



# Waterloo 115

Application by Dorte Mandrup 22.01.2025

Document A

## Vision Note

Built almost 100 years ago, the former School of Medicine and Anatomy on Boulevard de Waterloo stands as a distinct landmark in Brussels' flourishing Marolles district. It occupies a vibrant urban context, characterised by an eclectic blend of low-rise working-class housing, postmodern building complexes, brutalist architecture, contrasting scales and a hilly urban landscape. Emblematic of the city's plural identity, Waterloo 115 is part of the layered cultural and architectural heritage that defines one of the world's most diverse capitals.

The Marolles district emerged as a working-class quarter on the outskirts of the city walls in the Middle Ages, and has been shaped by the ebb and flow of urban evolution through centuries. With the construction of Palais de Justice between 1866 and 1883, parts of the district was demolished to give space for boulevards, disrupting the organic, medieval streetscape and juxtaposing monumental architecture with the more modest working-class structures. Within this context, the aim is not to create conformity, but to highlight and enhance the distinct qualities of the existing structures and strengthen the social fabric.

Our vision for Waterloo 115 is inspired by and anchored in the aesthetic and architectural qualities of the former school and integrated into the diversity of the surrounding context. Emphasising a respectful kinship between old and new, form and function, context and space, we aim to re-capture the essence of the historic building while rethinking its potential. We envision it as a lively destination in an otherwise less active part of the Marolles neighbourhood. A place that offers an inclusive, safe, and bustling environment for occupants, visitors, and locals alike.

Aligned with the ESG principles, Waterloo 115 integrates environmental stewardship and social inclusivity. From minimising environmental impact through adaptive reuse, efficient design measures, and the use of sustainable materials to fostering a sense of belonging and community. By addressing the needs of future occupants, visitors, and the local community while embedding sustainable practices, we not only preserve the buildings heritage but ensure its relevance for many generations to come.



Waterloo 115 is located only a short distance from Palais du Justice, between the post-modern Saint-Pierre Hospital and Boulevard de Waterloo. Built between 1924 and 1925, the building consists of three parallel wings connected by a transverse axial wing comprising the corridors and stairwells. Inspired by this interconnected interior landscape, the restoration and transformation of Waterloo 115 offers a unique opportunity to foster a sense of community within a fragmented urban landscape, naturally shaping a connection to the neighbouring buildings and Boulevard de Waterloo.

With the aim of becoming a benchmark in urban regeneration, our concept is based on principles of inclusivity, openness and care; it highlights and enhances the building's inherent qualities, creates an inviting gesture towards the surrounding neighbourhood, and provides a safe and inspiring atmosphere for future inhabitants. Through sensitive yet forceful interventions, we adapt the existing structure to accommodate contemporary life through a resilient and human-centred design. Tied together by a welcoming and transparent base, the concept forms an interconnected urban environment that will strengthen social cohesion in the surrounding context – celebrating the diversity in Brussel's urban and social landscape instead of constraining it.

The monumental main entrance with its Atlantean sculptures, curved canopy, and wrought iron door is preserved and transformed into a common arrival point for all occupants and visitors. To ensure accessibility without compromising the architectural quality and conservation values, a bespoke stepless lifting platform is integrated into staircase, seamlessly blending with the existing bluestone steps. Upon entering,

you are greeted by a new reception area and naturally guided through the building's interior landscape. The shared entry space encourages interaction between occupants and visitors while creating a sense of security throughout the day.

By removing the existing staircase inside the foyer and thus creating a generous, double height entrance area, we are establishing a visual connection between the ground floor and the first floor to increase permeability while drawing daylight into the otherwise gloomy ground floor. The marble from the existing staircase is carefully removed and reused in the new steps leading from the historic entrance to the reception, restaurant, and retail spaces on the ground floor. An additional stepless lifting platform is integrated into the stairs between the entrance and the reception as well as a steeper ramp for suitcases which is combined with a bench.

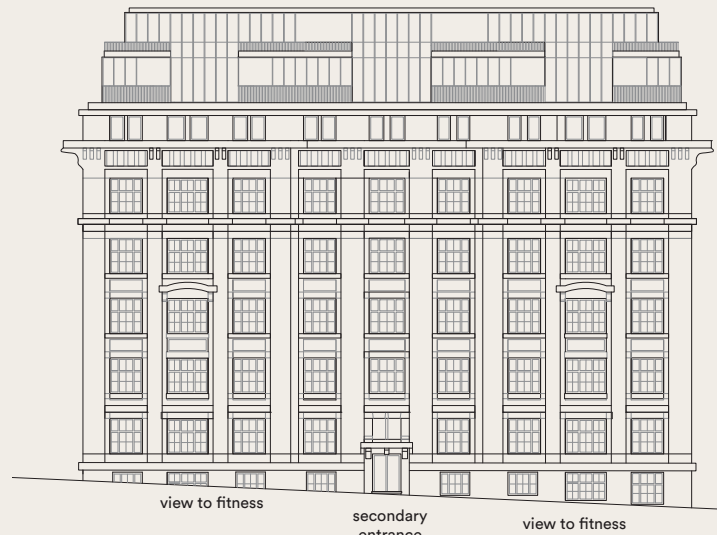
### Lobby // Art Deco

The transition between old and new is captured in a layered approach to architecture and design – restoring, leaving and adding elements to highlight what is there while inserting new meaning. Inspired by the Art Deco heritage of the Marolles district, the lobby highlights the historic design features of the building and its context, while embracing contemporary and future functions and needs. The existing marble surfaces of the entrance area are complemented with clay plaster or stucco lustro in warm hues on walls and ceiling, providing an amiable atmosphere. Reused natural stone will be used in the design of the reception and bar desk while thin steel profiles frame the entrances to the retail space and restaurant, creating a beautiful contrast, suitable for a heritage building like Waterloo 115.





The lobby



Facade towards south - Boulevard de Waterloo - 1 : 500

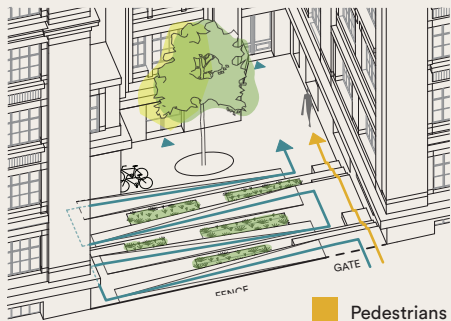
Facade towards north - Rue aux Laines - 1 : 500

# Concept - further



The ground floor represents the beating heart of Waterloo 115. Occupants, local residents and visitors are invited into a vibrant, publicly accessible space that ties all functions together through a coherent and interconnected design with retail space, restaurant, co-working spaces, and a fitness centre. The reception area overlooks an outward facing café/lounge area where people can enjoy a morning coffee or afternoon drink. Co-working facilities are placed in the central wing in close connection to the café/lounge area while retail spaces can be accessed from the reception and directly from the corner of Boulevard de Waterloo and Rue Héger Bordet. We suggest carefully dismantling the existing auditorium and relocating it to the eastern part of the central wing in the transition between the ground floor and the basement

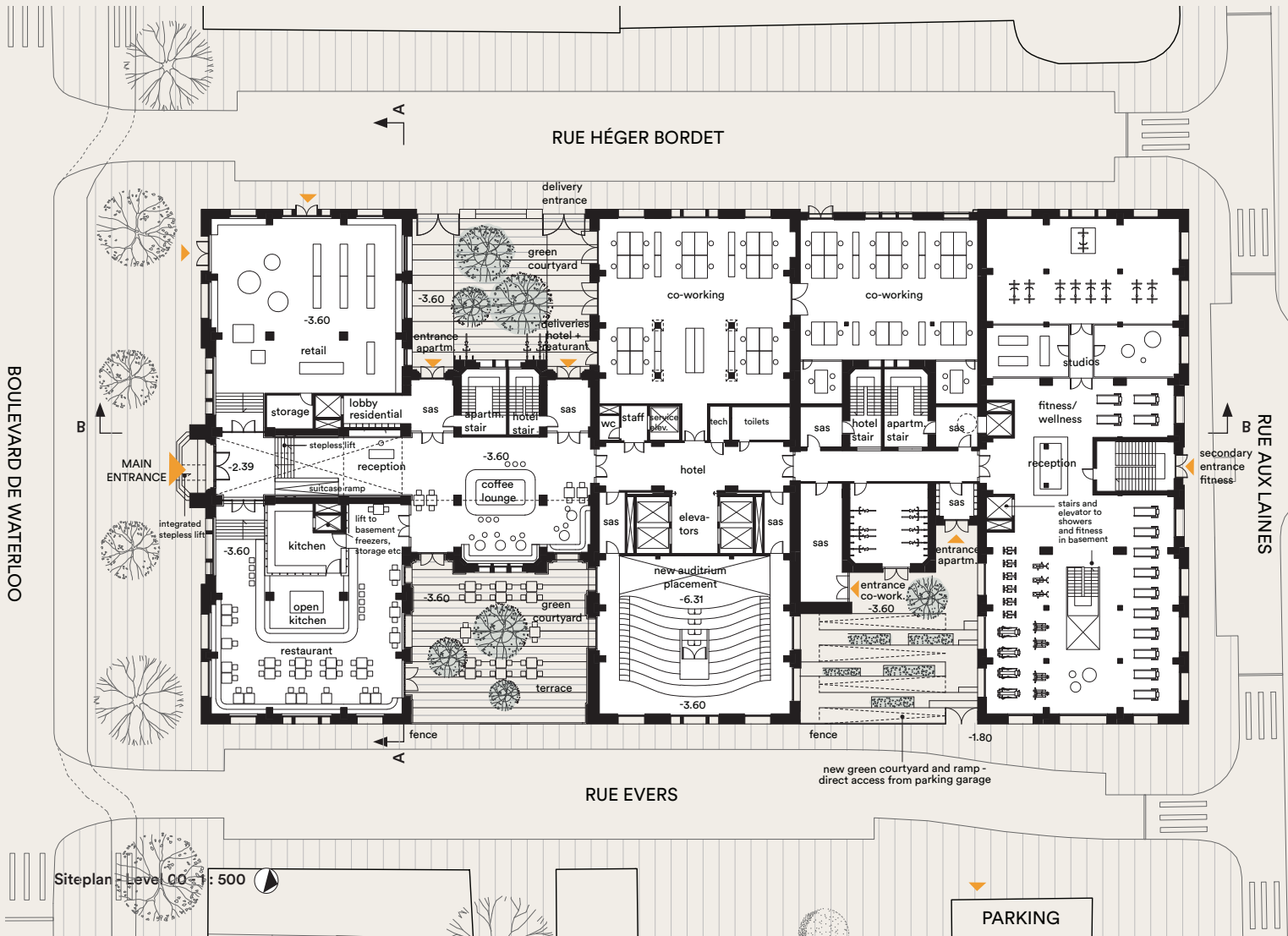
where there is a natural connection to the reception area and the new co-working facilities. Located in the southeast wing, facing Boulevard de Waterloo and Rue Evers, the restaurant will contribute to a lively atmosphere in the neighbourhood and, together with the rooftop bar, add a new destination to Marolles. The restaurant kitchen is equipped with a service lift to the basement where cold room, waste room and storage for the restaurant and café/lounge is located. At the end of the central corridor, in the building's northernmost wing, the fitness and wellness facilities extend over the ground floor with additional functions that require less daylight in the basement and direct access to a new, recreational outdoor space.



- Pedestrians
- Bikes + disabled



terrace restaurant      entrance apartments + deliveries  
Section A - 1 : 500

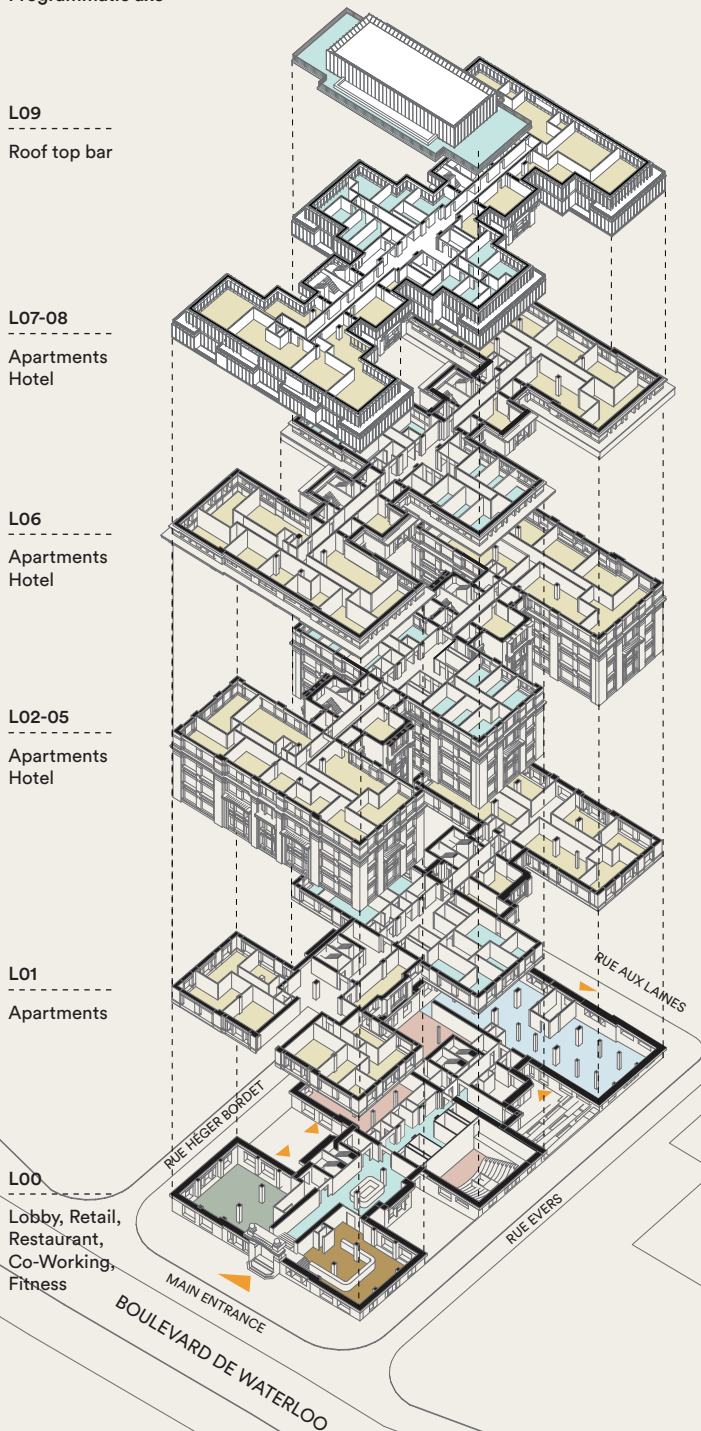


To ensure adequate daylight and transparency between exterior and interior, the parapets on all windows in the base are lowered to expand the openings on the façade. Similarly, the southeastern courtyard will be restored to its original height, allowing daylight to flood the lobby and restaurant while adding a new outdoor space as an extension to these functions. The northeastern courtyard is lowered to the same level and reimagined as a green meeting space with a combined staircase and ramp that provides both seating and direct and level-free access from the parking basement in the Evers 2 building. Via this courtyard, residents in the northern wing have access to mailboxes, elevator, and a private stairwell. In the southwest courtyard, an additional residential entrance gives access to mailboxes, elevator, stairwell.

### Circulation

The existing stairwells seem to have been altered, featuring balustrades that does not appear original. To ensure a coherent architectural expression and create the most efficient circulation and qualitative use of square meters, we propose separating each stairwell into two – one for the residential wings and one for the hotel. By doing this, we ensure a private wings and one for the hotel. By doing this, we ensure a private pathway for future residents and provide the hotel with two separate escape walkways. The existing elevators in the central wing will be renovated and used for access to the hotel, co-working spaces, and rooftop bar. Each residential wing is equipped with a separate elevator to ensure privacy. There is access to the roof terrace and rooftop bar from all elevators.

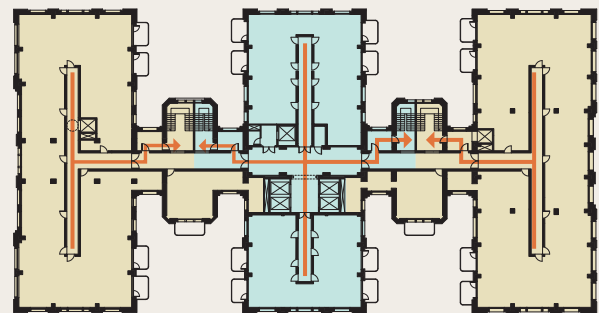
### Programmatic axo



### Area overview by program

AREAS	Residential (incl. circ.)	Hotel (incl. lobby and rooftop bar)	Retail	Fitness & wellness	Offices / co-working (incl. auditorium)	Restaurant	TOTAL, m <sup>2</sup>
Level -01 *				360	261		621
Level 00	230	381	264	611	714	396	2596
Level 01	2193	130					2323
Level 02	1647	699					2346
Level 03	1647	699					2346
Level 04	1626	699					2325
Level 05	1626	699					2325
Level 06	1512	699					2211
Level 07	1381	663					2044
Level 08	1215	606					1821
Level 09		252					252
<b>TOTAL, m<sup>2</sup></b>	<b>13077</b>	<b>5527</b>	<b>264</b>	<b>971</b>	<b>975</b>	<b>396</b>	<b>21210</b>

\*NB! Basement areas for tech., waste, storage etc., are not included in the total



Evacuation diagram

## Facade strategy // Key focus points



With its expressive masonry patterns, pilasters, bluestone bands, and vertical rhythm, the façade motif of Waterloo 115 hold significant historic and architectural value. It is therefore important to us, that the entire façade is preserved with minimal intervention, and carefully restored were needed. Transformation and reconstruction is necessary in the two eastern courtyards as they will both be lowered to accommodate new, functional outdoor spaces. By lowering the parapets on the windows in the base, the ground floor will be adapted to enhance openness and improve daylight conditions. Although these changes are subtle, they have a considerable impact on the increased permeability and quality of life in and around the building, without imposing on the existing qualities.

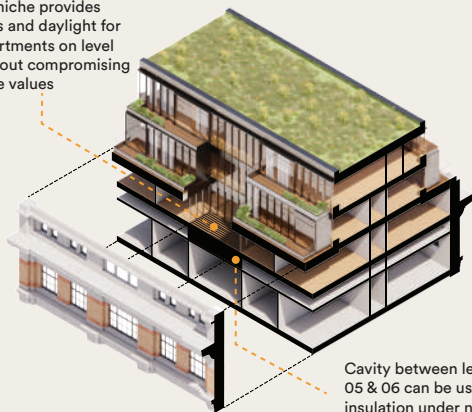
To avoid disturbing the primary façades towards the streets by adding balconies, we suggest a layout where smaller studio and one-bedroom apartments are placed in these locations. Instead, these smaller apartments will have access to the shared roof terraces where residents can meet and socialise with each other. In the inner courtyards, balconies are added to the larger apartment units. All balconies are designed and dimensioned with respect for the existing masonry patterns.

The existing wide cornice is a monumental and striking feature on the building's façade and keeping it intact has been an important design parameter which is explain further in the subsequent paragraph.



Facade towards east - Rue Evers - 1 : 500

Retracting the facade from the cornice provides terraces and daylight for the apartments on level 06 without compromising heritage values

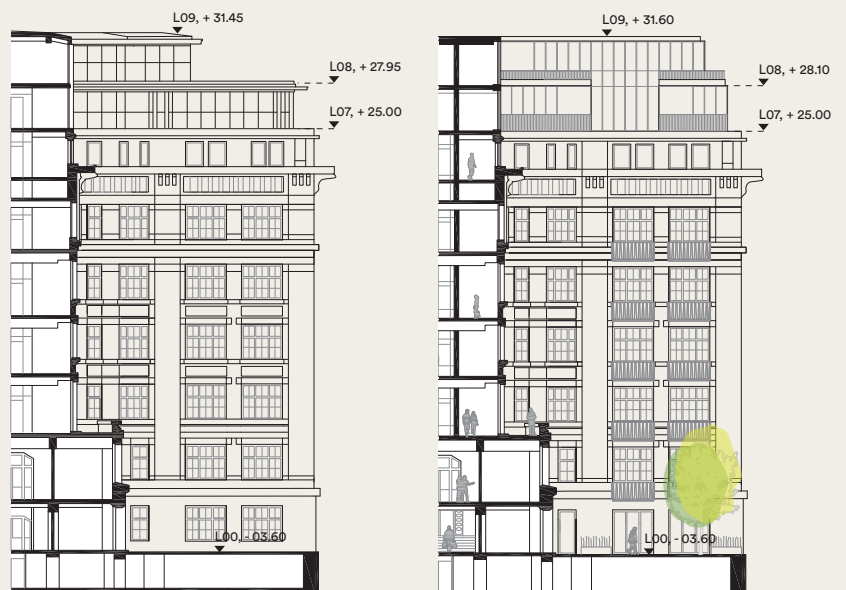


Cavity between level 05 & 06 can be used for insulation under new terraces

Preserving the Corniche



Examples of seamlessly integrated "Stepless" stair lift in heritage project



### The facades before and after transformation

By lowering the parapets on the windows in the base, the ground floor will be adapted to enhance openness and improve daylight conditions. Balconies are added in the interior courtyards. It is designed, so that it follows the rhythm of the patterned brick. The new extension on the roof respects the height of the previous volume, but in order to ensure sufficient ceiling height in the apartments, we will propose to raise the roof by 15 cm.

# Residential units



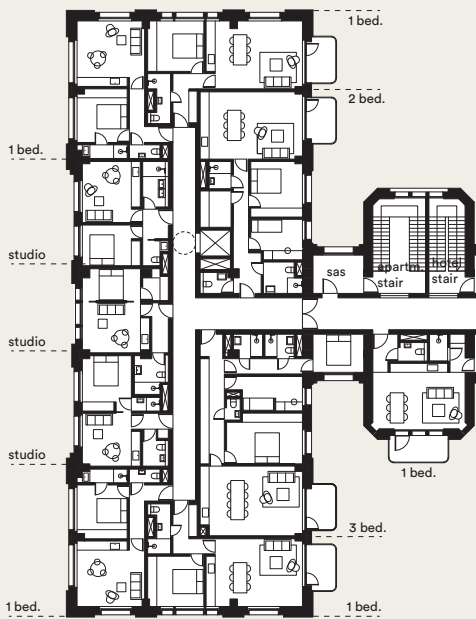
To ensure diversity, we suggest a mix of housing typologies on each floor. At the same time, the apartments are organised to best preserve the quality of the façade. Studios and smaller one-bedroom apartments are located towards the primary façades while larger apartments will be facing the courtyard with private balconies. The largest apartments are located on the 7th and 8th floor where they will have access to large private terraces. To preserve the integrity of the corniche, we are working with point-by-point retractions of the façade behind the corniche to create inward-facing terraces. Towards the terraces, all apartment are designed with a glass façade to create an inviting and bright home environment. This approach ensures high-quality living spaces while maintaining

the historic significance and intactness of the corniche. Furthermore, the building volumes will not become overtly visible in the streetscape, respecting the neighbouring structures. The cavity between level five and six is utilised for insulation beneath the new terraces.

All interior walls are constructed with light weight timber and clay boards to secure flexibility and cater to changing needs. We propose using natural materials to create a healthy indoor environment – natural stones, clay paint for the walls, kitchens and other fixed furniture made from timber, and floors in either wood or terrazzo made from crushed reused brick, bluestone, or marble. The layout of each apartment is designed to optimise circulation and minimise the length of corridors.

### Typologies

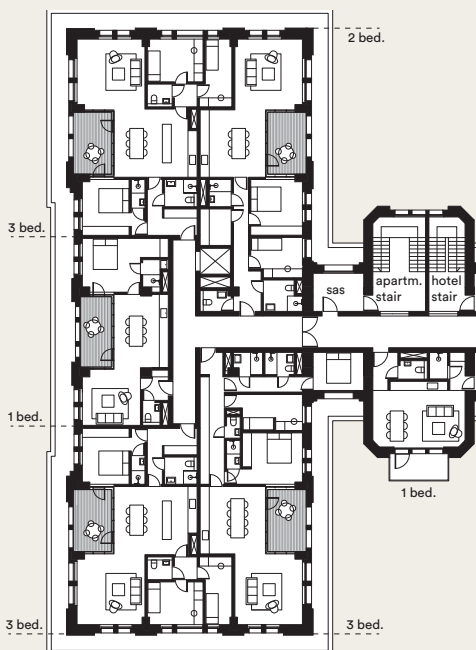
The plans have been designed, so that they correspond to the typology requirements listed by the clients in the program.



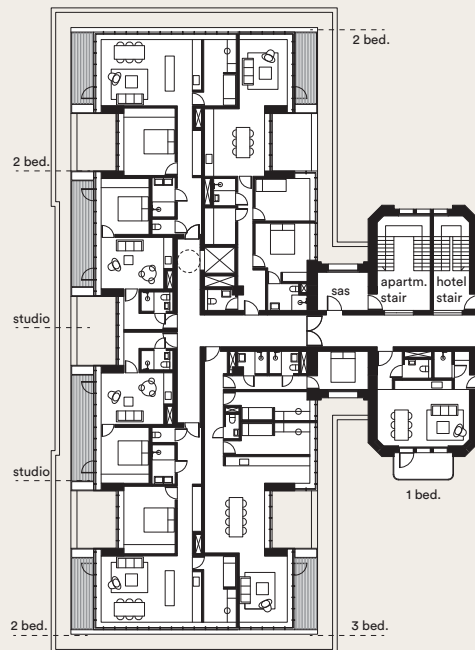
Level 05 - 1 : 500



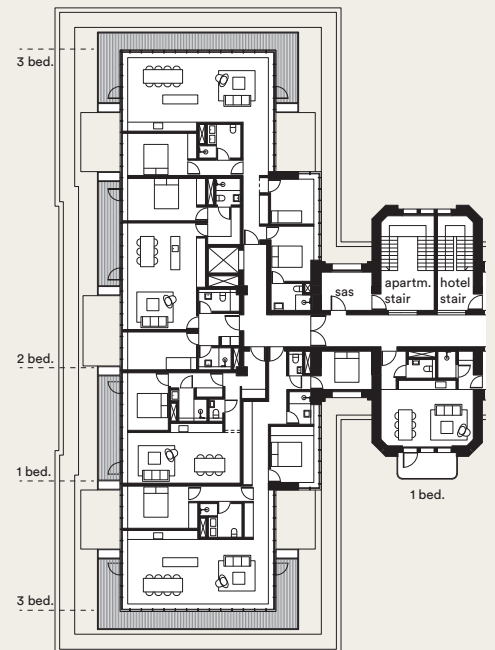
Axonometric view apartments - Level 05-08



Level 06 - 1 : 500



Level 07 - 1 : 500



Level 08 - 1 : 500



**Hotel rooms // Interior strategy**

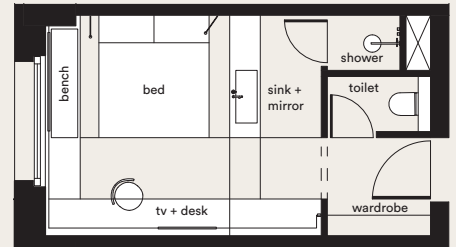
From the second floor and up, the central wing will host hotel accommodations. A carefully curated palette of materials, colours and design elements will depart from the conventional hotel character and give guests a unique experience which is adapted to the historic surroundings. The rooms are designed with bespoke furniture in certified, local wood and reused natural stone. The walls are clad in clay plaster in different tones. Each room has a separate toilet and shower, a space-defining, freestanding sink with mirror, and a bench by the large window. In rooms accommodating four people there is an additional integrated bunkbed for two children.

**Roof top bar**

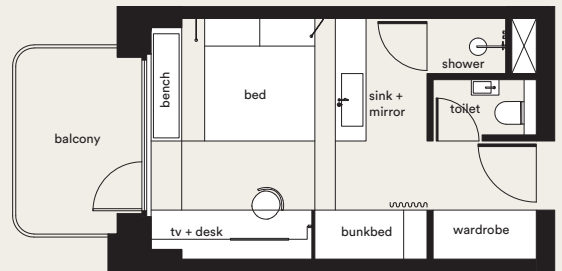
With 360-degree panoramic views across Brussels' skyline and direct views to Palais du Justice, the rooftop bar and terrace of Waterloo 115 will be an attractive destination in the Marolles district. It will not only function as a gathering space for hotel guests and residents but equally become a unique meeting place for the surrounding neighbourhood. We want to investigate whether windows from the existing pavilion can be restored and reused either in the façade of the new rooftop bar, or as part of the façades for the hotel rooms and apartments. The materials used in the rooftop bar and terrace are primarily timber and reused natural stone.



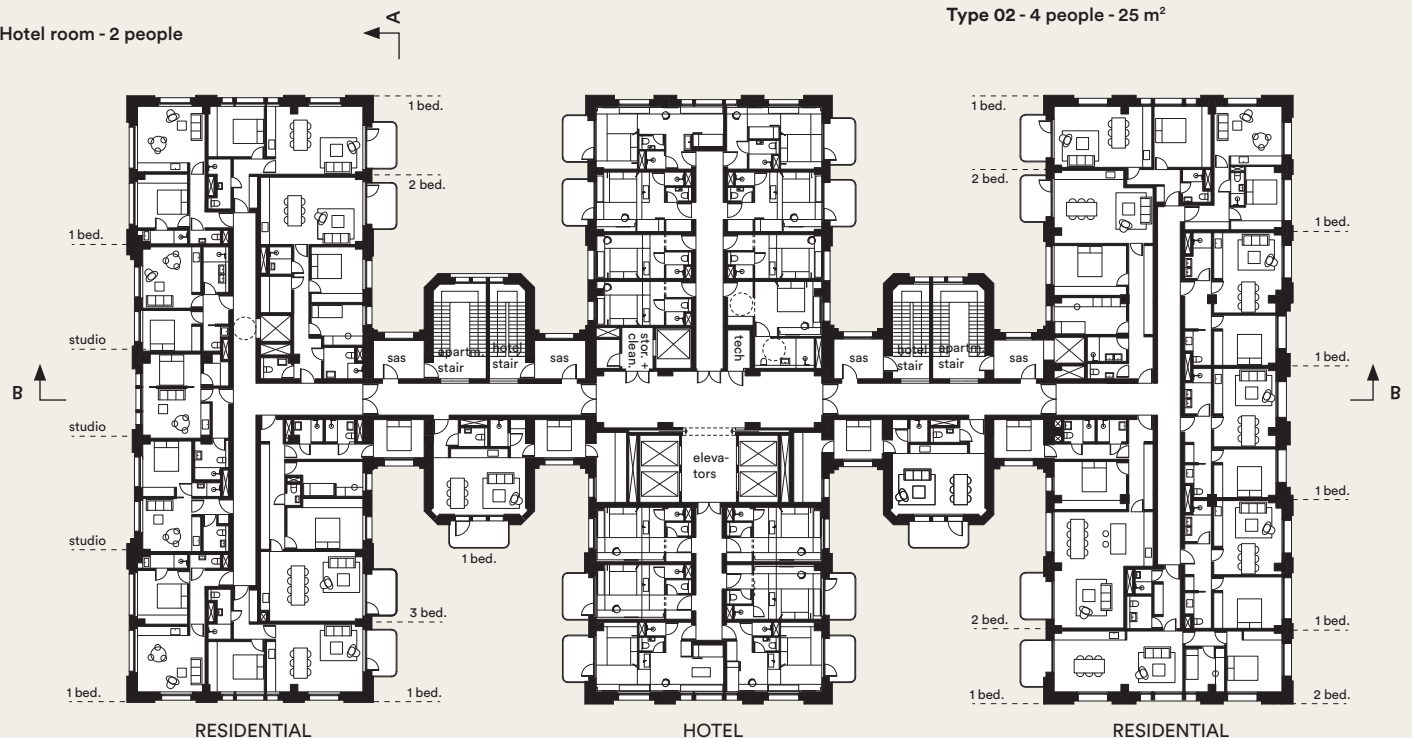
Hotel room - 2 people



Type 01 - 2 people - 20 m<sup>2</sup>



Type 02 - 4 people - 25 m<sup>2</sup>



Level 04 (Standard floor) - 1 : 500

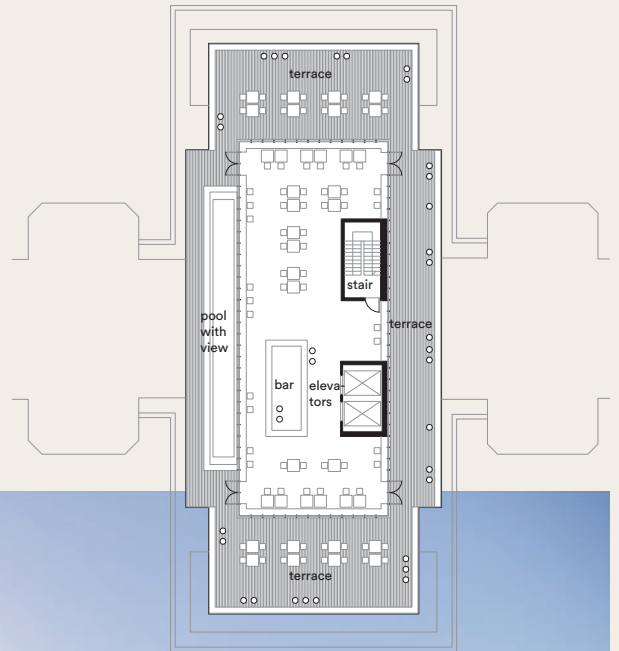




Facade towards west - Rue Héger Bordet - 1 : 500



Common terrace



Level 09 - Roof top - 1 : 500



Hotel bar & pool

# Materials, sustainability and technical installations

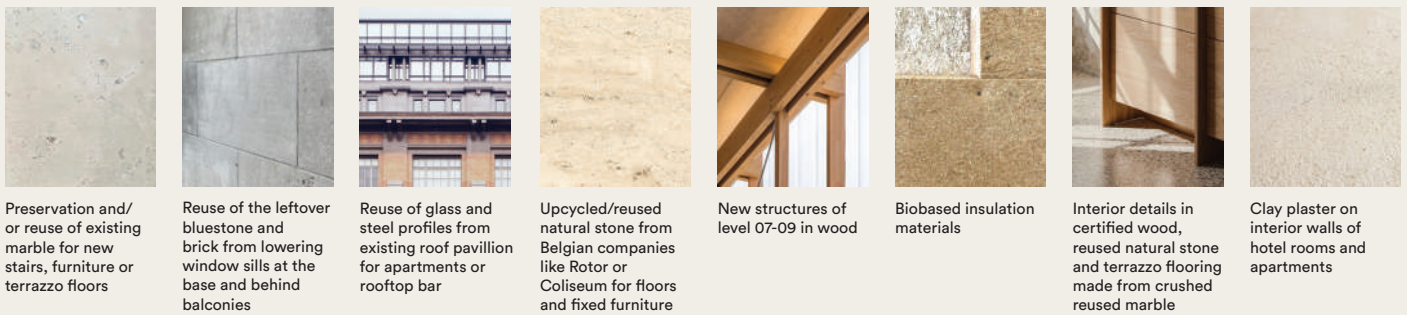


At the heart of our vision for Waterloo 115 is a commitment to creating a resilient and sustainable mixed-use development that sets a new standard for urban regeneration in Brussels. Focusing on design and material efficiency, energy consumption, and waste- and water management, we are connecting different fields of expertise to integrate and utilise the most efficient solutions.

A cornerstone of sustainable construction is preserving what is already there, reducing waste, and minimising destructive interventions. In the transformation of Waterloo 115, the majority of all structural elements and facades are retained – carefully restoring where necessary and only making minor alterations, adapting to contemporary and future functionality. Reusing materials is integral to our approach. A comprehensive pre-demolition audit will identify any elements suitable for repurposing or upcycling. Examples include:

- Brick and bluestone, removed from the façade to make room for balconies and optimised access points, can be used as fillers for terrazzo flooring or reimagined as design elements in the bar, restaurant or co-working facilities.
- Marble salvaged from the original staircases can find new life in the redesigned stairs and fixed furniture.
- Windows from the existing roof pavilions can – if possible – be reused in hotel rooms, apartments, or the new façade of the rooftop bar.

All new structures will utilise timber, taking advantage of its sustainability credentials and minimising the added load on the existing structure. The overall approach for material selection reduces cost and CO2 impact and includes recycled or biobased materials. A comparative life-cycle assessment (LCA) of every potential product will inform material selection.



Preservation and/or reuse of existing marble for new stairs, furniture or terrazzo floors

Reuse of the leftover bluestone and brick from lowering window sills at the base and behind balconies

Reuse of glass and steel profiles from existing roof pavillion for apartments or rooftop bar

Upcycled/reused natural stone from Belgian companies like Rotor or Coliseum for floors and fixed furniture

New structures of level 07-09 in wood

Biobased insulation materials

Interior details in certified wood, reused natural stone and terrazzo flooring made from crushed reused marble

Clay plaster on interior walls of hotel rooms and apartments

## Energy concept

The building envelope will be optimised based on dynamic simulations carried out during the design phase. We will incorporate natural ventilation, reducing reliance on mechanical systems and promoting indoor air quality. If possible, we will work with a combination of geothermal energy and air/water heat pumps. To generate renewable energy on site and reduce operations cost, we will install waterbased solar panels on the roofs.

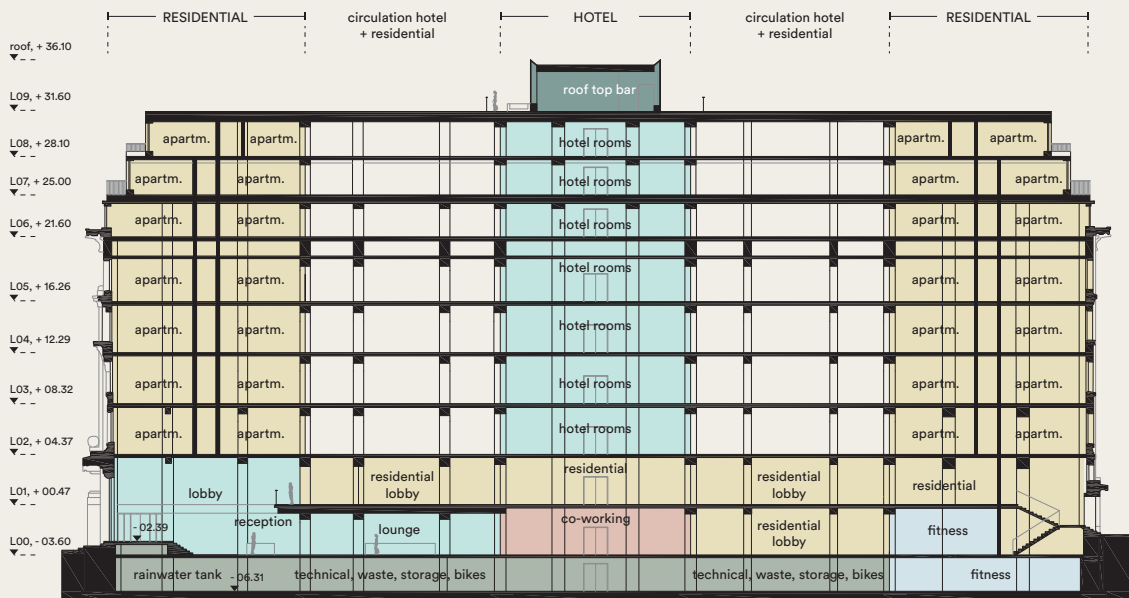
## Water concept

The number of bathrooms in the hotel and apartments holds a great potential for designing an intelligent energy- and water handling concept. Every time we flush our toilet, we are losing something surprisingly valuable: heat! The excess heat can be used to heat the water in the showers and the roof top pool.

To reduce the building's water demand we propose systems that can capture, store, and reuse rain- and grey water. The green, retention roofs, will assist in storing rainwater on site during heavy rainfalls, thus mitigating the risk of urban flooding. A rainwater buffer tank will be placed in the basement. The filtered rainwater and greywater will be reused for flushing toilets and for irrigation of the green courtyards.

## Greenery

The combination of green roofs, integrated plant boxes on terraces and balconies, and new green courtyards will maximise the well-being of users as well as enhance biodiversity. We will work with a varied range of plants and trees that are chosen to suit the microclimates and seasonal changes within and around the building. Native and adaptive species will be prioritised for their ability to support the local wildlife and reduce maintenance needs.



Section B - 1 : 500

- geothermal heating or heat pumps
- geothermal heating or heat pumps
- optimal daylight conditions
- waterbased solar panels
- natural ventilation
- reused materials (natural stone, windows, brick, ...)
- structures in wood
- excess heat from toilet reused for heating
- water saving units
- reuse of rainwater for toilets and irrigation
- green, retention roofs
- biodiversity
- bio-sourced materials
- existing structures retained