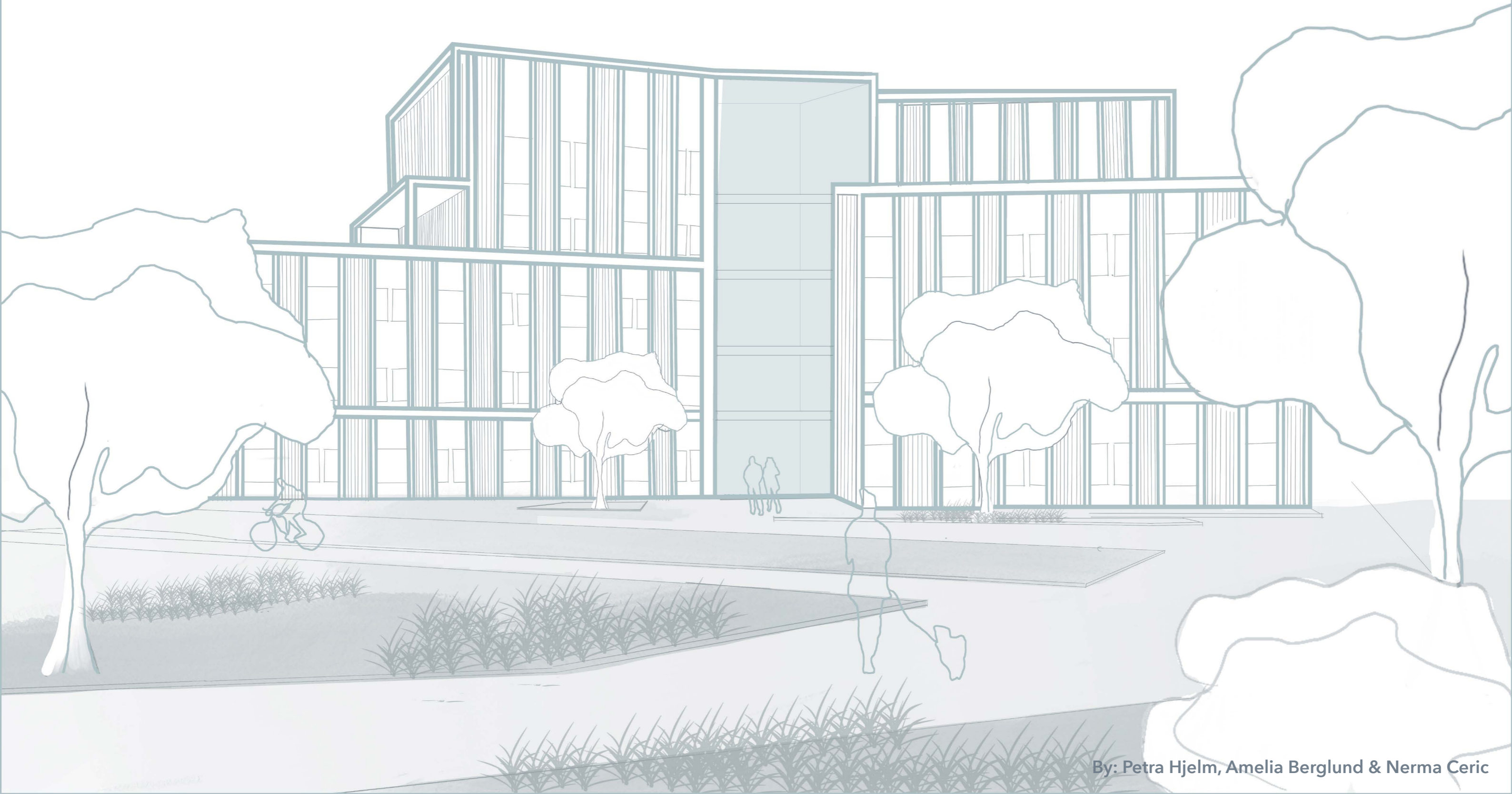


nya
LUNDBY NÄRSJUKHUS
core of care



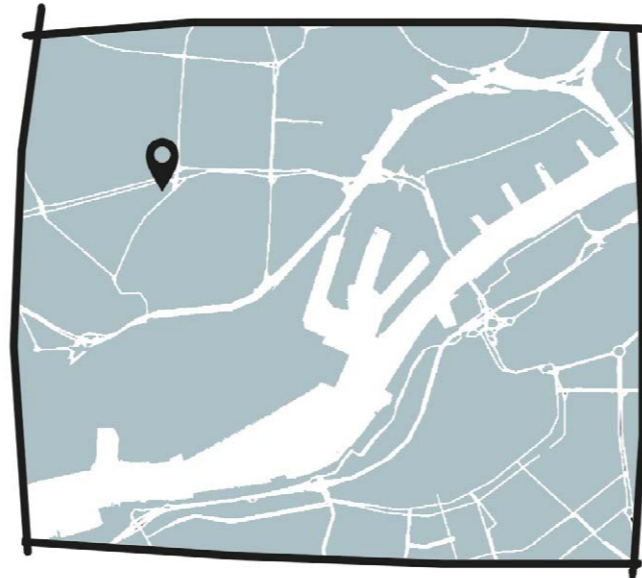
INTRODUCTION

TASK INTRODUCTION

The task is to create an urban outpatient hospital at Wiselgrensplatsen, Gothenburg, to create an attractive, sustainable, and welcoming building. The client of the project, Västfastigheter, is framing the task with a brief that will include a combination of specialist clinics, primary care, and other care-related facilities.

The focus of this project is to design an urban hospital that will give social, physical, and visual value to all users. It shall be innovative and challenge the existing ways of healthcare to promote patient-centered care. By combining new and traditional qualities in healthcare design, this project will focus on creating space where the physical work environment is healthy, and the connection between patient and staff is equal, human, and without strict barriers - This is the core of care.

The hospital will challenge the existing ways of healthcare to promote patient-centered care.



Wiselgrensplatsen, Göteborg

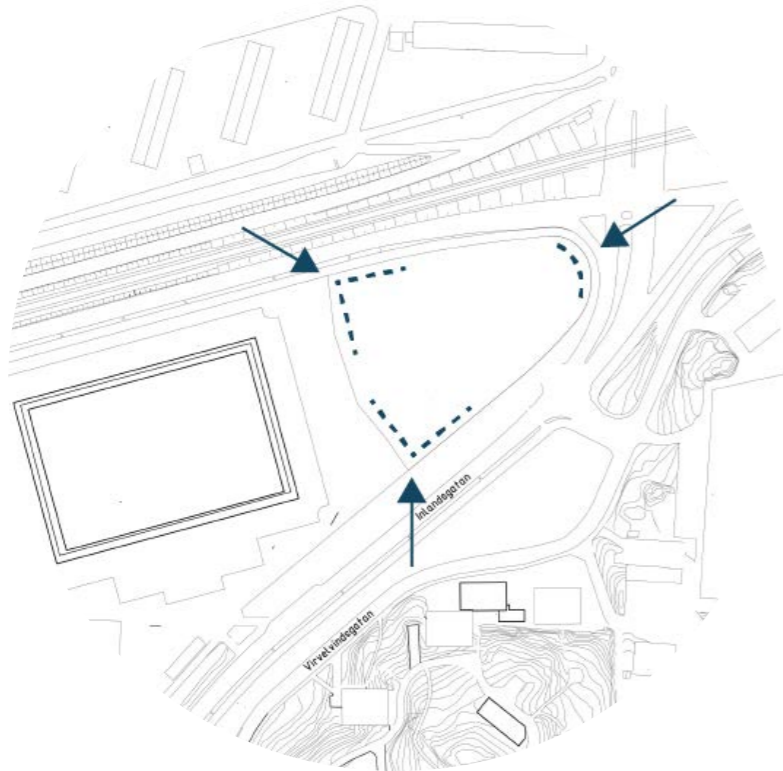


Wiselgrensplatsen, Göteborg

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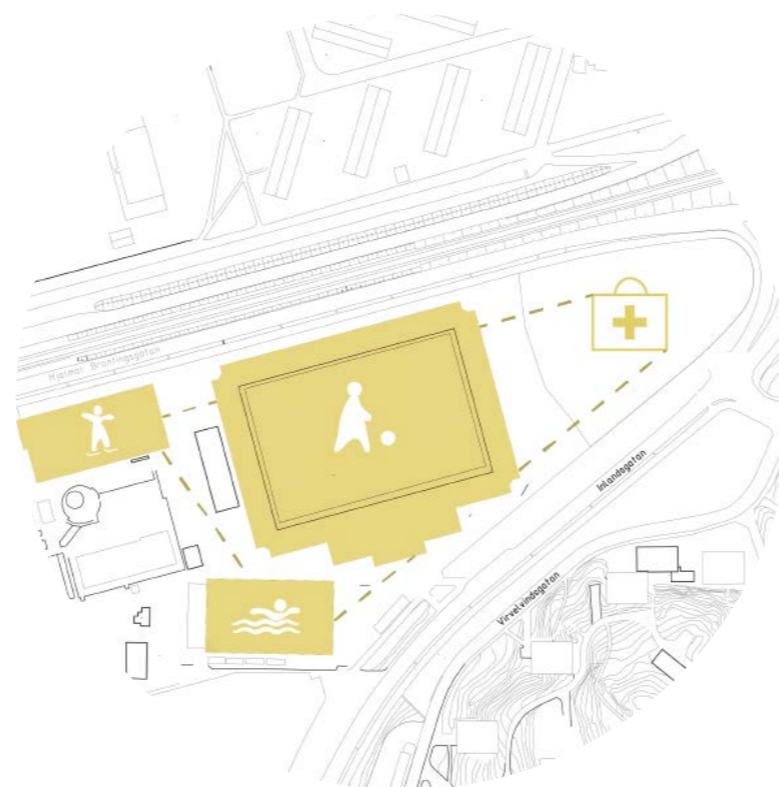
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Building strategies.....	2-3
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Site plan.....	5
Challenge the brief.....	6
Isometric	7
Mobility hub & basement.....	8
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SITE ANALYSIS



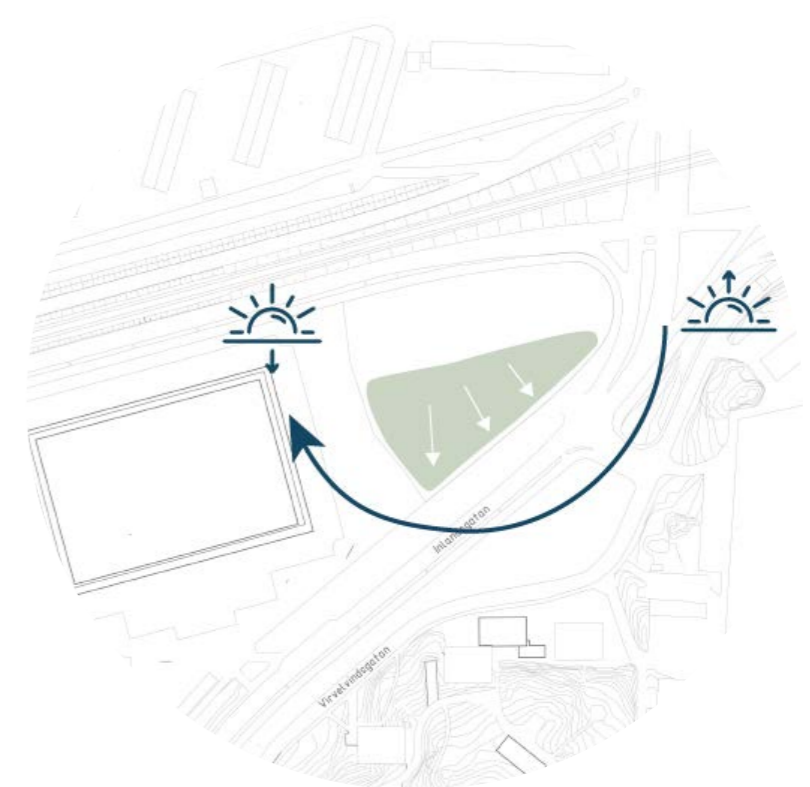
IMPORTANT VIEWPOINTS

- The low density of people coming from the south is creating unsafe and "dead" spots.
- The Entrance of the arena creates heavy flows of people passing Inlandsgatan during game days. This Creates opportunities for placing activities directed to Inlandsgatan.
- The arrows show important viewpoints of the building, These points should attract people to the site from different directions and make all sides of the building living.



FUNCTIONS OF SURROUNDING FACILITIES

- The site is connected to several sports facilities. It makes sense to continue the chain of sport and health identity by adding such qualities to the new hospital.



SUN AND GREENERY MAPPING

- The open site has no disturbing shadows from surrounding buildings which creates great opportunities for green spaces within the marked area.
- Possible balconies, green spaces, and public outside functions should be placed in consideration of the sun.

BUILDING STRATEGIES

SUSTAINABILITY & FUTURE PROOFING



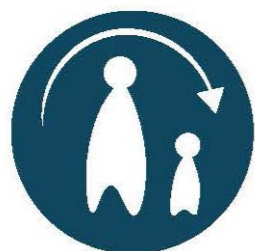
Take advantage of the rainwater

Preventing future flooding could be done by reforming the problem into an opportunity for an architectural element on the site.



Use mainly wood construction

80% of the building consists of low-tech functions. These areas can be constructed with more sustainable materials that will reduce the total CO2 emissions of the building.



Give social value to the community

The bottom floor functions and the surrounding environment should be used by both patients, visitors, and residents - undependable from the person's state of health.

SITE & CONTEXT



Create connection points

These points on the plot should promote an active space and make people slow down coming from different directions, creating a variety of values depending on the surrounding needs. It can be a facility, a place to sit down, or opportunities for activities.



Human scaled design

When you approach the building it should feel inviting and we will do it by making it human scale.



Increase green spaces

Create green rooftops and balconies that can be used as views from the hospital, a pleasant place that you as a patient or staff can go out on, and for the community health - wider the impact of the building.

BUILDING STRATEGIES

BRIEF & LOGISTICS



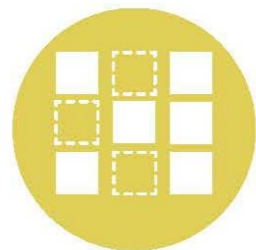
Healing work environment

A big part of our life is spent inside at our workplace - to increase the quality of life for the staff we want to create a time-efficient flow, adding space for coffee units and more space for between non-work related activities.



Floor plan for digital health

The floor plan should increase office space for doctors and nurses using apps. When more care is given outside of the hospital - the amount of booked consultation rooms will reduce building.



Flexible floorplan

The bottom floor functions and the surrounding environment should be used by both patients, visitors, and residents - undependable from the person's state of health.

HEALTH PROMOTION



Materials for wellbeing

These points on the plot should promote an active space and make people slow down coming from different directions, creating a variety of values depending on the surrounding needs. It can be a facility, a place to sit down, or opportunities for activities.



Promote sport and health

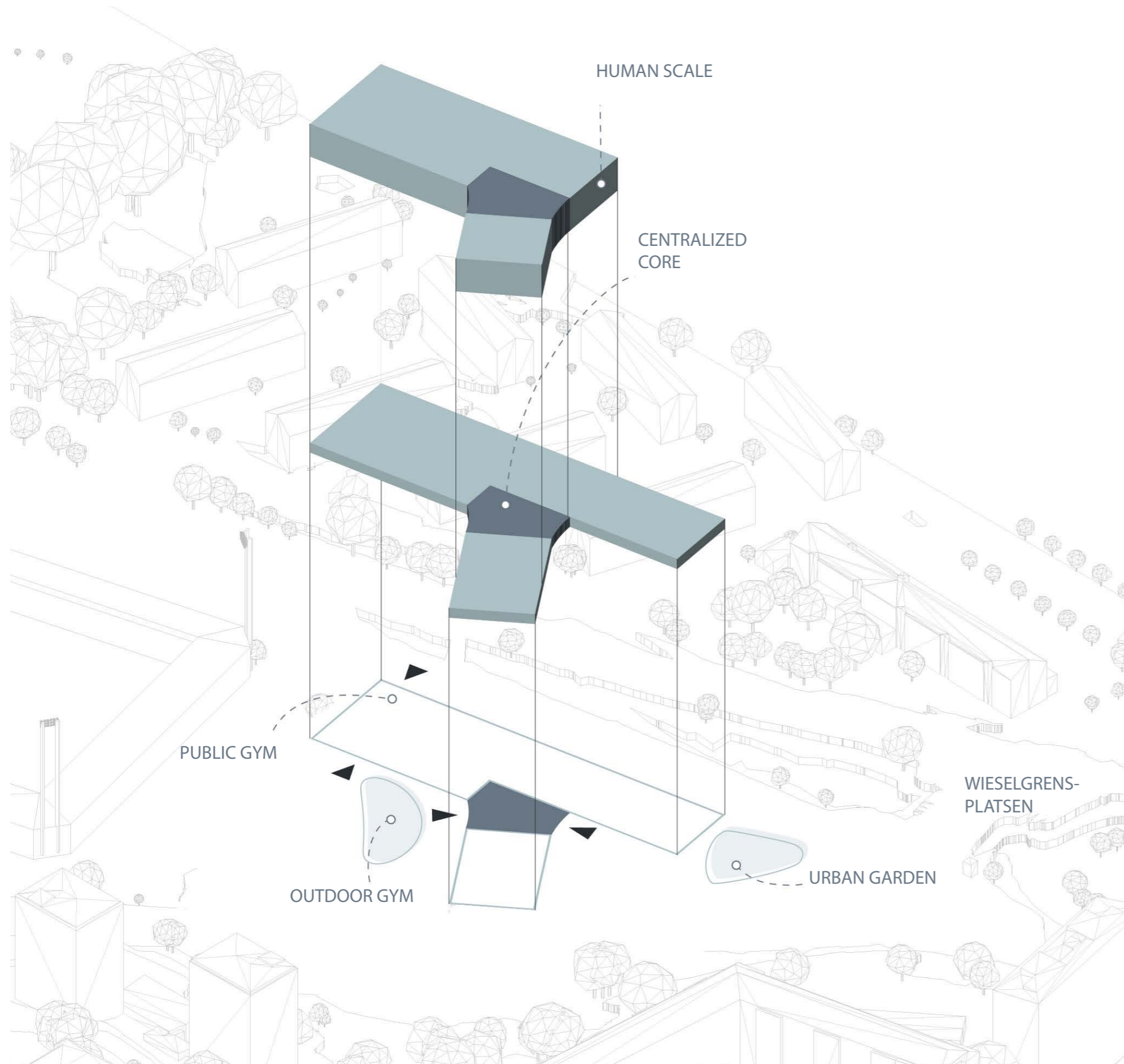
Focus on the health of all building users by adding functions as a gym, a healthy cafe, or activities that encourage healthy behaviors to connect the hospital to the surrounding sports facilities. For us, it is important to have activities for all ages and disabilities for example including gardening as an activity.



Patient-centered-care

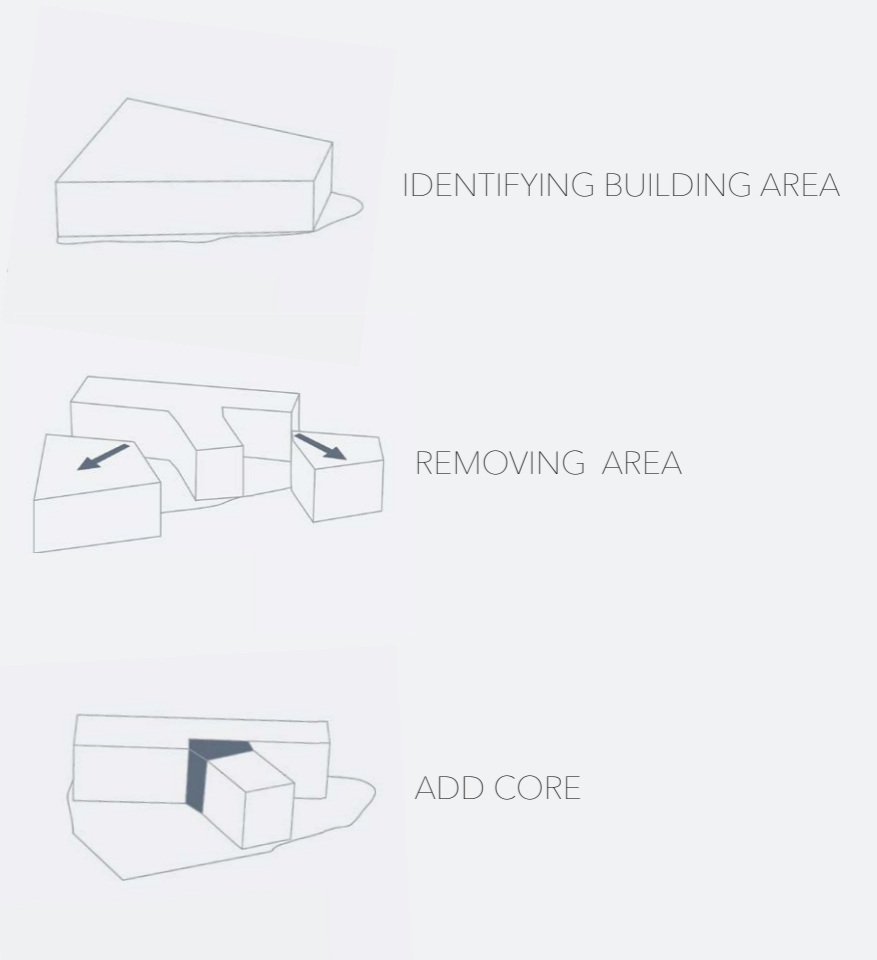
Digital options so more of the care can be given outside of the hospital. Create an empowering environment where health education is encouraged, easy access to bookshelves (with medical reports and books). Easy flow so you can walk to a patient room by yourself.

DESIGN CONCEPT



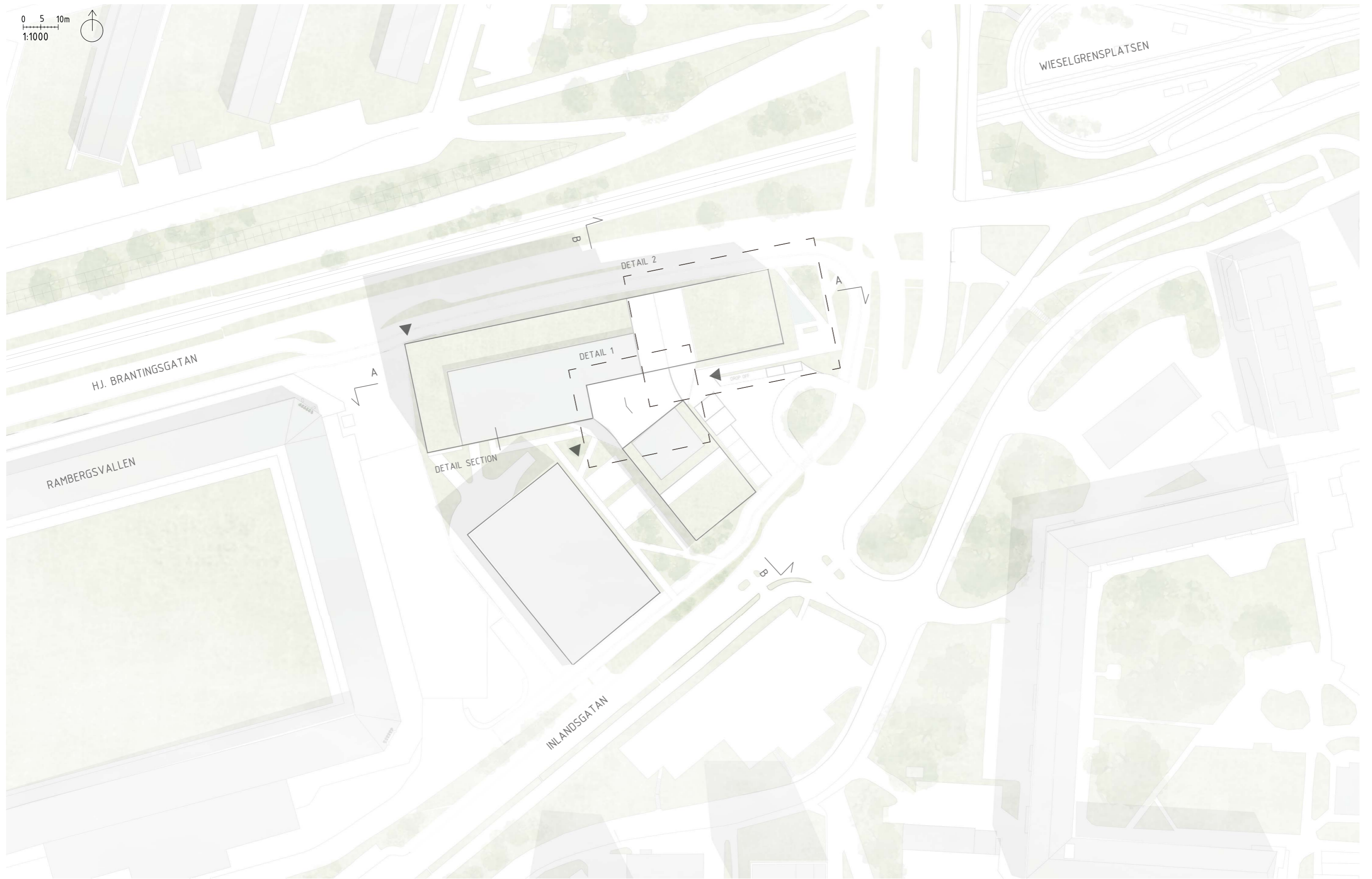
CONCEPT: CORE OF CARE

- Creating spaces and adding public functions in different areas around the building.
- Splitting the building into three arms by adding a defined core that represents the central area of the volume.
- Placing the main entrance to Wiselgrensplatsen, designing a welcoming front with an urban garden and an atrium in glass that is transparent and welcoming.
- Entrance from Hjalmar Brantningsgatan to a public gym to extend the opening hours of the hospital, the public gym is also connected to an outdoor gym.

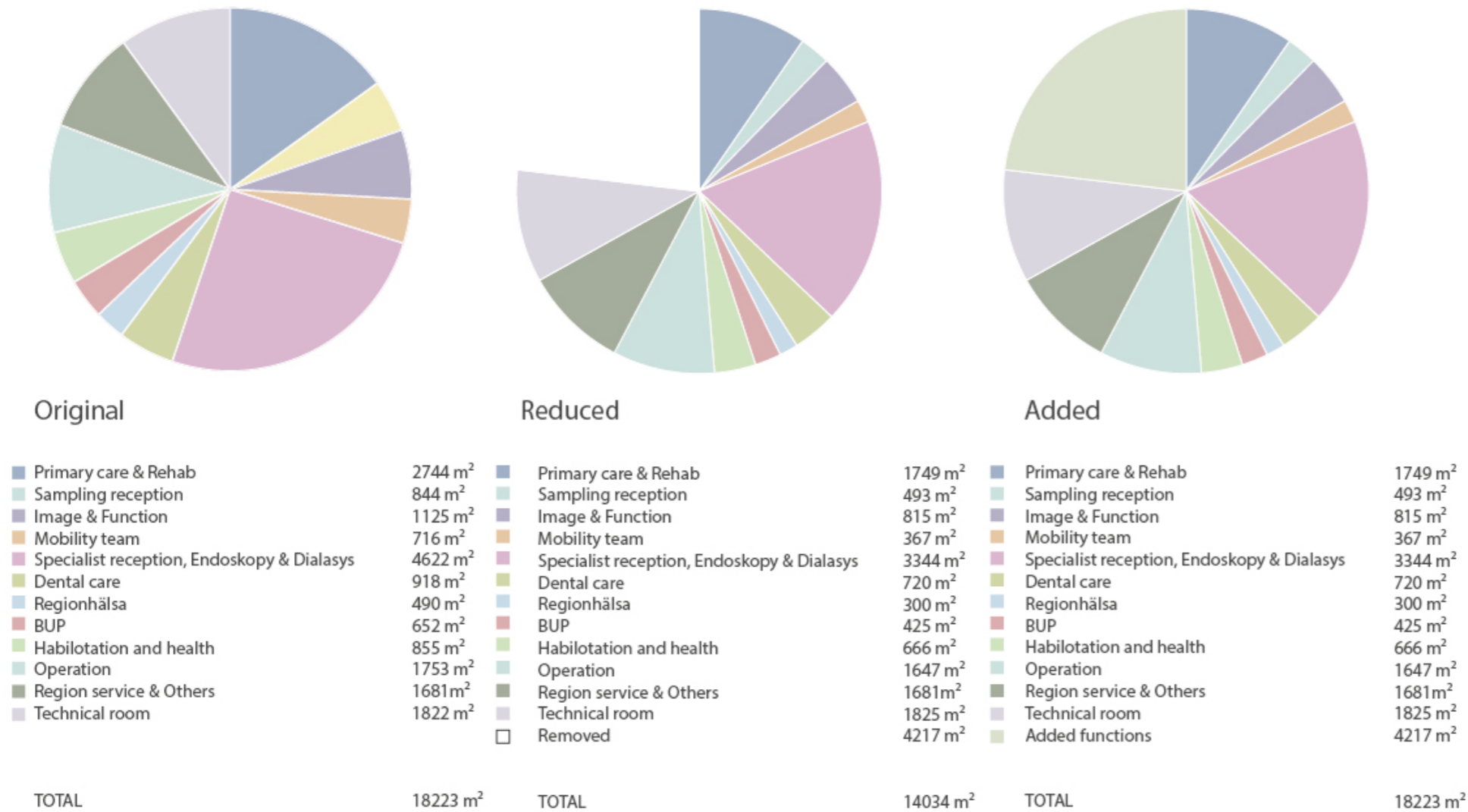


SITE PLAN

0 5 10m
1:1000



CHALLENGE THE BRIEF



BRIEF

The brief has been challenged to make a hospital that challenges the traditional way of clinic thinking. The main spaces that we reduced in the original brief are administrative spaces, quiet rooms, receptions and waiting rooms.

Our goal with the spaces that we reduced in the original brief functions is to combine the functions and make larger common areas that can be used more efficiently and thereby reduce the area to add other facilities.

The saved space will be used to create larger common areas, such as atriums with greater qualities than individual waiting rooms and receptions.



STRATEGIES

COMMON STAFF AREA

60% of the administration area in each department is moved and gathered into one common activity-based office. The purpose is to use space more efficiently, increase the social connection between departments and save space for other functions.



COMMON WAITING AREA

The waiting area will be going from divided waiting areas to one main common waiting space on each floor. This will save space, keep the corridors calm and the core of the building living.

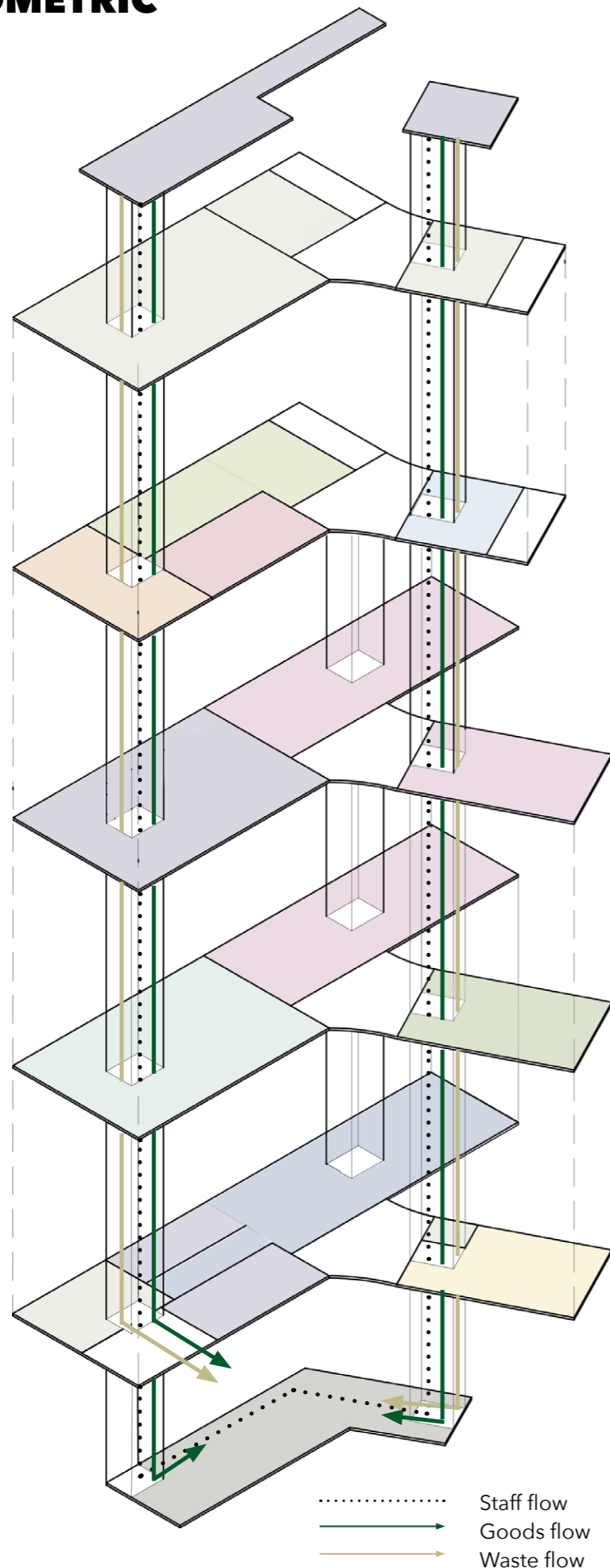


ADD PUBLIC FUNCTIONS

The saved space will be used for a new public gym that will give qualities to the community and connect the building to surrounding sports facilities.



ISOMETRIC



TOTAL BTA: 17 800 sqm

FLOOR SIX, 800 sqm
- Fan room/ technical floor

FLOOR FIVE, 2280 sqm
- Administration

FLOOR FOUR, 2280 sqm
- Dental care
- Mobility team
- BUP
- Regionhälsan

FLOOR THREE, 3740 sqm
- Specialist clinic
- Technical floor

FLOOR TWO, 3740 sqm
- Endoscopy
- Dialysis
- Operation
- Habilitation and health

FLOOR ONE, 3740sqm
- Primary care
- Sampling
- Imaging
- New functions

BASEMENT, 1220 sqm
- Goods storage
- Staff changing room

PATIENT

The patients enter the building in the glass core from Wieselgrensplatsen or in the south from the mobility hub. All vertical transportation for visitors is located in the elevators connected to the entrance square.

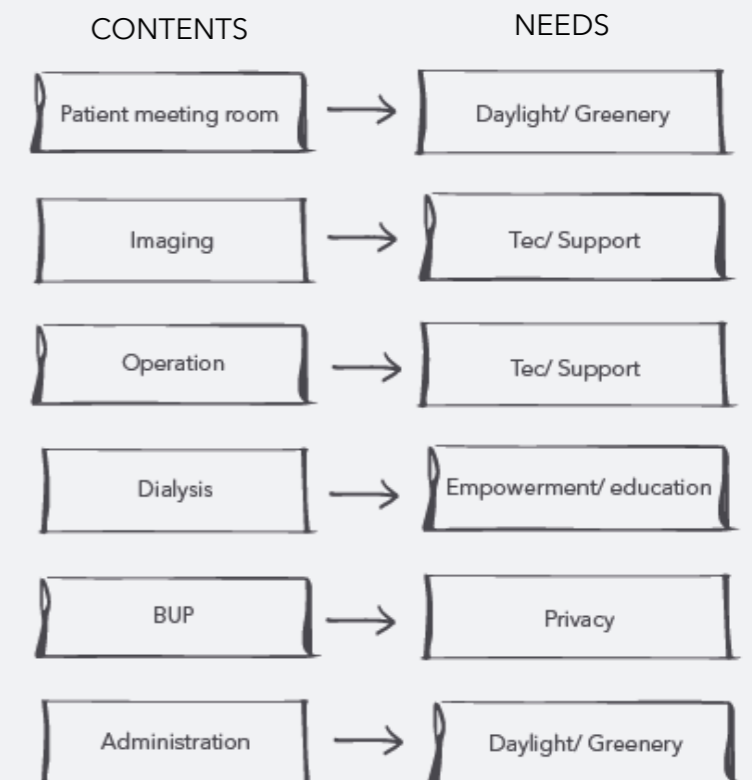
STAFF

Staff will enter the building in the back and front main entrance and use the same elevator as a patient to reach the dressing room in the basement and the units above. Blending both staff and patients will increase the usage of elevators and increase the activity on the ground floor.

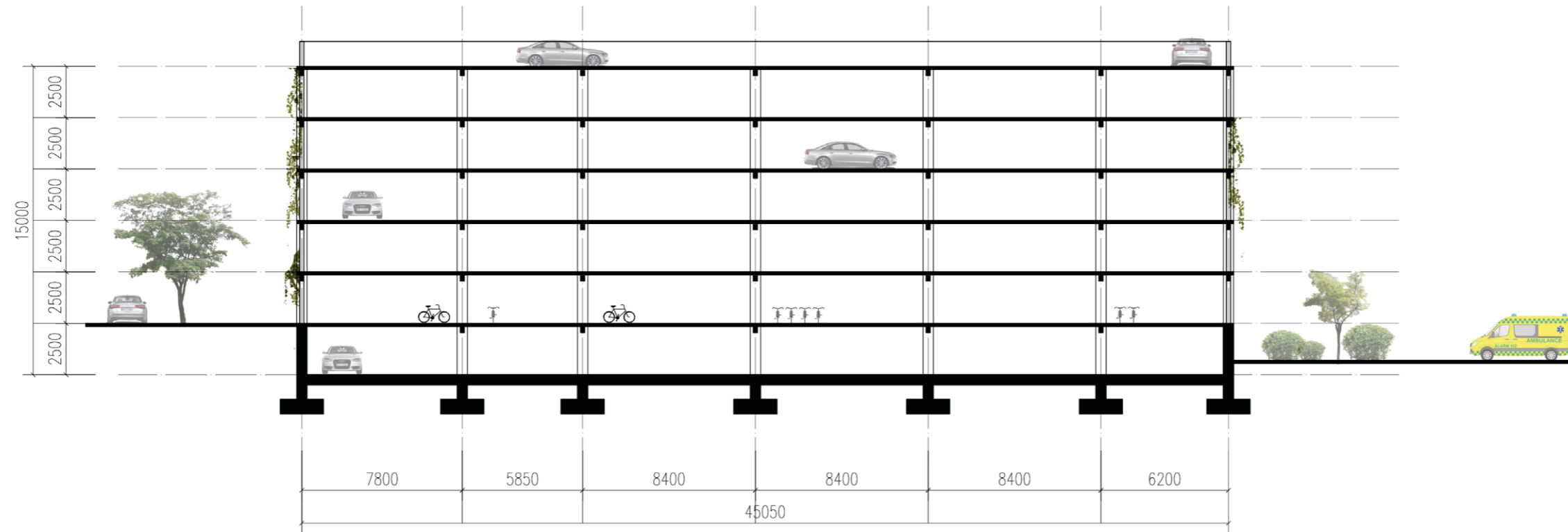
GOODS

Goods are delivered and partly stored on the ground floor and in the basement. The basement is used for the transportation of goods between the different arms for avoiding crossing public waiting areas.

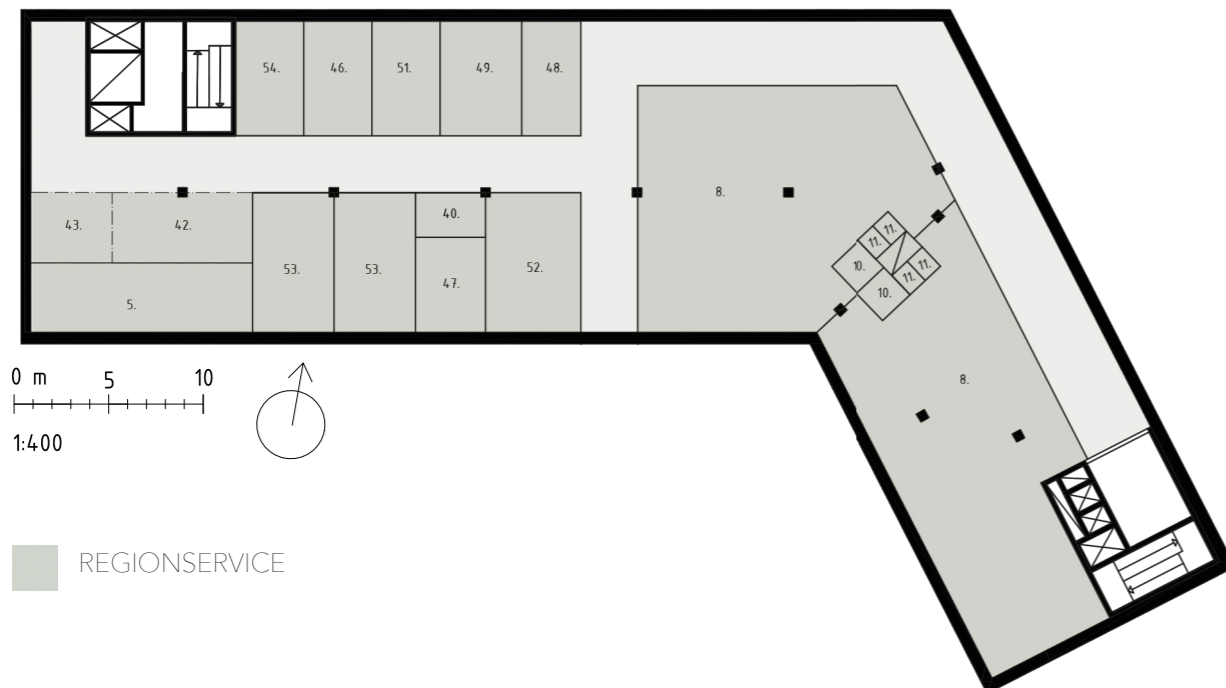
PRE STUDY



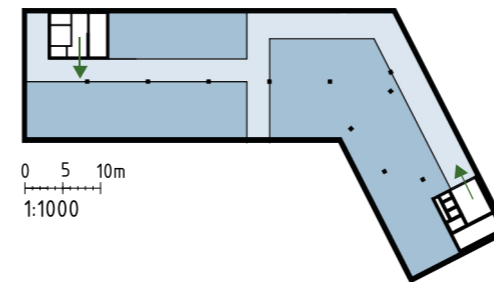
MOBILITY HUB



BASEMENT



FLOWS



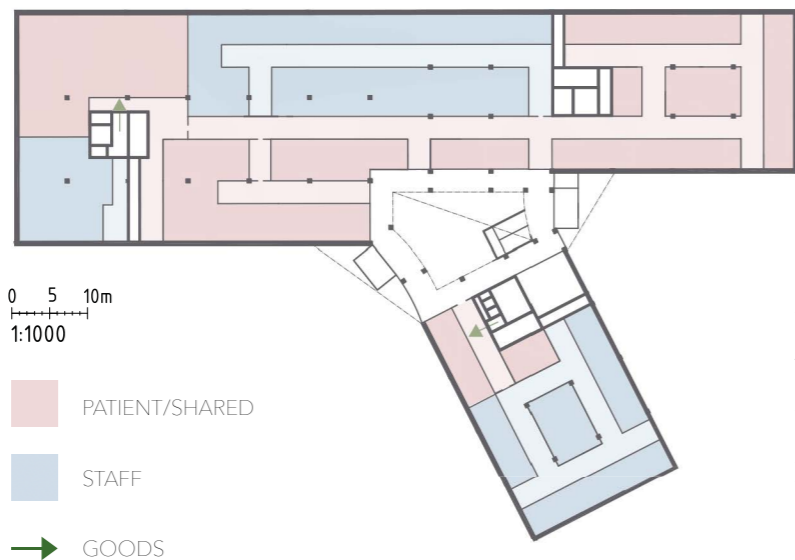
REGIONSERVICE

- 39. Loading dock
- 40. Goods cell
- 41. Goods storage
- 42. Trolley line-up
- 43. Trolley charging
- 44. Unpacking
- 45. Transit hall
- 46. Recycling room
- 47. Chilled waste room
- 48. Liquid storage
- 49. Gas storage
- 50. Care related warehouse
- 51. Call exchange
- 52. Cleaning center
- 53. Garbage/ Laundry
- 54. Sterile goods
- 55. Ambulance garage

FLOORPLAN ONE



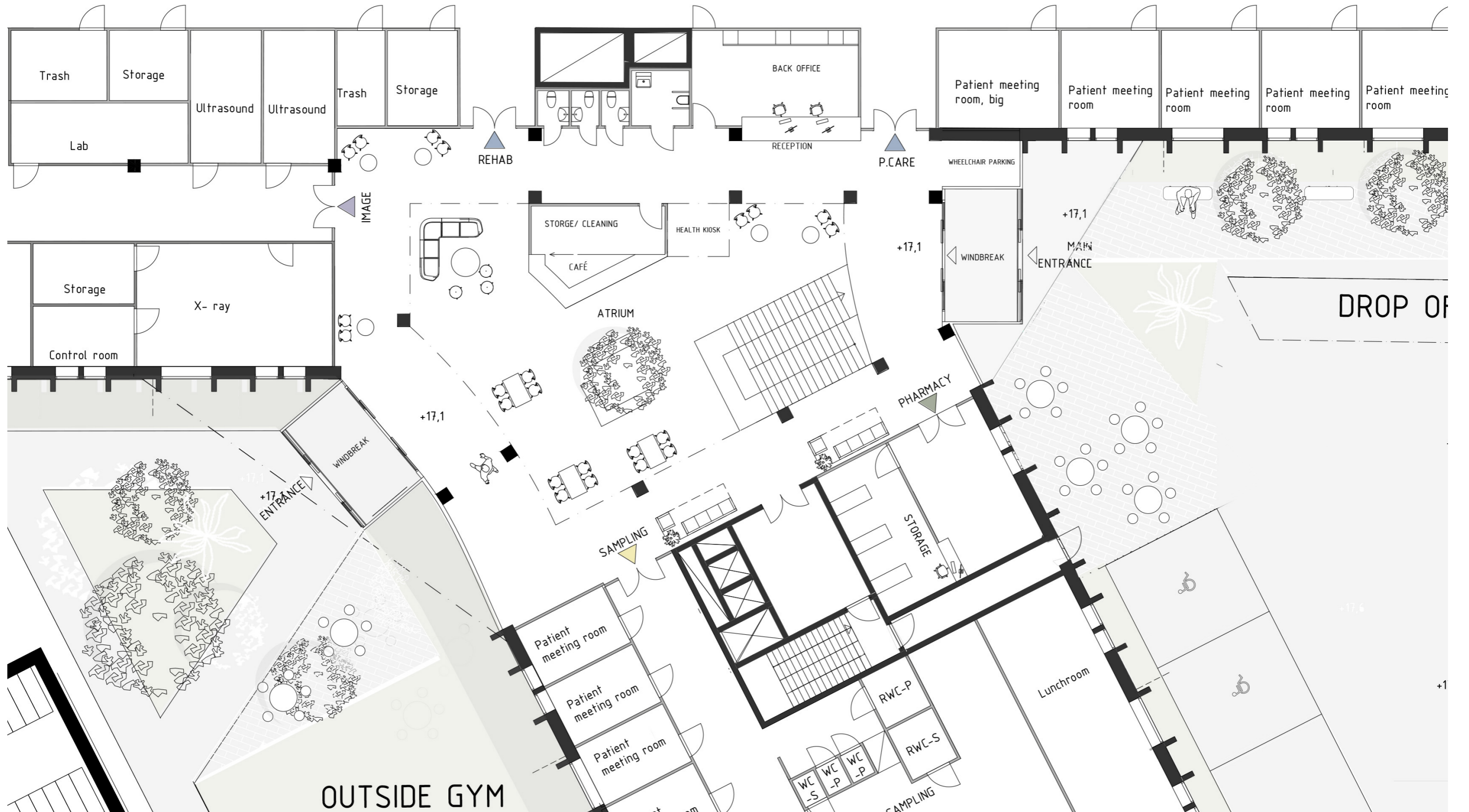
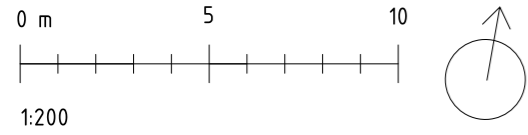
FLows



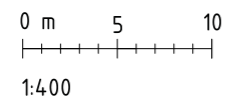
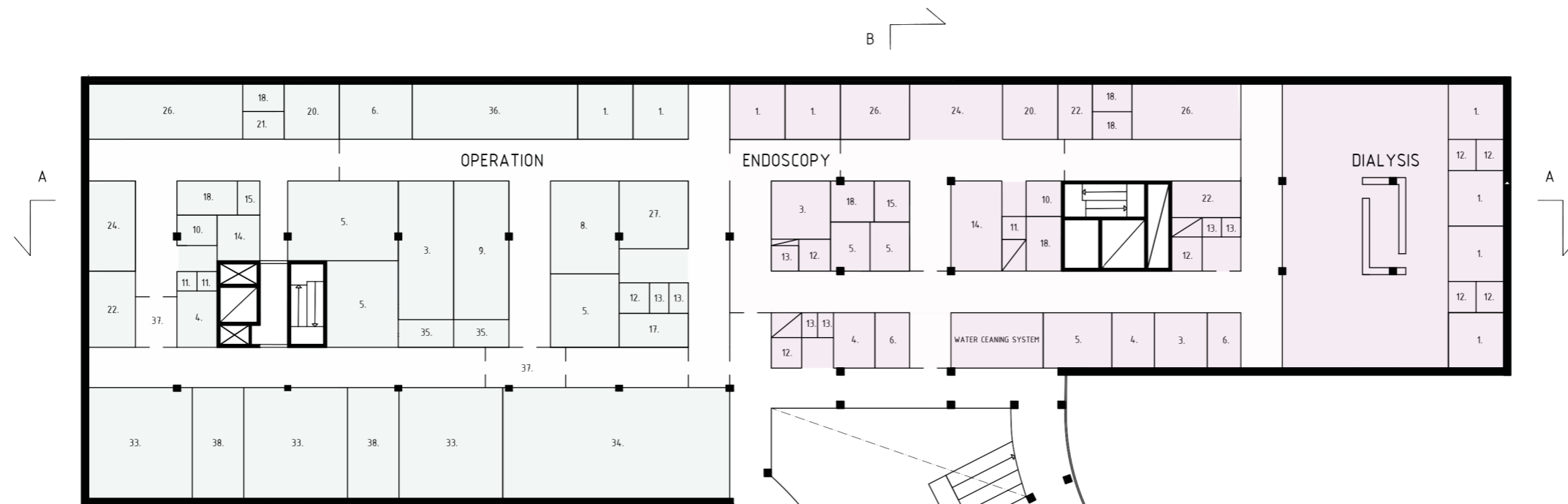
Room description

- | | | | | |
|----------------------------------|------------------------------|-------------------------------------|---------------------|----------------------|
| 1. Patient meeting room | 11. WC-staff | 21. Copy | 31. MM | 41. Goods storage |
| 2. Patient meeting room, big | 12. RWC- patient | 22. Restroom | 32. Control room | 42. Trolley line-up |
| 3. Dish- Disinfection - Cleaning | 13. WC- patient | 23. Archiveroom | 33. Operation | 43. Trolley charging |
| 4. Medicine room | 14. Environmental room/trash | 24. Lunchroom | 34. Pre and post OP | 44. Unpacking |
| 5. Storage | 15. Cleaning room | 25. Microlab | 35. OP handwash | 45. Transit hall |
| 6. Lab (close to care analysis) | 16. Gym | 26. Office/ Buissness related admin | 36. Expedition | |
| 7. Changing room staff | 17. Reception | 27. Waiting room | 37. Transfer room | |
| 8. Changing room patient | 18. Quiet rooms | 28. Ultrasound | 38. Sedation room | |
| 9. Sampling room | 19. Konferance room | 29. X- ray | 39. Loading dock | |
| 10. RWC- staff | 20. Group room | 30. CT | 40. Goods cell | |

DETAIL PLAN - ENTRECE

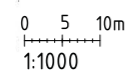
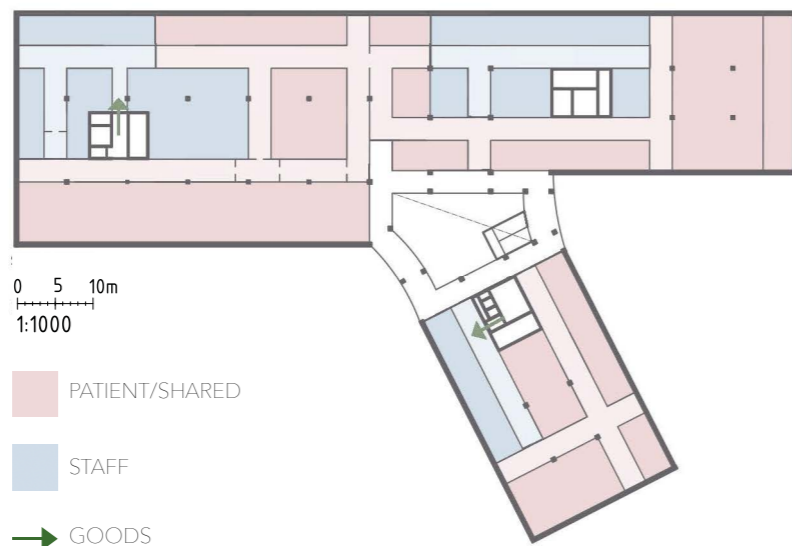


FLOORPLAN TWO



- OPERATION
- HABILITATION AND HEALTH
- SPECIALIST DEPARTMENTS
- DIALYSIS
- ENDOSCOPY

FLOWS



- PATIENT/SHARED
- STAFF
- GOODS

Room description

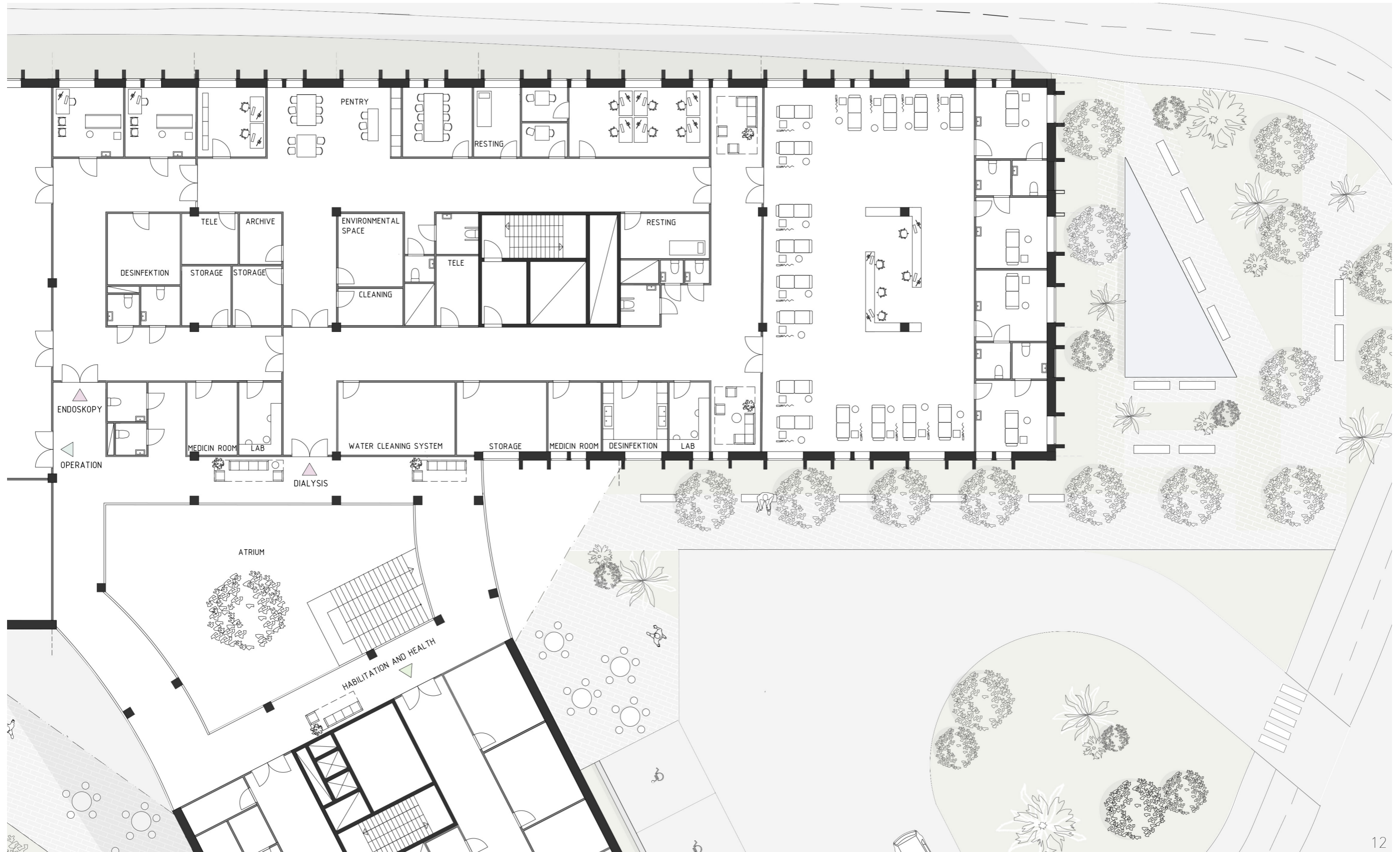
- | | | | | |
|----------------------------------|------------------------------|------------------------------------|---------------------|----------------------|
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| 3. Dish- Disinfection - Cleaning | 13. WC- patient | 23. Archiveroom | 33. Operation | 43. Trolley charging |
| 4. Medicine room | 14. Environmental room/trash | 24. Lunchroom | 34. Pre and post OP | 44. Unpacking |
| 5. Storage | 15. Cleaning room | 25. Microlab | 35. OP handwash | 45. Transit hall |
| 6. Lab (close to care analysis) | 16. Gym | 26. Office/ Buisness related admin | 36. Expedition | |
| 7. Changing room staff | 17. Reception | 27. Waiting room | 37. Transfer room | |
| 8. Changing room patient | 18. Quiet rooms | 28. Ultrasound | 38. Sedation room | |
| 9. Sampling room | 19. Konference room | 29. X- ray | 39. Loading dock | |
| 10. RWC- staff | 20. Group room | 30. CT | 40. Goods cell | |

DETAIL PLAN - DIALYSIS

0 m 5 10



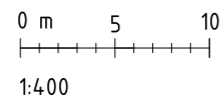
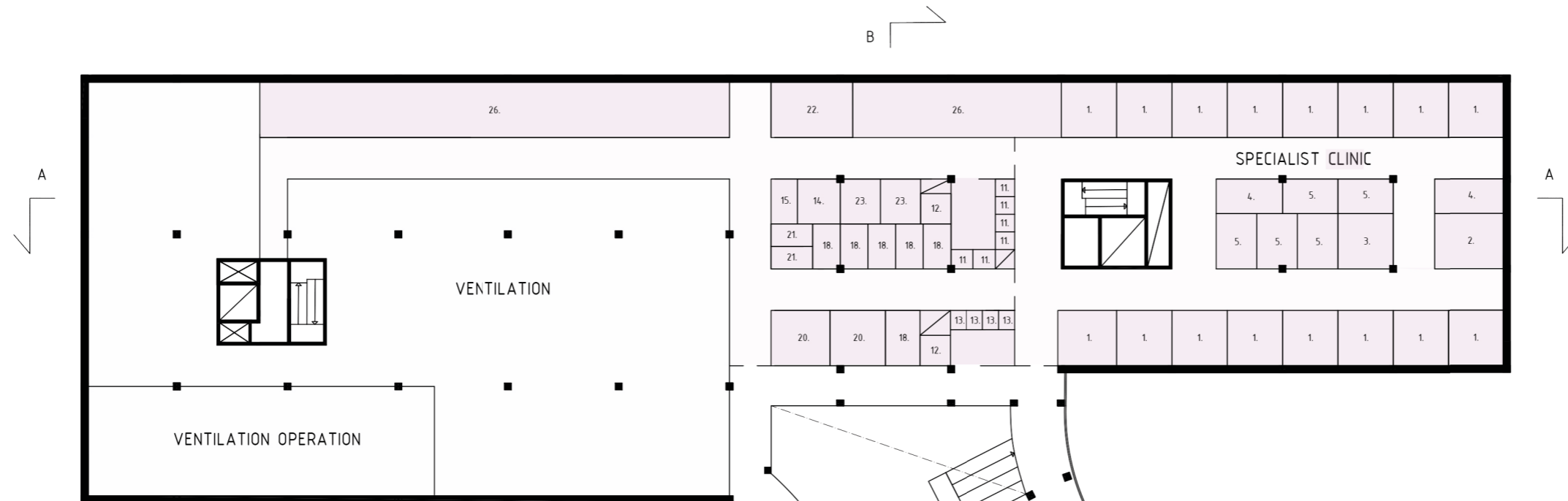
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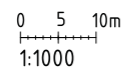
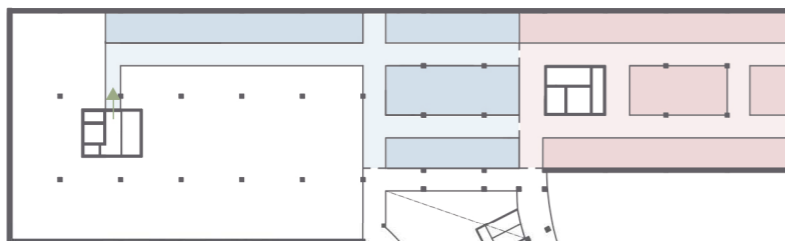
Perspective visualizing the view of the waiting area from dialysis

FLOORPLAN THREE



SPECIALIST RECEPTION

FLOWS



PATIENT/SHARED

STAFF

GOODS

Room description

- 1. Patient meeting room
- 2. Patient meeting room, big
- 3. Dish- Disinfection - Cleaning
- 4. Medicine room
- 5. Storage
- 6. Lab (close to care analysis)
- 7. Changing room staff
- 8. Changing room patient
- 9. Sampling room
- 10. RWC- staff

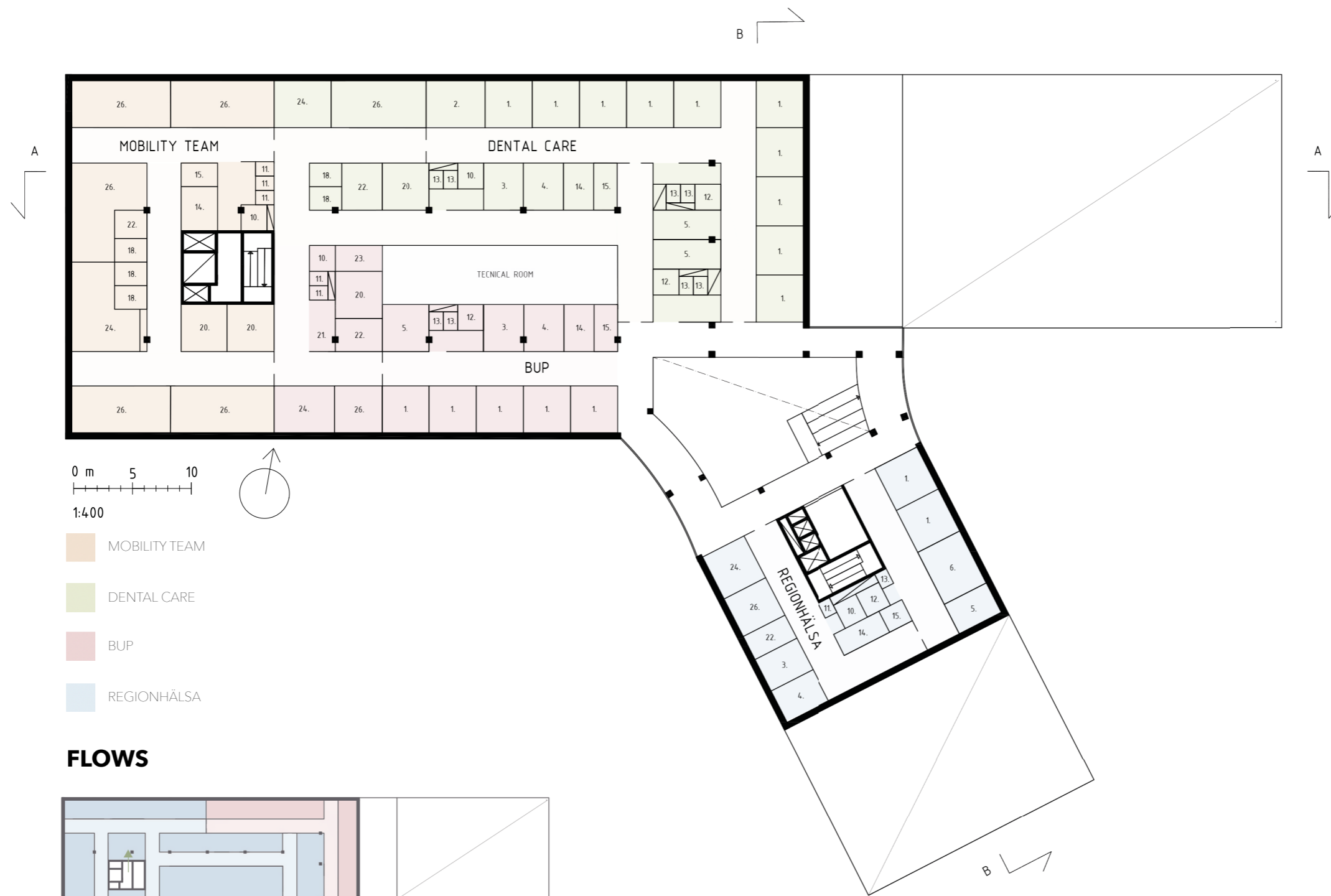
- 11. WC-staff
- 12. RWC- patient
- 13. WC- patient
- 14. Environmental room/trash
- 15. Cleaning room
- 16. Gym
- 17. Reception
- 18. Quiet rooms
- 19. Konference room
- 20. Group room

- 21. Copy
- 22. Restroom
- 23. Archiveroom
- 24. Lunchroom
- 25. Microlab
- 26. Office/ Buisness related admin
- 27. Waiting room
- 28. Ultrasound
- 29. X- ray
- 30. CT

- 31. MM
- 32. Control room
- 33. Operation
- 34. Pre and post OP
- 35. OP handwash
- 36. Expedition
- 37. Transfer room
- 38. Sedation room
- 39. Loading dock
- 40. Goods cell

- 41. Goods storage
- 42. Trolley line-up
- 43. Trolley charging
- 44. Unpacking
- 45. Transit hall

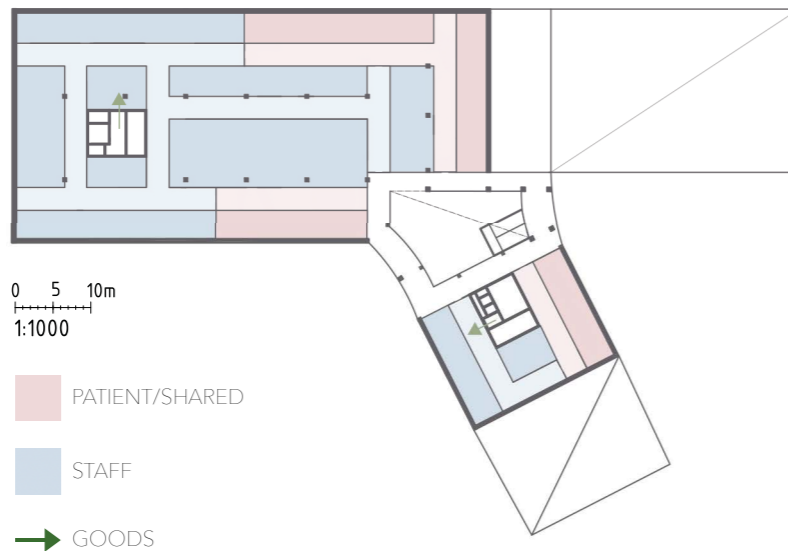
FLOORPLAN FOUR



0 m 5 10
1:400

- MOBILITY TEAM
- DENTAL CARE
- BUP
- REGIONHÄLSA

FLAWS



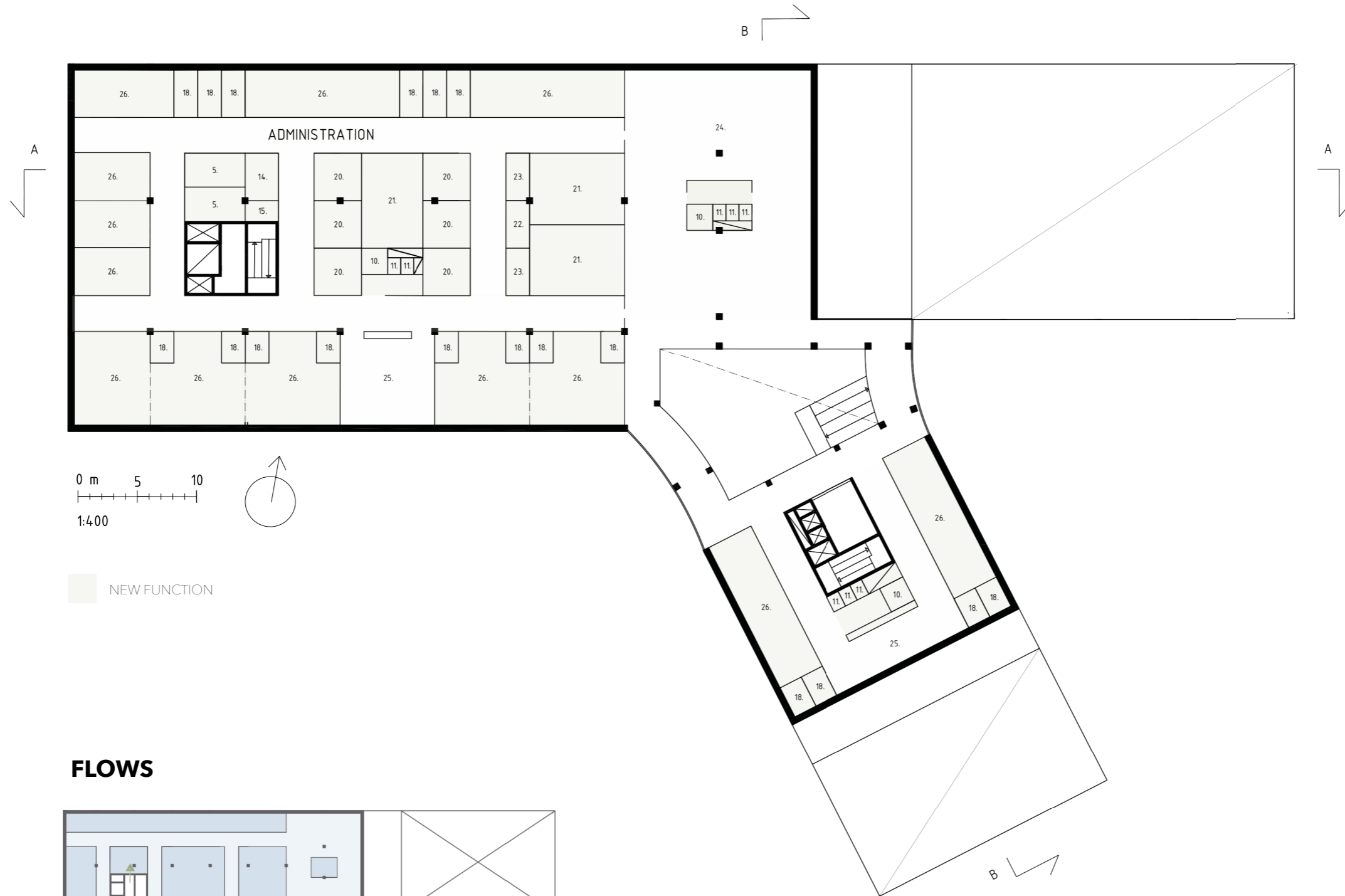
0 5 10m
1:1000

- PATIENT/SHARED
- STAFF
- GOODS

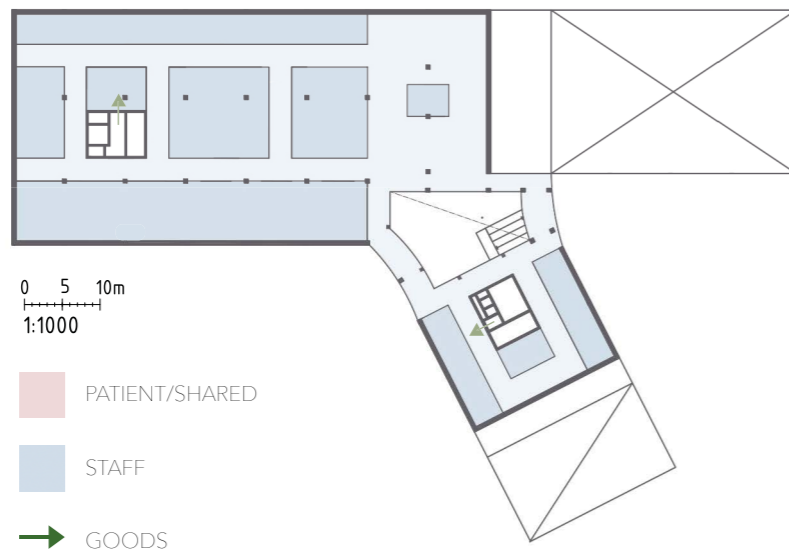
Room description

- | | | | | |
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| 4. Medicine room | 14. Environmental room/trash | 24. Lunchroom | 34. Pre and post OP | 44. Unpacking |
| 5. Storage | 15. Cleaning room | 25. Microlab | 35. OP handwash | 45. Transit hall |
| 6. Lab (close to care analysis) | 16. Gym | 26. Office/ Buisness related admin | 36. Expedition | |
| 7. Changing room staff | 17. Reception | 27. Waiting room | 37. Transfer room | |
| 8. Changing room patient | 18. Quiet rooms | 28. Ultrasound | 38. Sedation room | |
| 9. Sampling room | 19. Konference room | 29. X- ray | 39. Loading dock | |
| 10. RWC- staff | 20. Group room | 30. CT | 40. Goods cell | |

FLOORPLAN FIVE



FLows



Room description

- 1. Patient meeting room
- 2. Patient meeting room, big
- 3. Dish- Disinfection - Cleaning
- 4. Medicine room
- 5. Storage
- 6. Lab (close to care analysis)
- 7. Changing room staff
- 8. Changing room patient
- 9. Sampling room
- 10. RWC- staff

- 11. WC-staff
- 12. RWC- patient
- 13. WC- patient
- 14. Environmental room/trash
- 15. Cleaning room
- 16. Gym
- 17. Reception
- 18. Quiet rooms
- 19. Konference room
- 20. Group room

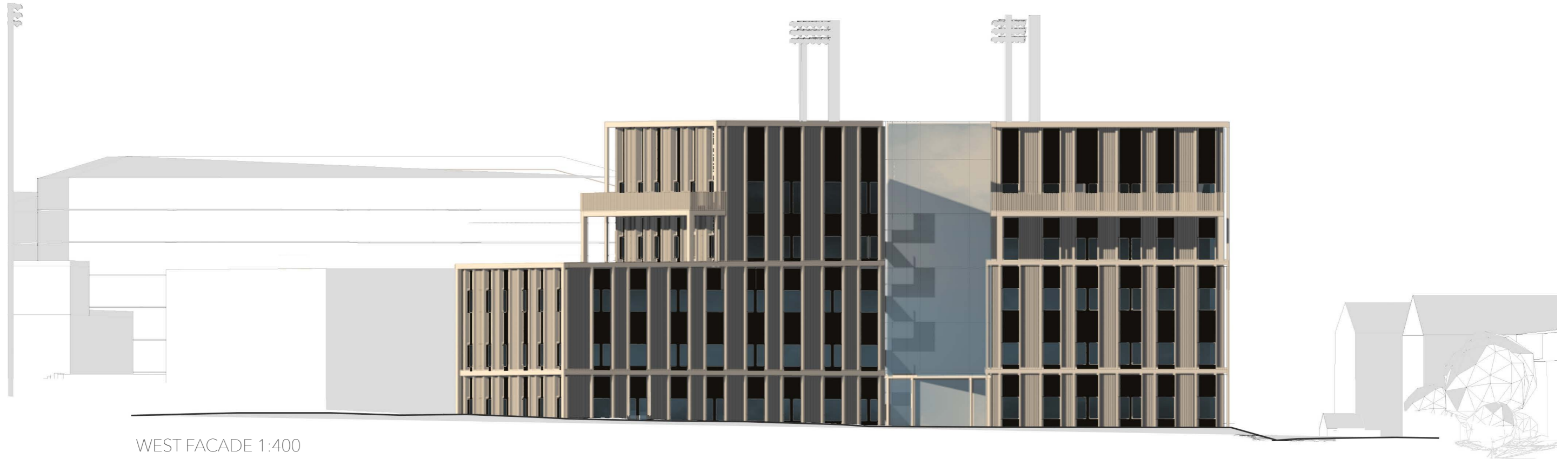
- 21. Copy
- 22. Restroom
- 23. Archiveroom
- 24. Lunchroom
- 25. Microlab
- 26. Office/ Buisness related admin
- 27. Waiting room
- 28. Ultrasound
- 29. X- ray
- 30. CT

- 31. MM
- 32. Control room
- 33. Operation
- 34. Pre and post OP
- 35. OP handwash
- 36. Expedition
- 37. Transfer room
- 38. Sedation room
- 39. Loading dock
- 40. Goods cell

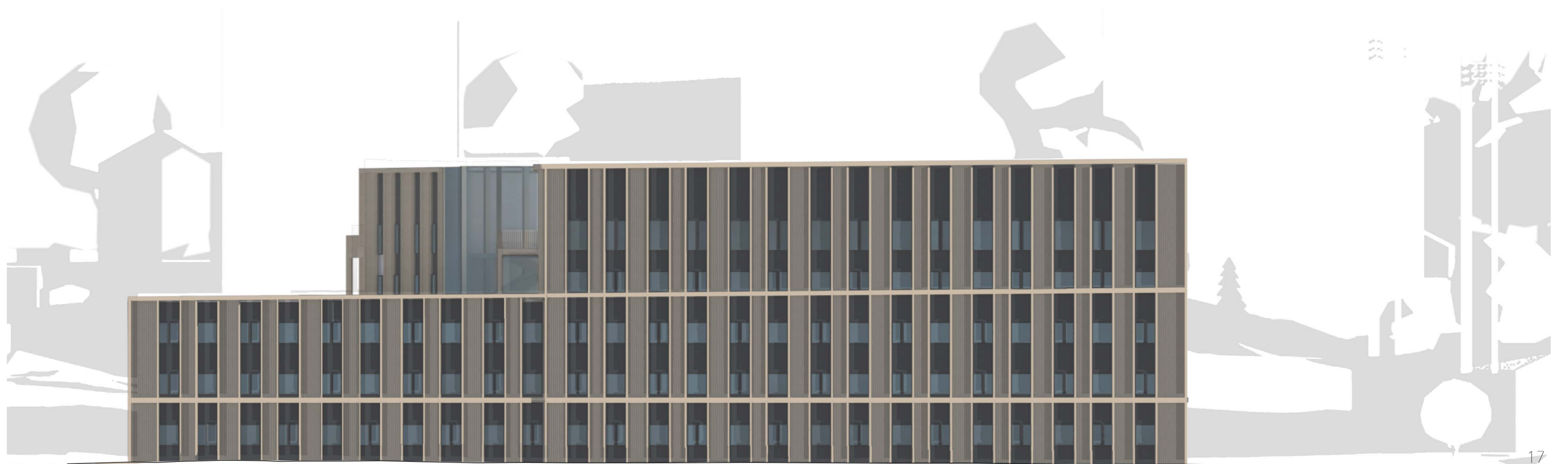
- 41. Goods storage
- 42. Trolley line-up
- 43. Trolley charging
- 44. Unpacking
- 45. Transit hall

ELEVATIONS

0 m 5 10
1:400



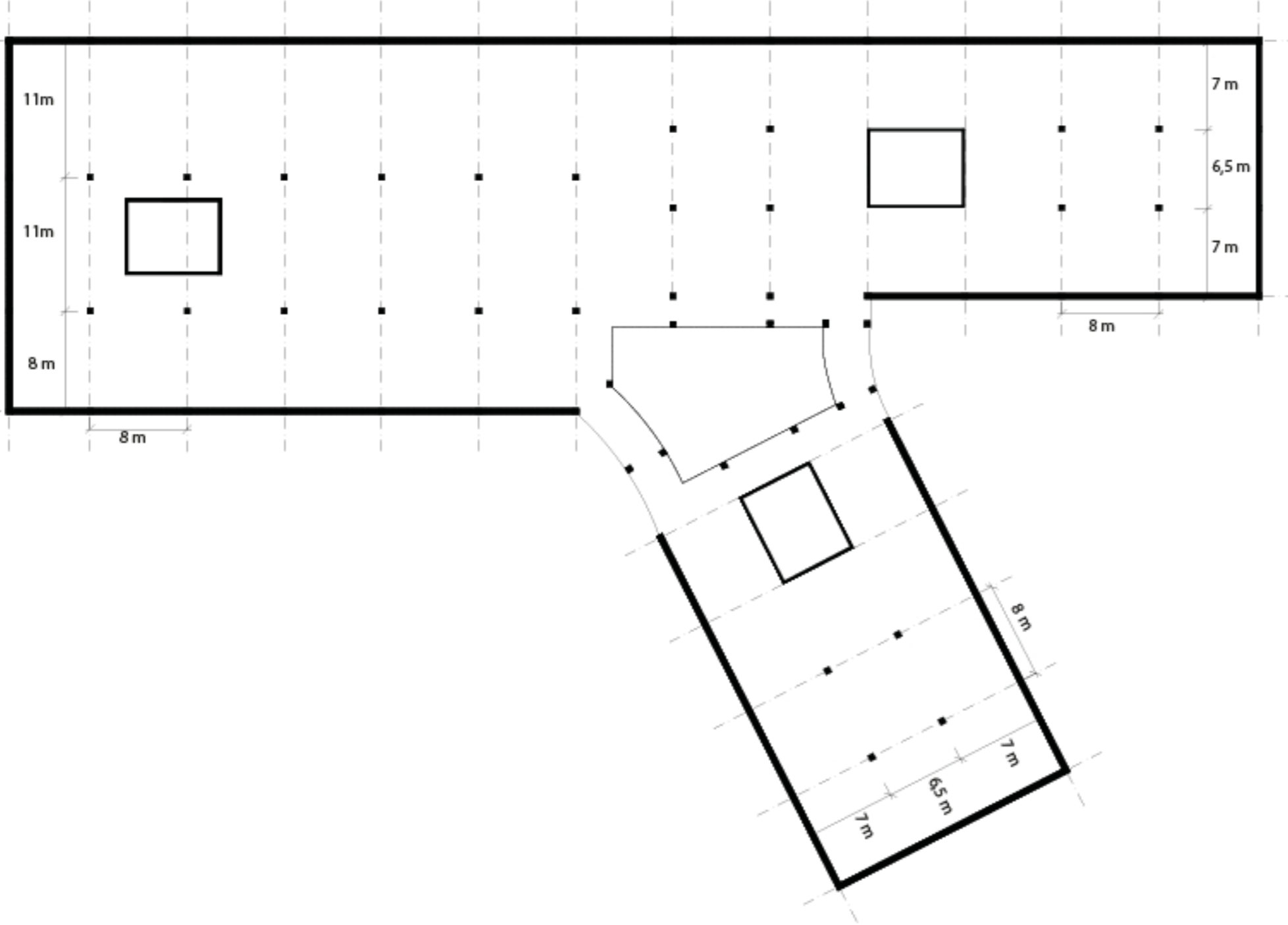
WEST FACADE 1:400



NORTH FACADE 1:400

GRID

0 m 5 10
1:400



WHY CLT?

It is a material that can help to achieve a sustainable agenda, its surface can fulfill the requirements for infection control and it can create spaces that are calming and comfortable to users and staff. (TRADA, 2017)

The CLT panel system is quick and clean to build, and the construction is relatively quiet. (TRADA, 2017)

“

*Visual effects comparing wood walls with cloth finished walls:
- Pulse rate is lower by close to 3 beats per minute when walls are finished in wood.*

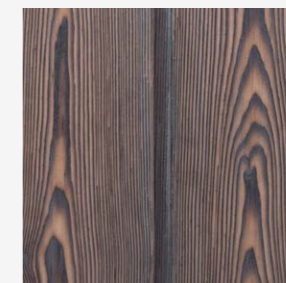
*- Heart rate variability increased in the wood wall room indicating activation in the parasympathetic nervous system which reduces stress and promotes recovery functions.”
(Agustin, 2015)*

FACADE

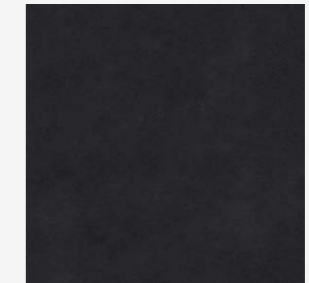
We aimed to design a building that is both timeless in its design as well as sustainable for the future. Therefore we wanted to create an expression for the facade that could communicate long-lasting qualities for the community. Our hospital should therefore both feel open and welcoming, but the technical demands for the hospital can often make it feel a bit closed. To counteract this effect we worked with contrasted that creates an illusion of a taller more open building. Therefore work with structuring the facade vertically and making the window parts seem taller as well as the wood parts.

MATERIALITY

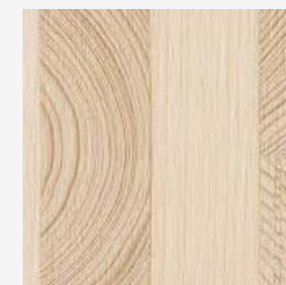
Our facade is built with vertically placed panels of light charred larch tree and dark matt aluminum parts. The facade is also built with wooden ribs in different sizes to create interesting views from both far away and close to the building. The charred tree is both low in carbon footprint as well as low in maintenance. Our choices of materials reflect our aim to work with sustainable materials.



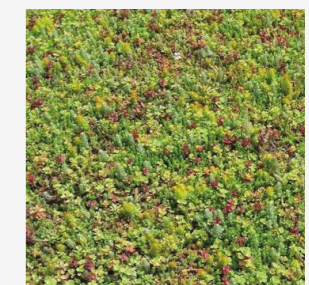
Charred larch tree



Matt aluminum



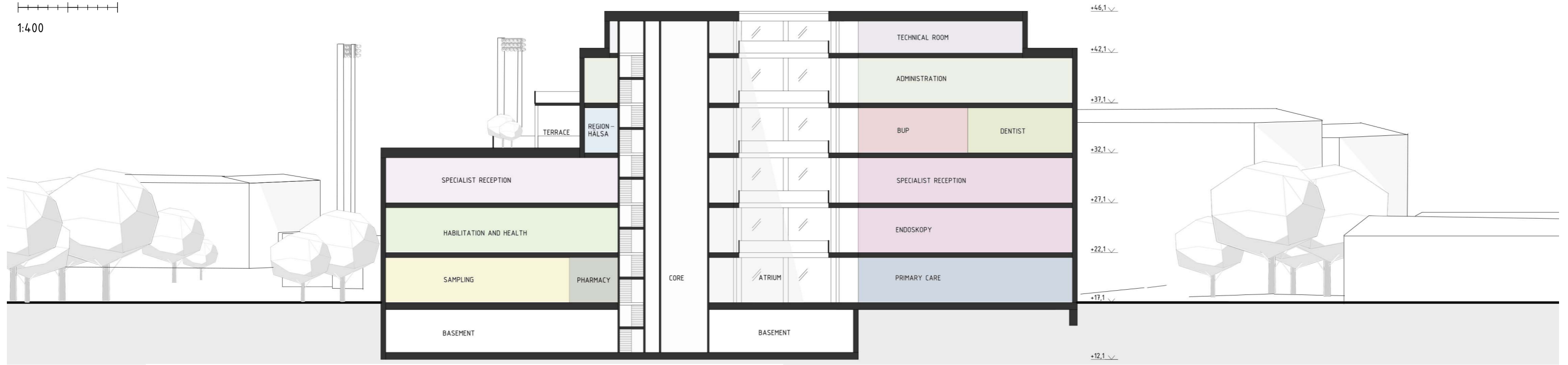
CLT



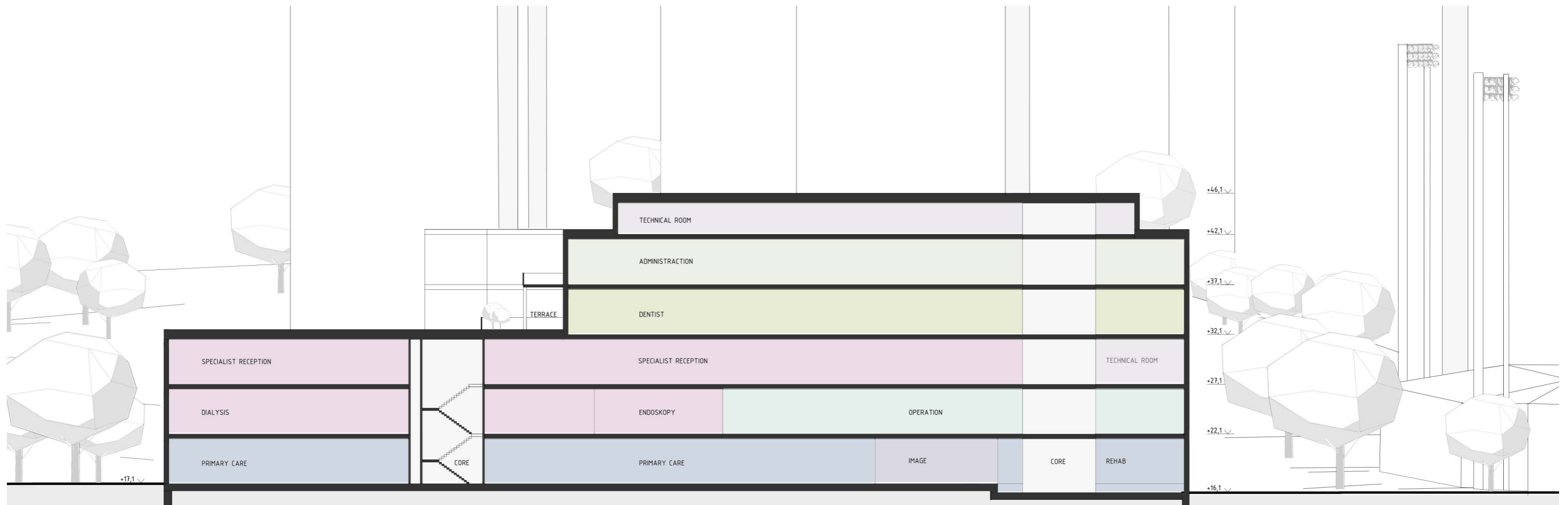
Sedum

SECTIONS

0 m 5 10
1:400



SECTION B-B 1:400

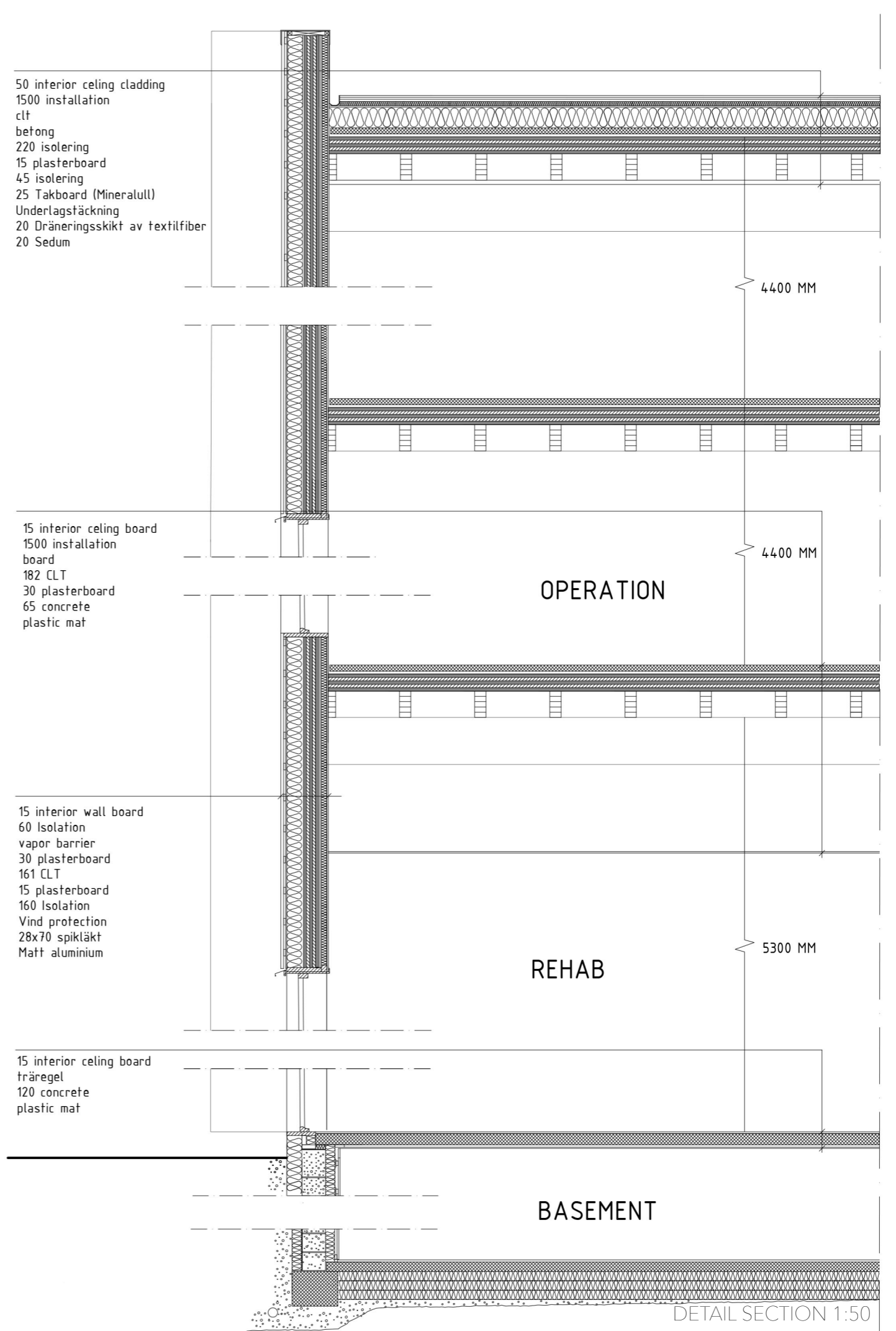


SECTION A-A 1:400



DETAIL SECTION

DETAIL ELEVATION 1:50





Perspective from Wiselgrensplatsen