

Portfolio.

MArch. Miroslav Cvjetkovic

CV.



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EDUCATION

The Polytechnic University of Milan, Italy/ 2013–2016

Master of Science in Architecture

University of Novi Sad, Serbia/ 2009–2013

Bachelor of Science in Architecture

EXPERIENCE

MCSArchi, Novi Sad, Serbia/ 2018–present

Independent Architect

*Since year 2018, I have worked remotely with [Clas Vallin Architects](#) through my own company, **MCSArchi** registered in Serbia. My role has primarily focused on designing residential houses and extensions in Sweden, producing building permit drawings, and creating 3D models and visualizations. This collaboration has led to the completion of [over 100 projects](#).*

Magnus Ståhl Arkitekturbyrå, Stockholm/ 2017

Architect (paternal leave cover)

SOFTWARE

AutoCad/ SketchUp/ Revit/ ArchiCad/Rhino/ V-Ray/ Enscape/ PhotoShop

LANGUAGES

English (fluent)/ Serbian (native)/ Italian (B2)/ Swedish (B1)

Content.

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Project: Mälby B&B

Category: Adaptation

Team: Clas Vallin Architects

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Category: Extension

Team: Clas Vallin Architects

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Team: Clas Vallin Architects

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Category: New villa

Team: Clas Vallin Architects

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Project: Älby 1:111

Category: Extension

Team: Clas Vallin Architects

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Project: Villa Dolores

Category: Extension

Solo Project

07

Project: San Cristoforo Library

Category: Master Thesis

Team: R. Haddad, S. Ivanova

01

Mälby B&B

Category: Adaptation

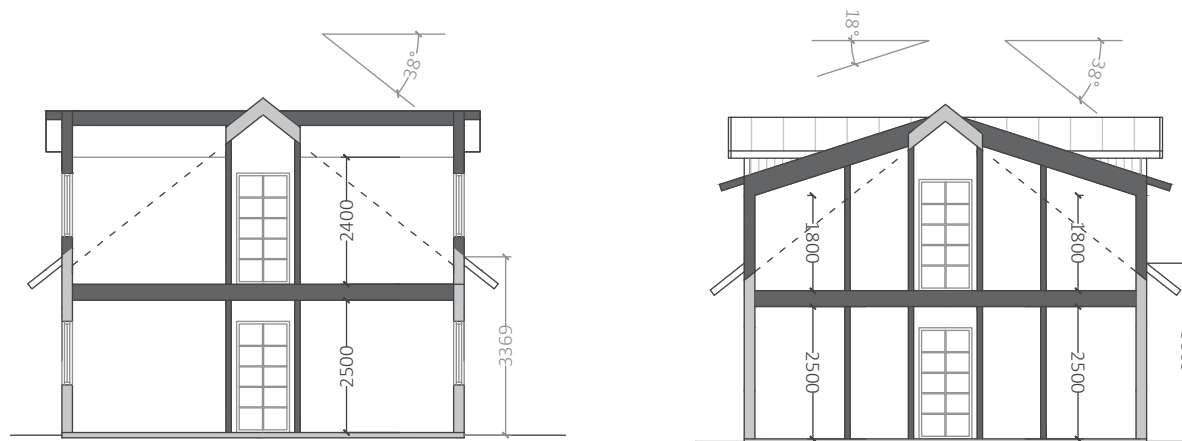
Team: Clas Vallin Architects

This project involves adaptation of an old stable into a bed and breakfast. While the exterior envelope of the stable was preserved, the interior was completely redesigned to accommodate 12 compact yet functional sleeping rooms, each with its own bathroom. The rooms were distributed over two floors, with six on the lower floor and six on the upper floor, where dormers were added to increase ceiling height and provide more natural light.

The common area features a combined kitchen and dining space that also extends outdoors onto a terrace, offering guests an additional common space with a direct connection to the surrounding rural landscape.

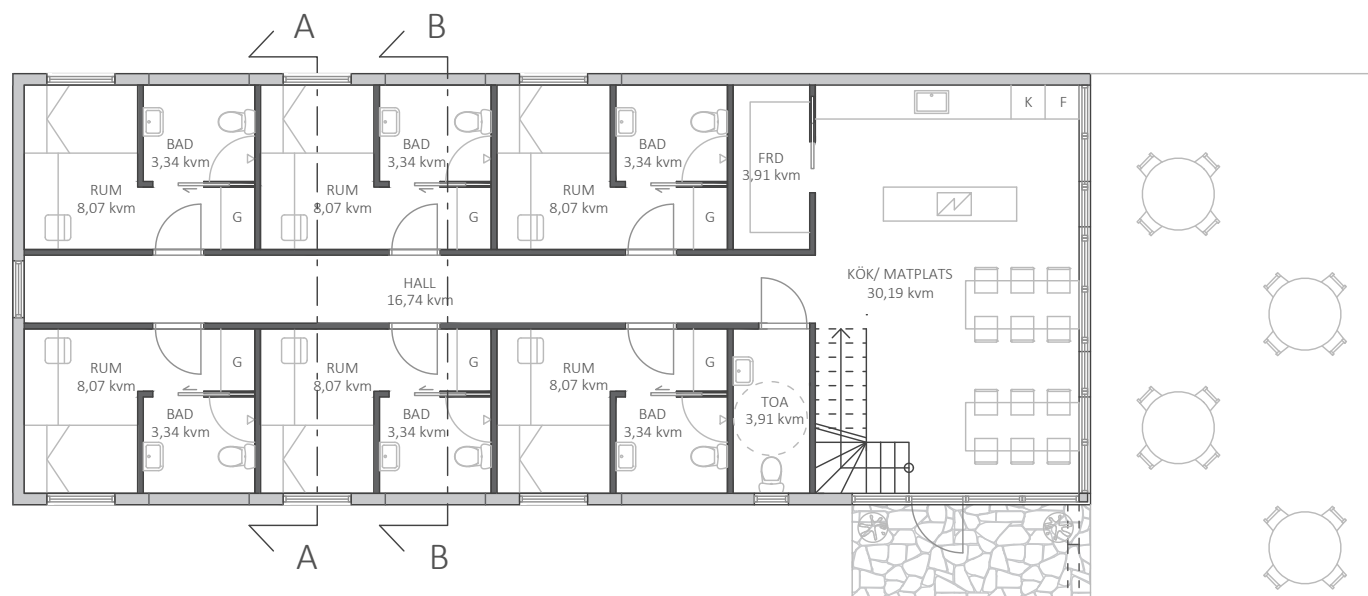
The stable was renovated in the traditional Swedish architectural style, in Falu red color with white details. Large, white windows with mullions bring light into the interior, ensuring a bright and welcoming atmosphere.

A key challenge in the project was maximizing the number of units while maintaining functionality and comfort. Besides taking part in the design process, I produced all the drawings for the proposal and created visualizations at each stage, helping to communicate the design effectively.



Sektion A-A

Sektion B-B



Ground Floor Plan



Proposed intervention Mälby B&B



Existing building- Old stable

02

Näs 1:52

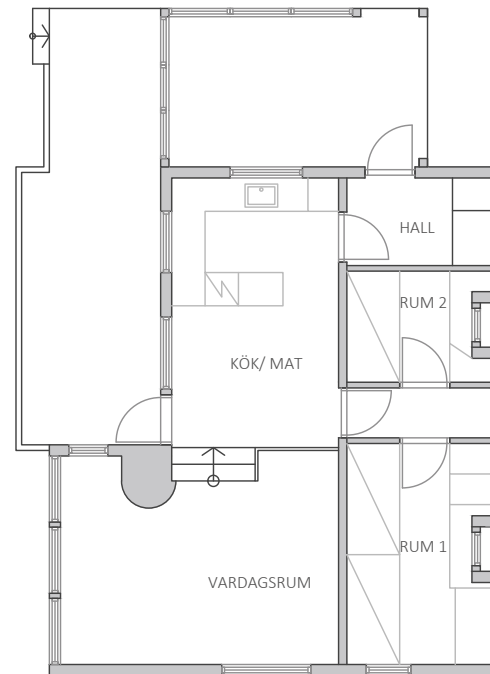
Category: Extension

Team: Clas Vallin Architects

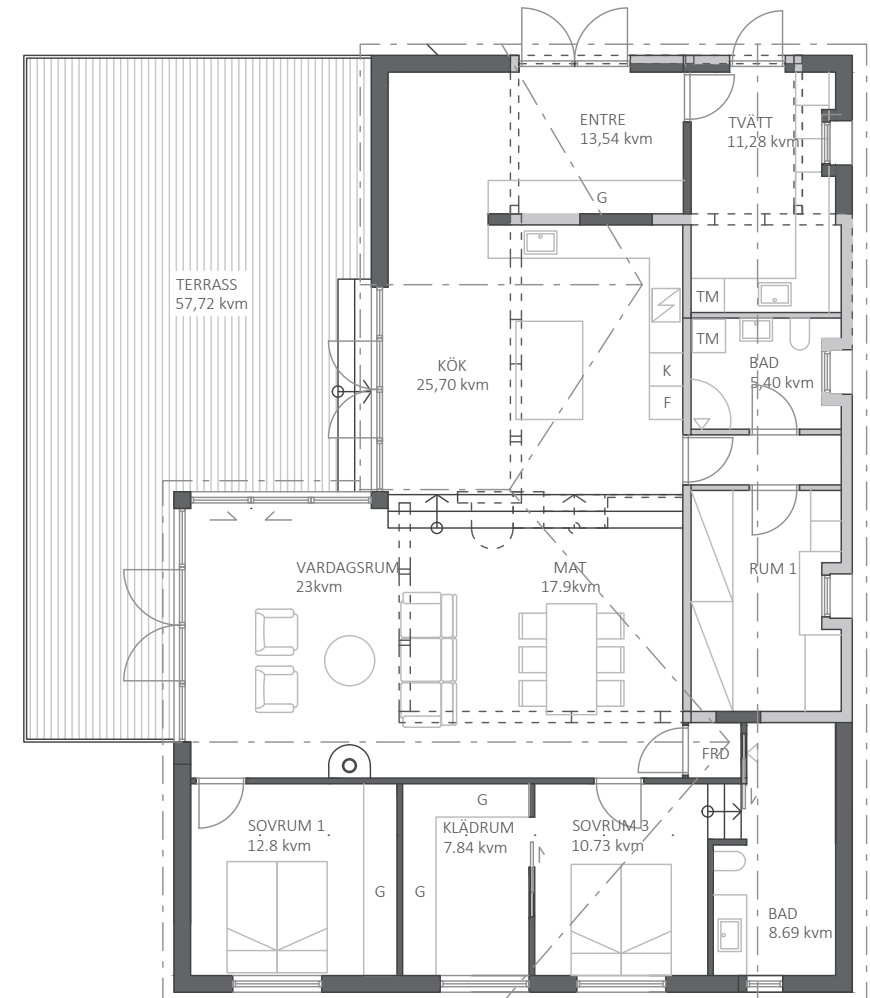
This project involved transforming a very small house into a spacious, comfortable villa, with the extension seamlessly merged with the existing structure. The existing part of the house has been significantly transformed in order to enable a perfect blend with the newly added extension.

The extension includes an expanded living room and dining area, a new, large kitchen, a spacious additional bedroom, and a master bedroom complete with its own bathroom and walk-in closet. A large terrace was added, with big glass portals, further extending the living area and providing a stunning view of the surrounding landscape.

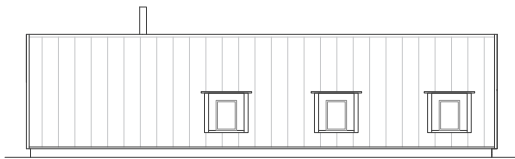
The house received a new façade featuring elegant wood panels and standing seam metal roof. The overall design is simple yet modern, creating a harmonious blend of old and new while significantly enhancing comfort, functionality and aesthetic appeal.



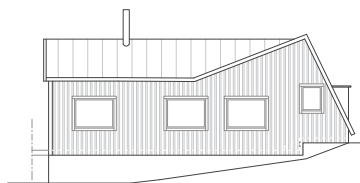
Ground Floor Plan- Existing house



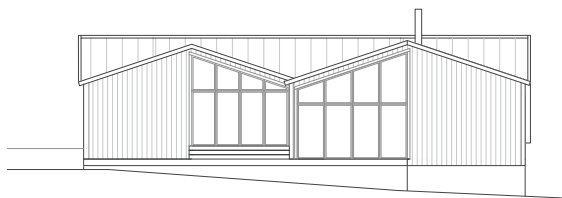
Ground Floor Plan- Proposed Extension



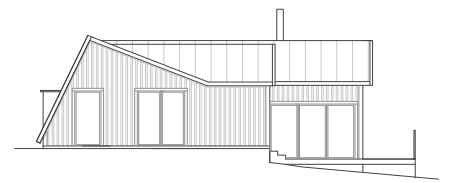
East Elevation



South Elevation



West Elevation



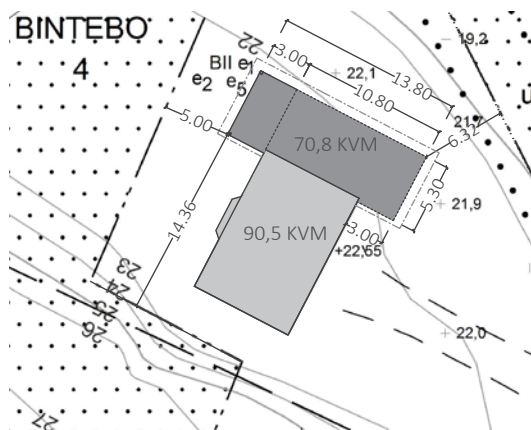
North Elevation

03

Bintebo 4

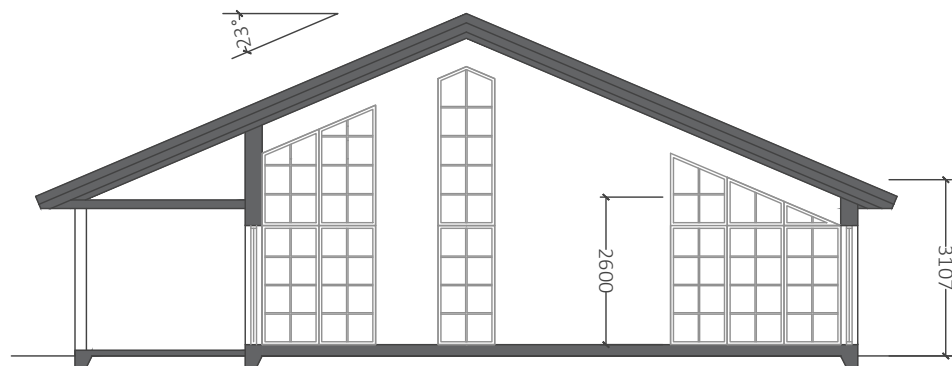
Category: Extension

Team: Clas Vallin Architects

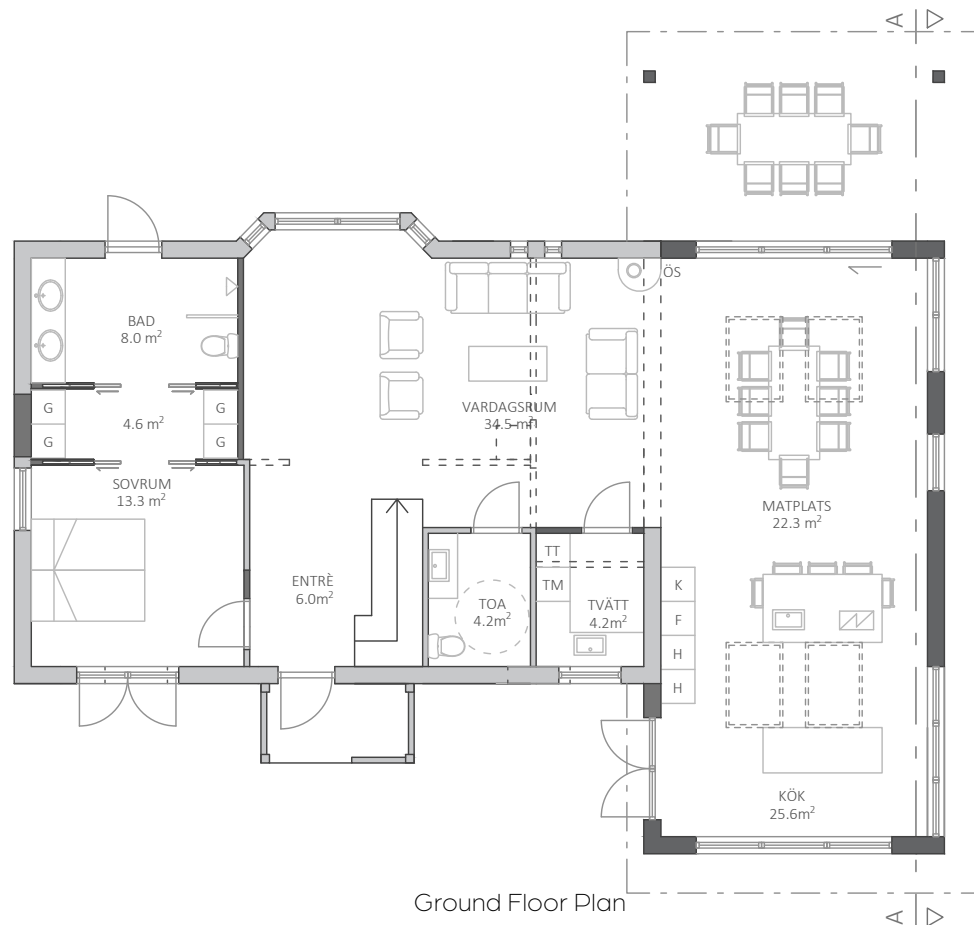


The project involves a 70 sqm extension designed to enlarge the living room, dining, and kitchen areas of an existing house, giving it a new sense of spaciousness and light. Full-height windows with mullions and roof windows were installed to bring in natural light and create a strong connection between the interior and exterior. The extension was designed in New England style, which allows it to blend harmoniously with the existing house.

In addition to the expanded living areas, the project also included improvements to the master bedroom suite, adding a private bathroom and a walk-in closet to increase comfort and functionality.

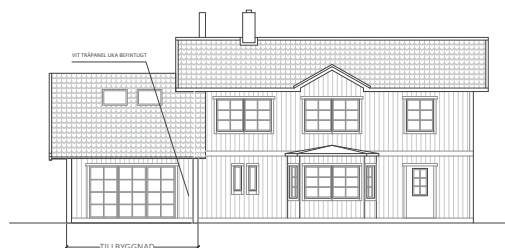


Sektion A-A

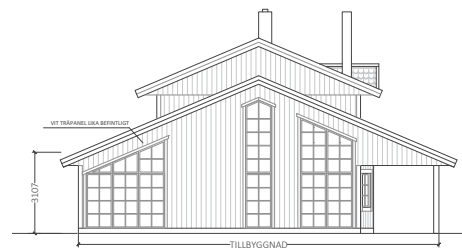




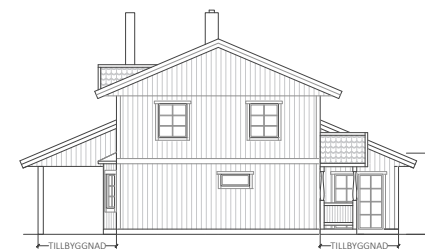
East Elevation



West Elevation



North Elevation



South Elevation

04

Bråta 1:4

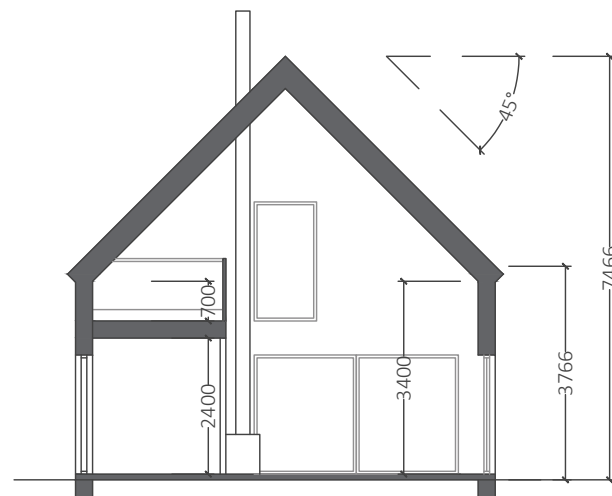
Category: New Villa

Team: Clas Vallin Architects

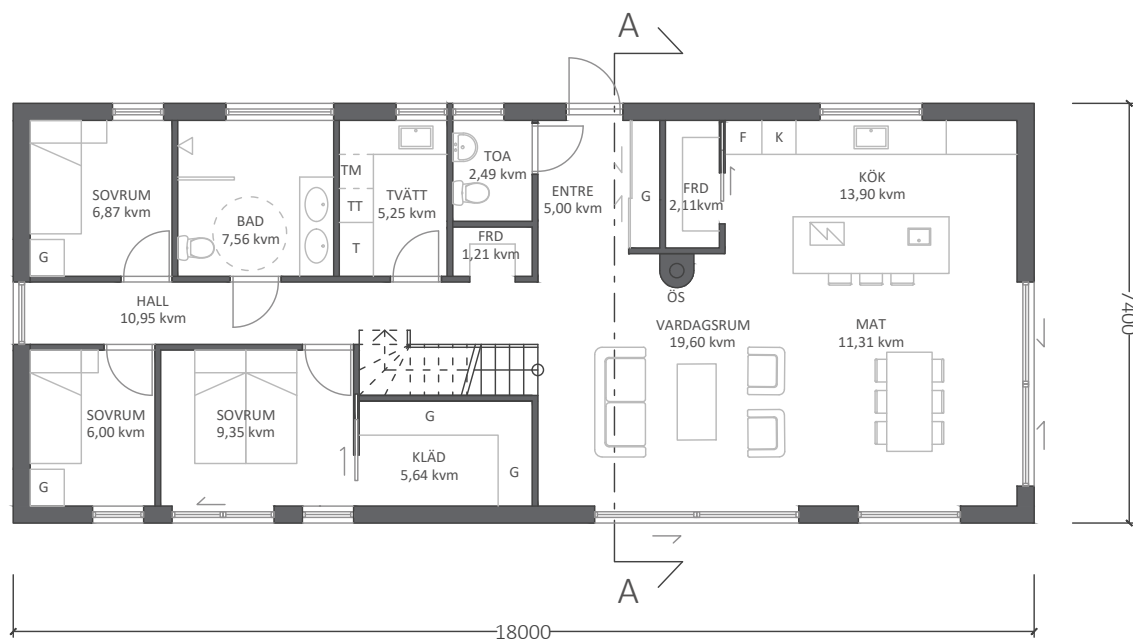
This project is a free-standing, minimalist house designed to reflect the client's desire for simplicity and functionality. The form of the house follows an archetypal shape with a distinctly Scandinavian appearance, characterized by clean lines, natural materials, and large wooden-framed windows that connect the interior to the surrounding landscape. The layout is divided into a night zone, featuring three bedrooms, bathrooms, and a utility room, while the day zone is comprised of an open-plan living room, kitchen, and dining area. An upper gallery space adds additional functionality, offering a versatile area that can be used as needed.

During the design phase, I worked closely with the main architect, following both their guidance and the client's instructions to ensure the project's vision was faithfully realized. I was responsible for developing the design in line with these directions. Additionally, I produced all the drawings required for the building permit, ensuring they adhered to the necessary standards.

The project's discreet and functional form expresses its purpose, and the clear spatial organization, combined with its orientation, enhances its overall aesthetic and practical appeal.



Sektion A-A



Ground Floor Plan



BUILDING PERFORMANCE SIMULATION ANALYSIS

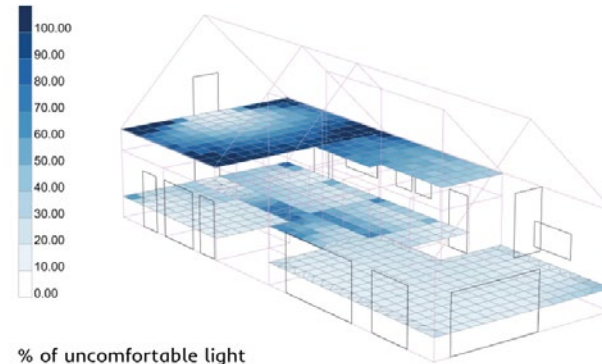
I applied the knowledge I acquired in building performance simulation to optimize the design of the Bråta project. The analysis focused on daylight optimisation, energy demand, and thermal comfort.

DAYLIGHT OPTIMISATION

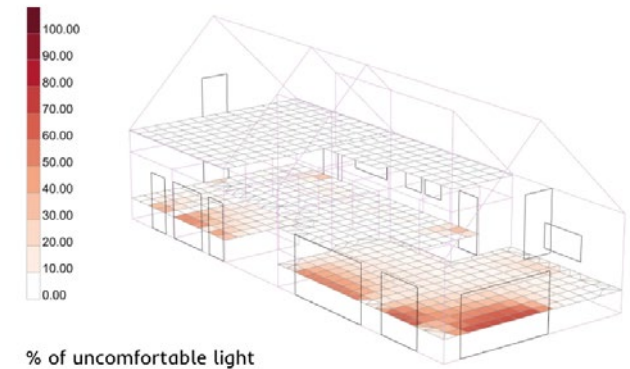
Strategy: Daylight performance was simulated using specialised software to identify zones that fell below acceptable thresholds (under 100 lux) or experienced excessive glare (above 2,000 lux). Windows were subsequently reshaped and repositioned to enhance interior daylight quality while ensuring that the home's overall energy demand was not compromised.

Results: The most significant improvements were achieved by introducing roof windows in the upstairs office space (improving daylight availability by 32% over occupied hours) and the gallery (a 23% improvement). Measurable gains were also recorded in the living room, dining area, and master bedroom.

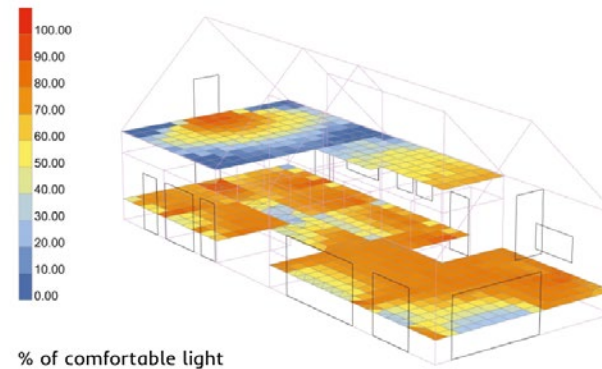
Too dark:



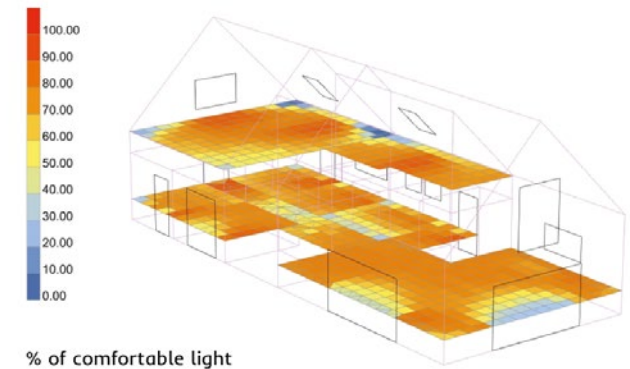
Too bright:



Existing:



Optimised proposal:

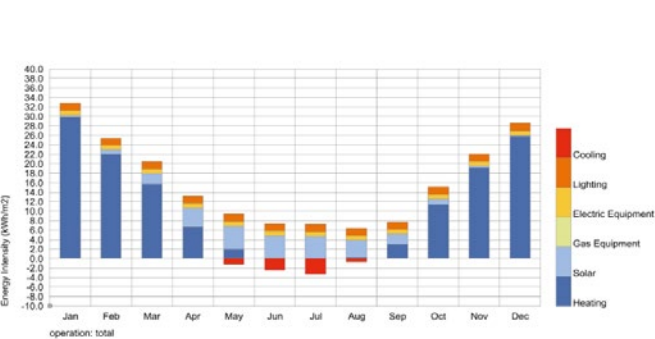


ENERGY DEMAND OPTIMISATION

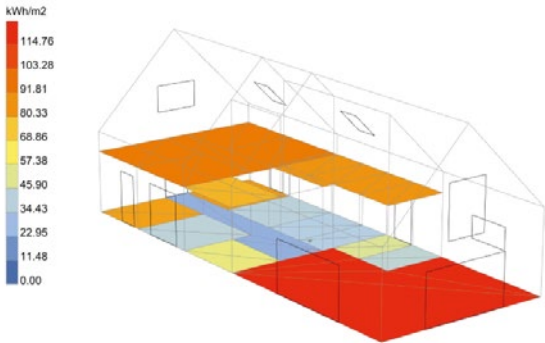
Strategy: The goal was to determine how much energy for heating can be saved by improving the building envelope and whether these savings could justify the investment in insulation and windows. 4 scenarios are created, in order to test the performance of the envelope in the following segments: wall insulation thickness, roof insulation thickness, windows U-Values.

Result: The energy savings in tested scenarios are not enough to justify the investment cost of the upgrades, because the payback period is too long. The baseline design envelope gives the best cost-benefit balance compared to the other tested scenarios.

Energy demand breakdown:



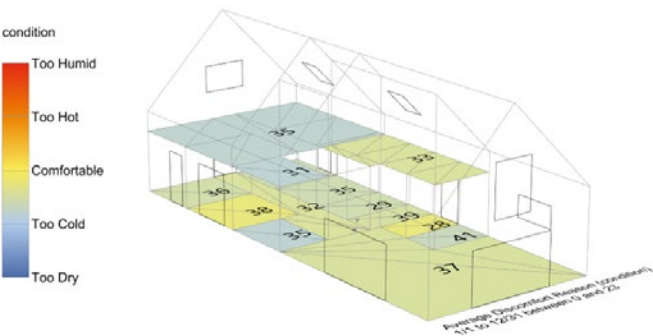
Annual energy per square meter by room:



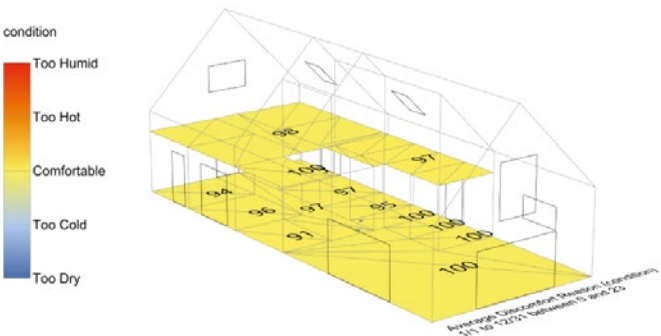
THERMAL COMFORT ASSESSMENT

Strategy & Result: Thermal comfort was simulated across all four scenarios. Simulations indicated that building envelope upgrades alone did not yield comfort improvements that justified the cost. Rooms only became significantly more comfortable when the heating setpoint temperature was increased. While this raised energy demand by 17%, it successfully delivered 97% comfort across all rooms—representing a conscious trade-off for the occupant.

Room comfort at 20°C target temperature:



Room comfort at 22°C target temperature:



05

Älby 1:111

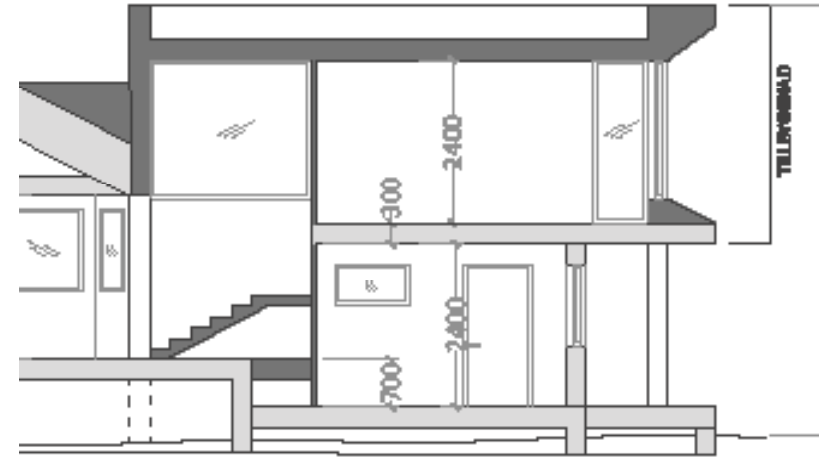
Category: Extension

Team: Clas Vallin Architects

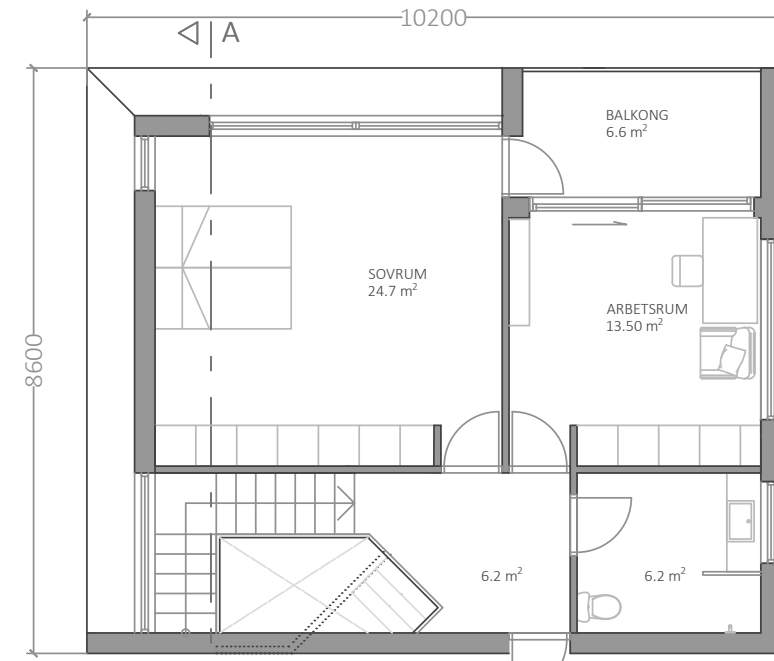


Älby, one of my first projects as part of the Clas Vallin Architects team, involved designing a modern upper-floor extension for a family house. The upper floor extension, featuring a bedroom, corridor, balcony, office and bathroom, complements the existing house, creating an unexpected blend of styles. The design was developed in several steps and refined according to the client's evolving preferences.

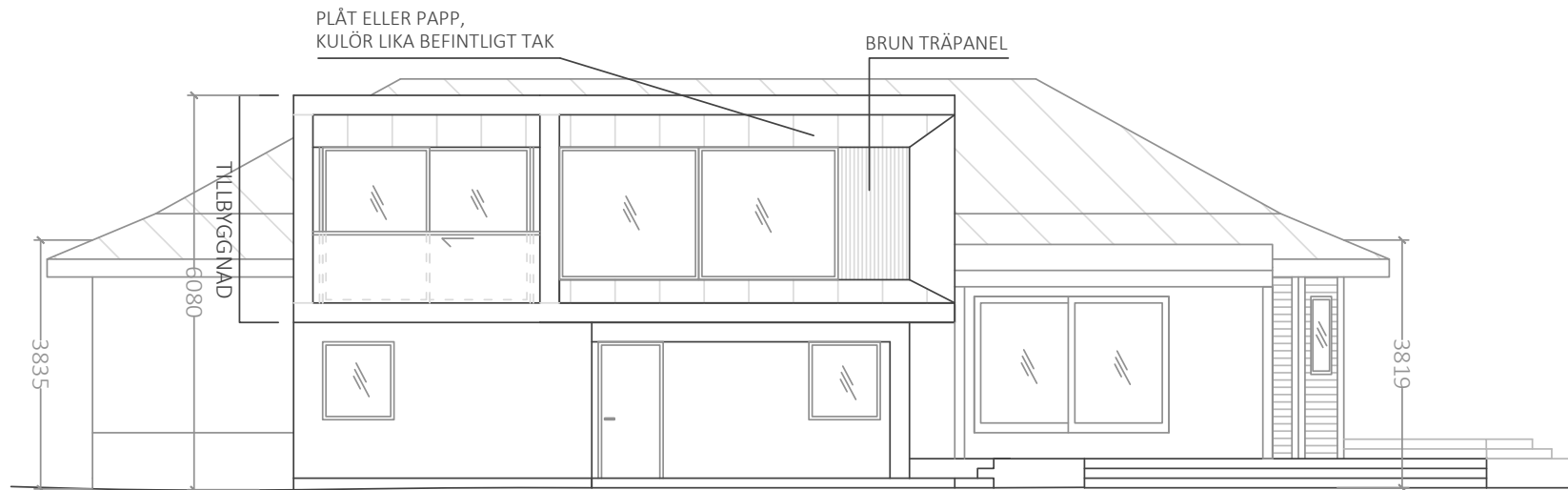
In the design phase, I worked together with the main architect, following both their guidance and the client's instructions. I was responsible for developing the design in line with these directions. I also produced all the drawings required for the building permit, ensuring they adhered to the necessary standards.



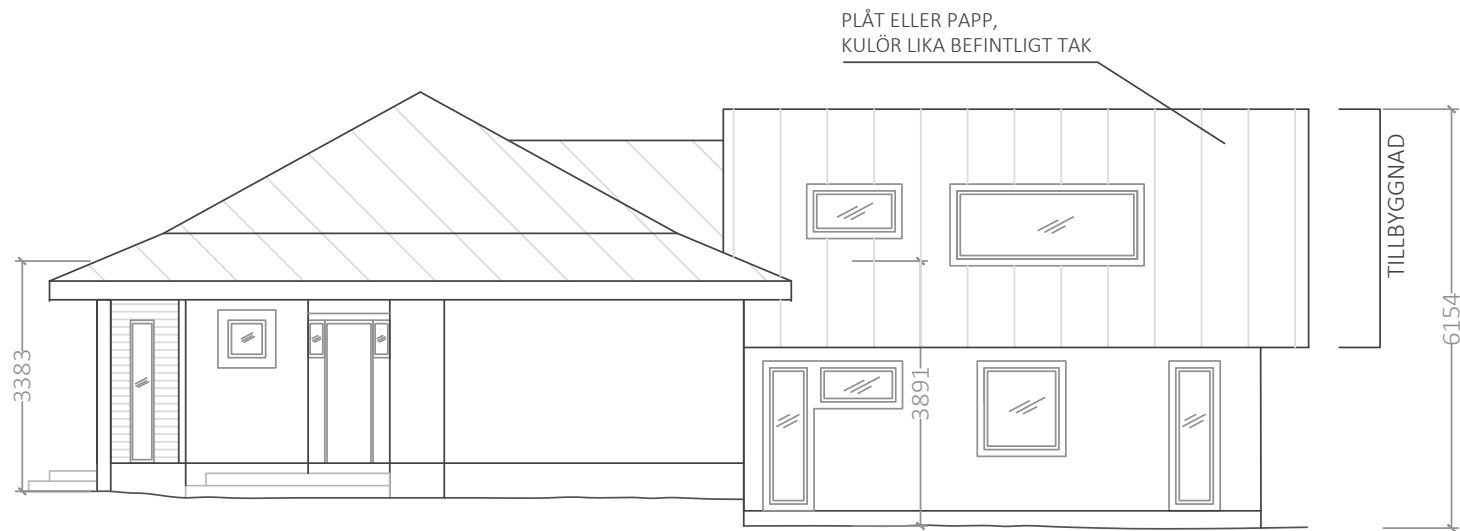
Section A-A



Upper Floor Plan



West Facade



North Facade

*"Tack för första utkastet på ritningen, det har överträffat våra förväntningar!
Vi tycker formspråket känns jättespännande och omfattningen på projektet
är helt rätt! Det var helt klart något sådant här som vi hade tänkt oss men
inte kunde förstå oss själva."*

Karin & Jonas



06

Villa Dolores

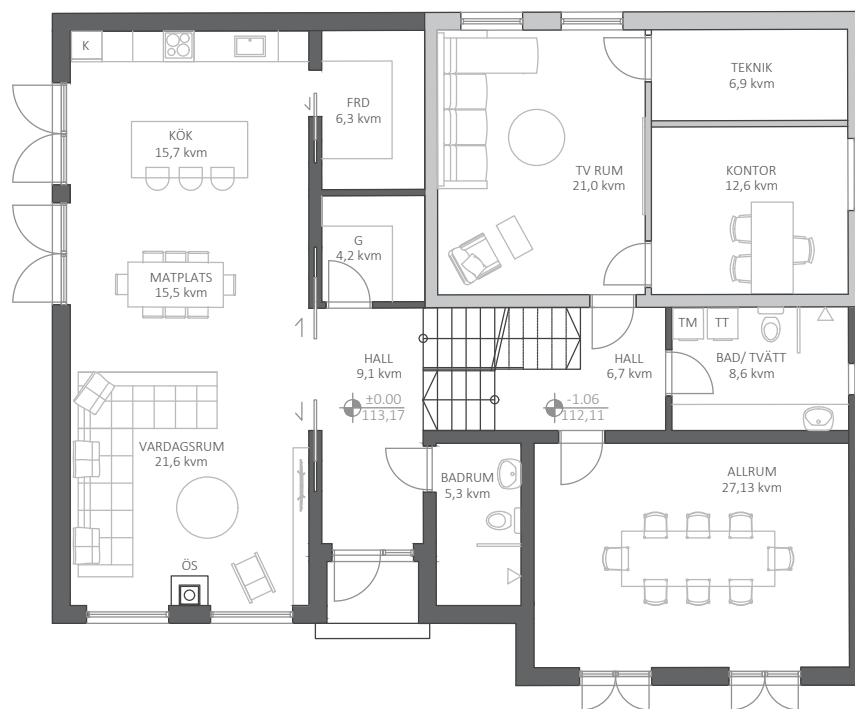
Category: Extension

This project, located in Petrovaradin, Serbia, involved transforming a summer house into a comfortable home by adding a 150 sqm extension. Due to the topography of the site, the newly designed extension is positioned 1.5 meters higher than the existing house, requiring the introduction of a staircase near the entrance to connect the two levels efficiently.

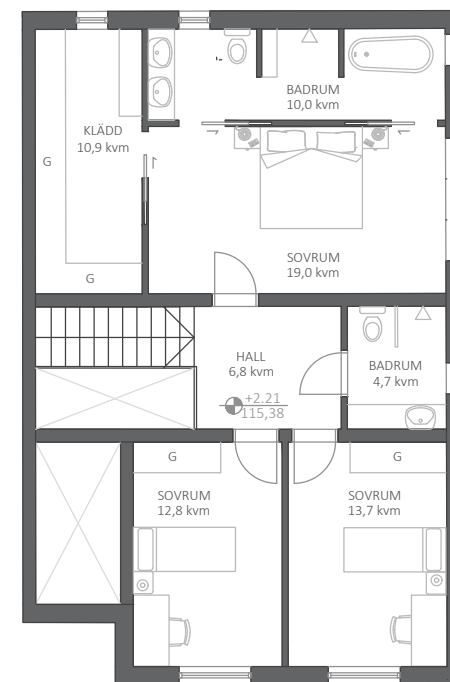
The day zone, located in the new extension, features an open-plan living room, kitchen, and dining area with large windows and glass portals, allowing natural light to fill the space and offering views of the surrounding landscape. The night zone, situated on the upper floor, contains a master bedroom suite with a walk-in closet and bathroom, along with two additional bedrooms sharing a common bathroom.

The existing part of the house, located in the souterrain, is renovated and adapted for flexible future use, offering various possibilities for future development. The house exterior is modernized with a white plaster facade, black-framed windows, and black roof tiles, creating a sleek and minimalist look.

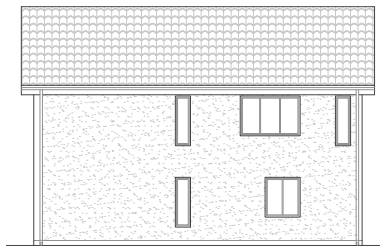
Currently under construction, I continue to collaborate with the clients to refine the interior design and garden layout. Throughout the project, I played an active role in the design process, working closely with the clients to ensure that their vision was realized in each stage of development.



Ground Floor Plan



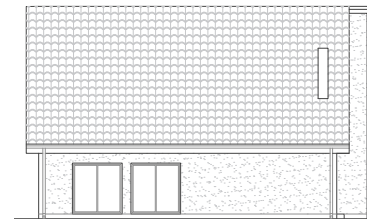
Upper Floor Plan



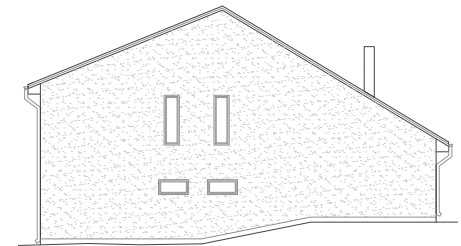
East Elevation



South Elevation



West Elevation



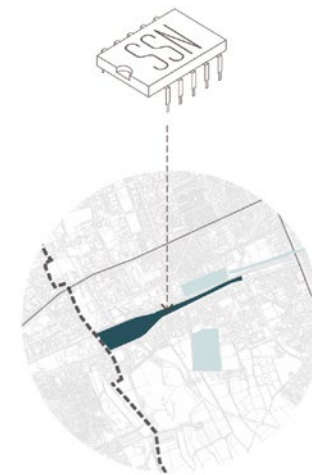
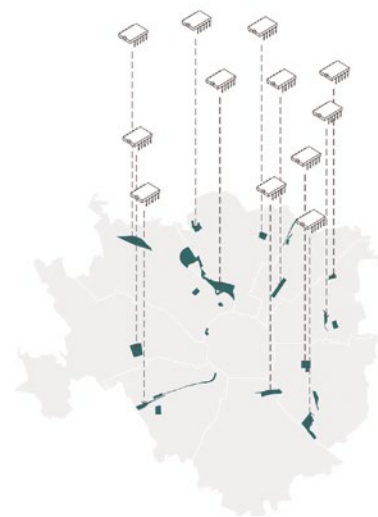
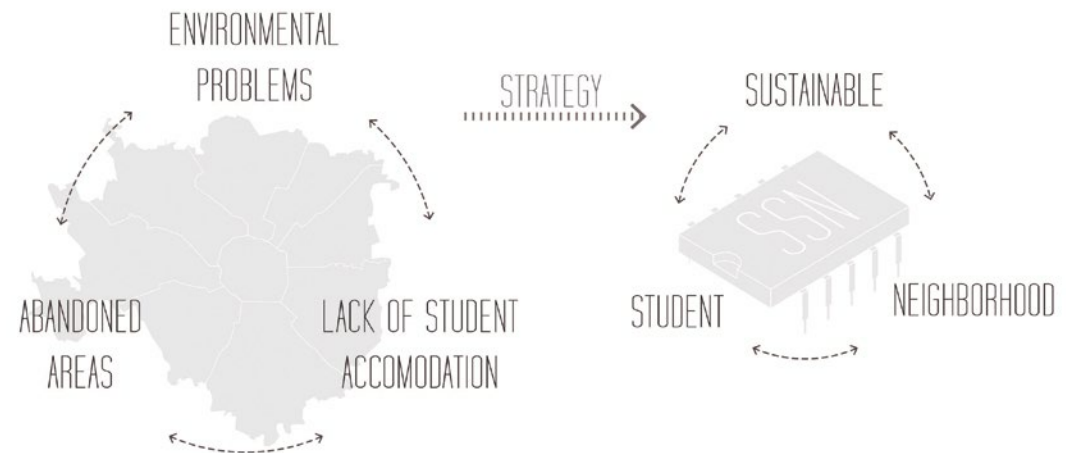
North Elevation





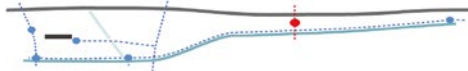
The thesis addresses emerging problems in the context of Milan, as well as the potential for overcoming them. Urban growth is followed by air pollution and scarcity of green areas, while water is recognized as a significant historical element, seen as an opportunity for reconnection. Potential for reconnecting is also found in ex industrial areas which are neglected and unused. At the same time, the city is having insufficient accommodation capacity for students. The objective is to find a single response that relates previously detected problems in the way they annul each other.

The solution proposed in the thesis is a concept of sustainable student neighbourhood. Based on qualification of major unused areas in the city, the area of San Cristoforo is chosen to become a demonstration of this concept. Formerly unused and neglected, San Cristoforo becomes new neighbourhood for growing number of students. On the architectural level, the project aims to integrate vibrant social life with sustainable building technology. This finally leads to the architectural outcome—Parkline Library of San Cristoforo, which becomes a new generator of knowledge and creativity while demonstrating awareness and sensitive approach towards the living environment.

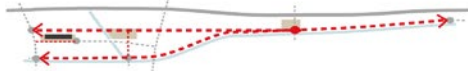


MILAN. SANCRISTOFORO

1. Edges and access nodes



2. Inner movement



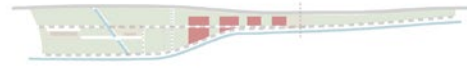
3. Green system



4. 1st phase of SSN

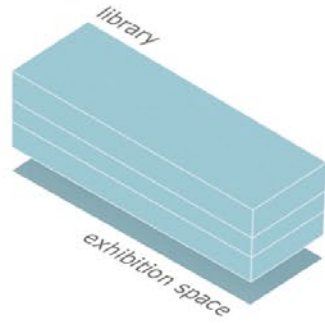


5. 2nd phase of SSN

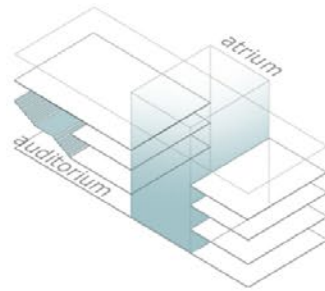


The first phase in the project development was developing a masterplan. Masterplan is defined by two main axes that connect a series of nodes that in turn work on connecting and providing services to its surrounding neighborhood in terms of green spaces, public functions and vibrant commercial activities. The design is using green spaces to create barrier towards railways and a connection towards the canal simultaneously

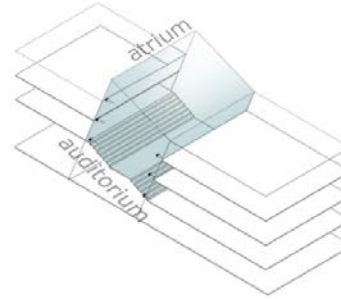




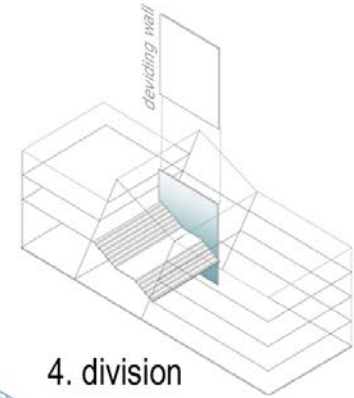
1. building functions



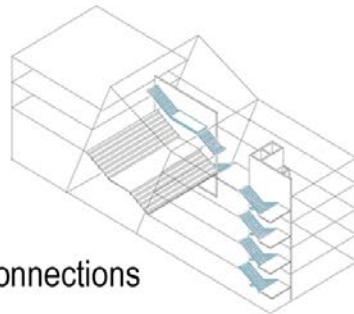
2. main spaces



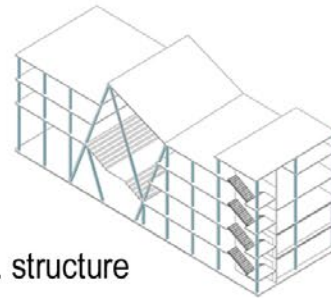
3. merging



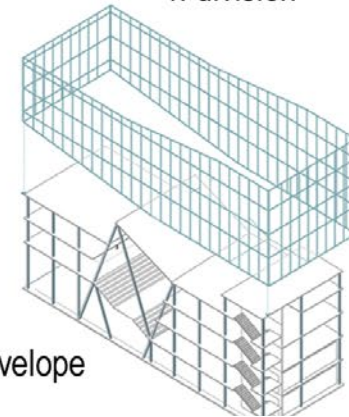
4. division



5. vertical connections

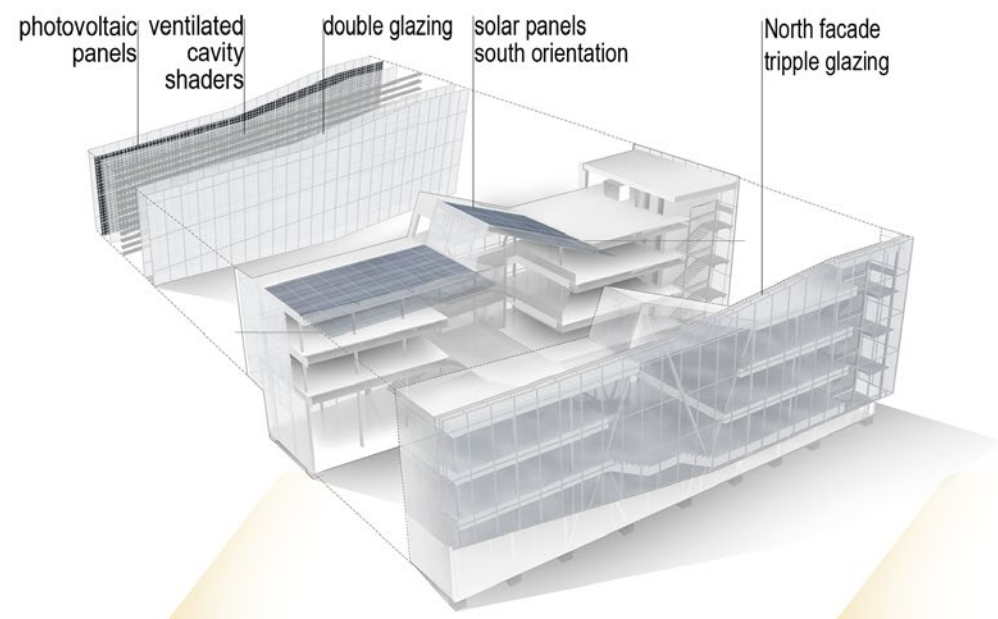
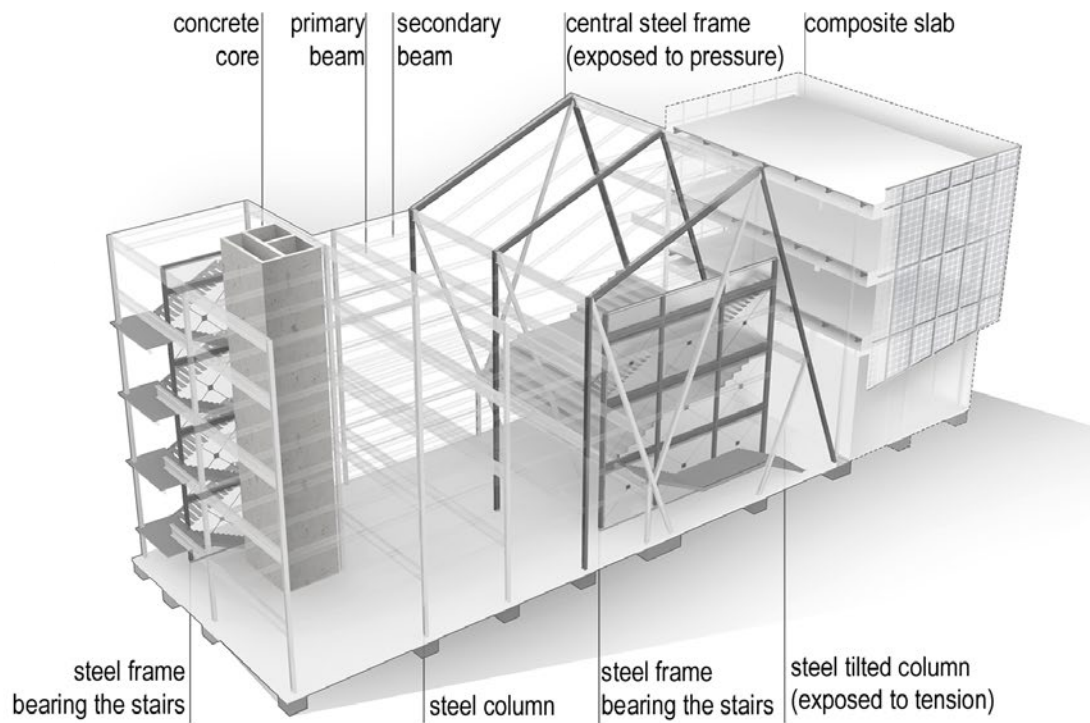


6. structure



7. envelope

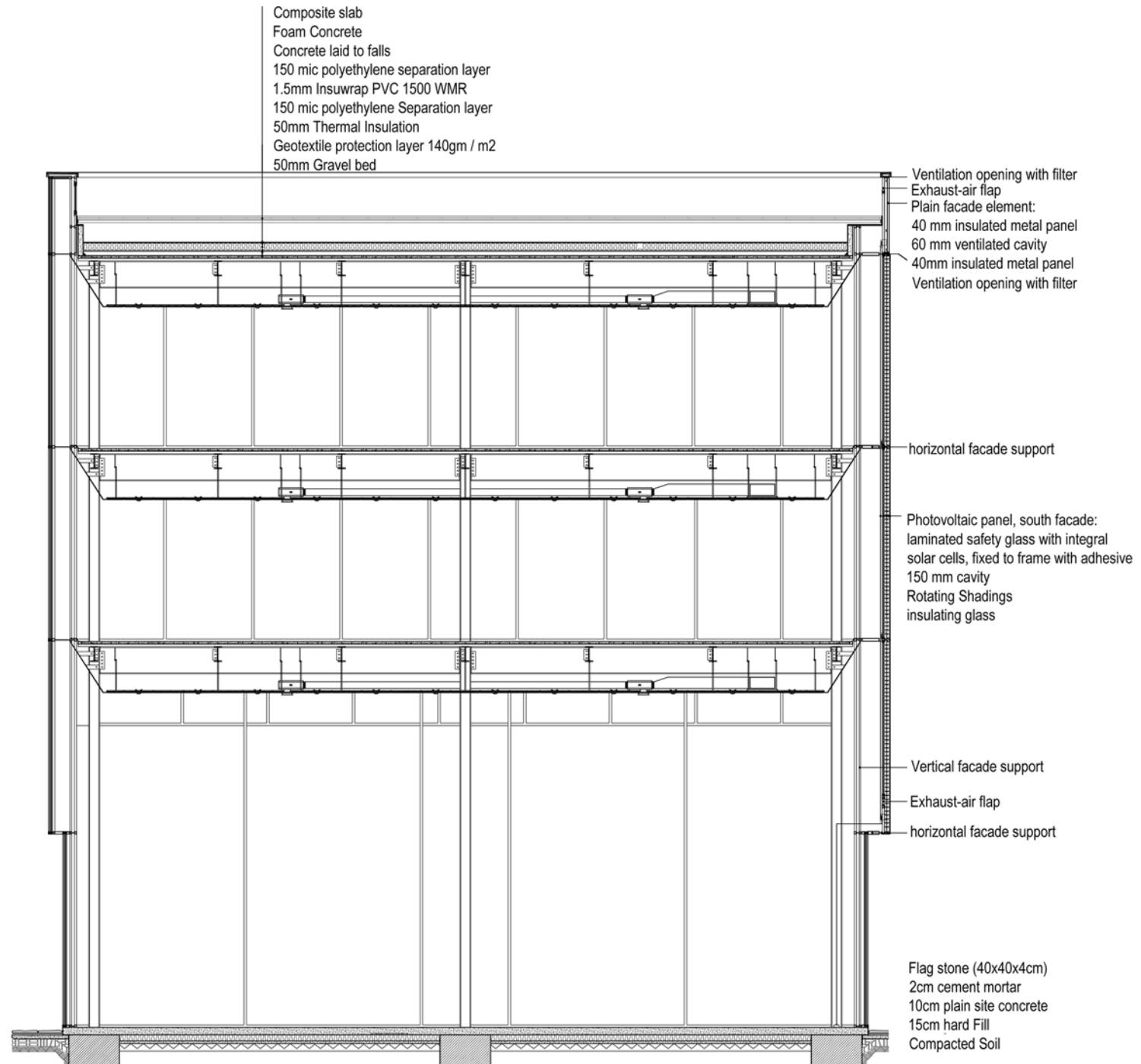
The Building works as a unified body providing flexible exhibition spaces in the groundfloor. The upper three floors functioning as a library space are connected via middle atria-auditorium, that forms the center of the construction. Steel construction enabled required spans and free floor organization

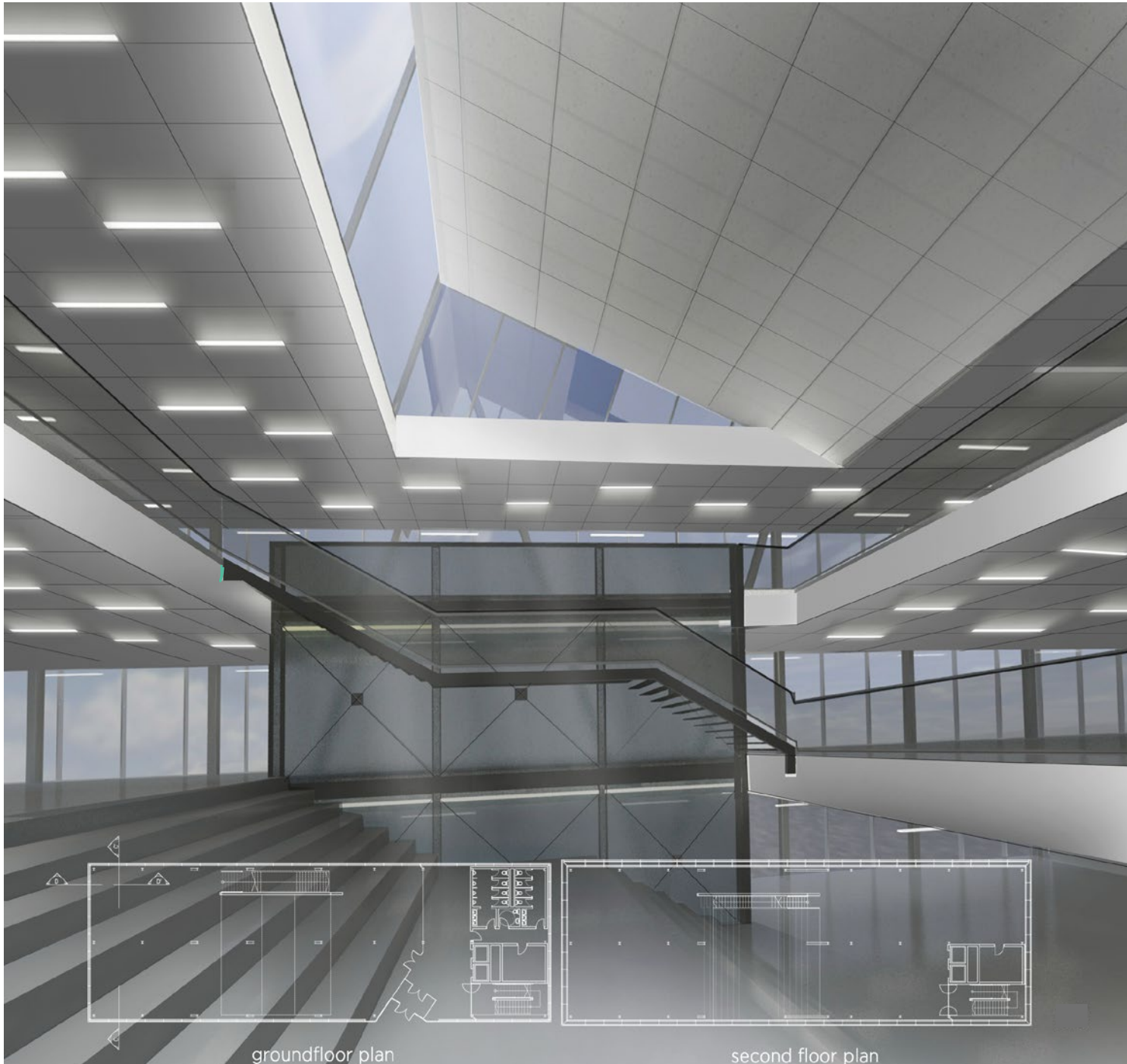


The building envelope consists of various layers that provide balanced functioning in different weather conditions, b-y using transparent solar facades with imbedded shading system, mechanical ventilation system and solar panels on the rooftop.









groundfloor plan

second floor plan

Thank you!

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