

# ***Transmitting Culture and Language***

A New German Cultural Institute for Washington D.C.

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of the Virginia Polytechnic  
Institute and State University  
in partial fulfillment of the  
requirements for the degree  
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Architecture

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German, Representation,  
Threshold

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**Abstract:**

Making the decision to live abroad means departing from a known culture and language. I know the culture and language of my home country Germany, and living here makes it easy to learn the culture and language of the United States. But for one who does not have the opportunity to live abroad learning the culture and language of a foreign country is a challenge.

Germany is relatively well represented in Washington D.C.: the German embassy and its information center on Foxhall Road, the Goethe-Institut on 7th Street NW, the American Institute for Contemporary German Studies on Massachusetts Avenue, and the German Historical Society on New Hampshire Avenue. But as one can see from the list the institutes are spread throughout the city.

The Goethe-Institut is the most public institution, and I therefore chose it to be the main user of the planned German Cultural Center. I am seeking to bring all of the named institutions together into one building, with the exception of the embassy itself. Through this effort a center of language and culture will be made, where one can go to learn and experience a foreign country within another country.

The institutions themselves will profit from the collaboration with each other, minimizing their financial obligations and at the same time profiting from the collaboration with the other institutes.

This thesis project seeks to prove that it is possible to represent a country with its language and culture through a good building. Germany has much more to offer than the typical cliches and the New German Cultural Institute will be the place to experience this other side of the country.

**Acknowledgements:**

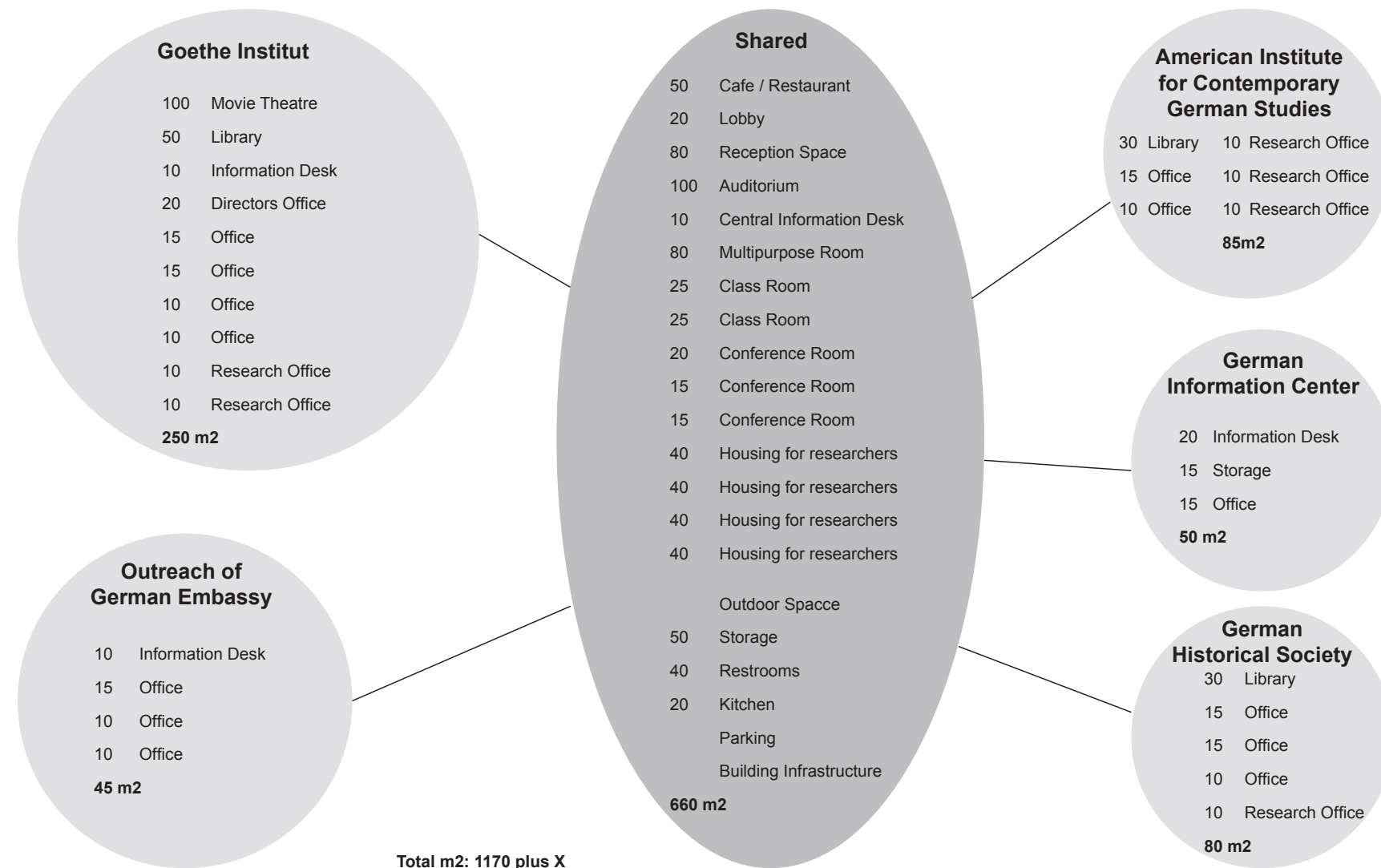
I want to thank foremost my family for supporting me in many ways through the process of this thesis. My parents for always believing in me to achieve my goals, my brothers for being interested in what their younger brother is doing, and most of all I want to thank my wife Lara for her patience and support through this great experience for the last two years.

Also a big thank you to my thesis committee who was always willing to listen, respond, and guide me in the many meetings and pin ups. Without their input the project would not be what it is today.

And last but not least to the whole WAAC community and my fellow thesis students for the many critics and help.

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**The program:**

The Goethe-Institut and its spacial needs were the initiators of the program. In addition to these needs were those of the outreach office of the German embassy, the German Information Center, the American Institute for Contemporary German Studies, and the German Historical Institute.

While calculating and judging the spacial needs and types of space, it became apparent that a lot of the uses overlap. Through this overlap, opportunities for collaboration between the institutes were found.

The program's key spaces were:

- auditorium
- library
- reception space
- special event space
- cafe or restaurant
- outdoor space
- offices
- conference rooms
- information desk area
- class rooms

In the early design phase the proposed housing within the complex was dropped due to zoning regulations and the needed spacial separation.

The goal of the program was to design a multifunctional building to house all of the spacial needs of the institutions. The building should be variable in its use, depending on type of use and time of day or night.

**Public**

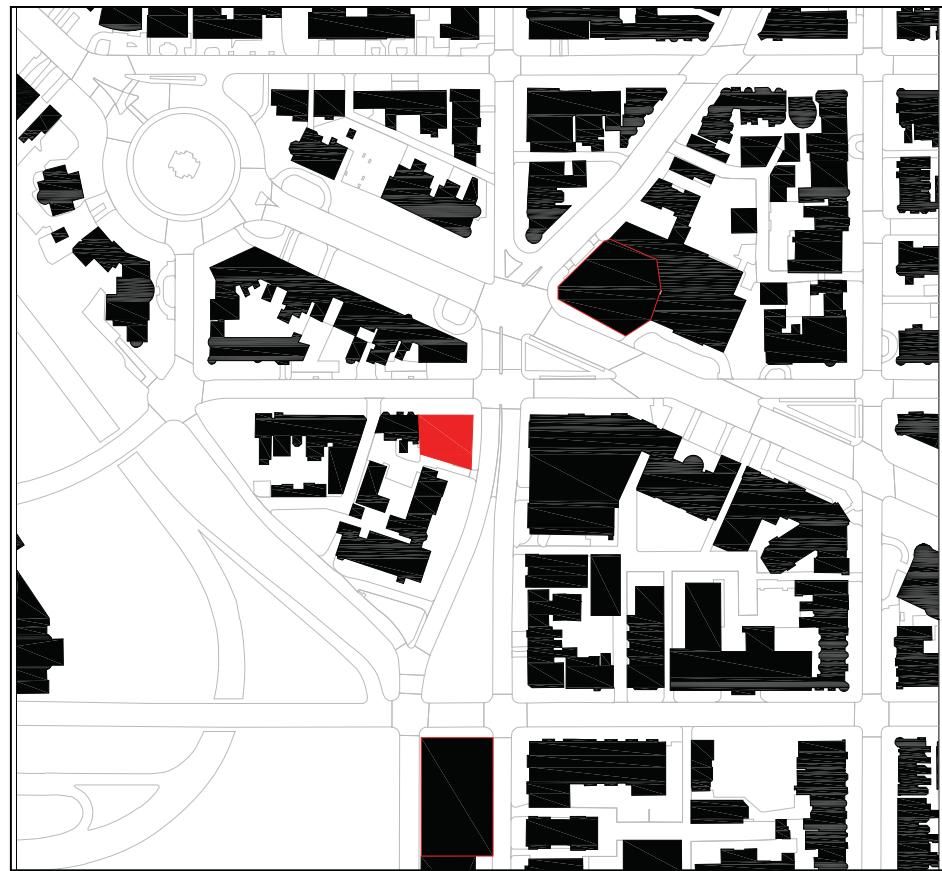
- Lobby
- Information Desk
- Information Center
- Movie Theater
- Cafe / Restaurant

- Library
- Reception Space
- Outdoor Space
- Exhibit Space
- Multipurpose Room
- Restrooms

- Kitchen
- Conference Rooms
- Offices
- Research Offices

**Private**

- Researcher Housing
- Directors Office
- Storage
- Restrooms
- Building Infrastructure



Florida Avenue & Q Street, Northwest, Washington D.C.



Connecticut Avenue & K Street, Northwest, Washington D.C.



23rd Street & P Street, Northwest, Washington D.C.



22nd Street & M Street, Northwest, Washington D.C.



Florida Avenue and Massachusetts Avenue, Northwest, Washington D.C.

**Site research:**

After researching the program the project went into its next phase: site search. I approached the task by walking through Washington D.C. and studying map material.

The search was driven by the key features that the site should have:

- central location within the city
- pedestrian access to the site
- public transportation options
- accessibility via car
- near other cultural institutions

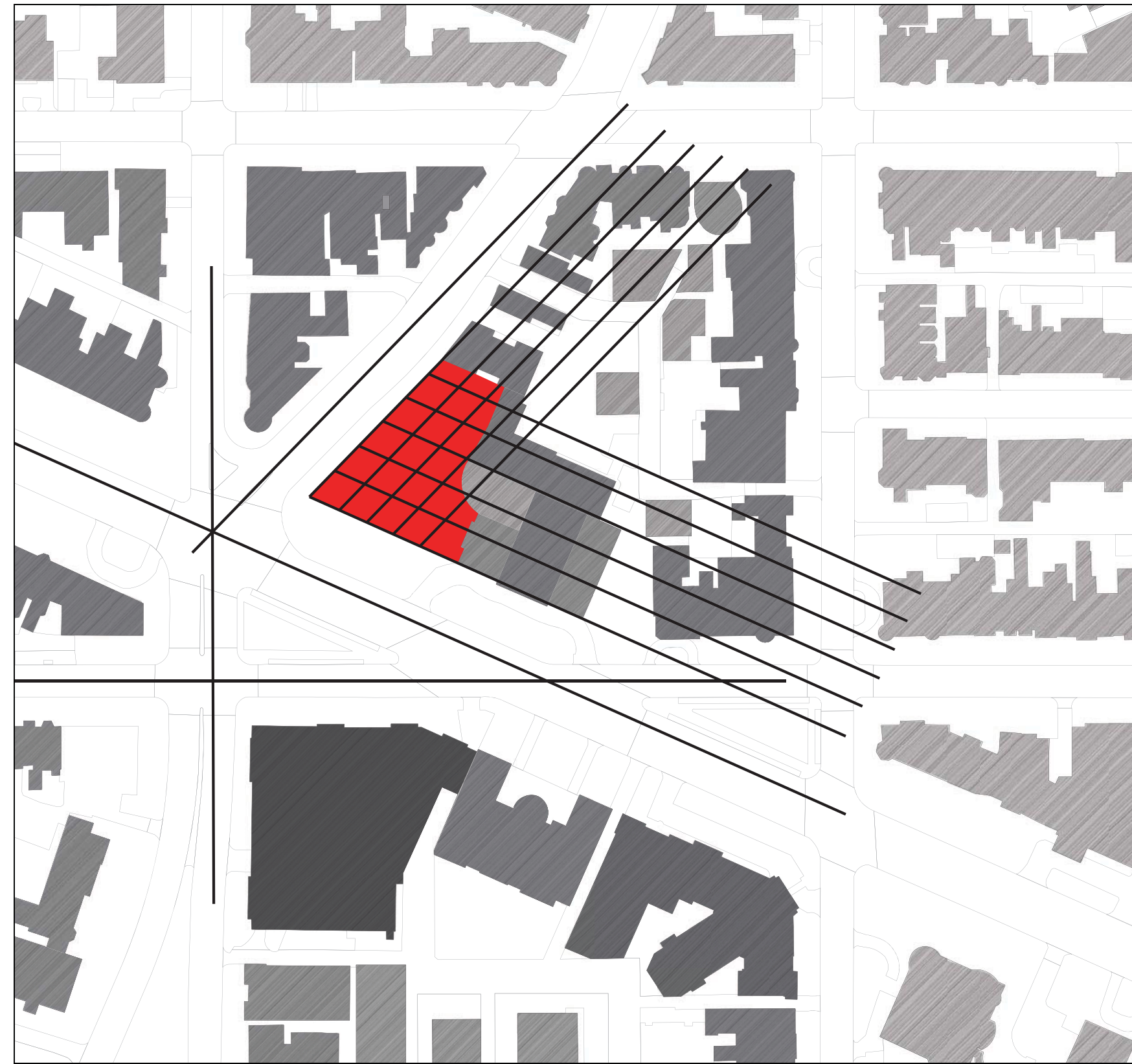
To the left are several sites which came into closer consideration. All offered the factors I was looking for, but varied in size, location, and use and height of neighboring buildings.

Through more thorough research I chose the site on the corner of Massachusetts Avenue and Florida Avenue in the Northwestern quadrant of Washington D.C.

Currently the site is being used as a parking lot of the adjacent Cosmos Club.



analysis pedestrian traffic and building heights



analysis site geometry and building heights

**Site research cont.:**

Several studies were done to explore the site, including pedestrian traffic, accessibility of metro and bus stops, building heights and the zoning limitations. Also studied was the interesting geometry of the site, which results from the unique corner of the intersecting streets.

The shown analysis are two examples of these studies. Both show the varying building heights that surround the site. The left analysis shows the pedestrian traffic and the accesibility of public transportation. The right analysis shows the interesting geometry and axis on the site.



location within the city



site views / current situation of site

**Site research cont.:**

The plan of Washington D.C. on the left side shows the location of the site within the urban fabric of the city.

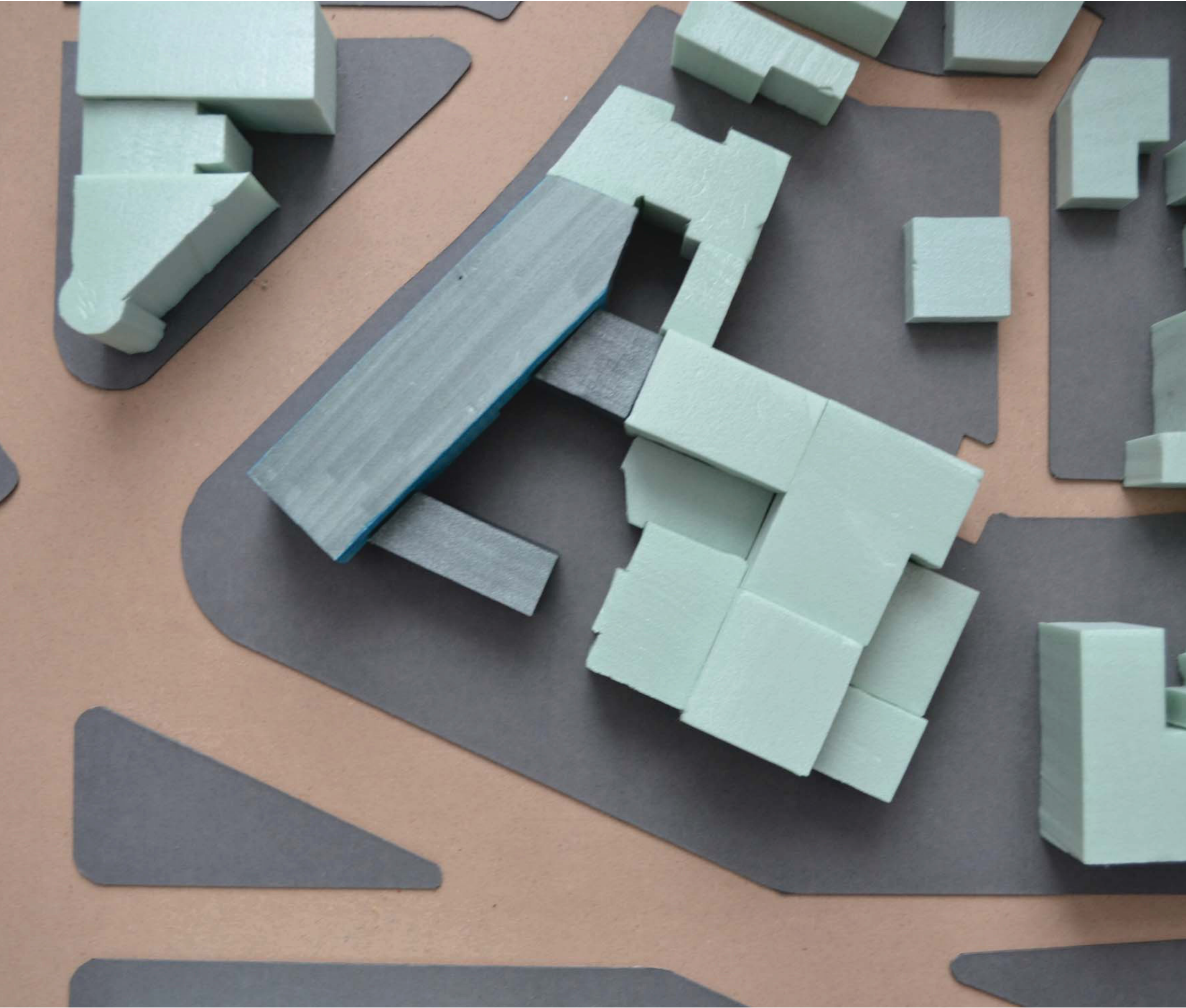
The panoramic views show the current conditions of the site. From the street side the site looks like a well maintained garden. By looking closer it becomes apparent that it is not used as a garden but as a parking lot. Currently there are two driveways of Florida Avenue to access the site.

The sidewalk in front of the site seems very narrow since the trees are adjacent to the property line, which is not the building line. There is a set back for the buildings on Massachusetts Avenue to keep the impression of a wide boulevard.

**Initial massing models:**

The initial approach to designing the building was to do mass studies on the site. Different building schemes were tested, including various approaches to the treatment of the prominent corner of the property. Another challenge was the right proportion of the distance to the neighboring Cosmos Club.

On the right hand side are four examples of the massing. On the left is the massing of the final design.



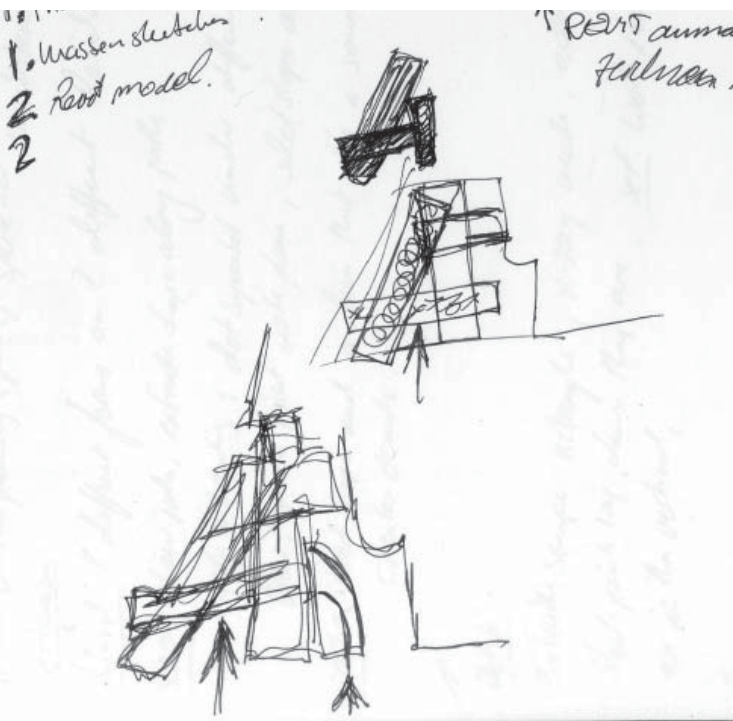
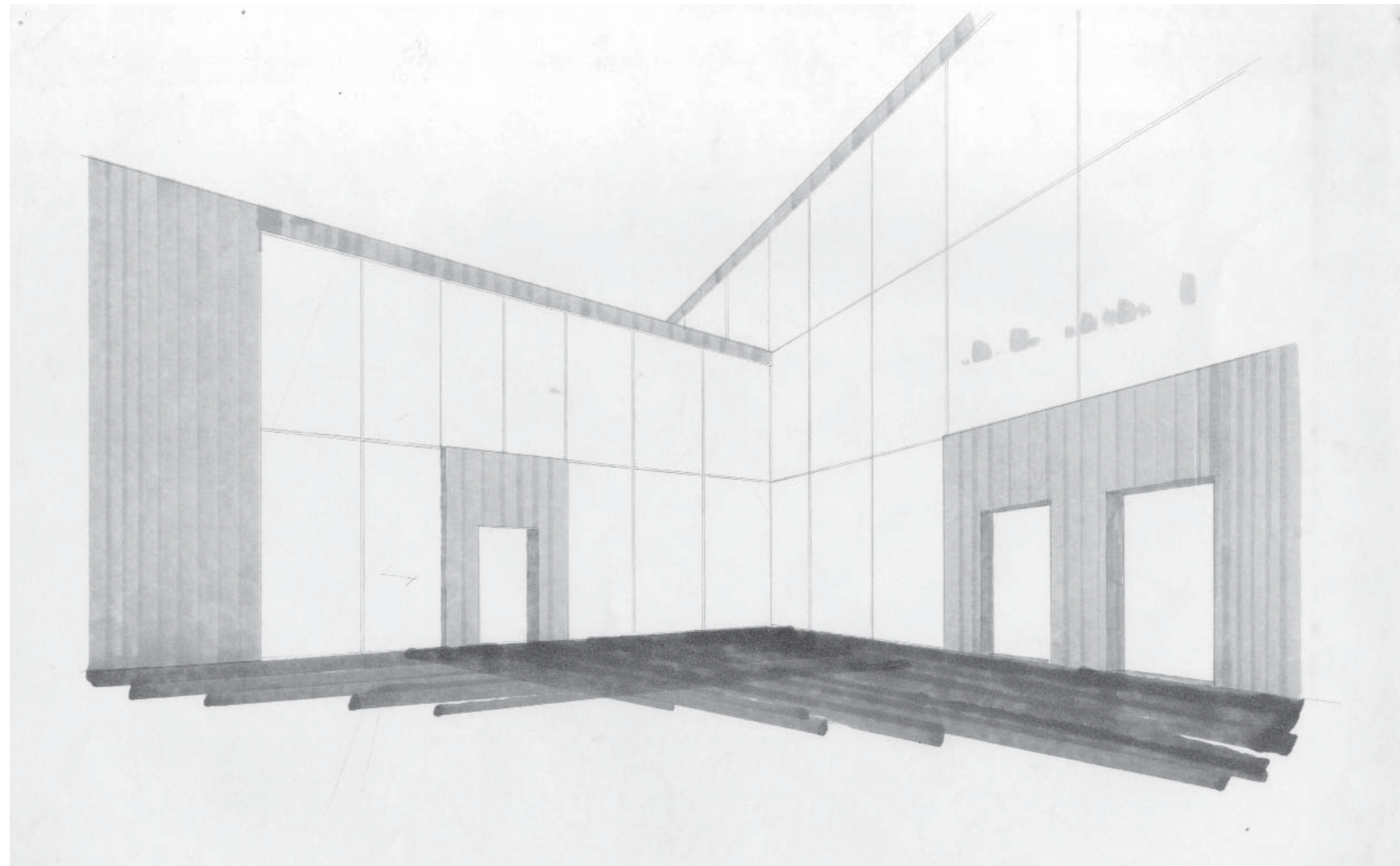
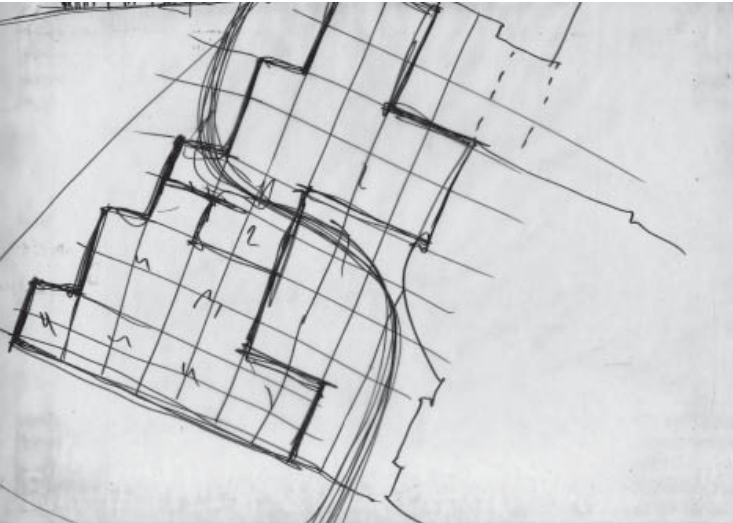
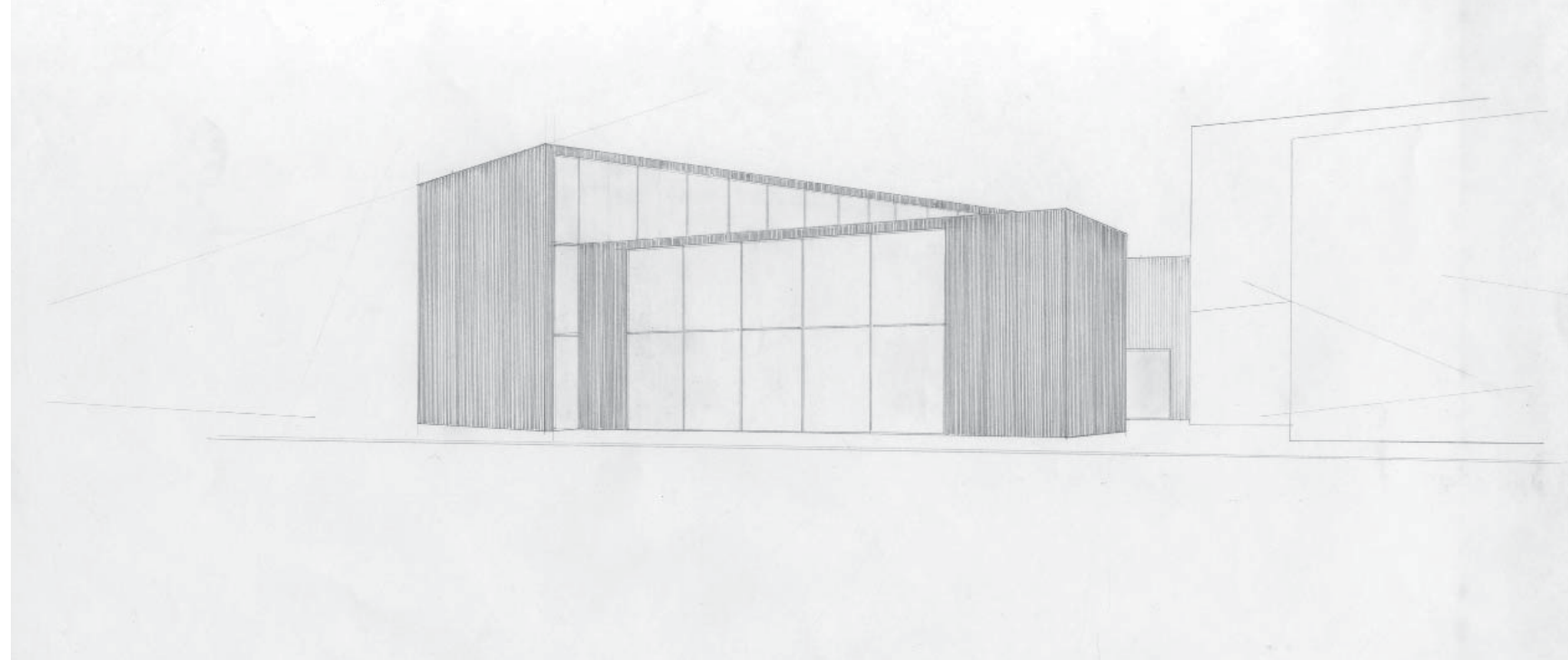
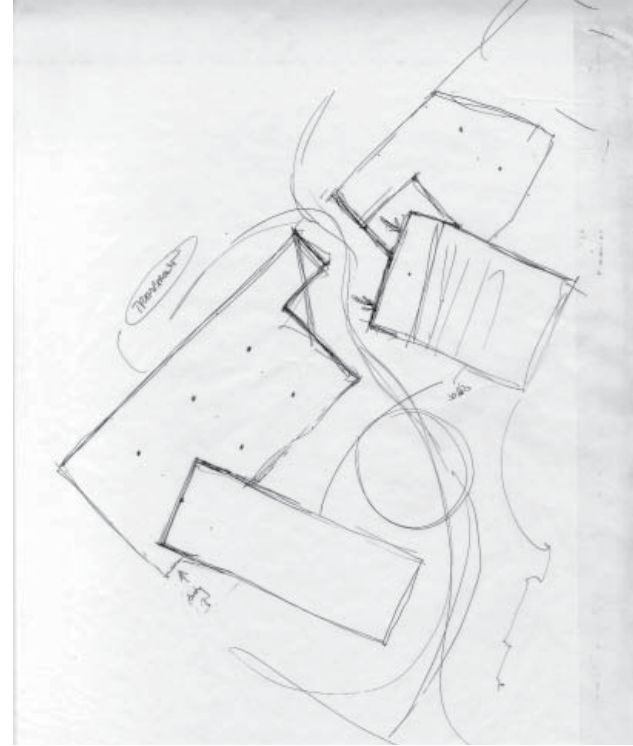
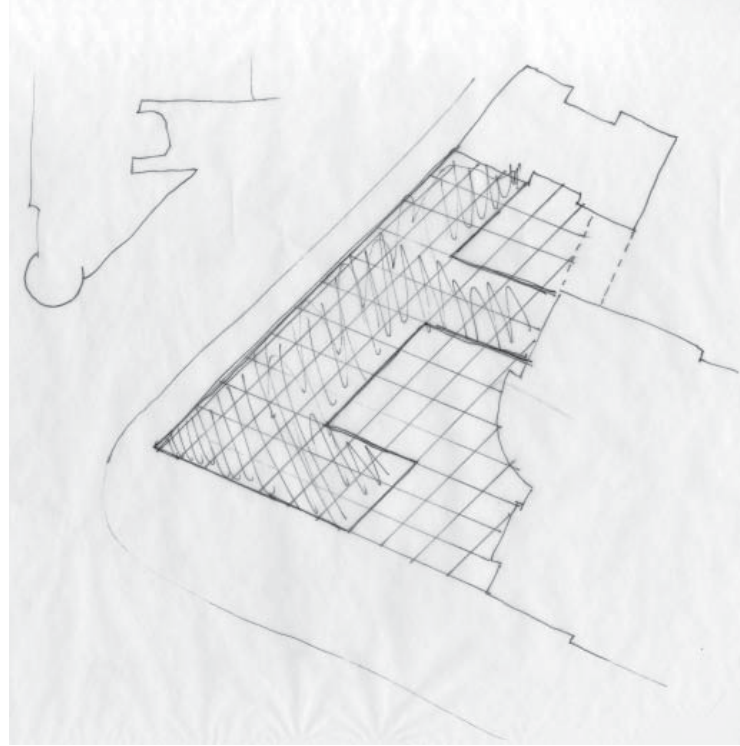
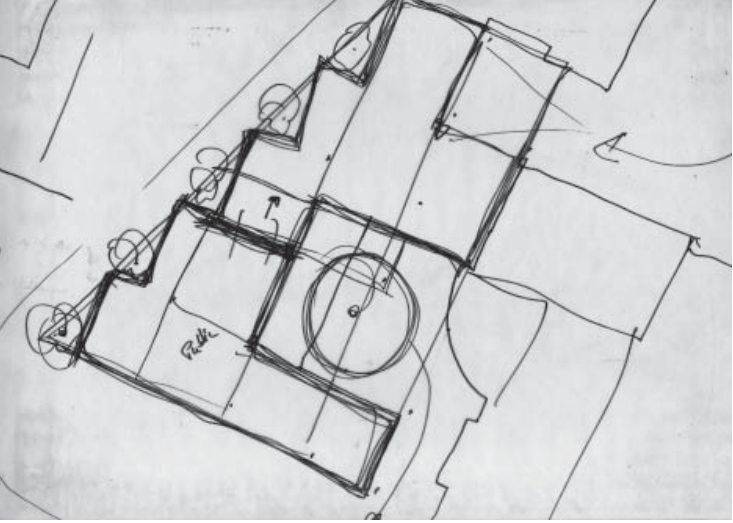
massing final design

four early massing variations

**Preliminary Design I:**

After the initial massing within the site model I started drafting floor plans and sections. It became apparent that the building would consist of three main building parts. A taller part along Florida Avenue, and two lower parts, one running along Massachusetts Avenue and the other set back parallel to the front building.

Through this an inner courtyard evolved, which serves as the outdoor space of the building.





**Preliminary Design I:**

The floor plan shows the three main building parts. The two lower ones will house the special program parts including the auditorium and cafe. The higher one along Florida Avenue will house the reception space for special events and will serve as the lobby to the auditorium. The information center desk will be in the southern prominent corner of the higher building.

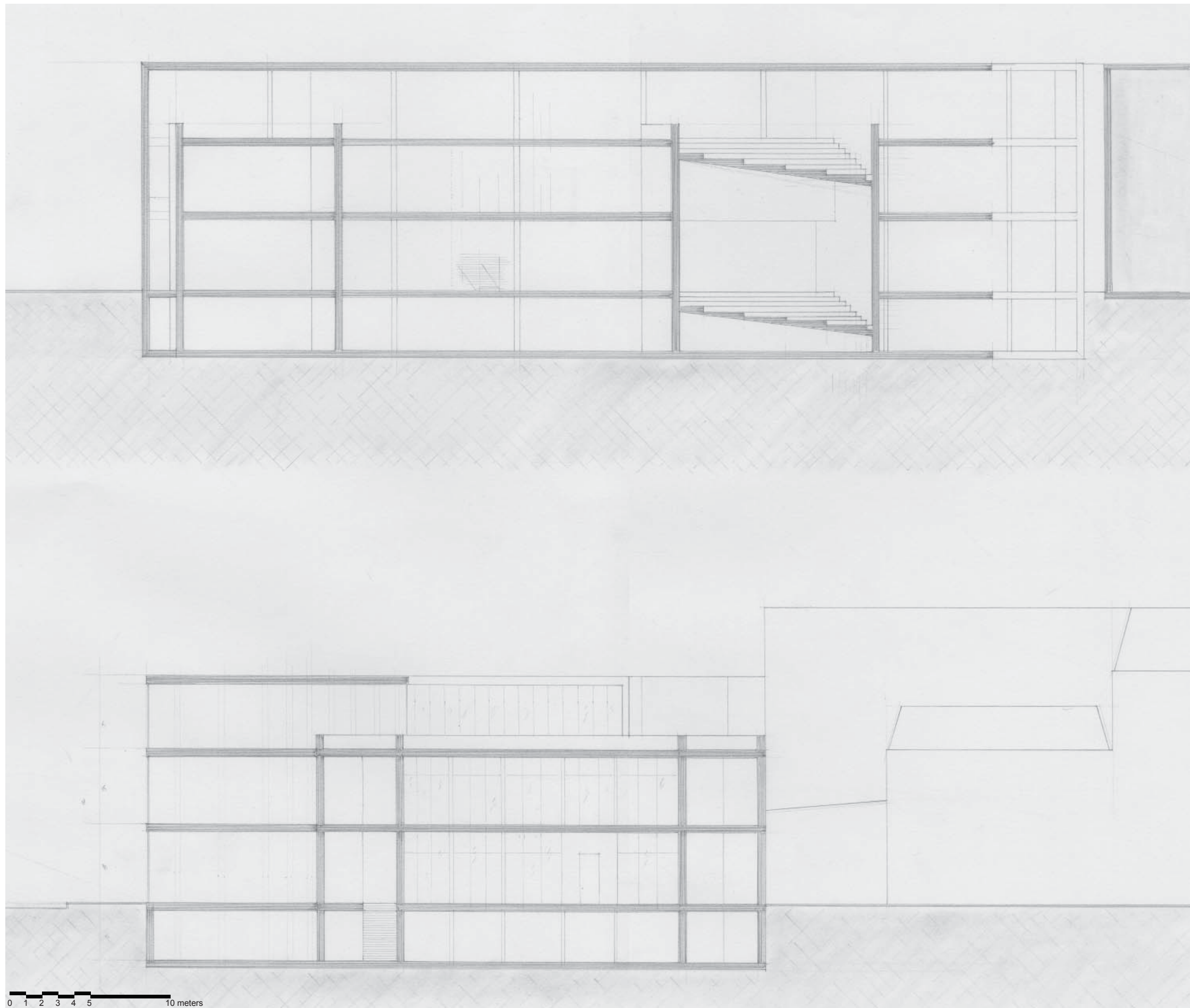
The main entry will be off the courtyard, making the user first enter the site before entering the building as a threshold. The main circulation will be in the center of the higher building making it convenient to reach all parts of the building.



sections south-north



ground level



section south-north / section west-east



second floor

**Preliminary Design I:**

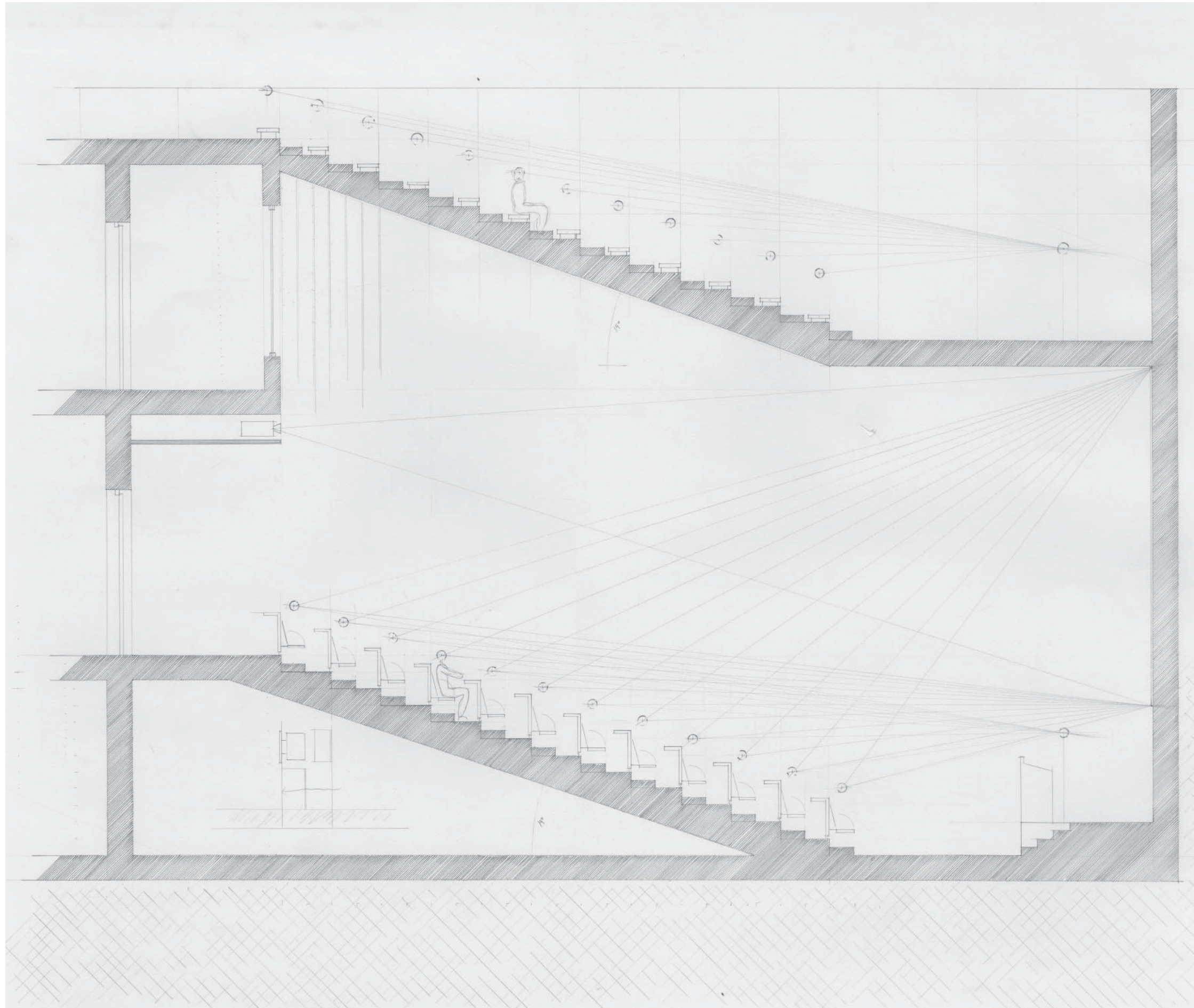
On the second floor the lower building parts will house the upper level of the auditorium and the library. The stacks of the library will expand into the higher building part. A secondary reception space will be in the northern part of the higher building.

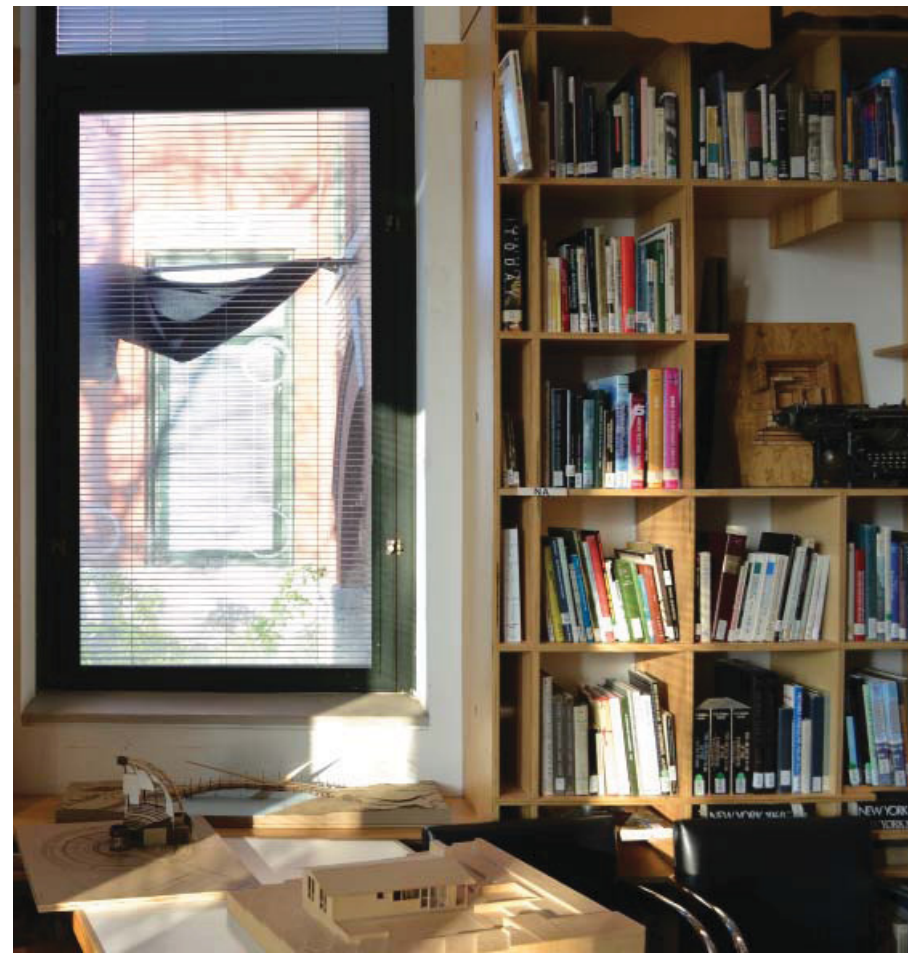
The central circulation will have a void to the lower level.

**Preliminary Design I:**

On the third level the higher building part will house the offices of the different institutions. On top of the auditorium will be an outdoor auditorium for lectures in the warmer months. The roof of the library will serve as an outdoor reception space and for the employees to have the chance to work outside within the complex.

The section on the left shows the auditorium and the outdoor auditorium. The slope of the seating allows all participants to have direct sight of the speaker and the screen in a lecture or a movie showing.

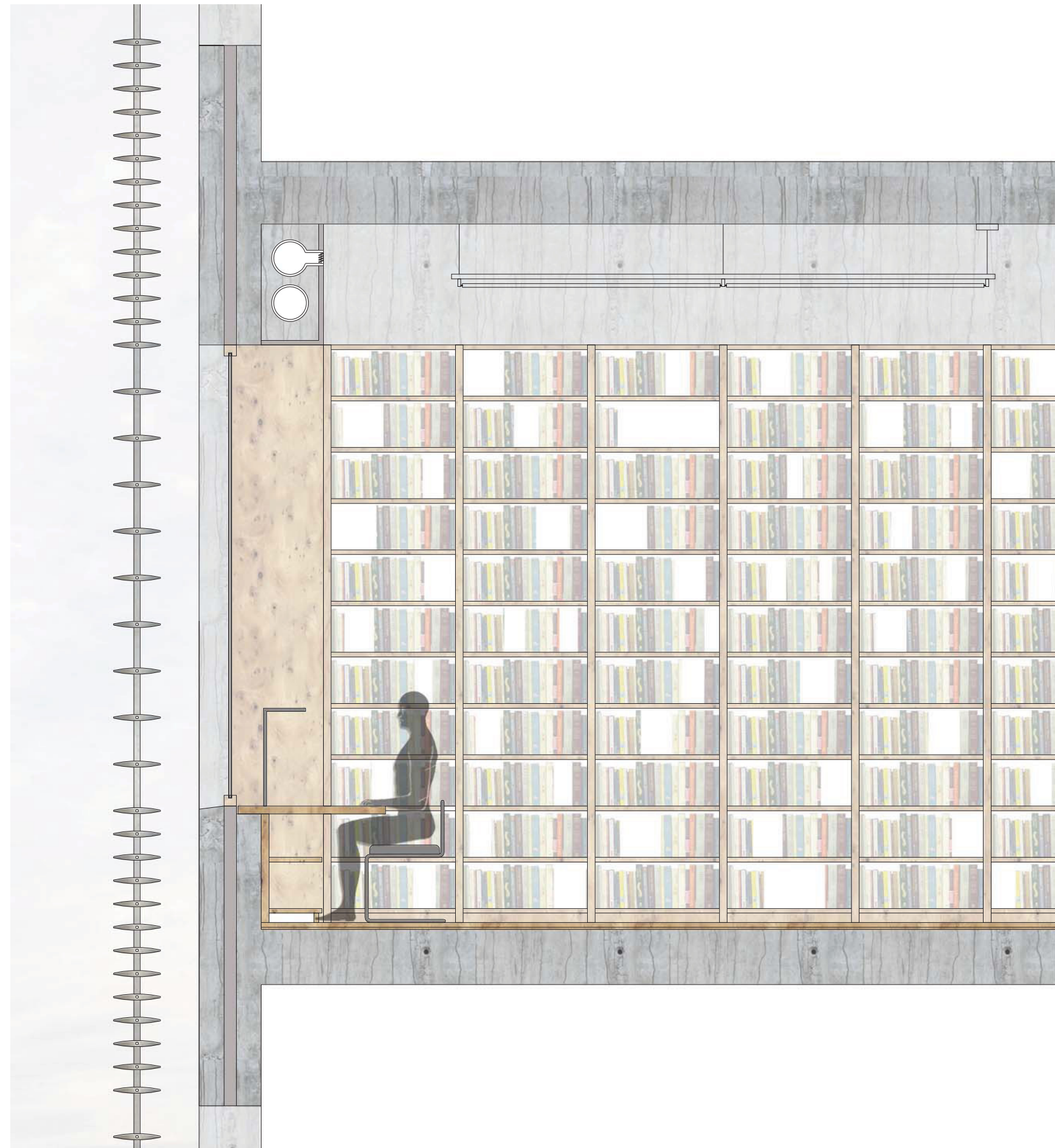


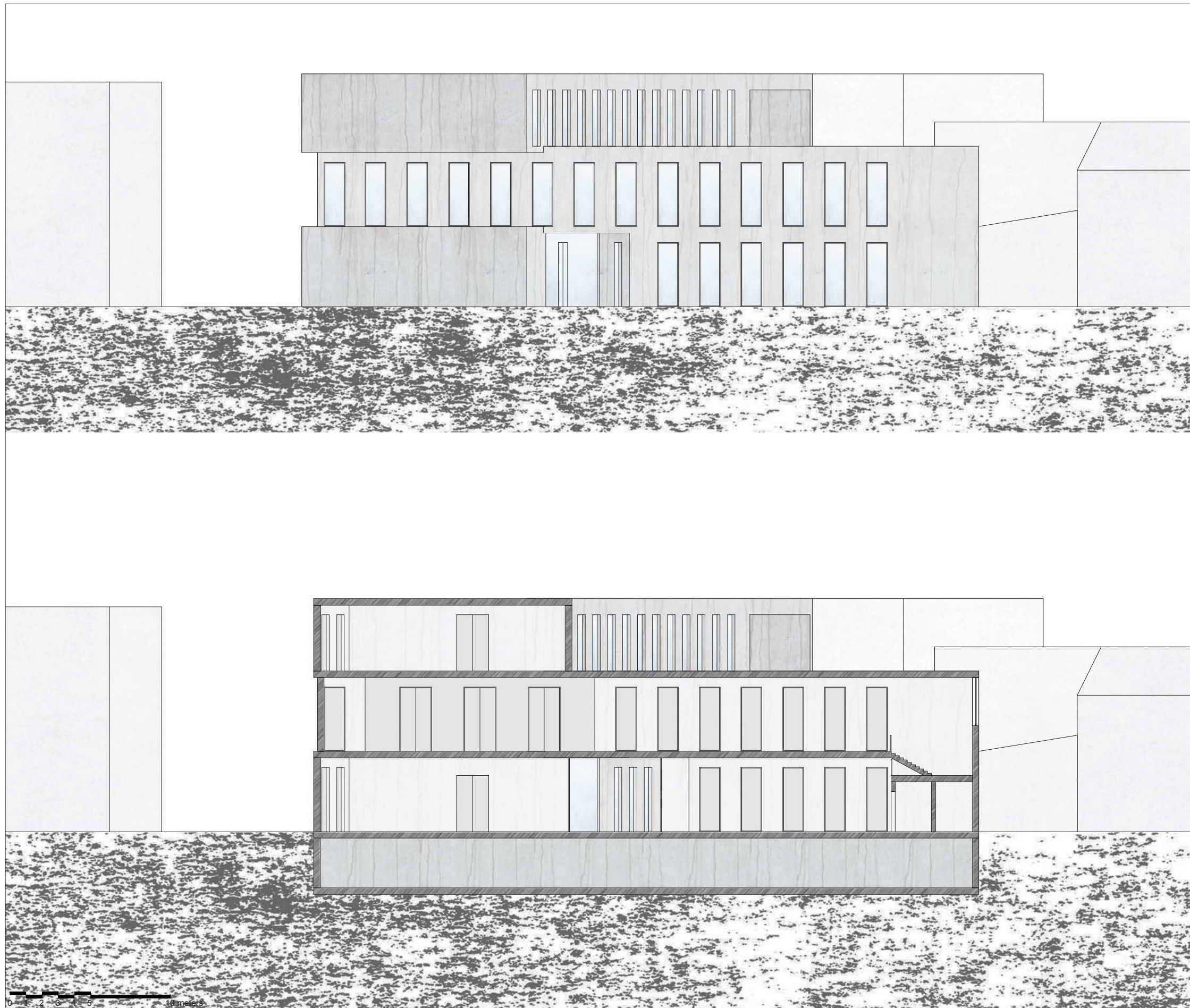


**Preliminary Design II:**

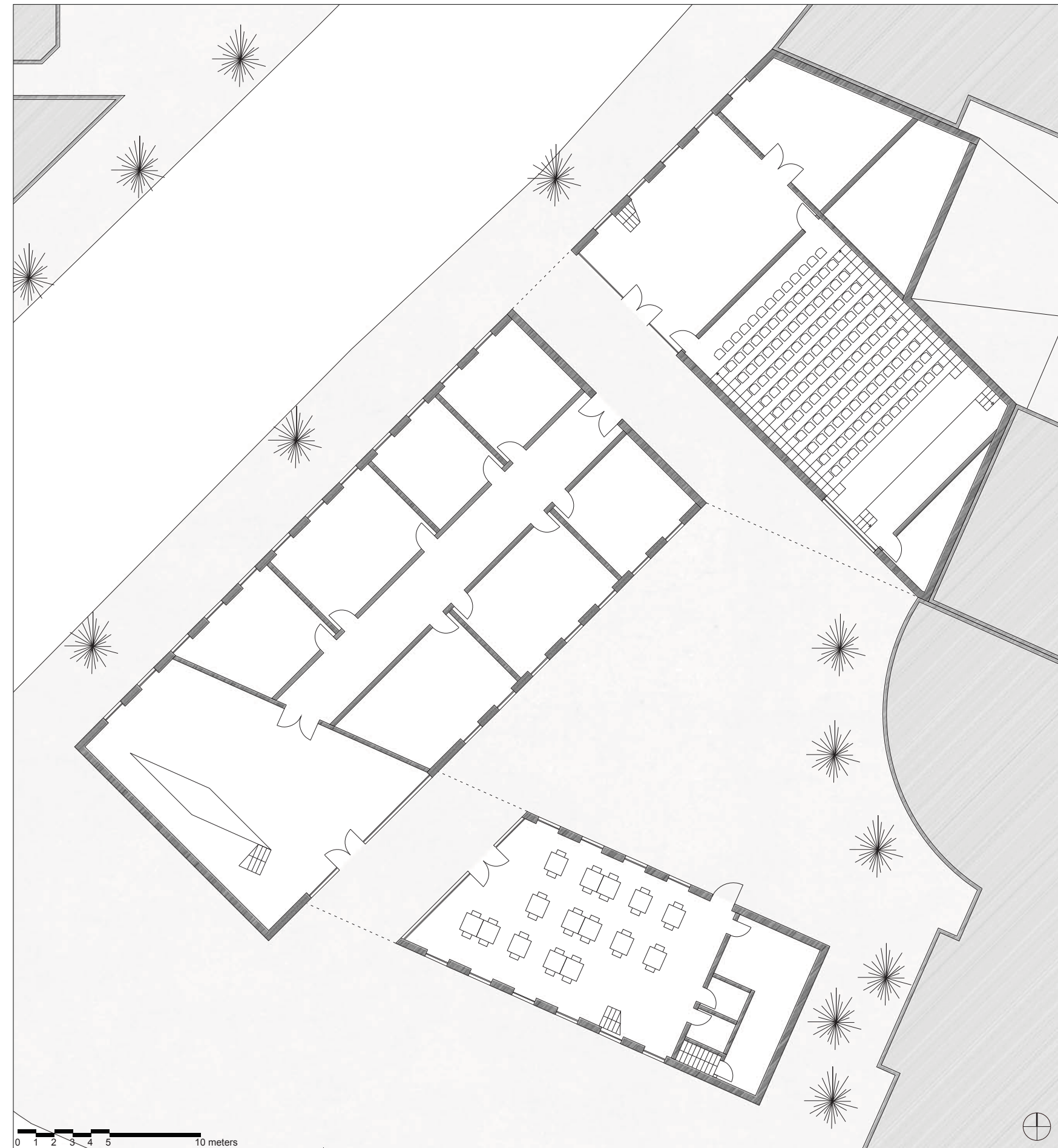
The following is another step in the design development through models and drawings.

In this large scale section of the library thoughts are expressed about the quality of the space. High ceilings and tall bookshelves are the background for the working stations along the windows. The problem of the southern exposure of the library is addressed by a secondary building enclosure in the form of a screen. The spacing of the screen fins is optimized to let in enough natural light, but at the same time offering the needed amount of shade to keep the building cool in the summer and preserve the books damage by the sun.





elevation south / section west-east



ground floor

## Preliminary Design II:

In this step two entry situations to the courtyard were introduced. The main entrance of the building moved towards the southern side, making the front door of the building more apparent. The auditorium and its entrance were separated by one of the courtyard entrances. Through this decision the auditorium can function without interfering with the rest of the building, but also later in the day when the rest of the building is no longer in use. It also provides a designated reception space.

The cafe can now also operate self-sufficiently. This brings the opportunity of offering service to visitors after the main building has closed for the day.

The main circulation now takes the prominent corner location of the taller building. Through this decision more space can be offered on all levels.

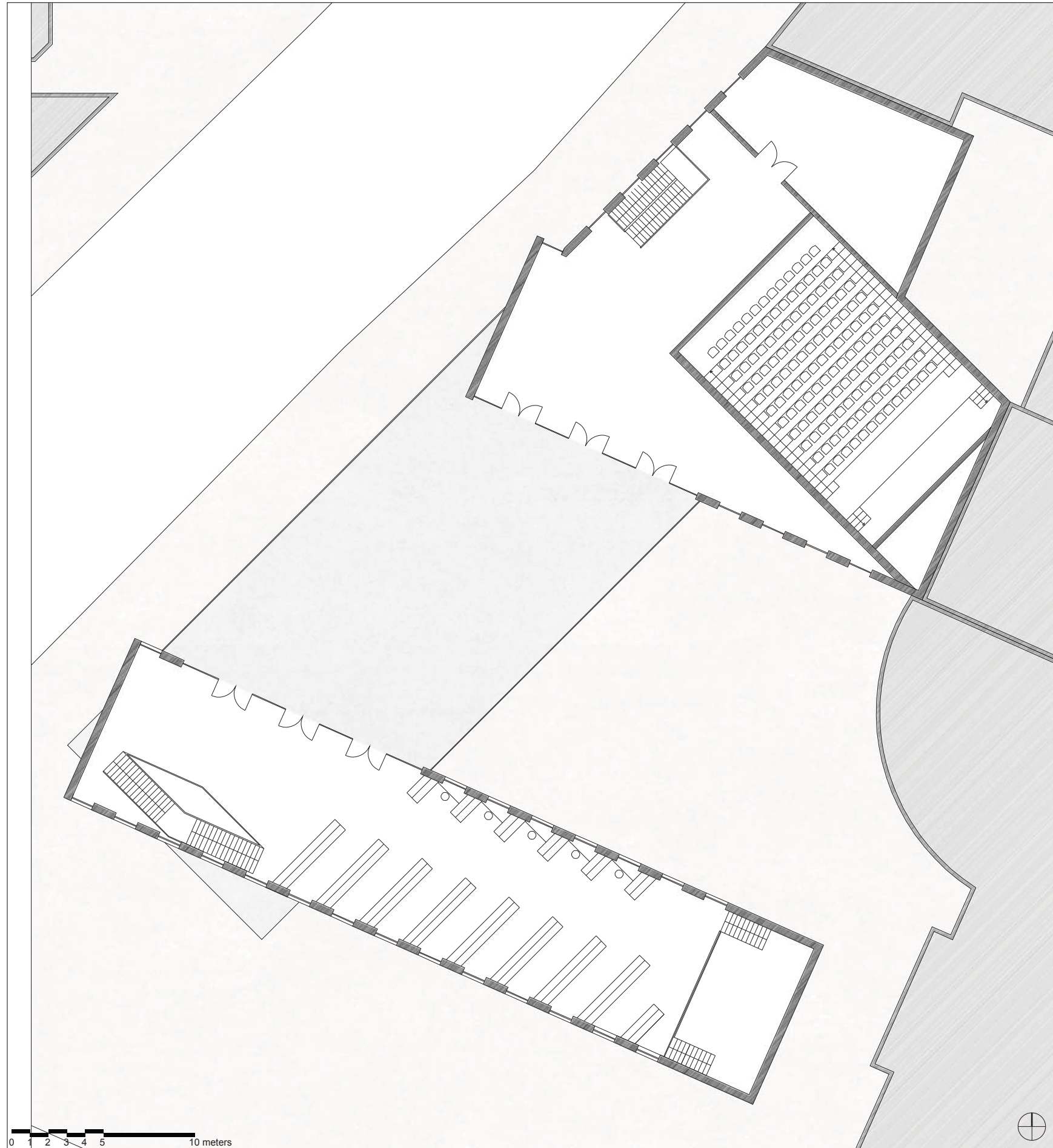
The elevation shows an evolution of the former design, backing away from large glass facades to facades with orderly openings.

The section shows a vertical connection between the cafe and the library, offering a secondary access to the library and the opportunity of reading and enjoying the cafe at the same time.

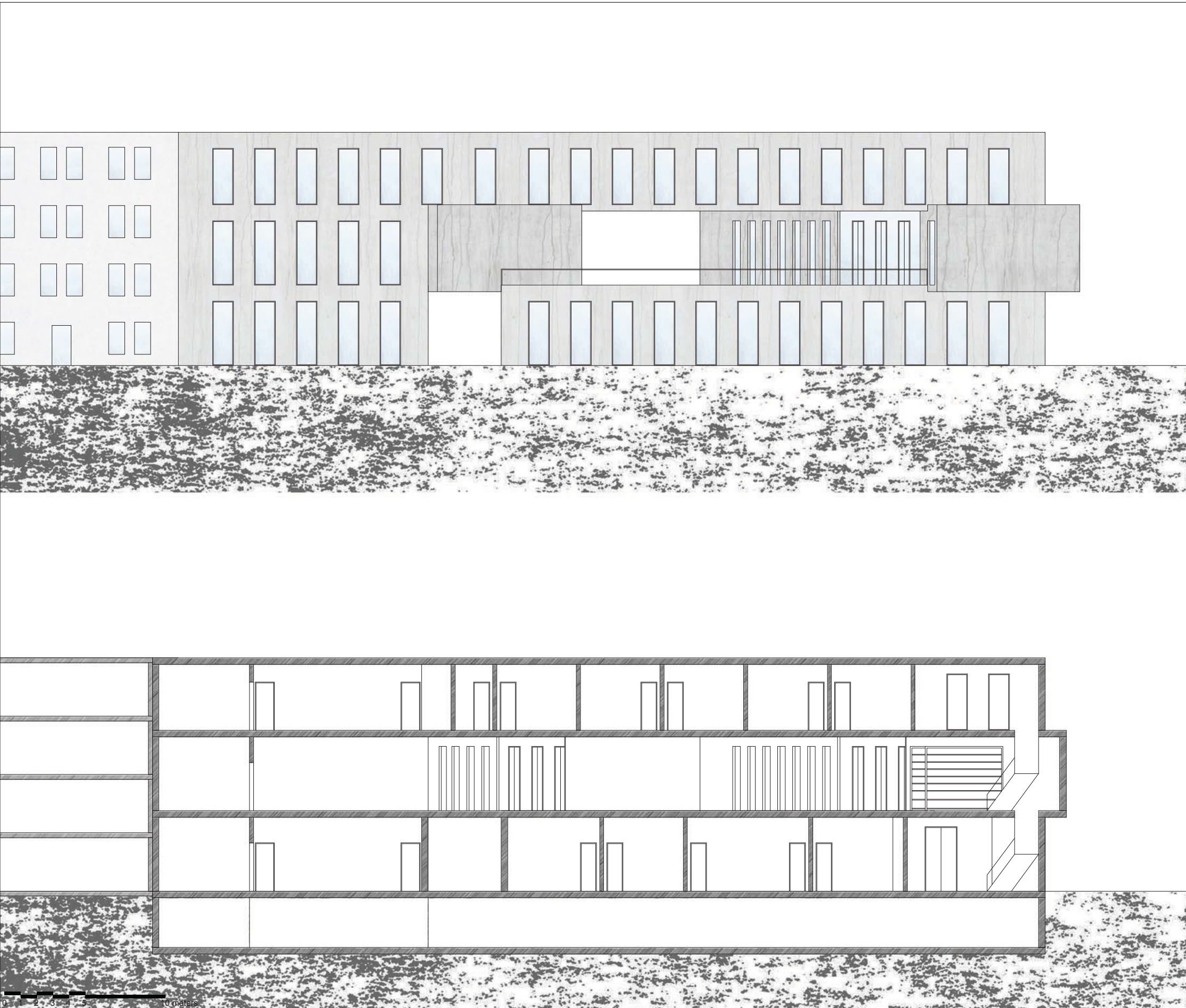
**Preliminary Design II:**

The second floor houses the library and the upper level of the auditorium. Adjacent to the auditorium is a large reception space. Further a large void within the building mass offers the opportunity of a large outdoor space. This can be utilized by the reception space, the employees and the library as an outdoor reading area.

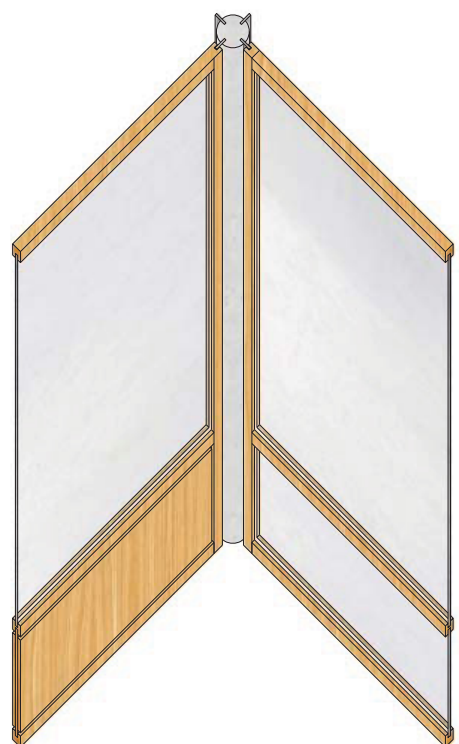
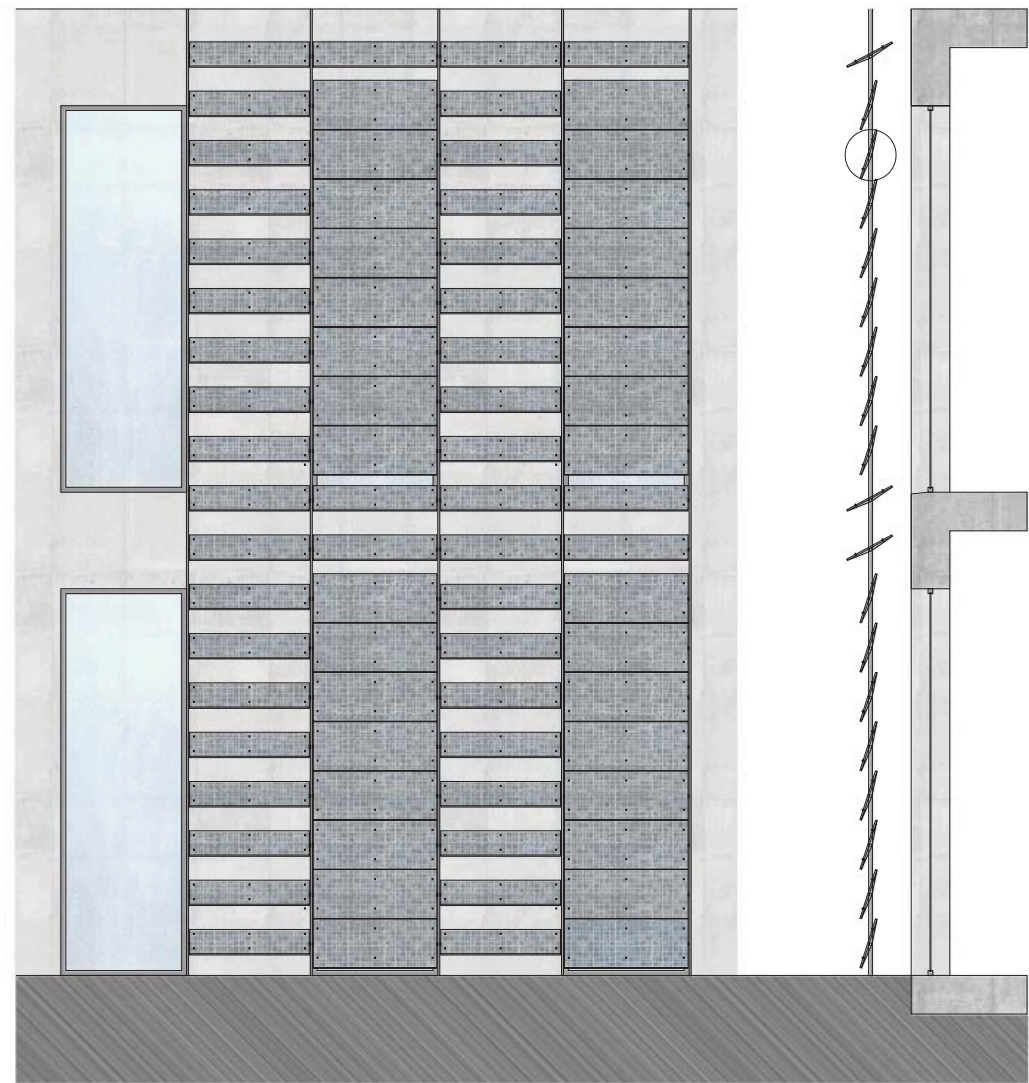
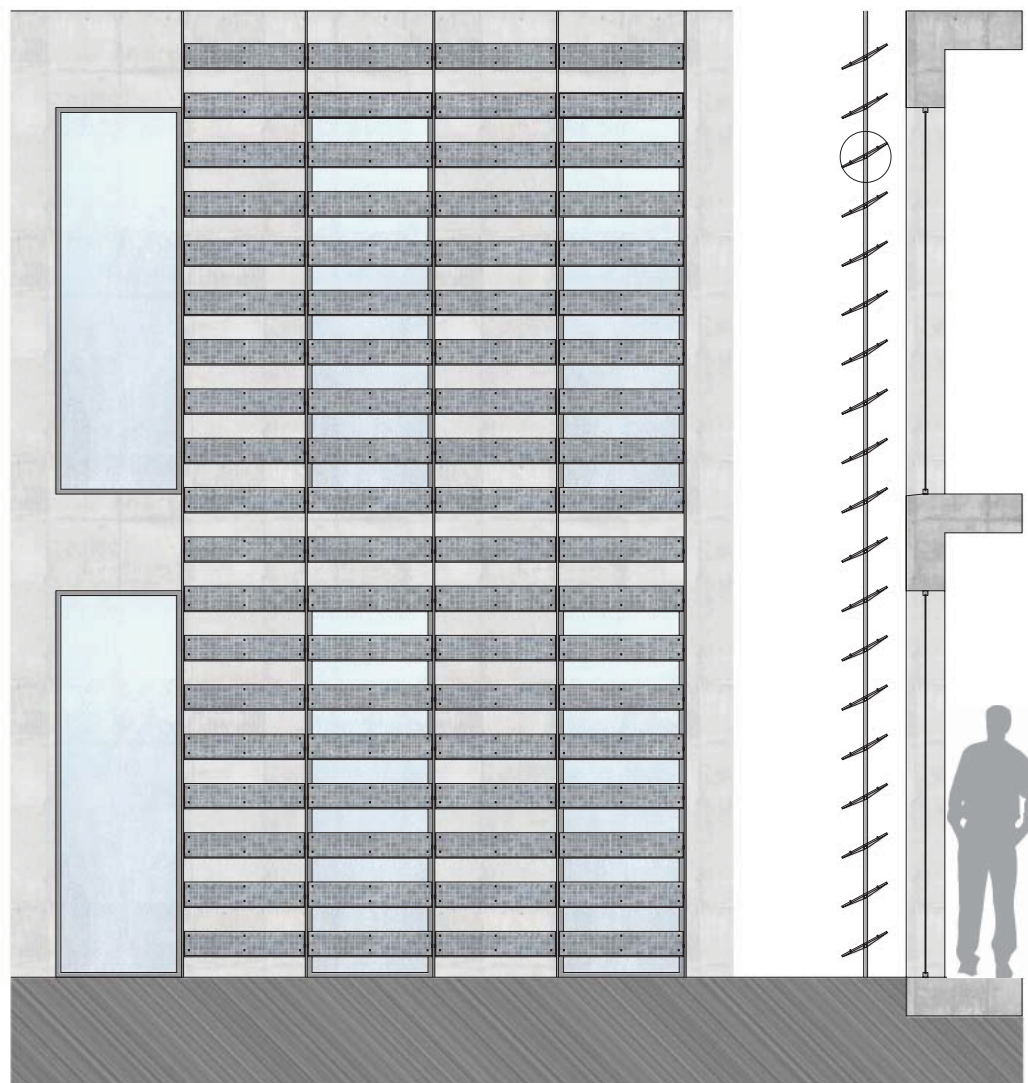
The section shows the primary circulation on the southern side, the secondary and reception space circulation on the northern side.



second floor



elevation west / section north-south



elevation facade / axonometrie interior walls



**Preliminary Design II:**

The third floor will house all of the offices and conference rooms of the institutions. The outdoor auditorium is still above the auditorium below.

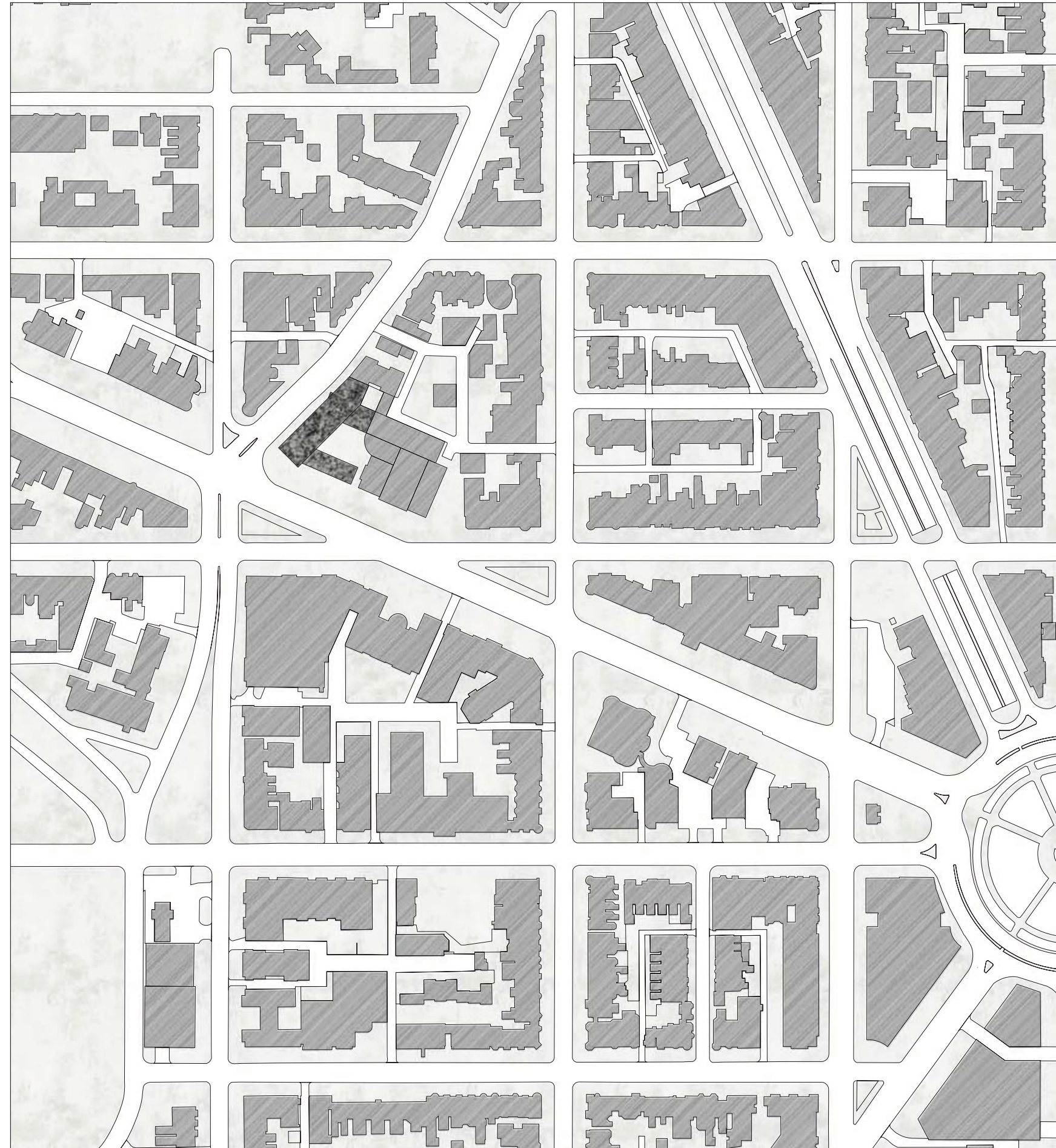
The larger scale drawing shows a configuration of the screen wall on the building. It shows moveable parts that can be adjusted to the angle of the sun and type of weather of the day. Through introducing moveable parts into the screen the building appearance changes throughout the day, depending on the position of the fins.

The large scale drawing shows a detail of the interior walls and their configuration depending on the use of the room. Public rooms will be all glass, semi-private half glass, and offices will be mainly solid with glass at the top to allow light to enter the corridors.

third floor



model



site map

### Final Design:

In the following I will present floor plans, sections, elevations, renderings, and models as I presented them at my final thesis defense on September 14th, 2011 at the Washington Alexandria Architecture Center, Virginia Tech, in Alexandria, Virginia.

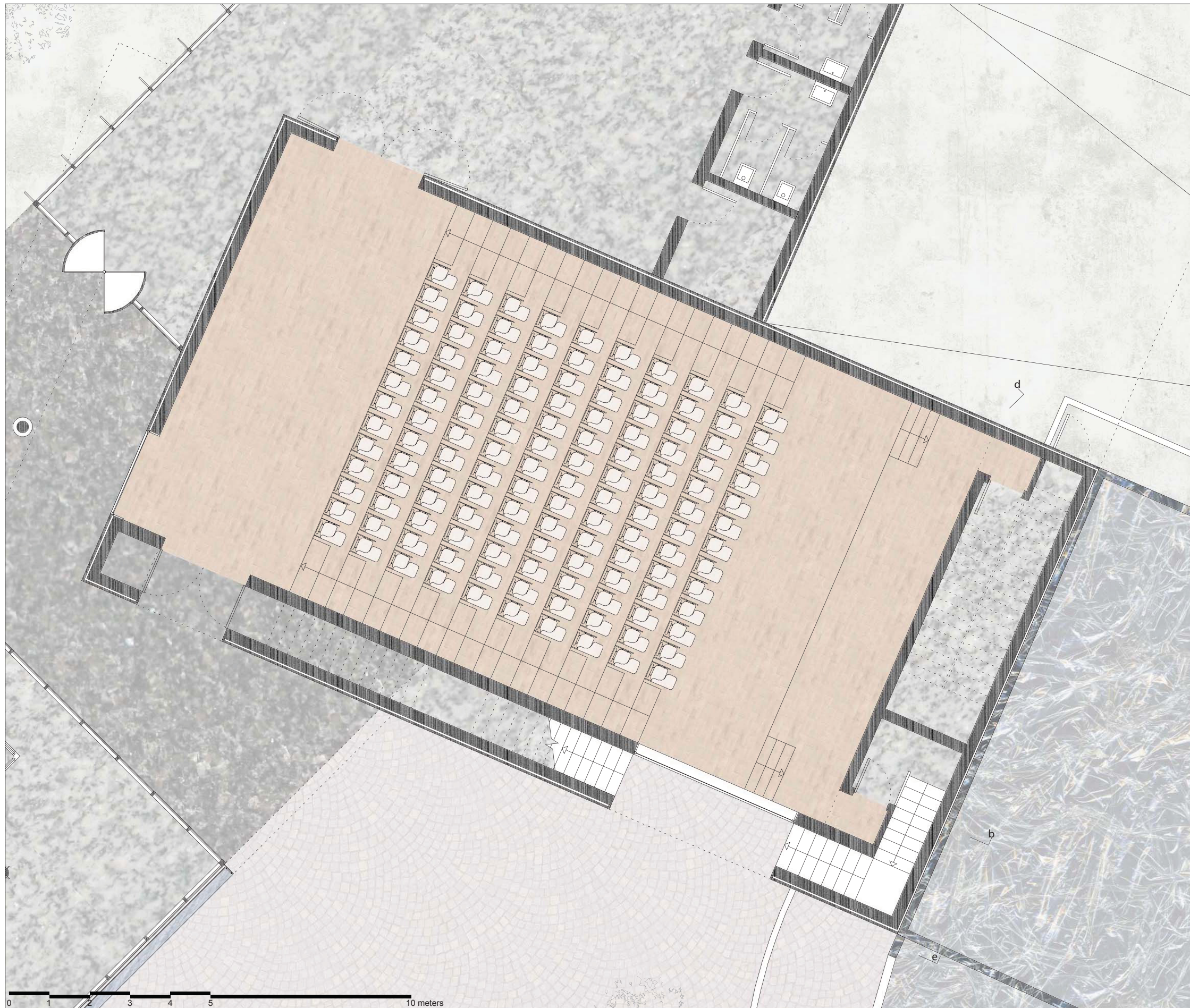
### Site plan:

The site plan shows the unique shape and location of the site. In close proximity are Dupont Circle and all of its entertainment and culinary offerings. Also in close proximity are many institutions, such as the Phillips Collection, the Washington Center for the Arts, the Cosmos Club, the embassies of Luxembourg, India, Bulgaria, Mali, and Estonia.

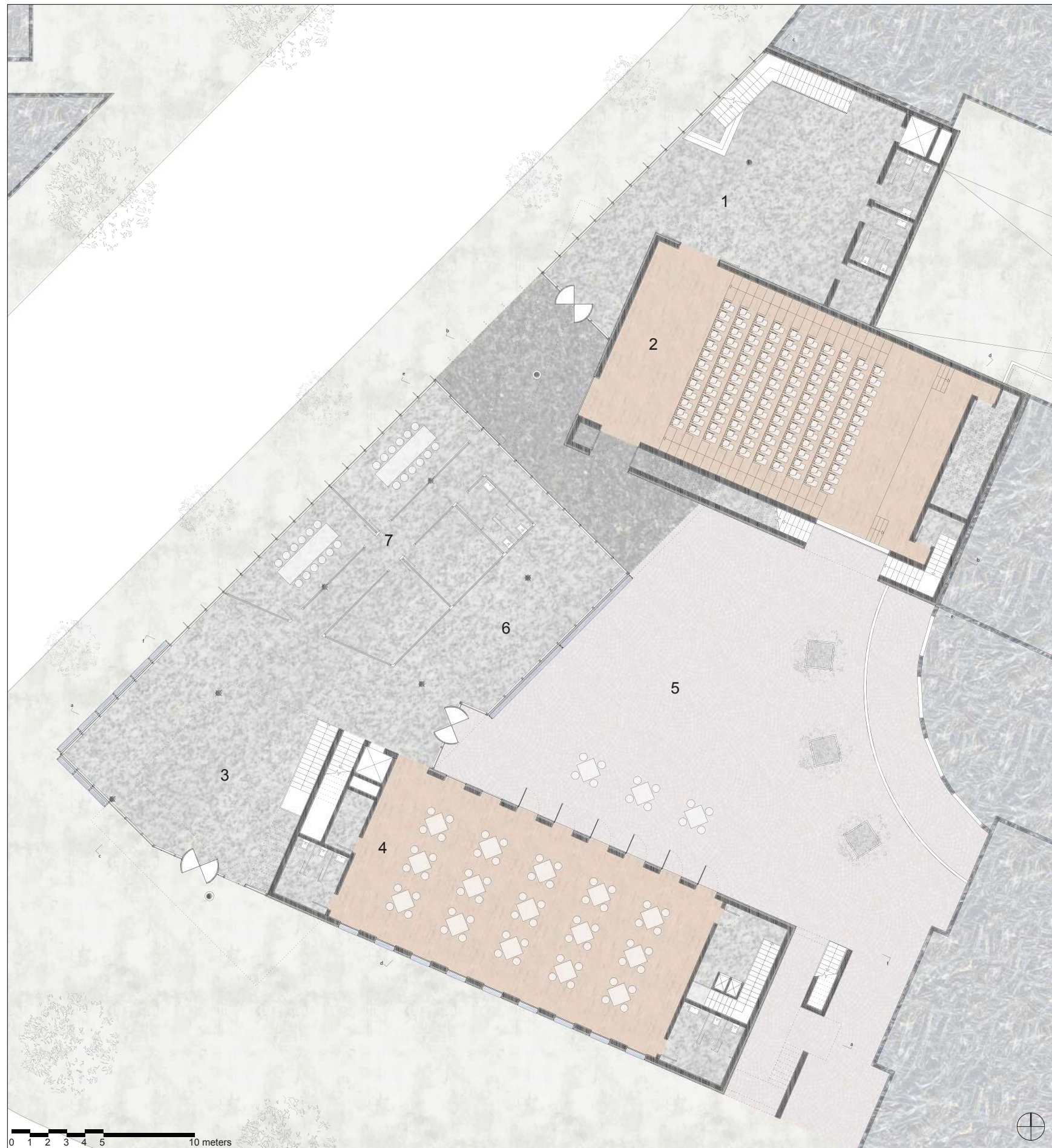
The corner location is prominent. It is possible to approach the site from the many angles as a result of the amount of streets intersecting to the southwest of the site.

The building ensemble of the Cosmos Club wraps around the whole site, making the connection to the neighboring buildings a great challenge.





auditorium



ground level

**Floor plans:**

- 1 reception space
- 2 auditorium
- 3 lobby
- 4 cafe
- 5 courtyard
- 6 exhibit space
- 7 class rooms

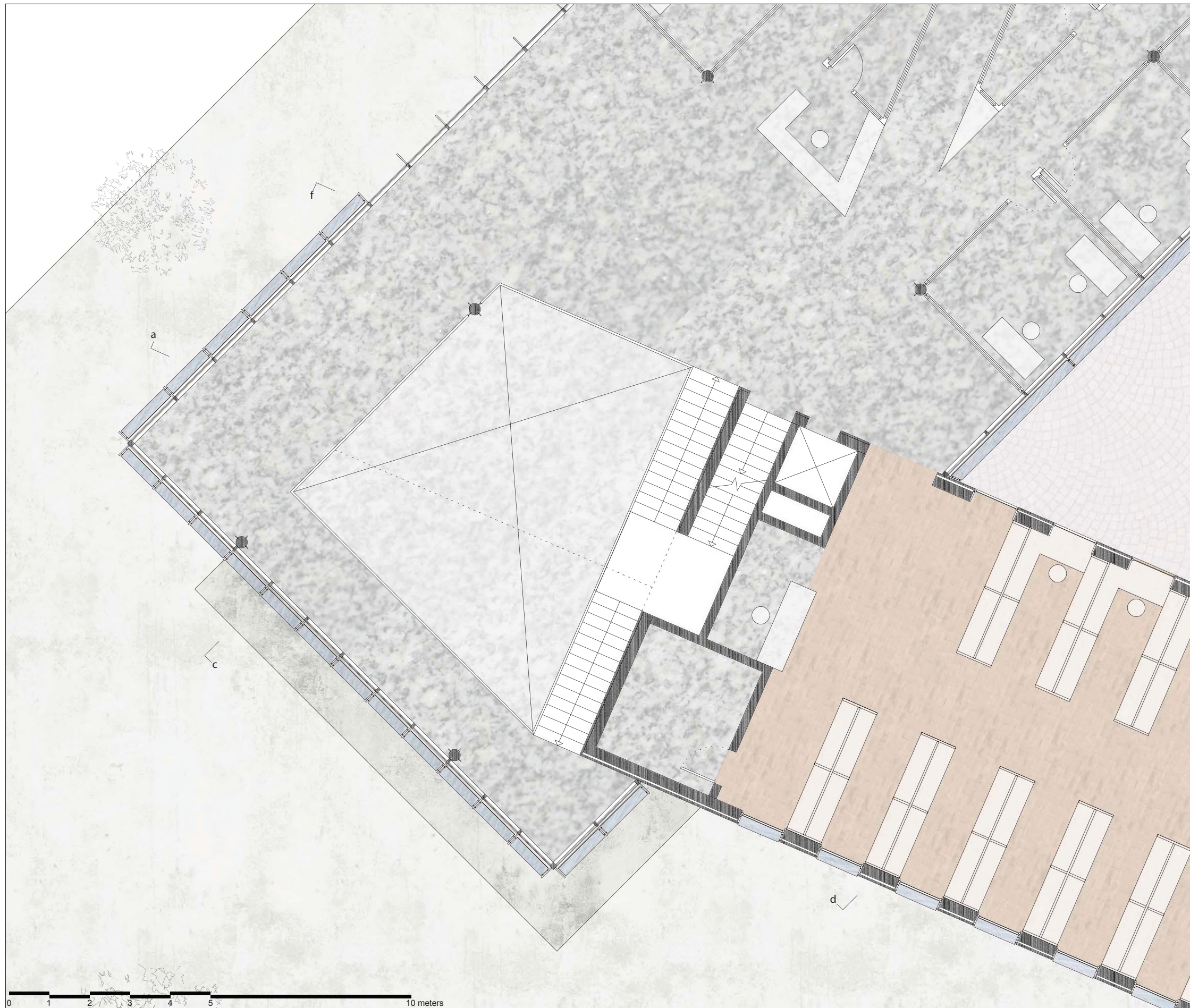
The final design consists of three major building parts. Along the western edge of the property runs a long, open translucent building. On the northern and southern area of the site two more solid, box like buildings intersect with the long building.

The box like buildings house the special functions of the institute: the auditorium and the cafe. The long building houses the reception space, class rooms and the three story entry lobby.

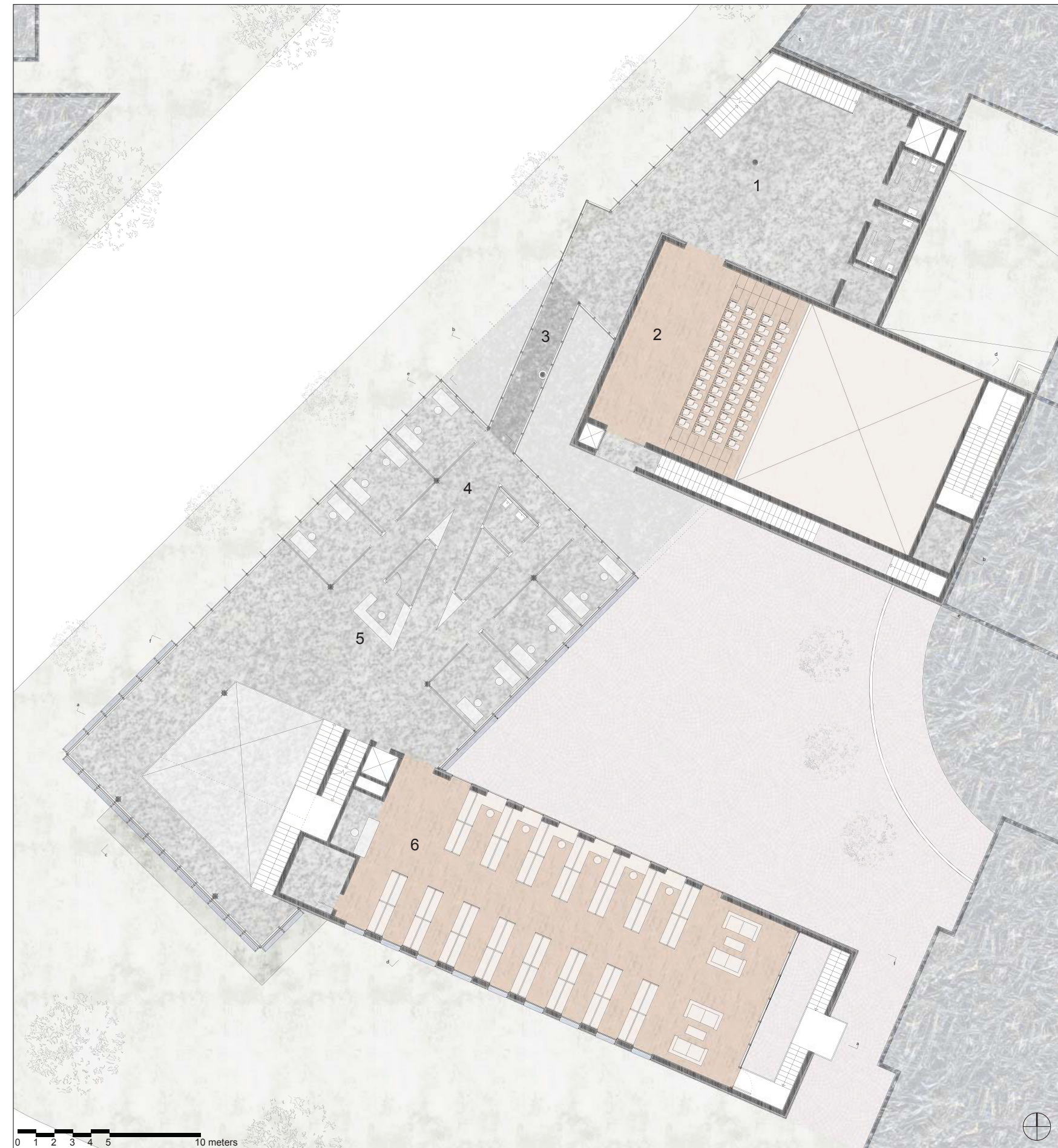
The main entrance to the building complex is off Massachusetts Avenue to the south. The lobby also houses the main circulation with stairs and an elevator. A second circulation is found in the reception space.

The courtyard functions as an outdoor space to the building complex. There are two entrances, one through the western part of the building, and one in between the southern part of the building and the neighboring Cosmos Club. Through this the courtyard becomes semi-private.

North of the auditorium is the parking and maintenance ramp.



three story lobby



second floor

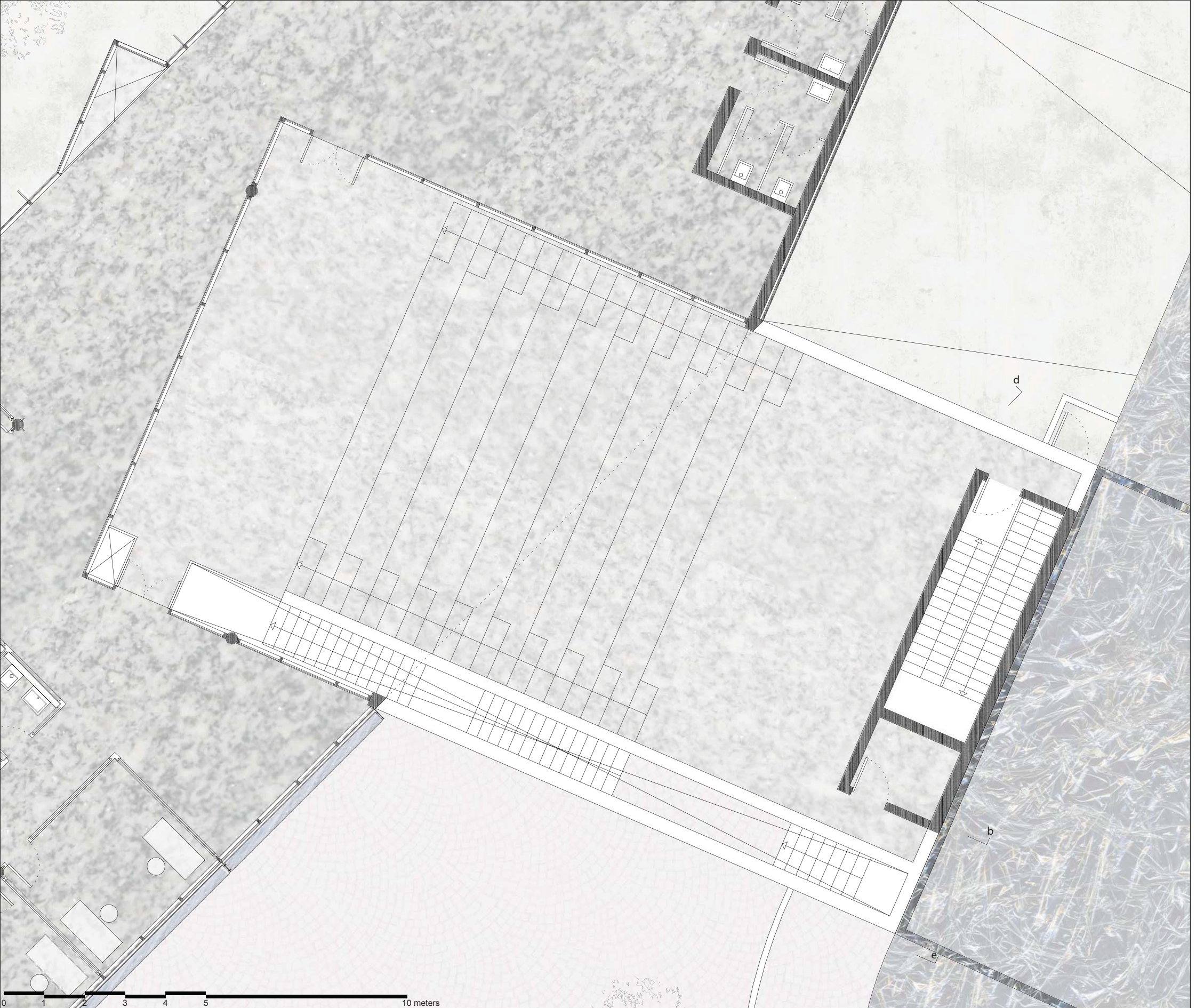
**Second Floor:**

- 1 upper reception space
- 2 balcony of auditorium
- 3 bridge
- 4 offices
- 5 information desk
- 6 library

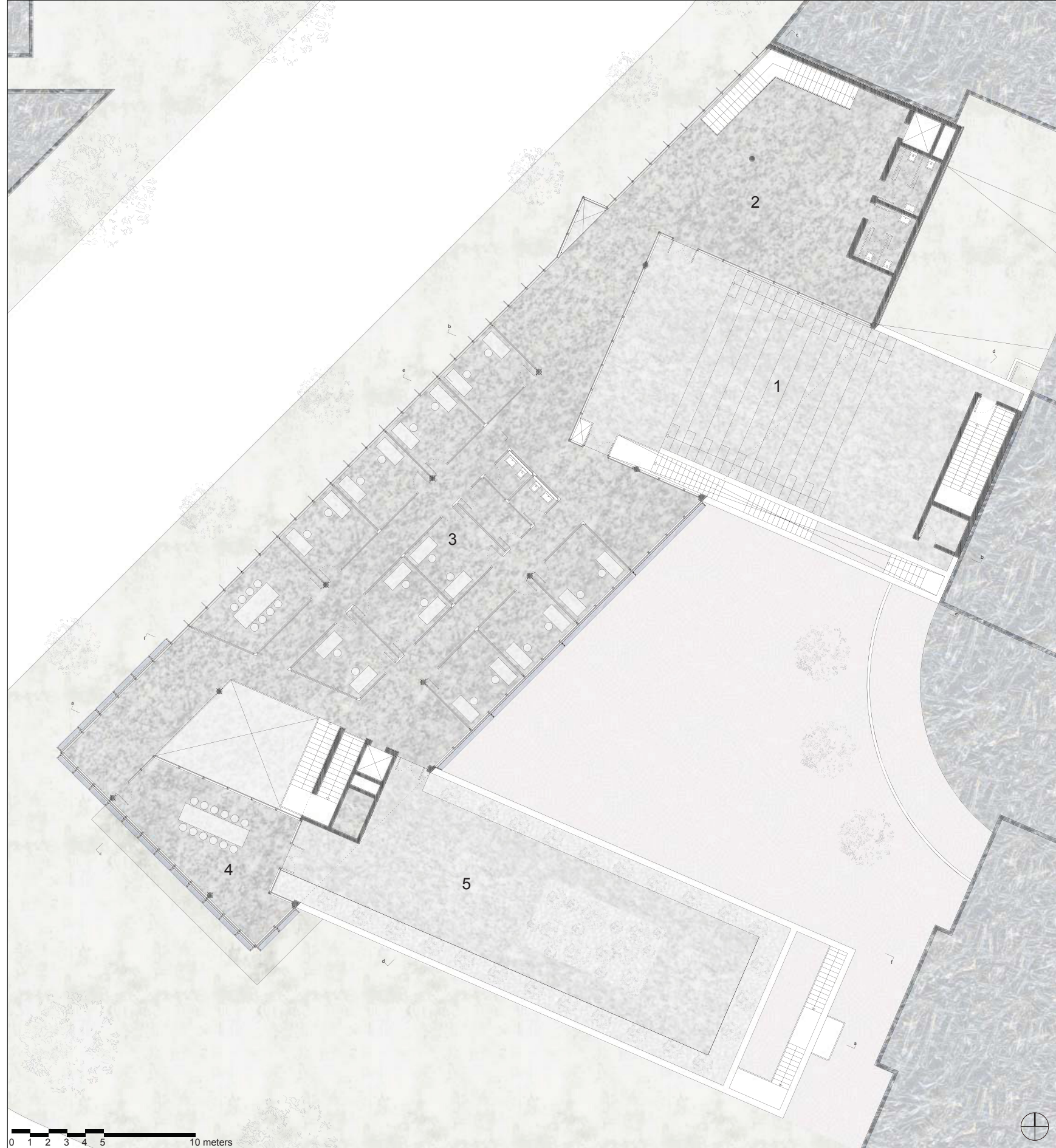
On the second floor is the upper level of the auditorium and reception space. The library is adjacent to the main circulation space. The information desk and offices are in the western building part. A bridge is introduced to connect the southern and northern building parts crossing over the courtyard entrance below.

The auditorium's secondary entrance and egress stairs are sandwiched between two walls of the auditorium. This keeps the solid appearance of the auditorium building and brings the convenience of accessing the courtyard from the upper auditorium level.

The prominent southwestern corner is utilized by the three story lobby, which serves as the vertical circulation and as an exhibit space.



outdoor auditorium



third floor

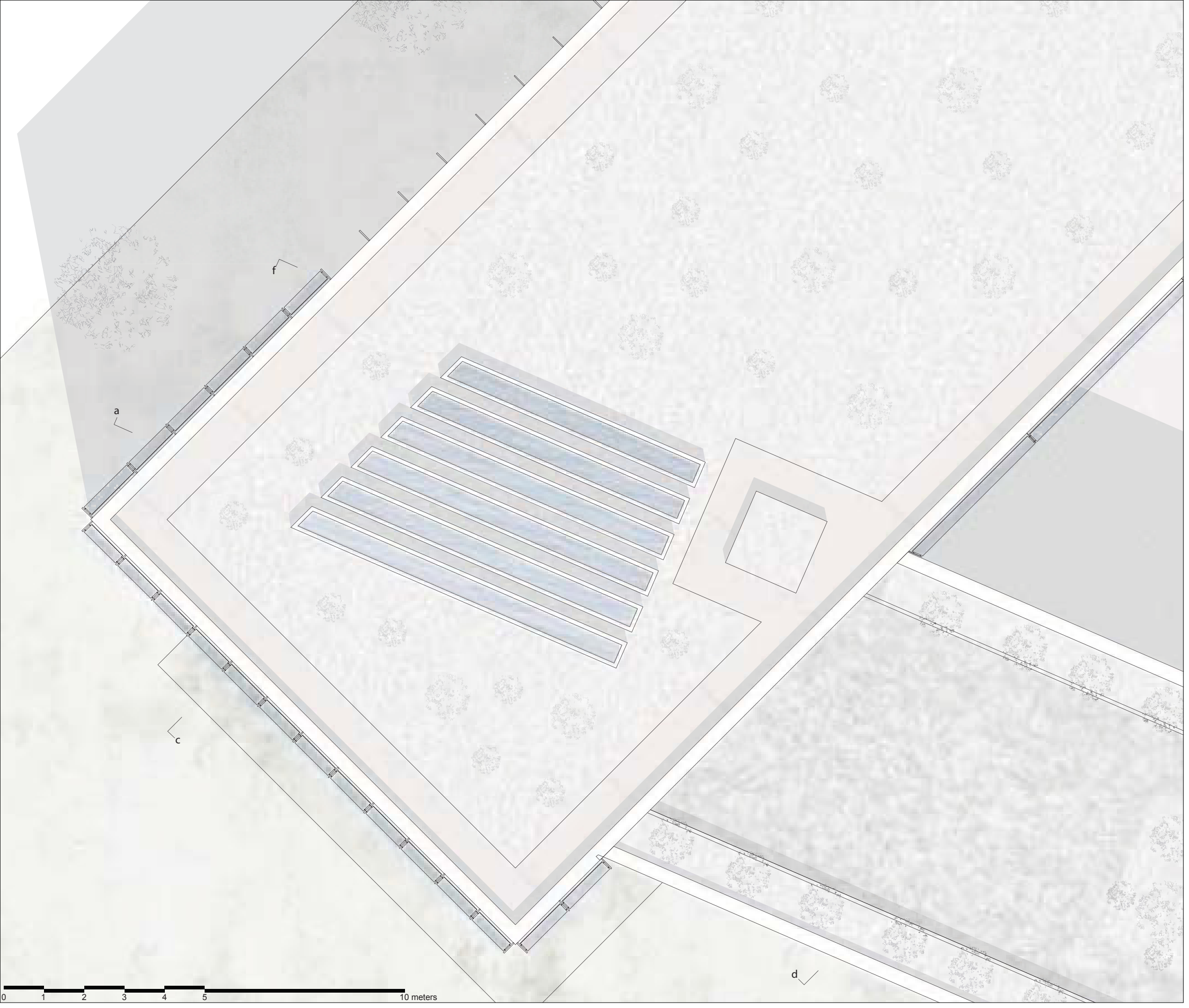
**Third Floor:**

- 1 outdoor auditorium
- 2 reception space
- 3 offices
- 4 meeting room
- 5 terrace for employees

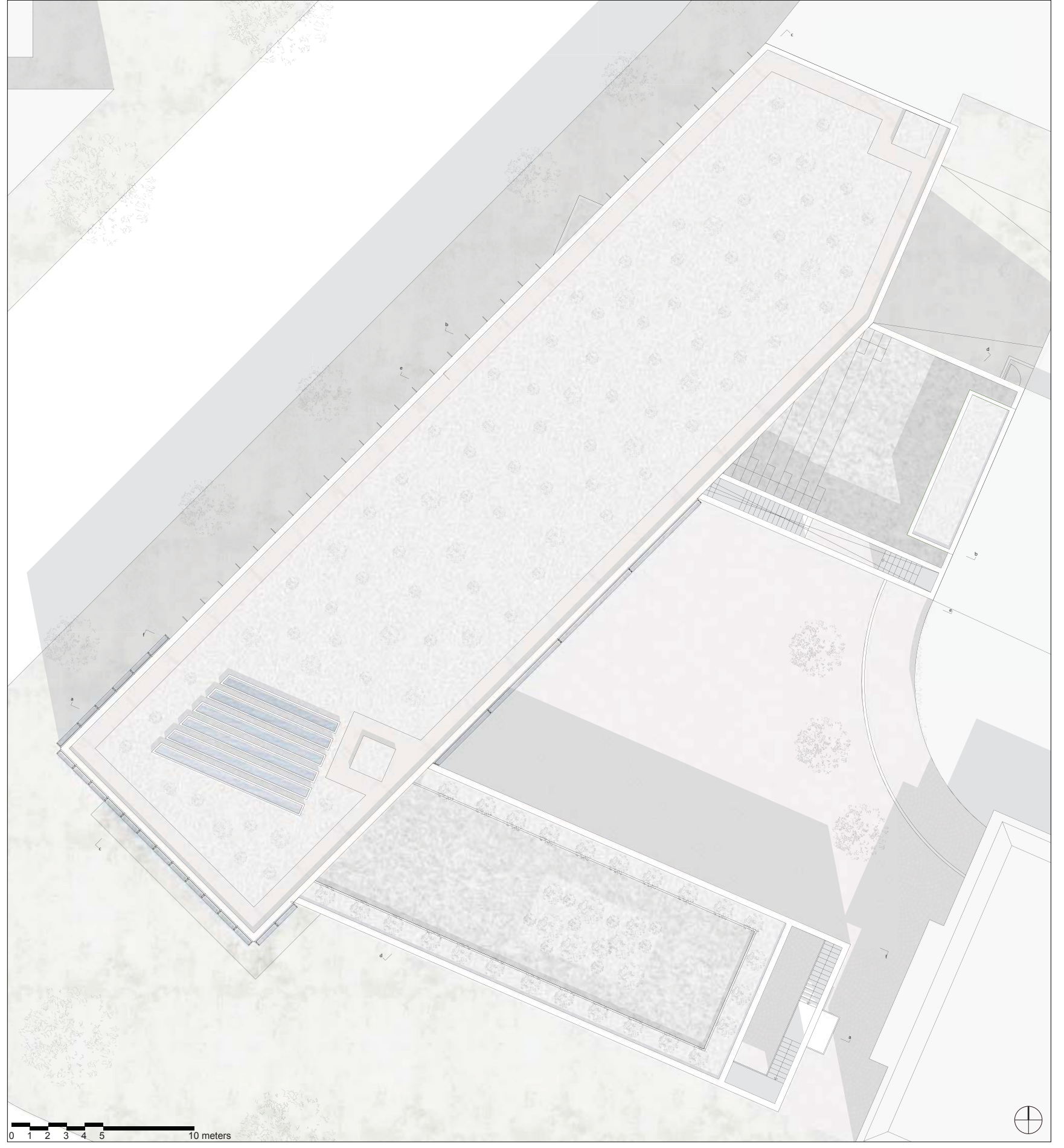
On the third floor the library roof is used as an outdoor terrace for the employees to enjoy. The auditorium's roof is used as an outdoor auditorium for lectures and movies in the warmer months. Adjacent to this space is another multi purpose space to use in conjunction with the outdoor auditorium.

Several offices and the main conference room occupy the floor of the western building part.

The conference room takes up the southwestern corner with access to the roof terrace and views of the city.



skylights and green roof



roof plan

**Roof Level:**

-green roof on main part of building

The main roof is a green roof which incorporates skylights for the three story lobby volume.



auditorium and parking



lower level

**Lower Level:**

- 1 parking for employees
- 2 plumbing and mechanical
- 3 lower level of the auditorium
- 4 kitchen and delivery of cafe

The lower level is mainly used for parking and maintenance. The ramp leading down is connected to the ally system of the city block. This ensures access, but eliminates the large scale entrance on the street facing facades.

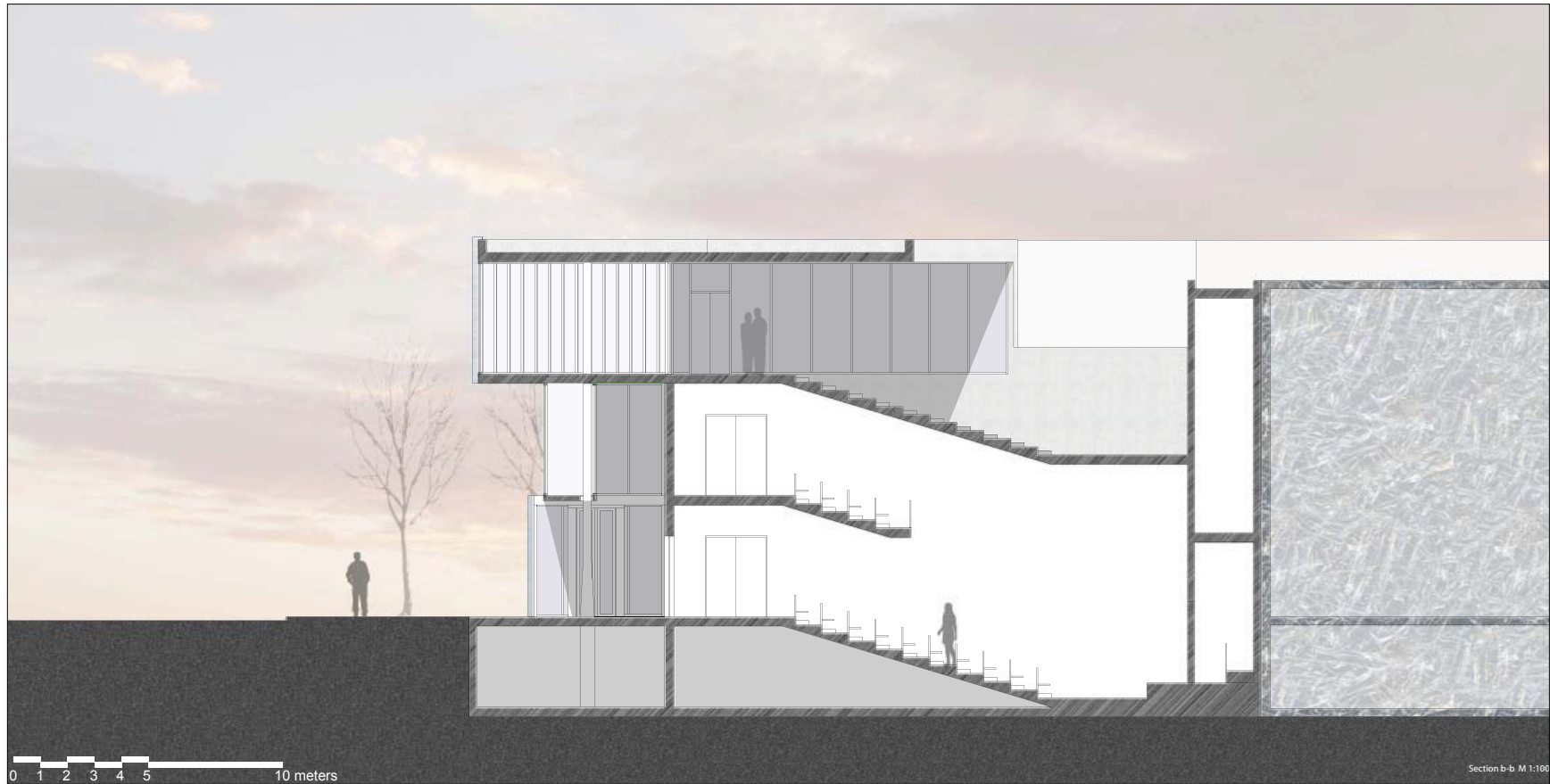
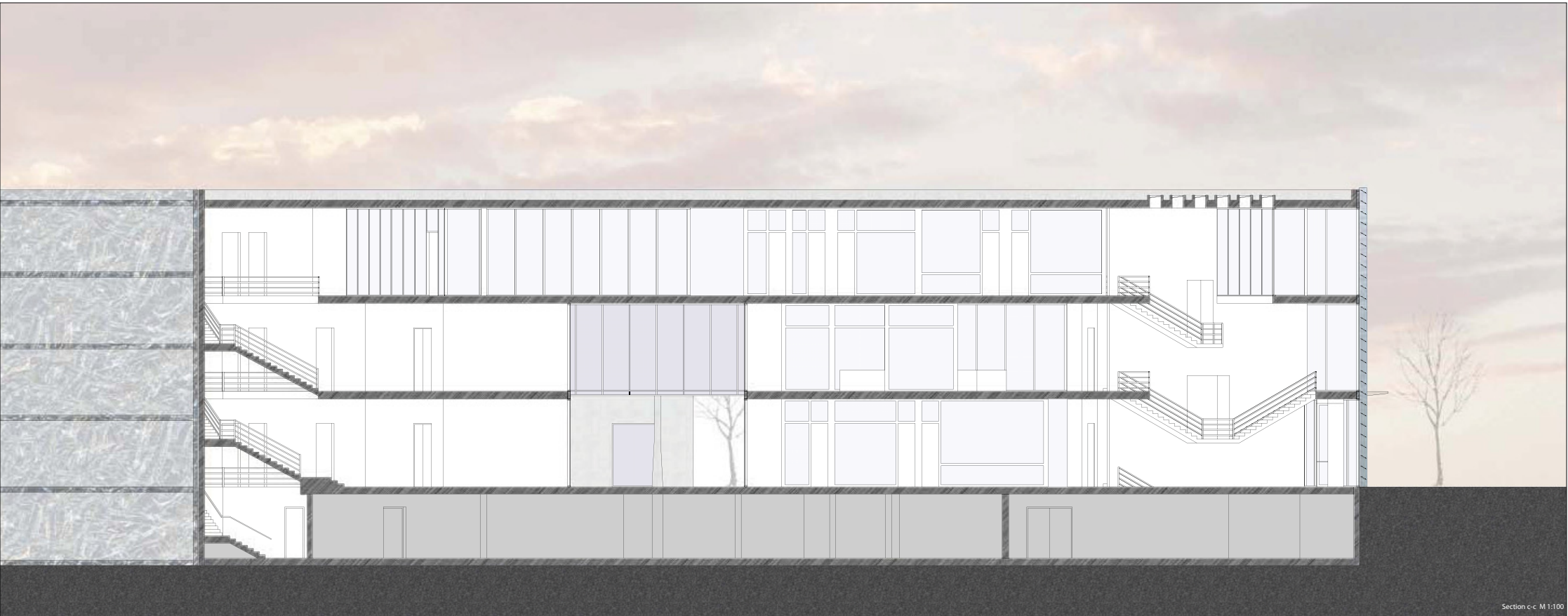
Furthermore the lower level houses a kitchen and storage for the cafe above. Through this set-up a full service is possible for larger events within the building.

**Sections:**

The sections show the openness and generosity of the building. The lobby space stretches vertically from the ground floor to the roof. The library and cafe have high ceilings to make it a pleasant experience to utilize the space, and the auditorium offers space for lectures and movies.

On the eastern end of the library and cafe an outdoor staircase accesses the library. On the halfway point a platform offers an outlook to the Cosmos Club. The wall sets a clear limit to the Cosmos Club, but also suggests a dialogue between the two buildings.

The courtyard is proportioned to be an open, yet intimate space.

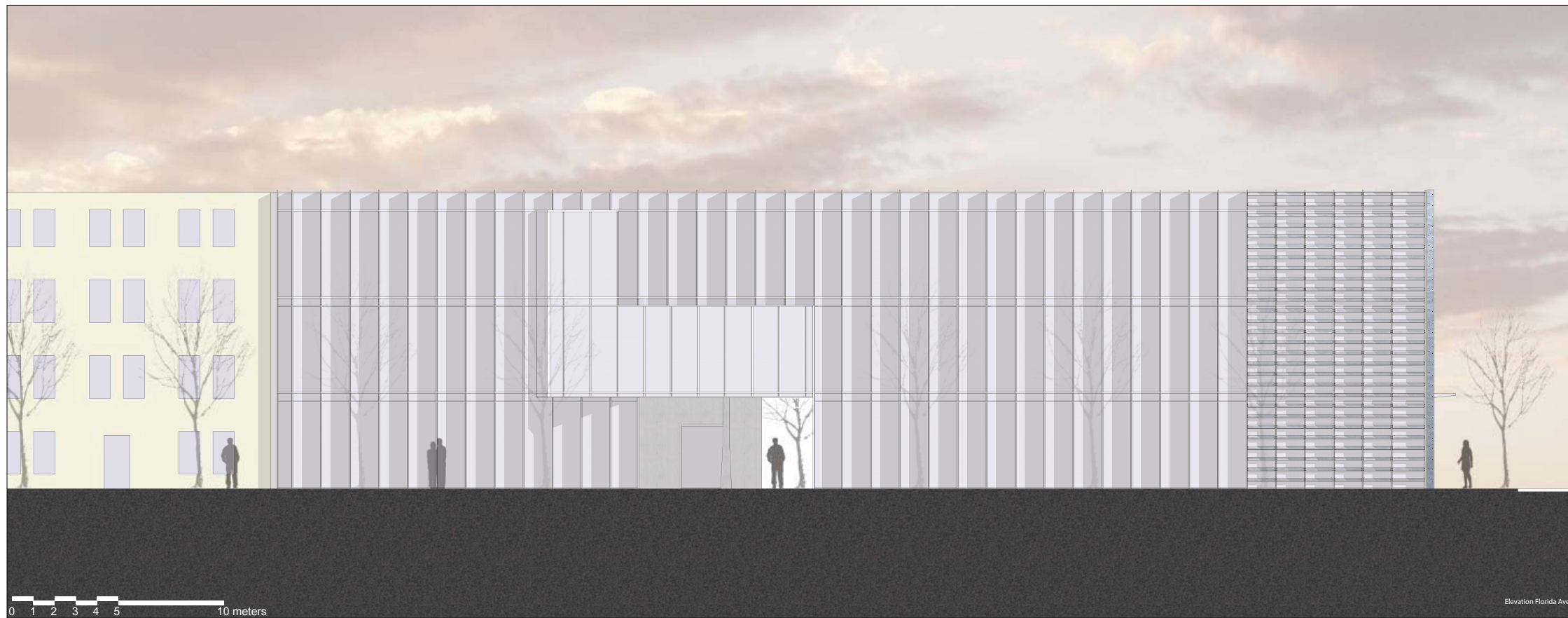




**Elevations:**

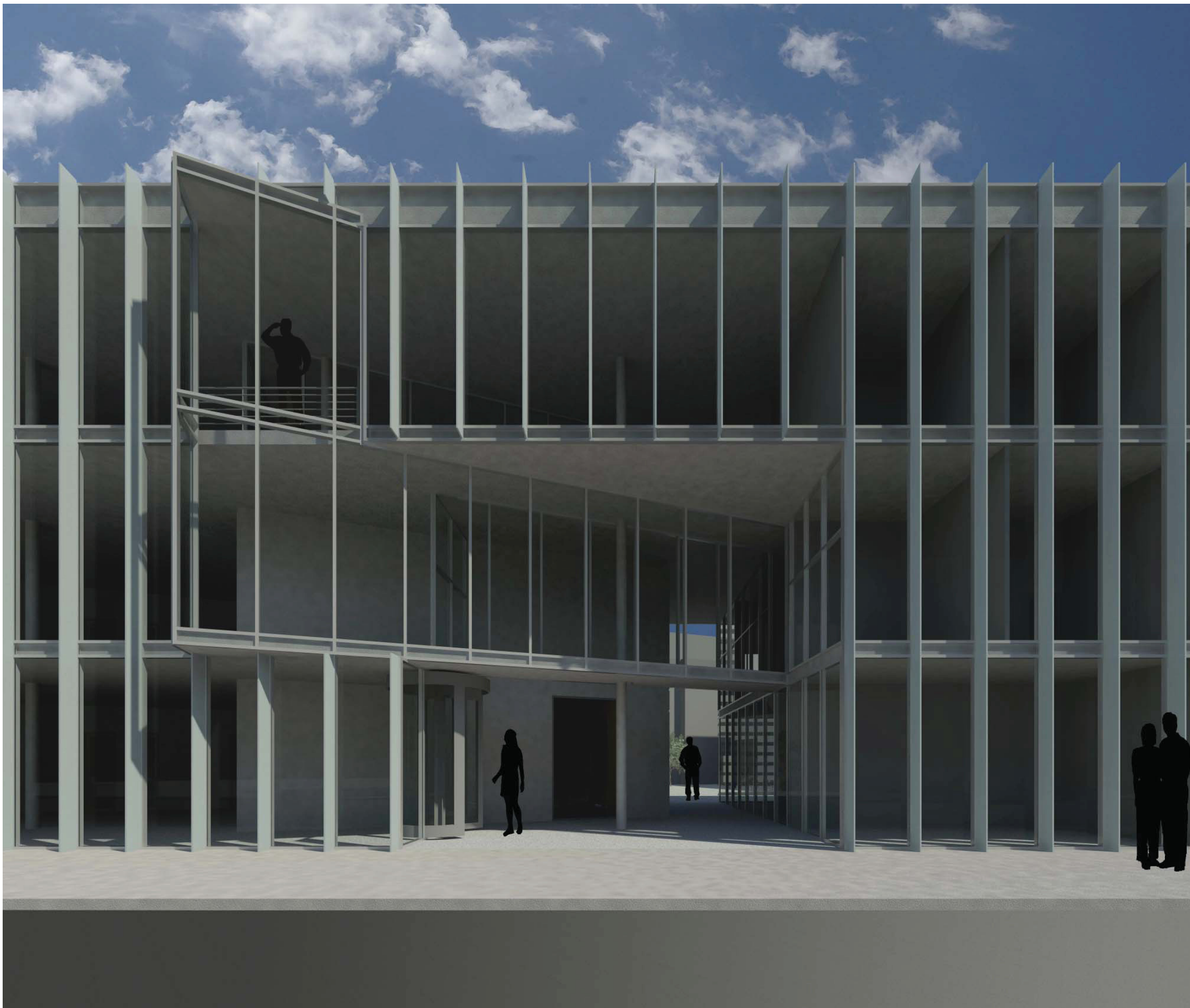
The two box like building parts are built with cast in place concrete as the structure and then clad with large scale polished precast concrete panels.

The building along the western site edge is a slab and column structure made with cast in place concrete. The facade is consists of a window curtain wall and a secondary curtain wall for shading.

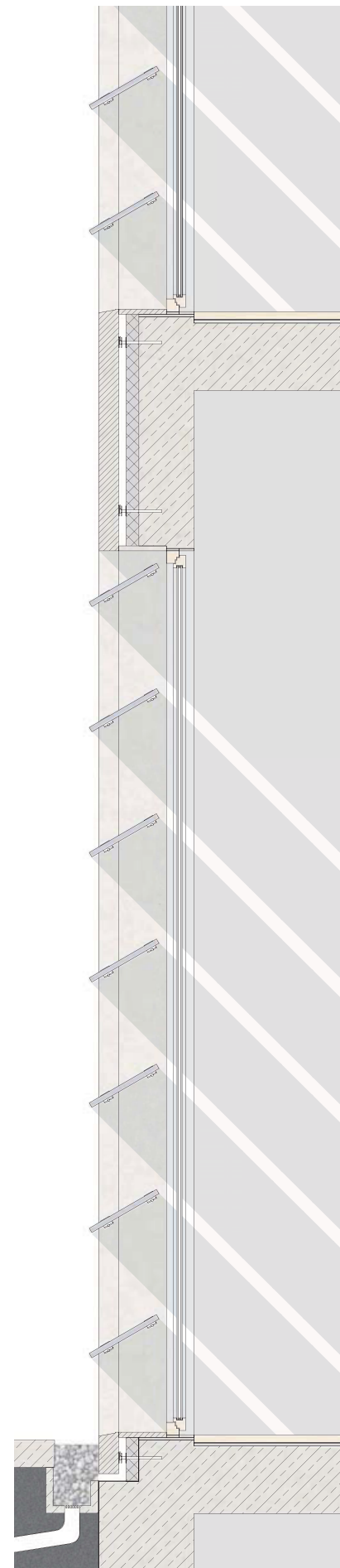


elevation south / elevation west

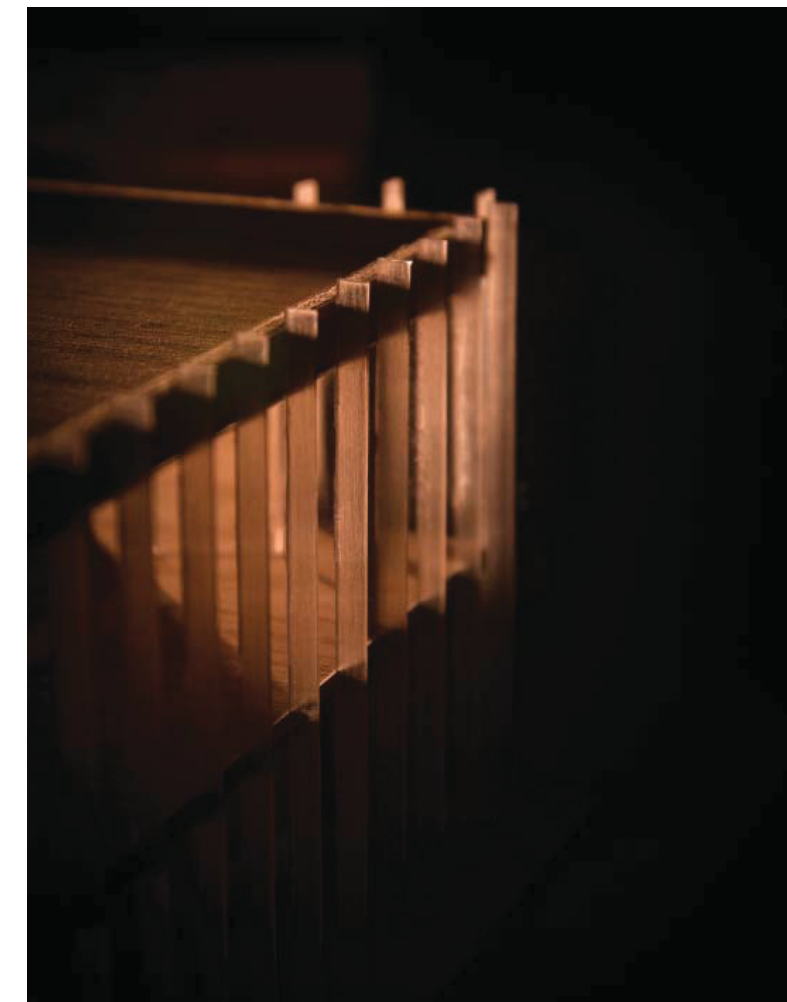
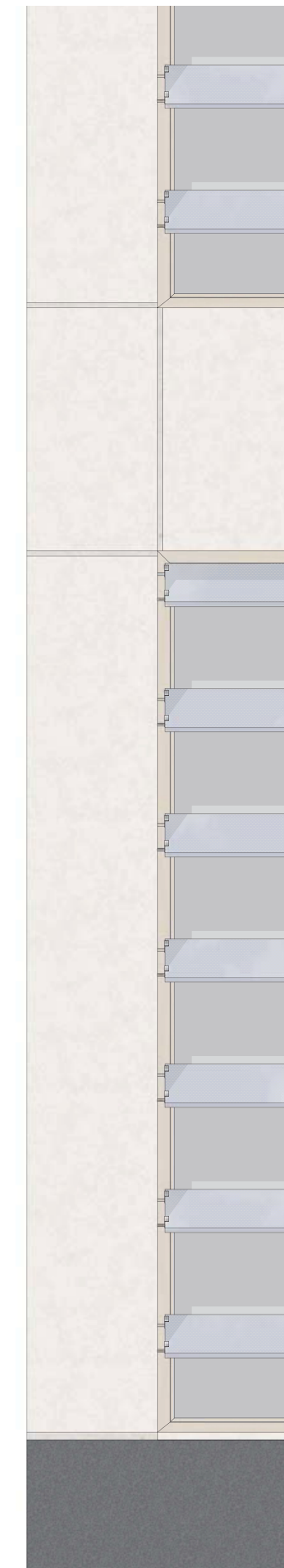
section-elevation courtyard / section-elevation courtyard



view entrance west side



section screen



**Screen facade:**

The facade of the building along the western edge of the site is made of two curtain walls. The inner one consists of a window curtain wall enclosing the building. The outer is made of opaque glass fins which addresses the problem of sun exposure for a glass facade.

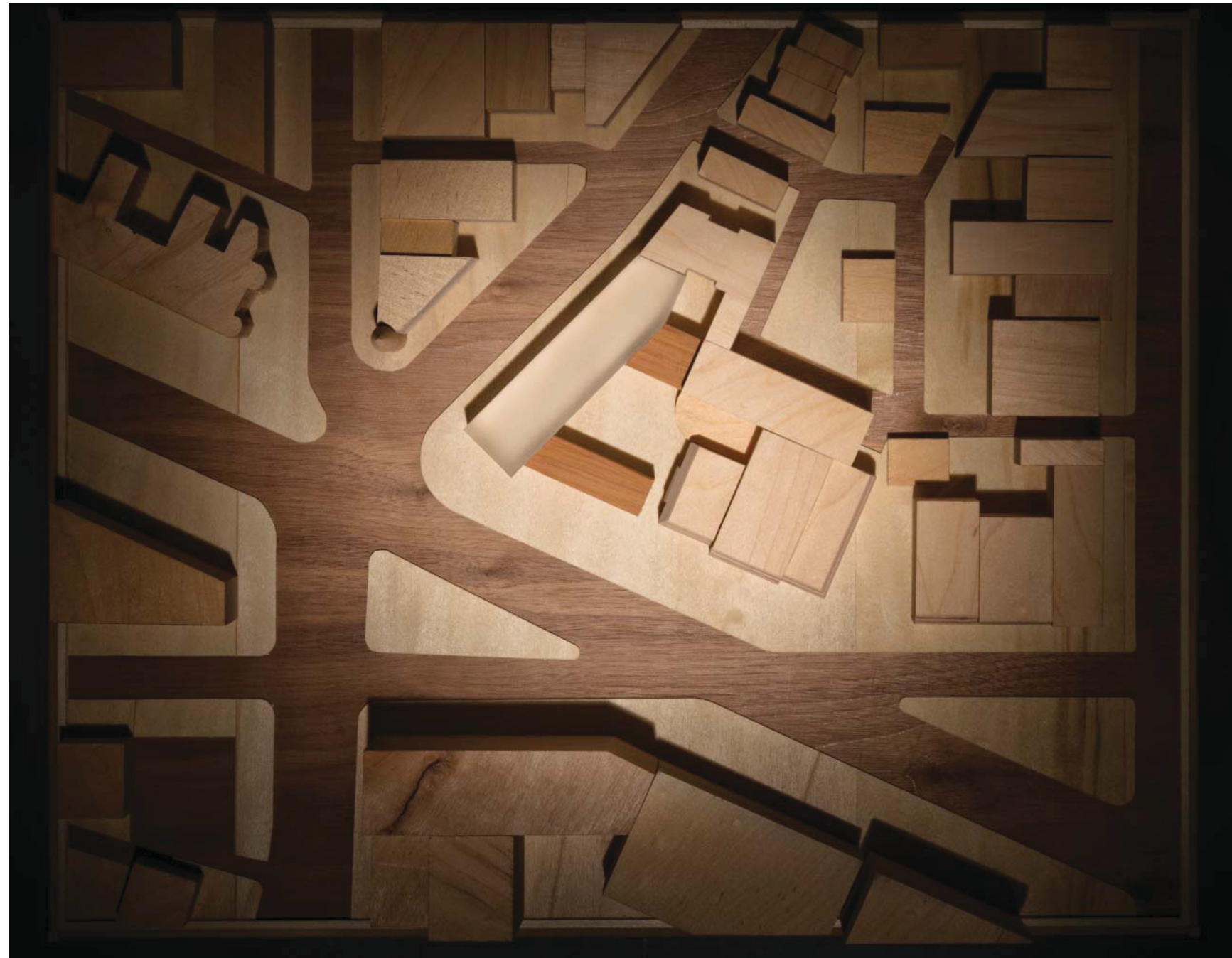
The directions of the fins change on the 3 sides of the building. The western facade consists of vertical fins, the southern facade of vertical and horizontal fins, and the eastern facade of horizontal fins. The screen delivers the necessary shade to the building to keep it cool in the summer, while still allowing enough natural light into the building to make it bright and comfortable to work in.

On the left is a view of the courtyard entrance on the western side of the building. The vertical fins define the facade. The bridge crossing from the front to the back of the building is visible.





view south side



images model scale 1:500

**Views and models:**

The model shows the building within its surroundings. It is made of wood, except for the western part of the building ensemble. The choice of plexy glass strengthens the appearance of a translucent building in comparison to the box like building part built in a darker wood.

On the left is a view of the southern facade of the building that shows the box like building part in the front, and the glass enclosed building part in the back. The ground floor follows the property line. The second and third floor project out to form a canopy for the main entrance.



view courtyard



**Views and models:**

This model shows the generous courtyard of the building. In the day time it is lit by natural light, and at night the building's inner lights illuminate it.

On the left is a view of the day time. The courtyard becomes an outdoor room of the building to sit, stroll, and relax.



images model scale 1:100



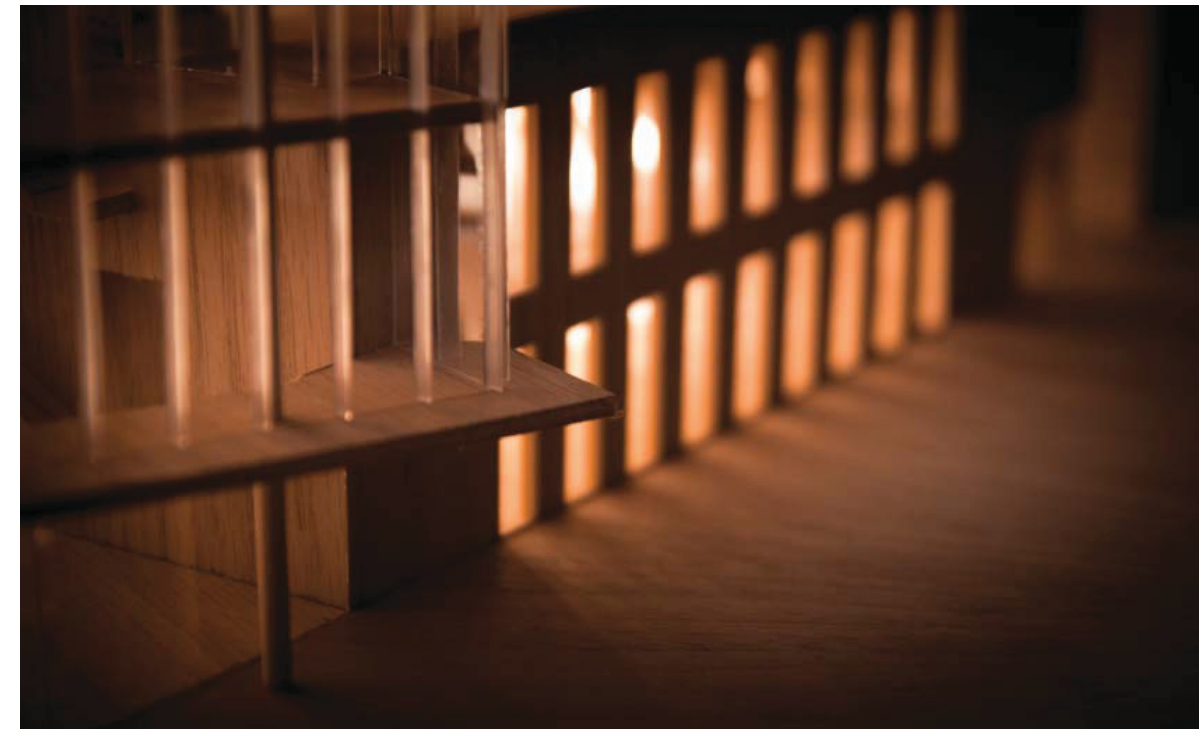
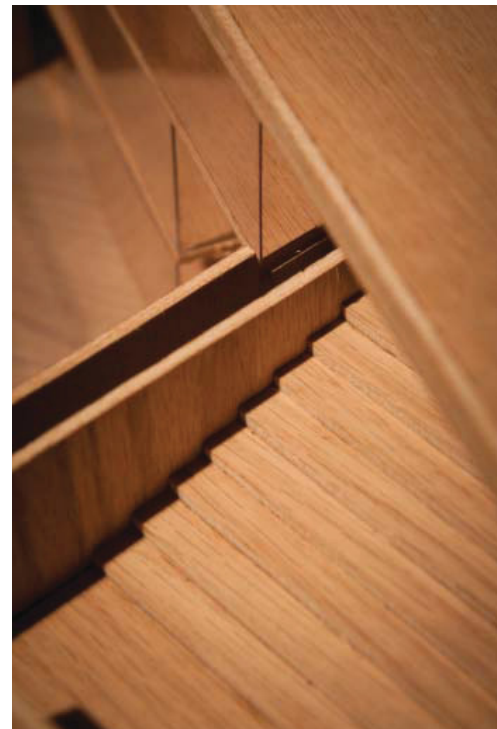
view southwestern corner



**Views and models:**

The model shows the southwestern corner of the building.

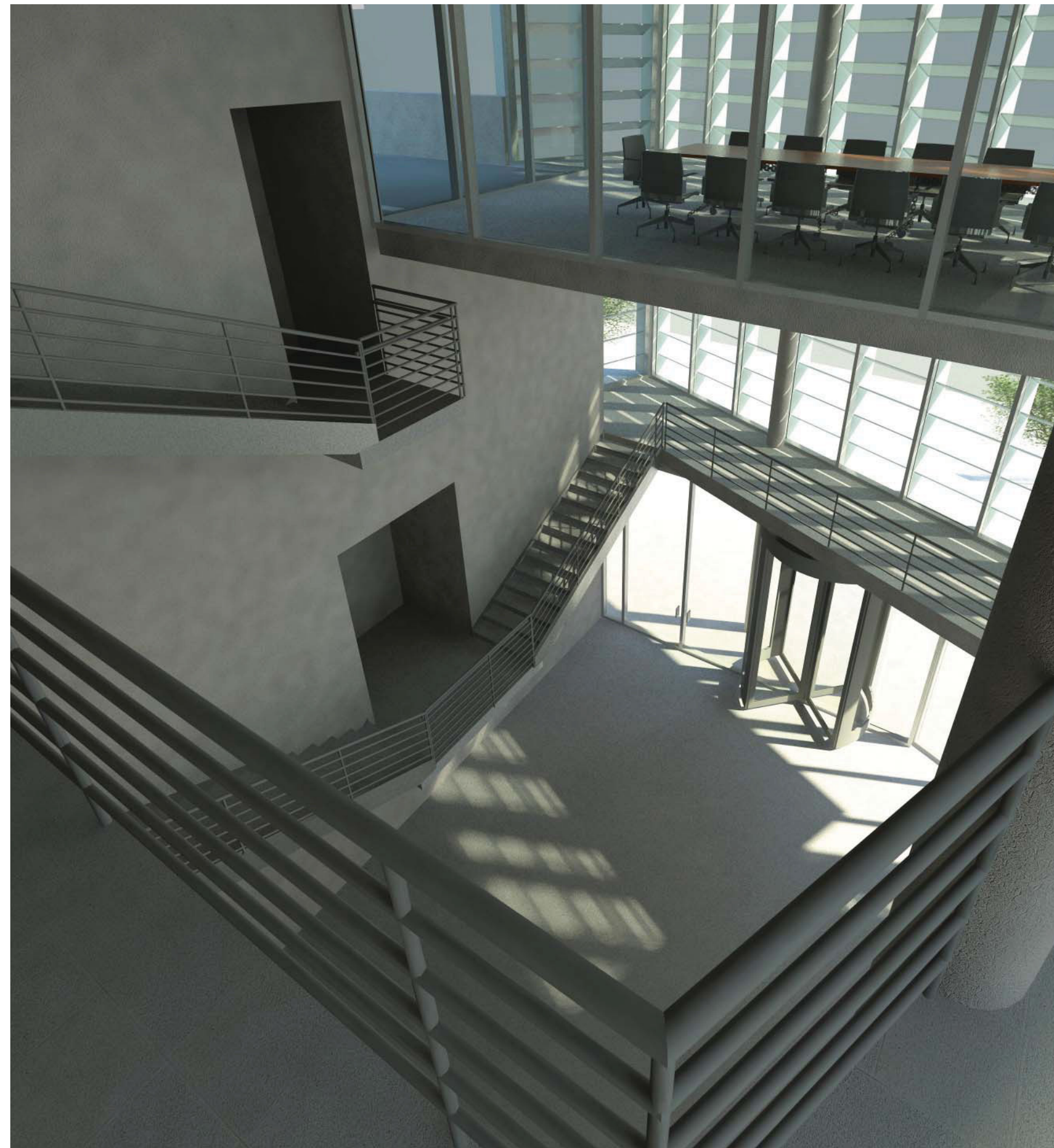
On the left the view shows the building illuminated at night. The fins of the screen define the facade at night, as well as in the daytime.



images model scale 1:100



view auditorium

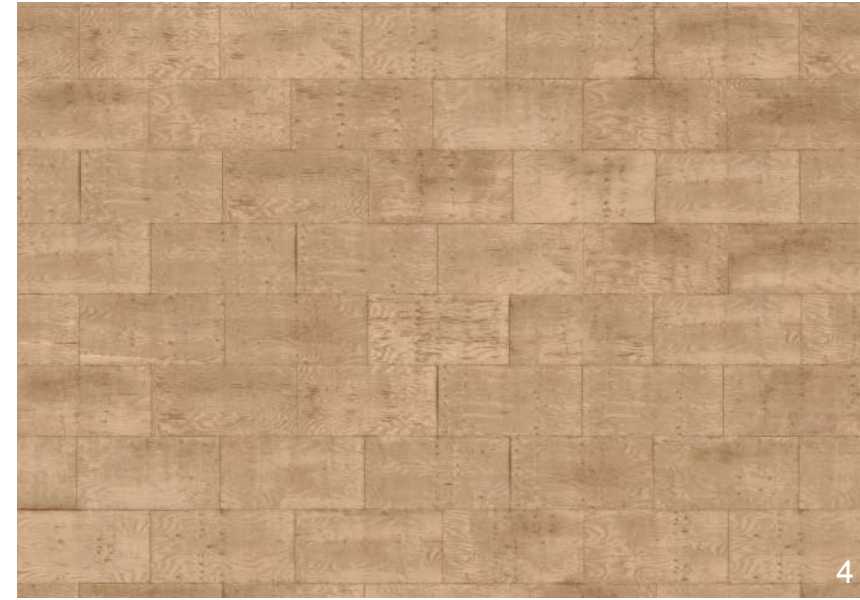


view three story lobby

**Views:**

The inner views show the auditorium and its lighting in the daytime. The large format window can be closed with a black-out screen for multimedia presentations and the showing of movies.

The view on the right shows the three story lobby with the main entry, the circulation, and the conference room at its top.



**Materials:**

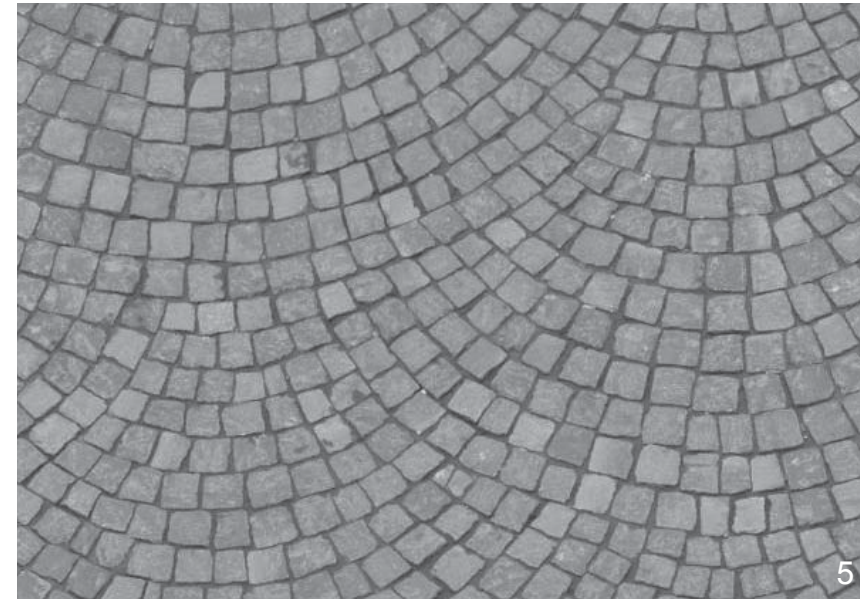
Only a small array of materials was chosen for the building.

- 1 concrete
- 2 granite grey
- 3 granite dark grey
- 4 wood
- 5 granite pavers
- 6 carpet

The outer facade is made of a glass curtain wall and polished precast concrete panels.

For the flooring of the interior only three materials are used. All of the circulation area and the reception space have a light grey polished granite tile. The bridge and the western entrance have a darker polished granite tile. The auditorium, cafe, and the library all have a butcher block style wood floor. The offices have a grey carpet with a minimal pattern.

The flooring of the courtyard area is made of light grey granite pavers, laid in a fan pattern.



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