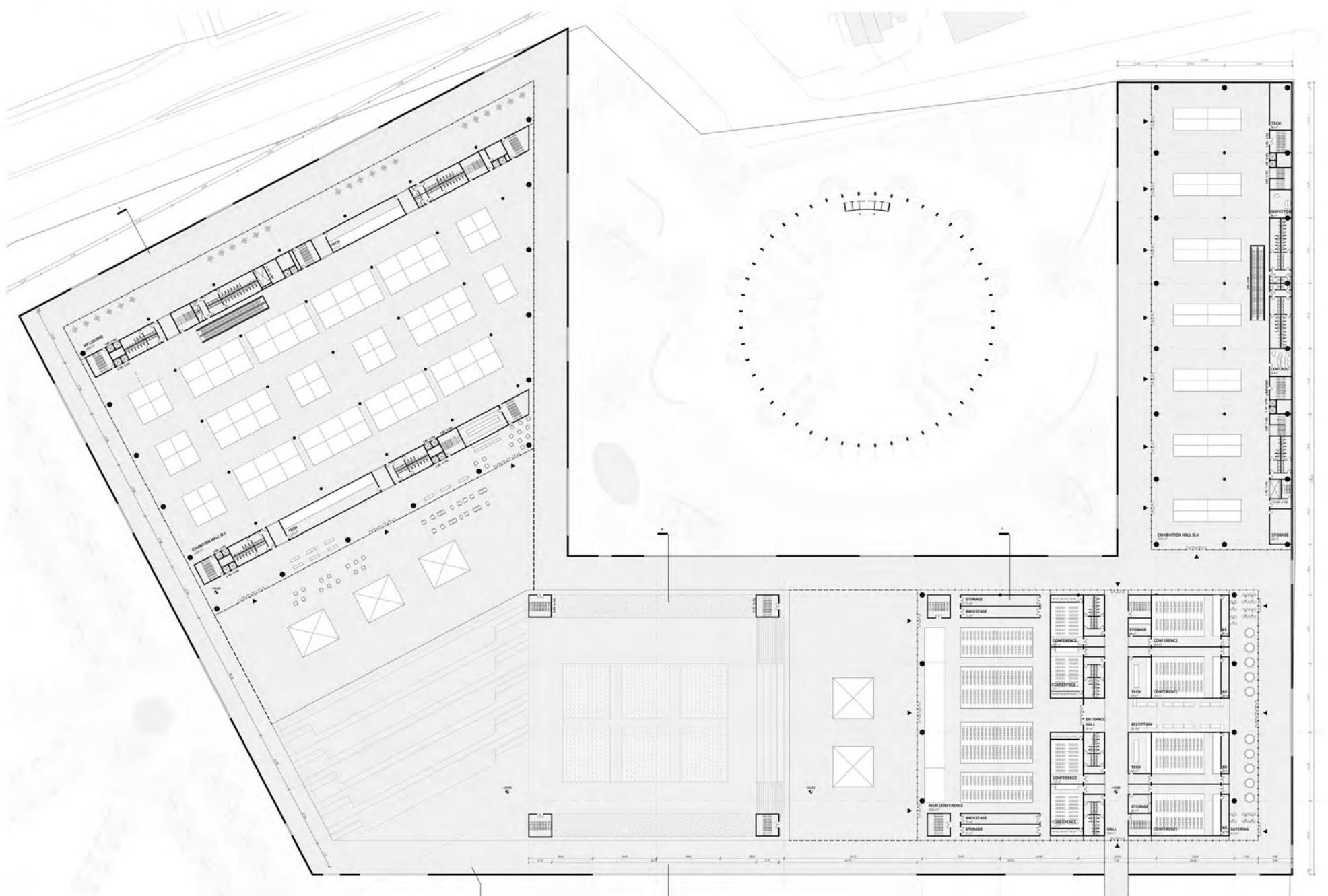






VIEW FROM THE EXHIBITION PARK

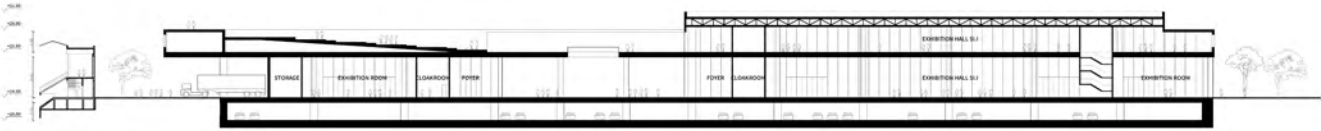
**THE EXHIBITION CENTER**



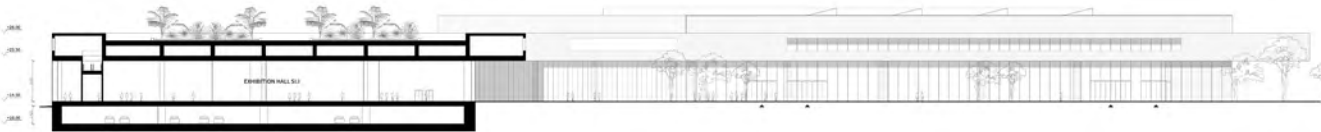




VIEW OF THE GREEN MAIN AXIS BETWEEN EXHIBITION AND BUSINESS CENTER



SECTION AA' - 1/500



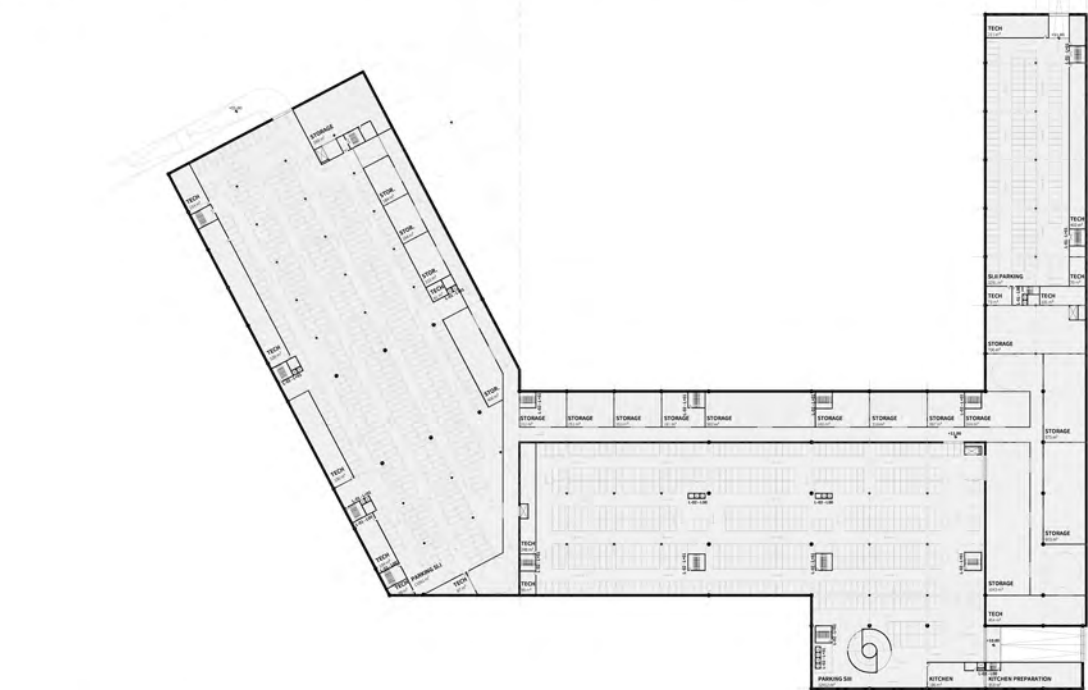
SECTION BB' - 1/500



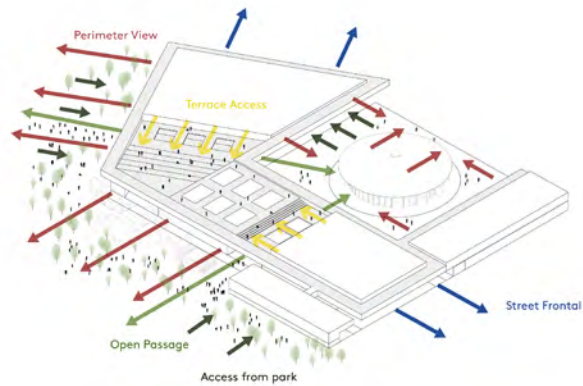
INTERNAL EAST ELEVATION - 1/500



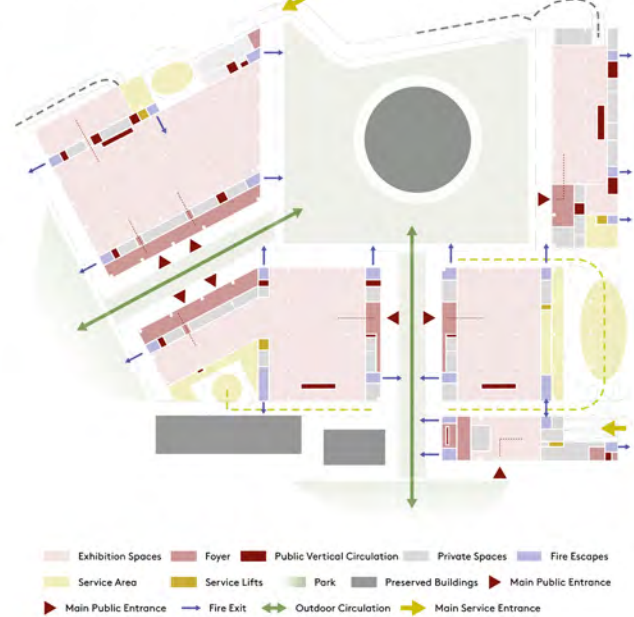
NORTH-WEST ELEVATION - 1/500



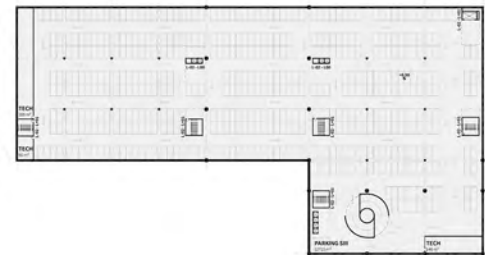
UNDERGROUND LEVEL -1 - 1/1000



EXHIBITION EXPERIENCE DIAGRAM - AXONOMETRIC VIEW OF THE EXHIBITION CENTER



EXHIBITION PLAN DIAGRAM - 1/1500



UNDERGROUND LEVEL -2 - 1/1000

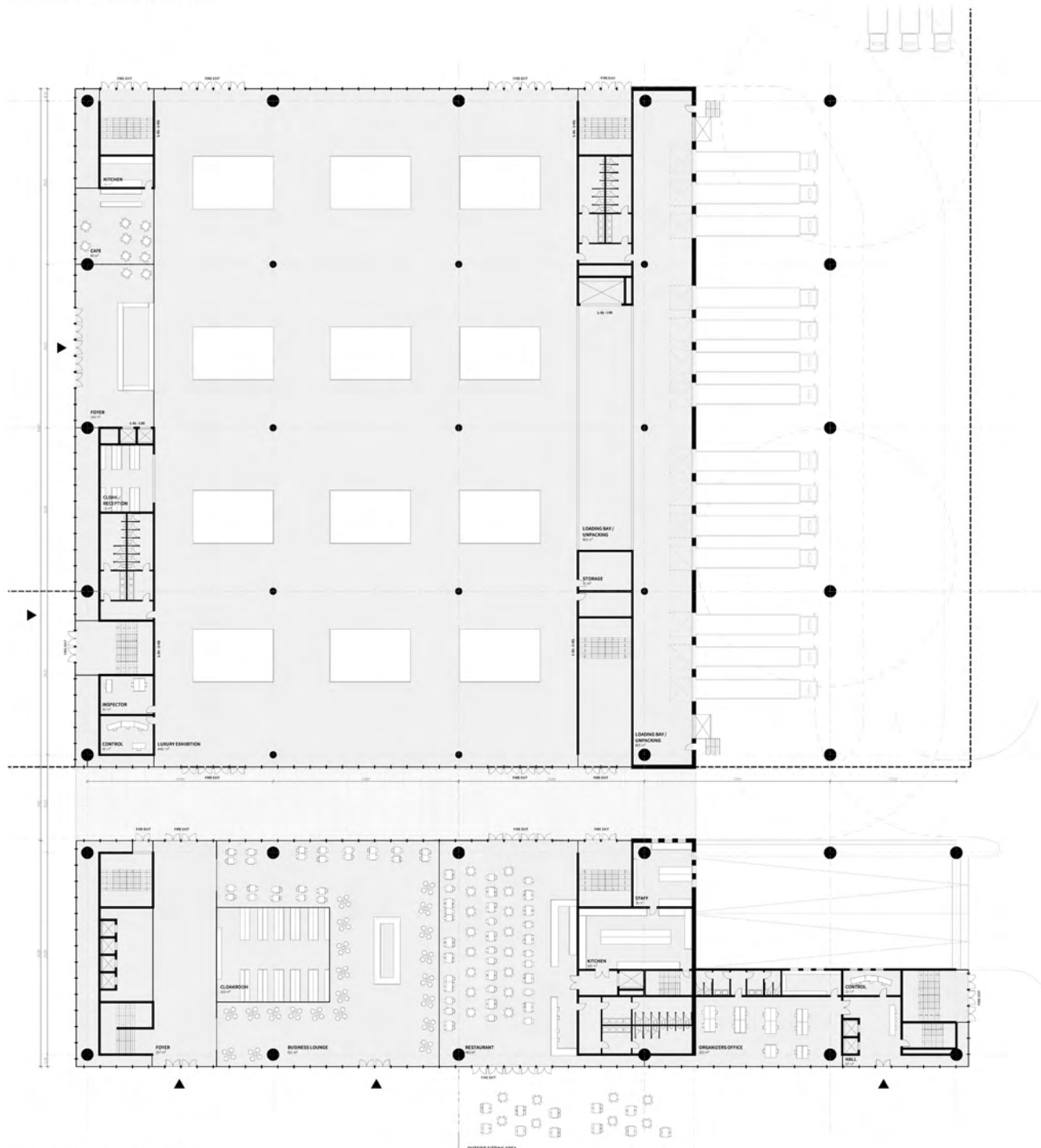




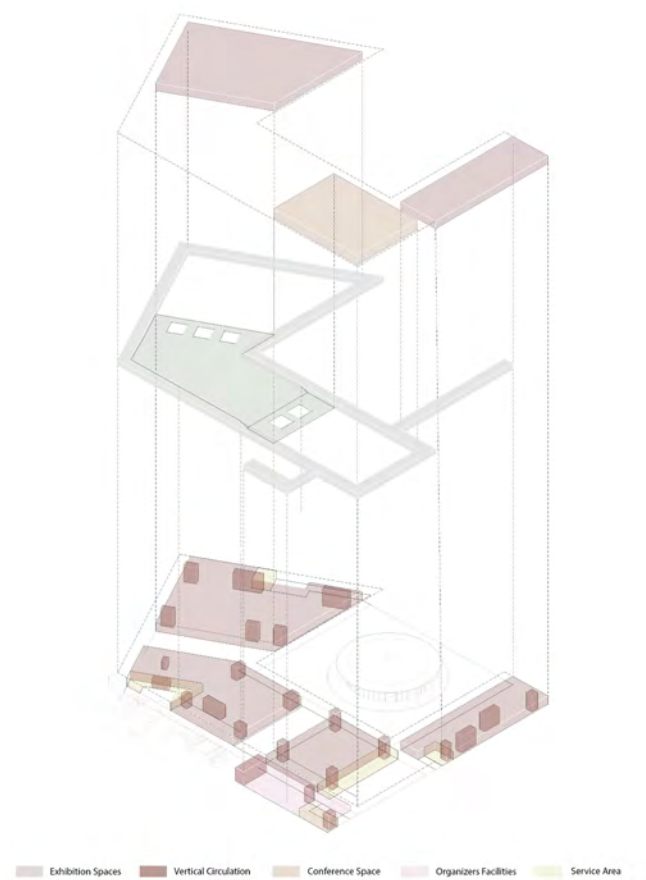
VIEW OF THE FOYER OF CONGRESS AND LUXURY EXHIBITION CENTER

INTERIOR VIEW OF THE CONGRESS CENTER

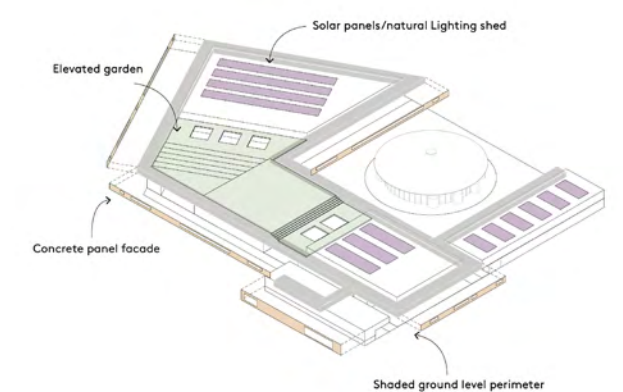
THE CONGRESS CENTER



GROUND FLOOR LEVEL - 1/250

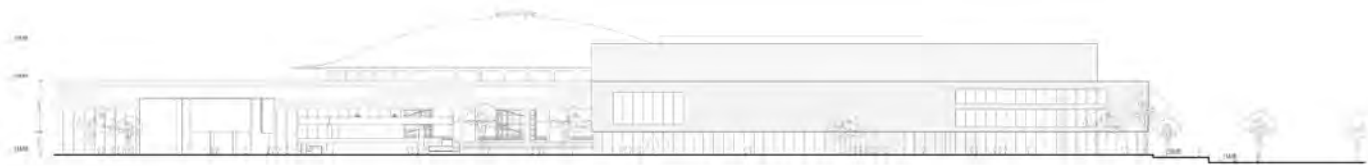


EXPLODED EXHIBITION AXONOMETRIC 1/2500

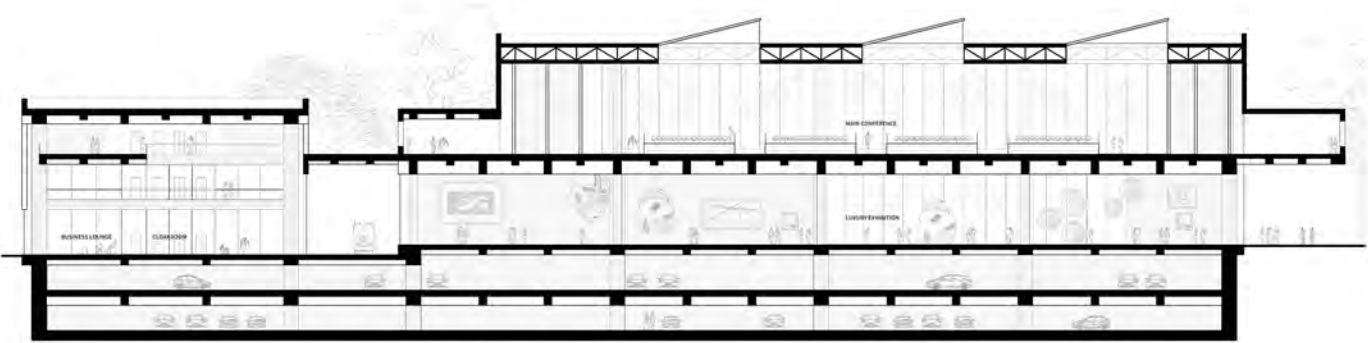


SUSTAINABILITY DIAGRAM - EXHIBITION AND CONGRESS CENTER - AXONOMETRIC 1/1500





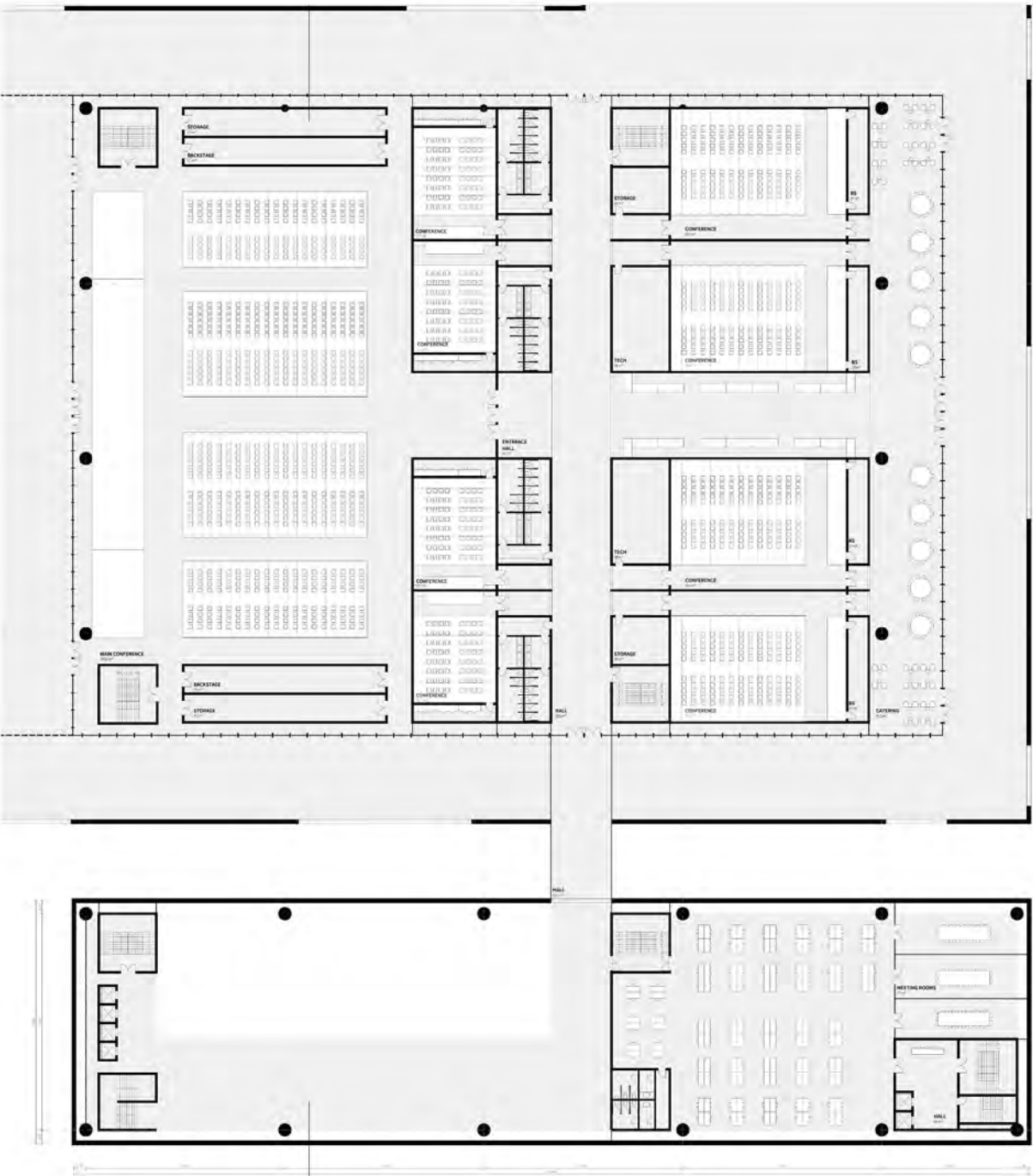
SOUTH ELEVATION - 1/500



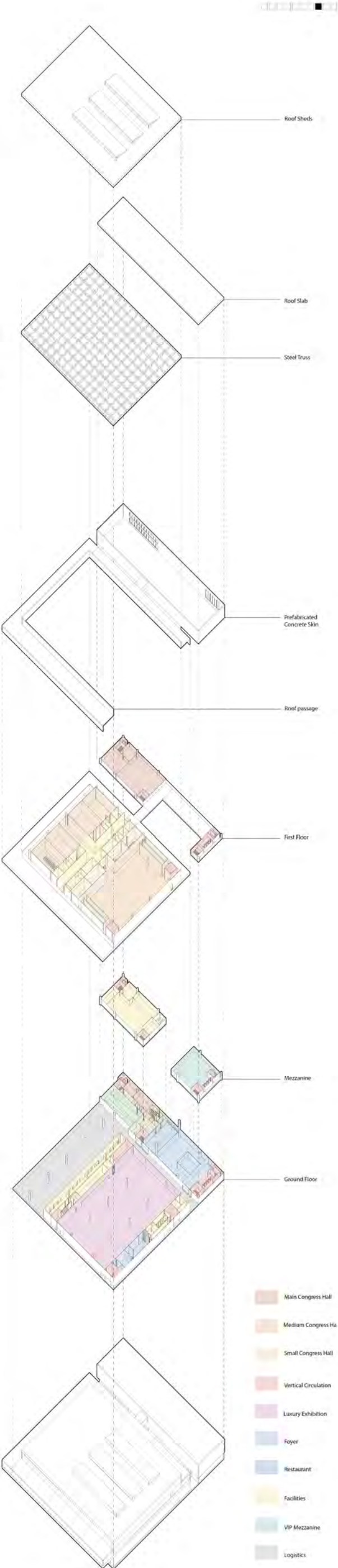
SECTION CC' - 1/250



SECTION DD' - 1/250



LEVEL 1 - 1/250



AXONOMETRIC VIEW





SECTION - 1/500





VIEW FROM THE ROOFTOP LEVEL OF THE EXHIBITION HALL



VIEW OF THE MAIN ROOF OF EXHIBITION CENTER



