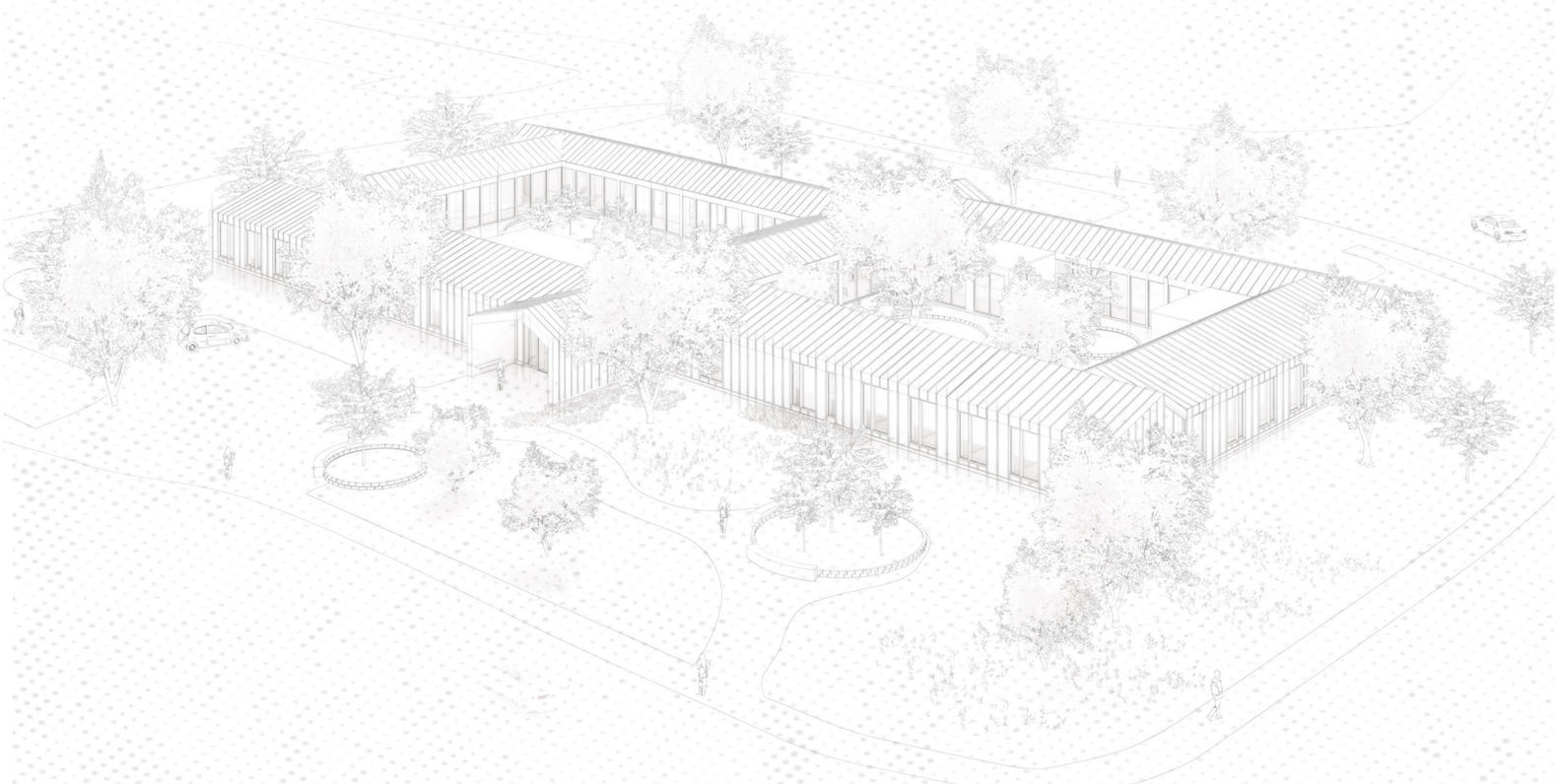

BENEFICIAL VISITS

Uppsala Diabetes Center- An identification and application of architectural strategies for healthcare centers to reduce loneliness and illness perception.

Author: Linnea Johansson

Examiner: Cristiana Caira

Supervisor: Lin Tan

Master's thesis 2026

Chalmers School of Architecture

Department of Architecture and Civil Engineering.

BENEFICIAL VISITS

Master´s thesis 2026

Chalmers School of Architecture

Department of Architecture and Civil Engineering

Program: Architecture and Urban Design

Profile: Healthcare and Housing Architecture

Author: Linnea Johansson

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Abstract.

The relationship between the built environment and human health has received increasing attention within architecture. While hospitals and acute care facilities are frequently studied, outpatient centers managing patients with chronic conditions often receive less focus. Many contemporary healthcare environments are shaped by standardized models of planning intended to fit diverse medical functions. While efficient, these generalized spaces can overlook the emotional and social needs of certain groups. This thesis investigates how user-centered architectural design can reduce loneliness and negative illness perceptions.

Young people with Type 1 diabetes manage a lifelong condition requiring frequent clinical visits, education, and self-management. Research indicates that this group is at a higher risk of mental health challenges, including isolation and illness-related distress. Despite these needs, many diabetes clinics remain generic, outdated, and unfunctional with lacking opportunities for comfort, social interaction, or a sense of belonging.

The thesis explores how architectural strategies through spatial organization, materiality, color, and atmosphere can enhance well-being and encourage social connection in outpatient centers. By examining specialized design approaches, the research questions how healthcare environments can move beyond standardized models to respond to the actual experiences of its users. The multi-method approach combines literature review, theoretical frameworks, interviews, and spatial analysis. Existing diabetes clinics in Sweden were studied through site visits and spatial experiences, focusing on atmosphere, organization, and user experience. These observations were complemented by reference projects of contemporary healthcare that emphasize patient-centered design, EBD, and biophilic design.

Findings are translated into architectural strategies and a design toolbox for user-centered outpatient centers. The research leads to a design proposal for a freestanding diabetes center at the campus of Akademiska Sjukhuset in Uppsala. This thesis aims at demonstrating how architectural design can integrate medical functionality with social and psychological support, creating spaces that promote users' well-being.

Keywords: User-centered design; EBD; Outpatient care; Healing

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Peter Adolfsson, Senior Physician specializing in diabetes.	for your valuable insights and knowledge.
Klara Lindgren Freij, Head of Endokrin- och diabetes-mottagningen in Uppsala.	for the input and guided tour of current facilities.
Family and friends	for the endless support during this spring.

Student Background.

Linnea Johansson.

After years of being surrounded by, and being a part of, a community quietly managing complex health conditions in diverse environments, I developed a deep interest in how surroundings evidently affect its users.

“Where does one feel safe, comfortable and supported, and where does one spend as little time as possible?”

These questions may often have familiar answers, but what happens when we link them to healthcare environments?

Through my internships at firms and studios at Chalmers specializing in healthcare, elderly housing, educational, and public buildings, this interest and understanding grew stronger, confirming my want to pursue architecture closely connected to healthcare.

This project aims to bring together the knowledge gathered throughout my studies and professional experience, to create a project I consider meaningful and important.

Experience.

09.2025 - 01.2026	Architectural Intern. NORD Architects, Copenhagen
02.2025 - 08.2025	Architectural Intern. KHR Arkitekter, Copenhagen
08.2023 - 06.2026	Master of Science in Architecture. Chalmers University of Technology, Gothenburg

ACE500 Healthcare Architecture 2
ACE370 Master’s thesis preparation course
ACE425 Master’s thesis preparation course

ACE520 Residential Healthcare: Housing for seniors
ACE410 Managing design projects
ACE365 Hybrid practice of architecture

ACE465 Urban Prototypes
ACE380 Sustainable development and the design profession
ACE400 Architecture in the anthropocene

08.2020 - 06.2023	Bachelor of Fine Arts in Architecture. Umeå School of Architecture, Umeå.

A note to the reader of this thesis.

Throughout this booklet, there are certain recurring elements of insights and takeaways highlighted.

Takeaways are either featured on a page of their own, and then stated, or featured inside outlined boxes in close relation to the main text.

Furthermore, main statements and citations are featured on individual pages throughout the booklet. These are the main motivators for this project and design choices that are conducted.

Table of content.

Introduction.

Background p. 3
Aim p. 8
Research Questions p. 8
Substainability p. 8
Delimitations p. 9
Method p. 10

Theoretical framework.

Theory p.13
Why a freestanding center? p. 17
Current clinics p.19
Referance projects p. 23
Interviews p. 30

Project development.

Strategies and toolbox p. 33
Site p. 36
Program p. 42
Volume development p. 48

Project.

Materiality and atmosphere p. 52
Concept and strategies p. 56
Project on the site p. 60
Plans p. 62
Sections p. 68
Axonometry p. 70
Flexibility p. 72
Facades p. 74

Discussion.

Design Qualities p. 77
Strategies and tools p. 78
Research Question p. 79

Appendix. p. 81

Introduction.

In our society, there is a growing recognition of the impact that physical environments have on health, especially in healthcare spaces. As the field of healthcare design continues to develop, there is an increasing emphasis on patient- and human-centered design, which recognizes that the environment plays a crucial role in the overall process related to recovery and well-being (Rowe & Knox, 2023).

This thesis project is situated within this societal context, focusing on the important relationship between architectural design and mental health in healthcare environments. There is growing evidence of the benefits of therapeutic design on patients, relatives, and staff's well-being and how architectural design impacts it. A combination of various components within the design, such as light and privacy, contributes to the mental health and recovery of patients. (Connellan et al., 2013)

The primary knowledge gaps this thesis aims to address is the lack of tailored design strategies for enhancing social interaction and emotional well-being in healthcare environments, specifically for young people managing chronic conditions. There is evidence presenting how young adults with type 1 diabetes struggle with managing a complex disease and hence leap a higher risk of mental health issues. Loneliness is stated as an additional reoccurring feeling among this identified target group. (Liu et al., 2022)

While there is significant amount of research on healthcare design, especially focusing on color and light, which will be in focus also in this project, there is limited focus on how these principles can be effectively applied to spaces used by patients with specific needs. As certain healthcare spaces are heavily researched and prioritized in design, others are very much forgotten. Non-communicative diseases, such as Diabetes type 1, do not require in-house treatment and are hence less dependent on specific environments and high-tech technology. Consequently, these clinics often are less prioritized from a patient's point of view and therefore lack the benefits of well-designed spaces.

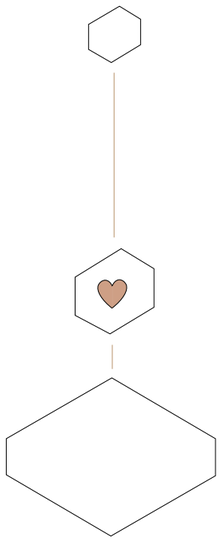


Fig. 1. Concept diagram.
(Authors own work)

"*A place where I am meant to visit throughout my lifetime should feel more supportive and welcoming than what I'm experiencing today*." (Woman with diabetes for 12 years, personal communication, November 2025)

"*I feel very lonely and struggle daily with the challenges of disease. Sometimes I just wish to talk about my experiences with others that actually understand*." (Woman with diabetes for 4 years, personal communication, September 2025)

"*As a newly diagnosed I spend many days visiting a clinic that feels outdated and not fitted for the treatment*." (Man with diabetes for 6 months, personal communication, September 2025)

"*It really feels like diabetes care have to take the last available seat of the hospital*." (Woman with diabetes for 10 years, personal communication, September 2025)

"*It feels a bit weird to say, but somehow me and my treatment don't feel prioritized when the clinic itself doesn't*"? (Woman with diabetes for 7 years, personal communication, November 2025)

Background.

Type 1 diabetes.

Type 1 diabetes (TD1) is a currently incurable disease where the body is unable to produce insulin, resulting in high blood glucose levels. It is caused by an autoimmune reaction by unknown causes. This process develops through a combination of genetic and environmental factors. Although T1D is most often diagnosed with children and young adults, it can occur at any age. Because there is currently no cure, those with type one diabetes require lifelong treatment and hospital visits. Type 1 diabetes is the most dangerous and complex disease managed by the patient itself. (Quinn et al., 2022)

Adolescents with type one diabetes.

Adolescents with type 1 diabetes face a higher risk of mental health issues, such as depression and anxiety, which can negatively affect diabetes management and overall well-being in life. Current guidelines highlight the need for mental health screening and psychological support in diabetes care to improve outcomes. Providing diagnoses and appropriate therapies is important for helping the impact of these mental health challenges among the target group. Through building strong social connections and offering emotional support, there are great opportunities for enhancing care and reducing the burden of mental health disorders in this identified group. (Liu et al., 2022)

The identified target group of this project may be referred to as a “vulnerable group”. This is due to the complexity of the disease and its physiological impact.

According to recent studies carried out by Ung Diabetes, nearly two out of three people with type 1 diabetes of age 15-30 years’ experience that their well-being is negatively affected by the disease. Furthermore, a large majority indicate how the disease is constantly present in their everyday life. Approximately two in three states that they either think about or engage in their disease at least once an hour. In the study, it is confirmed how the lack of opportunity for psychosocial support regarding the disease is evident and needs to be improved. (Svenska Diabetesförbundet, 2024)

Diabetes type one in the nordic countries.

Finland and Sweden are the two top countries globally for diagnosis of type 1 diabetes among children. However, the frequency of the disease is also increasing worldwide. Between 2018 and 2022 an increased number of children below the age of 5 get diagnosed with type 1 diabetes in Sweden. This increase is as large as 62%. (Svensson, 2025) The cause of this autoimmune disease is unknown. However, there are indicators of how environmental factors might contribute to the level of incidence of type one diabetes. (Samuelsson et al., 2020) There is no current cure for diabetes in the near future. This, in combination with a clear increase in children falling ill in diabetes type 1, indicates the importance of well-functioning sustainable healthcare settings designed for the wellbeing of these lifelong patients.

The waiting room as a non-space.

A waiting room in a healthcare setting can be seen as a non-space, a concept defined by Marc Augé. It is a short-lived, impersonal environment where people shortly spend time without forming any deep connection to space or to other individuals within it. Lacking identity or meaningful interaction, the waiting room is what one can argue is purely functional, serving as a place of transition rather than a space for engagement or belonging. People come and go, experiencing the room as a temporary stop with no lasting impression. Hence, one can ask themselves what would happen if this non-space were seen and functioned as a space with a purpose and what benefits would it bring?

Could this space offer an opportunity to reduce the feeling of loneliness and illness perception among its visitors?

The patients visit.

At the diabetic clinic young adults until the age of 18 are offered clinic visits at least every 3 months, even more frequently during the first time after the diagnosis. During the visits, an assessment of overall blood sugar control (HbA1c), treatment strategy, and self-care are conducted. Furthermore, growth, general conditions, diet, and psychosocial situations are evaluated. To manage self-care, a lot of education and support is needed due to its complexity. (Sahlgrenska, 2024)

Once the patient is above age of 18, there is an instant transition to Diabetes clinic for adults with type 1 diabetes and complex type 2 diabetes. With this transition, the numbers of visits decrease and the patient is faced by an increased demand of responsibility. Depending on the clinic, the variety of in-house functions varies.

The visits may be aimed at helping and guiding; however, there is often an underlying pressure of performing and due to the complexity of the disease it may come across as overwhelming. (Liu et al., 2022) The transition from visiting with a parent to being on your own as a teenager adds another level of uncertainty and the need for a supporting environment. Furthermore, as the disease is often described as an” invisible” disease, meaning beyond visible diabetes managing equipment one is unable to identify a type one diabetic, there is a recurring feeling of loneliness and want of support from others. Hence, the visible connection of others when at the clinic contributes to a feeling of community, to be built upon and emphasised in this project.

Clinics today.

The actual diabetes care varies between countries and within the same country. Organization, quality, and assets of the clinics depend on how the healthcare system is established. In general, diabetes clinics are often found in larger cities and hospitals. Even in countries of well-developed healthcare, as in Sweden, there are evident differences in how the diabetic clinics function and what resources are available. National analysis indicates how certain regions in Sweden offer more frequent visits, increased continuity of care from same doctor and increased follow-ups of treatment than others. Meanwhile, other regions lack space, resources, and the necessary contact with patients. (Svenska Diabetesförbundet, 2023)

Confirmed lack of specialized care.

In an article from Svenska Diabetesförbundet it is highlighted how there is an importance of developing diabetes clinics, both in structure and environment, tailored to young adults’ needs. The article highlights that the current transition from pediatric to adult care often causes a loss of continuity and support, leading to less controlled blood sugar and increased risk of complications. Therefore, the clinics should be designed for those dedicated to. Tools such as youth-friendly spaces that bridge this gap, offering environments suited to young people’s life situations, communication styles, need for social contact and developmental stages to ensure smoother transitions and better diabetes outcomes. (Svenska Diabetesförbundet, 2025.).

Furthermore, there is not only a gap in specialized care for young adults, but also for adults in general. The adult resources are evaluated to be only 25% of today’s diabetic pediatric care resources, once again proving how the transition between the clinics does not meet the needs of the patients. The treatment of a lifelong disease should provide the essential care needed throughout life. (P.Adolfsson, 2026)

“*The issues and new challenges of the disease do not disappear just because you turn 18, yet the resources heavily do*” (P. Adolfsson, personal communication, February 2026)

66 % ages 15-30 experience that their well-being is **negatively affected** by the disease.
(Svenska Diabetesförbundet, 2024)

86 % require **improved psychosocial support.**
(Diabetesförbundet, 2020)

62 % increase in children diagnosed with diabetes before age 5 within the last 5 years.
(Svensson, 2025)

84 % experience the feeling of **never having a break** from managing their diabetes.
(Diabetesförbundet, 2020)

75 % less resources in adult care compared to pediatric diabetes care.
(P.Adolfsson, 2026)

Fig. 2. Background circle diagram.
(Authors own work)

Background conclusions. The findings and key points featured in the background functions as a vital puzzle piece in the development of the project related to the question “Why?” The background provides insights into the issues of today and its long-term relevance. From the information gathered, one is able to make a conclusion regarding its relevance and future aim, that guides the wanted outcomes of this project.

Background →	**Relevance** →	**Future aim**
TYPE 1 DIABETES	COMPLEX UNCURABLE DISEASE	LIFE LONG TREATMENT
ADOLESCENTS WITH TYPE 1 DIABETES	HIGHER RISK OF HEALTH ISSUES	SECURE MENTAL HEALTH AND FUTURE WELLBEING
DIABETES TYPE ONE IN THE NORDIC COUNTRIES	TOP COUNTRY GLOBALLY FOR INTANCES OF T1D AND INCREASING NUMBERS AMONG CHILDREN	INCREASED SPACES FOR SUPPORTIVE CARE FOR YOUNG ADULTS
THE WAITING ROOM AS A NON-SPACE	UNACHIEVED OPPERTUNITIES	SOCIAL SPACES FOR PEER SUPPORT
THE PATIENTS VISIT	CONVERSATION RATHER THAN IN HOUSE TREATMENTS	SPACES DESIGNED FOR ITS PURPOSE AND REDUCED CLINIC IMPRESSION
CLINICS TODAY	DIFFERENCING TREATMENTS	A STANDARD FOR DIABETIC CENTERS
CONFIRMED LACK OF SPECIALIZED CARE	SPECIALIZED SPACES RATHER THAN GENERIC	EVIDENT DEDICATION TO MEET REQUIREMENTS OF THE TREATMENTS AND CONVEY DEDICATION

Aim.

This thesis aims to investigate how specific spatial design strategies can be strategically put to work to promote social engagement and emotional well-being in healthcare centers. The research will explore how these design features, as a part of a toolbox to be applied, contribute to a more supportive atmosphere, aiming to reduce the psychological burden of illness and loneliness and enhance the overall patient experience among adults with Type 1 diabetes during visits. Through this exploration, the project aims to provide insights and strategies for architects and designers aiming to create healthcare environments that not only meet functional needs but also nurture patients' emotional health. These tools in their application in form of a designed diabetic center function as a basis to provide a visual exemplification of the toolbox's benefits.

Research Questions.

Main Question:

How can user-centered design in diabetic centers reduce loneliness and illness perception?

Sub Questions:

How can spaces, materiality, and colors impact the well-being of patients in these specialized outpatient centers?

How can the findings in theory and case studies be translated into a toolbox?

Sustainability.

Designing a new diabetes center allows for an opportunity to approach sustainability as a multidimensional sort of framework. This, where social and environmental, aspects could be considered, but will also be, as seen in delimitations, approached and prioritized in different ways. Beyond minimizing an ecological impact, sustainable architecture in healthcare settings can actively promote well-being. This project aims to align with the United Nations Sustainable Development Goals. Those particularly being Goal number three - Good Health and Well-being and Goal number eleven - Sustainable Cities and Communities. By prioritizing health as a foundation for a sustainable future, the center becomes a potential driver for positive social change, addressing both individual and collective well-being.

Social sustainability in the context of this project is expressed through the design of environments that support psychological comfort and social connections. In short, the design seeks to provide the necessary environments for young adults in their life long treatment. The qualities identified and aimed for are essential for strengthening social resilience and fostering a sense of belonging, which are integral to sustainable urban life.

Material choices and spatial organization further contribute to a sustainable architectural strategy in this project. To a certain extent, the use of durable, high-quality, and low-maintenance materials often seen in healthcare settings ensures longevity and reduces the need for frequent renovations. Meanwhile, flexible spatial configurations, as a part of a design concept, allow the building to adapt to future healthcare needs. Furthermore, identified theories and concepts focusing on design aspects such as natural light and healing atmospheres also incorporate an understanding of materiality and nature being incorporated in environmentally smart ways. Ultimately, the project positions sustainability as an ongoing process that extends beyond energy performance and material efficiency as one may often link to the word sustainability.

Delimitations.

Program.

Due to the complex and multi-disciplinary nature of a diabetic clinic, the project does not aim to capture the full accuracy of medical programming or operational requirements. Instead, it focuses on spatial principles, atmosphere, and architectural strategies that can support healthcare functions and wellbeing.

The project does not include political or economic considerations because the aim of the thesis is to conduct investigations without being constrained by current healthcare policies, funding structures, or administrative decision-making. These factors vary over time and fall outside the scope of a design-driven exploration. By deprioritizing these aspects, the project can concentrate on spatial quality, user experience, and conceptual innovation rather than budget limitations or political priorities.

Target group.

The project has a focus on young adults and their experiences based on identified gaps in knowledge and current clinics design. However, in line with the heavily reduced number of resources in adult care compared to pediatrician care, there is also an identification of how these strategies are relevant for general adult clinics. Therefore, the center will also facilitate adults beyond the identified main docus group. This decision also allows for a more reality-grounded project where resources are used more optimally and efficiently. Naturally, when considering the patients, a vital understanding and consideration of staff is needed to provide a functional center. Hence, interviews with both parts were conducted.

Site.

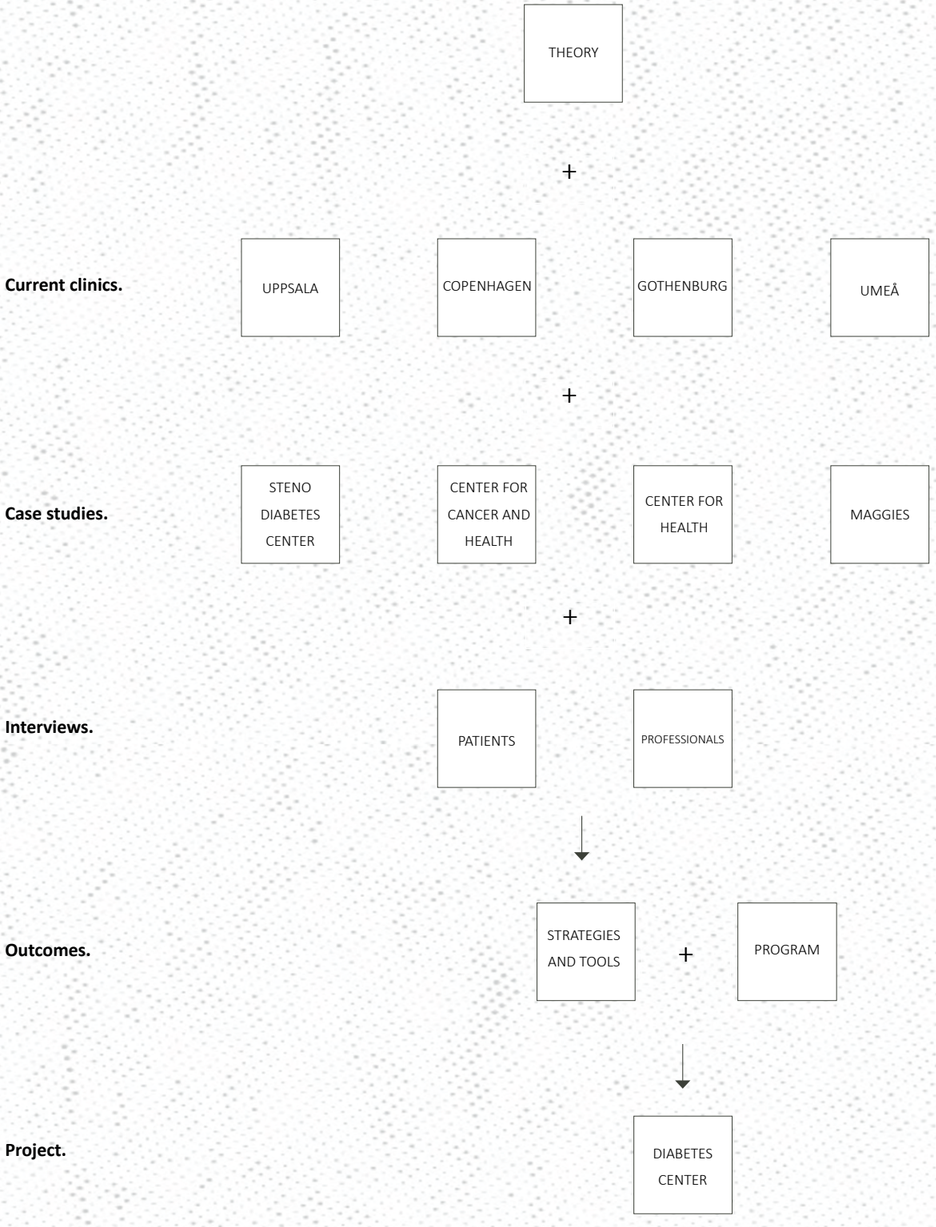
Due to the complexity of the on-going development of Akademiska Sjukhuset and the decisions in process surrounding the site, this project will consider the current stage of the site and its surroundings. Furthermore, the site of this project is an example of how this type of building would be located and incorporated into its surroundings. Ultimately aiming at providing a base of a building that can be applied to other sites as well where its purpose is needed. Hence, this project will consider its surroundings in design development but will not be claimed as site specific.

Design.

Due to limited time and as this project is conducted individually, construction and technical details will not be a point of focus in this thesis. Design solutions will be presented from a general and conceptual point of view that support design decisions and convey the architectural atmosphere wanted.

Outcomes.

The project will not provide and state that identified tools allow for final solutions to the identified problems of this project. Instead, the aim is to provide a foundation of continued work and potential strategies of relevance, shown in a design proposal, while highlighting the potential of improvements within the field of healthcare architecture.



Methods.

This project will apply multiple methods to develop the project, support the design, and build a strong foundation. Key methods will overlap and complement each other. Qualitative approaches provide insights into user experiences and spatial aesthetics, while quantitative methods enable the generalization of findings and identification of patterns to name a few examples. Combining these approaches allows for a more comprehensive and well-supported analysis. Within each method stated are sub methods which are to be used. Such as for reference projects: program analysis, flow diagrams, etc.

Literature studies.

Literature studies provide a solid foundation of knowledge, allowing one to understand the historical, theoretical, and cultural context of the topic of interest. Furthermore, this method allows for engaging with existing research and work within broader conversation, ensuring that the study is both relevant and grounded.

Evidence based design.

Evidence-Based Design (EBD) is a strong method in this thesis due to its close relation to modern healthcare architecture. By using research and data to guide design decisions, EBD improves patient outcomes and overall facility performance. Grounding design in evidence ensures healthcare environments are functional and beneficial. This approach provides a foundation for developing relevant, impactful design strategies.

Reference projects and case studies.

Using reference projects and case studies is used as they provide real-world insights into design impacts on healthcare environments. This method highlights what works and what doesn't work in real life, offering a comparative perspective to identify strategies that improve comfort, functionality, and social interaction for the target group. Relevant examples from healthcare facilities that have worked with similar spaces with a focus on patient-centered care are studied and mapped. What takeaways are valid in this project? What works and what does not? Furthermore, current clinics and especially waiting rooms, due to their social function, are to be a noticeable part of the case study. A mapping of typologies will provide a basis on how to approach the spaces as non-spaces or spaces, and what they translate to its users. Attention will be on what these clinics include, how these spaces have improved patient experience, promoted social engagement, or addressed specific needs like privacy or accessibility. By learning from the successes and shortcomings of similar projects, case studies help inform a more thoughtful and practical approach to the design.

Interviews.

Interviews offer direct access to knowledge, user experiences, and insights, which are often critical for understanding complex contexts as in this thesis. Unlike purely quantitative methods, interviews explore subjective experiences and spatial interactions more in-depth. The interviews can provide perspectives on functionality, aesthetics, and cultural or environmental factors that then can be applied to the design.

Sketching and mapping.

As a method, sketching and mapping will be used to explore spatial layouts, visualize ideas, and analyze user behavior throughout the design process. This approach allows concepts to be tested, refined, and redrawn based on feedback, information, and development of the project.

AI Incorperation.

In this thesis, artificial intelligence is used as a supportive tool. AI is used to identify relevant architectural reference projects and suggest academic sources within the field of architecture. By allowing for a rapid overview of large bodies of text, AI contributes to a more efficient and informed selection process. However, AI does not replace critical analysis, and all projects and sources have been reviewed and verified before used in this thesis.

Fig. 3. Method diagram.
(Authors own work)

The courtyard - where the benefits of nature and light are in focus.
The two courtyards accessed from the heart room act as an extension of the waiting area. The space not only acts as a visual connection from the corridors but also a place to inhabit for shorter or longer periods during the visits.

Fig. 4. Courtyard of the diabetes center.
(Authors own work)

Theory.

The following theories function as an initial foundation for understanding concepts and topics related to healthcare and design theories relevant to the aim of the project. Featured is a description of these theories, however, worth mentioning are the varying definitions identified and hence the one with the most relevance to this project is featured.

The presented theories aim to contribute to the process of the thesis both in the literature review stated as theories with their definitions and their takeaways regarding knowledge. Furthermore, these theories will also guide the design process as the majority of theories consist of design outlines. Having clear descriptions and guidance during the process also allows for strengthened communication and descriptions when incorporating external groups into the work.

Evidence based design.

DEFINITION. Evidence-based design is a methodology and theory that aims to utilize proven experience and research to make well-based decisions about design, especially within the healthcare sector. The goal of creating spaces that enhance well-being, health, and efficiency by integrating scientific findings on how the physical environment affects people is recurring in definitions. EBD outcomes clearly outline how the design process of healthcare environments should be based on well-developed, clear, and conscious approaches to evidence from research and practice. Furthermore, it is described how crucial decisions in the development of the design should be made together with the client.
(Centrum för vårdens arkitektur, 2021)

USE TODAY. The application of Evidence-Based Design in contemporary healthcare architecture can be applied as not only as a theoretical concept but also practical design making framework. Choices guided by EBD allow for systematically implemented design in healthcare settings related to environmental control, spatial comfort, and user experience. A study by Bingham et al. (2020) examines hospital renovations where evidence-based strategies consistently were a part of the design process and result. These findings regarding how lightning, thermal comfort, user control, and more were considered and motivated indicate how the architects rely on EBD to enhance the positive outcomes for its users. Evidence-Based Design embedded in today's architectural practice as a tool is evident. The translation of scientific knowledge to tools allows for measurable spatial outcomes and user benefits.
(Bingham et al, 2020)

TOOLS. In the book Design tools for evidence-based healthcare design by Phiri (2015) EBD tools can be divided into four main categories:
- Improving compliance with statistics and other requirements.
- Design quality improvement
- Enhancing efficiency and effectiveness.
- Achieving sustainability in the architectural healthcare estate.
Within each of these tools, they are introduced with the aim of providing a basis for the design process in healthcare, based on scientific research. Some of these tools are heavily technical while others, such as Inspiring Design Excellence and Achievements (IDEAs) highlight the considerations of people in the process and results.

- ENVIRONMENTAL COMFORT
- SPATIAL LAYOUT AND WAYFINDING
- SEMI / PUBLIC SPACES

- SPACE FOR EVALUATION AND OBSERVATION
- USER-CENTERED DESIGN

TAKEAWAYS AND RELEVANCE. Evidence-Based Design is relevant in this thesis as a scientific framework to guide design decisions that directly impact user well-being. As young adults with chronic conditions face unique challenges, EBD allows for base spatial decisions for the design. Decisions regarding light, acoustics, privacy and social spaces are guided by research-backed evidence, which in this project aim to function in combination design based on patient input and hands on experiences.

Non-space.

DEFINITION. Non-space is a place that lacks identity, relation, or history for its users. These places and spaces are designed with the aim of being functional and efficient and hence lack the cultural and social attributes that make a place purposeful and for its users. This contrasts with what Augé describes as anthropological places that are socially rich, meaningful, and emotionally resonant. (Augé, 1995)

USE TODAY. Through the application of this theory in architectural work, one can critically analyze the users' experience of spaces. What feels generic, isolating or dehumanized, especially when working with vulnerable groups? The approach help transform functional spaces and encourage social interactions.

- SENSORY ENRICHMENT
- HUMAN SCALED SPACIAL LAYOUT
- STRONG WAYFINDING AND ORIENTATION
- INTERACTIVE AND SOCIAL ZONES

TOOLS. Based on Augé's theory and concept, practical architectural tools can transform these non-places to supportive environments in the centers of this project. These approaches come across as softer in contrast to EBD.

TAKEAWAYS AND RELEVANCE.For a diabetes center with a heavy focus on social aspects and reducing the impression of loneliness and illness perception, the idea of avoiding these non-places is relevant. Every space should aim for supporting comfort, a sense of safety, engagement, and autonomy.

Healing Architecture.

DEFINITION. Healing architecture is of no common definition. It was identified across studies, that even though the term healing architecture was prominent throughout multiple studies and was included in each of the articles' titles or abstracts there were no identical definitions. Furthermore, in the review by Simonsen et al. (2022) there are additional conclusions, apart from lacking defined definition, about how it until this day is limited knowledge about healing architecture and how it shapes patient and clinical outcomes. When working with environments that require extra support, healing architecture guides the design regarding recovery, wellbeing, and comfort. This is possible through considering sensory, spatial, and environmental qualities. Healing architecture guides the designer to treat the building beyond its functional framework and instead also as a built environment with an active influence on experiences and health. Factors such as light, nature, materiality, and user control are often mentioned as important focuses. (Simonsen et al., 2022)

USE TODAY. Despite a variation of definitions and methodological variation, healing architecture is increasingly used and understood as a design philosophy. A philosophy that is grounded in wellbeing outcomes and human experiences. This is often in combination with biophilic design strategies and EBD. (Simonsen et al., 2022)

TAKEWAYS AND RELEVANCE: Applying the philosophy of healing architecture in a design project allows for a "soft" approach that functions well in combination with evidence-based design. To conclude, this theory aims to create healthcare spaces that feel supportive and human rather than clinical.

- ART, COLOR AND EXPRESSIVE ELEMENTS
- DAYLIGHT
- NATURAL CONNECTION
- SENSORY COMFORT

In this thesis, healing architecture is associated with the important aspects of color, shapes, and nature in buildings related to its importance for our wellbeing. The idea and soft approach of this theory can well be concluded as "*Architecture is a non-medicinal measure that can contribute to medicinal outcomes.*"
(Lundin, 2015)

Patient-centered design.

DEFINITION. Patient-centred design is a type of user-centered design. It focuses on the patients and allows the development of solutions for the patient's needs, experiences and preferences. This theory involves the patient in the design and project by actively seeking and applying their input, feedback, and participation in the project. (Meskó & deBronkart, 2022)

USE TODAY. When working with outpatient healthcare environments, where patients frequently visit due to consultations, follow ups and care management, patient centered architecture is widely considered. Contemporary research on how designing these facilities around the patients' needs to enhance satisfaction and reduce stress. (Huisman et al., 2019; Pati et al., 2021) Furthermore, the development of these spaces involves collaboration with patients. Through participatory design, interviews, and user testing, one can ensure that environments truly reflect patient experiences and priorities.

- AUTONOMY AND INDEPENDANCE
- CLARITY AND ORIENTATION
- SOCIAL SUPPORT
- EMOTIONAL COMFORT

TOOLS, RELEVANCE AND TAKEAWAYS. Tools such as color awareness, daylight and furniture, including social group spaces can allow for the aimed peer support and social interactions relevant in this project. Involving patients directly in the design process and understanding their perspective of the spaces helps ensure that outpatient environments reflect real user needs and support long-term engagement with care (Pati et al., 2021; Buse et al., 2020). Patient-centered design transforms outpatient spaces, such as diabetic clinics into environments that actively encourage self-management, emotional well-being, and sustained participation in care.

Biophilic design.

DEFINITION. "*The process of basing decisions about the built environment on intuition or credible research – derived from either an appetency for nature or measurable biological responses, respectively – to achieve the best possible health outcomes.*" (Ryan & Browning, 2018)

Biophilic design is an architectural approach that integrates nature-based qualities and natural elements into the built environment of today. This aims to support human health and well-being and is grounded in the biophilia hypothesis. It assumes that humans have an inherent need to connect with nature and that this can be addressed through architectural strategies. Thes include, for example daylight, sensory variations, vegetation and material connecting its user to nature. Research shows that these elements can positively influence psychological and physiological responses. (Ryan & Browning, 2018)

USE TODAY. The theory is today well-known and applied in contemporary healthcare architecture. It is seen especially in outpatient facilities and environments supporting long-term or chronic care. Recent studies demonstrate that exposure to natural elements in healthcare settings, creating a connection to nature, can improve mood, and enhance overall user experience.
(Yin et al., 2020)

- CONNECTION TO NATURE
- NATURAL LIGHT
- NATURAL MATERIALS
- SENSORY VARIATION

TOOLS, RELEVANCE AND TAKEAWAYS.
Biophilic design provides hands on architectural tools such as visual and physical connections to nature. Through courtyards, indoor planting, and views to greenery. Additional tools include maximizing daylight and lighting conditions, using natural materials like wood and stone, and creating spatial qualities that balance openness with a sense of safety (Browning & Ryan, 2018)

Theory Conclusions.

Based on the main theories, a mapping of potential qualities and wanted outcomes guide the process. This allows for revisiting literature and theories in later stages of the process to make grounded design decisions.

Theory.	Design elements.	Wanted outcomes.
EBD	SPATIAL LAYOUT	REDUCED STRESS, IMPROVED EFFICIENCY AND CLARITY
PATIENT-CENTERED DESIGN	WAYFINDING AND ORIENTATION	INCREASED AUTONOMY AND INDEPENDANCE
PATIENT-CENTERED DESIGN	FLEXIBILITY	SPACES ADAPT TO CHANGING USER NEEDS AND ACTIVITIES
NON-PLACE	PUBLIC SPACES	STRENGHTENED SENSE OF IDENTITY AND BELONGING
PATIENT-CENTERED DESIGN	SOCIAL ZONES	INTERACTIONS AND SOCIAL SUPPORT
HEALING ARCHITECTURE	SENSORY ENRICHMENT	EMOTIONAL COMFORT AND STRESS REDUCTION
BIOPHILIC DESIGN	LIGHT	IMPROVED MOOD AND ALERTNESS
HEALING ARCHITECTURE	COLOR	CALMING ATMOSPHERE
BIOPHILIC DESIGN	CONNECTION TO NATURE	RESTORATIVE ENVIRONMENT AND EMOTIONAL REGULATING
HEALING AND BIOPHILIC ARCHITECTURE	MATERIALS	WARM, NON-INTITUTIONAL SPACES

Why a freestanding center?

Architectural opportunities.

The location allows for a design that differentiates from its medical surroundings. While the main structure of the hospital is often characterized by high density, technical complexity, and intense flows, a diabetes center can work with a more subdued scale, clear orientation, and spatial clarity. The architecture can highlight how highlight, sightlines, materiality and spatial rhythm to create a space of comfort. The building can become a place where the pace is slowed down and the relationship between patient and caregiver is at the center. A source of calmness in a technical landscape.

Independent identity.

A free-standing healthcare center located in the hospital area allows for an architectural identity while maintaining its position as a part of a larger medical system. Diabetes care is long term, relation-based and pedagogical rather than acute. Hence, the environment of treatment and care should signal calmness, continuity, and everyday rather than intense and technical. Having a building with a separate entrance and human scale creates a safe and distanced environment for its long-term visitors. Meanwhile, its on-site placement makes sure the operations are connected to the bigger picture of competences and resources. There is a balance of independence and belonging created.

Medical safety without the acute feeling.

Diabetes care is planned care and does generally not require acute medical treatment. However, the closeness to other services of the hospital acts as a built-in safety for staff and patients. This safety is organizational and logistical rather than spatially dominant. This allows the building to maintain a calm and patient-centered atmosphere without compromising medical preparedness.

Economically and technically rational.

By locating the freestanding center within the hospital grounds, the technical systems can be shared or connected to the existing structure of the hospital. This makes the project more financially sustainable and technically robust. Resources can be coordinated rather than duplicated, which strengthens the long-term function and flexibility of the building.

Research and interdisciplinary work.

Diabetes is closely linked to other medical specialties. Being part of a hospital campus enables physical and organizational proximity to these competencies. This strengthens interprofessional collaboration, clinical research, and knowledge exchange. A stand-alone center within the hospital area can therefore function as a specialized node in a larger medical network.

Urban connection.

Hospital areas are well established in a city with public transport, parking and technical infrastructure. Locating a freestanding center here means using an existing urban structure instead of creating a new isolated healthcare island. This is efficient from both an urban planning and sustainability perspective.
(Amato et. al, 2021)

Architectural references.

Current clinics.

Visits to current diabetes clinics allow for a real-life anchoring of this project that complements literature and the reference projects. The visits reveal how aspects such as wayfinding, light, materials, and color schemes are actually experienced by users. Furthermore, indications of how public spaces and social zones are used or not used become evident. The direct insight into everyday routines, needs and challenges of today creates a more empathetic and functional basis for the design of a new diabetes clinic.

The featured clinics have been visited and analyzed as a patient taking part in treatment.

Reference projects.

The case studies of relevant healthcare buildings are analyzed to create a basis of knowledge regarding how the identified design elements from background and theories are applied in real life settings. Through studying these design elements, a broad understanding of flows, spatiality, wayfinding, and materiality is understood. When possible, these case studies are visited to fully understand its design beyond digital material. A continuous questioning regarding what works and what does not is present, and what actually affects the impression of these spaces.

Interviews.

Interviews with patients, medical professionals, and architectural professionals provided insights and essential knowledge for this project. The interviews with patients were essential to strengthen the identification of dissatisfaction regarding today's clinics and provide a foundation of what could be implemented and improved. The interview with medical professionals was vital for the medical programming of the building and understanding vital flows. Meanwhile, interviews with architectural professionals related to site or healthcare design provided tools and approaches to be implemented in the design phase. These three created a basis for the project, complementing theory and background.

Fig. 5. Map of locations of referance projects.
(Authors own work)

Current Clinics

SAHLGRENSKA DIABETES CLINIC

UMEÅ DIABETES CLINIC

AKADEMISKA DIABETES CLINIC

STENO DIABETES CENTER

Reference Projects

CENTER FOR KRAEFT OG SUNDHED

STENO DIABETES CENTER

CENTER FOR SUNDHED

MAGGIE CENTRE OXFORD

Fig. 6 - 12. Referance projects
(Authors own work)

Fig 13. Maggies Center. ELKS (2016)

Current clinics.

Sahlgrenska Diabetes Clinic.
LOCATION Gothenburg, Sweden
VISITED 2024/2025/2026

Impressions.

The diabetic clinic of Sahlgrenska Hospital is reached from the main entrance. There is an evident contrast in the recent transformation of the common spaces by the entrance and the waiting room of the diabetic clinic. The reception is separated from the waiting room and in close proximity to the offices.

In the waiting room, various styles of seating are found in various color schemes. Natural daylight is reached through the glazed walls along the majority of the seating. This space is seen from the main hall of the main entrance. Treatment rooms are reached by a two-corridor system with functions such as sampling in the core. Broken lights are hanging from the ceiling, and electrical cords are exposed.

Functions.

PRIVATE
PUBLIC

Treatment rooms
Consultation rooms
Reception
Sampling
Waitingroom
Group room
Dietician

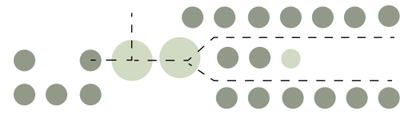


Fig. 14. Diagram functions.
(Authors own work)

Umeå Diabetes Clinic.
LOCATION Umeå, Sweden
VISITED 2023/2024

Impressions.

In a temporary container building, the diabetic clinic at Umeå University Hospital is located. It is reached through a narrow corridor with dim lighting, accessed from an unstable spiral stair. No signs of other patients when navigating from the empty reception on the ground floor. Printed signs are taped to the walls to help the patients navigate.

On floor one and two, there are three mismatched seats facing each other in the waiting room. The color palette consists of grey and white, no greenery is identified.

Functions.

PRIVATE
PUBLIC

Treatment rooms
Consultation rooms
Reception
Waiting room
Dietician
Curator

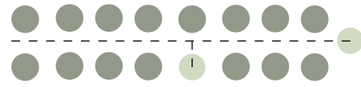


Fig. 15. Diagram functions.
(Authors own work)

Akademiska Diabetes Clinic.

LOCATION Uppsala, Sweden
VISITED 01.2026

Impressions.

Akademiska Sjukhuset endokri- and diabetes clinic is in one of the oldest buildings of the hospital built in 1926. The clinic is divided into two floors. To reach the clinic, one must move through a dark entrance to the second floor. The current clinic is in spaces that used to be for treatment of lung diseases; hence each room is over dimensioned and insufficiently shaped. Waiting spaces are positioned throughout the clinic along the walls. Most of the rooms feature big windows for light intake; however, due to the heavy slope of the terrain there are also treatment rooms fully without windows.

The spaces are clearly outdated and unfitting for its purpose. Color pallets consist of greys and white, and no nature is seen. The lower floor has a low ceiling and is a clear contrast to the more specious upper floor of the clinic.

Functions.

PRIVATE
PUBLIC

Reception
Treatment rooms
Consultation rooms
Sampling
Fotcare
Group room
Psychiatrist
Waiting room

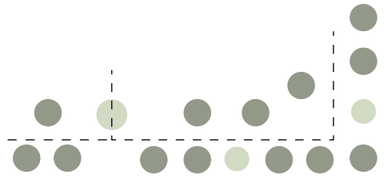


Fig. 16. Diagram functions. (Authors own work)

Steno Diabetes Center.

LOCATION Copenhagen, Denmark
VISITED 09.2024 AND 08.2025

Impressions.

At Steno diabetes center, all functions related to diabetes are located in-house for convenience. The entrance is easily identified and through a highly digitalized system, the visitor is directed to the correct area after check-in. There is a centrally located reception and cafe with remaining functions reached through a one corridor system wrapping around the entire building.

The main material is wood, and combined with a glazed facade that allows natural light to enter. Greenery is found within courtyards reached from waiting areas and plants. Each zone of the clinic is color-coded to guide the visitor. Recurring matching seating arrangements match these zones. The upper floor is sectioned off for staff and researchers. However, from the exterior stairs a roof garden is reached.

Functions.

PRIVATE
PUBLIC
OUTDOOR

Treatment rooms
Consultation rooms
Reception
Sampling
Digital zone
Waiting spaces
Group room
Dietician
Cafe
Eye and foot doctor
Green courtyards
FoodLab
Training room
Meeting and workshop rooms
Education rooms
Research

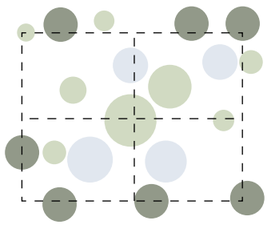


Fig. 17. Diagram functions. (Authors own work)

Reference projects.

Center for Kraeft og sundhed.

DESIGN NORD Architects
LOCATION Copenhagen, Denmark
YEAR 2009
SIZE 1800 m2
VISITED 10.25

”The brief for the centre was clear and simple: ’Create a healthcare centre that is more like a home than a hospital.” (NORD Architects, 2020.)

NORD provide an example of an architecture where the aim of the architects is to move away from the conventional hospital environment and put the user’s experience at the center of attention. Meanwhile as stated by the architects the building aim to be iconic and create awareness of cancer without stigmatizing the patients, in line with the aim of this project.

Spatial layout. The building is visually divided into several smaller scaled parts centralized around the courtyard, rather than one bigger complex. This introduce a more human scale.

Wayfinding and navigation. Navigation in the building is supported by the architecture itself rather than signs. The courtyard functions as a clear visual point of navigation. Long and narrow corridors are avoided.

Flexibility. The building offers a great variation of spaces for different purposes. The sizes are considering possibilities of other uses than the current.

Public spaces. There are a variety of social spaces, centrally located, and easily accessible. The social spaces including functions such as kitchen, gym and conversations rooms aim to provide spaces for identity and belonging.

Social zones. The variety of zones ranging from fully open and public to enclosed and intimate. The variety allows its users to choose their level of interactions while providing the opportunity to interact with an aim to reduce loneliness in the disease.

Sensory enrichment. The project incorporates a variety of spatiality, materials, and light to create a gradient of sensory environments. The tactile material choices aim to reduce sense of sterile hospital environment.

Light. A central design strategy in the building. Courtyard and volume placement allow for high light exposure in a variety of spaces.

Color. The color scheme is restrained yet conscious. Warm tones, especially through wooden detailing, create a calm environment. Subtle use of colors is used to enhance spatial awareness and orientation.

Connection to nature. The courtyard functions as a green sheltered room for direct contact with nature.

Materials. Material choices are consciously made to connect its users to nature. Wood is used in the mayoirty of the building in facade of courtyard and interior. In contrast the more robust exterior creates a sense of being sheltered.

Functions.

PRIVATE
PUBLIC
OUTDOOR

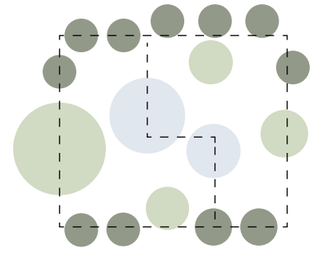


Fig. 18. Diagram functions. (Authors own work)

Steno Diabetes Center.

DESIGN	Vilhelm Lauritzen Architects
LOCATION	Copenhagen, Denmark
YEAR	2021
SIZE	18 200 m2
VISITED	09.2024 and 08.2025

This project is a great example of healthcare architecture that reflect innovative spatial organization and architectural qualities. According to initial analysis and the architects the design strongly emphasizes flexibility,
zoning, and user-centric spaces, while addressing the specific needs of diabetic patients and healthcare professionals. (Vilhelm Lauritzen Architects, n.d.)

Spatial layout.

The building is organized as a continuous loop framing green landscapes. The plan is horizontal and open with a gradient from public to private. Apart from the loop the central core public space allows for the spatial layout to be perceived as a node with functions in four directions.

Wayfinding and navigation.

The center features long sightlines and zoning based on functions. There is a four-variation color coding based on the department of the center. However, due to the size of the center and recurring design elements, the wayfinding is not always obvious for the user.

Flexibility.

The center facilitates the clinic, research, education, and social activities. Many rooms are flexible and can be used for various activities.

Public spaces.

Public spaces such as entrance halls, cafes and common meeting points are generous and open to the public. The design of the building reduces the borders between healthcare and community building.

Social zones.

The social spaces are consciously placed along the main flows of the building and in close relation to the educational and activity spaces. The zones aim to provide visual contact for its visitors and encourage social interactions.

Sensory enrichment.

Through generous ceiling heights, variation in lightning and continues materials sensory qualities are created. Visual contact with nature in combination with calm acoustic conditions aim to provide a calming rather than overstimulating environment.

Light.

Daylight is a foundational design strategy for the center. Light yards and big windows allow for daylight to reach far into the building. Lightning in the building is varied to create atmospheric variations.

Color.

Color scheme is subtle and nature based. 4 main colors are used as accent colors to guide the visitor to the correct area of treatment.

Connection to nature.

The project is strongly characterized by its nature's impact on its visitors. Green courtyards, woods, wood as main material and open views create a building that emerged in nature. There is a continuous physical and emotional contact with nature.

Materials.

The center is dominated by nature-based materials such as wood and stone. Spaces not suited for these materials are of clinic suitable materials, imitating these nature connecting materials instead.

Functions.

PRIVATE
PUBLIC
OUTDOOR

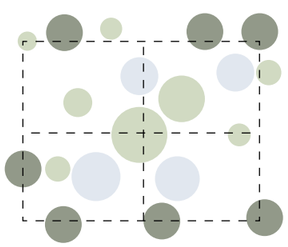


Fig. 19. Diagram functions. (Authors own work)

Center for sundhed.

DESIGN	Dorte Mandrup
LOCATION	Copenhagen, Denmark
YEAR	2025
SIZE	3300 m2
VISITED	11.2025

The Centre for Health in De Gamles By in central Copenhagen, designed by Dorte Mandrup and completed in 2025, is a relevant reference project for a diabetic center. The design highly emphasizes natural light, warm materials, and flexible spaces that support movement and interactions. The building has clear aim highlighting how architecture can actively promote health. The project's user-centered approach, developed in collaboration with its users demonstrates how evidence-informed and research-based design can create healing healthcare environments. (Københavns Kommune, 2025.)

Spatial layout.

The building is organized around a central double-height atrium (the Heart Room) that acts as the social and spatial core. Training, consultation and teaching are arranged around this core with strong visual connections. The circulation is designed as open stairs and bridges that encourage movement and interaction.

Wayfinding and navigation.

Wayfinding is centered around the Heart Room. This provides immediate visual orientation across floors. Open sightlines, transparency, and views between levels make functions easy to locate. Circulation routes are aimed at being intuitive, with stairs and bridges clearly visible and integrated into the central space, reducing reliance on signs.

Flexibility.

Flexibility is achieved through open, adaptable floor plans and multipurpose rooms that can accommodate different community activities. Spaces around the central atrium can be reconfigured over time.

Public spaces.

Public spaces are also centered on the Heart Room, which acts as a shared social space for its visitors. Open circulation, integrated seating along main flows, and visual links to the courtyard support informal interaction.

Sensory enrichment.

Natural light, exposed timber surfaces, and visual openness create a warm sensory environment. Meanwhile, views to the courtyard and controlled acoustics support comfort and well-being in the building.

Light.

Daylight reaches deep into the building through the central atrium and large glazed openings. In addition to natural light, carefully designed artificial lighting highlights the timber structure. This also emphasizes spatial hierarchy, and creates a warm, inviting atmosphere throughout the public areas.

Color.

The palette uses warm and natural tones of timber complemented by neutral walls. This is with the aim of creating a calm, welcoming environment that emphasizes the building's materiality and spatial clarity.

Connection to nature.

The building uses natural materials, mainly timber and glass and opens toward a green courtyard. Large, glazed walls bring in daylight and views of nature, integrating the outdoors with interior spaces.

Materials.

The interior predominantly uses warm timber and glass, creating a tactile, natural atmosphere. This contrasts with more solid, protective exterior materials.

Functions.

PRIVATE
PUBLIC
OUTDOOR

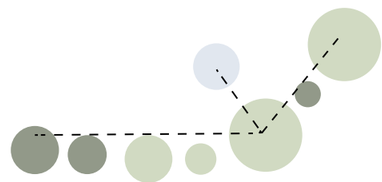


Fig. 20. Diagram functions. (Authors own work)

Maggie Center.

DESIGN	WilkinsonEyre
LOCATION	Oxford, United Kingdom
YEAR	2014
SIZE	225 m2
VISITED	Online only

The timber-clad building sits within a wooded landscape and functions as a treehouse-like retreat with informal, interconnected spaces around a central heart that includes kitchen and social areas. With its heavy ecological approach its use of natural materials, abundant daylight, and non-clinical design fosters calm, comfort, and social support for cancer patients and visitors. (Jencks, 2015)

Spatial layout.

The plan originates from a central core with kitchen and dining space with three “informal” wings dedicated to information, support and relaxation. The rooms are in direct connection, without corridors, which create an open and fluent spatiality.

Wayfinding and navigation.

Orientation is simple. The entrance by the core space presents three directions of continuation.

Flexibility.

The open informal wings of “homelike” size are limiting in the flexibility of the space, only activities requiring similar open spaces are fitting.

Public spaces.

The central heart, the kitchen, act as the main space for interactions, gathering and conversations.

Social zones.

There is a gradient ranging from open and public in the kitchen to intimate and enclosed in the therapy rooms.

Sensory enrichment.

Materials such as wood, tactile surfaces and carefully designed details and furniture create a warm sensory experience.

Light.

Big windows and skylights allow for high amounts of light intake. The giant windows deos however limit the possibilities of atmospheric differences during hours of light.

Color.

Palette emphasizes tones of wood and neutral walls. Accent colors are used in furniture.

Connection to nature.

The building is built on pillars to be surrounded by trees. Terrasses and large glazed areas frame the landscape and strengthen connection to nature.

Materials.

Wood dominates. Wooden pillars, panels and detailing emphasize the warm nonclinical feeling while the glass emphasizes transparency.

Functions.

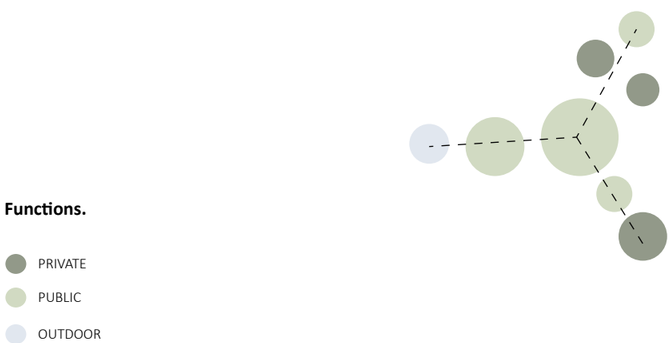


Fig. 21. Diagram functions.
(Authors own work)

Qualities mapping.

Fig. 22. Qualities diagram.
(Authors own work)

Takeaways.

Current clinics.

The visits to the three current clinics in Sweden once again proved the big gap between current design and its actual potential in providing support for its users. Characteristics such as outdated, lack of connection to nature and clinical were recurring and created an unsupportive feeling that increased the feeling of sickness. Steno Diabetes center in Copenhagen became a big contrast and evidently responded more to the identified findings in this thesis theories. Here all functions are gathered and social spaces exist. These differences are not only architectural but are shaped by broader factors, such as organizational structures within the healthcare system. This play a crucial role in enabling, or in this case limiting such design approaches.

Steno Diabetes Center.

The building features a functioning public core, where the café and reception help foster a welcoming and social atmosphere. A strong mix of functions all gathered in one place enhances convenience and efficiency for visitors. The connection to nature is heavily expressed through material choices and the inclusion of courtyards. Here, the design introduces calming elements that balance the overall environment. Additionally, the building's logical and efficient construction allows for flexibility and adaptability over time. However, some challenges remain. Certain public areas are over-dimensioned and underused, which can create a sense of discomfort and high need for climate control. Repetition in the design, combined with the large scale of the building, may also lead to orientation difficulties for some users.

Center for sundhed.

The design and movements in the building originate from a strong central core, mentioned as the "heart room" in which acts as a clear and intuitive guiding node within the building. Movements and social interaction are actively encouraged through the spatial layout, with strategically placed "social hubs". A strong sustainability approach is also evident, particularly in the use of locally sourced materials.

The bold and dark exterior creates a clear identity, standing in contrast to the interior's warm and soft material palette. This contrast can be seen as both a strength and a potential con, depending on how cohesively the transition between outside and inside is experienced.

Center for Kraeft og sundhed.

An emotionally supportive environment through a thoughtful variation of functions allows for different needs and experiences to coexist in one building. The layout is well resolved, with a courtyard strategy that responds effectively to its location along a heavily trafficked road, creating sheltered inside.

Public and private functions are distributed across two floors and different parts of the building offer a sense of independence and separation, but it might also lead to moments of confusion in wayfinding for first time users. Additionally, the strong contrast between exterior and interior materials, like Center for Health, combined with the triangular design elements of the building might cause a somewhat harsh overall expression.

Maggies Center.

The center is designed on a domestic scale, with materiality and an informal layout that reflects the qualities of a home. This contributes to a warm and comforting environment. Clearly defined social zones offer visitors a range of choices, allowing them to engage with the space in ways.

However, the building has a limited capacity, which can restrict how many people it can accommodate at a time. Additionally, the layout and design are relatively inflexible, making it more difficult to adapt to the space for changing uses over time, if so wanted.

CORRIDOR- UPPSALA

WAITING ROOM- GOTHENBURG

Would you want to visit here?

EXAMINATION ROOM- UPPSALA

ENTRANCE- STENO

Does this feel safe and welcoming?

Or would you rather visit here?

WAITING AREA- STENO

Fig. 23 - 27. Referance projects.
(Authors own)

Interview - Visitors

Visitors with Type One Diabetes.
DATE Jan and Feb. 2026
TOPIC Diabetes and todays clinics
GROUP Ages 21-26

8 people with type one diabetes from various cities in Sweden participated in the interviews. Their input, experiences, and wishes provided a further basis for the project design.

Interview - Architectural Professionals

Susanna Von Eyben.
FIRM White Arkitekter
ROLE Interior Architect
TOPIC Drottning Silvias Barnsjukhus
DATE 28.01.2026

During the meeting with Susanna, an interior architect specializing in healthcare environments, we discussed how her work, including projects at Drottning Silvias Barnsjukhus in Gothenburg, shapes the user experience. The conversation implied how carefully considered design can influence both the atmosphere and the emotional experience of healthcare environments.

- APPLY ART, COLOR AND EXPRESSIVE ELEMENTS
- ASK WHAT FEELING DOES THE DESIGN CHOICES ACTUALLY CONVEY?
- MAKE FULL USE OF WHAT CAN BE DESIGNED
- APPLY CONTRASTS TO DISTRACT
- CONNECTION TO NATURE IS VITAL

Anders Medin and Ebba Gordon Hultsjö.
FIRM White Arkitekter
ROLE Architects
TOPIC Uppsala development
DATE 06.02.2026

During the visit to Uppsala, the discussion with Ebba and Anders focused on the ongoing development of Akademiska Sjukhuset and the broader challenges of healthcare architecture in Sweden, including decisions about what to preserve, reuse, or rebuild as parts of the hospital become outdated. The conversation also reflected on recent additions such as the psychiatric center (2013) and Ingång 100/101 (2019), and how the dense hospital area and its surroundings can guide the thesis project in addressing real-life healthcare environments.

- INSIGHTS INTO AKADEMISKA DEVELOPEMENT
- COMPLEXITY OF REUSE OR NEW BUILT IN HEALTHCARE ARCHITECTURE
- SURROUNDINGS AS DESIGN OPPERTUNITIES AND LIMITATIONS

Interview - Medical Professionals

Peter Adolfsson.
WORK VG region
ROLE Senior Physician
TOPIC Diabetes clinics organisation
DATE 20.02.2026

The interview had a clear focus on understanding programming and flows from a professional’s point of view in diabetes care. During the interview it became evident how young adults need better support in their care, and how the clinic plays an important role in this. A main takeaway from this is how a center that is designed for its purpose not only will affect its visitors but also its everyday users, the staff.

Klara Lindgren Freij.
WORK Uppsala Akademiska Sjukhus
ROLE Head of department- Diabetes
TOPIC Diabetes clinics organisation
DATE 06.02.2026

Klara offered a guided tour of the diabetes clinic in Uppsala. During the visit we discussed flows, functions, and potential improvements. Rooms without windows and outdated spaces create inefficiency and add to the increased feeling of sickness in spaces not aimed at the type of care. Furthermore, she described how a more purpose designed and aesthetic clinic would convey a more professional impression of the professional care the staff aim to provide.

- SPECIFIC ROOM DESIGN IS VITAL FOR SAFETY, EFFICIANCY AND TRUST
-THE WEIGHT OF HUMAN CONTACT
-PROFESSIONAL ENVIRONMENT FOR PROFESSIONAL TREATMENT
- IMPORTANCE OF SOCIAL SPACES AND ROOM TO MEET
-EFFICANCY OF HAVING ALL FUNCTIONS IN ONE CENTER
- PROGRAM AND FLOWS
- FLOWS AND PROGRAM
- LACK OF ”SPECIALIZED” SPACES CREATE INEFFICIENCY

The workshop kitchen - where connections form a sense of community and knowledge go from theoretical to practical.
In the center, there are multiple newly introduced functions that aim at reducing loneliness perception. The interactions happening here are not forced but encouraged.

Fig. 28. Workshop kitchen of the center.
(Authors own work)

Toolbox and Strategies.

The design strategies found in this thesis are developed from theory, case studies, existing clinics, and interviews with healthcare professionals and patients. They aim to support patients with long-term conditions by reducing illness perception and loneliness. The strategies range from functional and concrete solutions, such as spatial layout and wayfinding, to more atmospheric tools, including lighting, materials, colors, and forms that shape mood and experience. Together, these strategies provide a holistic framework for creating environments that are both practical and emotionally supportive for its users.

Research →	Strategies →	Tools
PATIENT-CENTEREDEBD, CASE STUDIES	STRATEGIC PLACEMENT OF CENTER	- RELATING TO SUPPORTING FUNCTIONS
PATIENT-CENTERED, EBD, HEALING ARCHITECTURE, INTERVIEWS, CASE STUDIES	IMPLEMENT A CENTRAL NODE	- HEART ROOM
BIOPHILIC DESIGN, HEALING ARCHITECTURE, INTERVIEWS, CASE STUDIES	NATURE INCORPERATION	- NATURE POCKETS - COURTYARD - MATERIALITY
NON-PLACE, PATIENT CENTERED, NTERVIEWS, CASE STUDIES, CURRENT CLINICS	TARGET GROUP DESIGN	- ROOMS FOR ITS PURPOSE - DESIGN DETAILING
INTERVIEWS, NON PLACE, HEALING ARCHITECTURE	SOCIAL OPPERTUNITIES	- ROOM FOR MEETINGS - SOCIAL GRADIENT
EBD, PATIENT CENTERED, INTERVIEWS, CURRENT CLINICS	PERMANENT RATHER THAN TEMPORARY	- FLEXIBILITY - FURNISHING
EBD / HEALING ARCHITECTURE, INTERVIEWS, CASE STUDIES	FUNCTIONS SUPPORTING THE EXPETATIONS OF THE DISEASE	- FROM TEORETICAL TO PRACTICAL
HEALING ARCHITECTURE, BIOPHILIC DESIGN, INTERVIEWS, CASE STUDIES	CALMING ATMOSPHERE	-MATERIALITY -SHAPES -COLORS
PATIENT CENTERED, EBD, INTERVIEWS, CASE STUDIES	HUMAN SPATIAL DESIGN	- CLEAR NAVIGATION - CONTIOUSLY SIZED ROOMS

Strategic placement.

As previously stated in this thesis, the location of the center is vital for its functionality.

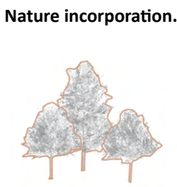
TOOLS:
- Placement on outer hospital area
- Freestanding building with own enterance

Central node.

As seen in well-functioning case studies and supported by theory studies and professionals in interviews, having a central node of the building allows for social interactions and point of orientation for its users.

TOOLS:
- Heart room

Nature incorporation.



As clearly stated in the theories and evident in the case studies, nature is an important puzzle piece in achieving the wanted outcomes of this center.

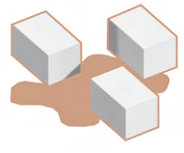
TOOLS:
- Nature pocket / Courtyard
- Materiality
- Colors

Target group design.

To strengthen the visitor's sense of support, design choices closely connected to the specific disease being treated will be integrated. These range from color schemes, such as diabetes blue and forms inspired by blood sugar curves, to rooms adapted to the specific type of treatment provided.

TOOLS:
- Rooms designed for its purpose
- Detailing of design

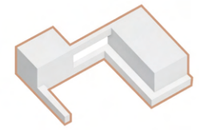
Social opportunities.



A vital part in reducing the sense of loneliness and illness perception is implementing spaces that allow for social interactions and facilitate social activities. This is supported by real life experiences from staff and patients.

TOOLS:
- Rooms for meeting
- Gradient from public to private

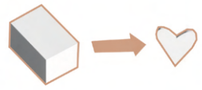
Permanent rather than temporary.



Since the center is designed for a long-term disease, the architecture should express continuity, stability, and lasting commitment rather than a temporary solution, which is an evident reacurring issue today. A permanent and thoughtfully grounded environment can reinforce patients' sense of support and belonging throughout the treatments.

TOOLS:
- Built in furniture
- Flexibility in use

Functions supporting the expectations.



Providing functions and spaces that meet the expectations of diabetes treatment helps create a sense of safety, clarity, and professionalism within the architectural environment.

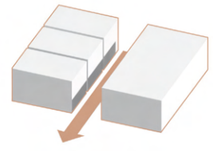
TOOLS:
- Rooms for translating theoretical to practical
- Functions for the disease all in one place

Calming atmosphere.

Creating a calming atmosphere is a key strategy in supporting patients with long-term conditions. Research, case studies, and patient experiences all show that environments with considering these tools significantly improve the overall treatment experience and reduce ilness perception.

TOOLS:
- Colors
- Shapes
- Materiality

Human centered spatial design.



Clear navigation, appropriately sized rooms, and intuitive layouts that make the environment easy to understand and move through. Such design supports independence, and a sense of control, which is especially important for patients with long-term conditions that are reacurring visitors.

TOOLS:
- Clear navigation
- Comfortable sized spaces

Fig. 29. Strategies icons.
(Authors own work)

Location - Uppsala.

Wanted qualities.

When choosing the site, there were several qualities wanted. As previously mentioned in this thesis, the center should be a part of a hospital area. Ideally, the site should also provide closeness to nature and be easily accessed.

The site function as an example of the type of centers potential placement. Hence, the center can vary in size and exteriour architectural language, but the strategies remain the same.

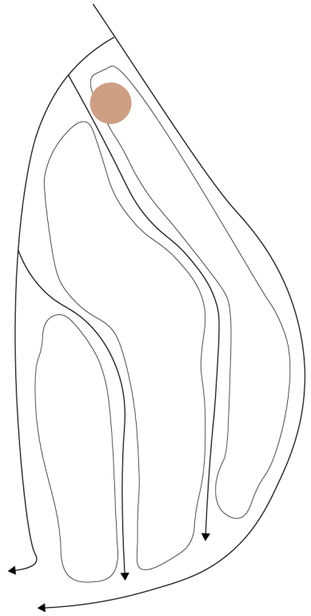
Through being aware and working with the density and traffic being a common quality of all potential sites studied, the building design responds to this rather than ignoring.

Site.

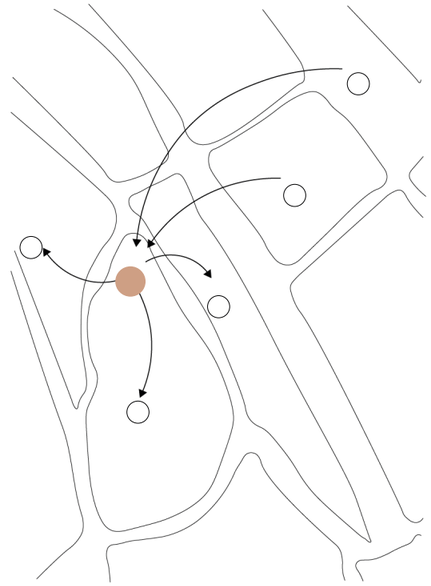
The site is in central Uppsala, located by the Akademiska Hospital. The site is currently an above-ground parking lot and forms part of the hospital area's more infrastructural zone rather than its healthcare structure.

This location means that the site is already integrated into the hospital's overall system of access, service roads, and walkways, providing good logistical accessibility. At the same time, the site currently lacks spatial identity and quality, as it is dominated by paved surfaces and traffic.

The diabetes center opens for an opportunity to create a building that acts as a softer transition from inner city to the hospital area with its materiality and smaller scale.
The size of the center responds to the number of patients listed.



RECOGNIZABLE HOPITAL LAYOUT



CENTRAL SITE WITH SURROUNDING NATURE

Fig. 30. Map of Uppsala.
1:5000 A4 (Authors own work)

Fig. 31, 32. Site diagrams
(Authors own work)

"*The issues and new challenges of the disease (type one diabetes) does not disappear just because you turn 18, yet the resources heavily do*" (P. Adolfsson, personal communication, February 2026)

"*We have treatment rooms without windows, that says a lot*."
(K. Freij, personal communication, February 2026)

"*We want to offer a professional treatment, yet the spaces themselves dont convey the same message. Its a shame and require more work from us as staff.*" (K. Freij, personal communication, February 2026)

"*We had to walk through the hospital catacombs to get to a room big enough for all of us to sit during an introduction*" (Woman with diabetes of 10 years, personal communication, january 2026)

Site.

FROM NORTH

FROM SOUTH

Surroundings.

OLDEST BUILDING OF AKADEMISKA

VIEWS TO UPPSALA CASTLE

STADSTRÄDGÅRDEN

NEWLY BUILT PSYCHIATRIC

Qualities.

HIGH SUN EXPOSURE

NATURE TO PRESERVE AND INCORPERATE

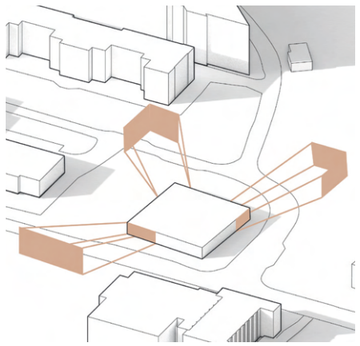
Fig. 33 - 40. Site photos.
(Authors own)

Site.

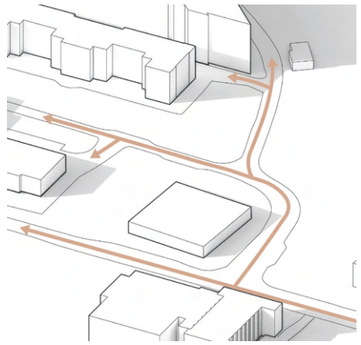
Analysis and qualities.

Surroundings of the site provide not only potential views of nature but also buildings of historical value such as the oldest building in the hospital area and Uppsala castle. Framing these views can create interesting temporary distractions. A clear limitation of the site is the heavy traffic. This affect the design possibilities and landscaping choices. The concept of a sheltered core, as seem in Center for cancer and Health by NORD is implemented.

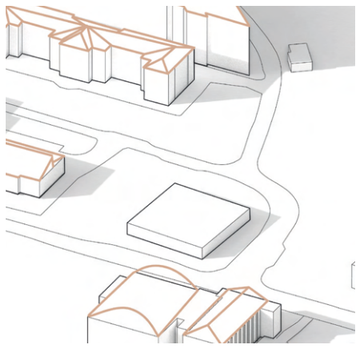
The varied architectural language of the site allows for a playful approach to the new building. Materiality and colors act as guidance on how to incorporate the building in its context while the great variation allows for new elements to be added. On site there is nature to be preserved that helps frame the plot and create a physical and visual natural boundary between building and street. Due to the spacing of other buildings, shade is only currently provided by trees.



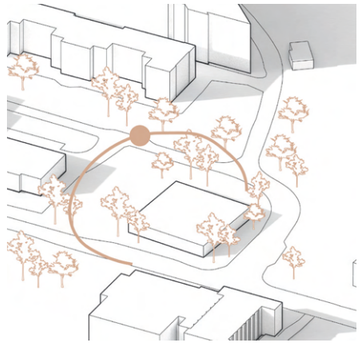
VIEW POINTS



DENSE CIRCULATION



VARIED ARCHITECTURAL EXPRESSIONS



HIGH SUN EXPOSURE AND NATURE

Fig. 41. Site diagrams (Authors own work)

Fig. 42. Axonometry of site. (Authors own work)

Program.

Composition - center specific functions.

The following rooms are center specific. These functions and sizes are developed based on takeaways from case studies and conversation with medical and architectural professionals. These are aimed to complement and follow the findings of the design strategies. Note how these are not all functions required in the center, but center specific. Extended program is found later in this booklet.

A. TREATMENT ROOMS
12 sqm.
Doctors and nurses conduct lighter examinations such as foot check and blood presure. Feature examination table.

B. CONSULATION ROOMS
12 sqm.
Nurses have their own destignated room while doctors rotate. Here they conduct adminsitrative work, meetings with patients and digital meeting.

C. FLEX ROOM
20 sqm.
Room for conversations, small workshops and introductions to tools.

D. FLEX ROOM
40 sqm.
Room for conversations, workshops and introductions to tools.

E. SAMPLING
16 sqm.
Sampling to keep track of treatment.

F. "HEART ROOM"
Centrally located with check in and waiting area.
Node of the building.

G. FOOT CARE
16 sqm.
Space for treatment with option to close off to workstation.

H. GYM
45 sqm.
Highlighting the importance of movement and implementing knowledge from meetings. Potential for group meetings and workshops.
for larger

I. COURTYARD
Connects the users to nature. Improve light intake in building.

J. DIETISIAN
12 sqm
For conversations about diet and movement.

K. KITCHEN
25 sqm.
Oppertunity to implement knowledge from dietician.

L. SOCIAL POCKETS
Small social pockets as waitingrooms between several visits. This for visual connections and activiating the entire building.

M. EYE ROOM
12 sqm.
No daylight required.

N. CURATOR
12 sqm.
Can be used as room for smaller meetings.

O. MINI CAFE
To be incorperated in the heart room to provide safety in case of low bloodsugars

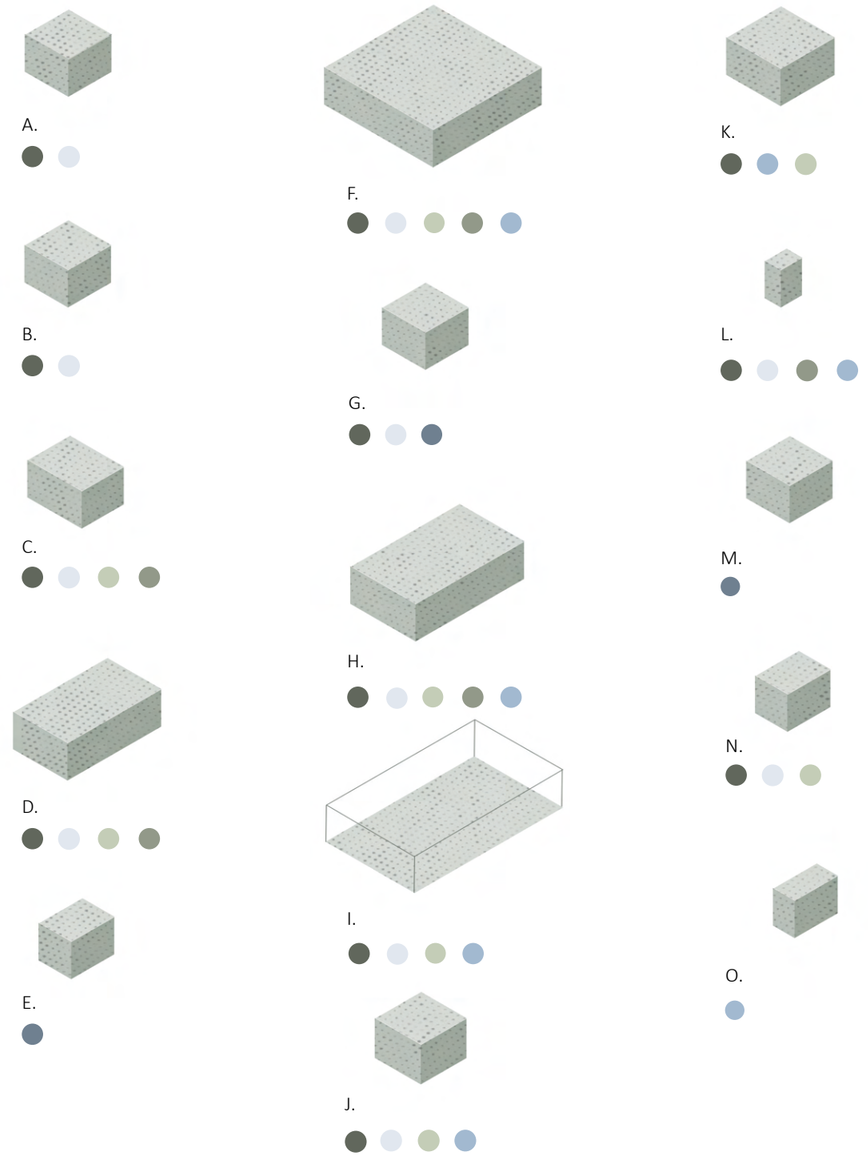


Fig. 43. Program diagram.
(Authors own work)

Program - the journey of the visitor.

Current journey.

Visits at the current clinics differ. Depending on the resources and patient needs, the numbers of visits, and functions incorporated in the same visit are different from visit to visit. Today, however, there is a recurring issue of visits not being optimized.

"*I had 4 different visits planned for one month. After reaching out they still could not fit them all at once, making me consider cancelling one of the visits due to inconvenience of going there so many times*." (Female with diabetes of 14 years. Personal communication September 2025)

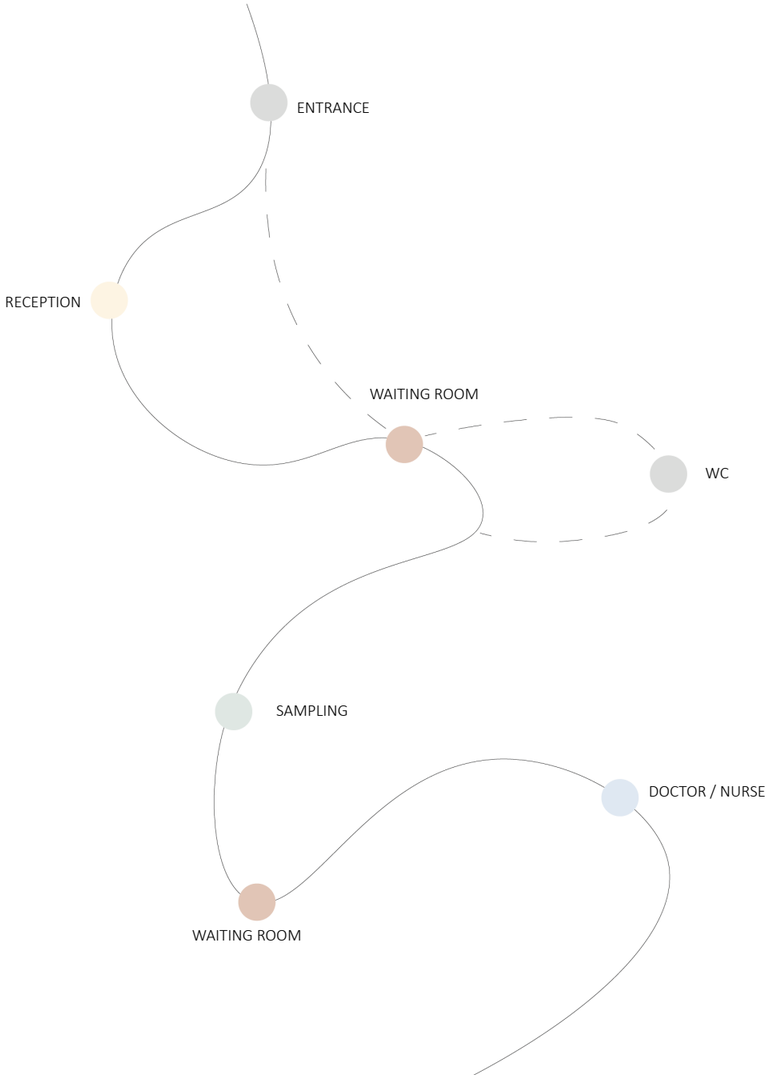


Fig. 44. Flow diagram.
(Authors own work)

Possibilities of optimization and options in the center.

In conversations with Peter Adolfosson (personal communication 2026), the senior physician it became clear how offering all functions in one place and efficient planning not only create efficiency but also a safety for the patients and their care. The center presents options for personal choices for its visitors, and all functions gathered in place, with an increase in recourses compared to today's numbers.

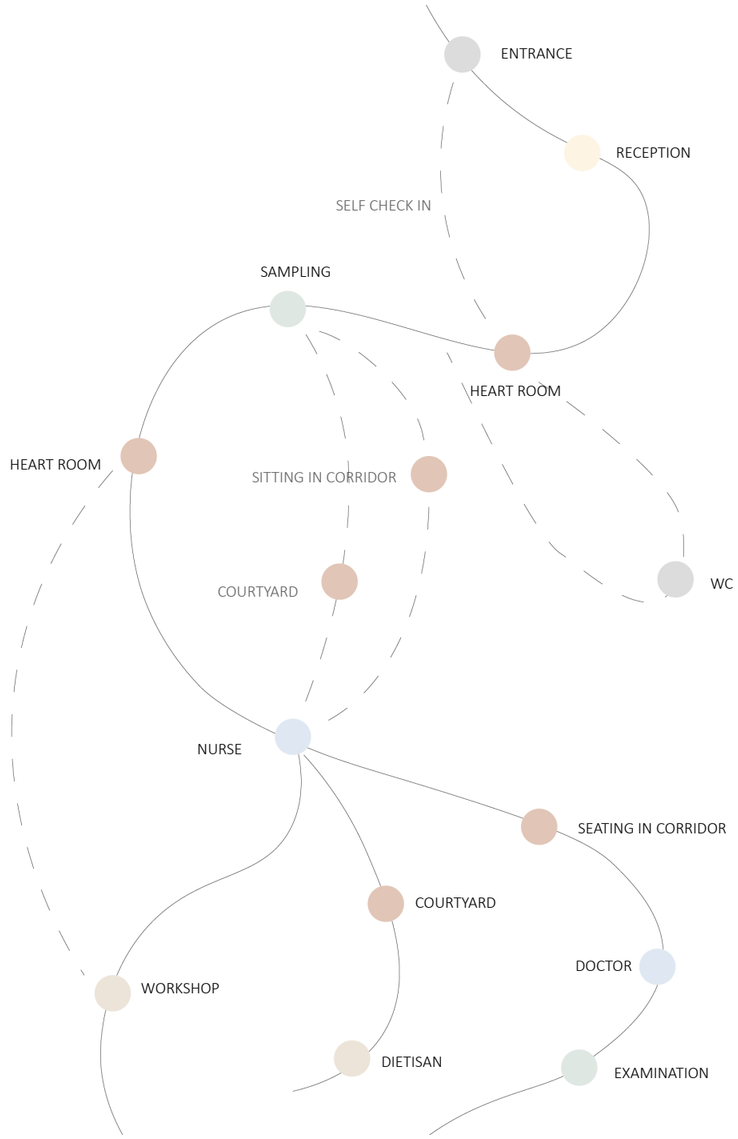


Fig. 45. Flow diagram.
(Authors own work)

Program.

Bubble diagram.

The bubble diagram explores how each function relates to each other, the heart room, and courtyard. This is guided by statements from staff, observations from site visits at current clinics, and mapping of potential visit flows.

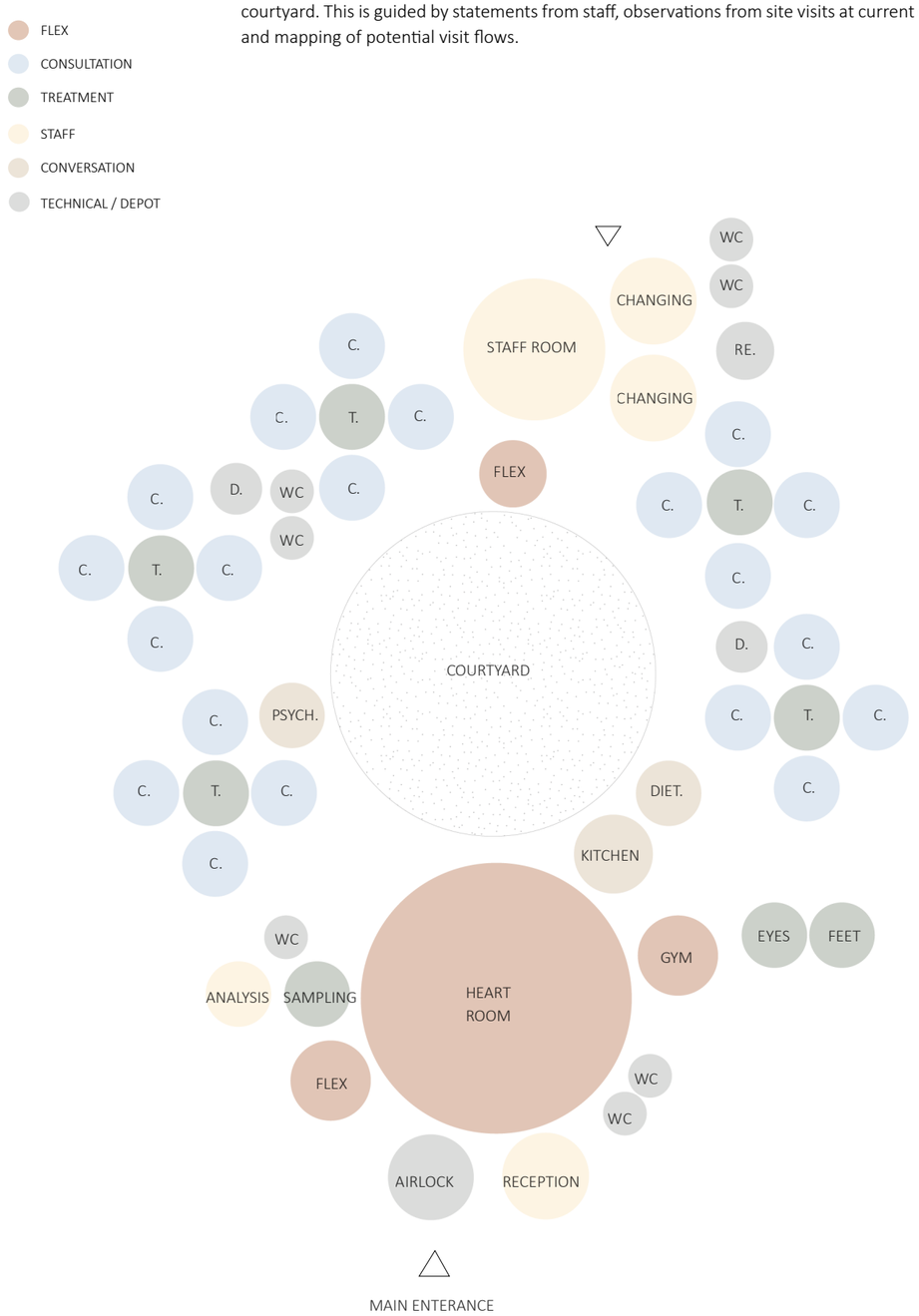


Fig. 46. Bubbel diagram.
(Authors own work)

Optimized visits are possible with all functions gathered in one space. Along with well-done planning, this reduces risk of patients cancelling due to time-consuming visits not all in one space or time. This is important for the patients safety and health.

Social activities require spaces that allow for these activities to actually take up space.

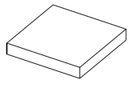
Through presenting a variety of options of movements and a social gradient, the users are given the opportunity to take control over their own experience.

The central courtyard not only acts as a visual and physical connection to nature but also encourages movements and visual connection to others at the center, while maintaining a level of privacy.

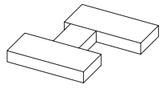
Volume - a catalogue

Development.

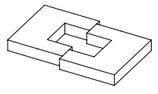
Gathered is a number of the many explorations made during the volume development of this project. The variations reflect the many aspects considered in its development. It's been a nonlinear process where elements have been incorporated in different ways, added and removed, and once again added. These respond to site, sustainability, function, program, light, wind, traffic, nature incorporation and design takeaways from theory.



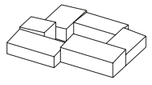
ONE STORY OR TWO?

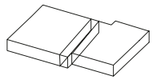


EXPOSED OR SHOWN?

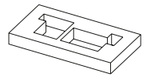


BREAK OFF SCALE?

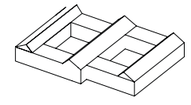




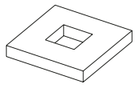
SOCIAL CORE IN MIDDLE?



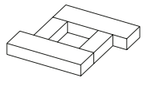
EXTENSIONS TO CAPTURE VISITORS?

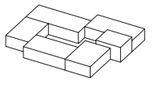


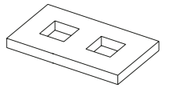
EXPRESSION CONNECTING TO SURROUNDING?

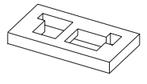


SHELTERED CORE?

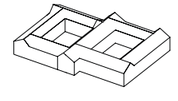


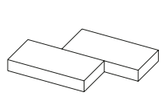


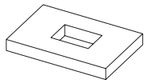




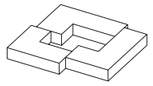
CONTRASTING SOFTNESS WITH LOGIC?



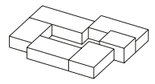


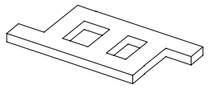


RESIZE FOR LIGHT?

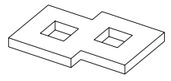


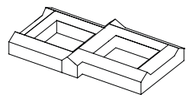
BALANCE IN PLAYFULNESS AND EFFICIANCY?

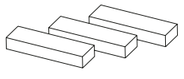




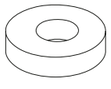
TWO COURTYARDS?



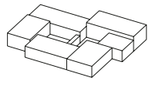


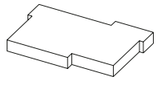


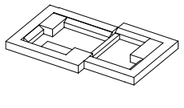
ONE FUNCTION PER ARM?



SOFT SHAPE?







SHIFT VOLUME FOR SCALE?

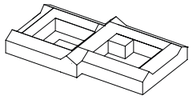


Fig. 47. Volume development collection diagram. (Authors own work)

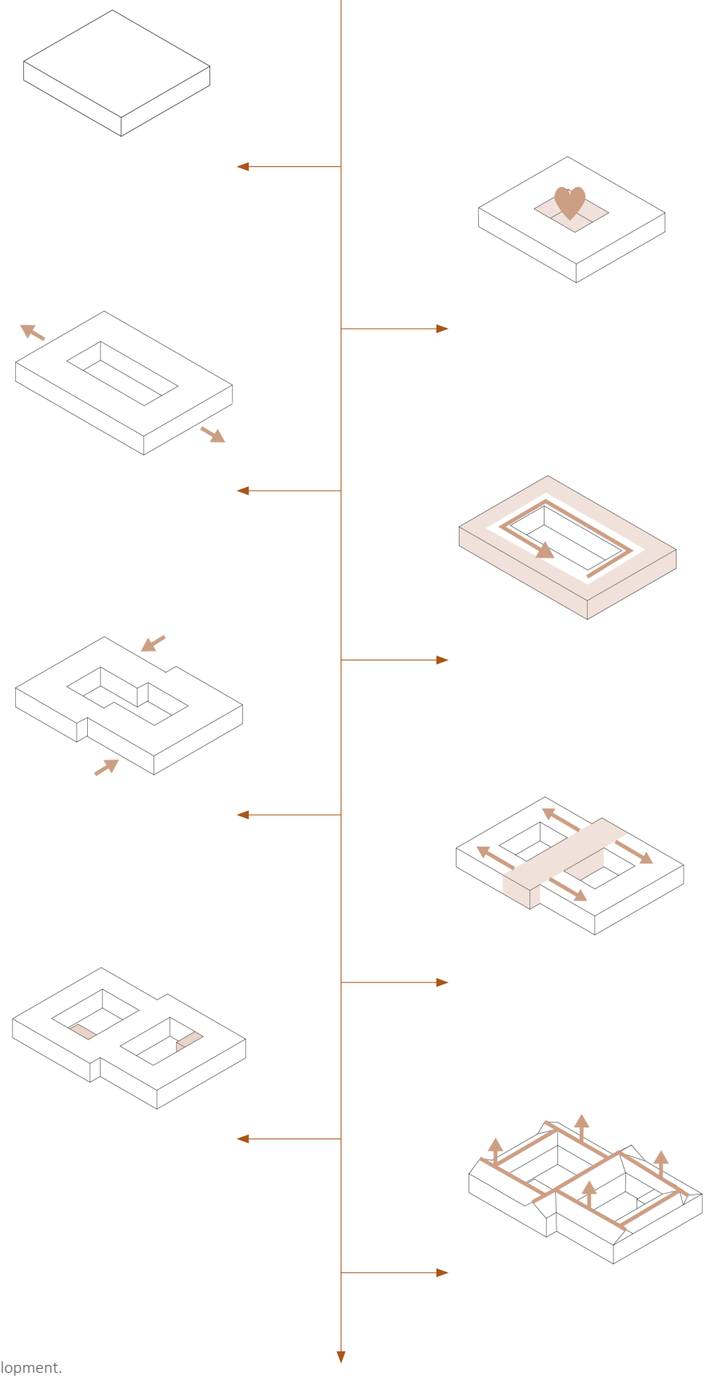


Fig. 48. Volume development.
(Authors own work)

Volume development.

The final volume proposed in this thesis is the result of tests and the idea of a building prioritizing the long-term treatment conveyed inside. It responds to sites, program, functions, light, theory, and relation to nature.

Program.

Approx. Square meters from the program allow for the building to be on one level. This is more functional, sustainable, and economical.

Nature core.

Considering the sites' busy location, aim of the project and theory takeaways, a courtyard is implemented.

Reshape for light and site.

To better meet the path of the sun. Hence, reduce rooms with either dark north or highly sun exposed south facing the proportions are shifted. Furthermore, this reshaping is better following the sites' qualities and preserving exisiting trees.

Floor plan concept and circulation.

All rooms in facade to maximize light intake and allow for a circulation around the courtyard. Clear sighlines improve orientation.

Break facade lenght.

To scale down the size of the building and create a more of a varied architectural language the volume is shifted.

Heart room.

Social core with access to all parts of the center. The space is surrounded by nature and light.

Social rooms.

To make its social potential of this center, the main social rooms are consciously placed in the courtyard, in contrast to the treatment and consultation rooms. This also helps break up the length of corridors and create a more playful courtyard design.

Expressions.

To create a building that visually both connects to its surroundings but also mirrors its purpose a playful roof variation of the traditional and recurring design is implemented.

Materiality and atmosphere.

Light and visual connection to nature.

Biophilic design and evidence-based design highlights the importance of integrating nature and daylight in the built environment to support health and function. Studies show how daylight and visual connection to nature reduce stress and increase wellbeing. (Browning & Ryan, 2020) Light also has a central role in navigation and orienting in a building. Clear daylight openings and variation in levels of lighting help convey rooms with spatial connections and ways of movements in the building. Daylight acts as a natural guidance and creates hierarchy between different zones of the building, which makes the inhabitation of each area more intuitive. (Aries et al., 2015)

To achieve this all rooms, have access to daylight and visual connection to the outside. The visitors are throughout the visit moving through the heartroom and corridors glazed to the outside into consultation, treatment or other rooms, all equipped with large windows providing natural daylight.

Colors and shapes.

Colors and shapes play a vital role in the design of healthcare settings and heavily affect the users' stress levels, sense of comfort, and illness perception. Within the theories of biophilic and evidence-based design, nature inspired colors such as blue, greens, and earth tones are often used due to their associations to nature and are therefore proven to provide calmness and reduce anxiety. Studies within healthcare specifically prove how blues and greens specifically can reduce stress levels and create a more relaxed environment compared to strong or cold clinically linked colors. (Simonsen et al. 2022)

The color scheme and material shifts can be used as a strategic way of supporting orientation and navigation in the building. Research indicates how color coding in healthcare environments simplifies wayfinding and reduces cognitive overload. In a diabetes center, where visitors are recurring, it is especially fitting to incorporate calm and nature-based colors in patient areas such as waiting room and consultation rooms, this to support, move away from the clinical color scheme and provide calmness. Meanwhile, warmer colors such as yellows and oranges can provide energy and support for the staff. Together, these color schemes separate the sections, which according to Susanna von Eyben (2026) is beneficial.

Based on these main materials including wood, stone and glass aim to provide connection to nature, come across as permanent rather than temporary and reduce clinical impressions which affect the illness perception. With respect to the clinical regulations of this project, the flooring, walls and textiles beyond the heart room are choosen considering these guidelines. The color palette of these elements is carefully chosen to convey a feeling like previously mentioned materials, but with appropriate materials. As stated by Susanna Von Eyben (2026), when your design elements and their materiality are limited, what they convey plays an even bigger role.

The building - Where materiality, colors and views to nature come together and create a beneficial visit.
In the visitor's corridor, the focus is directed towards the courtyard and end of the corridor. These elements act both as distractions and for navigation. The variations in materiality and colors are visible here.

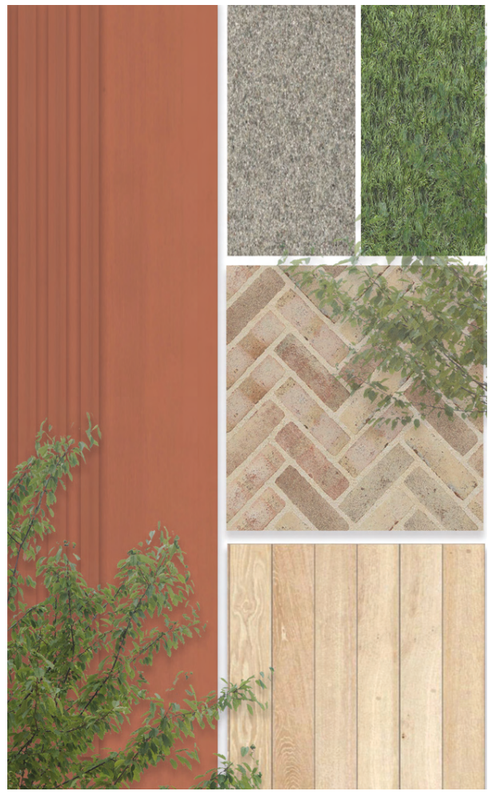
Fig. 49. Visitors corridor of the diabetes center.
(Authors own work)

Material Palettes.

RECYCLED ALUMINIUM FACADE PANELS

TREE PLANTING

Suitable for the climate in Uppsala.



GRAVEL

GRASS

RECYCLED BRICK PAVEMENT

ASH WOODEN PANELS

Exterior.

Fig. 50. Exterior materials collage.
(Author's own composition based on reference images from Architexture,2026)

ASH WOOD

GREENERY

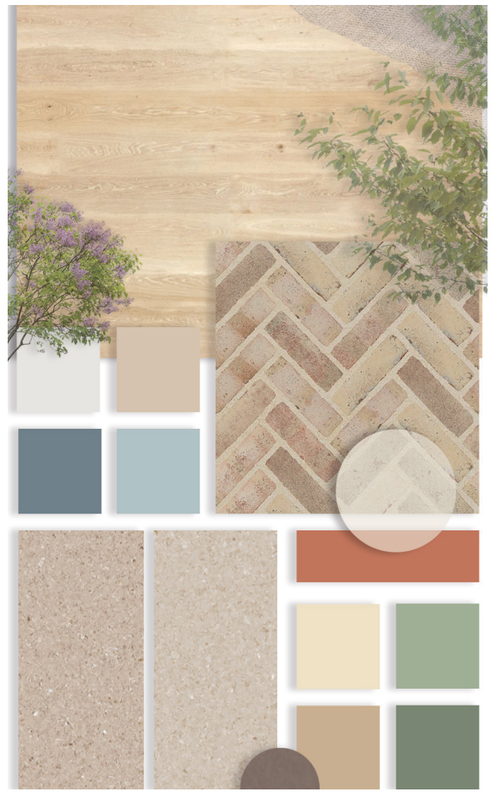
Suitable for indoor climate.

COLORS IN EXAMINATION / TREATMENT

Calming and benefitial for users wellbeing.

FLOORING

Suitable for spaces of higher hygien demand.



FABRIC

In suitable areas, to soften the spaces.

RECYCLED BRICK FLOORING

COLORS IN COMMON AREAS

Connecting to nature and energizing.

Interior.

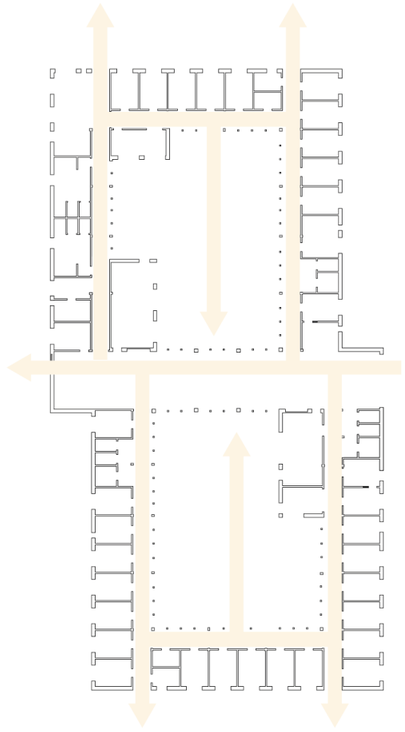
Fig. 51. Interior materials collage.
(Author's own composition based on reference images from Architexture,2026)

Concept and strategies.

Navigation and orientation.

SIGHTLINES

In the end of each corridor and main social core large ceiling to floor windows are placed to provide guidance, view and light for its users. All movements are made along the glazed corridor, making the courtyard visual guidance. The transparency of the building allows for views from one end to another, while the distances create a sense of privacy. Seen but not exposed.



Functions.

CONSULTATION

TREATMENT

CONVERSATION

FLEXIBLE USAGE

STAFF

TECHNICAL

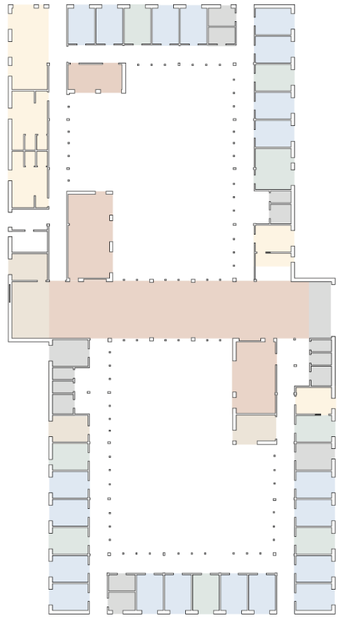


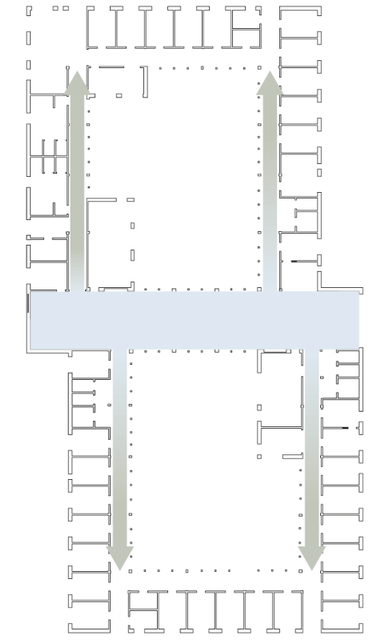
Fig. 53- 56. Concept diagrams.
(Authors own work)

Social gradient.

PRIVATE

PUBLIC

The heart room acts as social core of the building. Flex rooms and other rooms of social character are linked to this room.



Permanent design elements.

SITTING NICHE IN WALL

Sitting niche in contrasting color. Forrest green.

RASTER

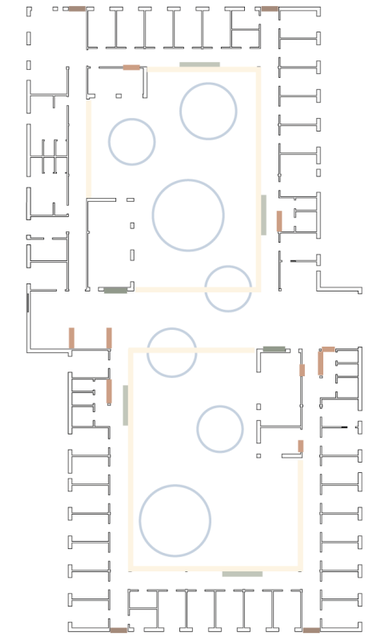
Ash wood.

FLOOR TO CEILING WINDOW WITH FIRE EXIT

GLAZED WINDOWS

"DIABETES CIRCLES"

Same brick as in flooring, containing flowers and planted greenery.



Uppsala Diabetes Center - Where a visit is more than just a must.
The building balances an architectural language that both connects to its surroundings but also stands out as a freestanding building and center of its own. When approaching the building, the feelings should be positive and hopeful.

Fig. 57. Entrance of the diabetes center.
(Authors own work)

Today most diabetes clinics require you to move through the hospital to reach the clinic. In contrast, this freestanding building with entrance facing away from the main hospital area aims at reducing that sense of increased illness perception.

In Uppsala Diabetescenter all functions related to diabetes care are gathered in one space, for convenience and safety.

"A well-designed center dedicated to diabetes would signal to its users that we are to be well taken care of." (Woman with diabetes of 12 years. Personal communication. September 2025)

The center aims at showcasing how a professional environment can strengthen the impression of the professional care given.

Project on site.

Relation to surrounding

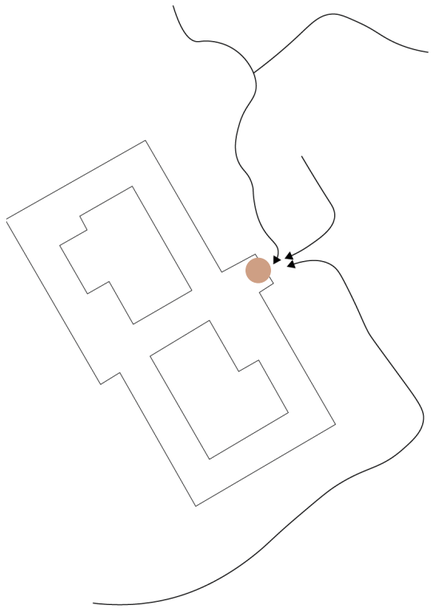
The diabetes center connects to a larger system of buildings in the area of Akademiska Sjukhuset. The low-rise building acts as a softer transition from city to hospital scale, with a recognizable architecture. The building features a main entrance to the east and a staff entrance to the west. The concept of the sheltered core and transition from a busy outside to calm and supportive inside start already from when the visitor first enters the plot and its greenery.

Access

The centers main entrance is located to the east, facing Stadsträdgården. The majority of the visitors arrive from this directed by public transport. Visitors arriving by car have parking 200 meters away in a newly built parking garage. Additionally handicap parking and a drop and go zone are added in front of the main entrance. All current pedestrian routes and car roads are kept around the site, maintaining the functioning planning.

Green border

The nature on site acts as a natural visual and physical border between the pedestrian road, the traffic and the building. Greenery not only helps shield people looking in, but also a visual connection to nature from the inside. The majority of the existing trees on site have been kept.



ACCESS TO MAIN ENTRANCE

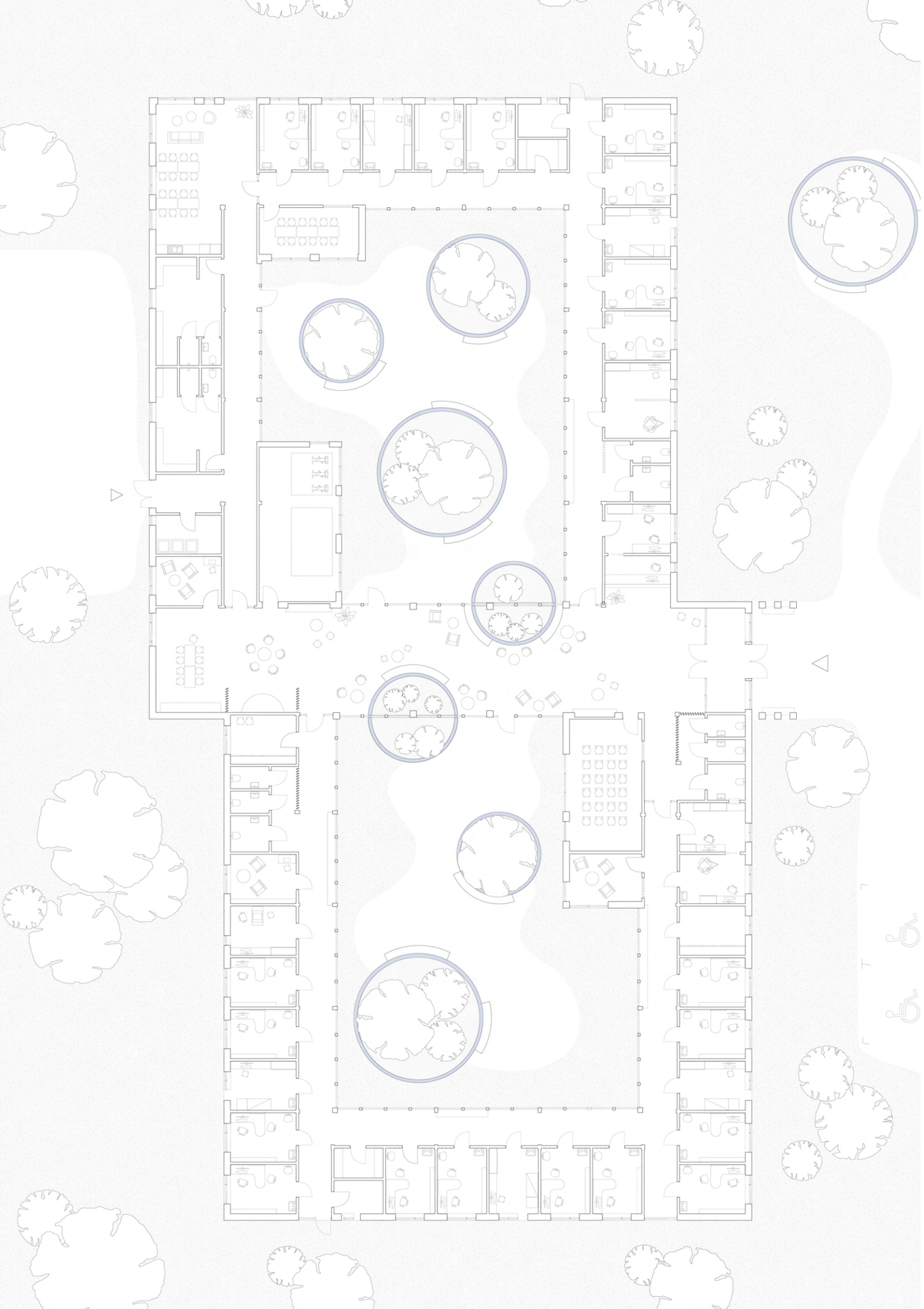
GREEN BORDER

Fig. 58, 59. Building on site diagrams.
(Authors own work)

Fig. 60. Siteplan.
(Authors own work)

The plan.

a.	Reception	l.	Flex room
b.	Back office	m.	Workshop kitchen
c.	Heart room	n.	Mini cafe
d.	Courtyards	o.	Staff room
e.	Consultation room	p.	Changing room
f.	Examination room	q.	Recycling
g.	Dietician	r.	Medicine room / storage
h.	Foot treatment room	s.	Technical room
i.	Eye examination room	t.	Sampling
j.	Physiologist	u.	Analysis room
k.	Gym		



1 : 250

10 m

Fig. 61. Plan.
(Authors own work)

Heart room.

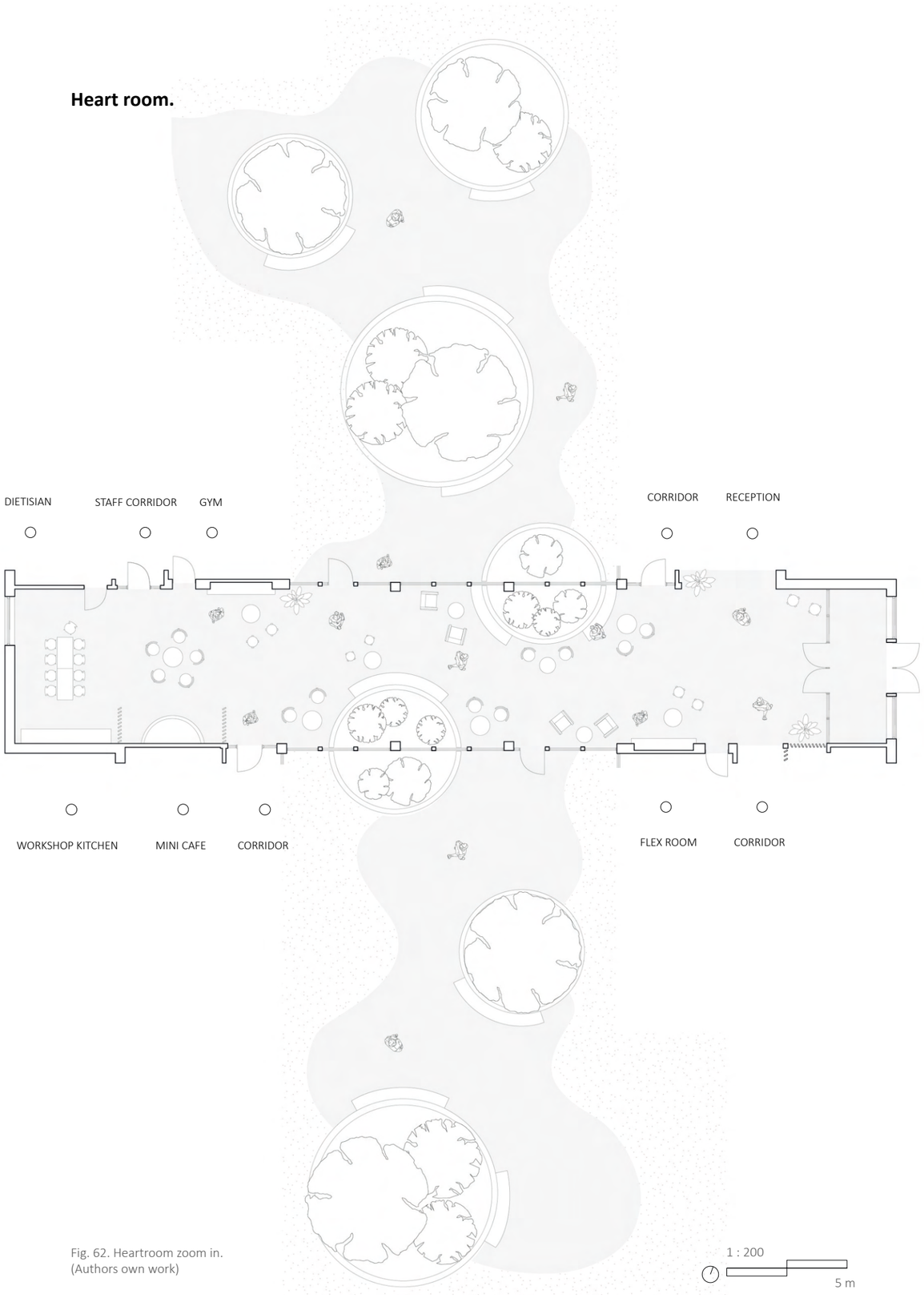


Fig. 62. Heartroom zoom in.
(Authors own work)

Heart room - Where nature moves through the space and waiting is beneficial.
The heart room presents options for its visitors to choose their own journey based on their wants and needs. Variety of seating, directed towards nature, allow for a lifeful space, aiming to move away from the clinical aspect of today's waiting rooms.

Fig. 63. Heart room of the diabetes center.
(Authors own work)

Consultation room - Where conversations lead to improvements.
In this room, the aim is to have a warm space that allows for relaxed conversations. Examinations are made in another room, allowing this room to feel safe space focused on conversation. Large screens enhance the clear conversation between staff and visitors while high light intake, views to nature and choice of materiality make the room a comfortable workplace throughout the day.

Fig. 64. Consultation room of the diabetes center.
(Authors own work)

Rooms.

Room for conversation.

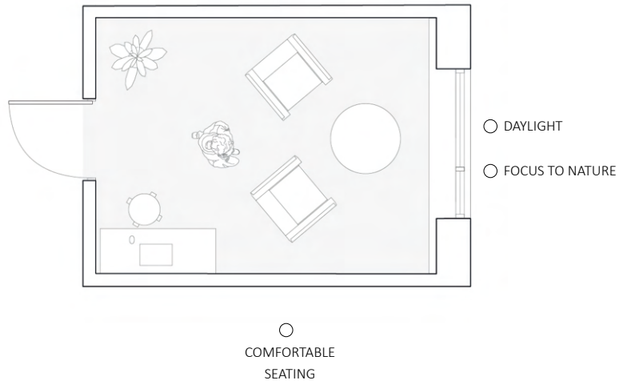
For the rooms where conversation and guidance such as the psychologist and dietician, the project proposes a casual seating where the focus is directed towards the outside and intimate conversations. These rooms are aimed to feel furthest possible from the clinical setting, and these functions should not have to convey these activities in rooms of a more clinical profile.

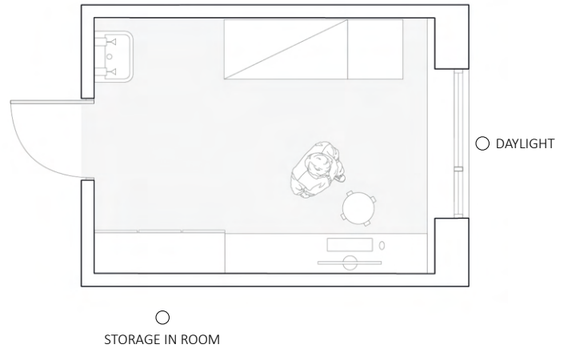
Room for treatment.

To reduce the illness perception during standard center visits examinations are to be conducted in a seperate room. Color choice, light intake, and materials aim to convey a calming atmosphere.

Room for consultation.

The rooms for consulation used by nurses and doctors aim to provide an atmosphere and space that conveys safety to both the staff and its visitors. Equipment that simplifies clarity and changes regarding the treatment are prioritized and found here. Supportive materiality, views to nature and high levels of daylight aim at providing a room is appreciated both by staff and its visitors.





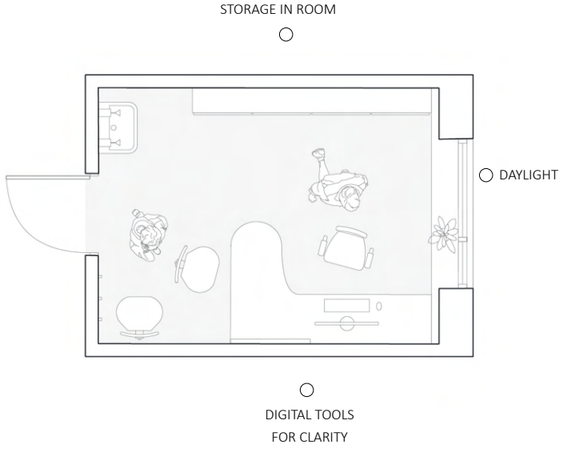
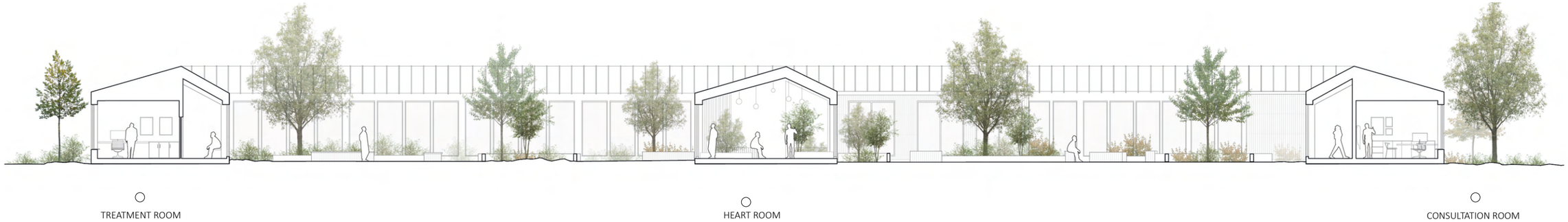


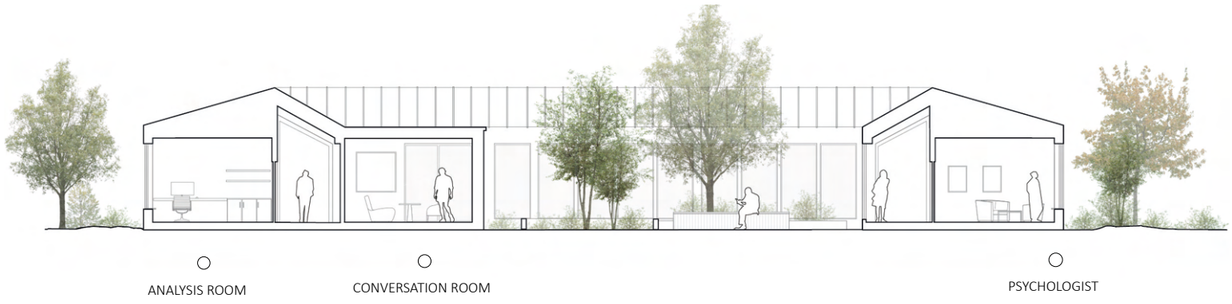
Fig. 65. Zoom ins of rooms.
(Authors own work)

1 : 75
2 m

Sections.



Section A.



Section B.

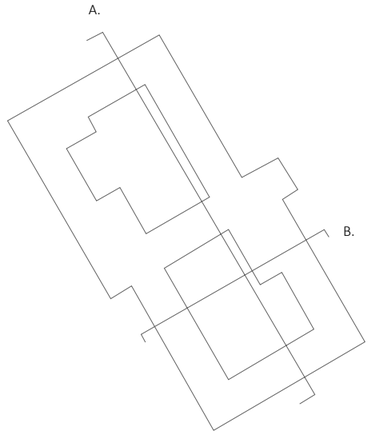


Fig. 67, 68. Sections through building. (Authors own work)

1 : 250

10 m

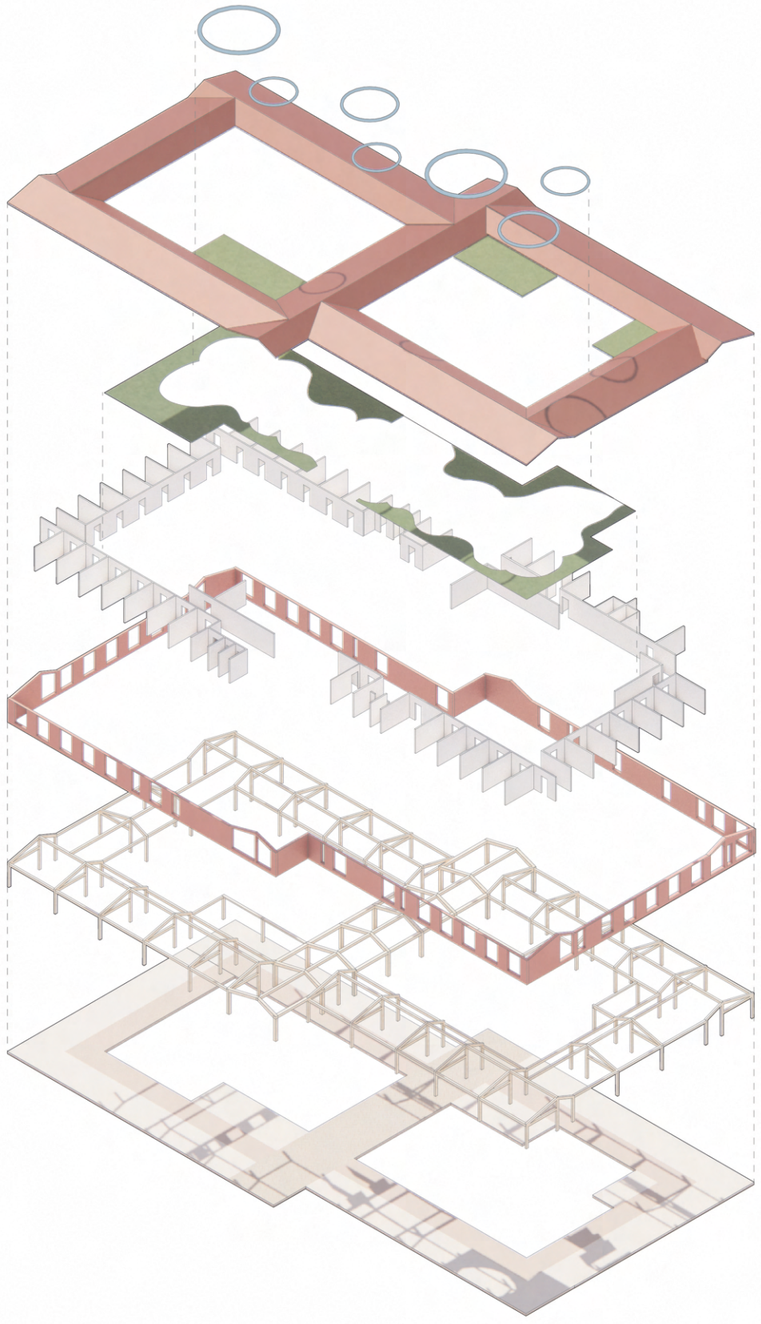


Fig. 69. Axonometry of main elements in the building.
(Authors own work)

Key elements.

Diabetes circles.

A subtle detail of the design represents the users of the building. The symbols of diabetes, blue circles, are incorporated into the landscape design.

Roof.

The aluminum roof acts as a seamless transition from exterior walls to roof. The classic pitched roof is shifted off center to create a modern silhouette while connecting to the surroundings. Recessed gutters are added to maintain the seamless appearance.

Courtyard grennery.

The design of the courtyard is a contrast to the logic grid of the building. Here, softer shapes dominate and soften the space. This consist of a balance between brick paved area, wilder meadow like greenery and framing circles with seating.

Inner walls.

Internal walls are moveable due the the grid of the structure. Color palettes avoid the typical clinical white.

Exterior outer shell.

Recycled aluminum facade panels are a suitable exterior material for healthcare buildings due to their durability and low maintenance requirements. The material is lightweight, yet strong, and can be prefabricated for efficient installation. Aluminum is also highly recyclable and provides a clean, modern appearance suitable for healthcare environments. (Ashby, 2016) The color can be adjusted to fit its settings and wanted expression. In the setting of this project, a warm toned red/orange color is chosen. Inspired by the recurring brick facades of the area, in combination with a color palette from preserved nearby hospital buildings, this color creates contrast and an identifiable building, while stil connecting to its surroundings.

Wooden construction.

Wood construction is increasingly used in healthcare buildings because it offers structural, environmental, and construction advantages. Cross-laminated timber (CLT) allows buildings to be constructed efficiently with high structural performance while significantly reducing carbon emissions. The timber elements can be prefabricated off-site, which shortens construction time, reduces waste, and minimizes disruption on hospital campuses. In addition, wood is lightweight, which reduces foundation loads and makes construction more efficient. Due to these benefits, timber construction is increasingly considered a viable and sustainable option for healthcare facilities. (Jarnerö et al., 2025) With consideration for the projects' scale and sustainability goals, this material is chosen for the construction.

Flooring.

Based on today's hygienic classifications the flooring of the center is chosen to be perceived as continues, but with slight changes to match the wanted atmosphere of the space. In the heart room and outdoor spaces, a warm toned recycled brick covers the floors, aimed to convey a non-clinical impression and continuous expression from inside to outside. Meanwhile corridors and all rooms of higher clinical classification than the heart room is designed with a modern resilient vinyl flooring.

The three levels of flexibility.

To provide a building that is future-proofed and can reflect upon the future changes in care the building considers flexibility in three layers.

Flexibility in the opportunity to close off.

The functions and layout of the building allow for different parts to be facilitated in different ways. Through being able to close off certain parts, while maintaining access to all social flex and staff areas, the buildings allow for usage beyond the regular operating hours during the day. The potential additional usage could be:
- Providing extended openings hours and having half the clinic closed off.
- Only heart room and social rooms are open for workshops or lectures.
- Potential to facilitate other day care and other non-communicative diseases requiring similar treatment in case of future shifts in usage and demands.

Flexibility in the opportunity to respond to changes.

The construction grid of the building allows for internal walls to be moved. The healthcare system is part of a high paced development, and changes in the treatment structure might occur. At the same time diabetes is currently uncurable and requires life long treatment – supporting the need of a building that can age and adjust to changes. The construction allows for rooms to change size, without the need for full reconstruction.

Flexibility in the opportunity to shift the interior.

The room sizes are optimized at 12 sqm to fit a variety of functions. With daylight in all rooms there is a potential to refurbish the rooms in case of shifts in rooms needed. For example, from consultation room to administration rooms or examination room to conversation room. The current plan reflects today's needs and wishes.

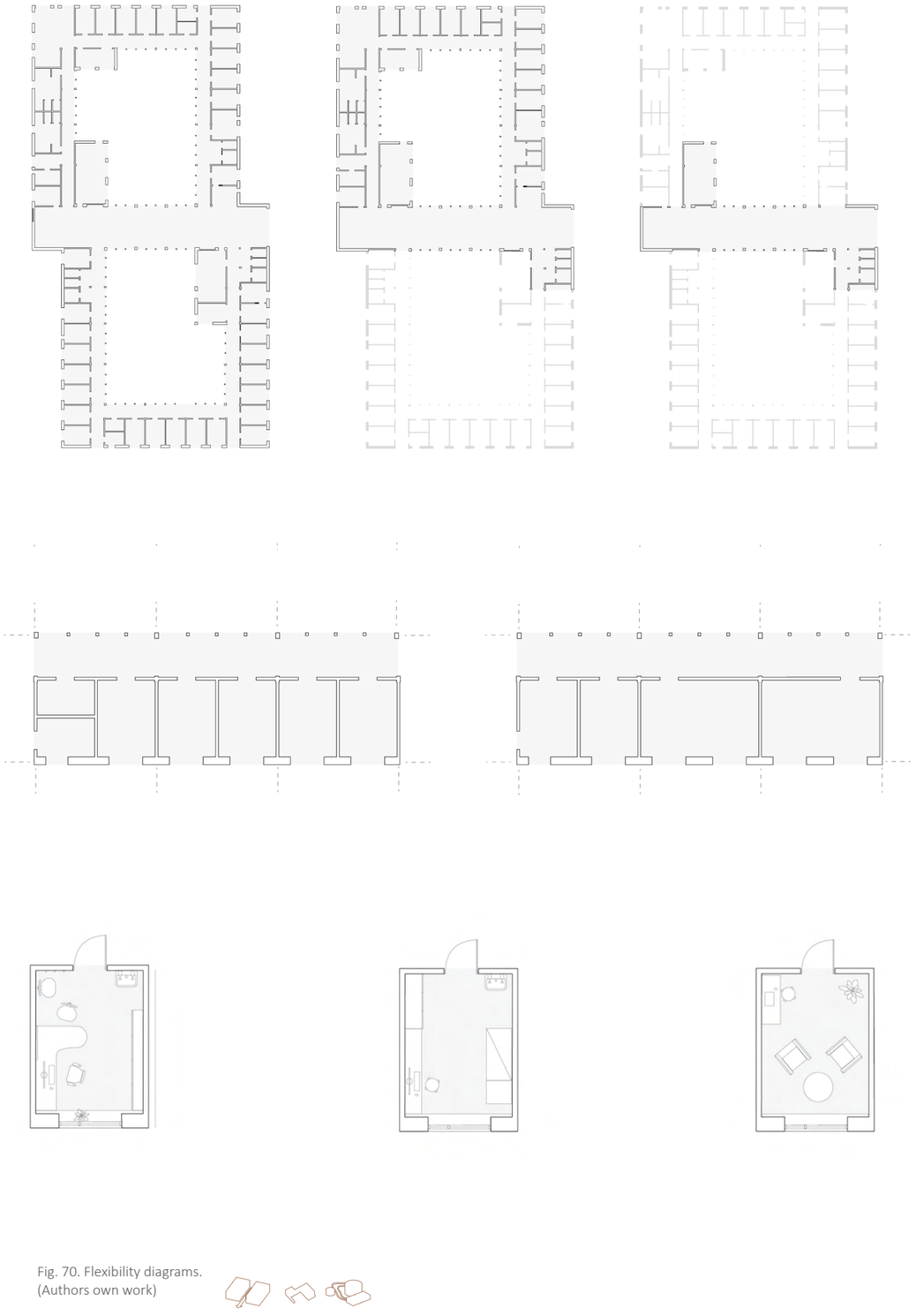
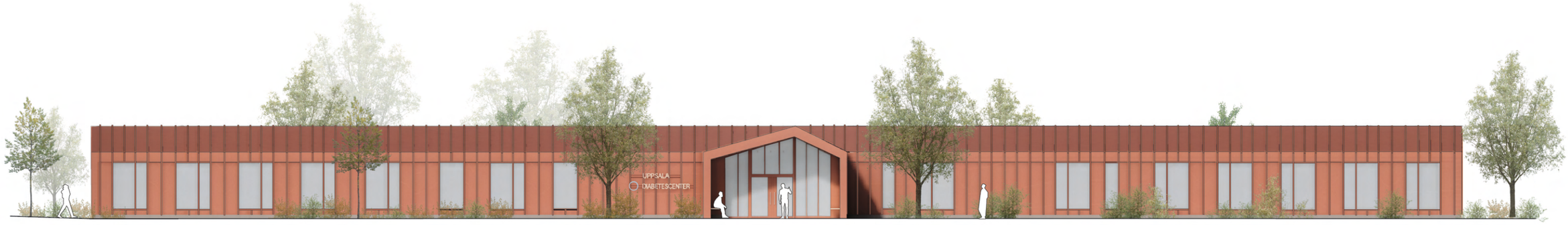


Fig. 70. Flexibility diagrams.
(Authors own work)

South facade.

West facade.



East facade.

1 : 250

10 m

Fig. 71- 73. Facades.
(Authors own work)

STAFF ENTRANCE

MAIN ENTRANCE

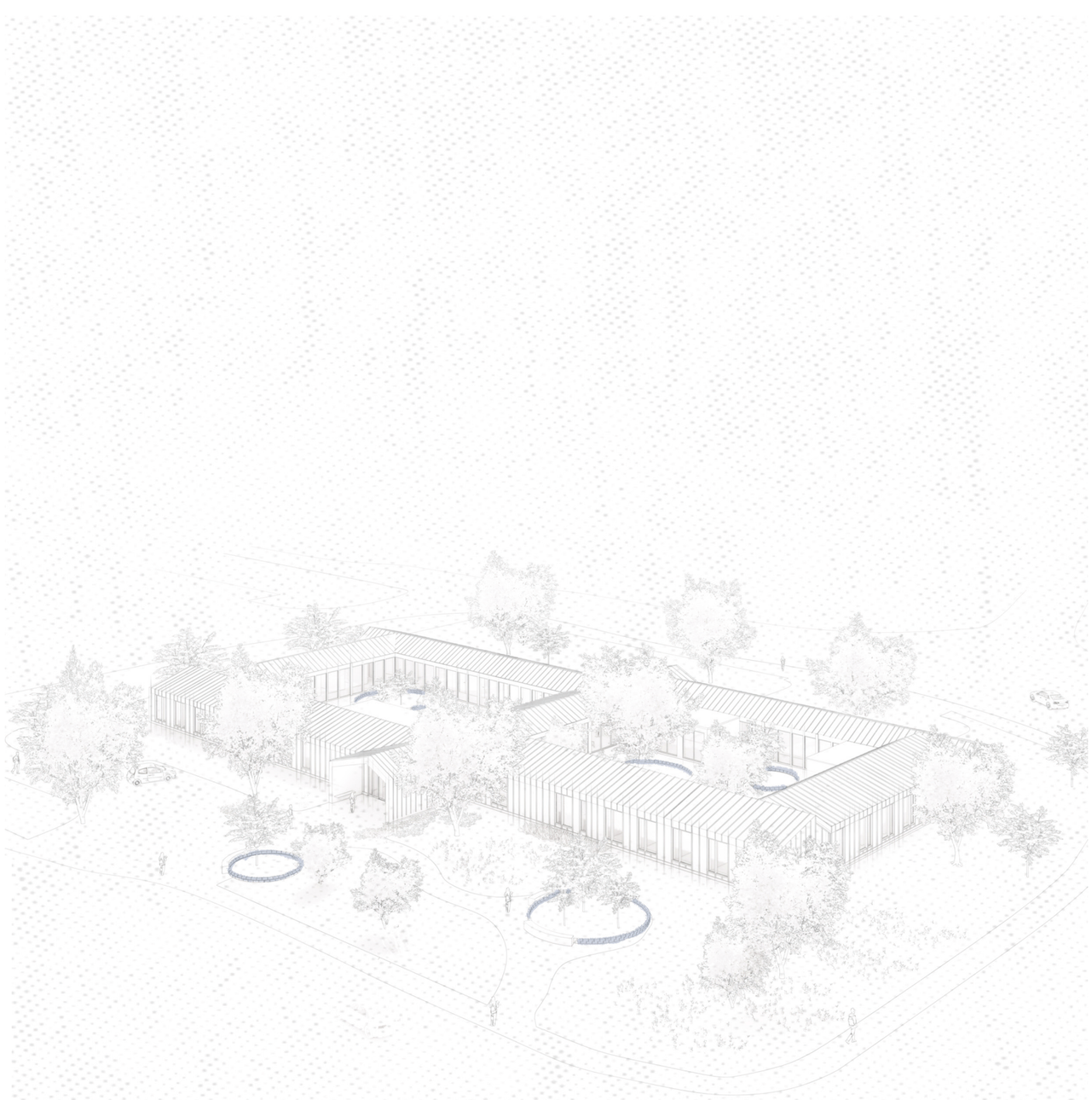


Fig. 74. Visualisation of Center.
(Authors own work)

Discussion - Application of design qualities.

Earlier in this thesis, all reference projects and current clinics were analyzed based on certain design qualities. These allow for takeaways regarding what functions, what does not, and what well-functioning choices could be implemented in this project. These have continuously been considered throughout the development of the design to create a center that presents the opportunities within each considered quality. Certain of these qualities have been discussed and described in further detail earlier in this thesis. The aim of the following page is to confirm the consideration of each identified important quality.

Spatial layout.

In the diabetes center, the concept of spatial layout focused on organizing spaces, so that patients, staff, education, treatment, and long-term care work smoothly together. The project aims at providing a clear but flexible visitors journey as mapped, education spaces as central features, specialized functions in one place and emotional comfort.

Wayfinding and navigation.

All navigation orients from the heart room with clear sight lines throughout the building and logic of rooms in facade to simplify orientation. Visits here are recurring, hence a balance of navigation through signs and color contrast are carefully considered and implemented in a subtle way to avoid the clinical feeling.

Flexibility.

As seen in featured diagrams of this thesis flexibility are considered on three levels to ensure long-term use of the center.

Public spaces and social zones.

The design aim at providing public spaces and social zones is not only designed for medical treatment but for interaction, waiting, education, relaxation, and community support. The social core of the heart room acts as a core where rooms of social qualities surround.

Sensory enrichment.

To achieve the reduced illness perception in the center an important quality is sensory enrichment. This required a design of the spaces that stimulate the senses to improve wellbeing and emotional experience. Main aspects considered when designing was related to the main quality is natural daylight, views to nature, indoor plants, warm materials, calming colors and varied textures.

Light.

Daylight is introduced through large windows in all rooms and courtyards with corridors surrounding; this creates a bright center that supports visibility, healing and orientation. During darker times of the year artificial softer light, as seen in the heart space, move away from the traditional clinical lightning often seen at today's clinics. The buildings' low profile allow for brighter courtyards and increased amounts of light intake, while still considering the climate control.

Color.

As patients visit this center over man years, color become a part of the overall healing and wellness experience. The colors chosen are based on identified theory takeaways to influence mood, orientate and feel welcoming.

Connection to nature.

Connecting to the main theories of biophilic design, healing environments and patient-centered architecture, nature incorporation in this building is a vital quality. In the center nature is not only a visual quality but a physical. Materiality, courtyards, and surrounding nature all contribute to the benefits related to stress reduction, healing, and relaxation.

Materials.

The material choices heavily affect if the building is perceived as clinical and cold or warm and welcoming. The choosen materials in this project are based on hygiene, comfort, durability, and emotional atmosphere.

Discussion - Application of strategies and tools.

The strategies and tools identified through theories, interviews and reference projects have guided the development of the design. The aim throughout the thesis was to continuously connect all decisions to these to make sure that the design is well grounded in the foundation of the project. It became clear how certain strategies and tools overlap and are heavily connected to each other, making decisions related to these more well-grounded and motivated.

Strategic placement.

The placement of the project fulfills the identified criteria's based on the research. It achieves the aspect of convenience of being on hospital campus and reduced illness perception that is beneficial to its placement.

Central node.

This strategy has been one of the main focuses of this project. The so-called heart room functions as a main node of the building that leads to all other functions within the center. The development of touched upon subjects about how space should be developed from a user's point of view. What qualities should this space present? How does one balance the aspect of social interactions and privacy in the main space of a diabetes center? Here the other strategies played a vital part in its final design. Nature incorporation has played a vital role in the development of design linked to the main

Nature incorperation.

Nature incorporation has played a vital role in the development of design linked to the main theories of this thesis. The identified tools within the strategy have been strategically put to work to achieve, what is according to theory and input from patients and staff, a calm atmosphere that's beneficial for its user's experience. Materiality, large courtyards for visual and physical connection to nature, and nature surrounding the building are the main applications of the strategy.

Functions supporting the expetations.

The identified functions and treatments related to diabetes care and management were conveyed into a program and a number of spaces that together allow for these activities to take place in the center, something that is missing today. Functions such as workshop kitchen and gym respond to activities that are considered important for the treatment, yet these do not exist in the context of the clinics today.

Permanent rather than temporary.

One of the harder strategies to apply in this project is the idea of permanent rather than temporary. The final result after discussion and development more of touch upon how a center that contains the correct functions and spaces fitting for the treatment, conveys a more permanent and safe impression.

Social oppertunities.

Confirmed in the project is that the social opportunities strategy should remain to be heavily focused on opportunities and not create spaces that force these interactions. The visitor should be the one in charge of choosing their journey and reflect on their wants and needs, in an environment that can support a more introverted or extroverted visit.

Target group design.

The aspect of target group design heavily reflects the functions of the building and ages of the users. The opportunity to choose your journey within a visit hopes to present a level of independence or support that the users require.

The blue diabetes circle incorporated in this project is a subtle but meaningful symbolic detail.

Calming atmosphere.

Colors, shapes and materiality are chosen based on takeaways from theory. The balance between center appropriate and the idea of homeliness created functional spaces that does imply how small changes in colors and materials can make a big difference in how these spaces are perceived. The aim was always to find tools and changes from today's design that reduce illness perception and clinical impression.

Human centered spatial design.

Clear navigation, appropriately sized rooms, and intuitive layouts was of heavy focus in the design. These aspects make the environment easy to understand and move through and comfortable to inhabit. The focus is to support independence, create a sense of control, which is especially important for patients with long-term conditions.

Discussion - Research Questions.

Main Question:

How can user-centered design in diabetic centers reduce loneliness and illness perception?

User-centered design in this thesis draws on knowledge from environmental psychology, healthcare design, and participatory design to address both loneliness and illness perception through spatial and social organization. Rather than functioning as a purely clinical facility, the diabetic center in this project is framed as a hybrid environment where care, learning, and social interactions overlap.

Loneliness is addressed through spatial configurations that enable co-presence and informal interaction. Interactions are not demanded, but gently encouraged through adjacency, visual connections through the building, and overlapping zones. A central, the so-called "heart room", acts as the core of the center, with all communal functions of social characteristics connected to it.

Providing choice is a key principle in the project to reinforce independence in care. By offering different spatial conditions, the design supports independence for its long-term users and signals trust in the user's ability to navigate their own care process. At the same time, gathering all functions within one building strengthens orientation and contributes to a sense of safety by reducing unoptimized fragments like treatment.

Reduced illness perception is shaped through biophilic, healing, and therapeutic design principles, where spatial atmosphere influences wellbeing and spatial awareness. More domestic and non-institutional qualities reduce the dominance of impressions that strengthen the illness perception, evident in today's studied clinics.

Overall, the key components creating the user-centered design in this project are applied as a mix of theories and takeaways from research that shape experience through spatial relationships rather than imposed behavior. The design creates opportunities for encounters, anchored by a social heart, balanced with choices of journeys, and supported through a coherent design that aims at contributing to the well-being of its visitors.

Sub Questions:

How can spaces, materiality, and colors impact the well-being of patients in these specialized outpatient centers?

The proposed diabetes center differentiates from today's diabetes clinics in many ways. Here is the aim of conveying a building that is prioritizing the users through also prioritize the spaces aimed for its purpose. Visitors' wellbeing and experiences are of heavy focus and supported in their design by the concepts of efficiency, futureproofing and medical functions. Many current outpatient centers are characterized by standardized and institutional environments, whereas this project uses showcase the opportunities of these centers when using space, materiality, and color to create a more human-centered, safe, and supportive healthcare environment.

Sub Questions:

The spatial design of the center contributes to orientation, calmness, and a sense of control through clear circulation, access to daylight, and visual connections to nature. Materiality and color are used to reduce today's evident clinical atmosphere and instead create a warm and welcoming environment that supports the patient's emotional and psychological well-being as a recurring visitor.

The project also differs through its emphasis on flexibility while maintaining the idea of specialization. The architecture is fundamentally general and adaptable in order to accommodate future changes in healthcare and treatment methods. Despite this, the building still aims at conveying a strong sense of specialized care, focused on its users, through the functions and environments integrated into the design. Spaces for education, counseling, social interaction, and recovery create a healthcare environment tailored to the specific needs of diabetes care. The specialization is therefore expressed not primarily through a strong formal identity and specific architecture, but through the way the architecture functions and is experienced in use. The combination of flexible structures and designed environments for its users creates an architecture that supports both healthcare processes and the long-term well-being of its visitors.

As found, a lot of this insight regarding theories of how color, material, and nature affect us is already present in the research within healthcare architecture. However, this project emphasizes how all types of environments benefit from these applications and should not be forgotten or deprioritized. Diabetes type one is, at this point, a lifelong disease that requires lifelong treatments and visits, and that deserves an optimal environment.

How can the findings in theory and case studies be translated into a toolbox?

Theories, case studies, and reference projects were used as active tools to develop the architectural proposal for the Diabetes Center. The recurring design qualities within healthcare architecture, for example orientation, access to nature, flexibility and balance between public and private, allowed the research to be conveyed to a number of strategies and tools applied.

The current clinics and reference projects were analyzed and compared according to a certain number of design qualities identified in theory. This research enabled the possibility to identify not only specific established tools but also patterns and principles. What works, what does not, what could be improved, what is lacking, and what is wished for were some of the questions that this analysis helped answer. The toolbox therefore became a mediator of theory, analysis, and architectural analysis that supported the application of design principles.

At the same time, the translation from theory to architecture is always based on interpretation and preferences. The final proposal is therefore shaped not only by the analysis, but also by context, spatial considerations, and the specific needs of the project. The concept itself of the multi method approach, that the toolbox builds upon, emphasizes the importance of grounding the project not only in theory but also understanding the users wishes and needs**.**

Conclusions.

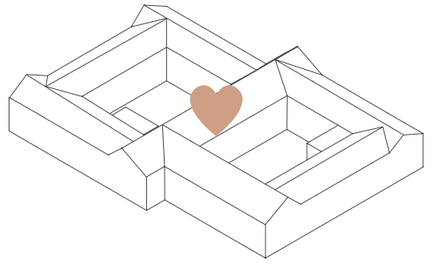
Healthcare architecture is a complex field that requires continuous prioritization, even if we would like it not to occur. Aspects such as clinical efficiency, economic constraints, and spatial quality are a few of those topics in focus. Despite these competing demands, this thesis emphasizes how the foundation of any healthcare design must remain grounded in the user's lived experience, ensuring that care environments support dignity, well-being, and accessibility in practice, not only in theory.

This type of project is also particularly challenging within the current healthcare system, where economic limitations and organizational structures in Sweden, in contrast to for example, Denmark, significantly influence what is possible to realize. These conditions often require compromises that affect both spatial quality and the level of specialization that can be achieved.

Within this context and after conducting this thesis, the idea of specialized and generalized healthcare environments becomes less about fixed architectural solutions and more about establishing a well-functioning and adaptable spatial framework. This contributes to the idea of the specialized care wanted, through providing the spaces essential for the functioning of care and beyond, supported by colors, shapes and nature that have proven to be beneficial for its users.

Ultimately, this thesis aims to demonstrate the possibilities within healthcare architecture, particularly in relation to conditions that are often overlooked. Type one Diabetes is frequently situated in non-optimized and generic hospital spaces. This project highlights the need for recognizing its complexity and importance, and for providing it with professional spatial conditions that reflect the professional care of the disease.

Lastly, I hope this project shows how spaces designed for its users can create a beneficial visit in more ways than one.



Appendix.

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Figures.

Figure. 5. Map of referance projects. Author's own composition based on reference images from Datawrapper. (2025). Map of Europe. Retrieved from https://app.datawrapper.de

Figure. 16. ELKS. (2016, May 6). Maggie's Centre, Oxford [Photograph]. Wikimedia Commons. https://commons.wikimedia.org/wiki/File:Maggie%27s_Centre,_Oxford.jpg

Figure. 50, 51. Material palettes. Author's own composition based on reference images from Architextures (2026) Retrieved from https://architextures.org/

All other figures are work by the author of this thesis.

AI.

As stated under Method AI have been used cautiously during the research phase to identify relevant architectural reference projects and suggest academic sources within the field of architecture. However, AI does not replace critical analysis, and all projects and sources have been reviewed and verified before incorporated in this thesis. For this Microsoft CoPilot have been used. This has also throughout the thesis with the prompt to shorten and summaries original text that previously has been written by the author of this thesis.

AI has been used within Microsoft Word to spell-check.

Photoshop Firefly for improving and editing visualizations in Photoshop.

Chaos AI Material generator for creating materials for visualizations in Enscape.

Interviews.

The following texts conclude the interviews and conversations carried out in this thesis. The format of these was varied from interview format to fluent conversations regarding the topic of the project. These three varied groups together formed a strong basis of knowledge and input vital in this project.

Anders Medin and Ebba Gordon Hultsjö.

During the site visit to Uppsala I got the opportunity to meet with Ebba and Anders from White Uppsala office. They are currently working on the development of Akademiska Sjukhuset with strong backgrounds in healthcare architecture.

The conversation focused on the ongoing development of Akademiska Sjukhuset and the broader challenges of healthcare architecture in Sweden, including decisions about what to preserve, reuse, or rebuild as parts of the hospital become outdated. With reflections regarding future proofing and freestanding healthcare buildings, their input was important in the early stages of concept design.

The conversation also reflected on recent additions such as the psychiatric center (2013) and Ingång 100/101 (2019), and how the dense hospital area and its surroundings can guide the thesis project in addressing real-life healthcare environments. Considering the dense traffic of the site, this conversation strengthened the idea of a sheltered core in the project.

Susanna Von Eyben.

During the meeting with Susanna, a primary introduction and reflections related to the project were discussed. The interview was carried out as a natural conversation with the initial point of conversation being her work as an interior architect specialized in healthcare environments as well as her work for the Drottning Silvias Barnsjukhus in Gothenburg. The aim of the interview was to get a foundation of knowledge and guidance regarding how interior choices impact the experience of its users. To start the conversation, a broad question was asked regarding what design strategies were used to make spaces feel welcoming and less “clinical” or sterile? This question sparked a conversation that reached and discussed a lot of different topics within the design of healthcare spaces. This included topics such as:

The possibility of contrasting the hard and cold impression of all metallic medical devices and how the architecture can act as a positive contrast. In hospital settings there will always be equipment, therefore the architecture itself should provide almost the opposite, warmth and safety.

Application of biophilic design. Susanna state how in the architecture we should “use what nature can give us”. Light, materiality, and greenery provide the user with a sense of safety and calmness.

How our usual sources of homeliness and warmth through interior, such as textiles, are very limited in healthcare settings. Due to clinical and safety reasons, healthcare settings are heavily regulated, therefore one must consider what few things are part of the space and what feeling these elements covey for its users.

The importance of understanding the use of colors and materials and what they relate its users to. In all choices the question of “what does this convey for its user?” should be considered. Even if certain materials, such as exposed wood, are not allowed to be used due to clinical reasons, one is able to apply the color scheme in which reminds the user of it.

Soft shapes give a safer and softer space. Not only do softer shapes reduce the risk of injuries but also cover a feeling of embrace.

Playfulness acts as a distraction and contrasts to the negative relation to healthcare settings. Details, art, and colors can create a more positive perception of space. Especially, as in the case of Drottning Silvias Barnsjukhus, when the main user group are children and their family’s playfulness and distractions have an aim of reducing the perception of illness and lighten the moods during visits and longer stays.

Variate staff to patient areas in design. To support the wellbeing of the staff, the design of staff and patient spaces should differ. This allows the staff to differentiate work from resting and recharging in a different environment than sometimes emotional and physically heavy work.

The importance of communication between the actors of a project. A recurring issue when wanting to achieve the best possible design outcomes of healthcare projects are the lack of understanding

Peter Adolfsson.

In the two-hour long conversation with Peter Adolfsson, we discussed topics ranging from functions and flows to today’s needs and challenges that come with managing type one diabetes.

The interview had a clear focus on understanding programming and flows from a professional’s point of view in diabetes care. Peter is well engaged in work related to the development of diabetes care and was therefore an important puzzle piece in the development of this project. He provided more specialized insight into how the spaces should be considered and what functions are needed actually linked to diabetes care, and not only in general healthcare settings. During the interview it became evident how young adults need better support in their care, and how the clinic plays an important role in this. We discussed how a center that is designed for its purpose not only will affect its visitors but also its everyday users, the staff.

Main take aways include:

How the resources are heavily reduced in the adult clinic compared to child and adolescent care. This might be the most significant cause in the feeling of being unsupported in the transition to adult care.

Simply because one is considered an adult in the world of care, does not mean the challenges of the disease disappear. There are many stages throughout life where extra care and guidance is needed. More resources and spaces

Designated rooms to work in throughout the day allow for a sense of safety for the staff and efficacy. Separating the consultation rooms from the examination creates rooms that convey a more positive atmosphere for staff and patients.

A welcome from a reception and clear navigation in the space both create a sense of warmth and comfort, but also independence.

The staff and the relation to the staff is important in diabetes care. The staff are not people that need to hidden away here. Staffs’ movements through spaces are not something that needs to be hidden away.

Having a space that you as a staff are comfortable with, with the necessary tools structured and stored well, is appreciated by the staff. Having to seek for the things to show wants to be avoided and as majority of the consultations circle around numbers and graphs, these should be clear and visible to the visitor on a large screen.

Klara Lindgren Freij.

Klara offered a guided tour of the current diabetes clinic in Uppsala. Today's clinic is located in one of the oldest buildings of the hospital, from 1912 and is a previous clinic for lung diseases. This clinic emphasizes the reflection of how diabetes clinics have a tendency to be located in ill-fitting spaces for its purposes.

During the visit we discussed flows, functions, and potential improvements to a diabetes clinic. Rooms without windows and outdated spaces create inefficiency and add to the increased feeling of sickness in spaces not aimed at the type of care. Views to nature, bright spaces and rooms actually designed for its purpose were on top of Klara and her collegues wishes.

The main take away from this visit was how a more purpose designed and aesthetic clinic would convey a more professional impression of the professional care the staff aim to provide there, something missing today. Klara also provided a basis for numbers regarding staff and patients that helped guide the program.

Type one diabetics.

The interviews with the patient group were conveyed in a mixed-use format where some were carried through as a conversation while others were made through a questionary. However, all formats originated from the following questions of discussion. Answers were then compared and compiled to provide a basis for input for this project.

- Name?

- Age?

- How many years since your diagnosis?

- Where do you live?

Rate the following questions from positive to negative on a scale of 1 through 10.

- I experience loneliness related to my diabetes

- I would appreciate more social meetings with other diabetics

- Ahead of a meeting i experience ____ feelings.

-What three words would you use to describe your relationship with your diabetes clinic? This relates to the design of the clinic and its functions.

-The design of the clinic contributes to a ____ feeling of the visit. Rate from positive to negative.

-Are there any functions you miss today?

-Do you have any special events that come to mind that are related to a visit and the design of the clinic?

- If you received your diagnosis before the age of 18, how did you experience the difference in design between the pedriatric clinic and the adult clinic?

Models.

Program 1 :250

Material samples.

Model of building 1: 400
+ color inspiration for facade

Exhibition.

Material palette.

BENEFICIAL VISITS

Master´s thesis 2026

Chalmers School of Architecture

Department of Architecture and Civil Engineering

Architecture and Urban Design

Profile: Healthcare and Housing Architecture

Author: Linnea Johansson

Examiner: Cristiana Caira

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