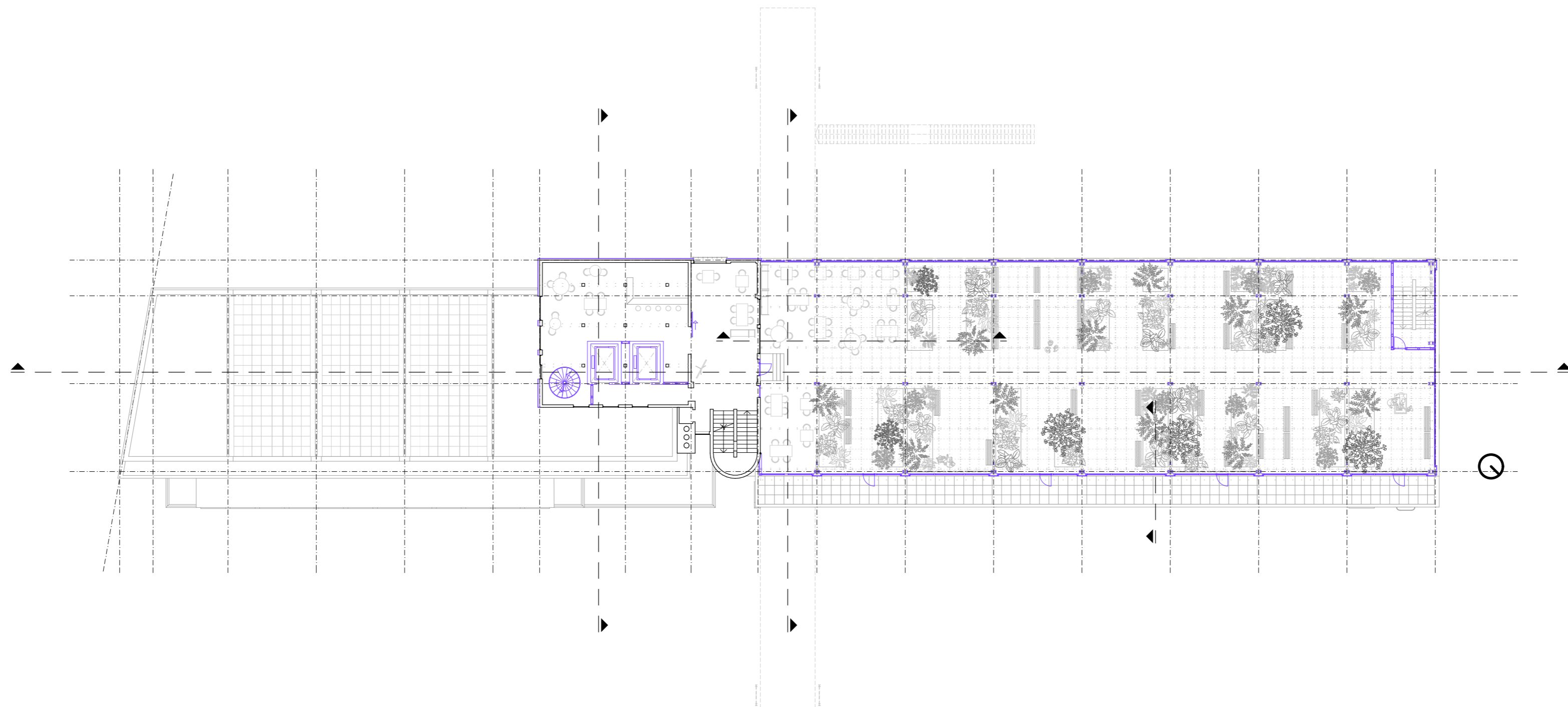


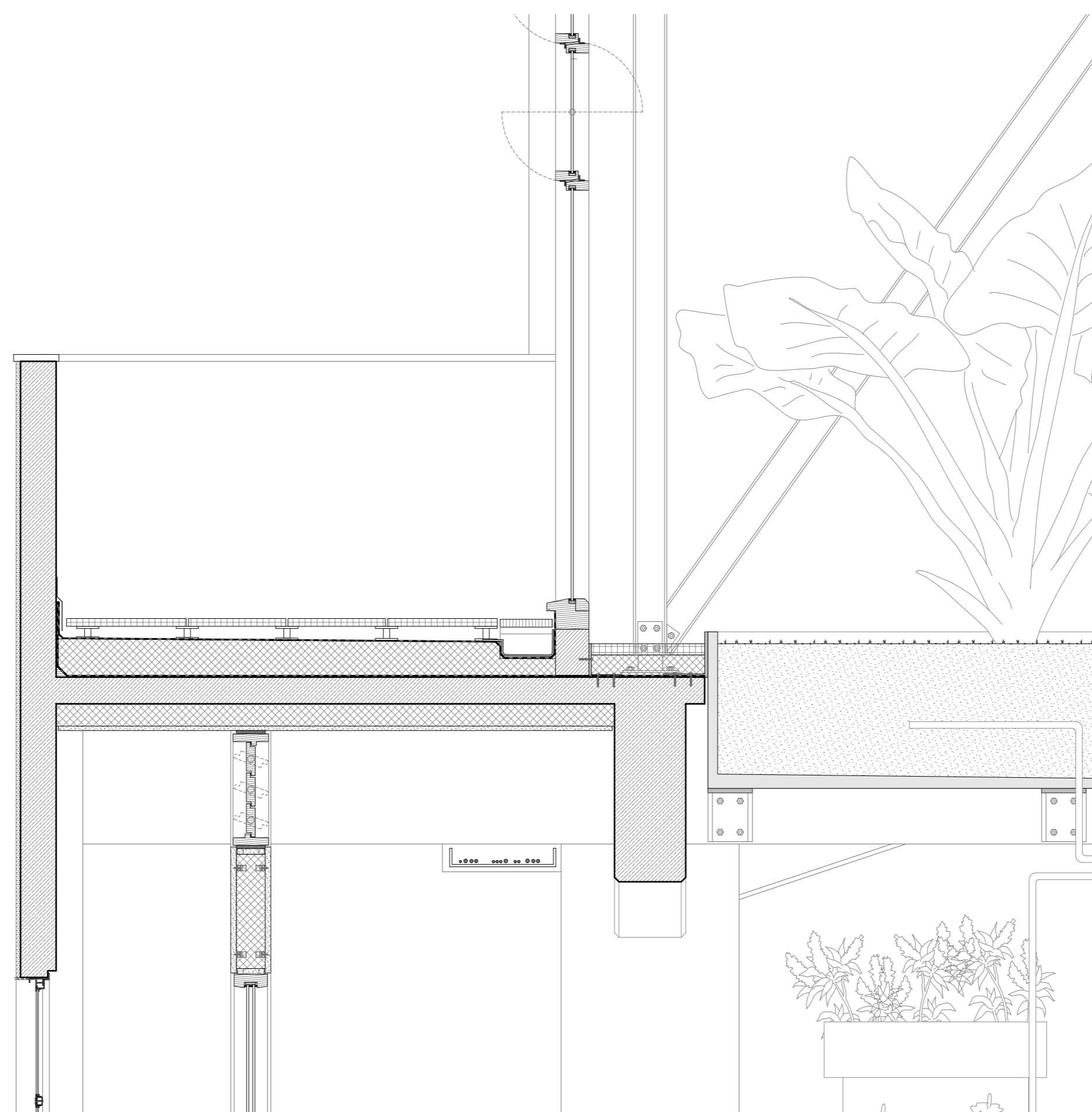
This detail axonometric drawing shows the connection between old and new, the structural principle of the steel construction and the connections between steel components and CNC fabricated components.



The Greenhouse serves two functions; as recreational space for the buildings' users and visitors in an all-year garden and as productive garden which can be regularly harvested for material.

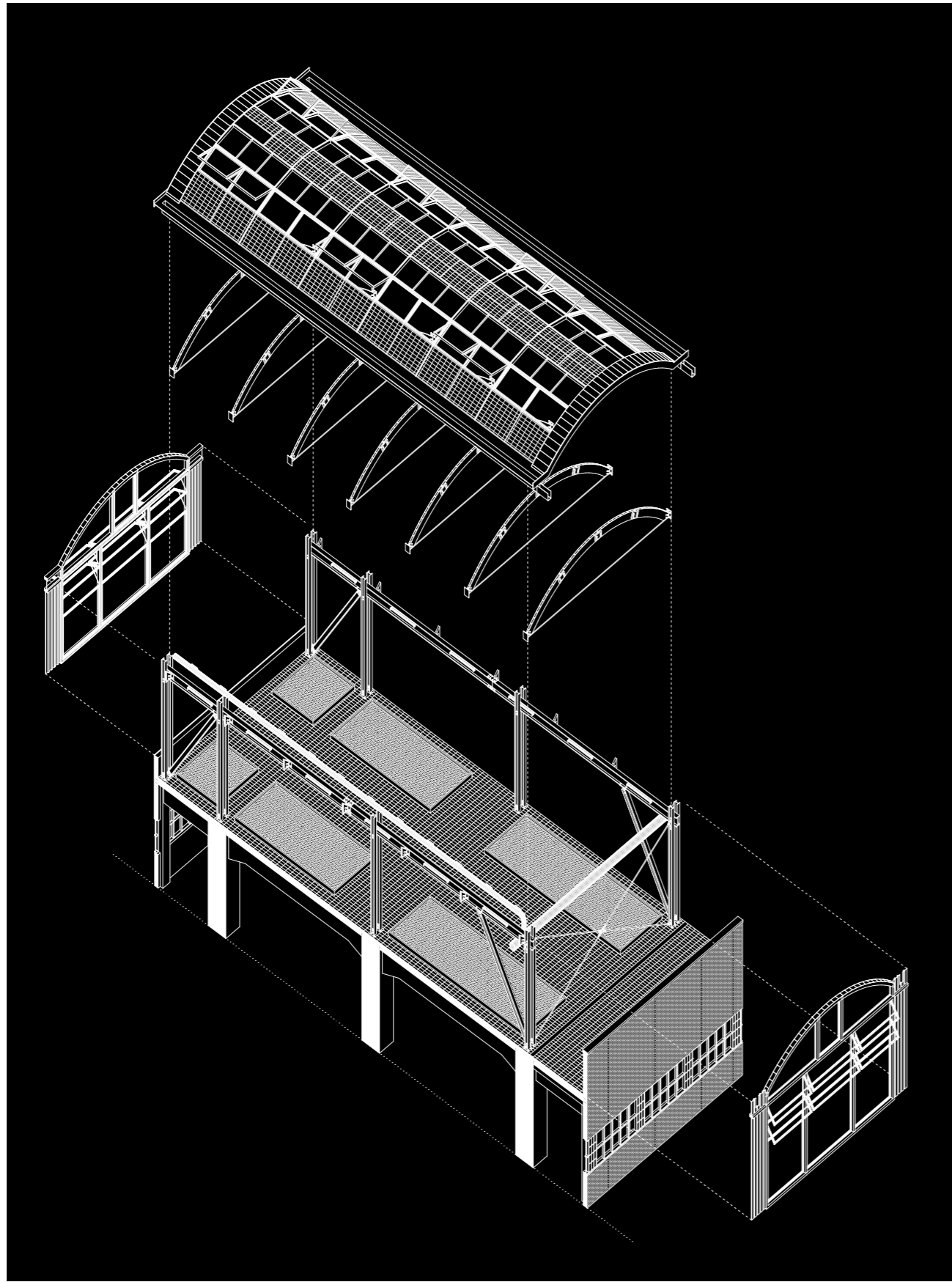


The central staircase in the middle of the building leads to a lobby, giving access to spaces located above the silos in the tower which are taken in use by a restaurant and bar. The greenhouse is also accessible via the lobby and provides space for a garden terrace for the restaurant and connects to an outdoor terrace which faces the city skyline of Rotterdam.



A new layer of insulation on the roof prevents a cold bridge through the concrete slab. The second facade on the inside provides thermal insulation and adjustable openings for natural ventilation while maintaining the original state of the buildings' facade.

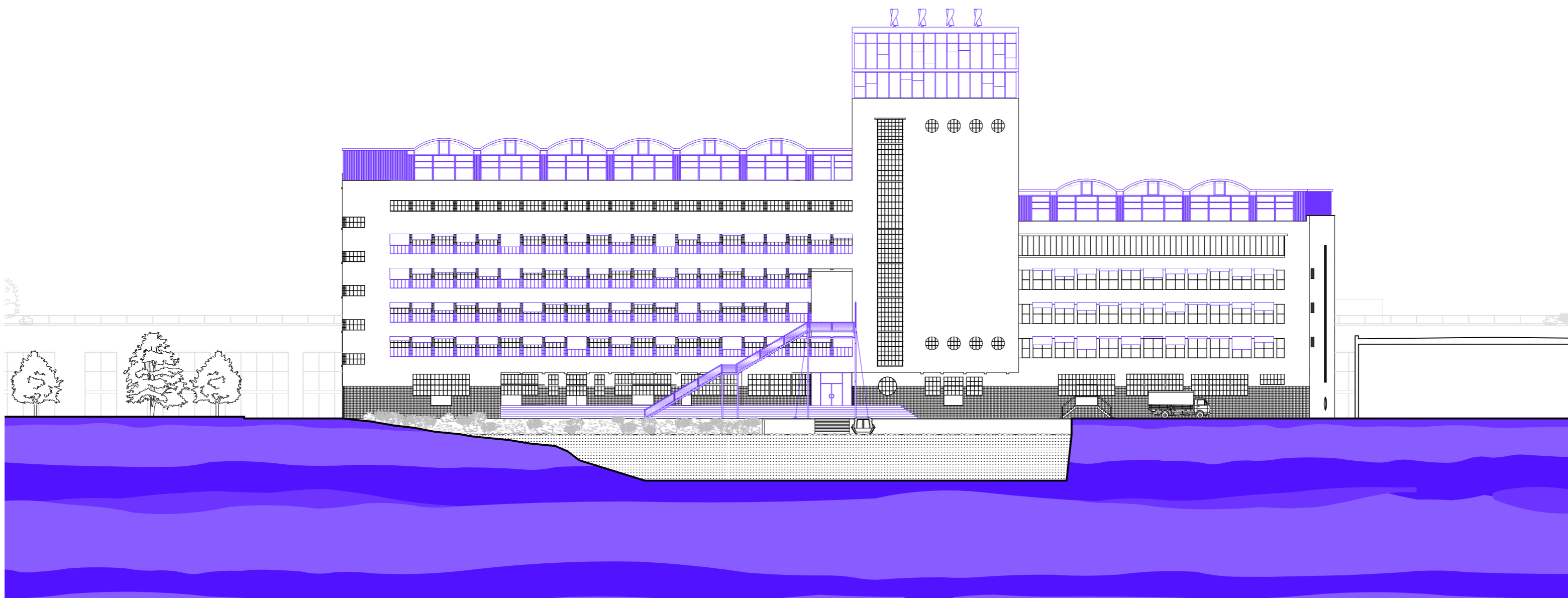




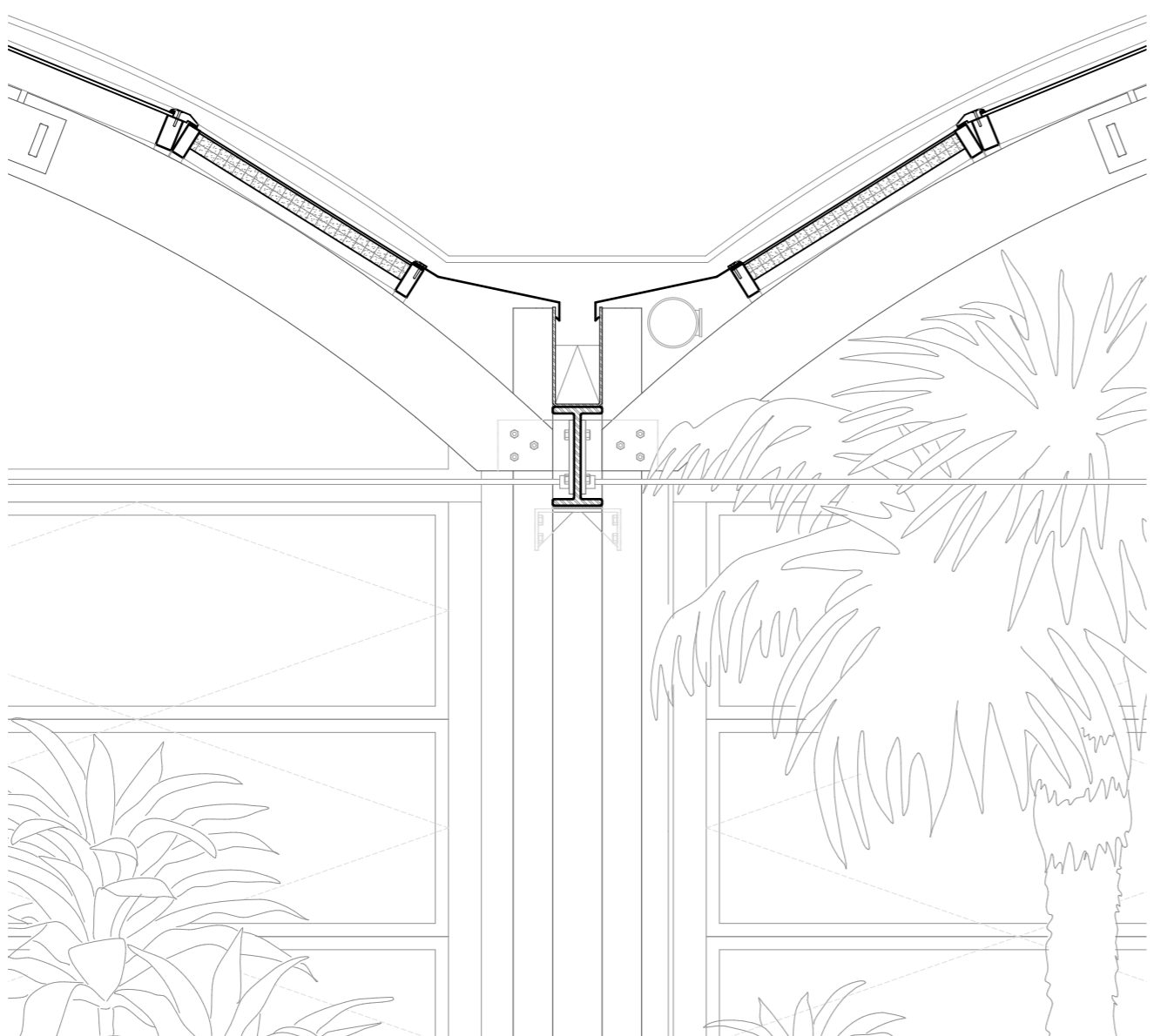
This Axonometric Drawing describes the different components the greenhouse consists of. This includes the base steel structure, the complementary CNC roof structure, and facade and roof with integrated PV panels.



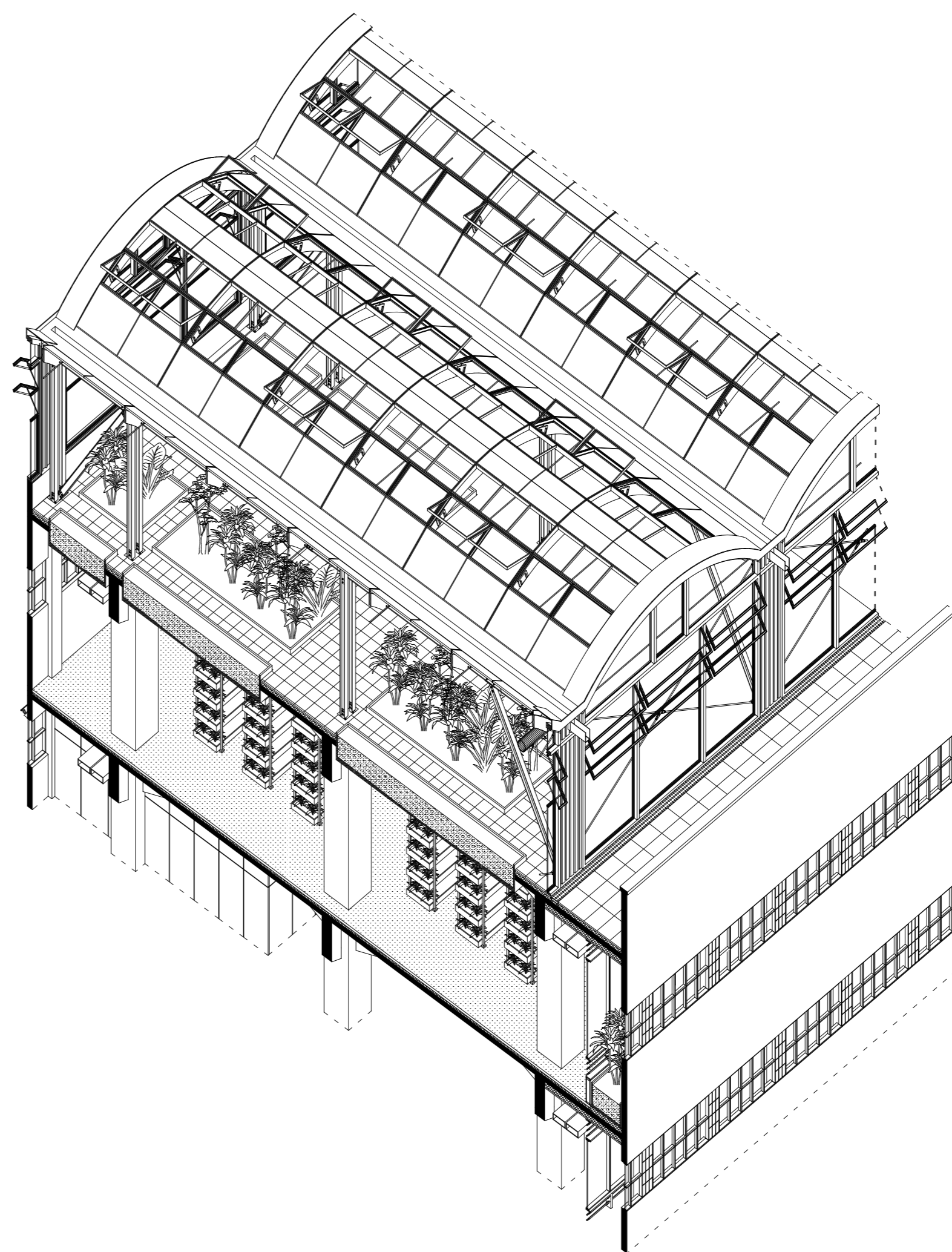
The in-house farm makes use of excess energy generated from PV panels and wind turbines and produces food for the building while also providing the in-house workshop with fibrous waste material for panel processing.



The elevation of the south-facing facade pictures the overall building proportions with the greenhouse and tower top-up. The rounded roof shape refers to the existing buildings' round elements that can be found throughout the facade. The bridge pierces through the building and gives access to the waterfront through external stairs leading to ground level.



The detail shows the connection principle between steel structure and CNC fabricated roof beams. The roof consists of PV-panels and single glazed roof windows.



This axonometric drawing explains the different functional layers, starting on the top with the new greenhouse addition, followed by the farm and, finally, workspaces on the floors below.

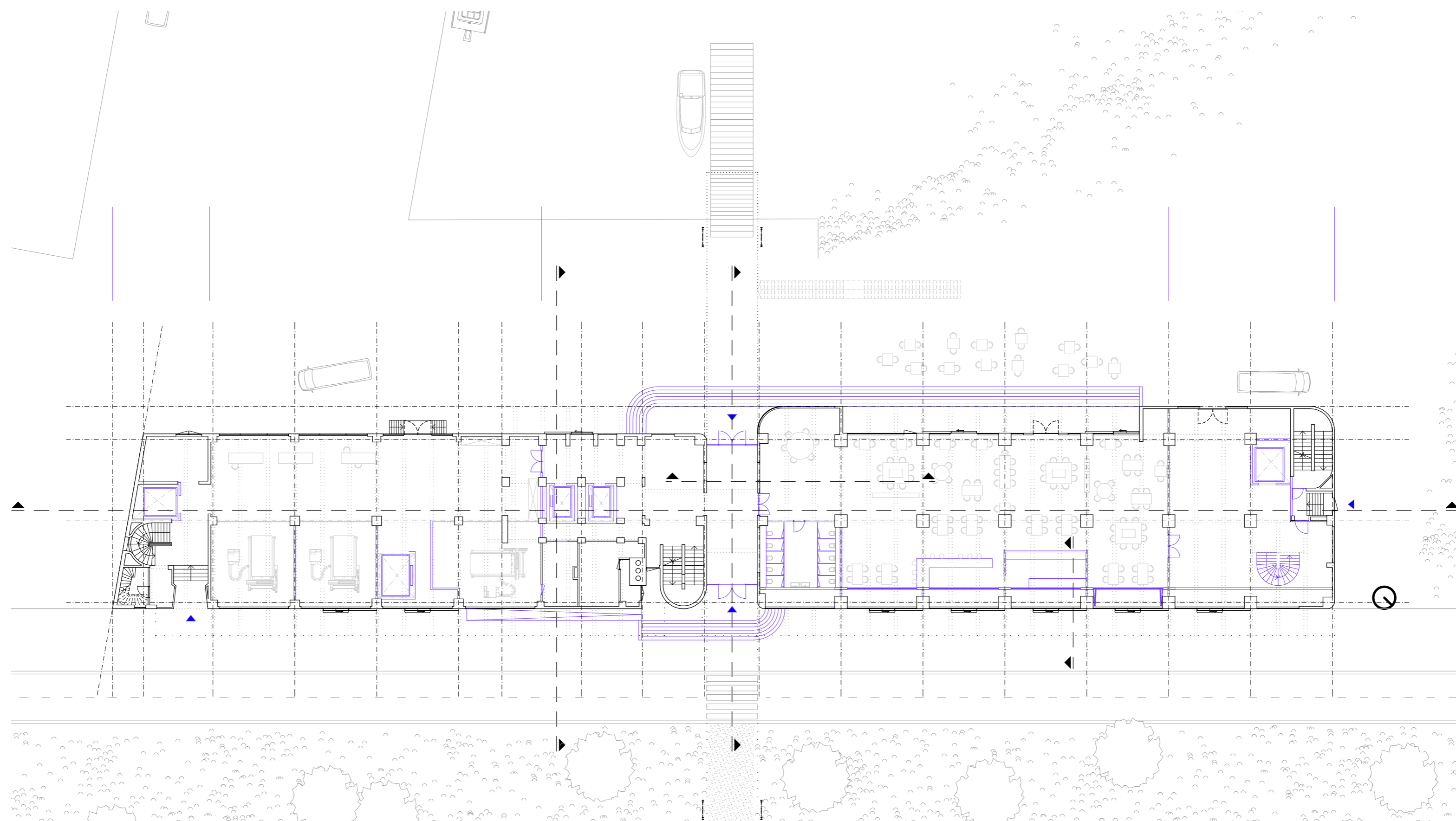




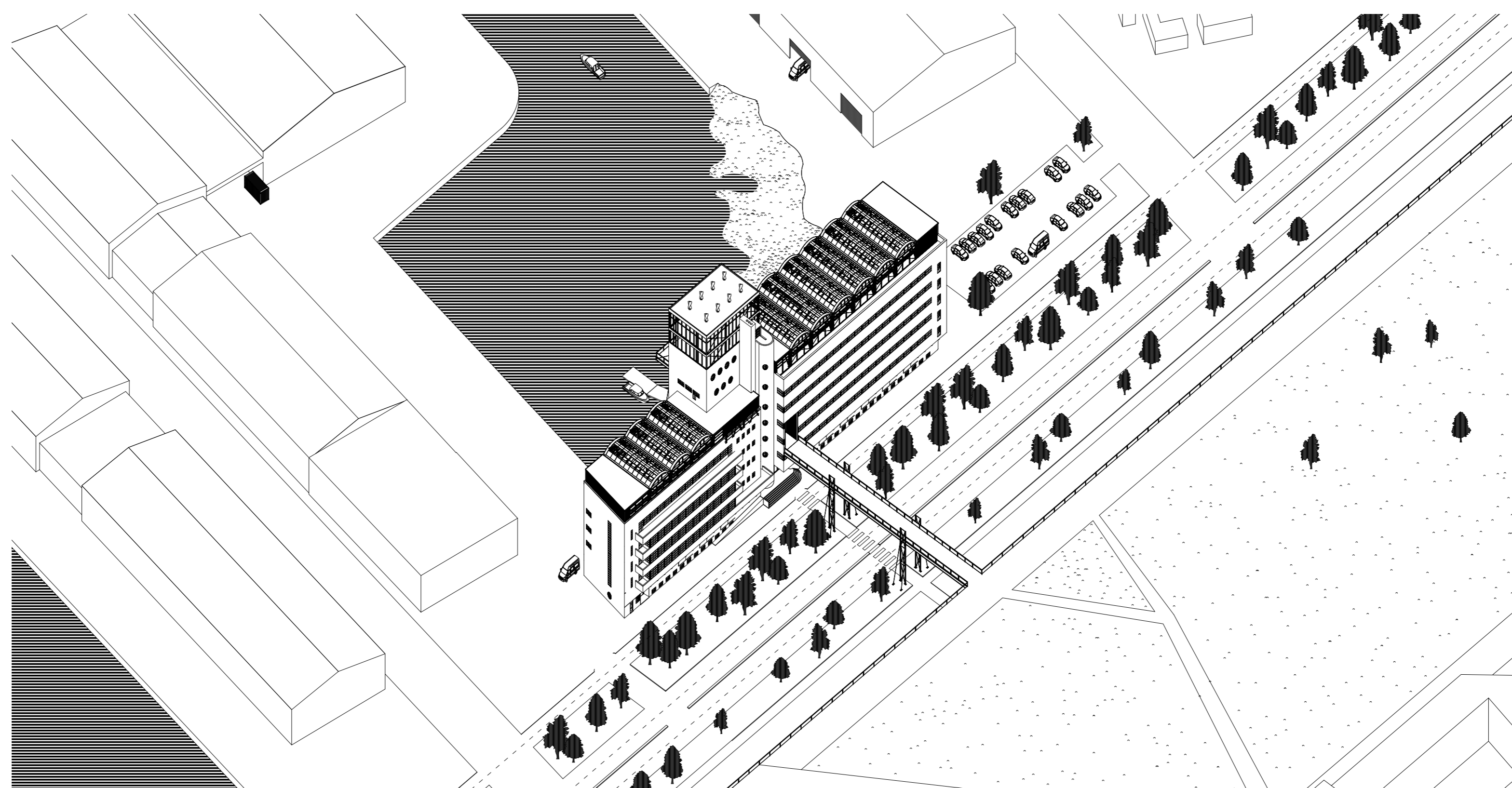
View towards the 'new' HaKa building from the rooftop park on the opposite side of the main road. The bridge directly connects to the building, allowing visitors access without having to cross the road beneath.



The HaKa as seen from the water side. The scene portrays a misty atmosphere at dawn as it could look like on a cold autumn morning.



The ground floor is divided into four segments; on either side of the building a separate access core with staircases and heavy load elevators can be found. The in-house CNC workshop and the public centre, consisting of a main staircase, new elevators and a large restaurant and cafe with an outdoor terrace towards the waterfront, make up the central part of the building.

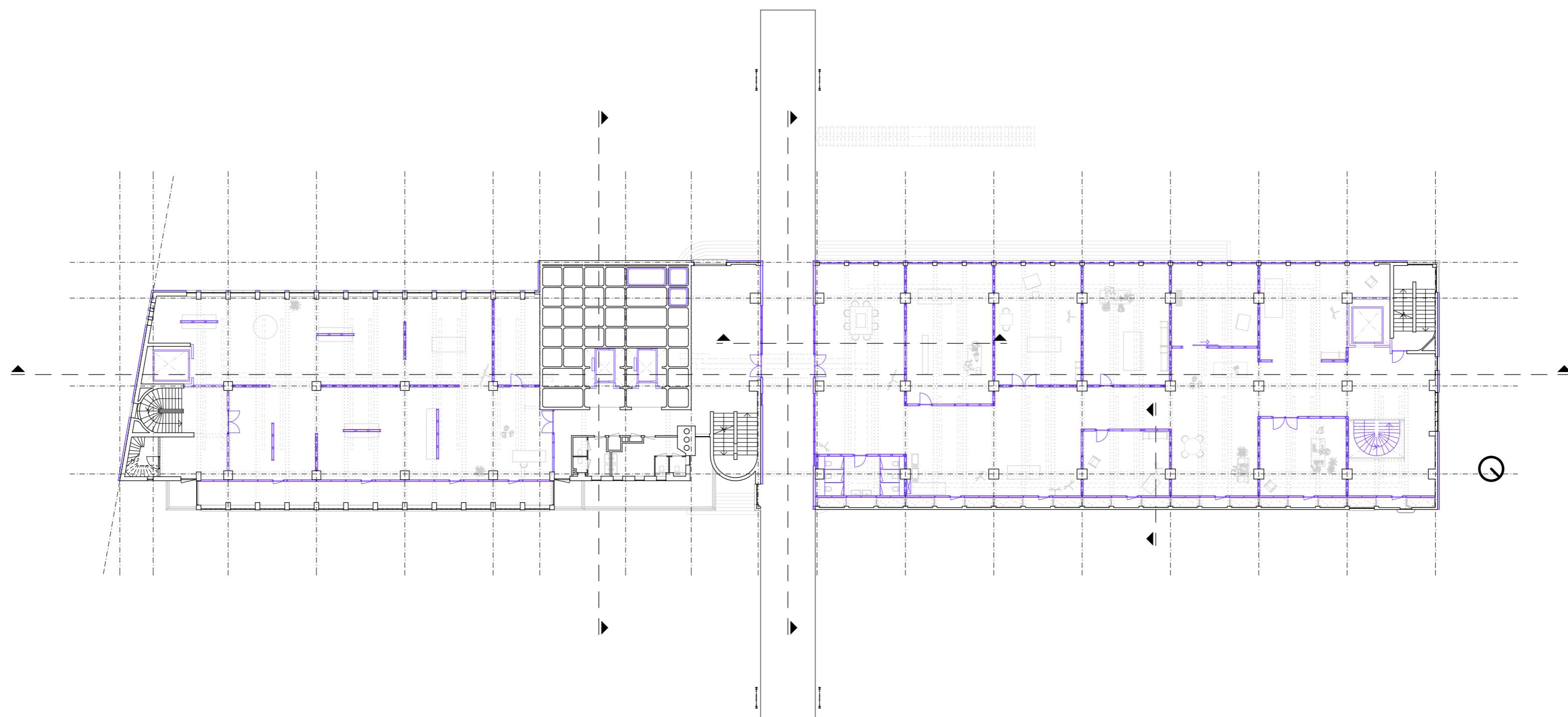


This axonometric drawing gives a comprehensive overview of the HaKa building and its immediate surrounding. The drawing shows the new building additions, namely bridge, greenhouse, and tower. The new harbour basin has a 'soft' edge with greenery and the remaining existing warehouses are functionally converted into local workshops.

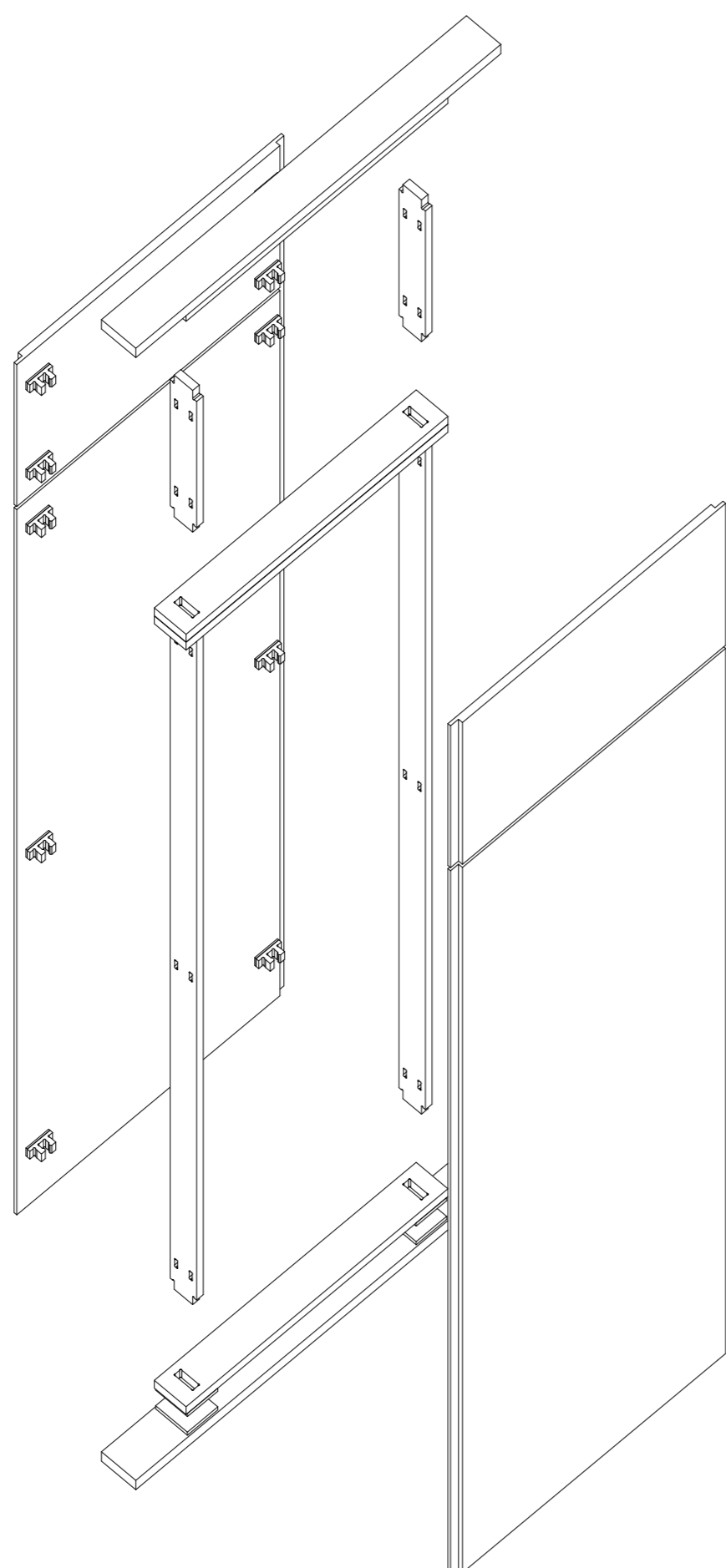




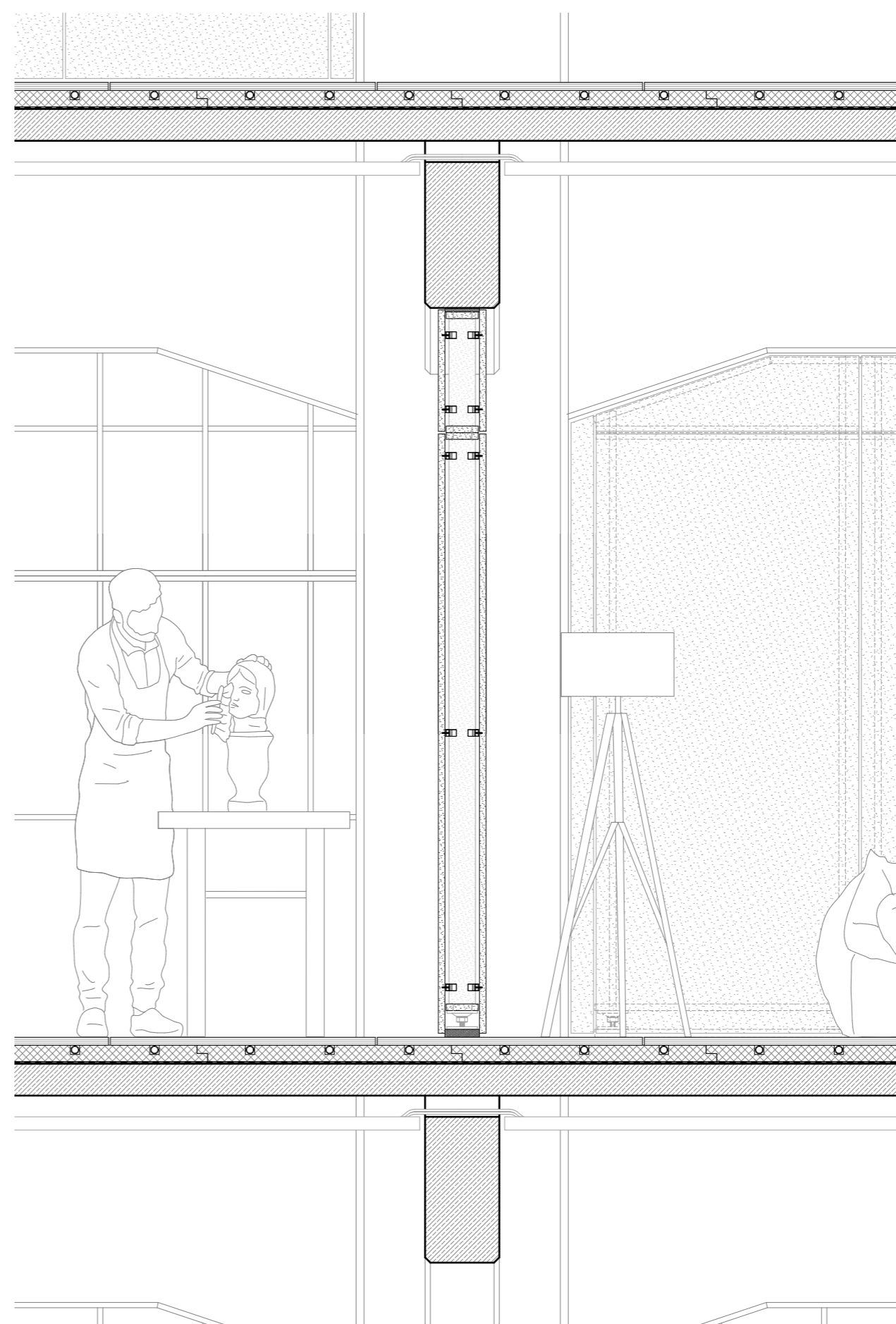
A studio space in the HaKa building can be customised to each users' needs by utilising the demountable and customisable wall system and making use of the flexibility that CNC fabrication provides.



On the second floor, the bridge enters the building, making this floor easily accessible for the public. Hence, the program is intended to invite visitors into the building with a museum, which is located to the left of the bridge and an open studio space on the other side of the building where creatives and makers can exhibit and sell their products.



The demountable wall is a base system which is intended to become an open source system for everyone to customise and adapt to their individual needs.



The wall system, as placed into the context of the existing structure of the HaKa building. Through adjustable steel feet, the wall can hold itself in place by pressing against the floor and ceiling without the use of bolts or other fasteners.

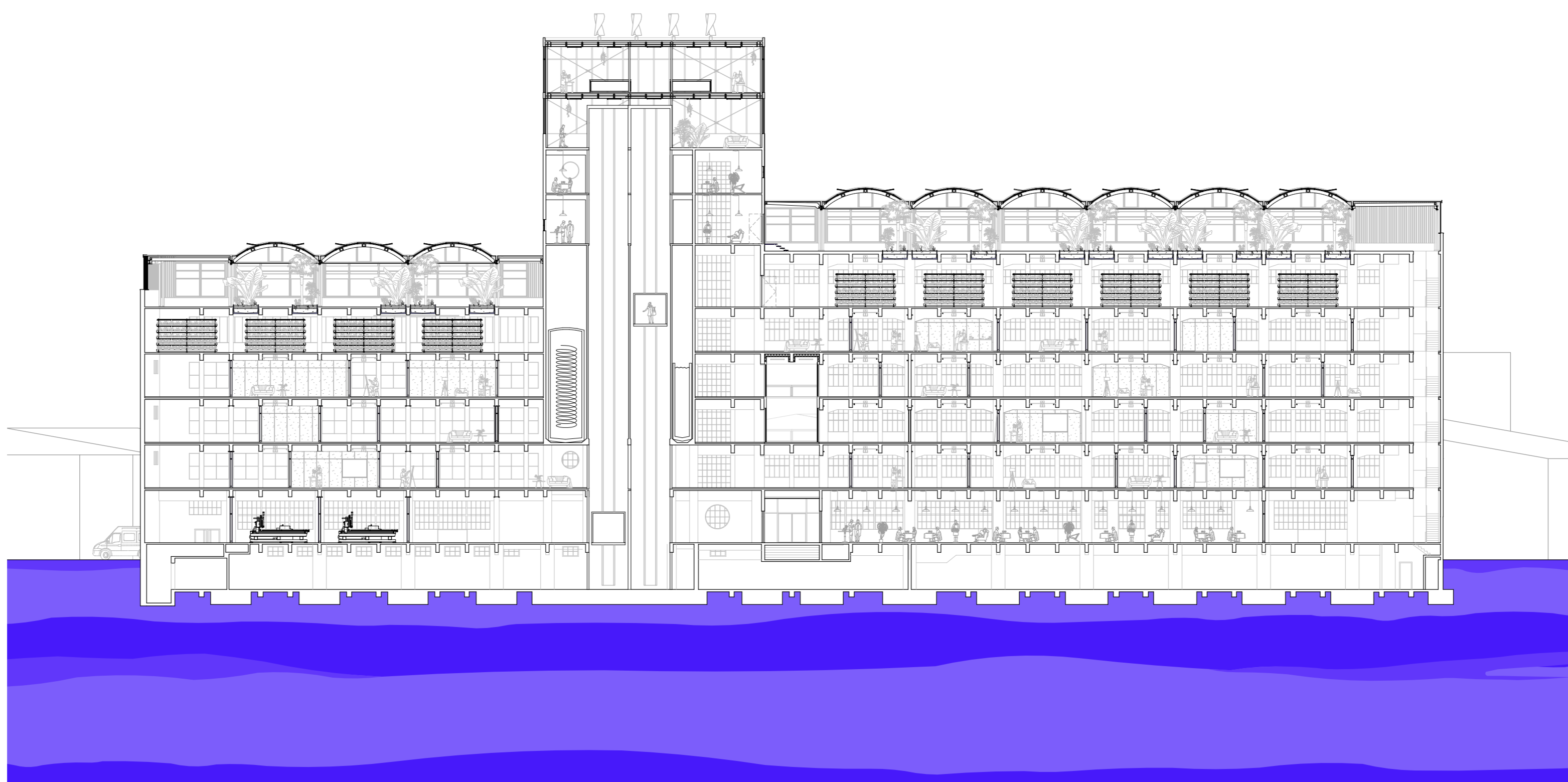




The 'shopping street' is accessible to the public and gives creatives, artists and makers the opportunity to showcase their work, offer courses, and sell their products to visitors of the HaKa building. Through using the demountable wall system, flexible floor plan layouts are possible, like this space with open community areas and enclosed studio spaces.



A variety of different floor plan layouts are possible, depending on the users' needs and preferences. Suggestions can be made but in the end it is in the hands of the creatives and makers who use the spaces every day.



This longitudinal section shows the functional layering within the building. A public cafe and restaurant as well as the CNC workshop can be found on the ground floor, studio and workshop spaces on the floors above with the farm on the last floor of the existing building on each side and topped off with the new greenhouse addition. The exhibition space in the tower top-up as a beacon makes up the highest point of the HaKa building.