Recolonize Lelycentre

P5 presentation

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Heritage and Architecture: Adapting 20C Architecture
Tomorrows Heritage - Flevoland

tutors:

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Dr. M.T.A van Thoor
Ir. B. Gremmen



Lelystad



1967



2019

Almere

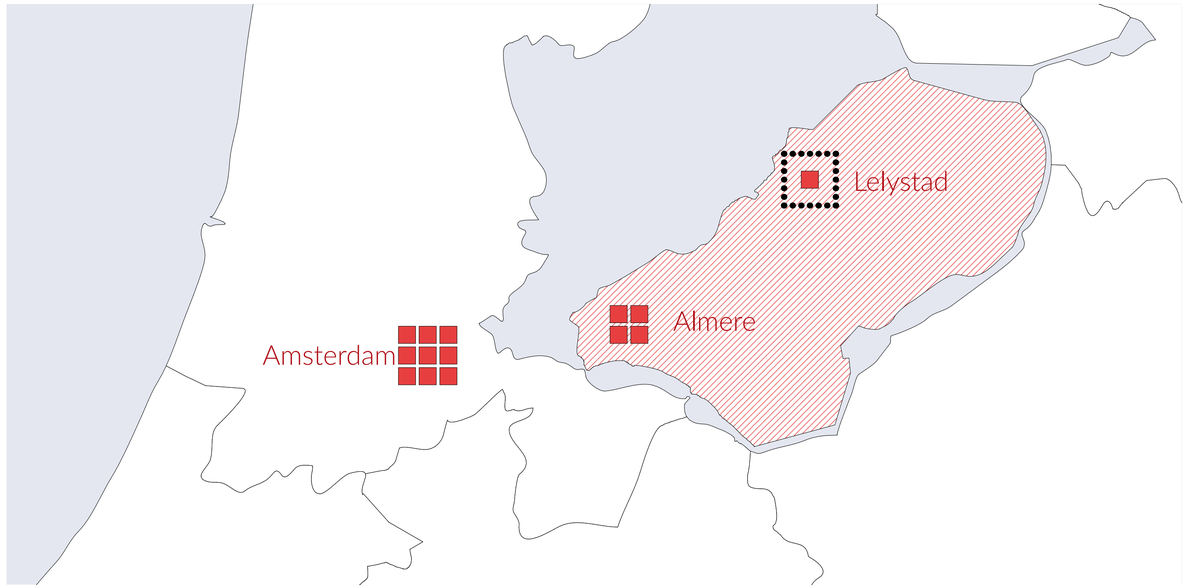


1976



2019

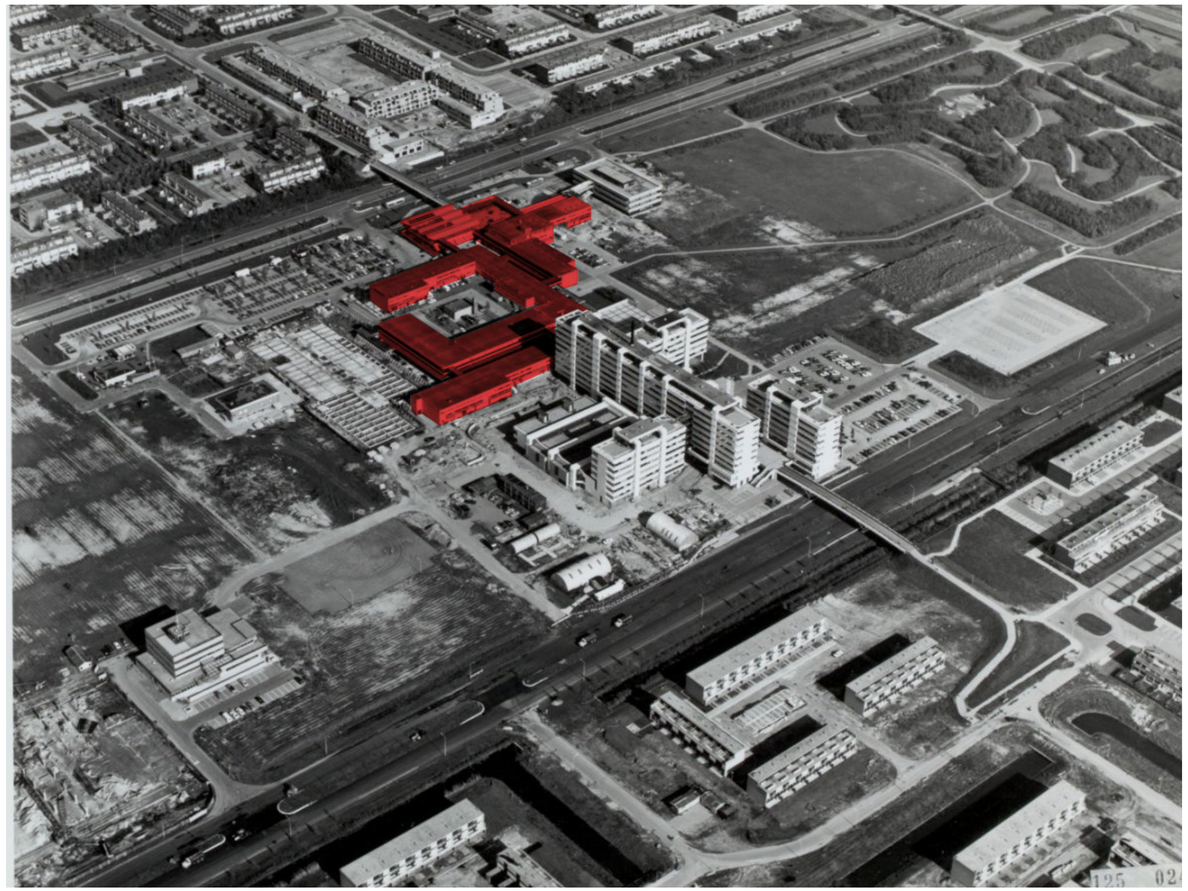
Flevoland Province

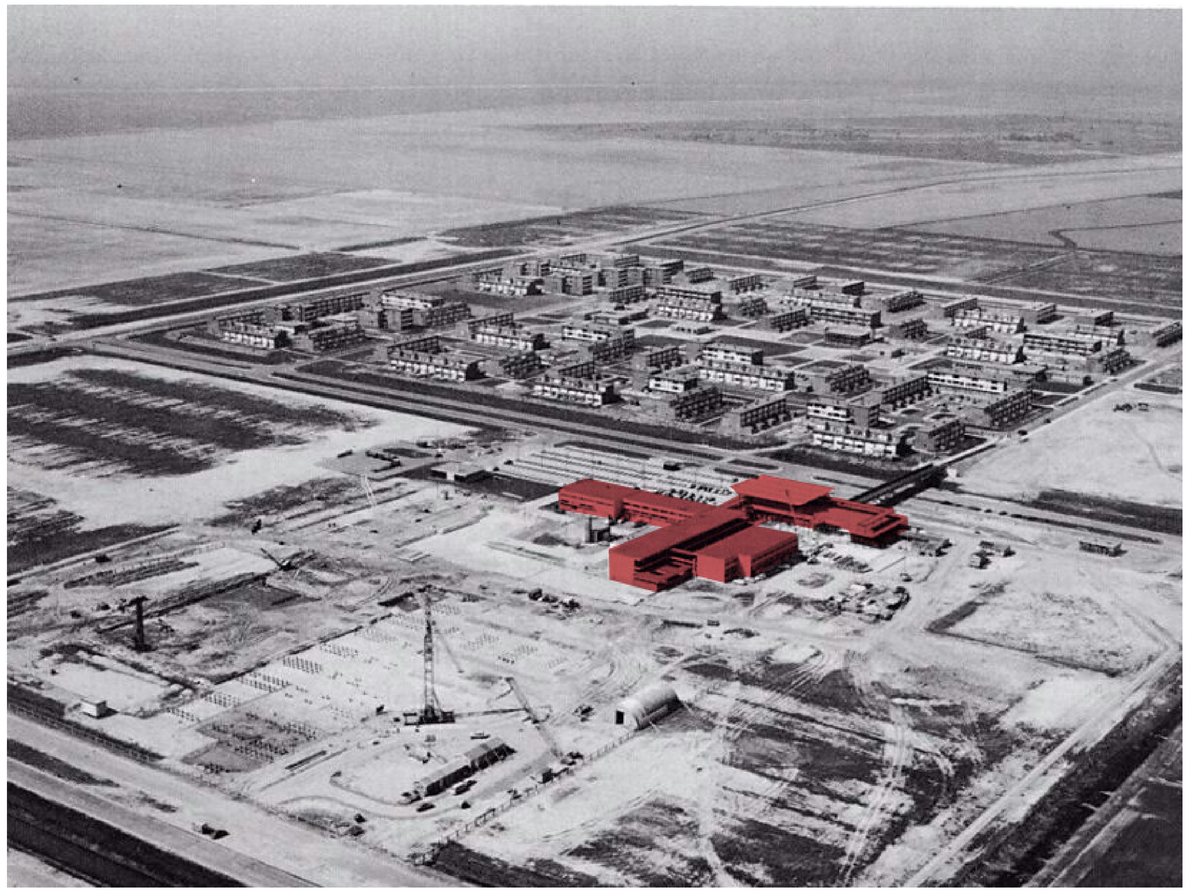


Lelystad and Lelycentre



Building History





Cultural Value



Heart of social life



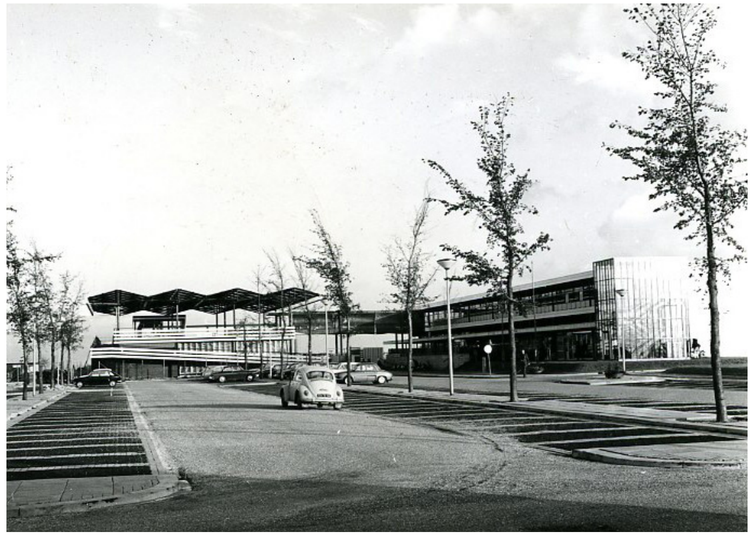
Daily needs



Place of local economy



Meeting Pace



Only place to go



Marketplace

Current Situation



Changed beyond reconition



Underused and vacant spaces



Low intensity



Vast underused delivery zone



Vandalism



Active only in day hours

Interviews

All the young people leave for work elsewhere

No activities for youngsters

Feel excluded and marginalized by municipality

Degrading quality, small choice

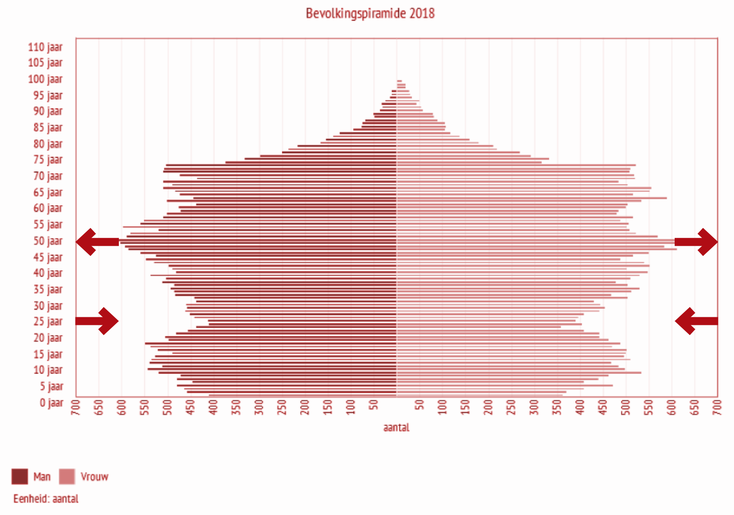
Not as lively as back in the days

Unsafe after dark

Remember the times of youth or when they moved

Attached to the historical building because of memo-ries

Raw Data





Research - region dynamics

overspill areas for Randstad

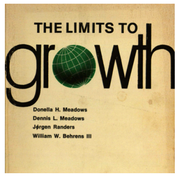
10 years to populate the city harmful competition

Lelystad continues to develop in low density and no independent economy















1900 +

Amsterdam and other Randstad cities are overpopulated, poluted and unhygenic.

1932

Afsluitdijk is finished and reclamation of Flevoland polders begin.

1967

First settlements in Lelystad are ready for inhabitation.

1973

Oil crisis and increasing environmental awareness influence the cancelation of Markerwaard Polder reclamation.

1976

Construction of Almere begins.

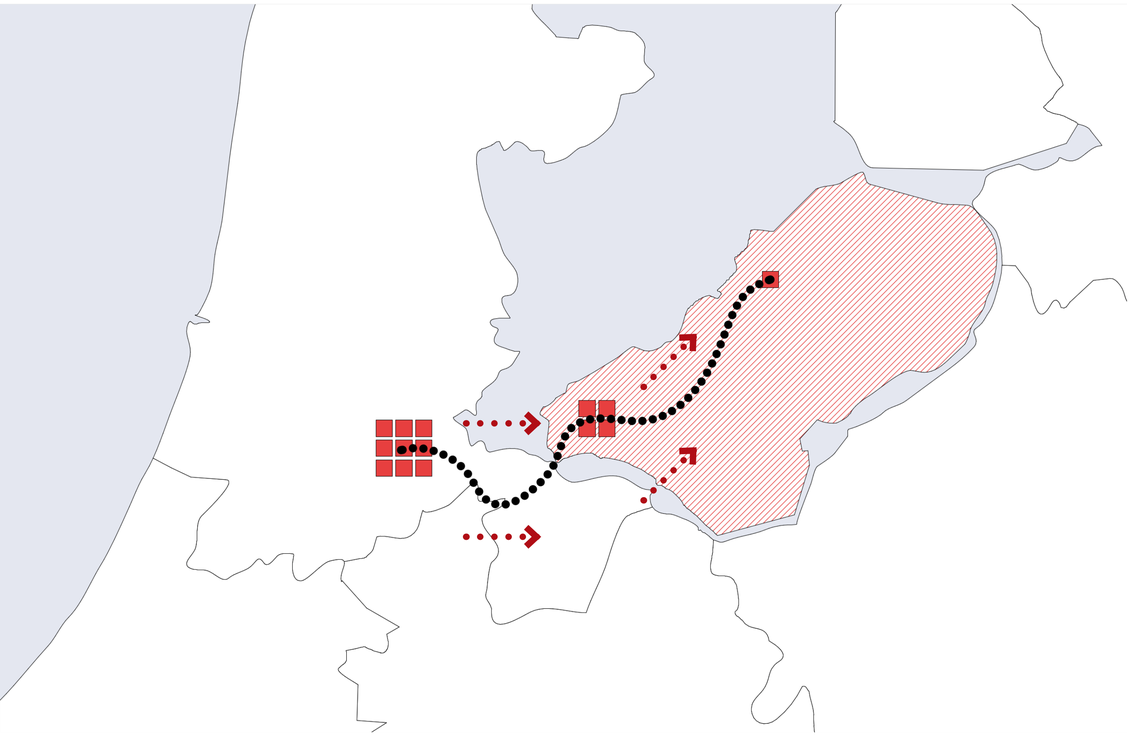
1980

Underpopulated and still not economically independent Lelystad becomes municipality and governmet subsidies stop.

2000+

Lelystad continues to sprawl in low density development patterns.

Research - region dynamics



URBANIZATION FLOW

strategy in relation to region growth

Outcompeted by Almere ⟷ Youth emigration

One wave of inhabitants ⟷ No independent economy

Lack of employment and education ⟷ Aging population

Isolated location ⟷ Stagnation in low density

DENSITY

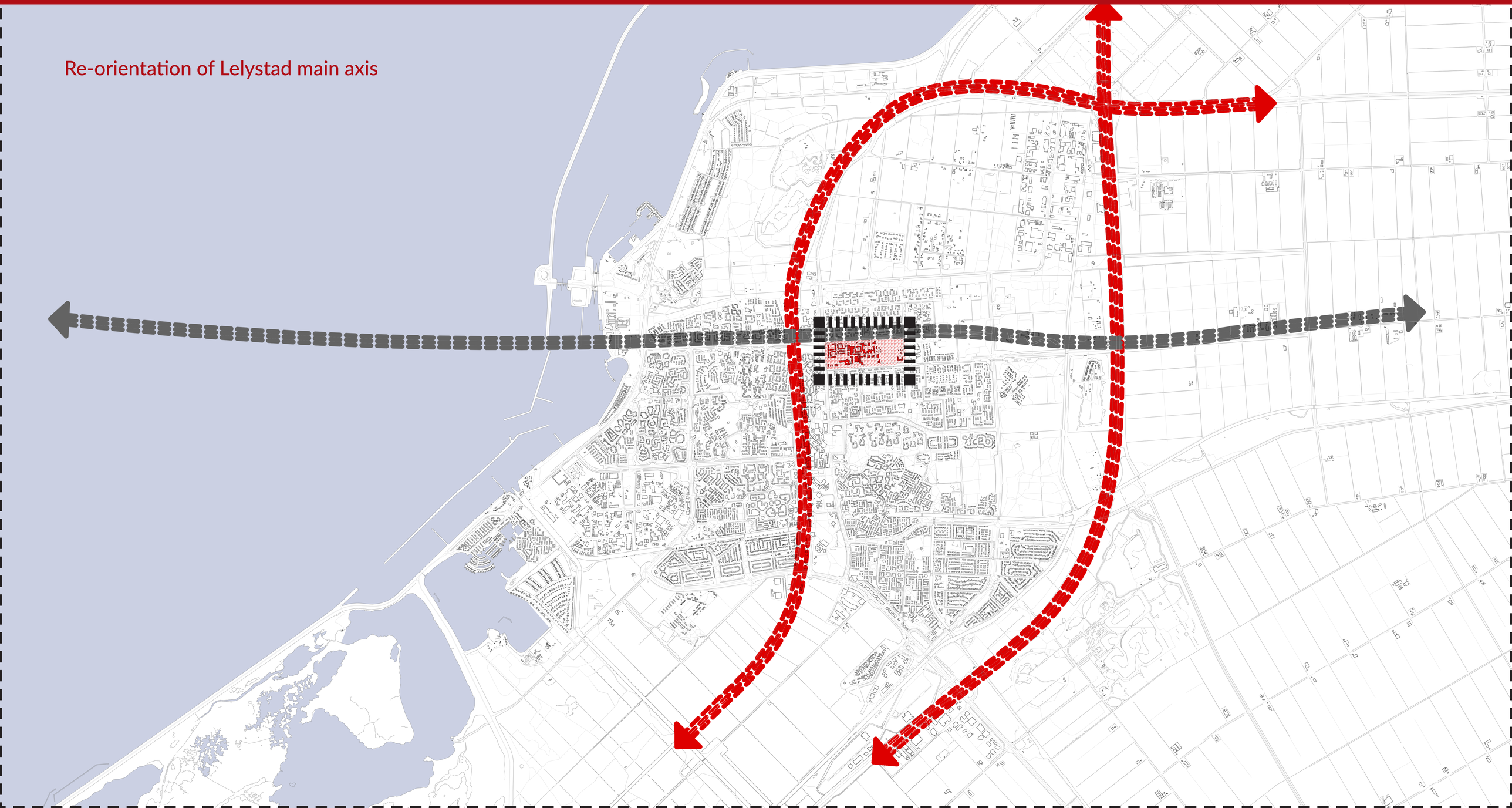
targeting the youth

addressing the needs of the elderly

empowering local economy

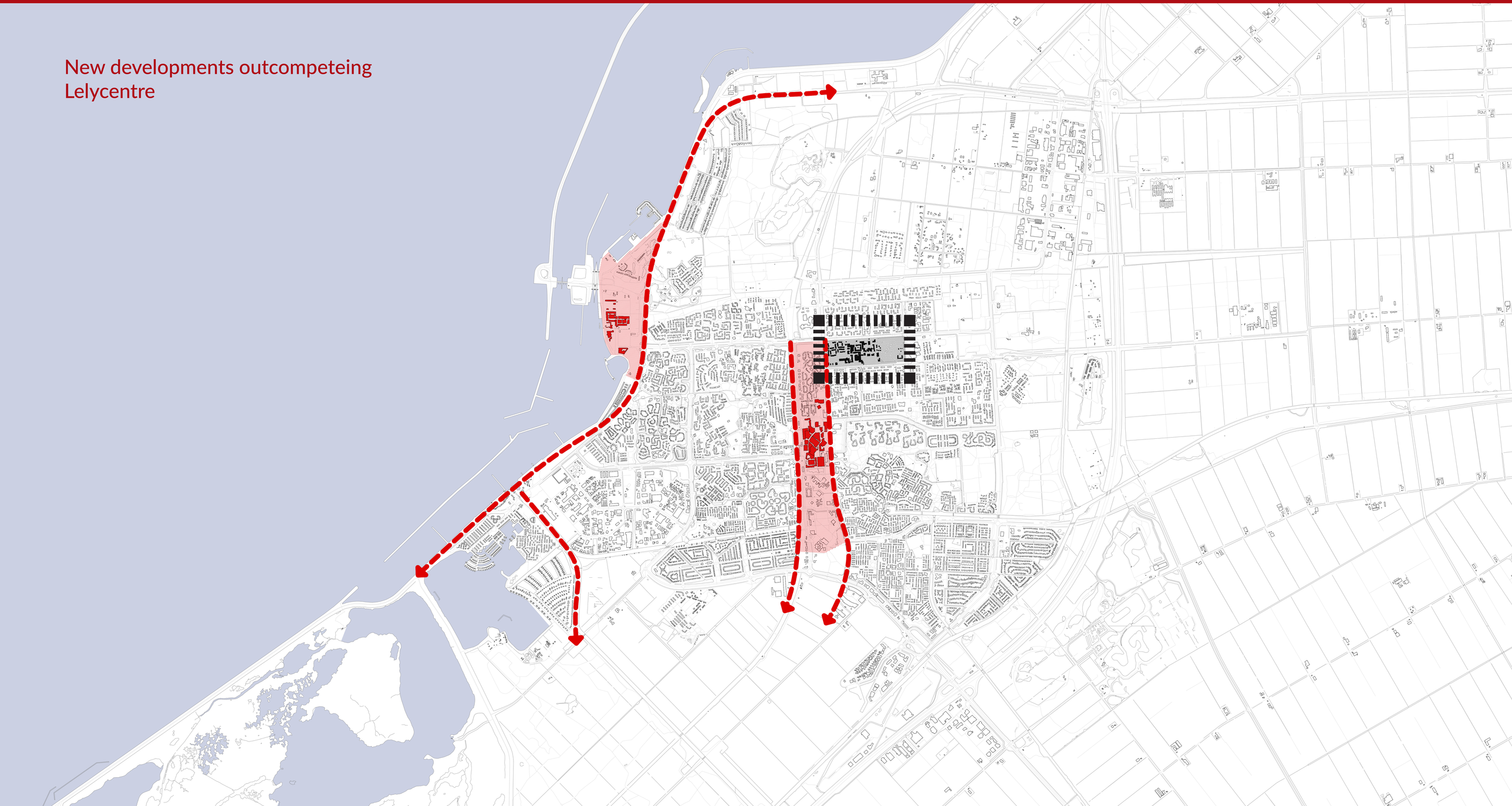
Research - city

Re-orientation of Lelystad main axis



Research - city

New developments outcompeteing
Lelycentre



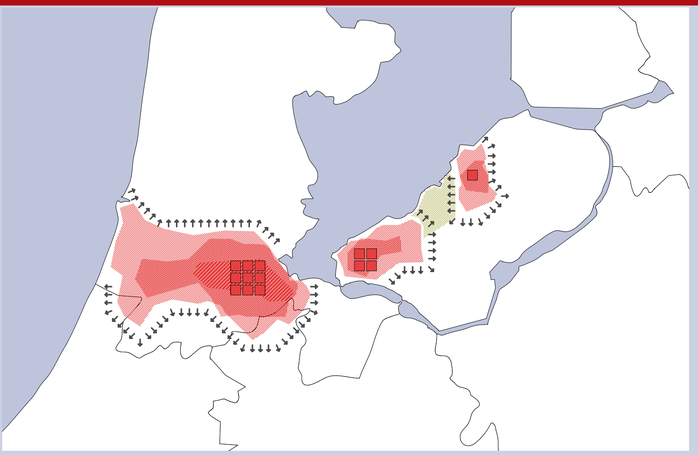
Research - city

Importance of the marginal plot?

Development patterns of Lelystad today

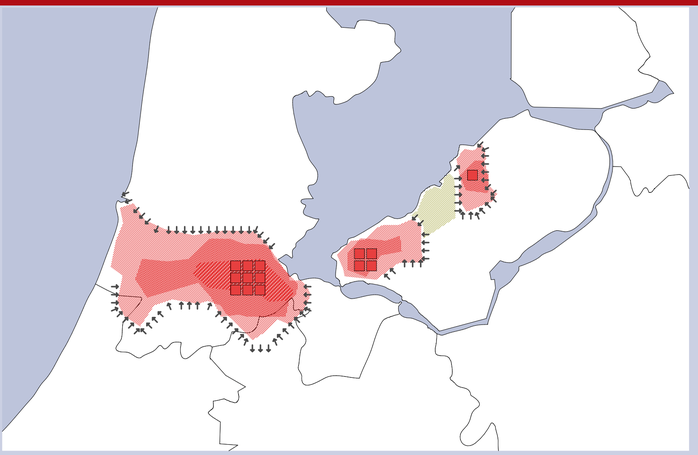


Research - city



relevance in scale of the region

Research - city

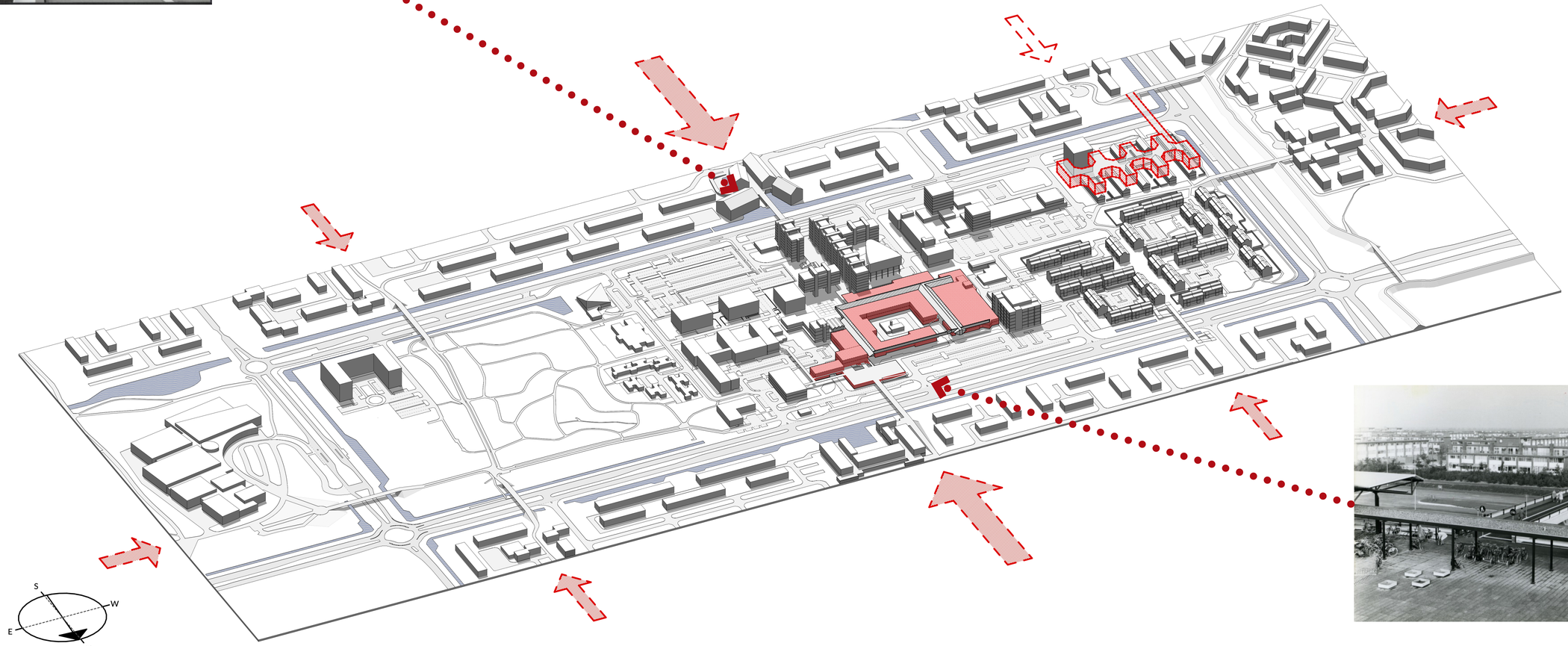


relevance in scale of the region

Site Analysis

accessibility - bridges





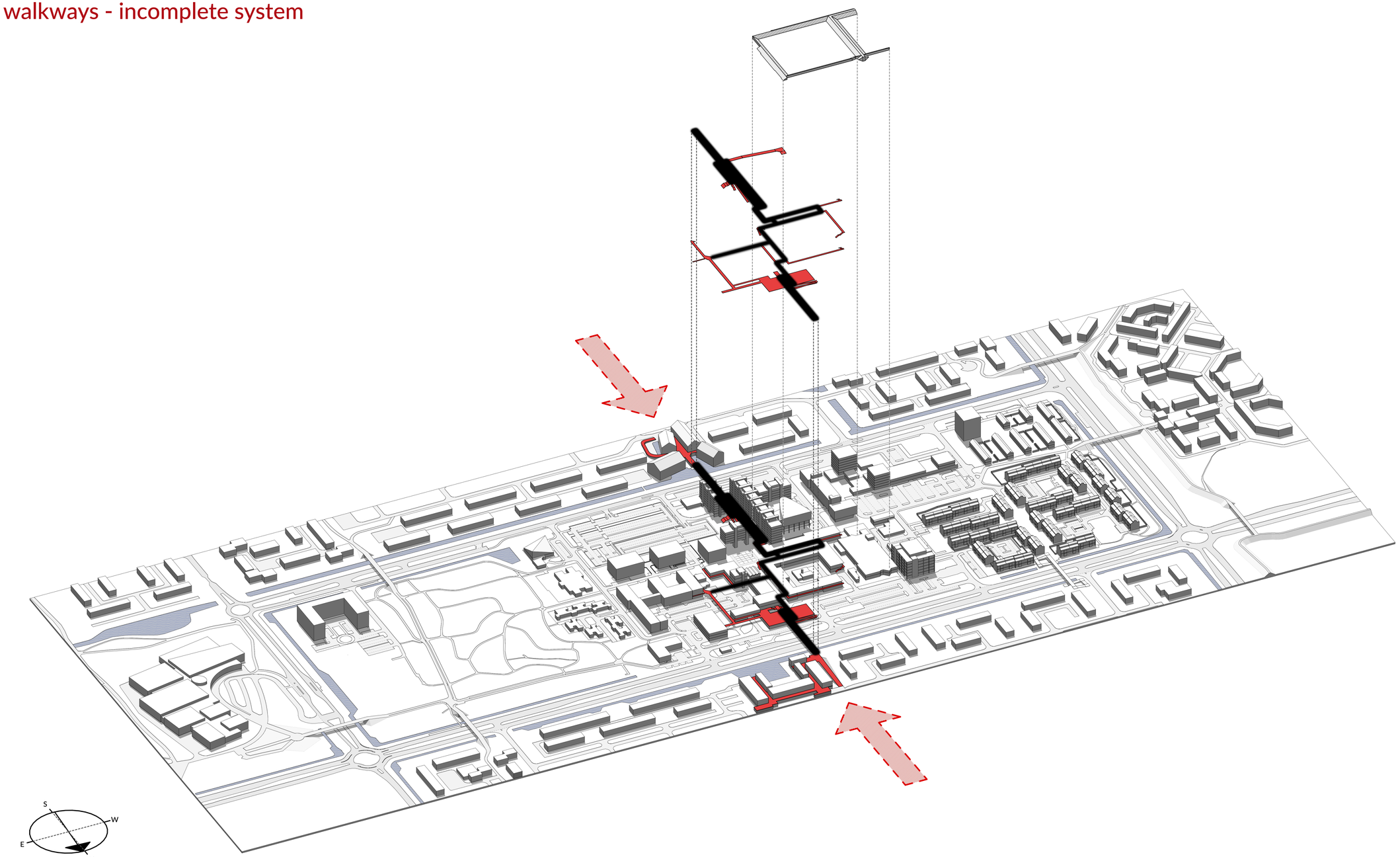
Site Analysis

elevated walkways



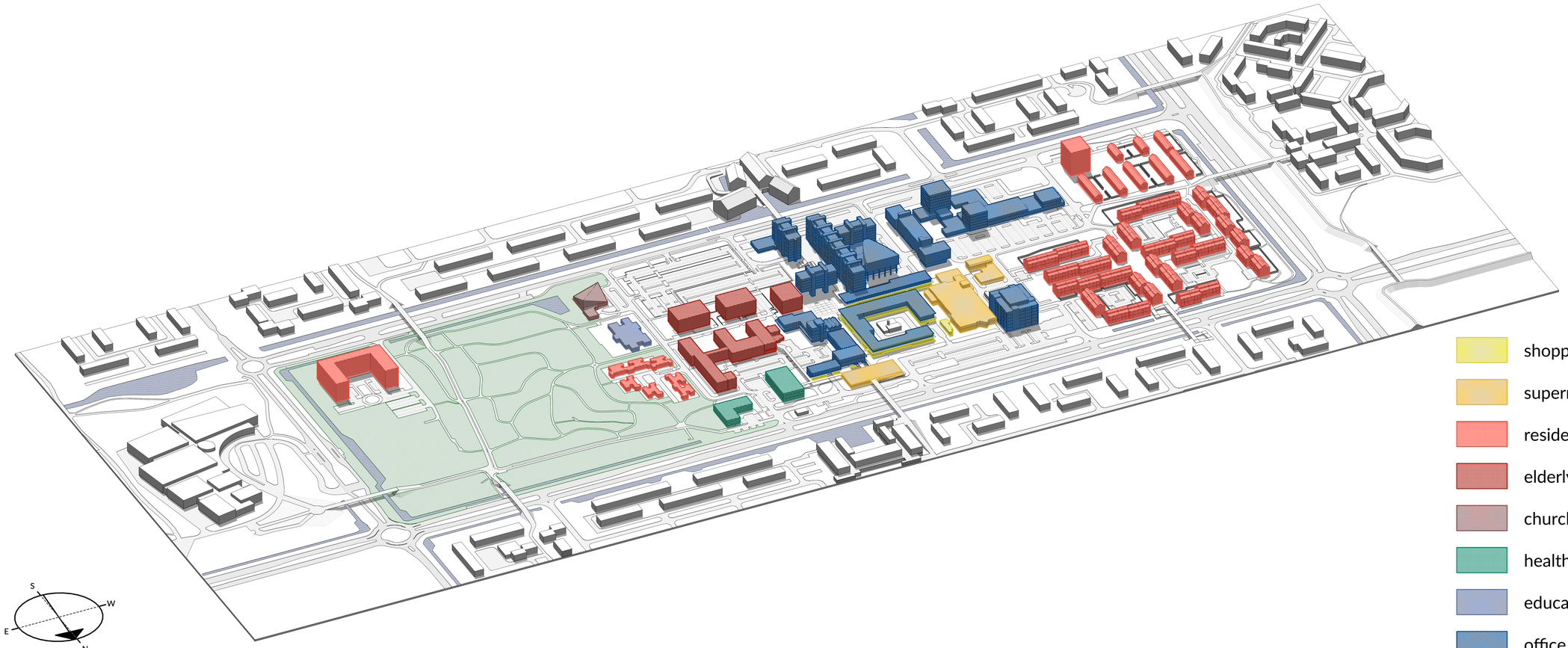
Site Analysis

elevated walkways - incomplete system



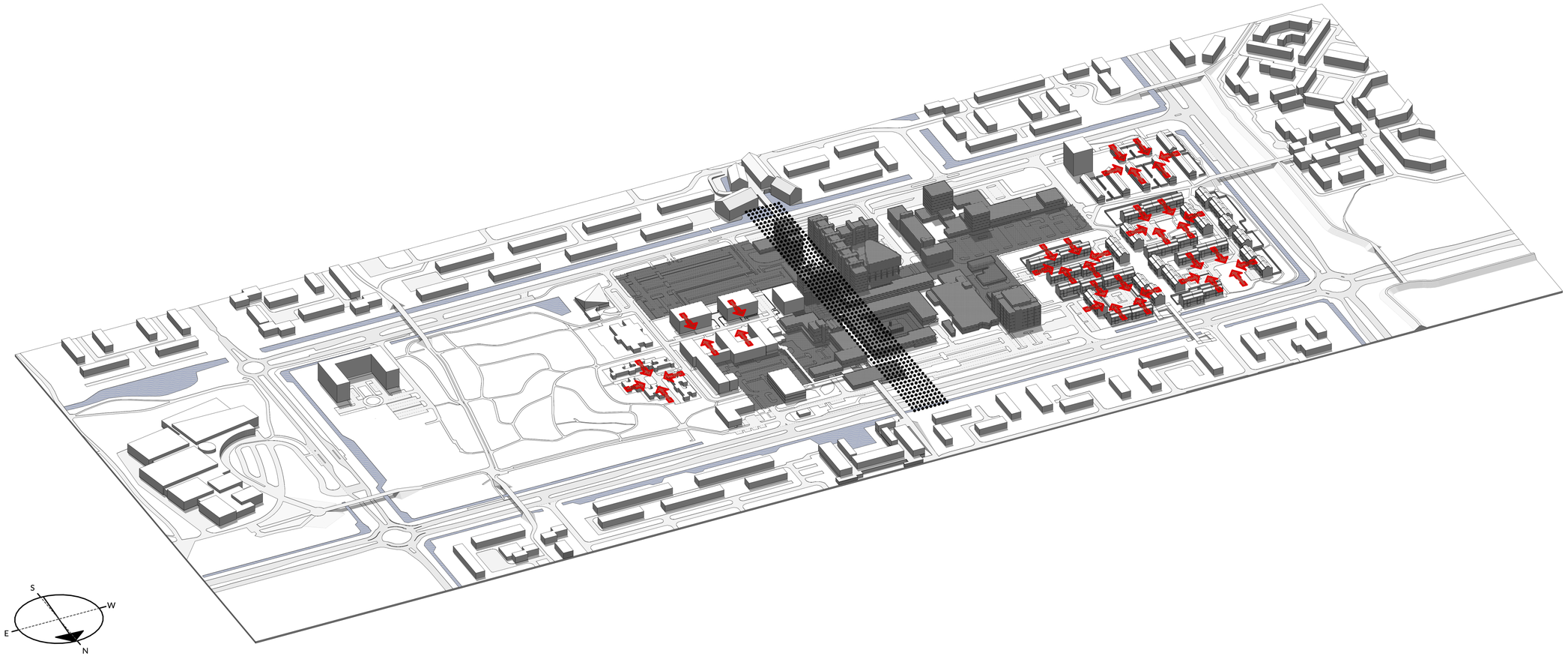
Site Analysis

strict function segregation

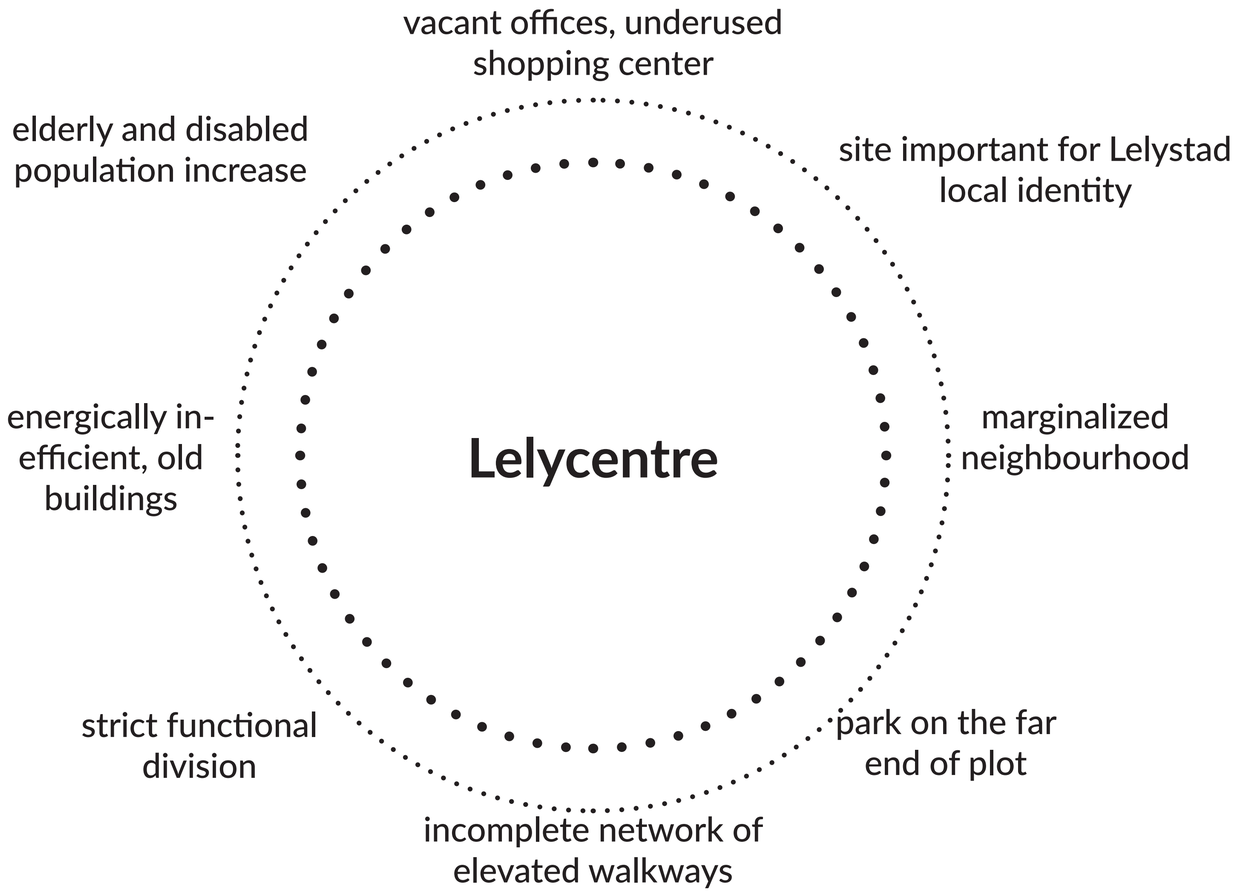


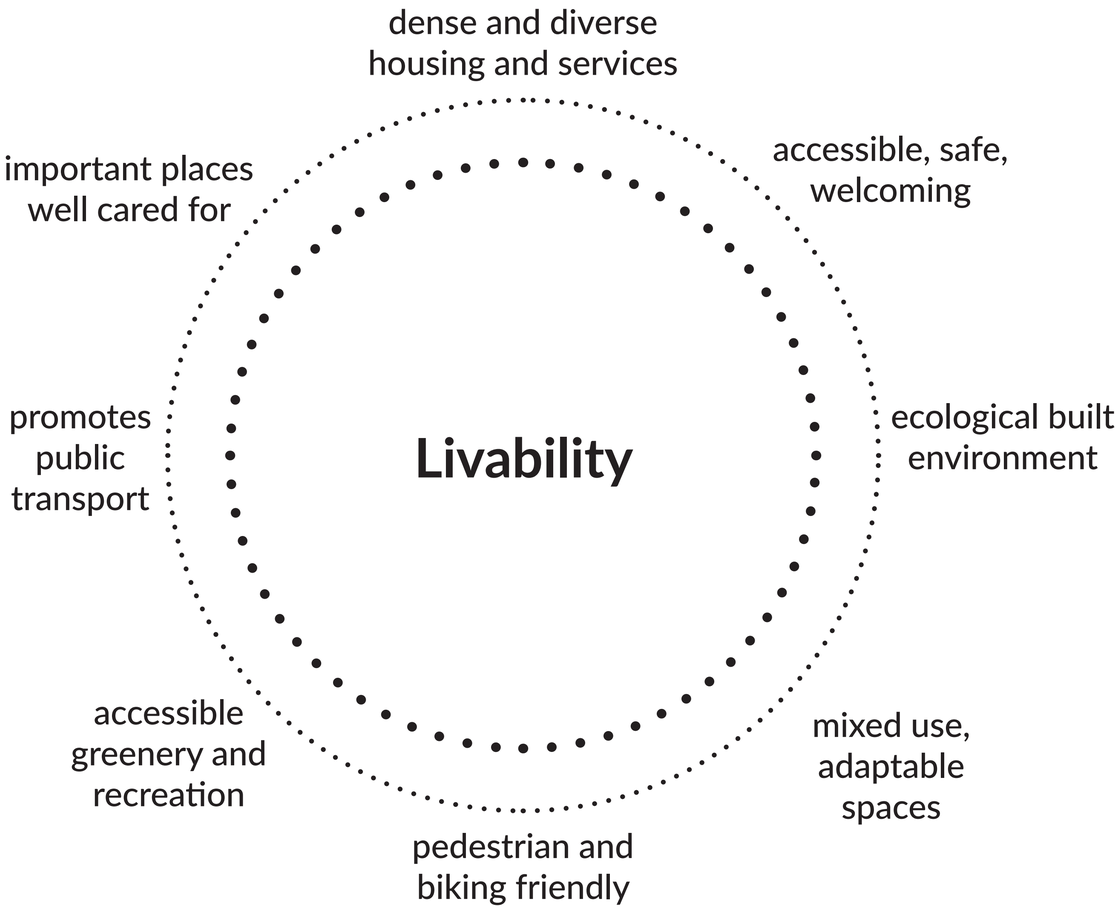
Site Analysis

vacancy and underuse in the core of the plot

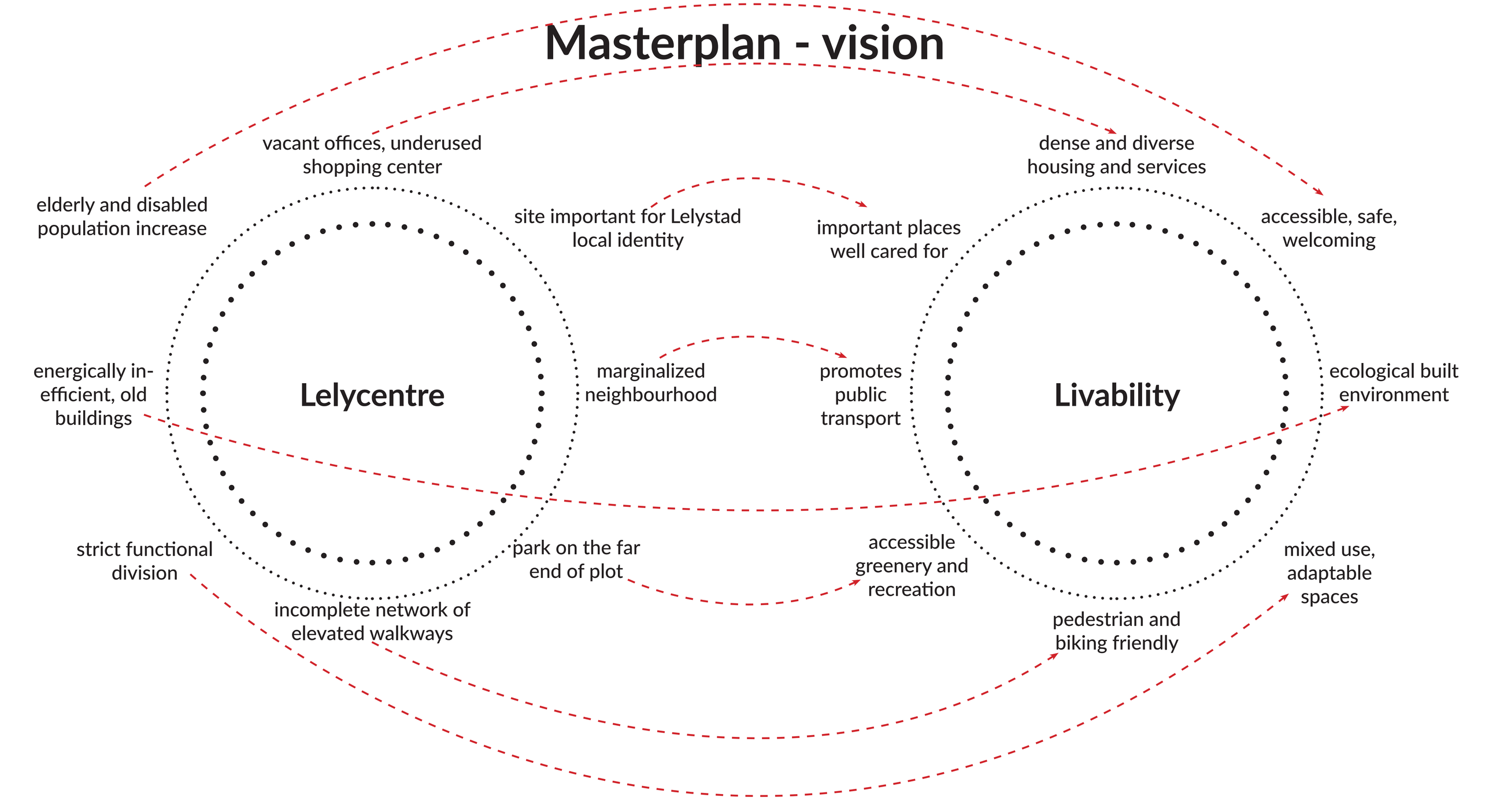


Masterplan - vision

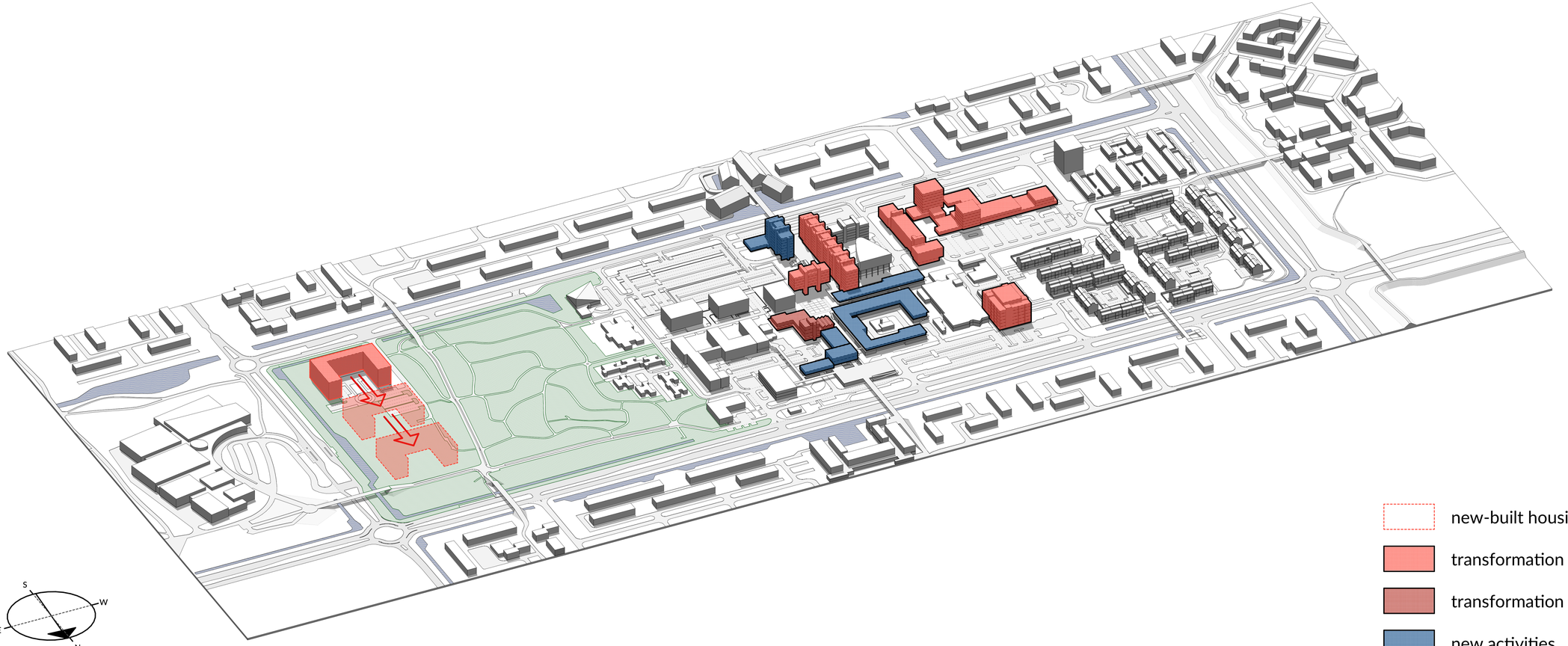




Masterplan - vision



Masterplan



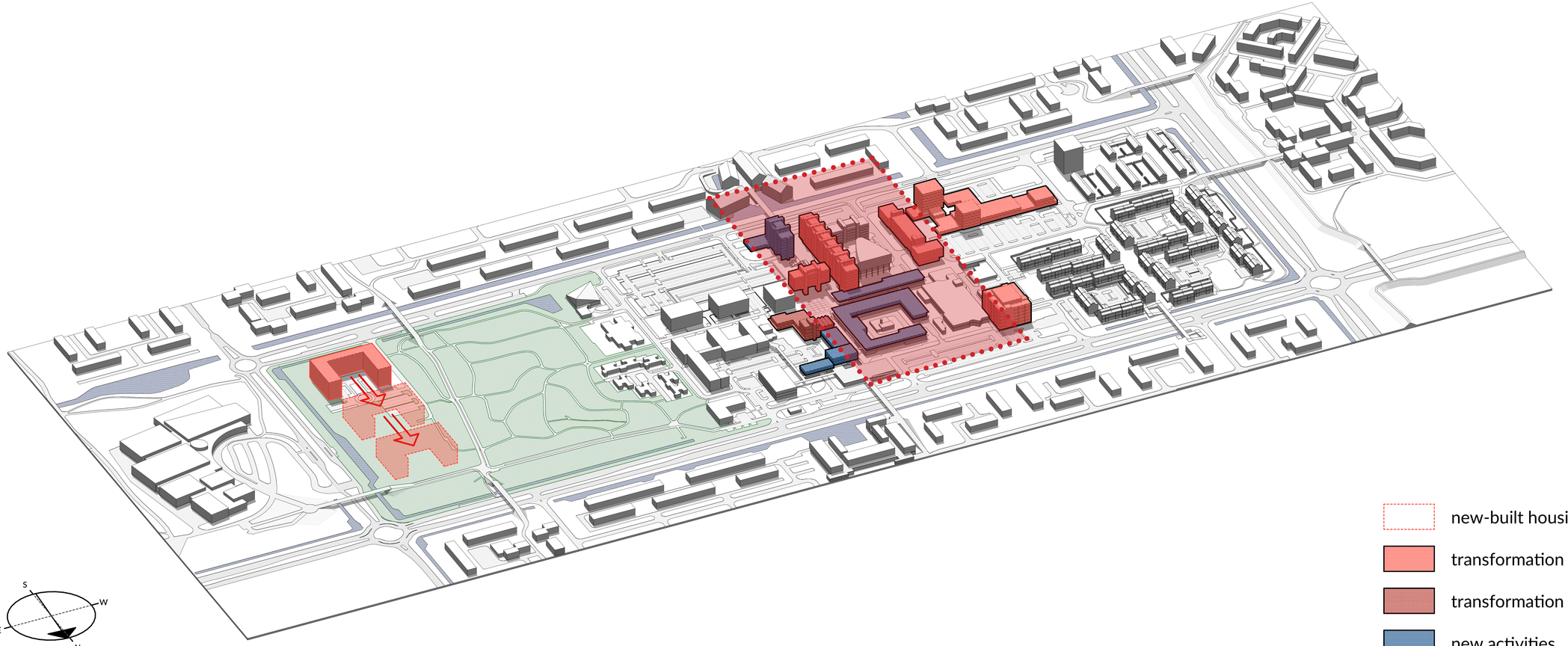
new-built housing

transformation to residential

transformation to elderly care

new activities

Masterplan



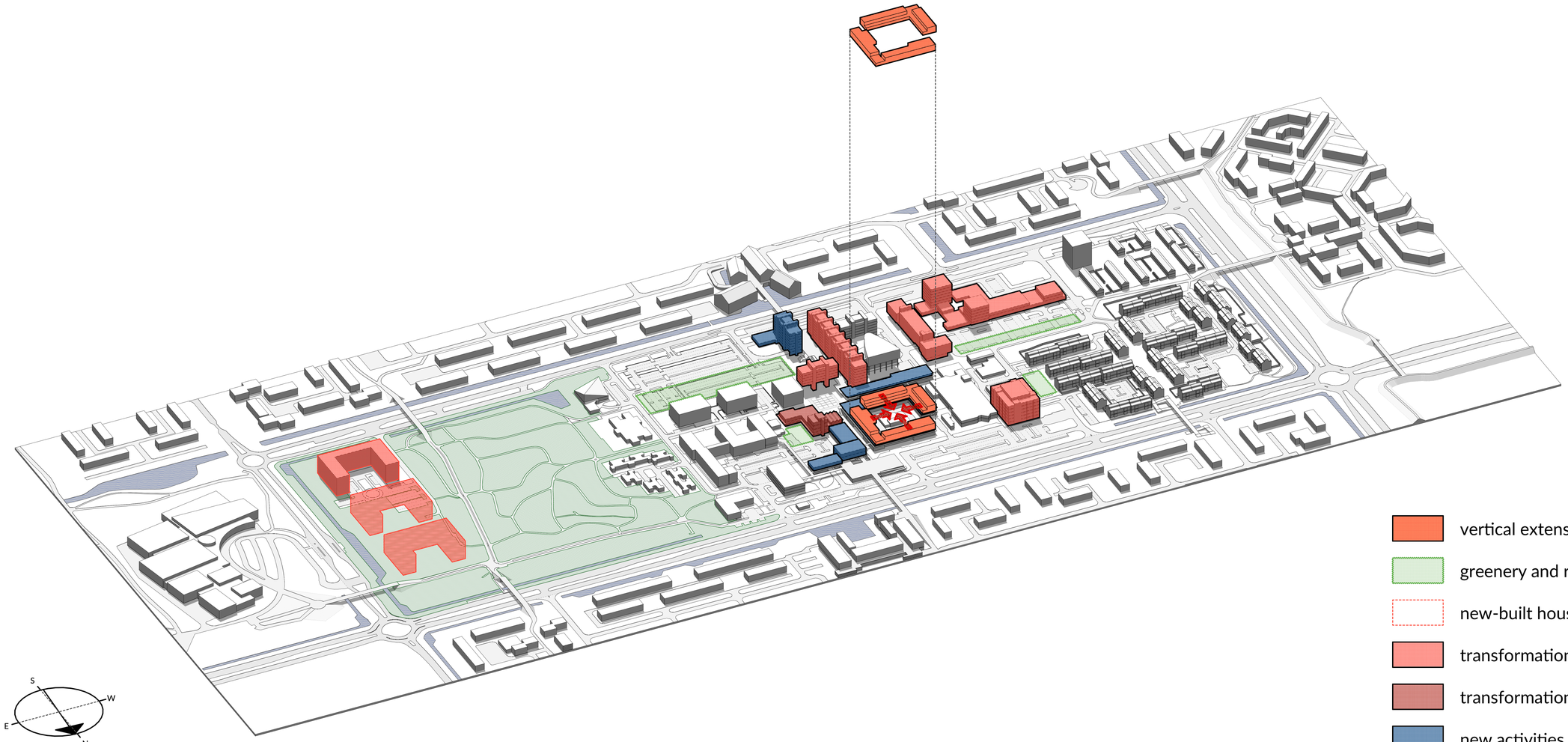
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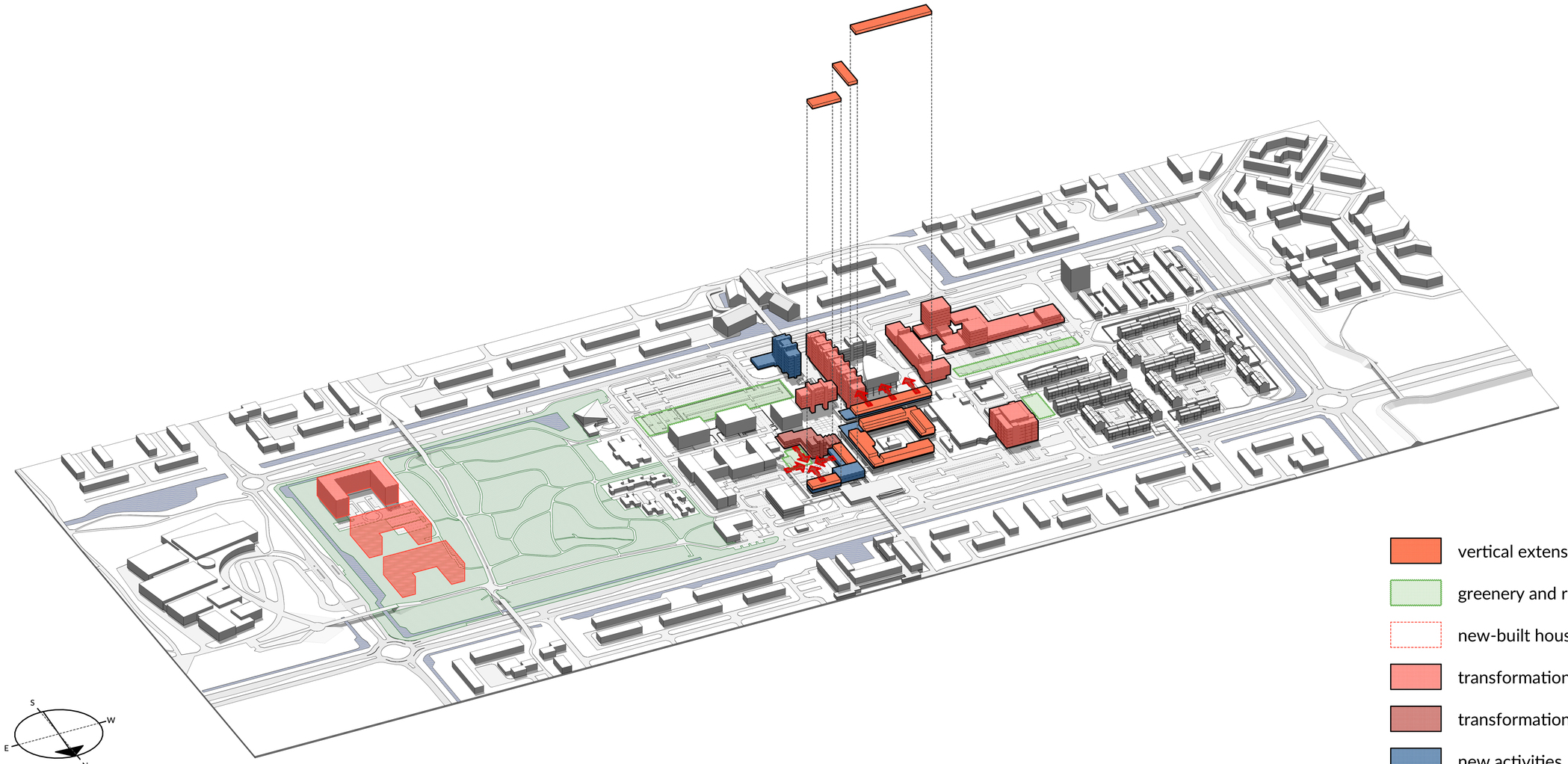
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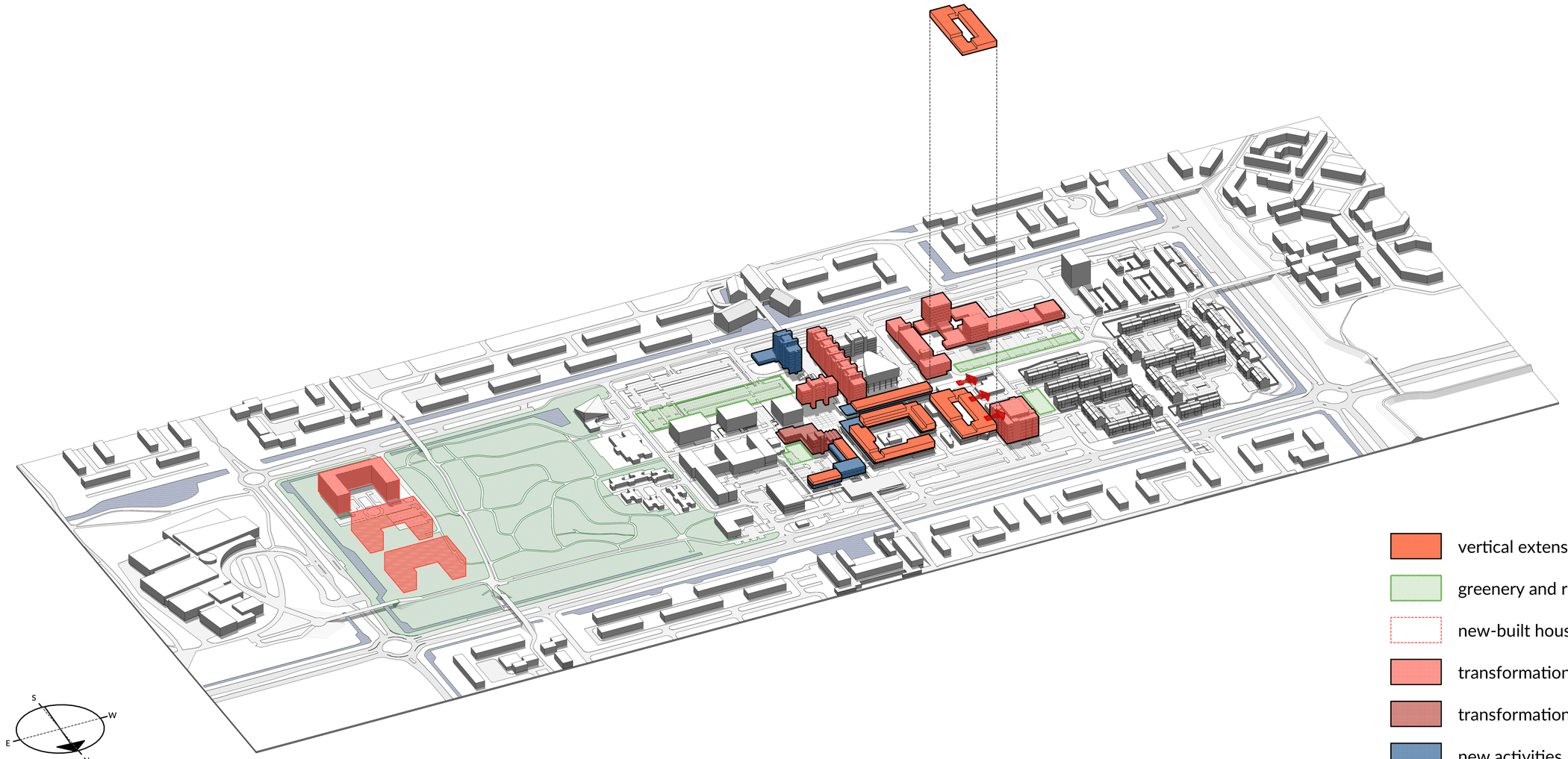
Masterplan


S
W
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vertical extension
greenery and recreation
new-built housing
transformation to residential
transformation to elderly care
new activities

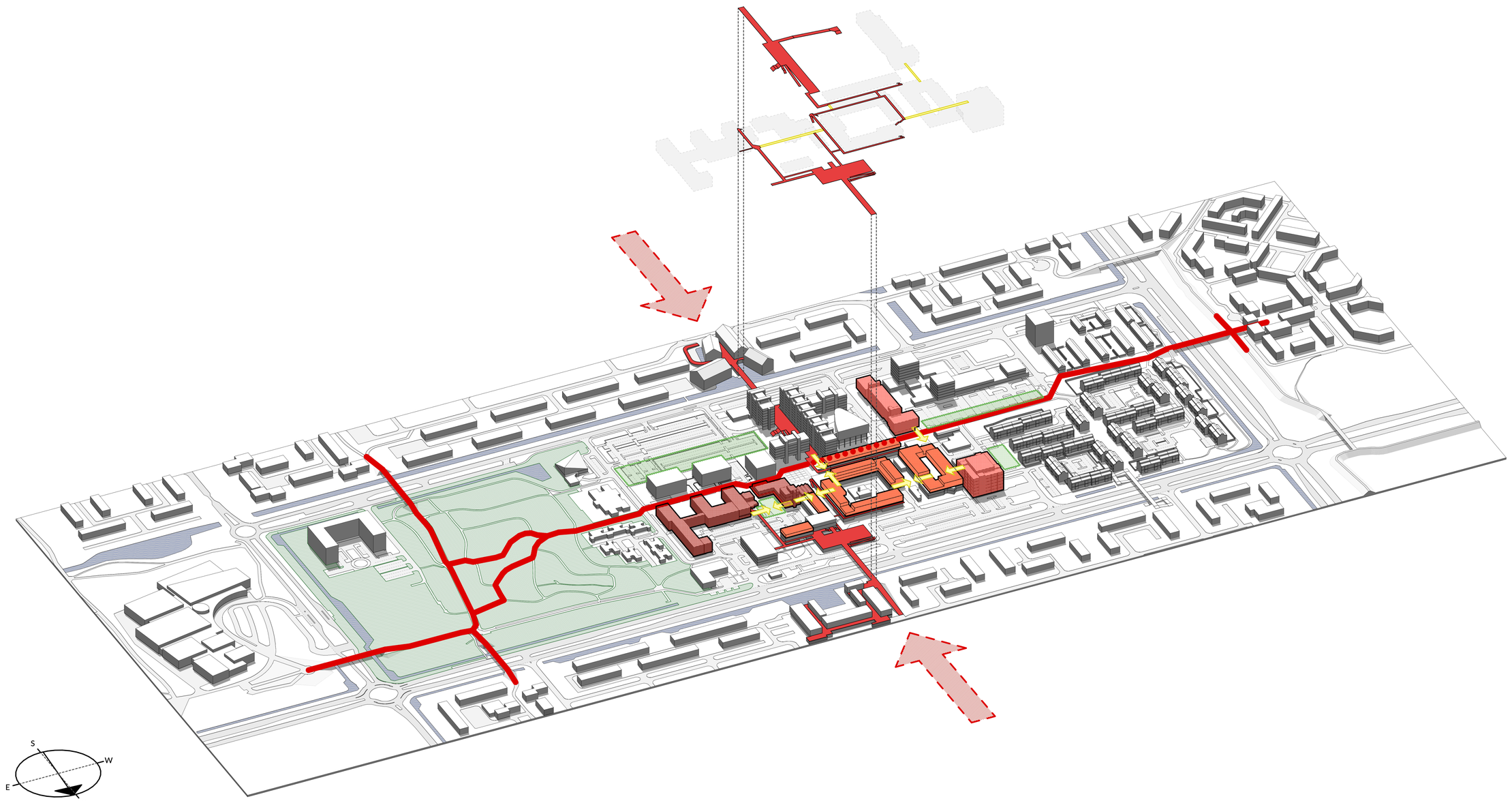
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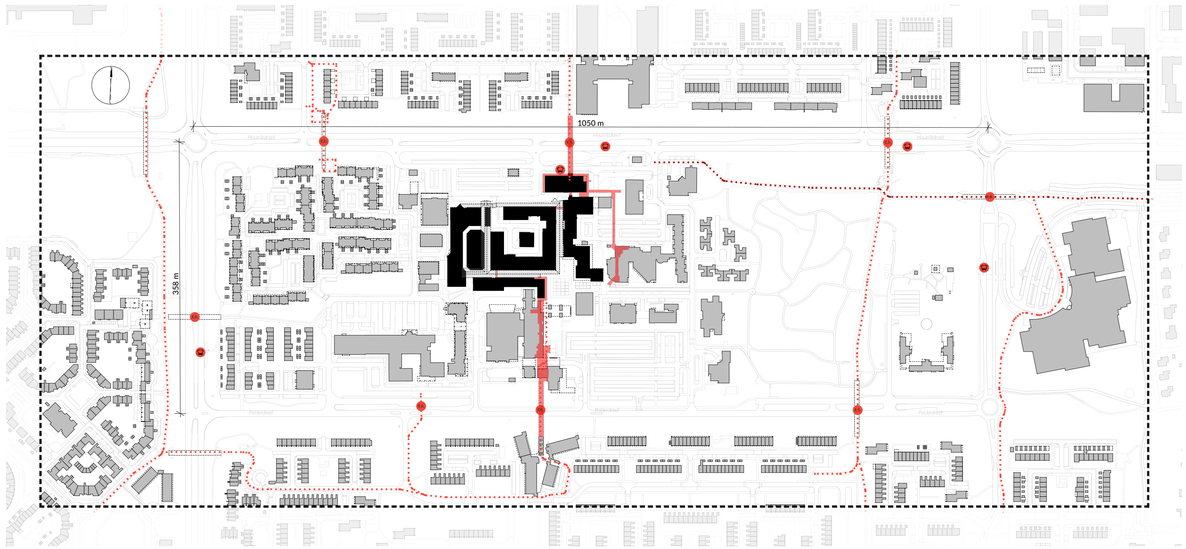
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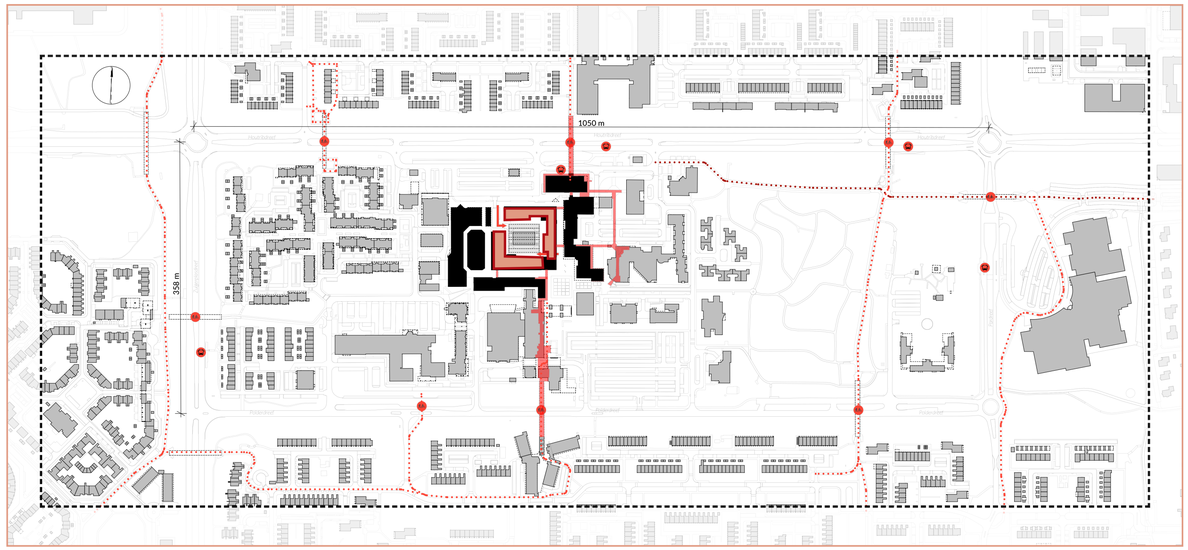
Masterplan



Existing Siteplan



New Siteplan

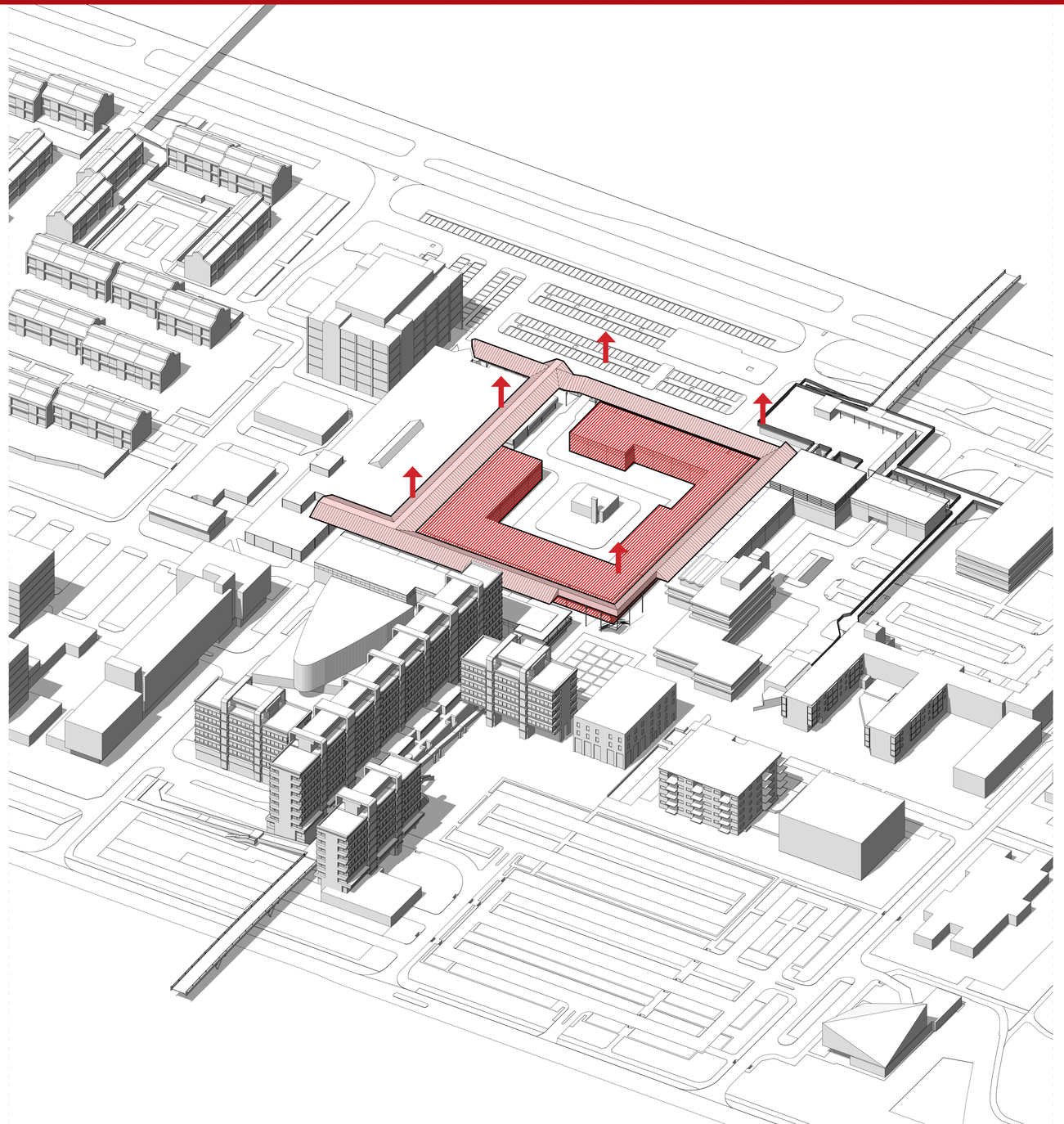


Transformation Framework

create collective recreation space in underused delivery area

dense and diverse housing - vertical addition

rentable workspace / activity rooms



re-establish the status and use of elevated walkways

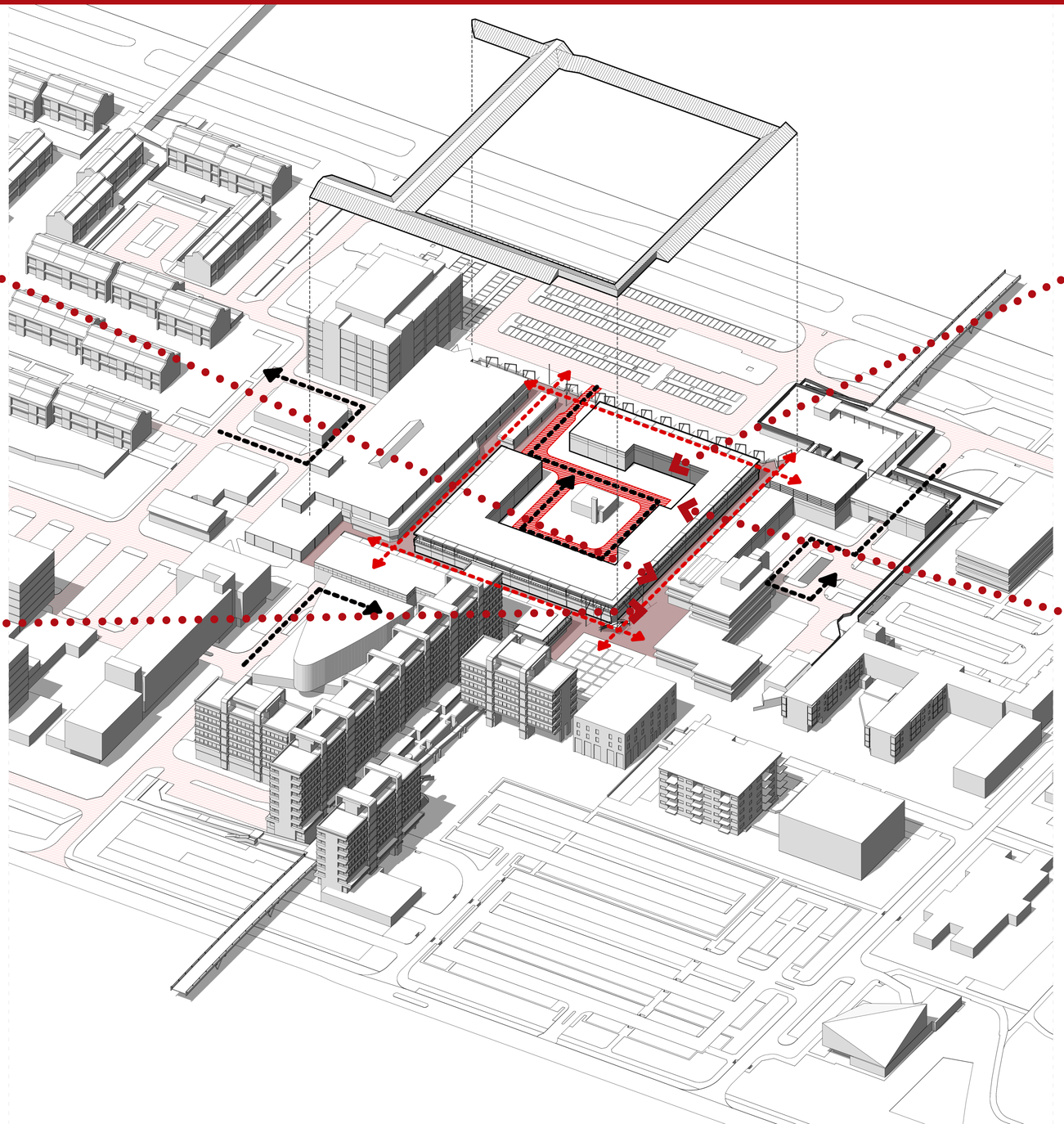
define form of the passages - glass roof mall vs. open air shopping streets

Lelycentre as neighbourhoods public space - square and front arcade design

Transformation Framework



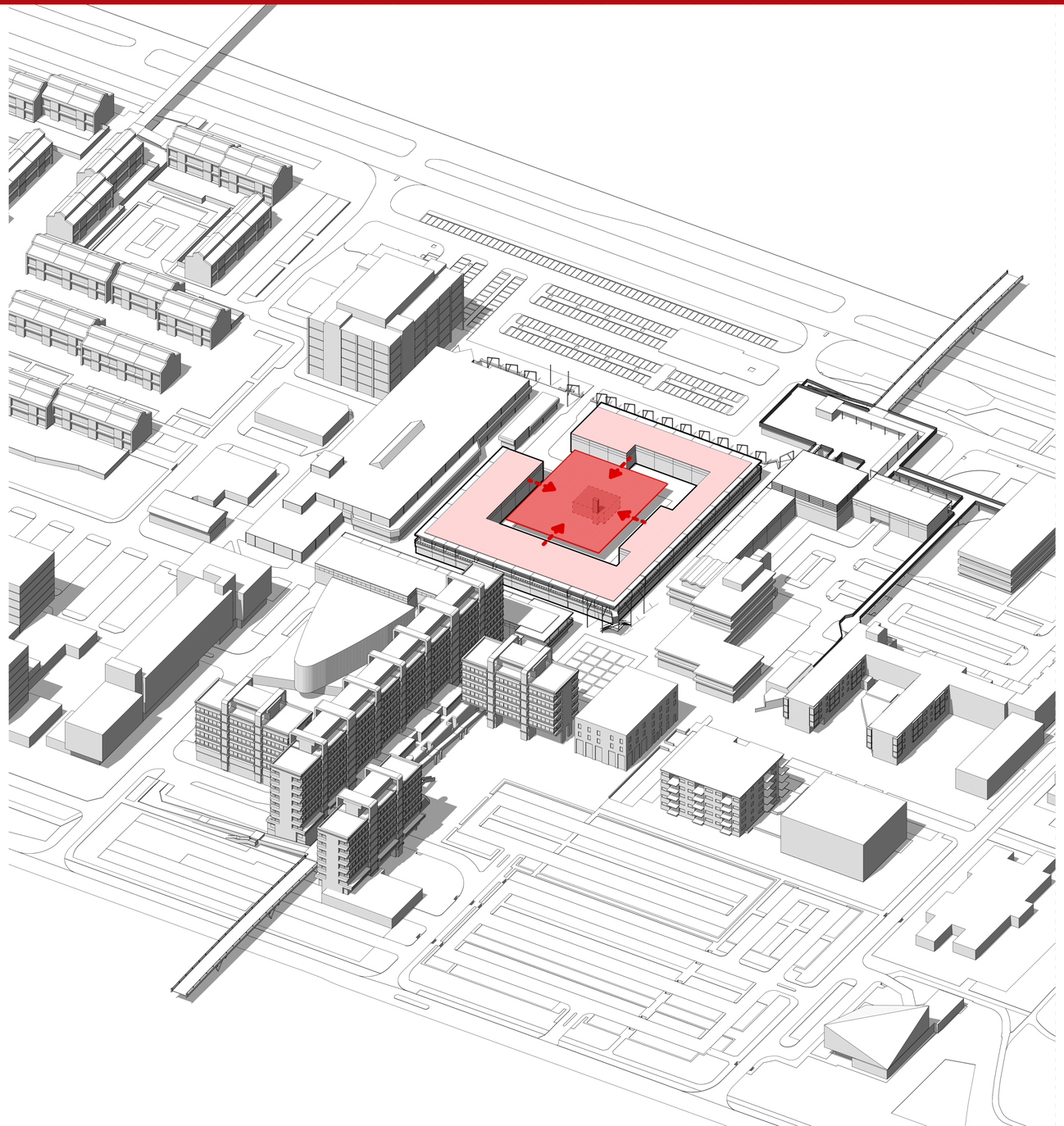




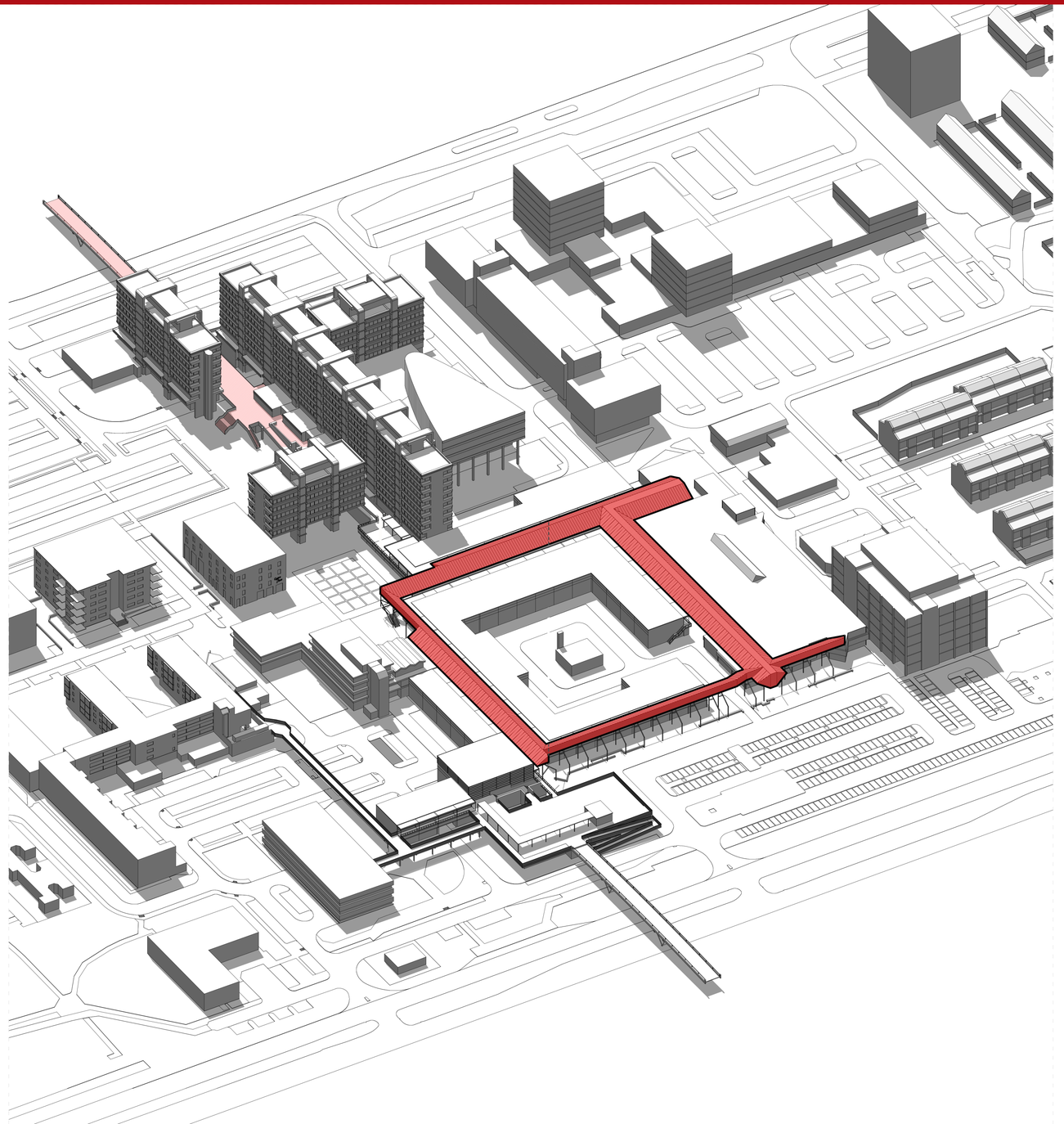




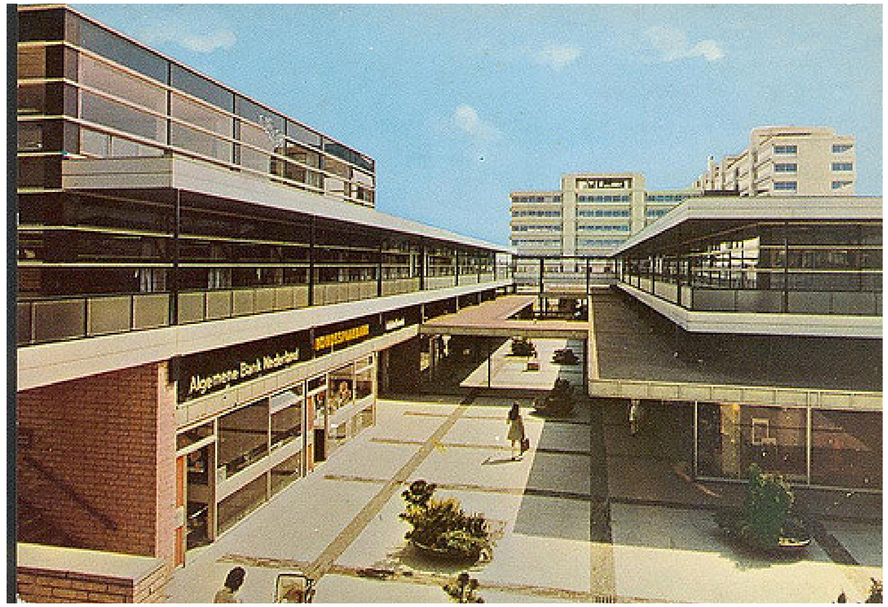
Transformation Framework



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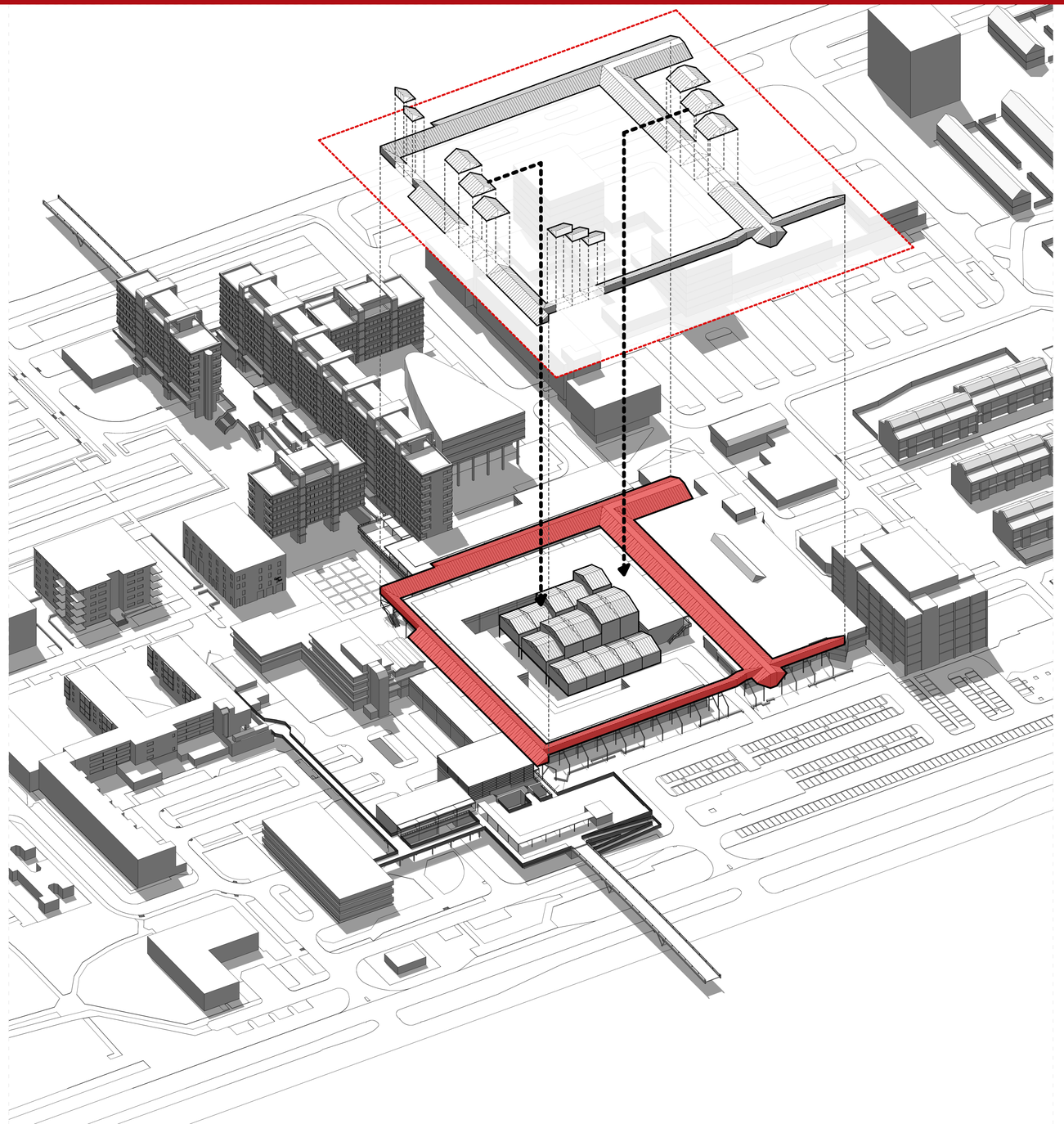


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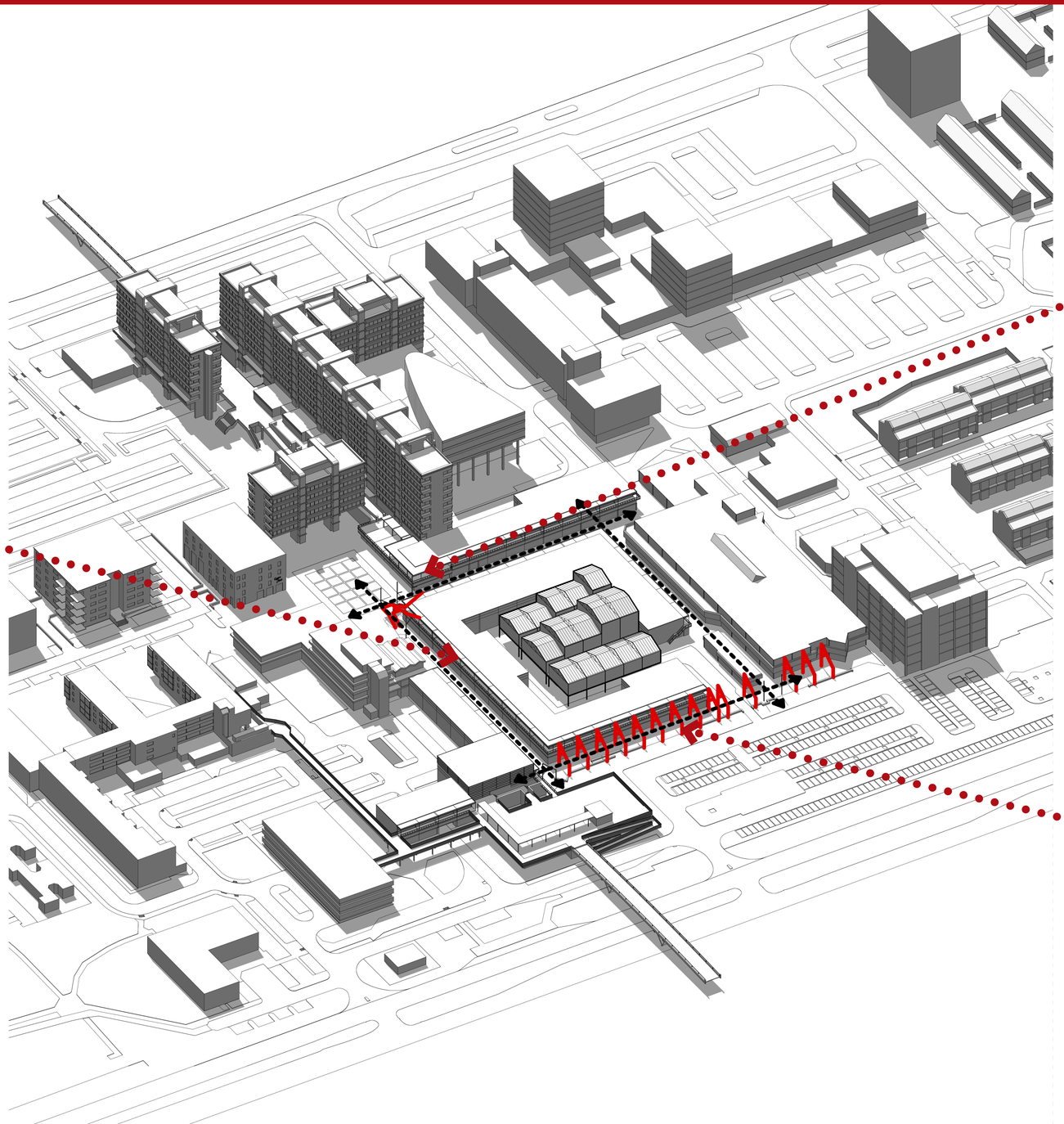


Transformation Framework



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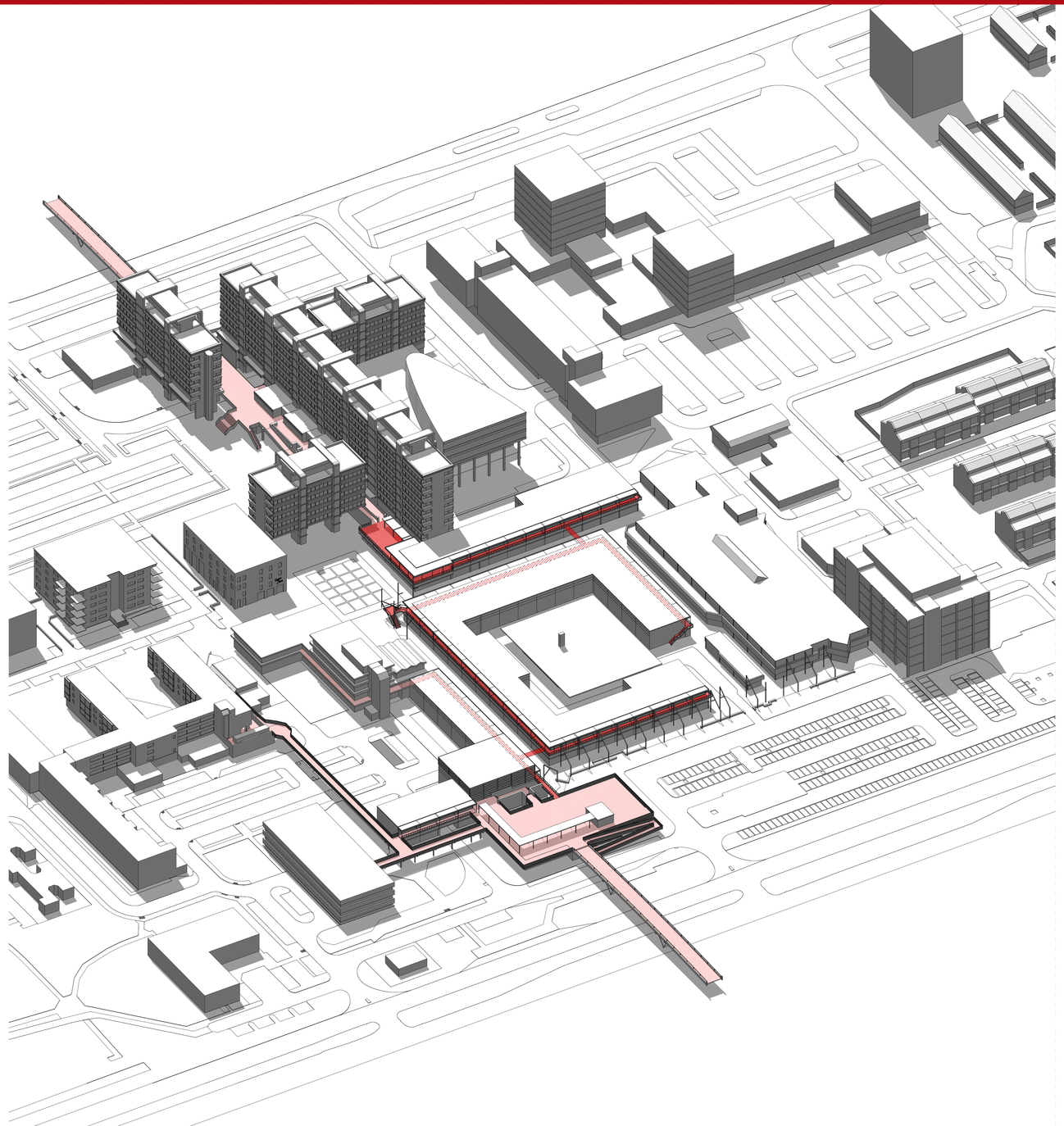




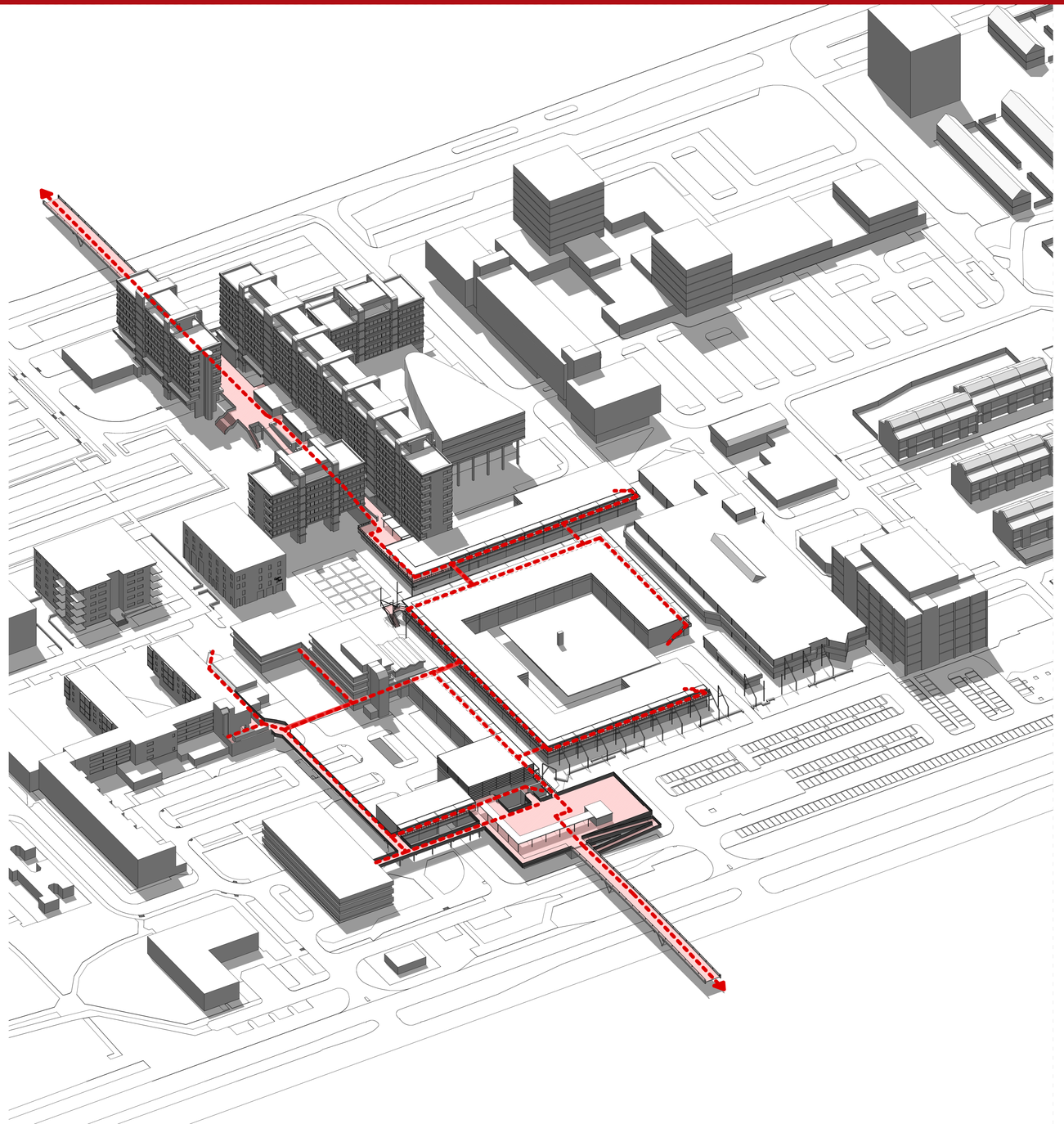




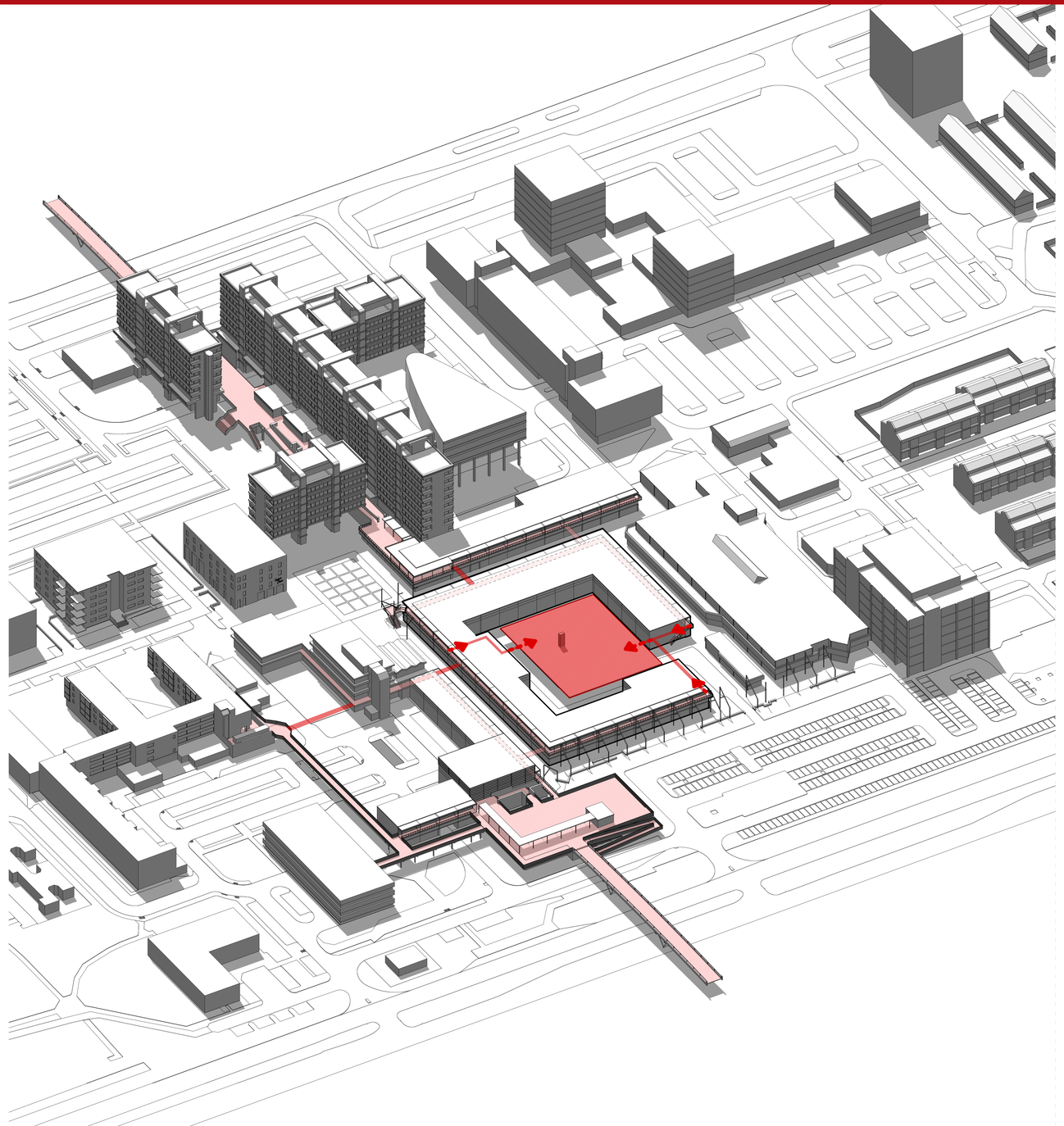
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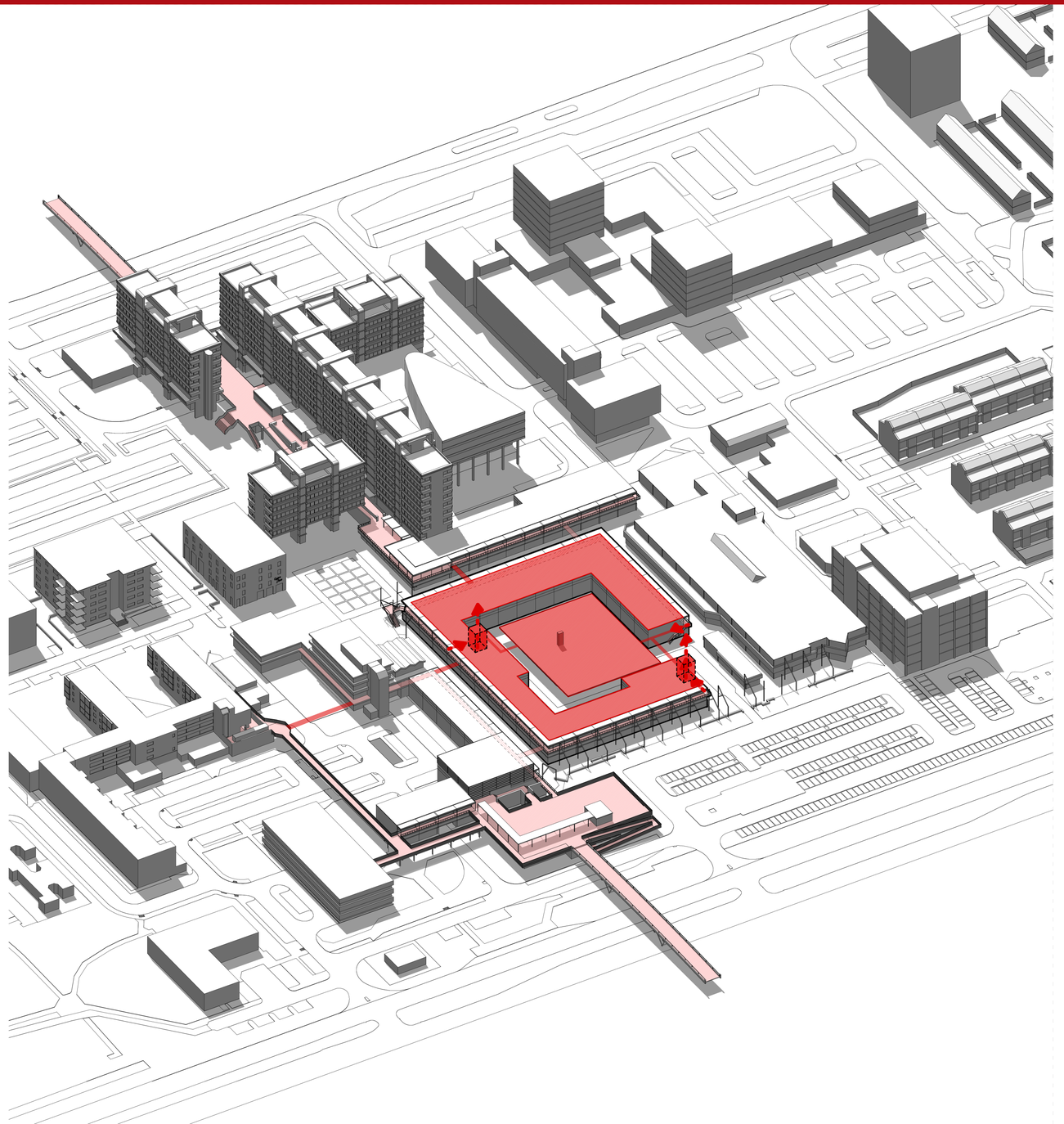
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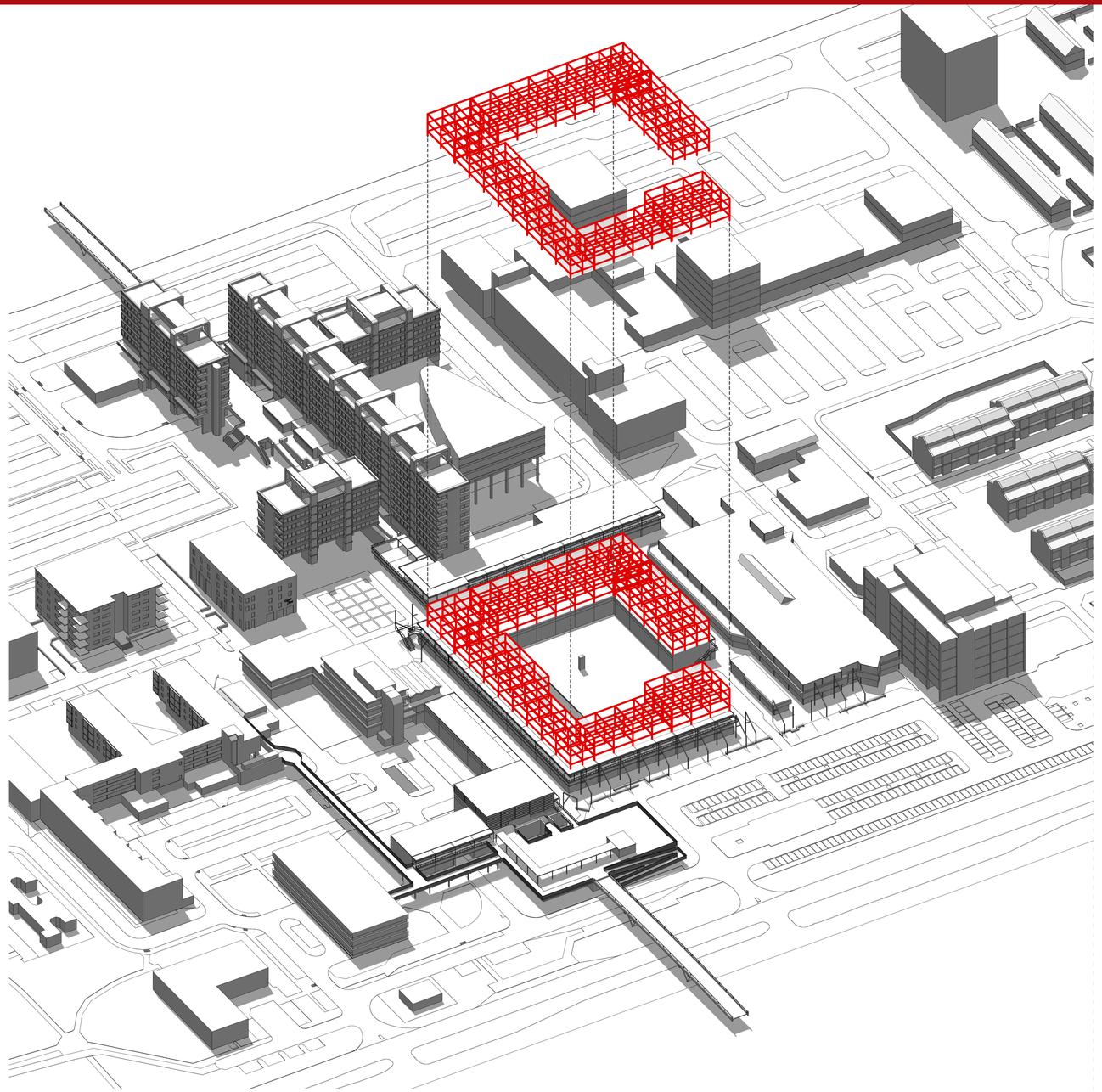
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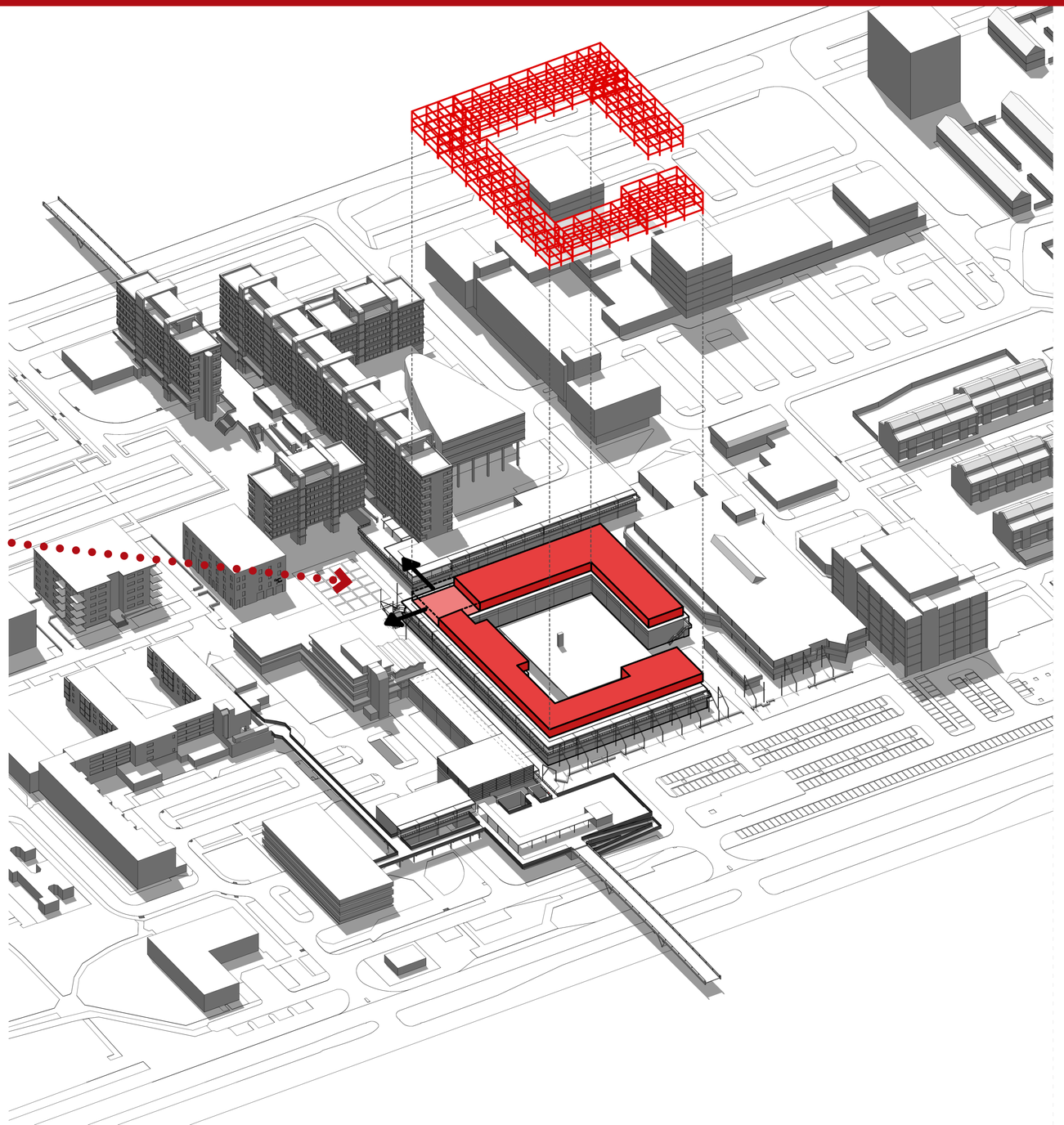


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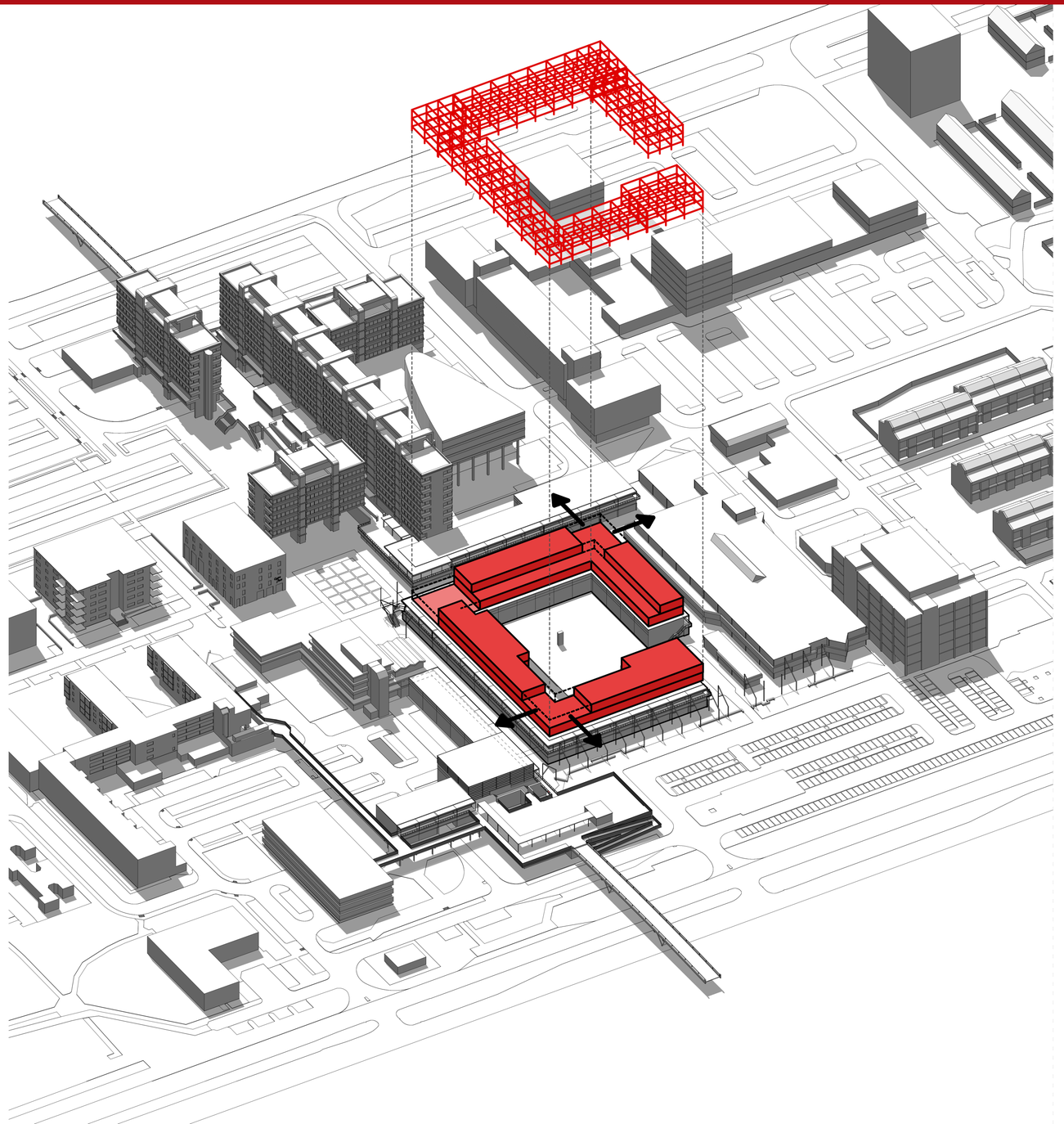


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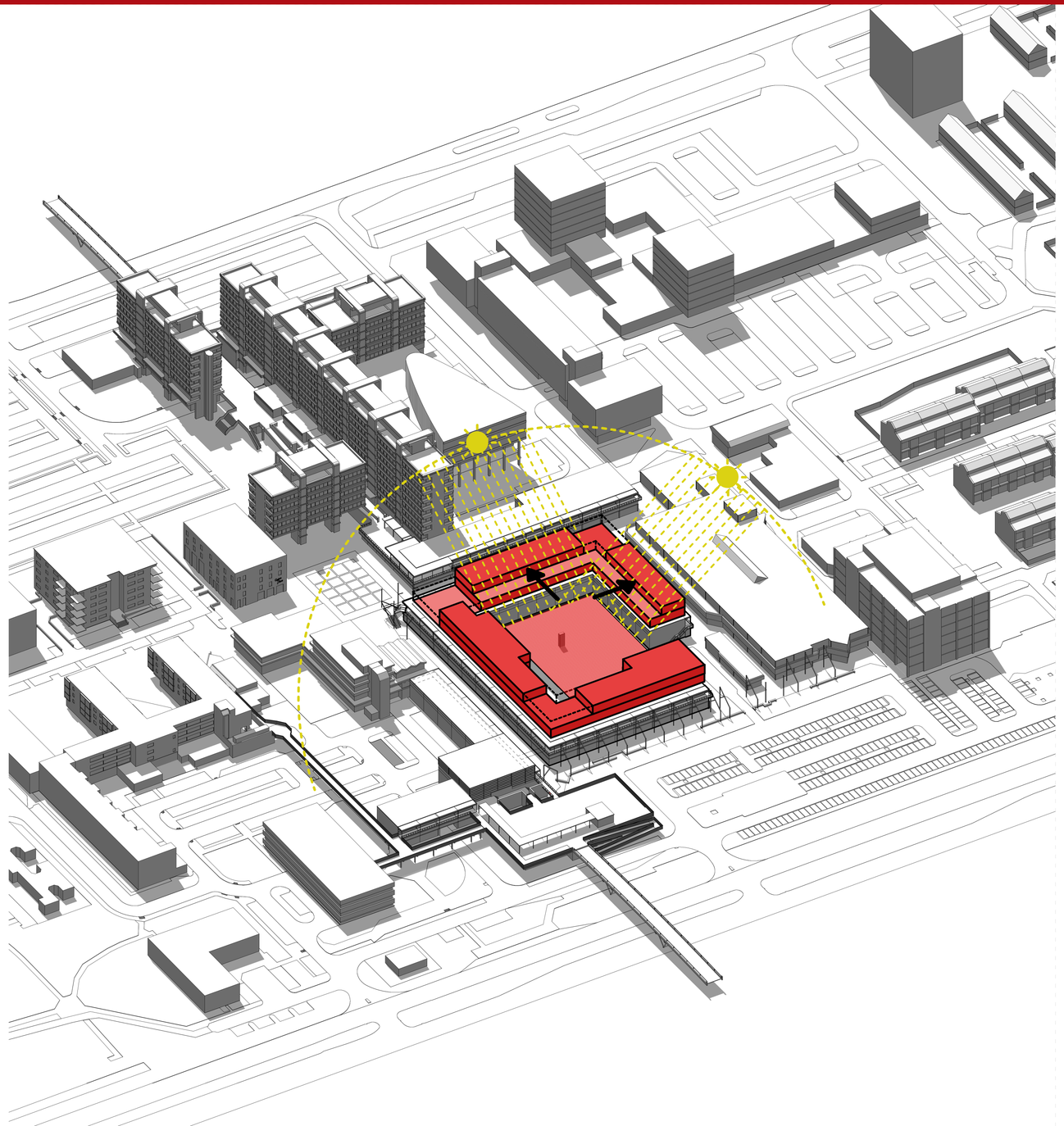




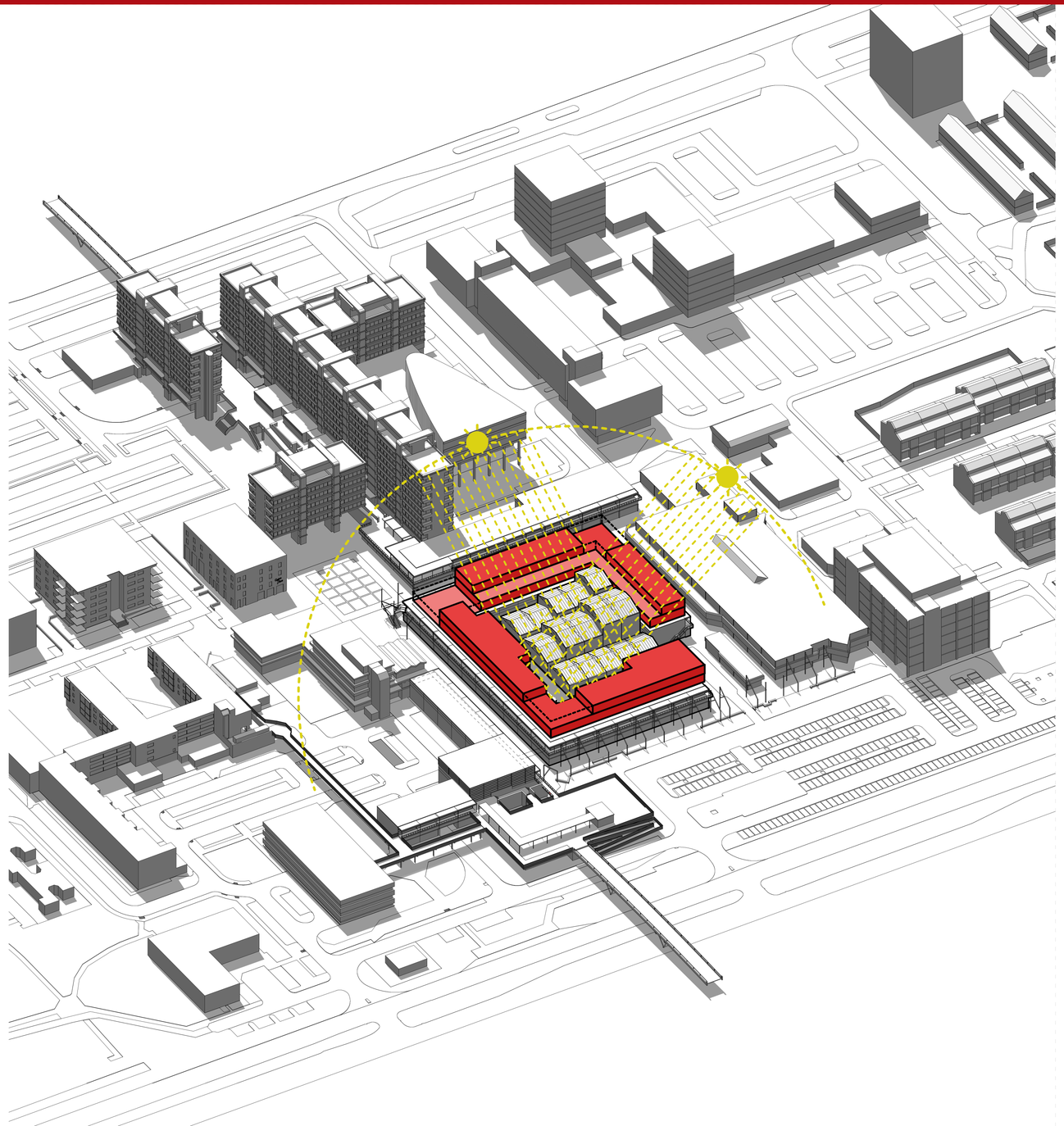
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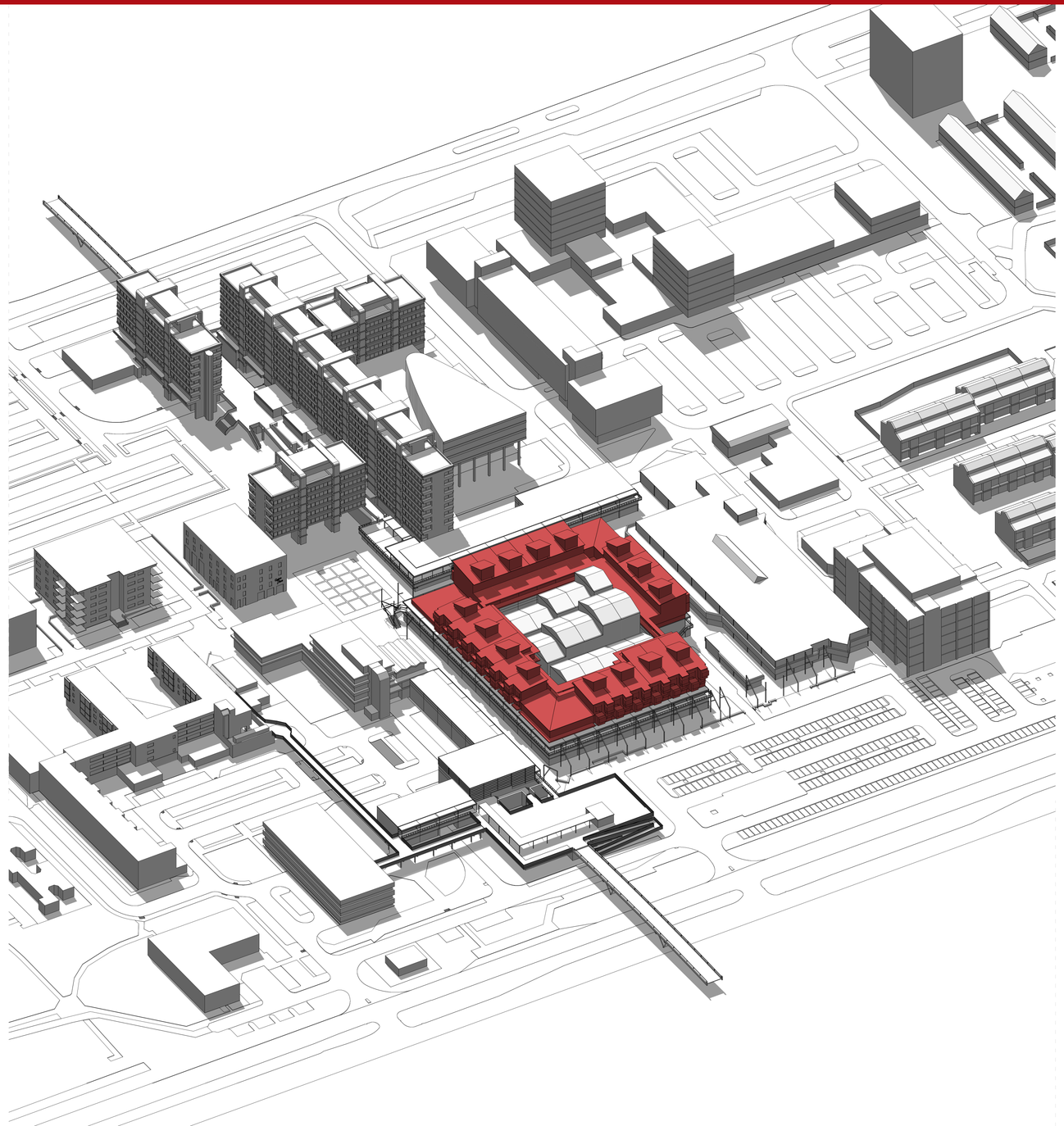
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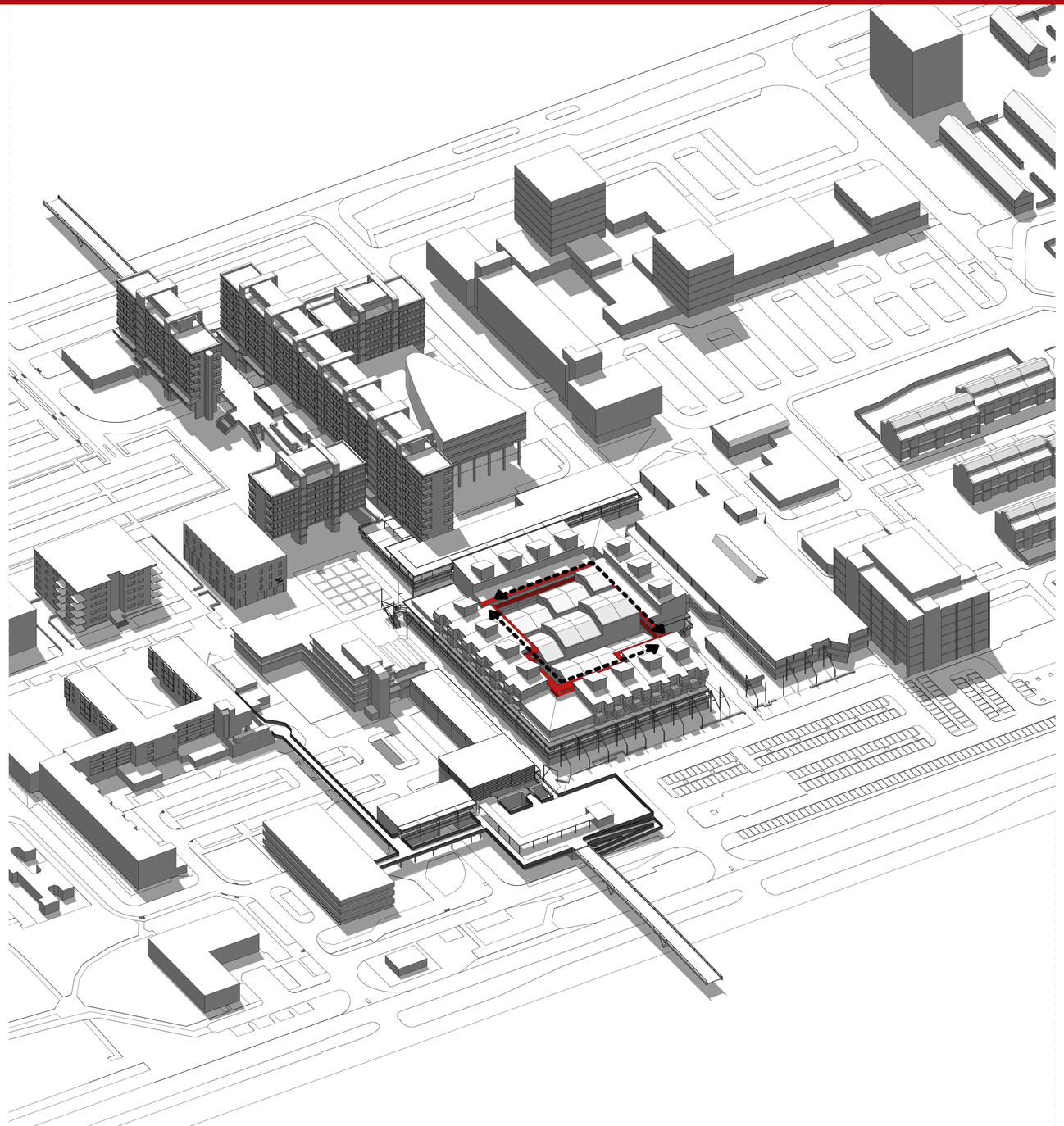
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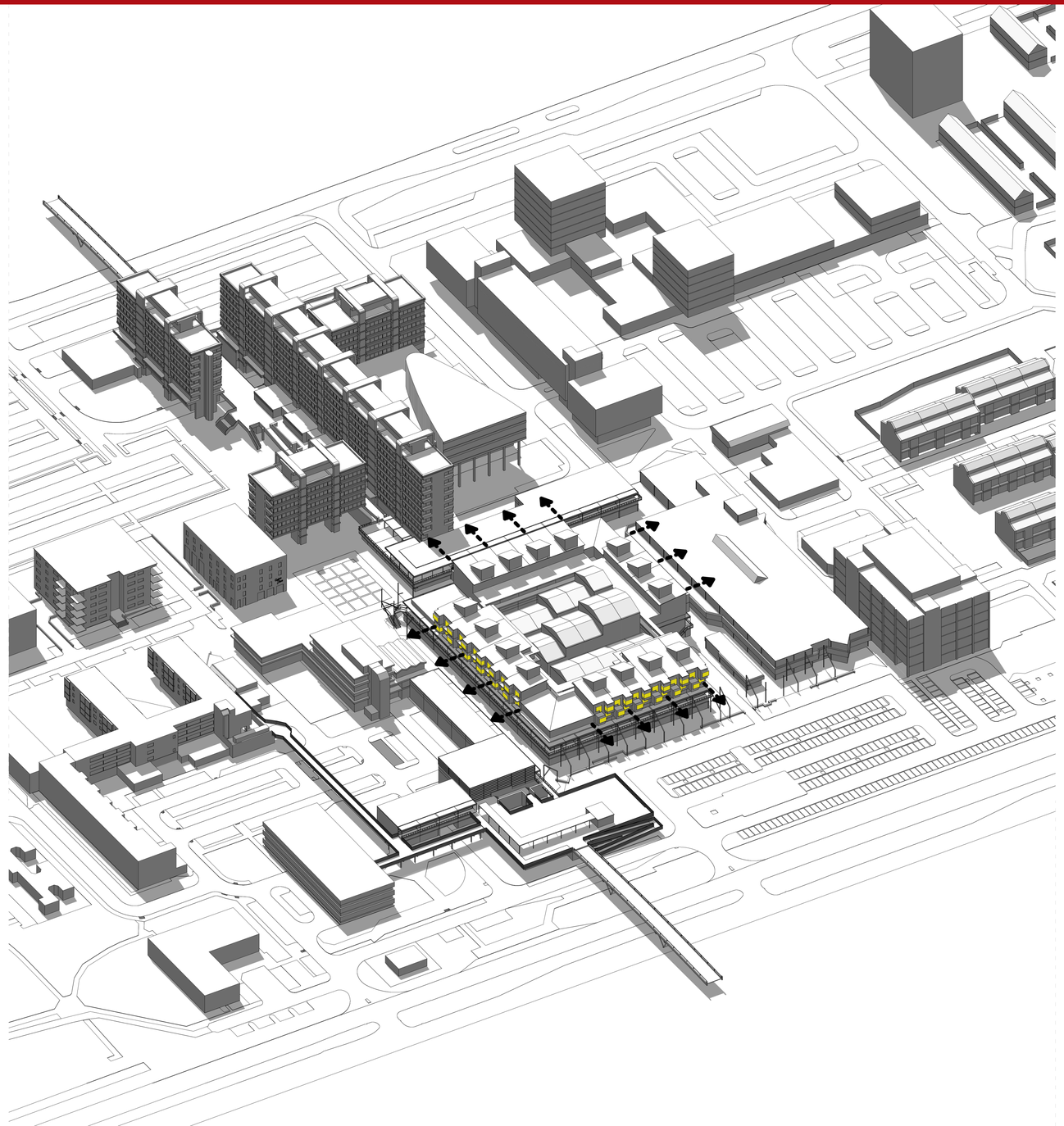
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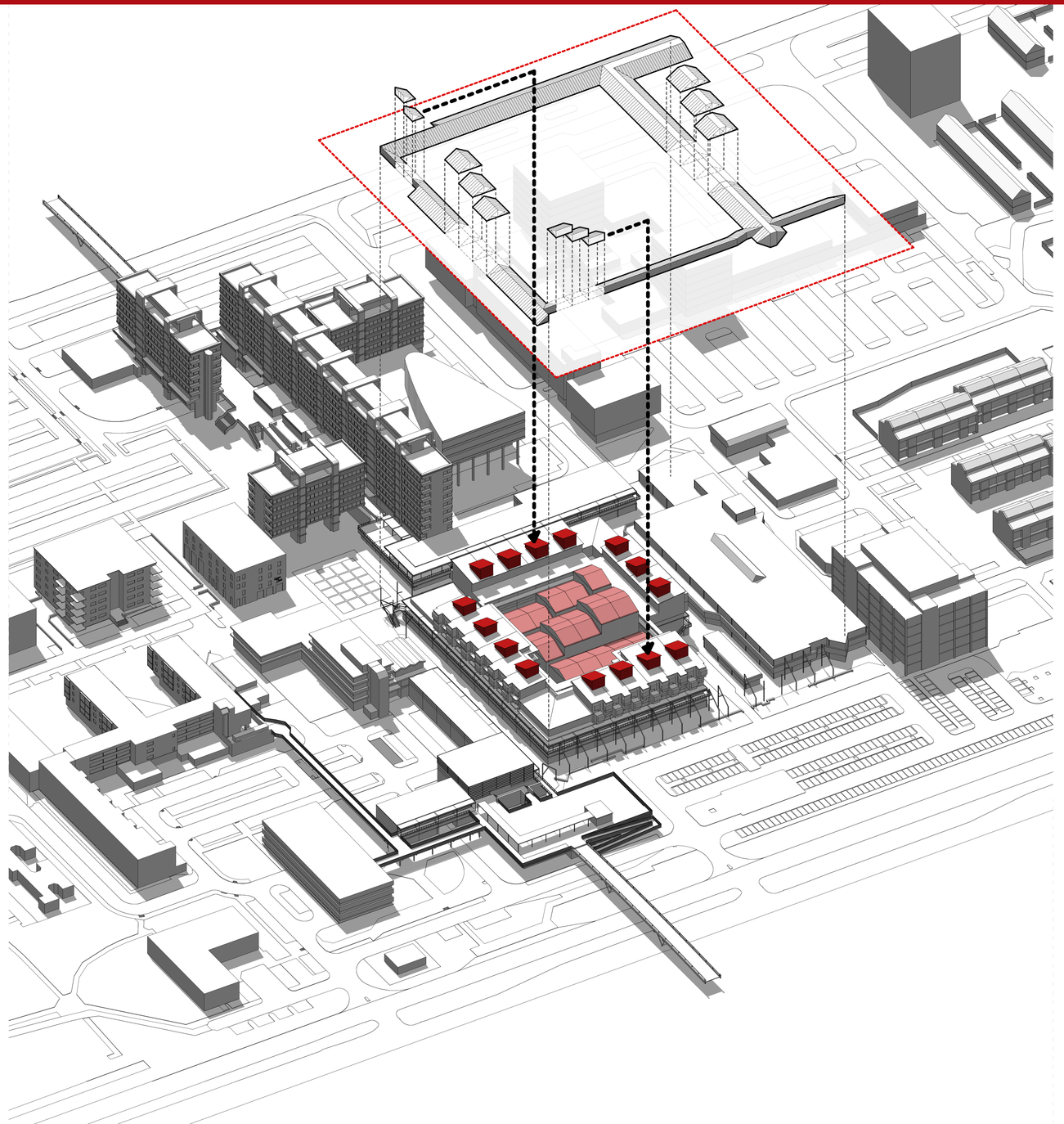
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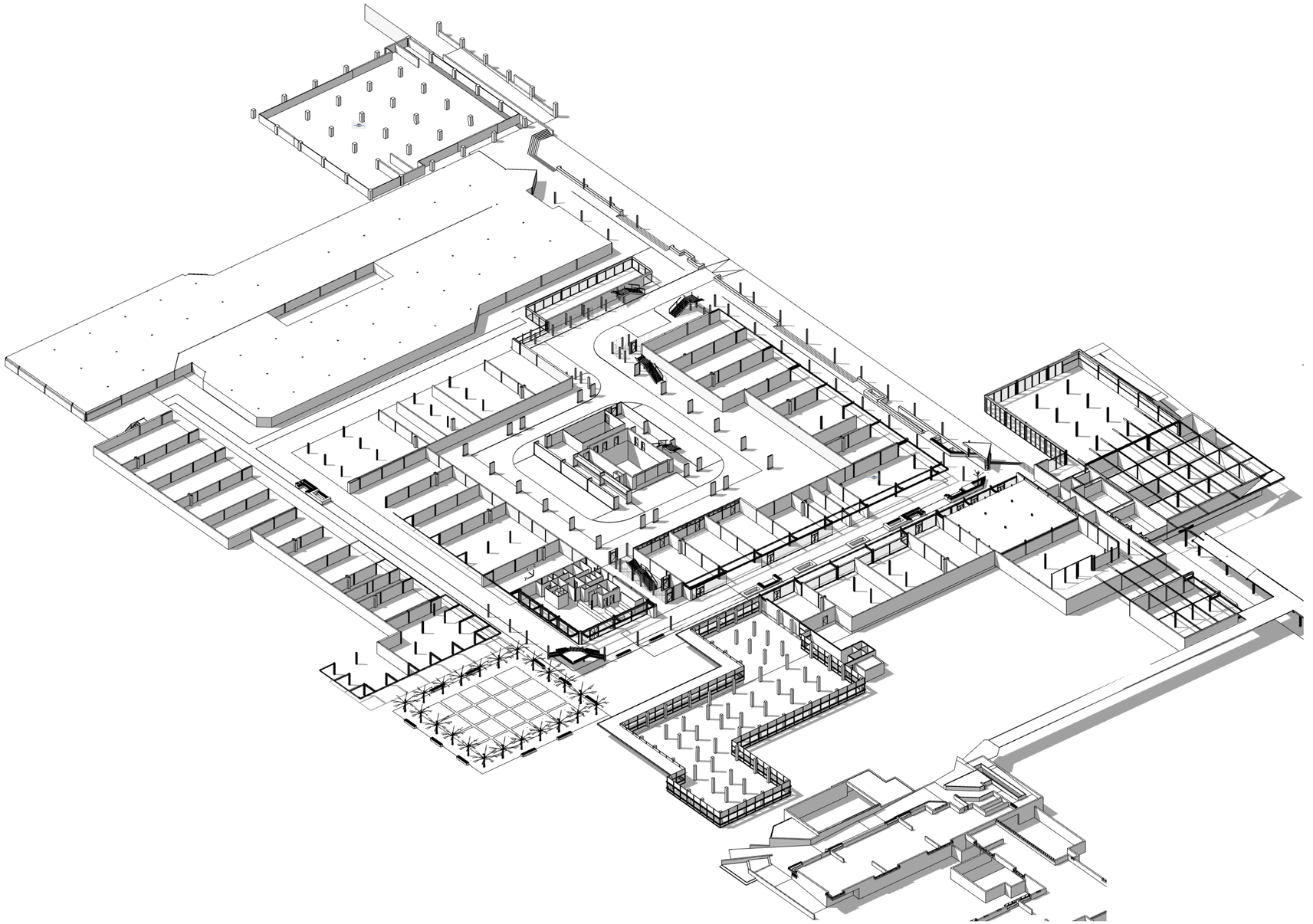
Transformation Framework



Transformation Framework



Circulation and Programme



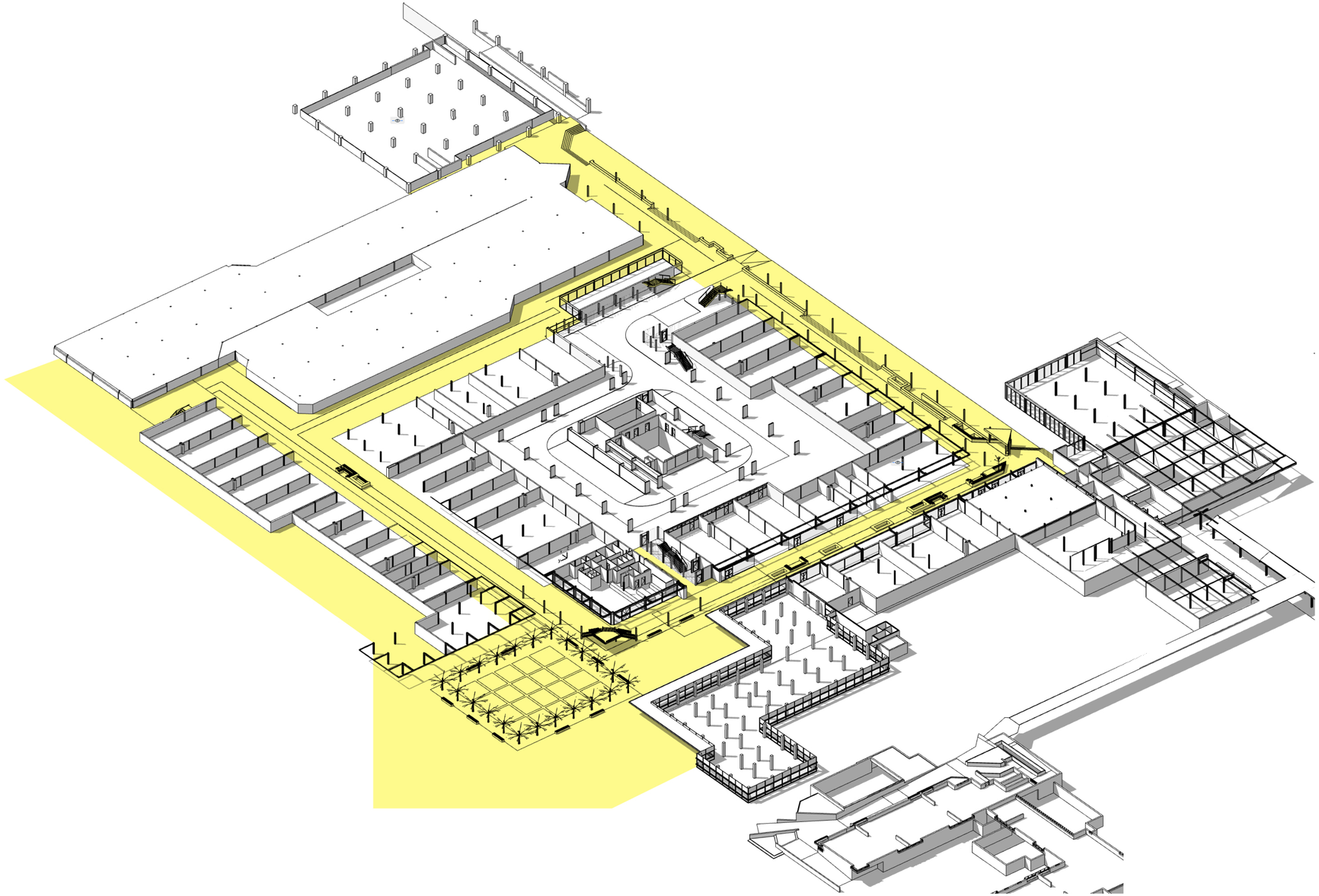
Private

Collective

Public

Technical

Circulation and Programme



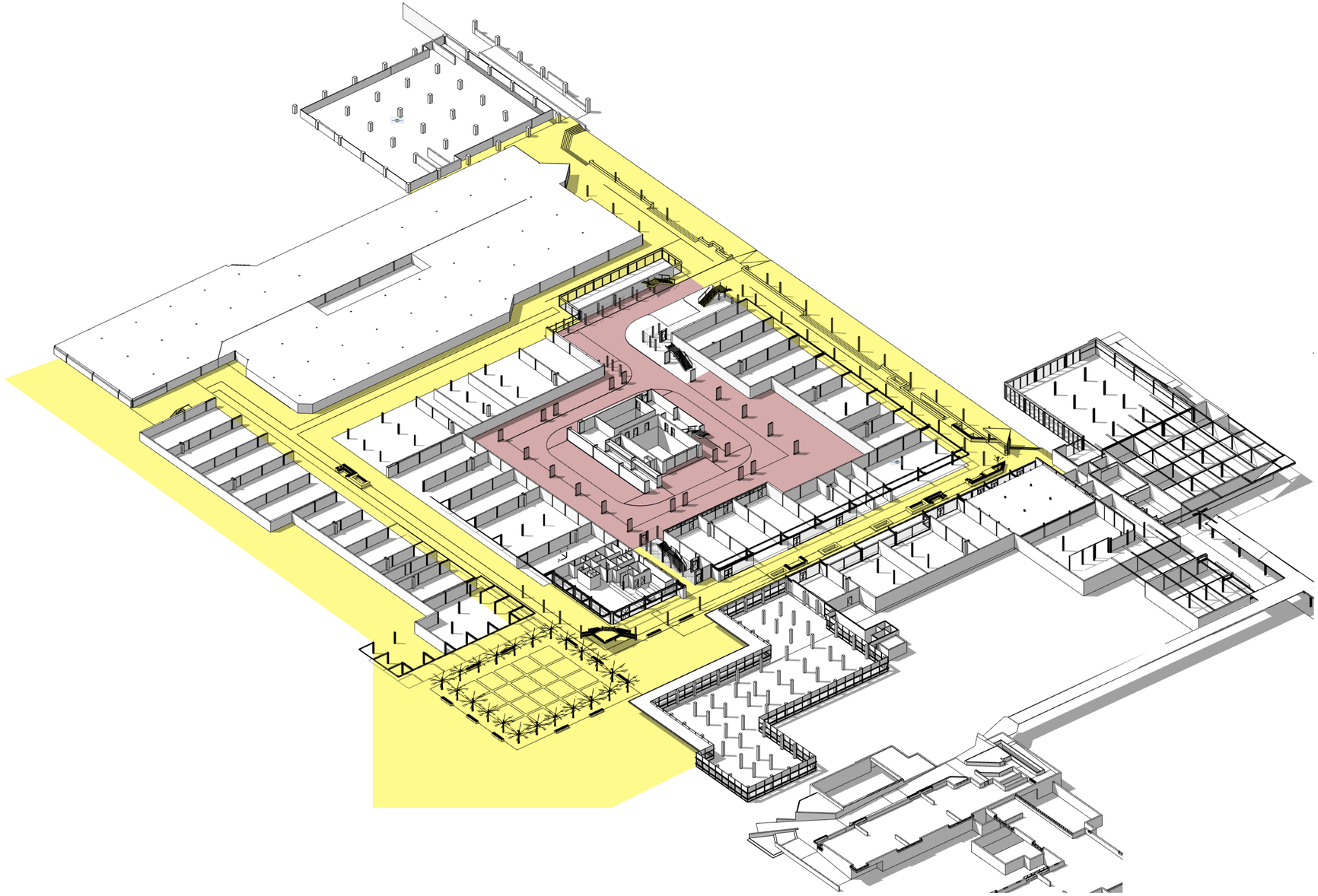
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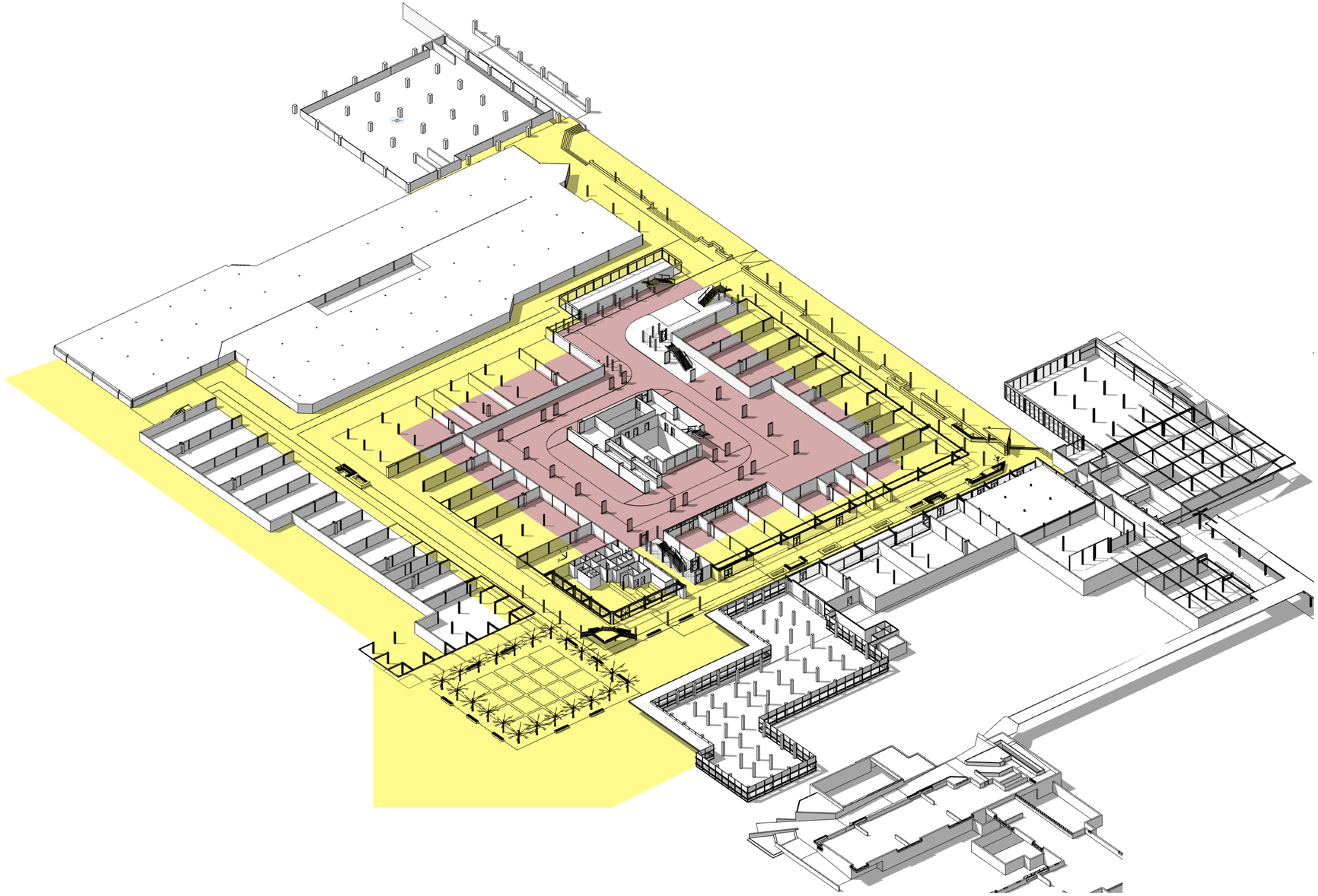
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Technical

Circulation and Programme



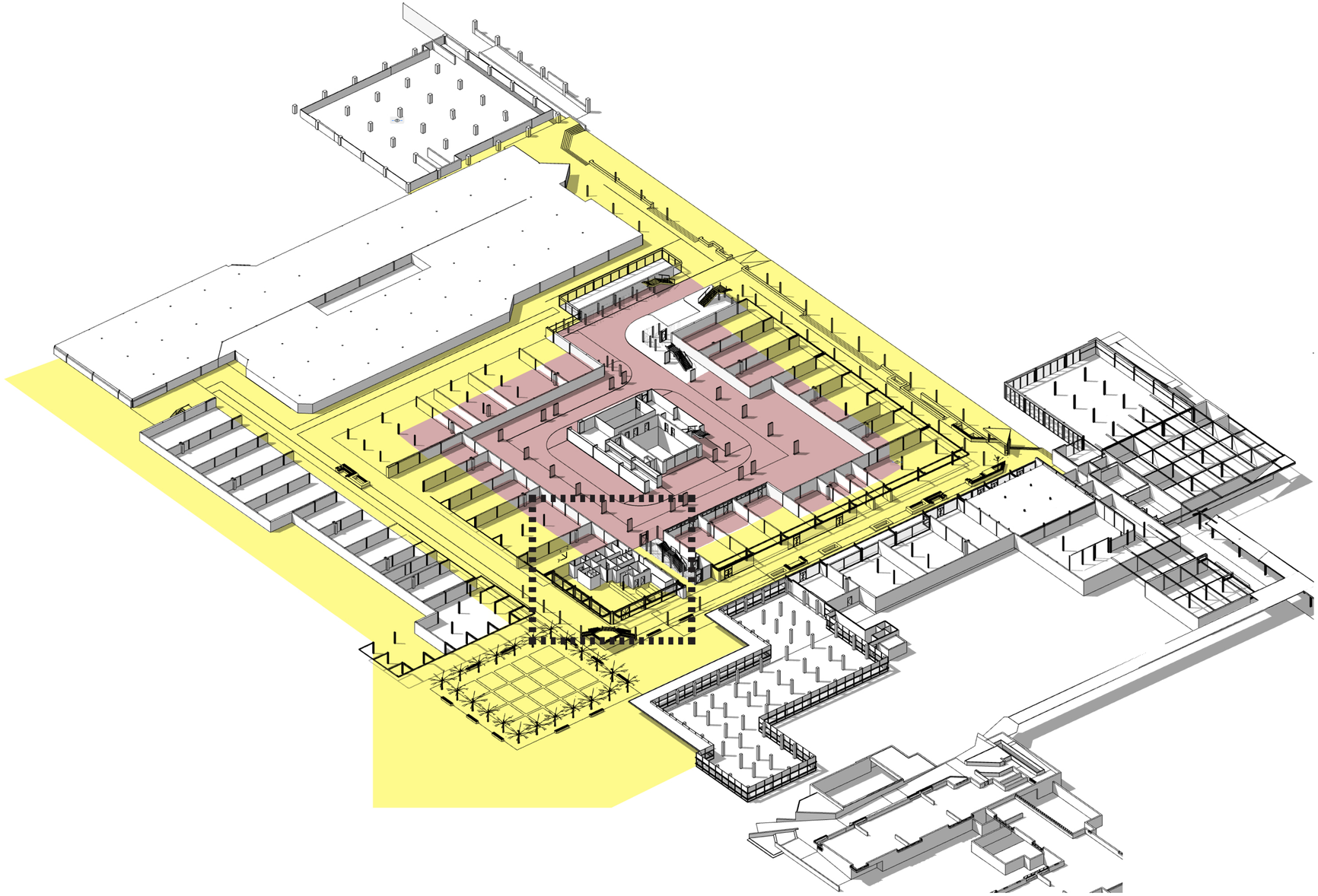
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Technical

Circulation and Programme



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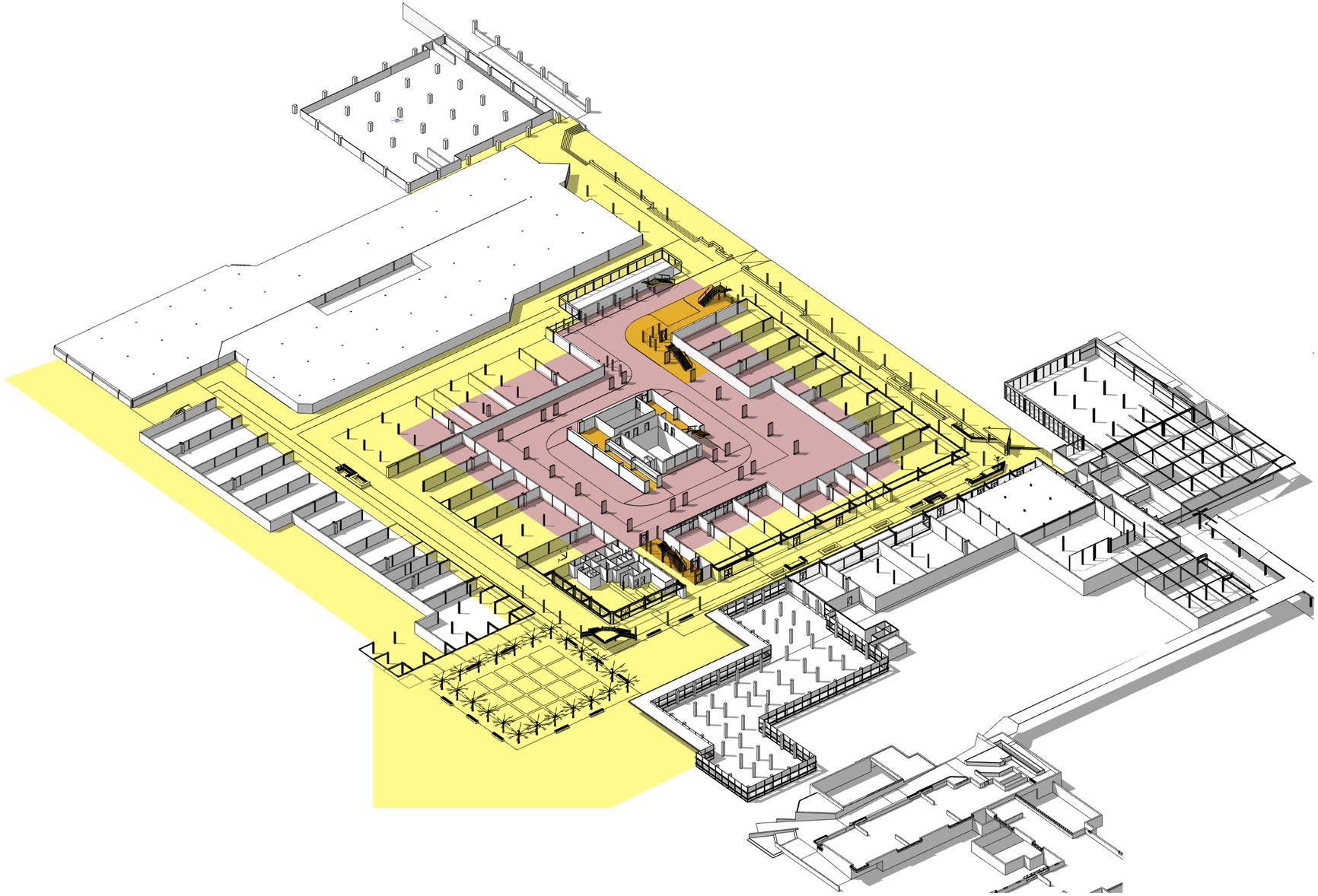
Technical

Change in the public space - day and night cycle





Circulation and Programme



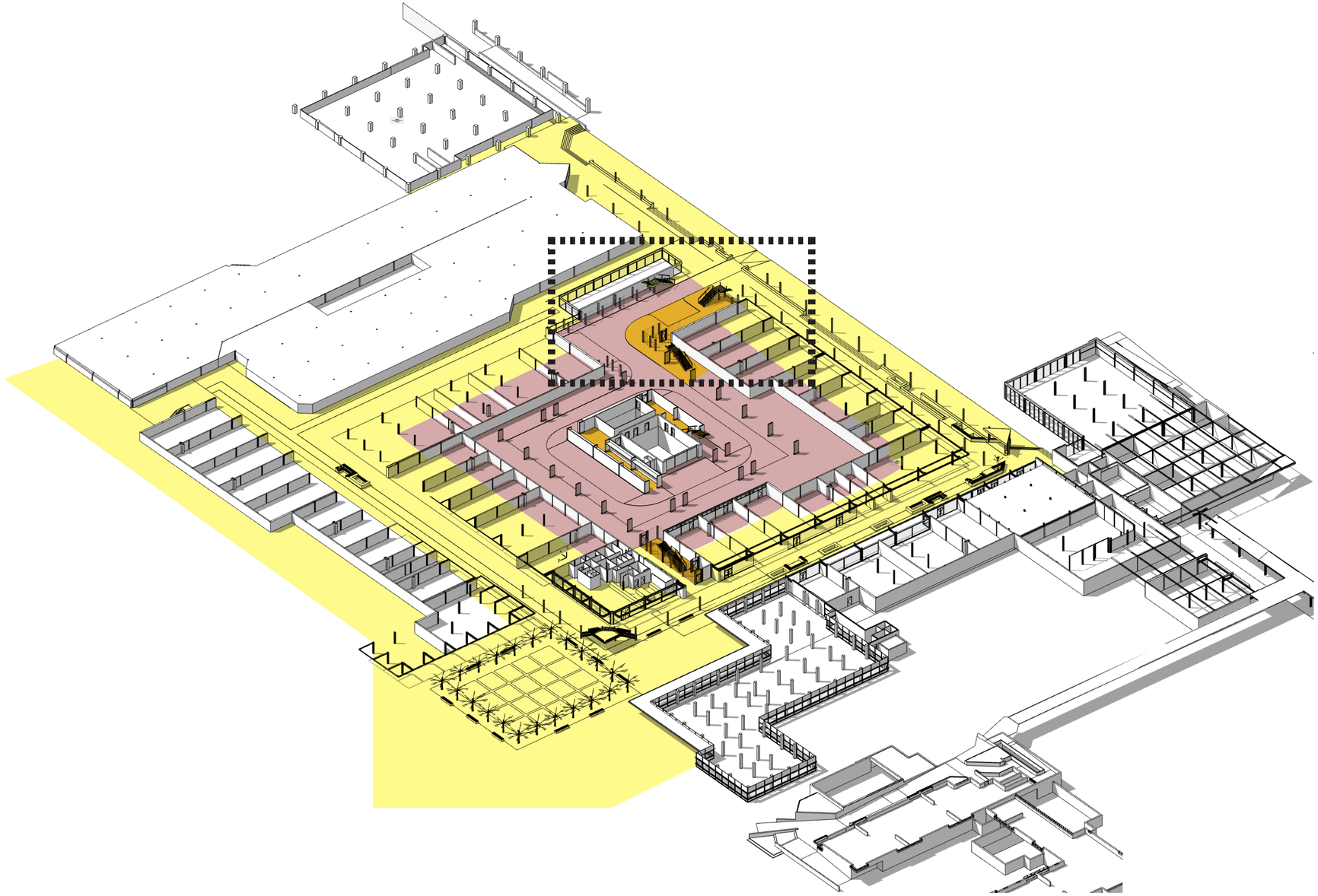
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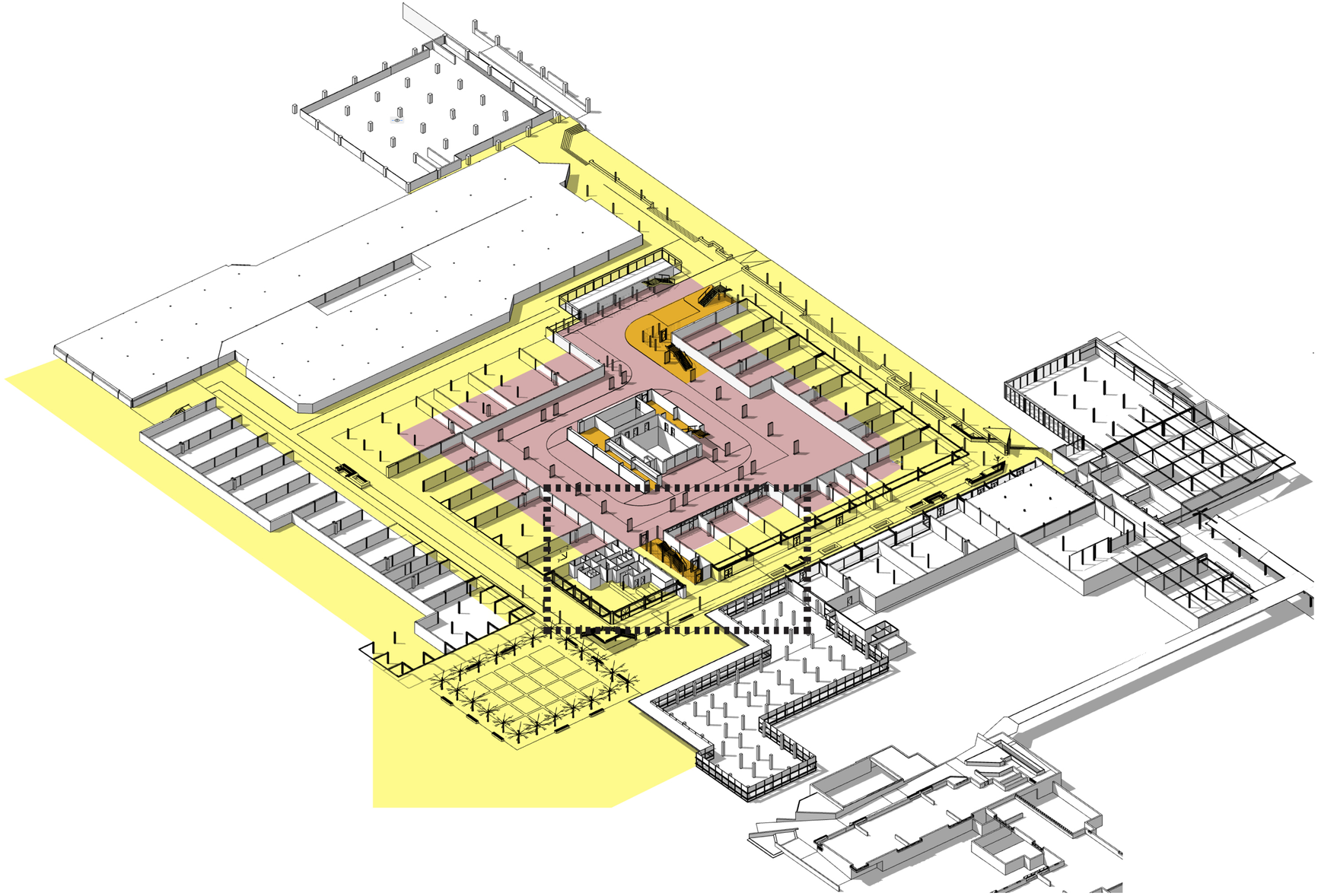
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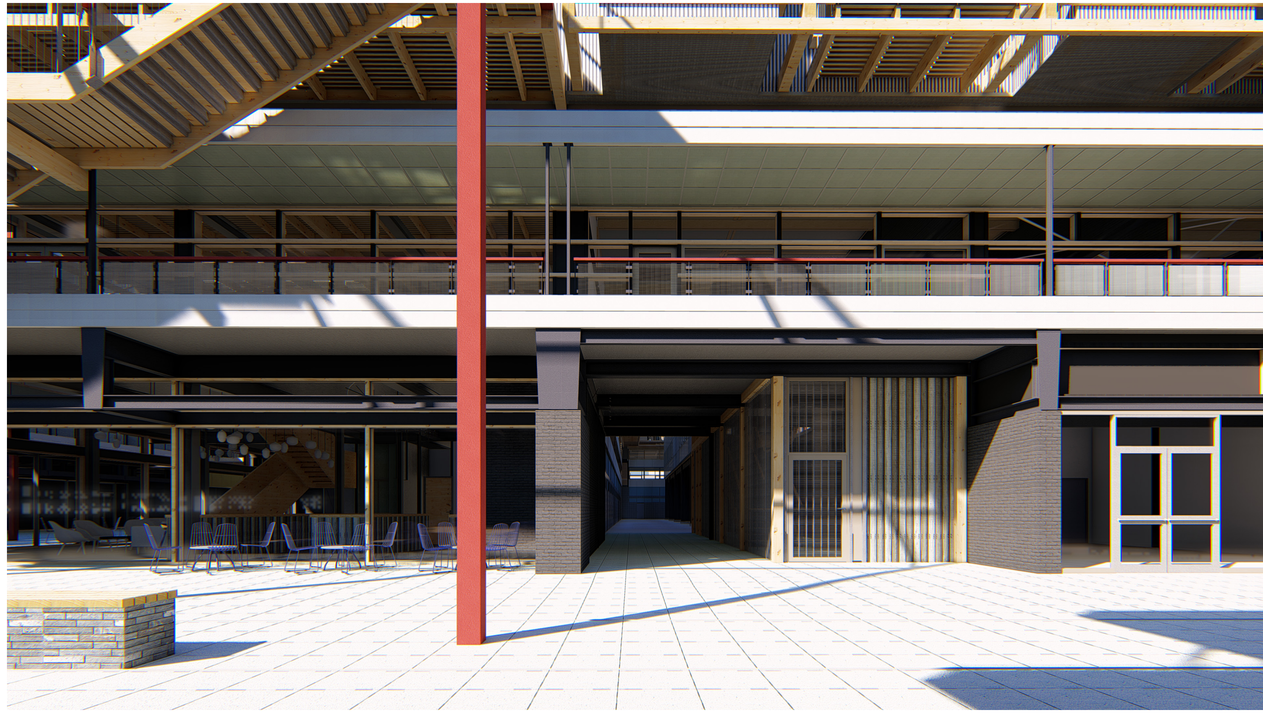
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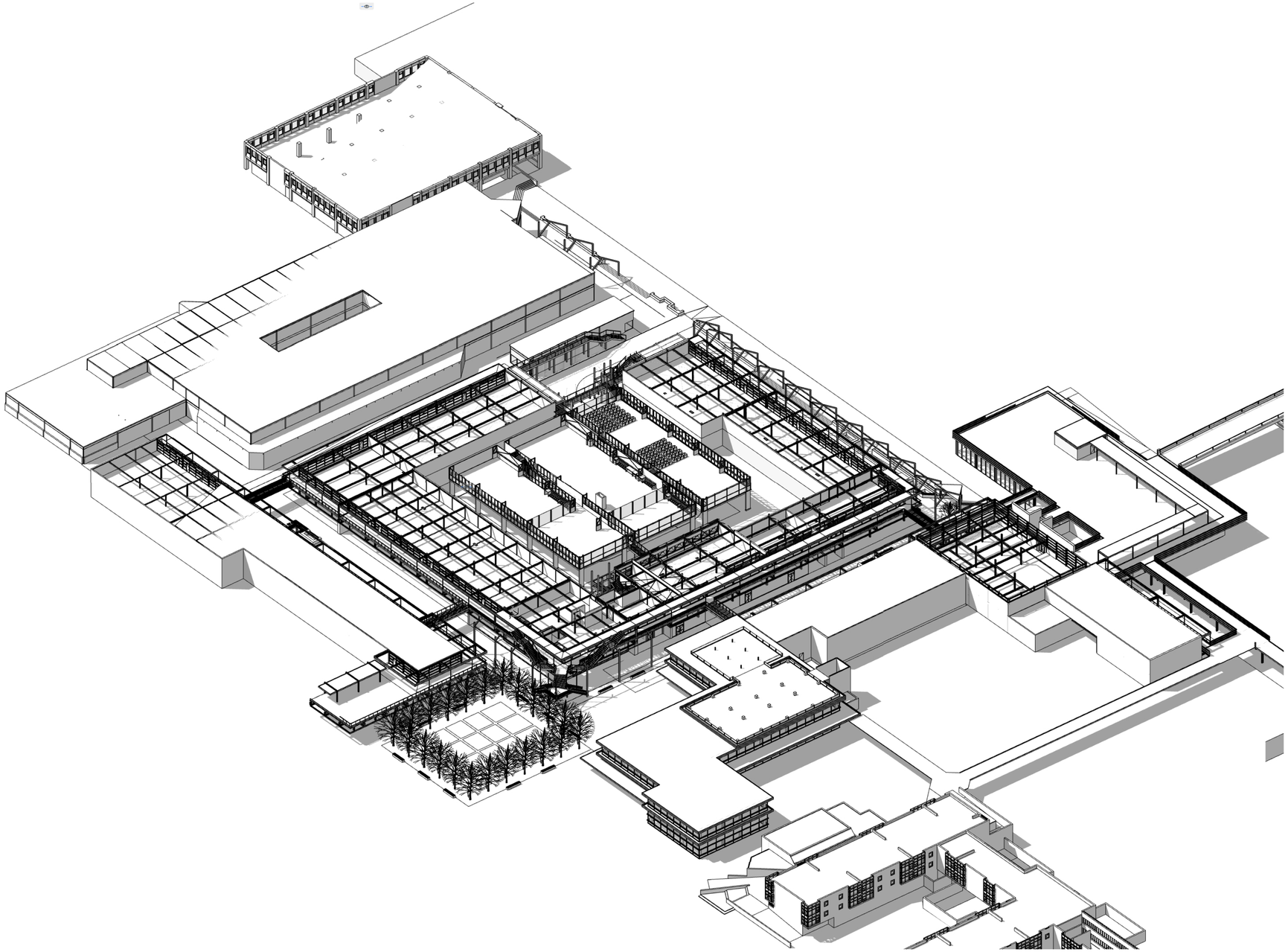


Circulation and Programme





Circulation and Programme



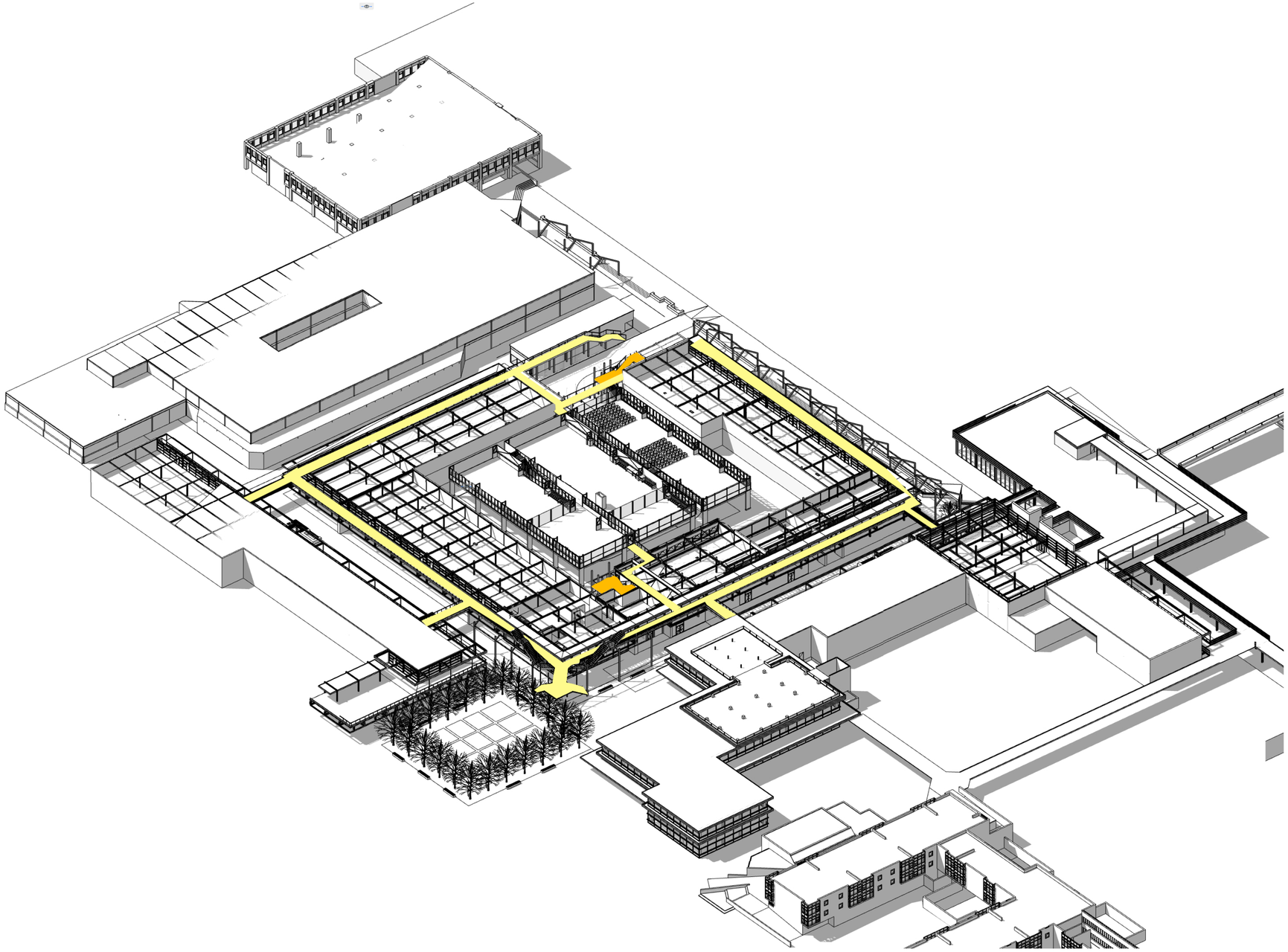
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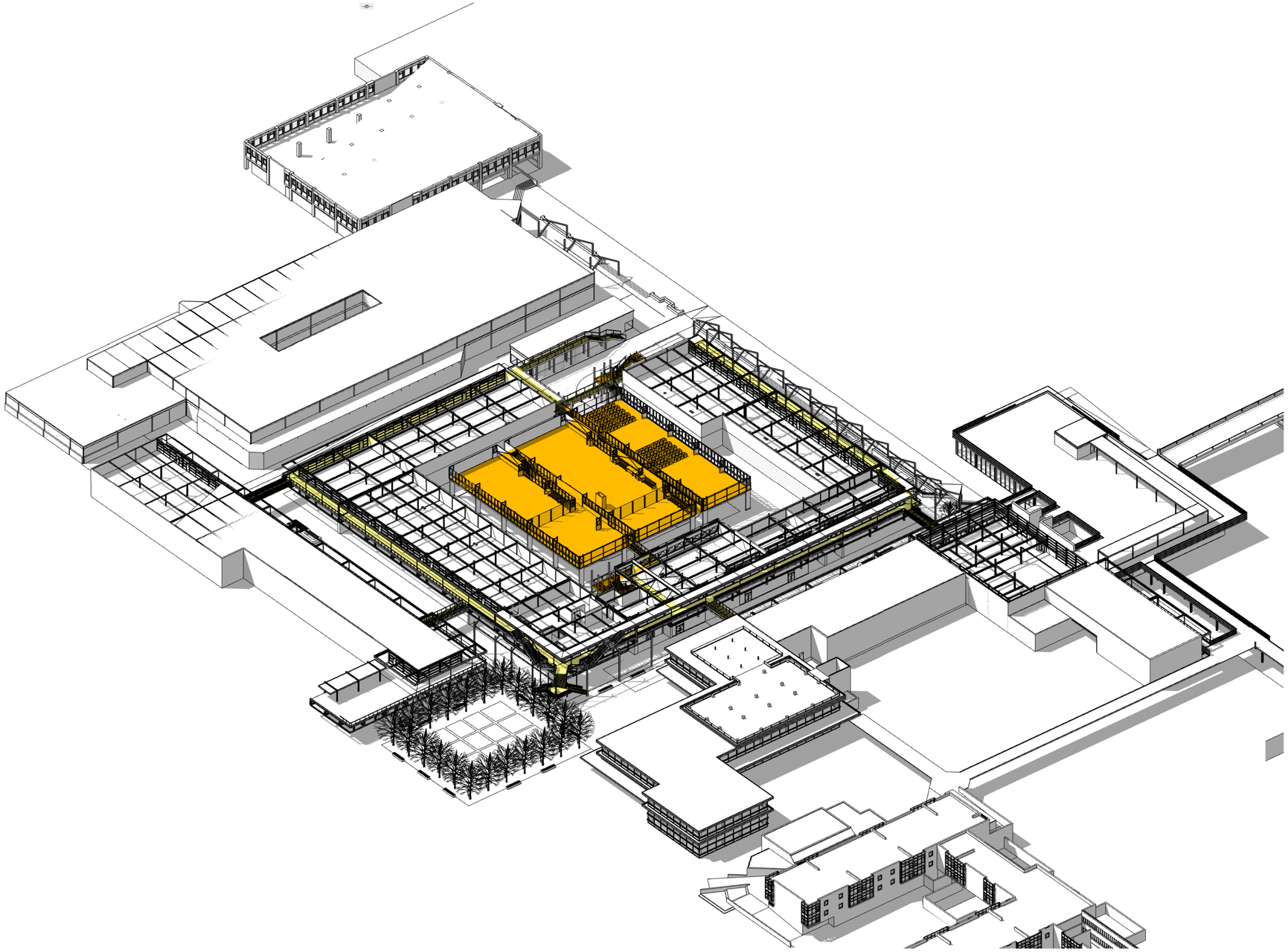
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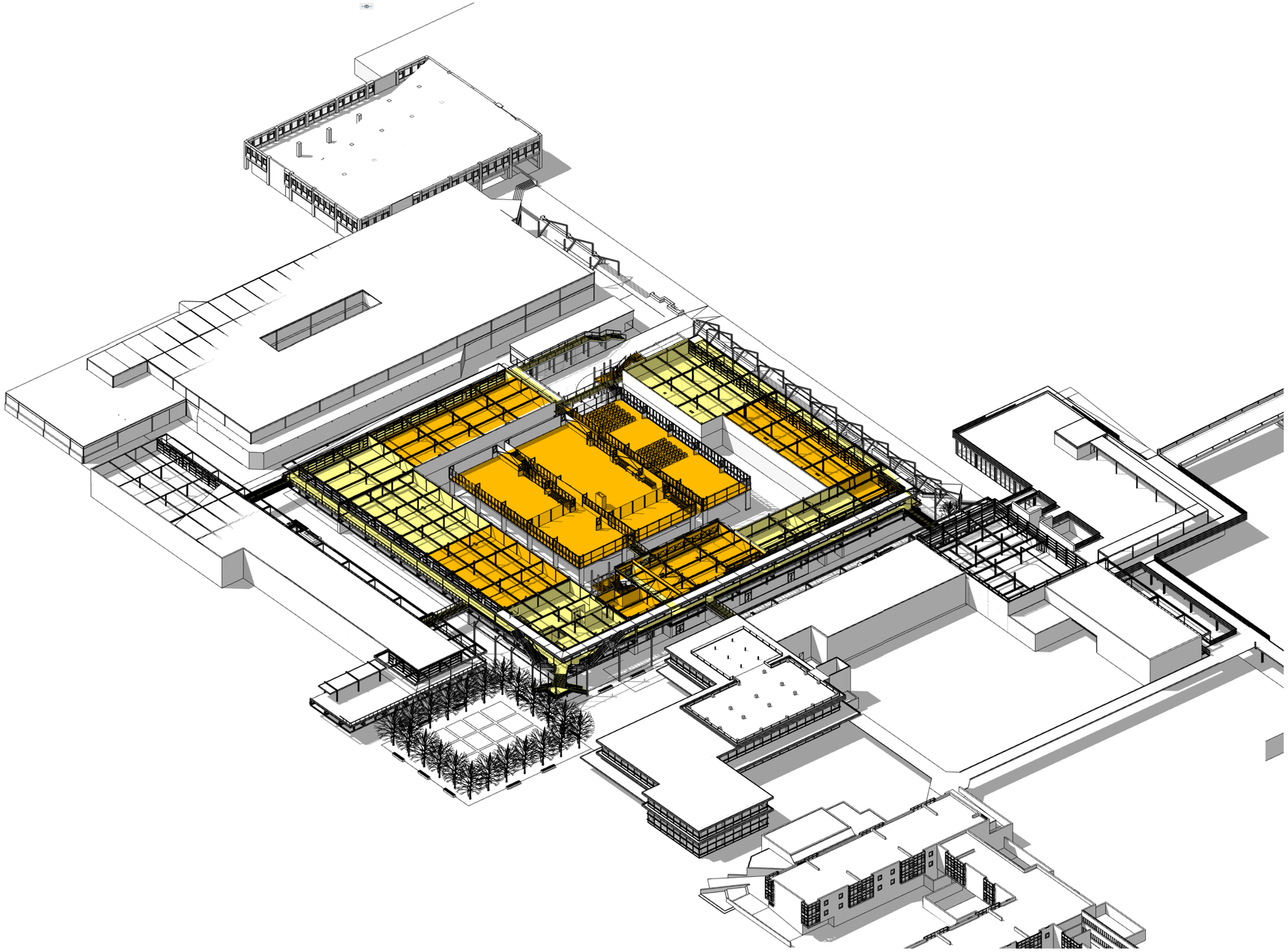
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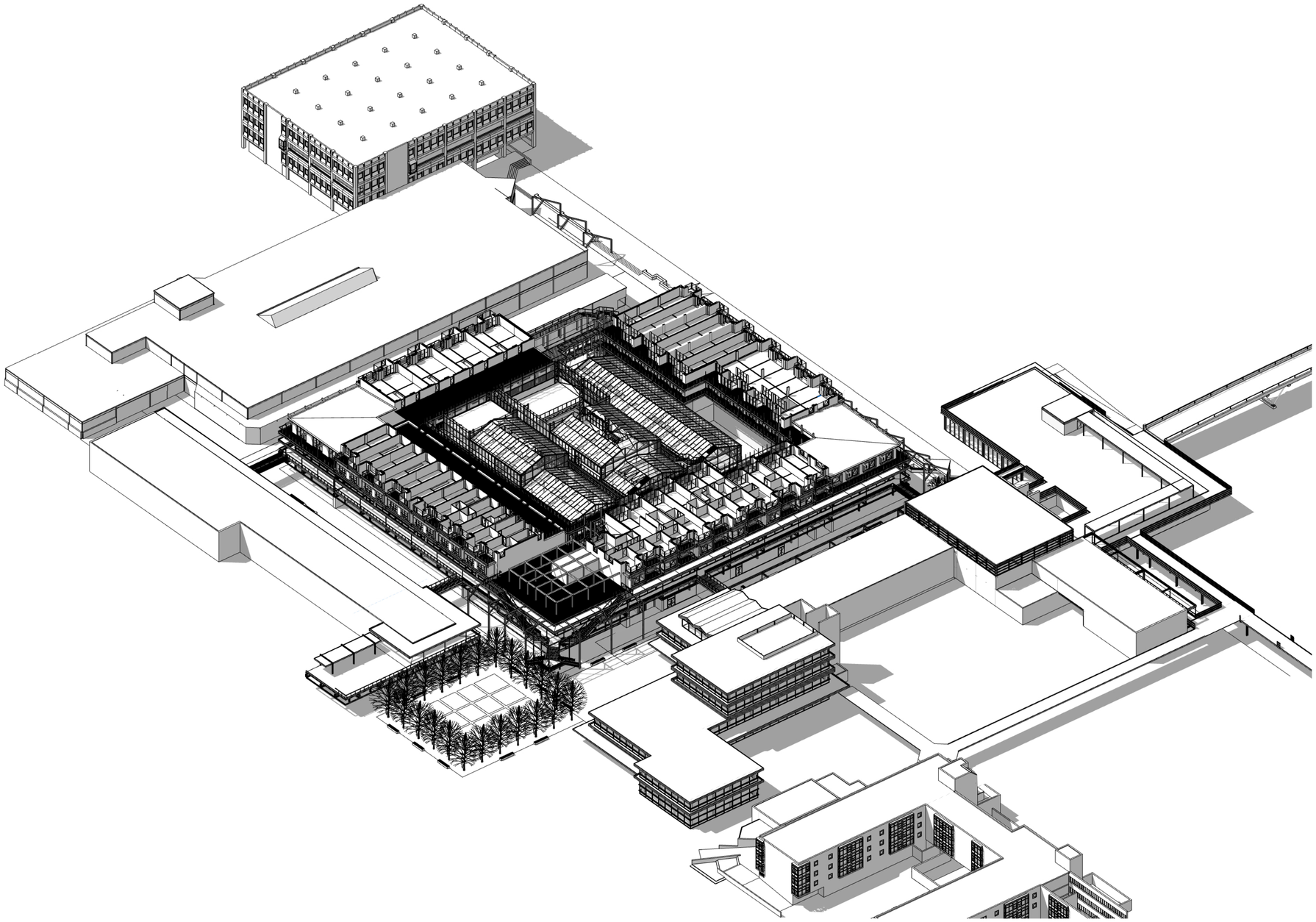
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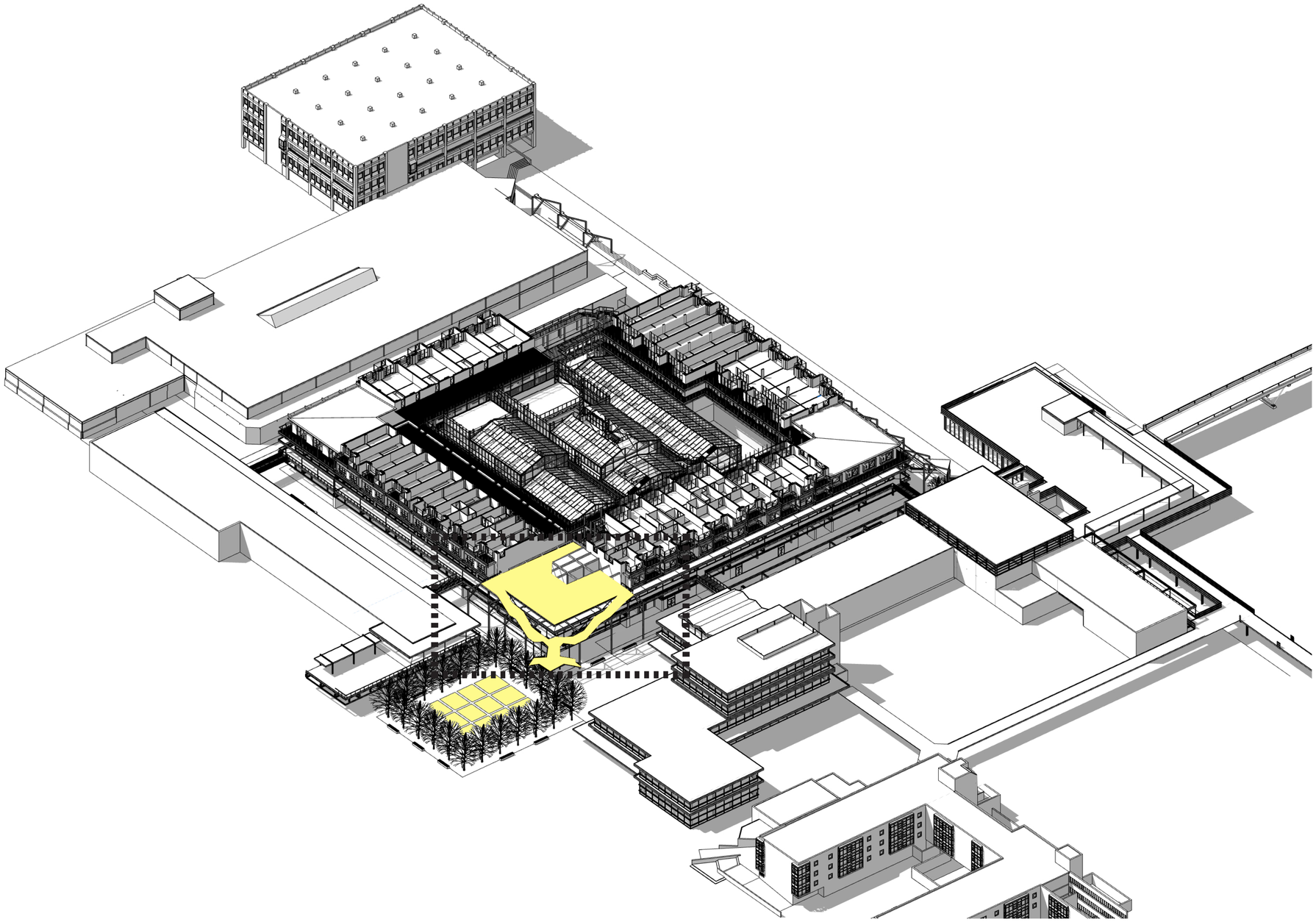
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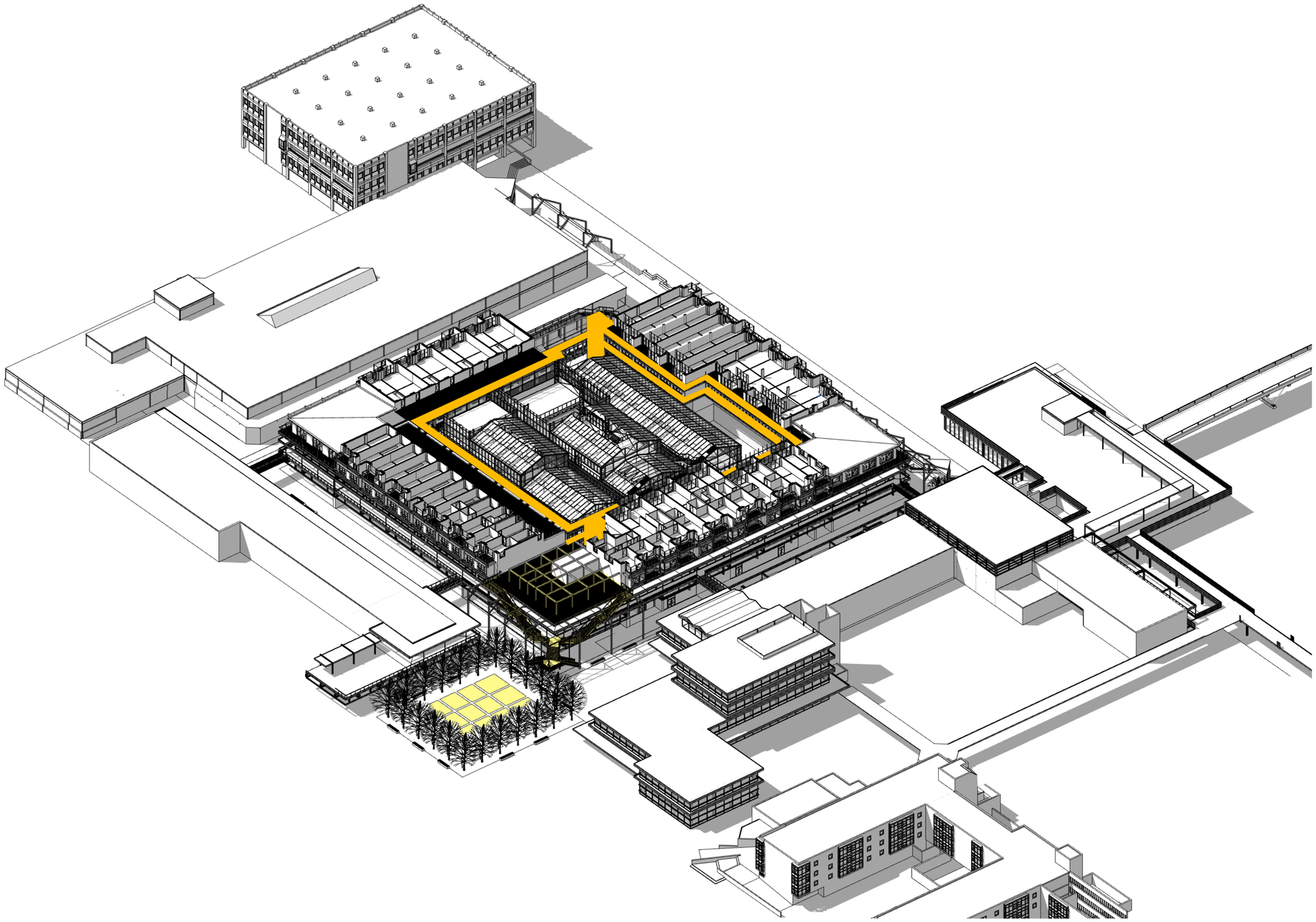


Circulation and Programme





Circulation and Programme



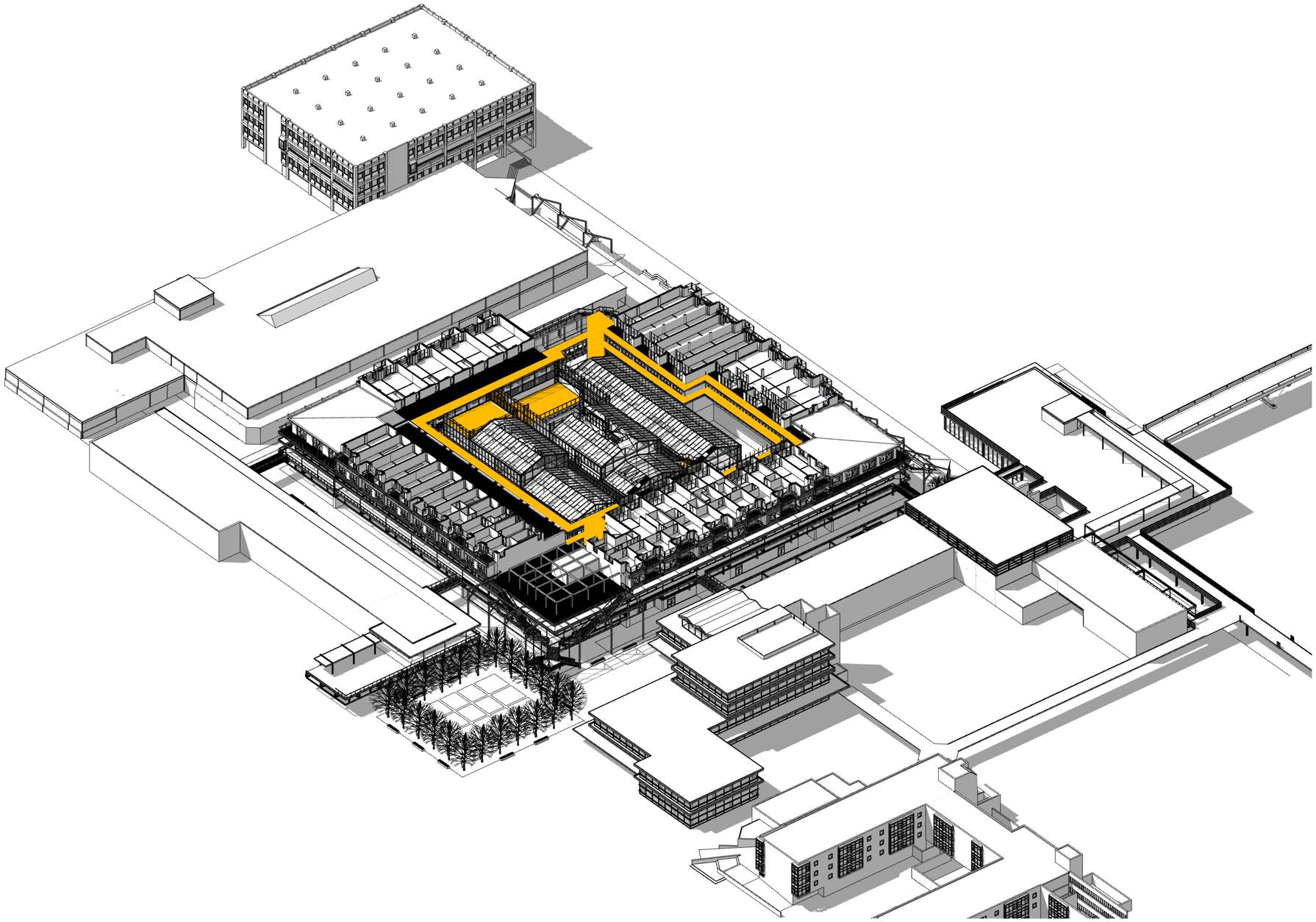
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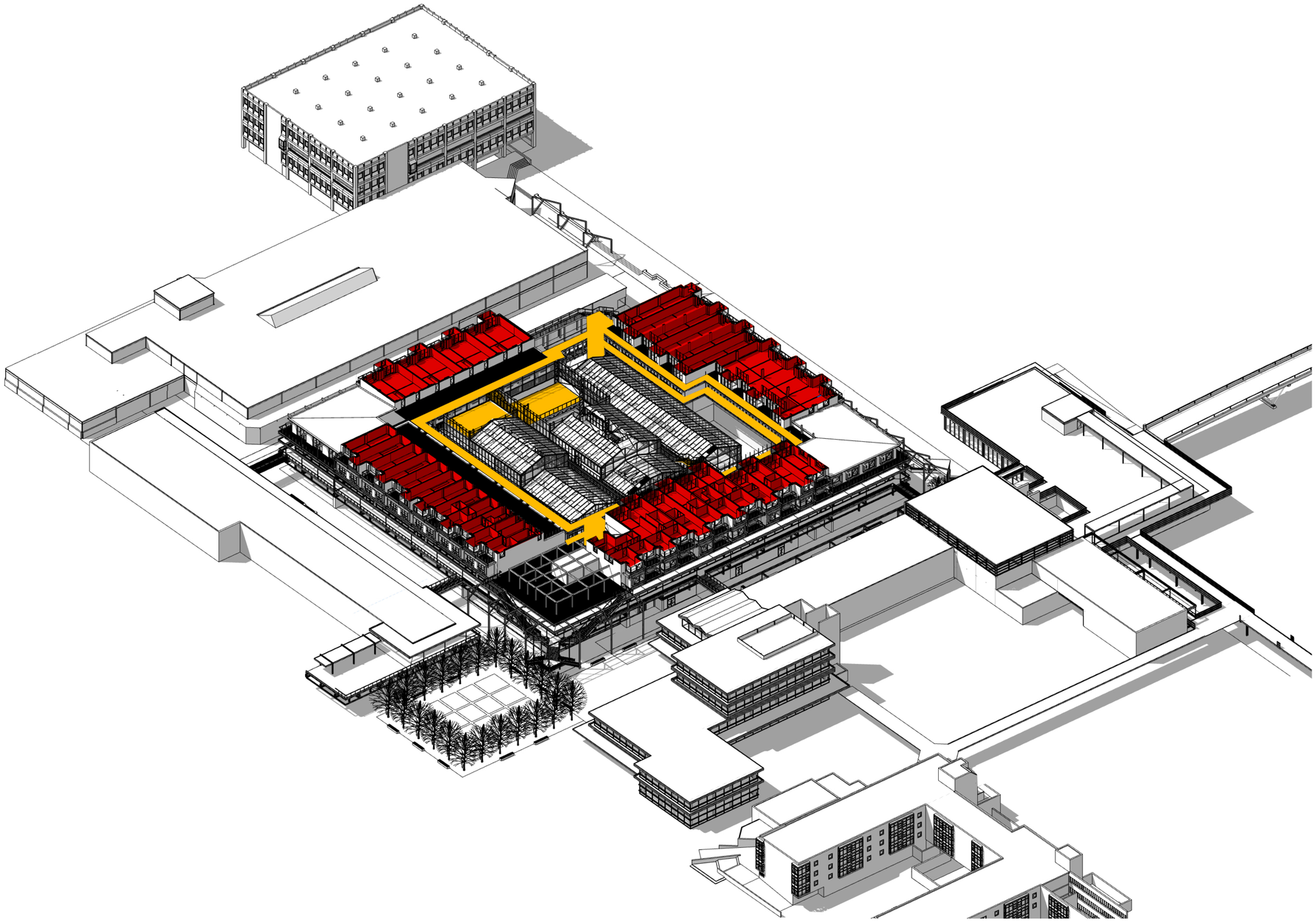
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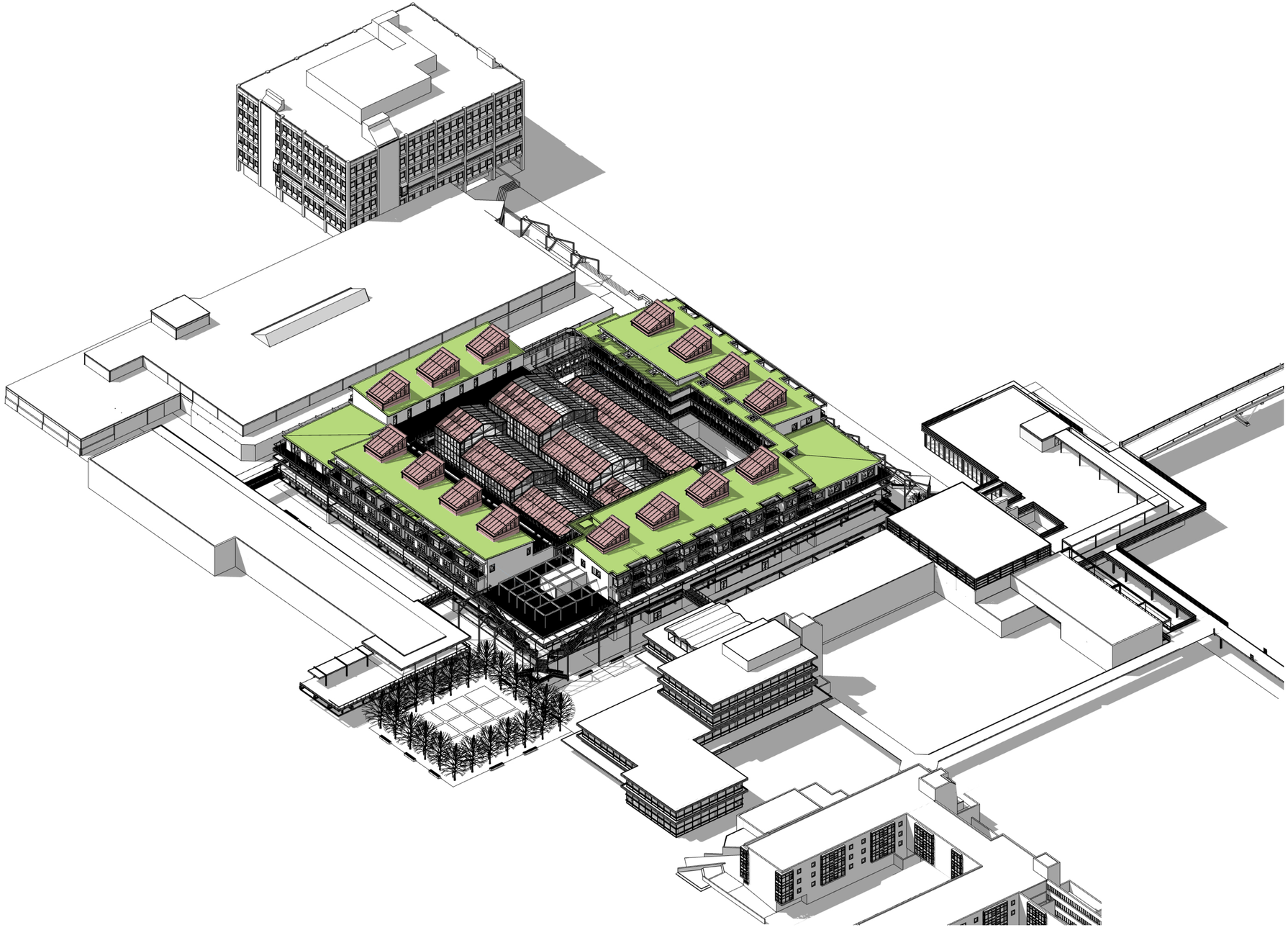


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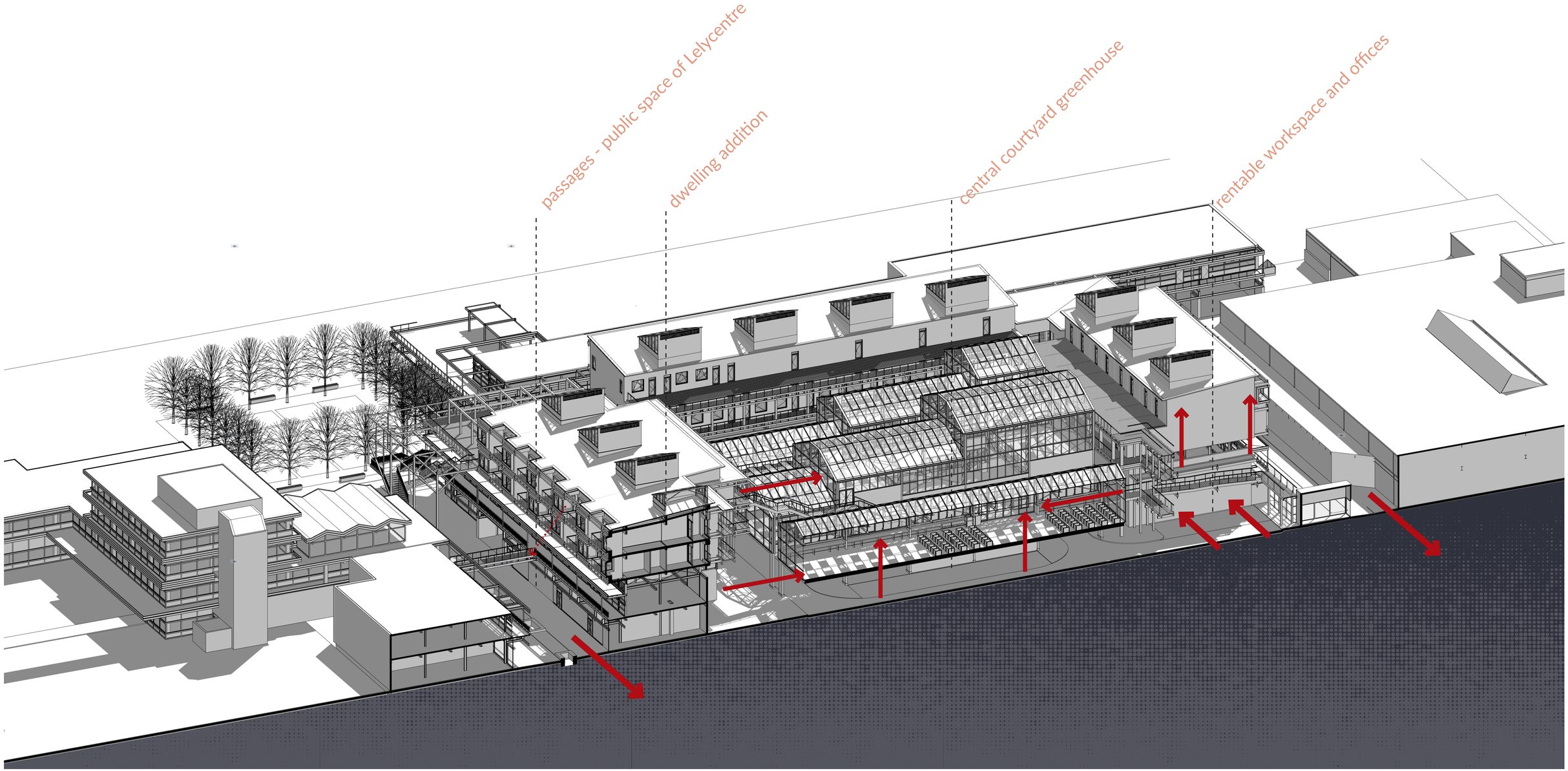
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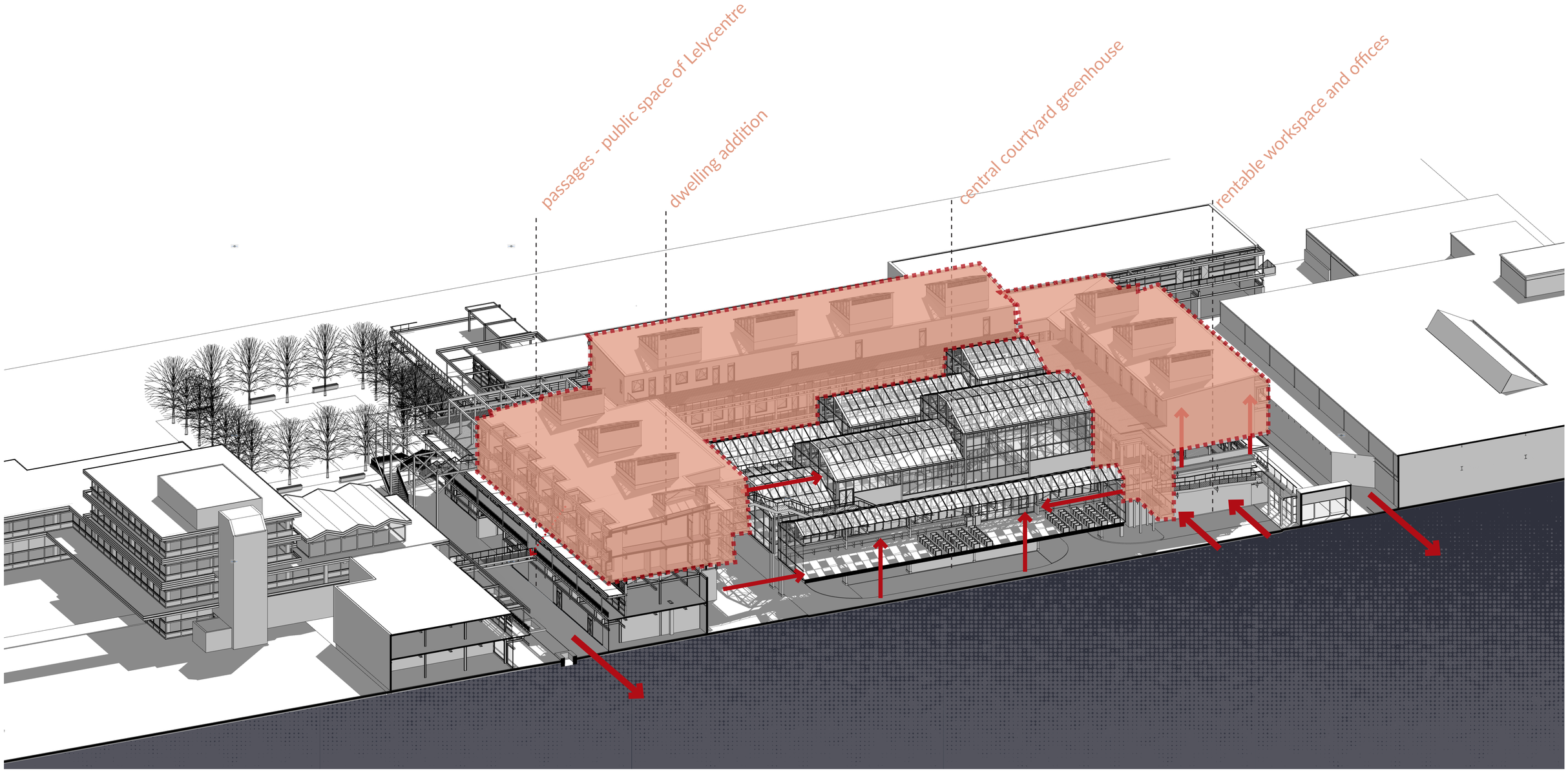
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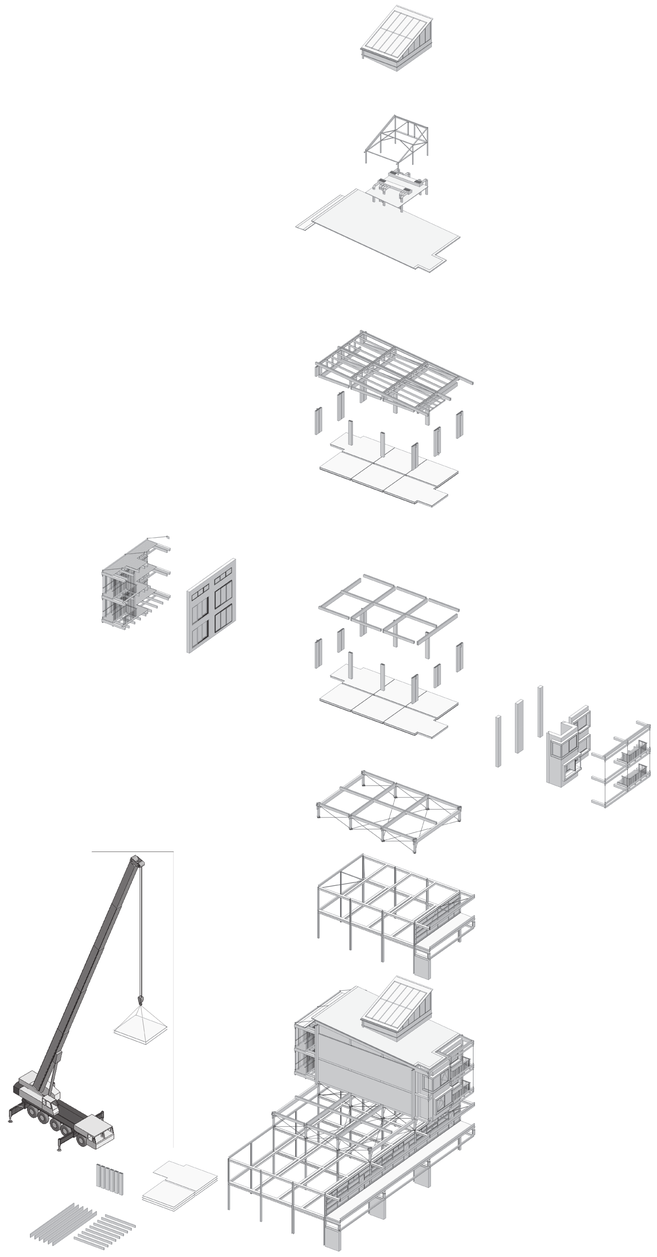
Sequence of designed spaces



Sequence of spaces : dwelling addition



Dwelling addition : lightweight top-up



solar tower and sedum green roof

cantilevered beams and tensile cables support galleries, balconies and oriels

prefabricated timber frame facade

KERTO laminated veneer lumber skeleton structure

bracing and table tructure

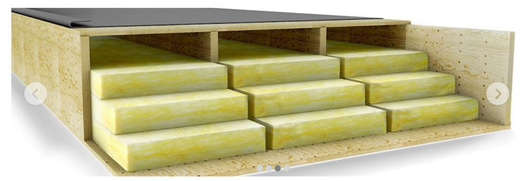




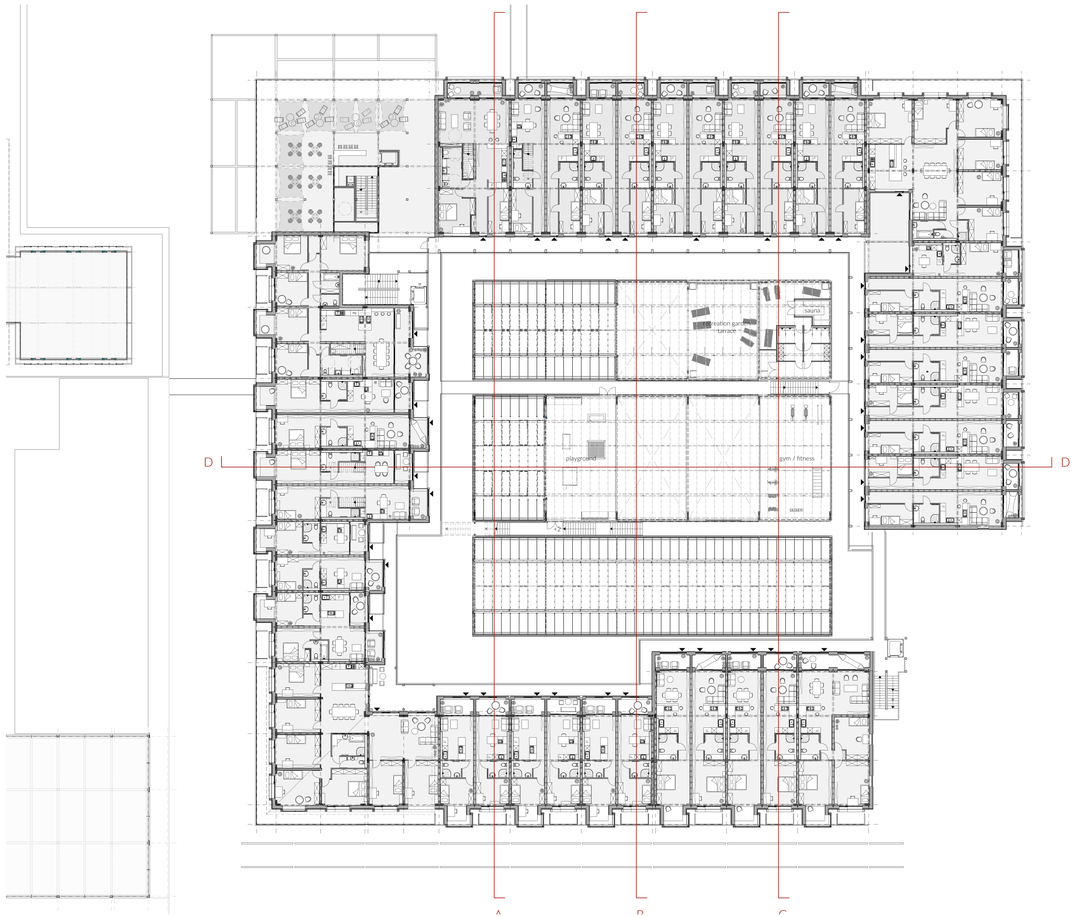


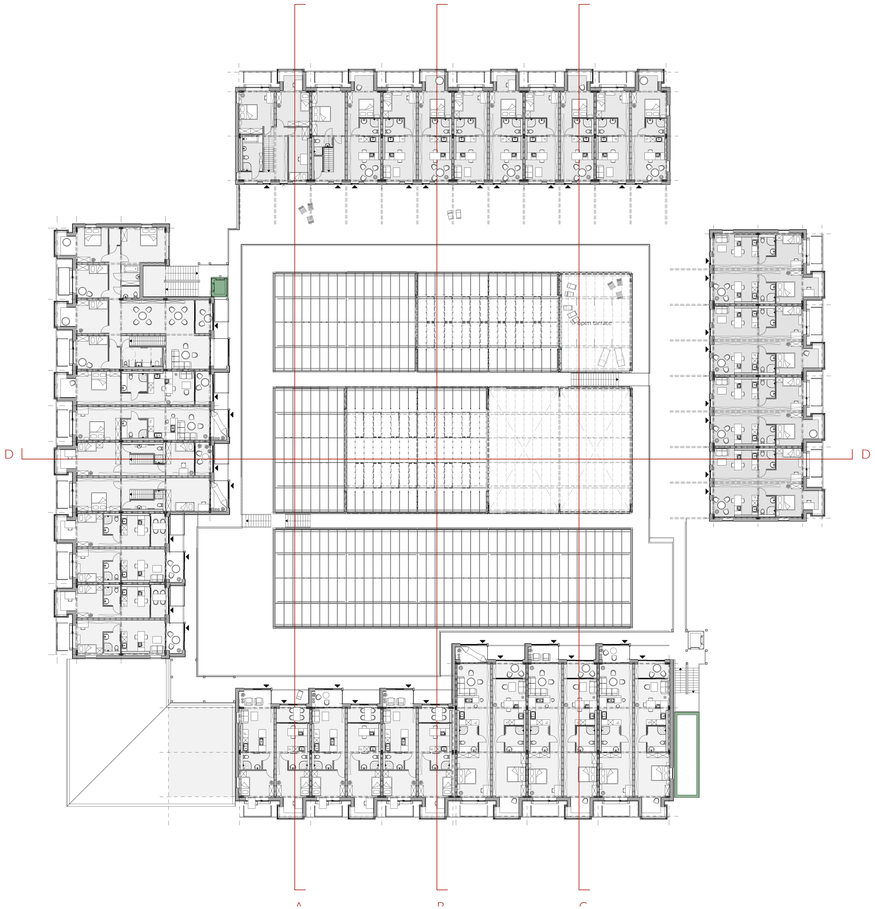




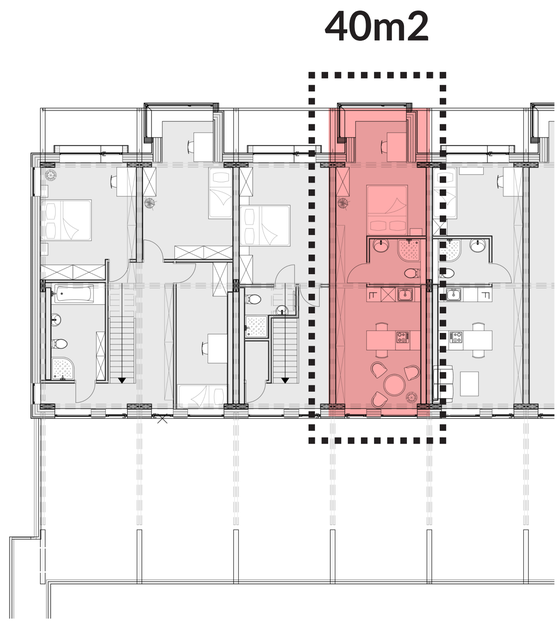


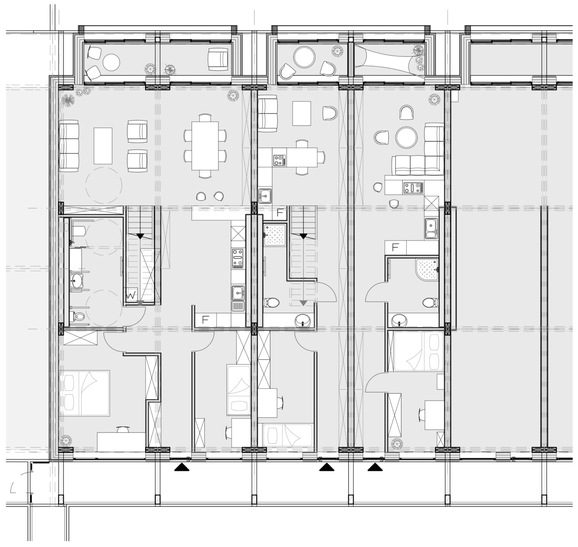
Courtyard typology

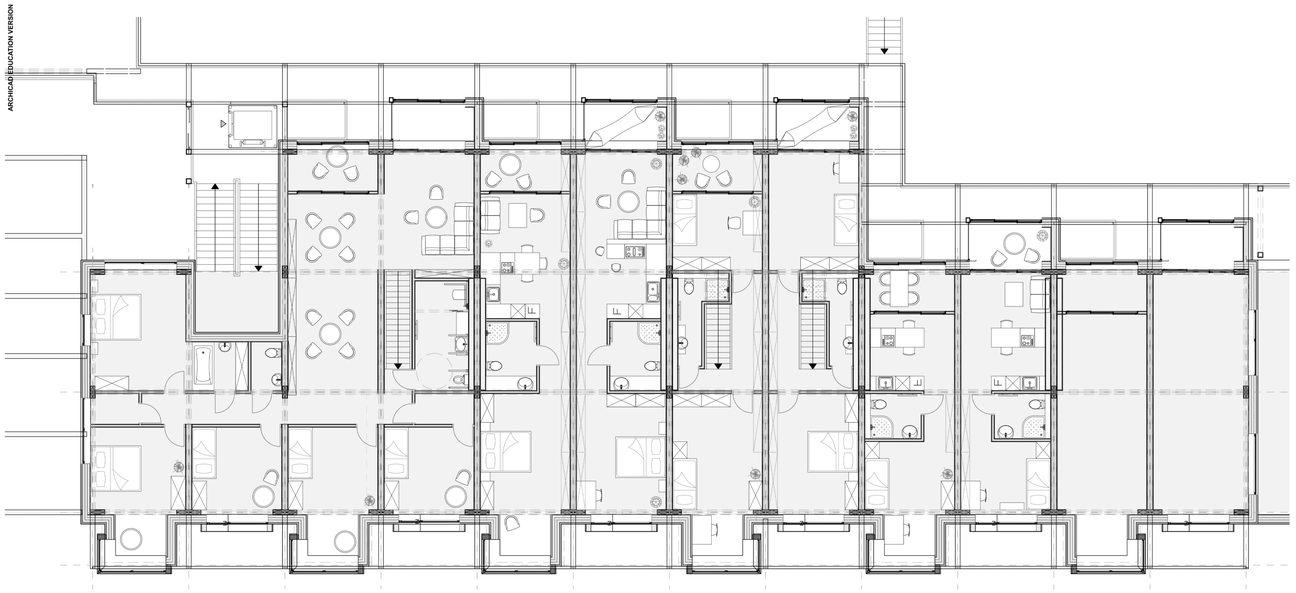


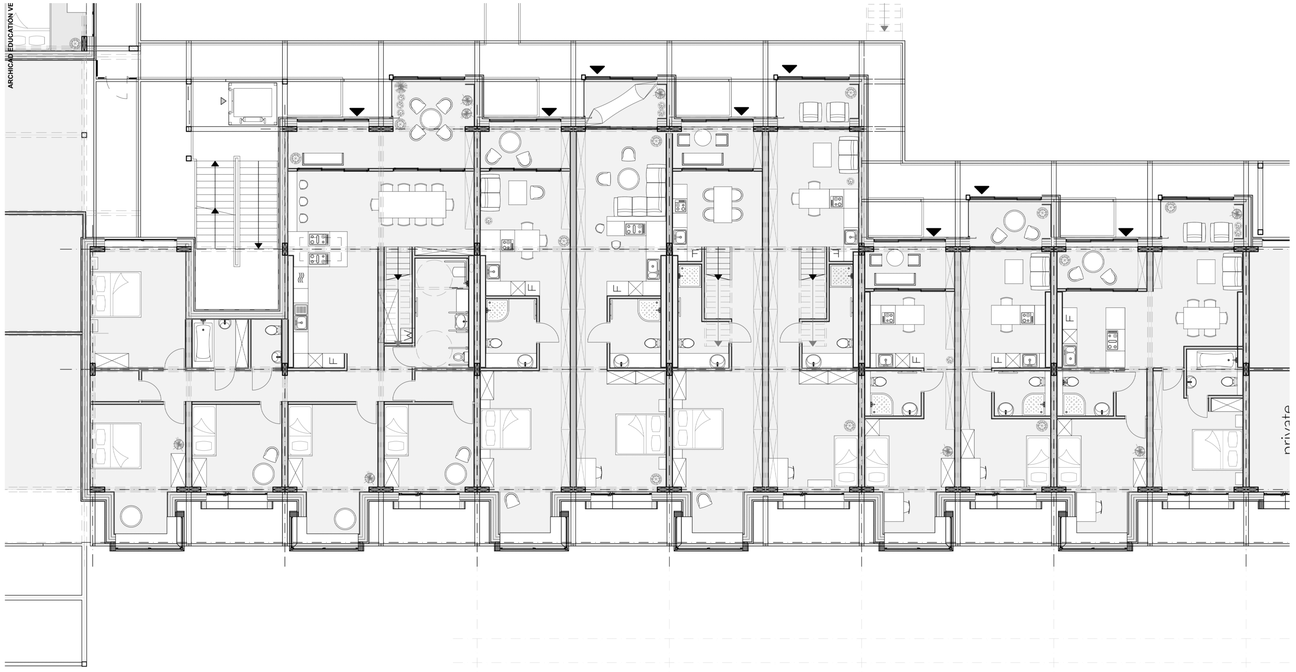


Adaptive housing - inhabitable structure

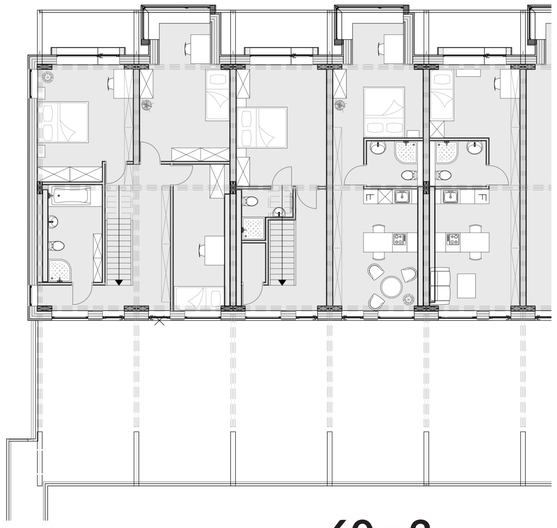




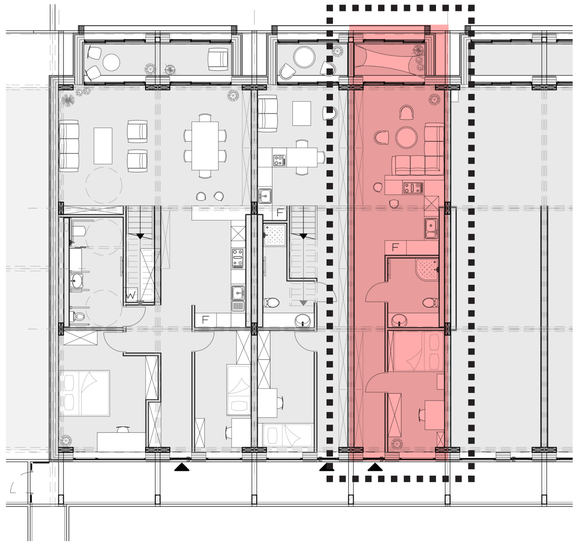


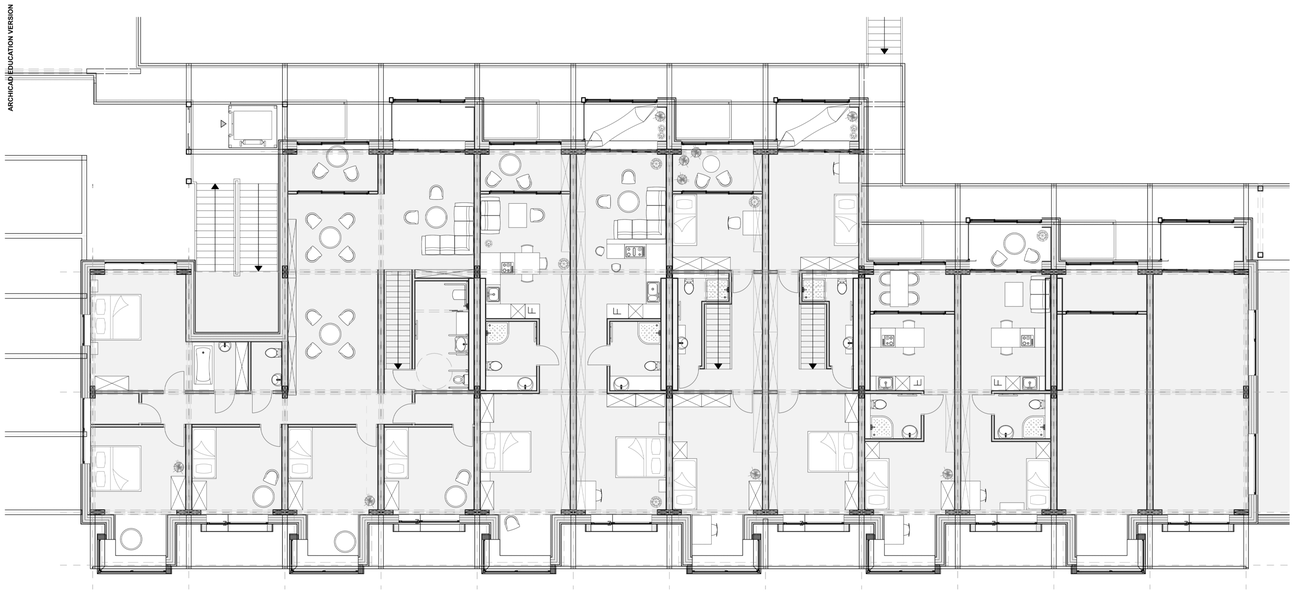


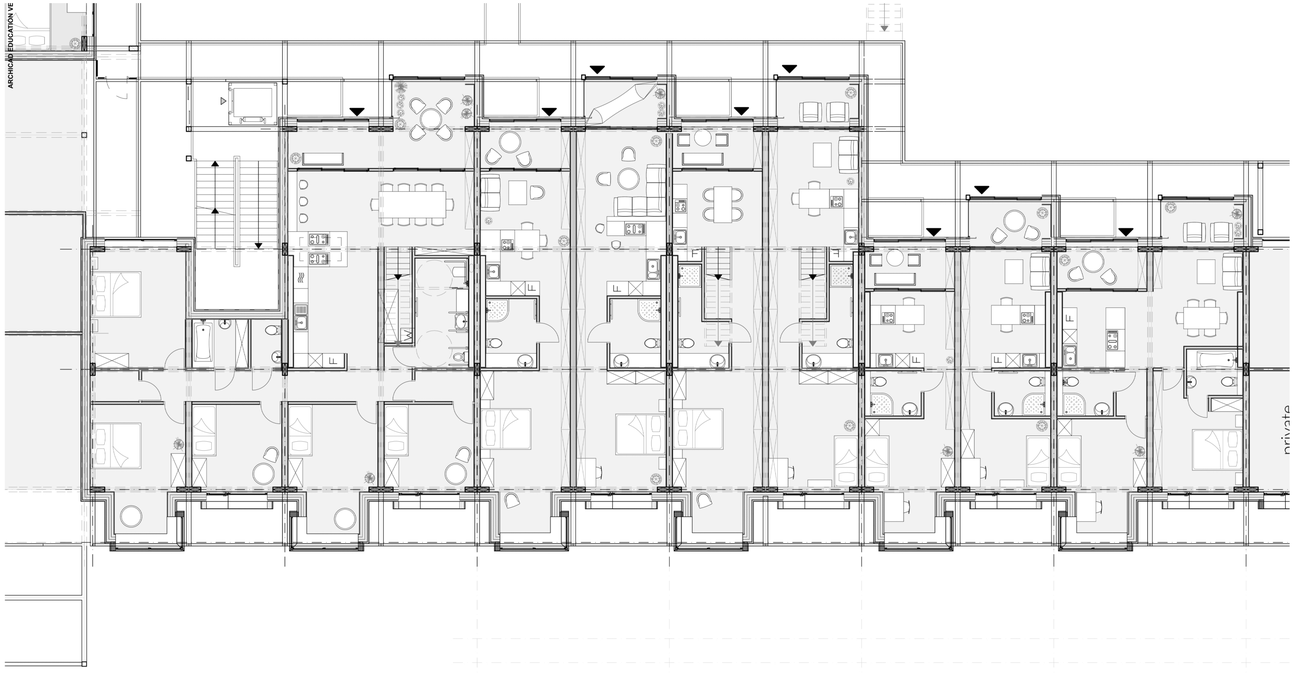
Adaptive housing - inhabitable structure



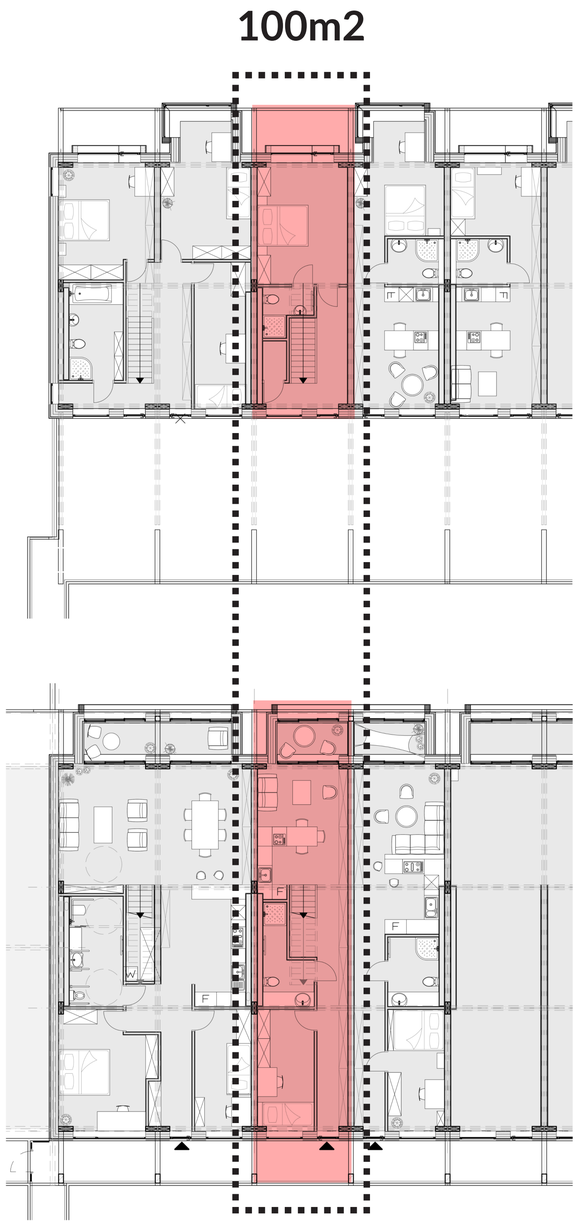
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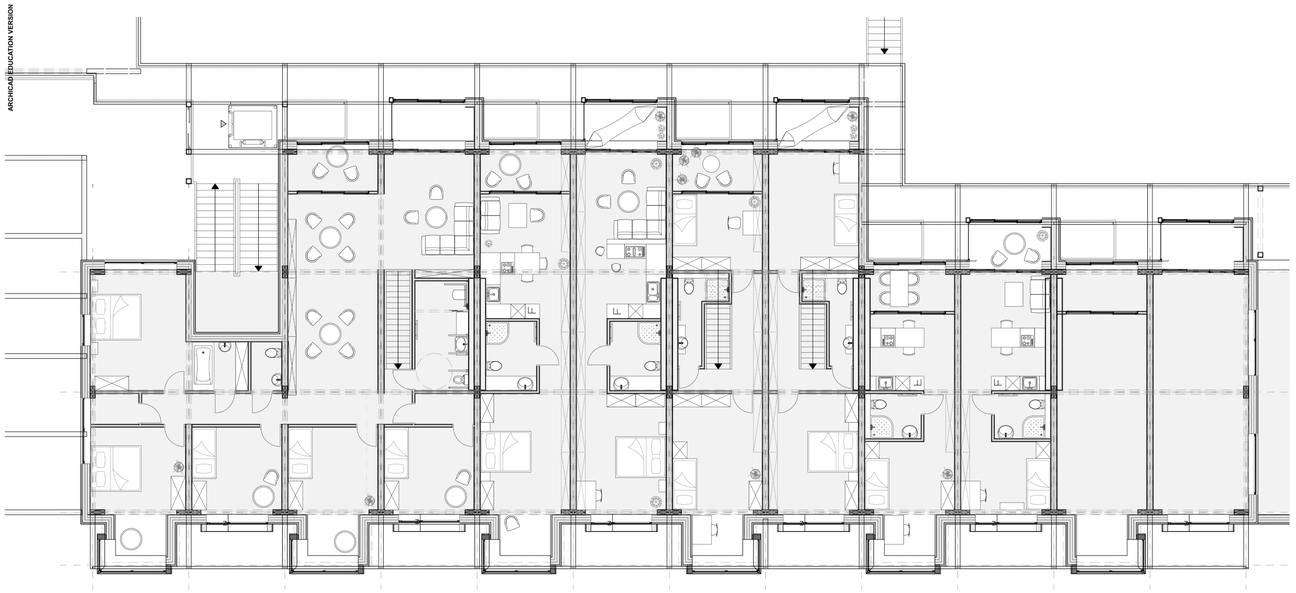


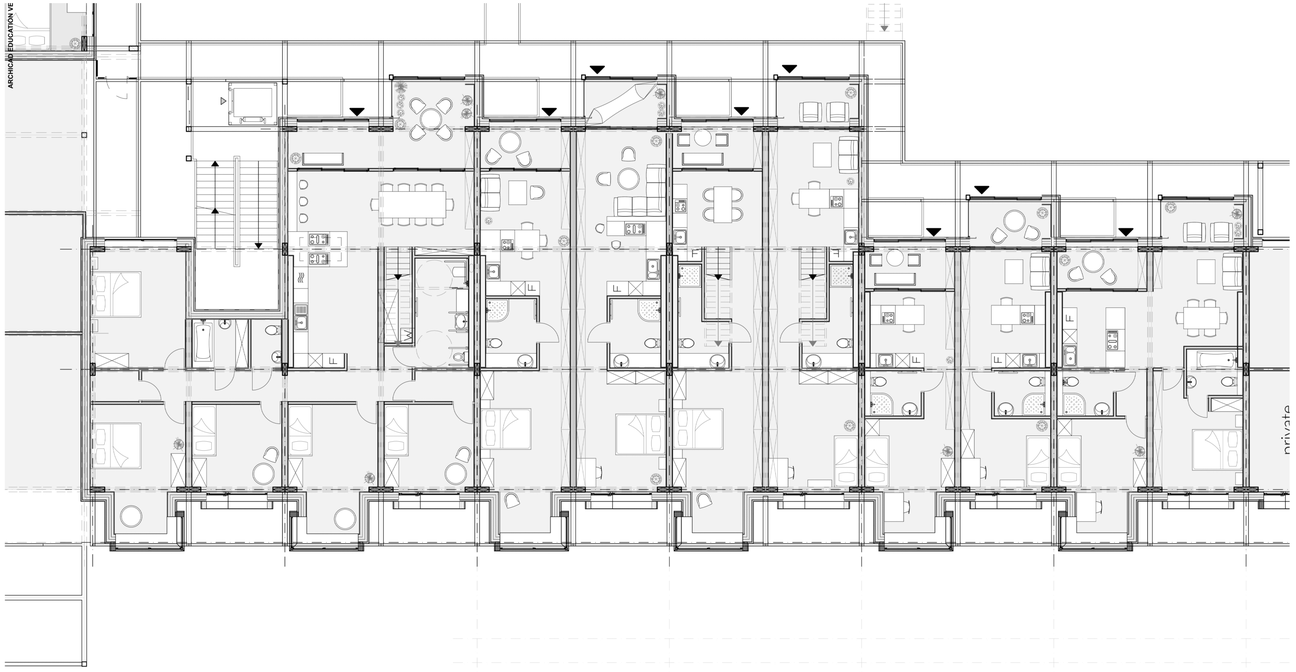




Adaptive housing - inhabitable structure



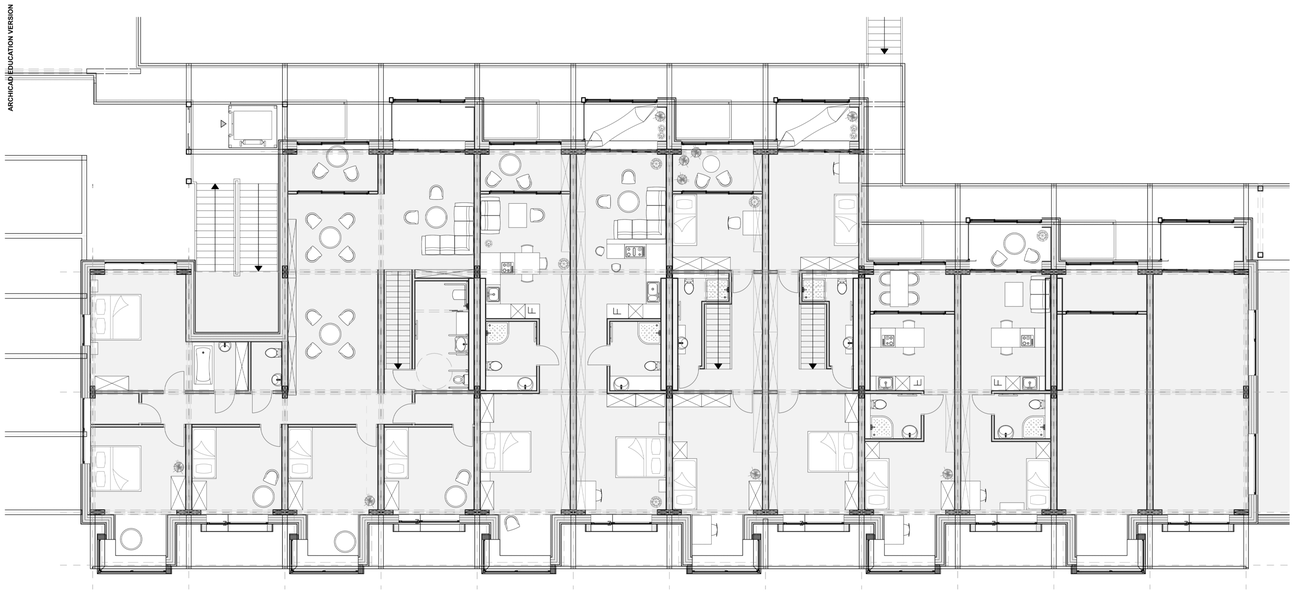


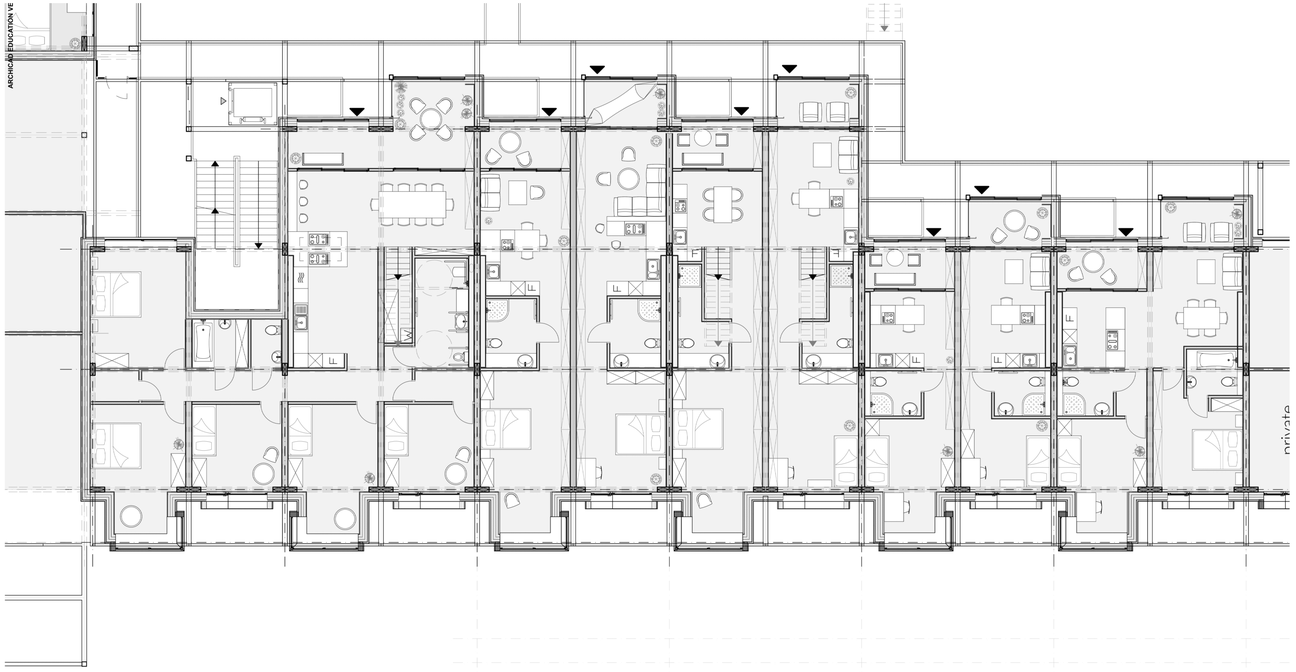


Adaptive housing - inhabitable structure

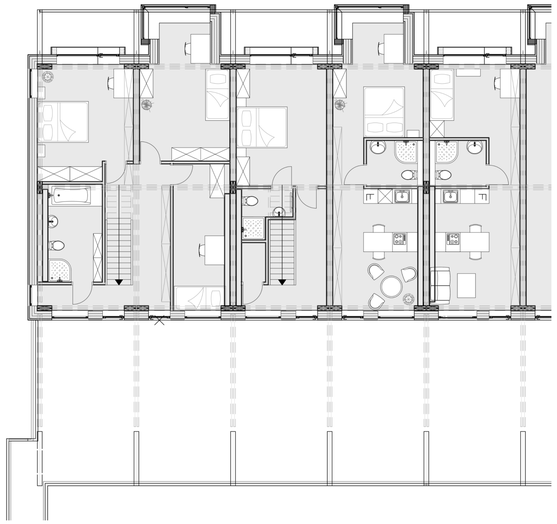
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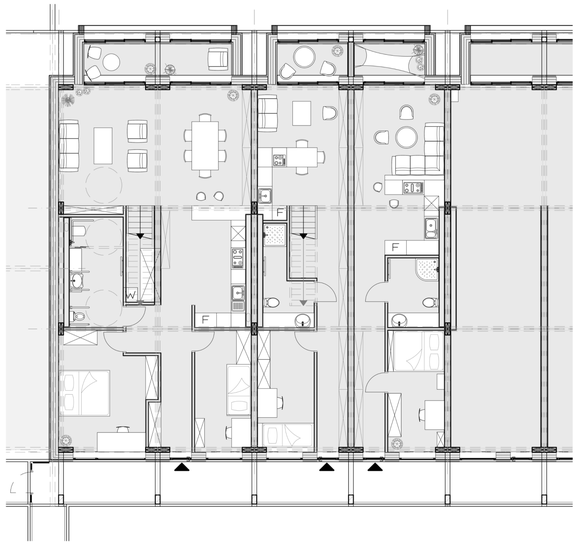


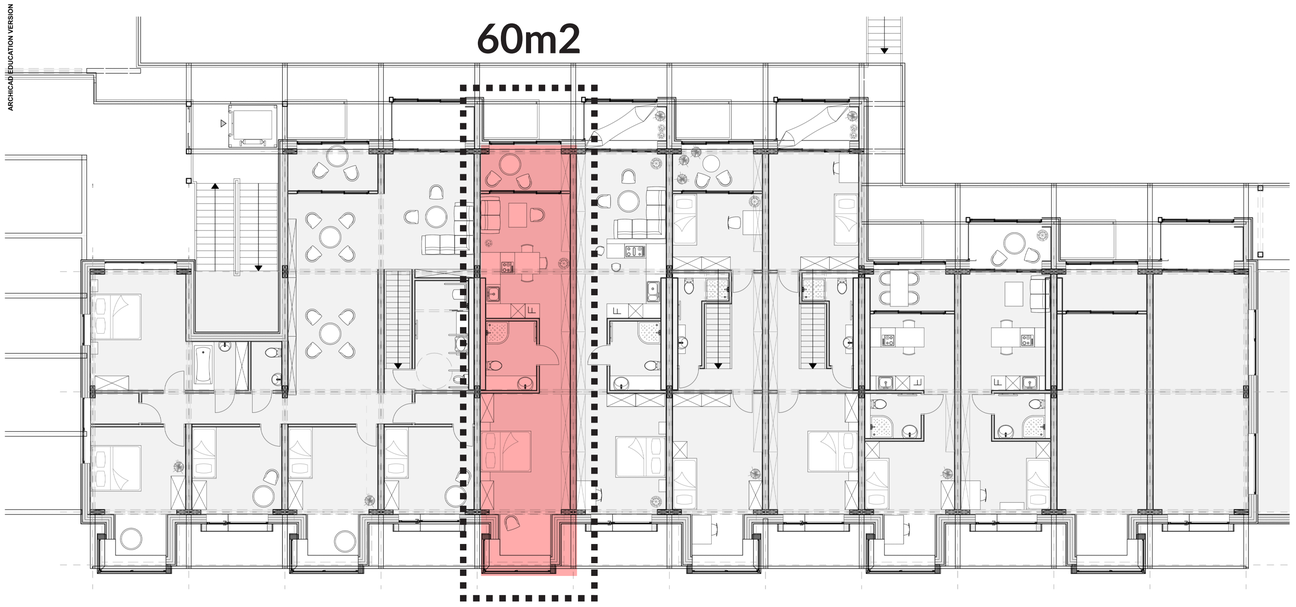


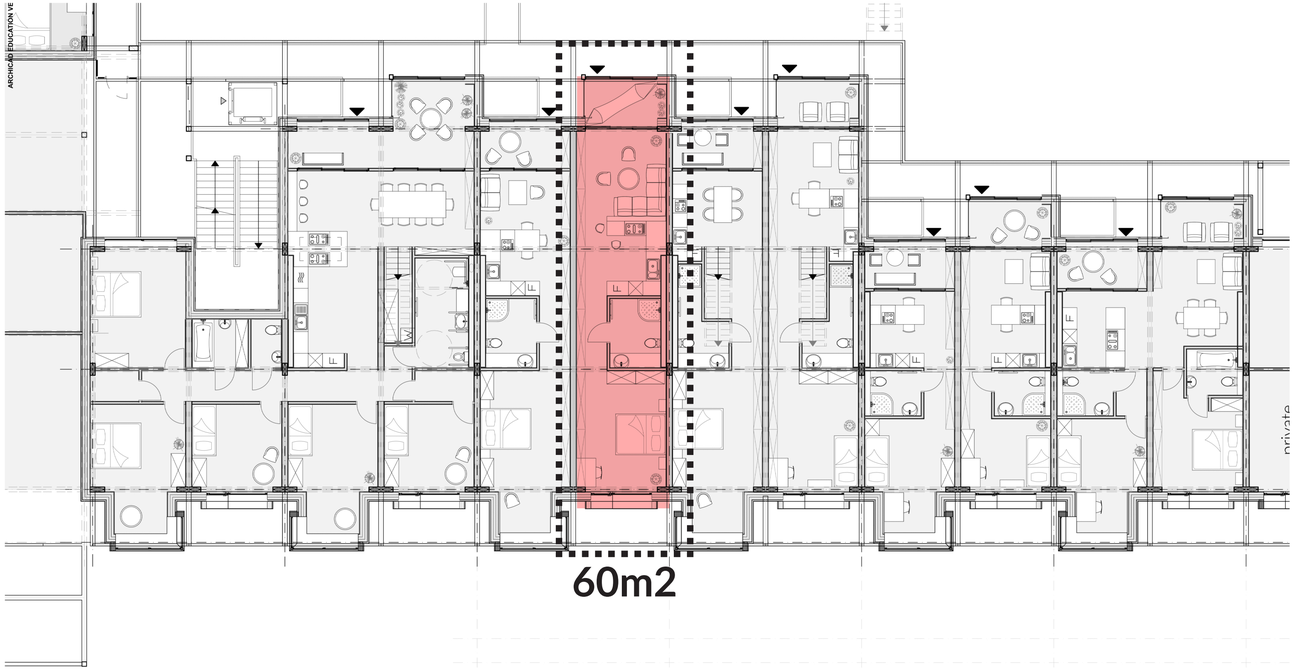


Adaptive housing - inhabitable structure

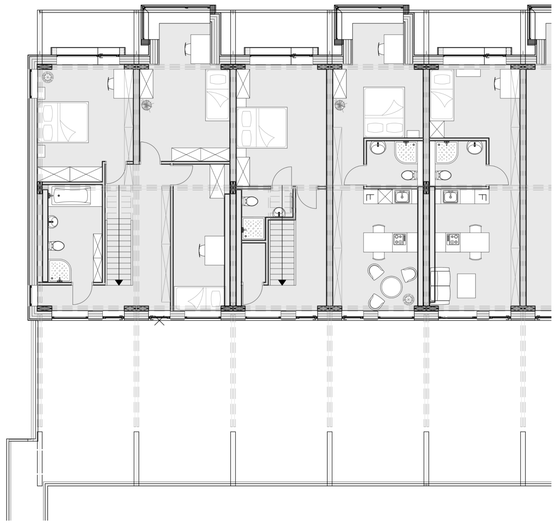


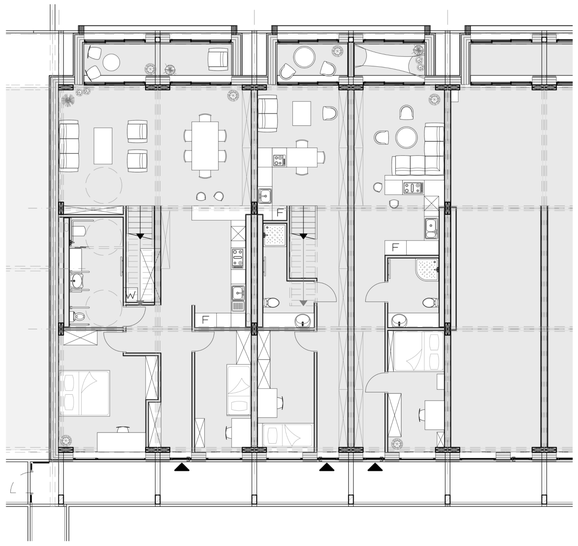






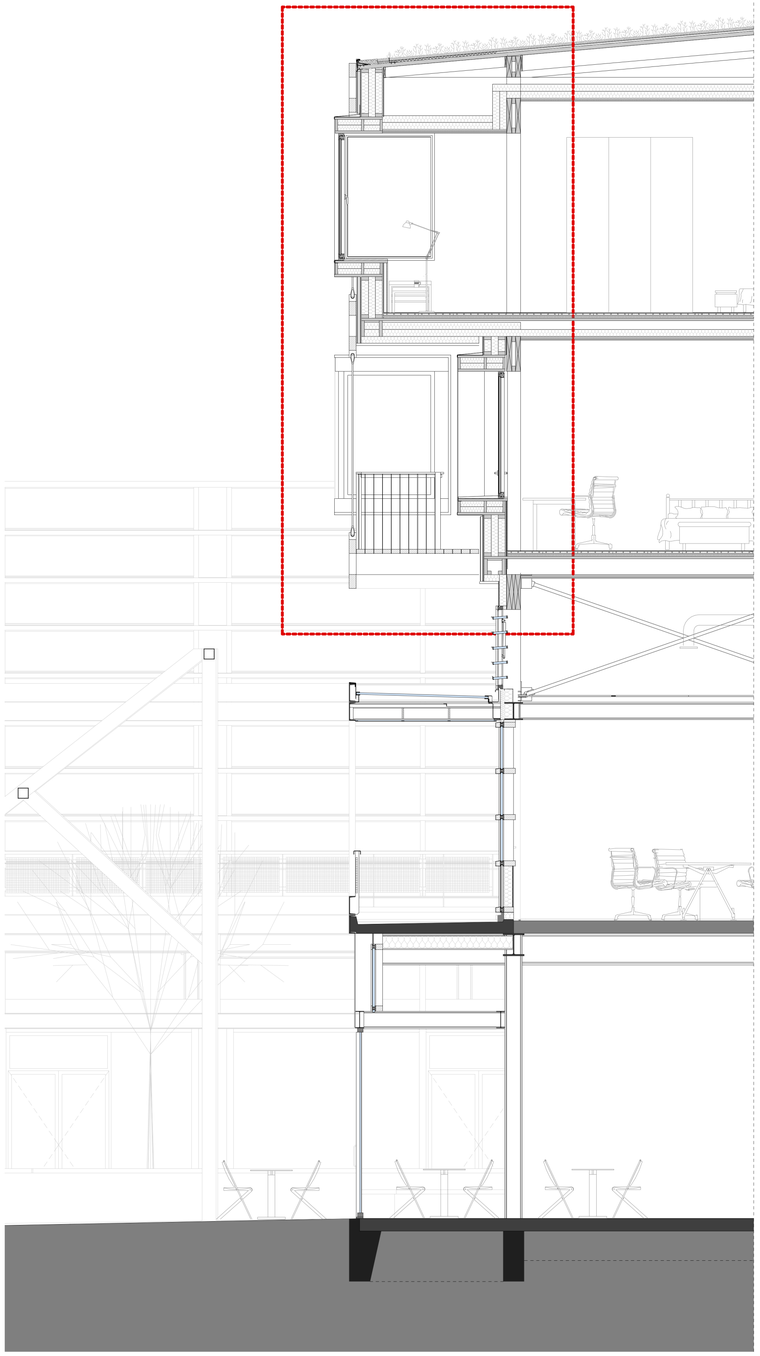
Adaptive housing - inhabitable structure



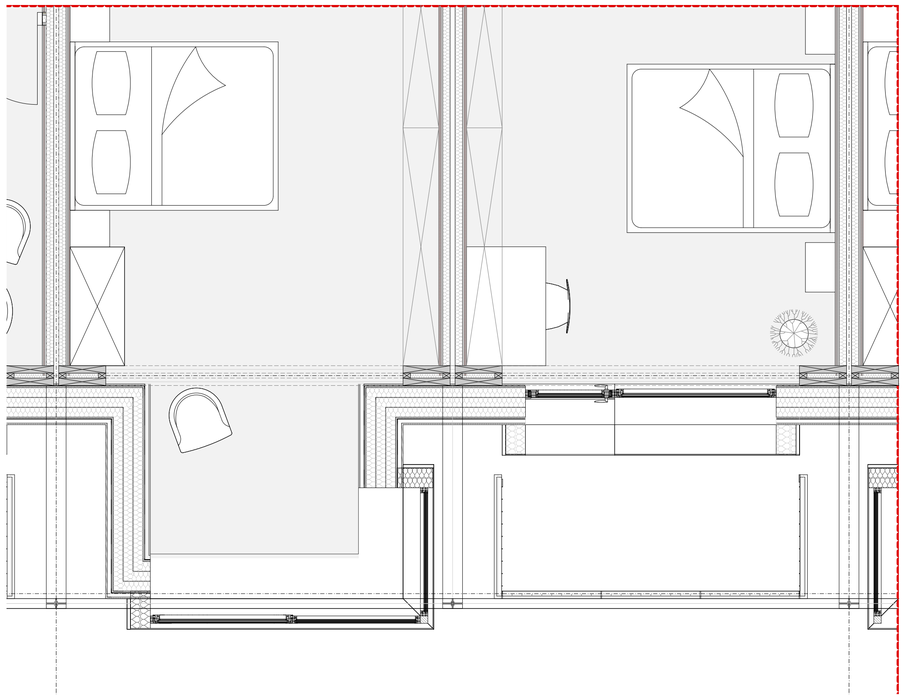




Front facade: eyes on the streets



Front facade: eyes on the streets

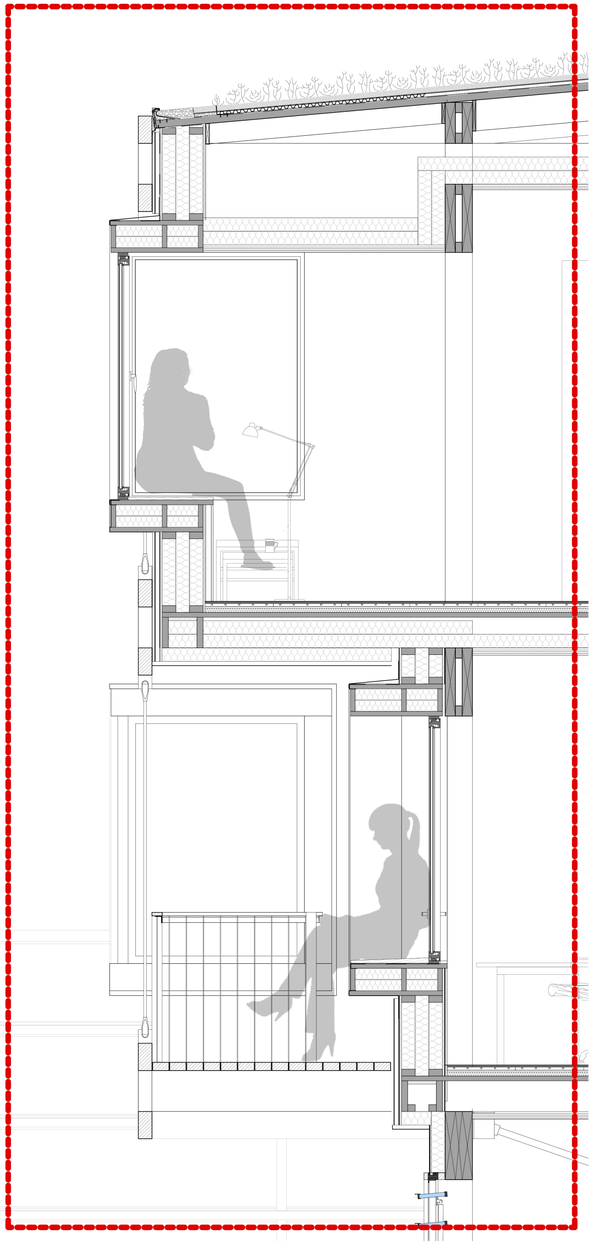


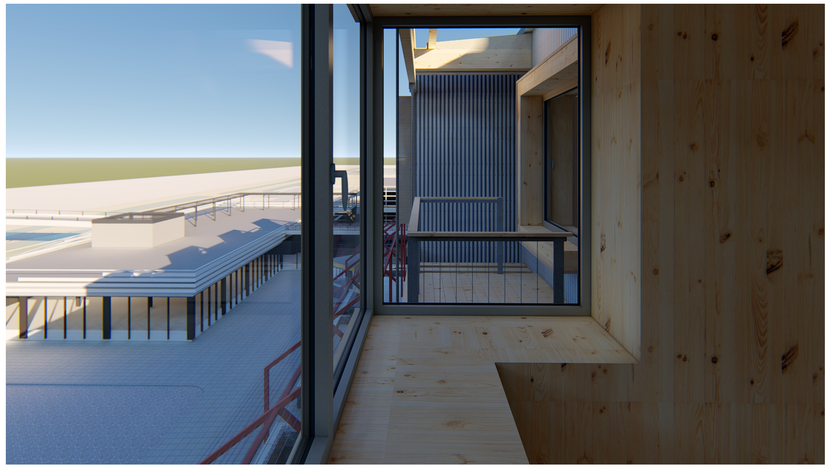
oriel window

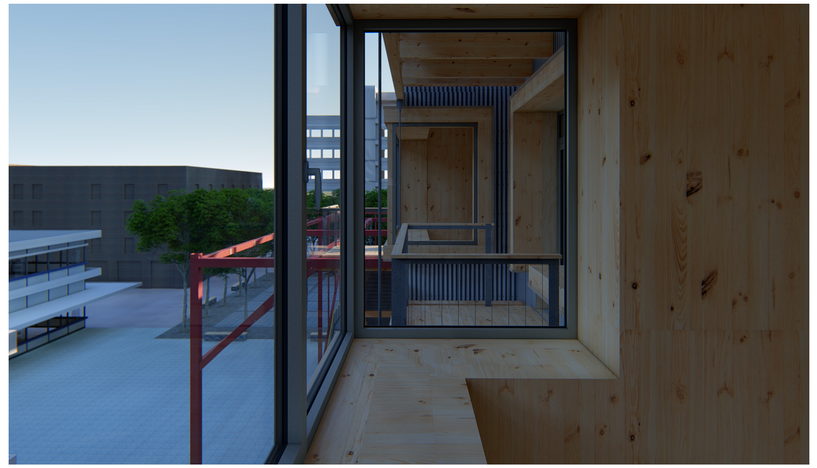
balcony



Front facade: eyes on the streets



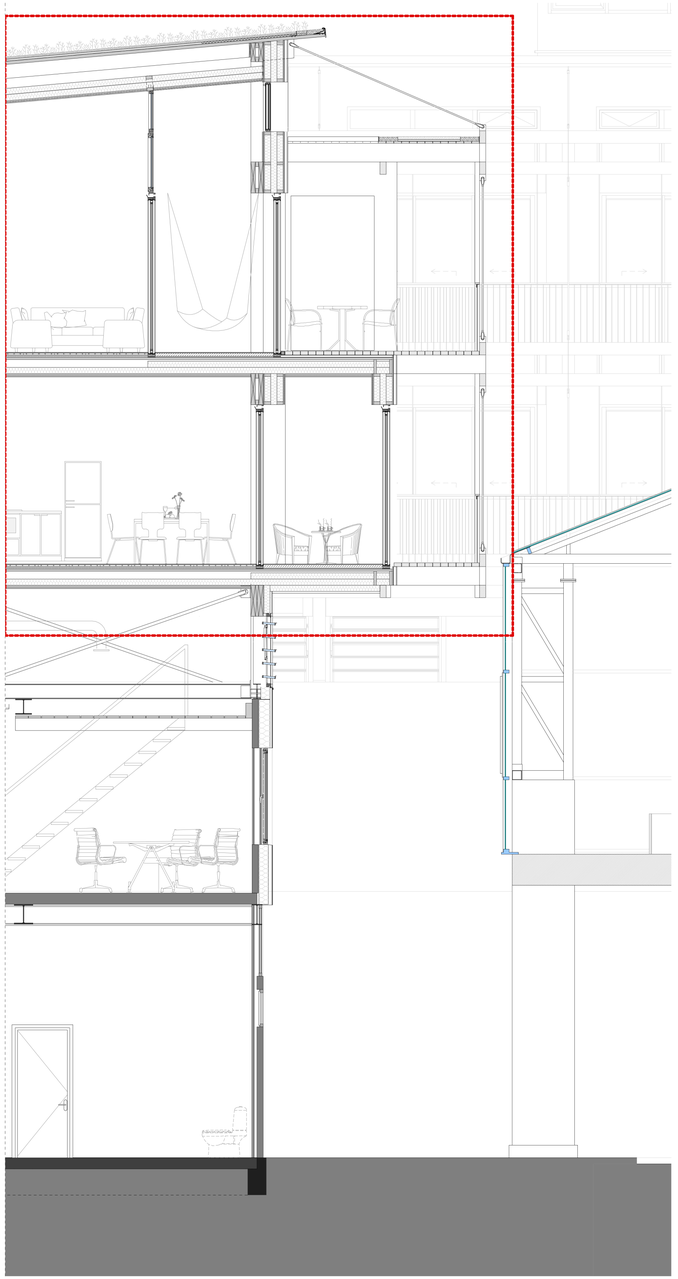




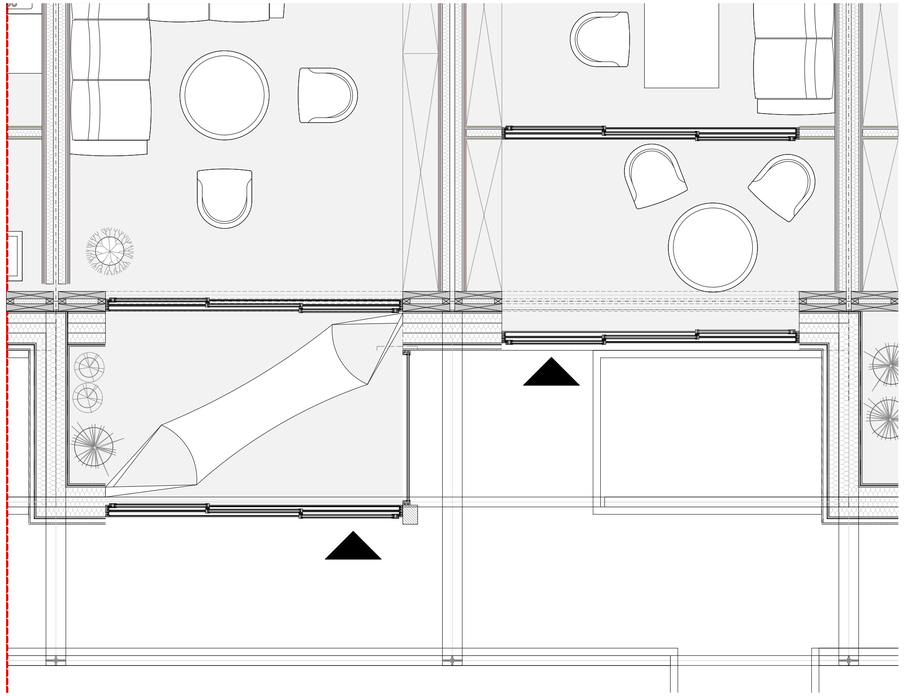




Back facades - galleries and winter gardens



Back facades - galleries and winter gardens

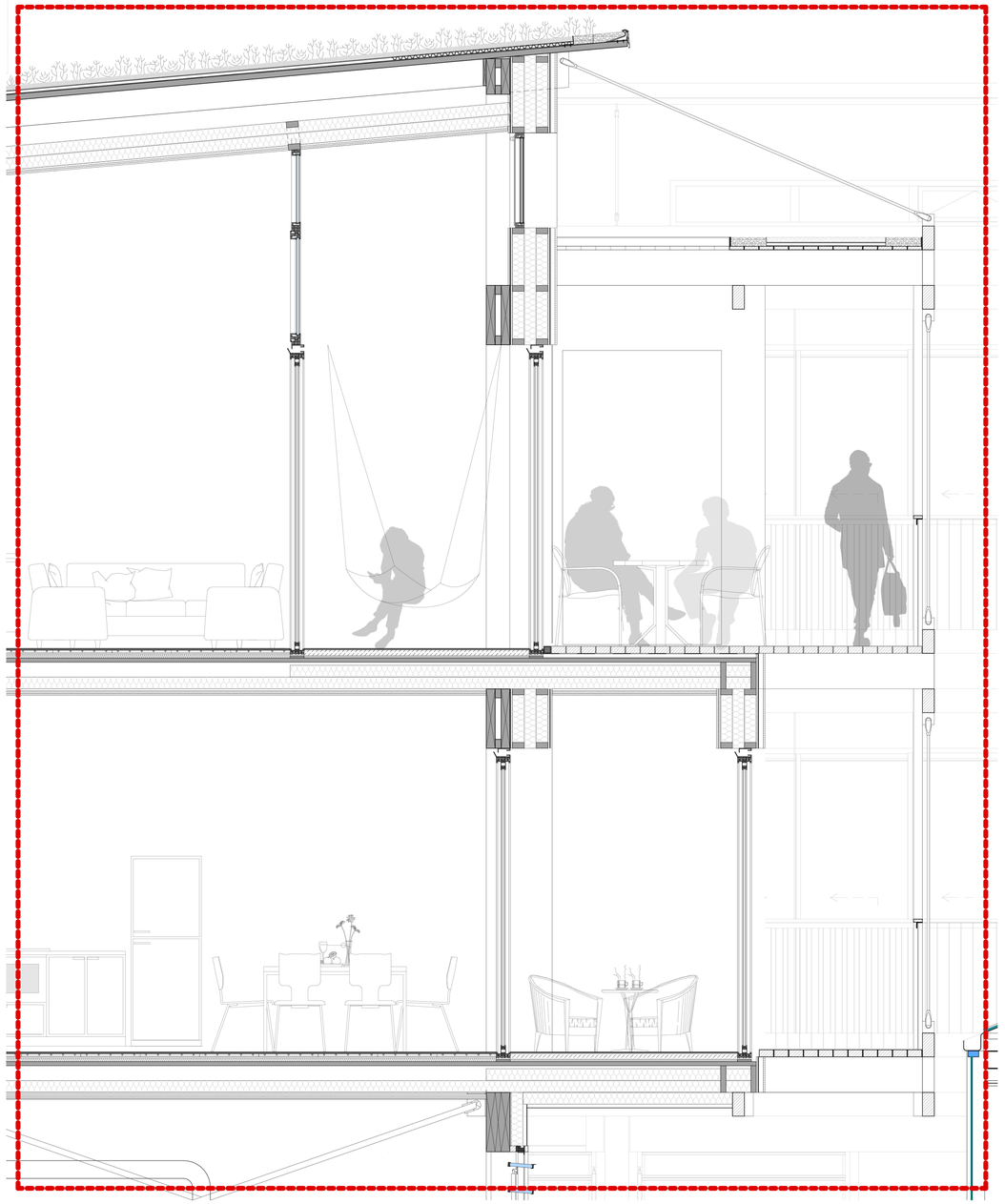


winter gardens

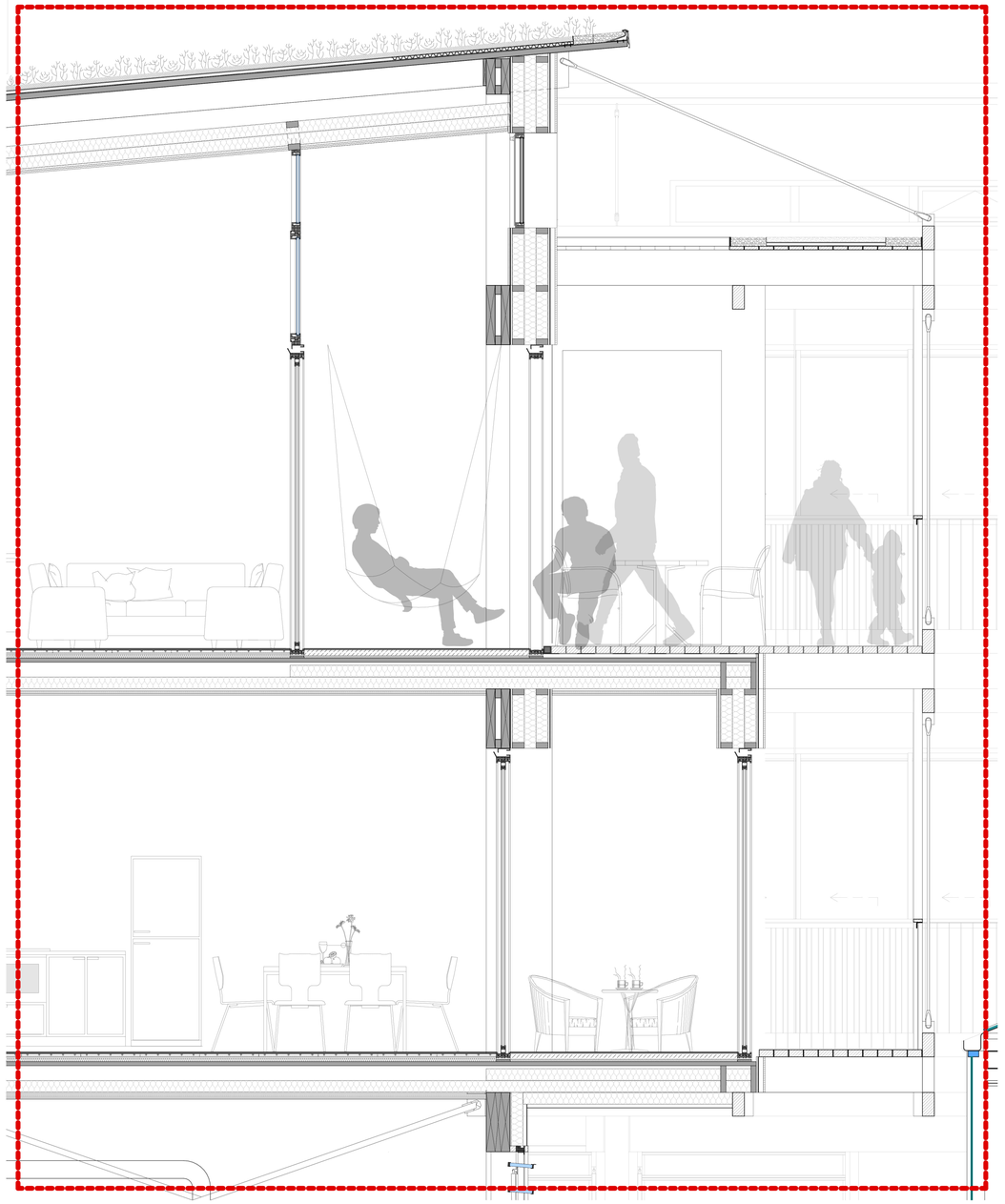
gallery



Back facades - galleries and winter gardens



Back facades - galleries and winter gardens



Back facades - galleries and winter gardens



Back facades - galleries and winter gardens



Back facades - galleries and winter gardens

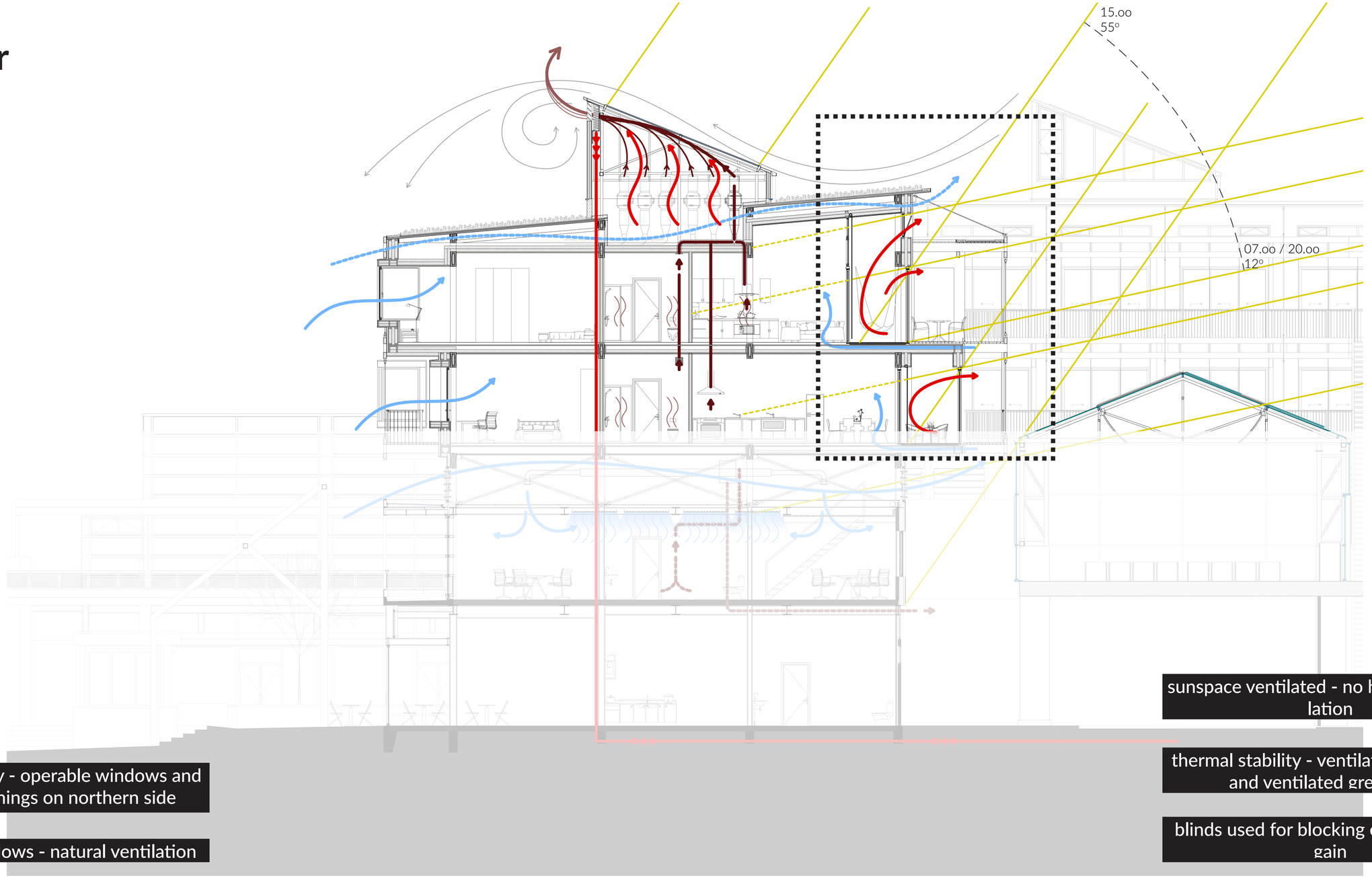


Back facades - galleries and winter gardens



Dwelligs - climate design

Summer



fresh air supply - operable windows and facade openings on northern side

operable windows - natural ventilation

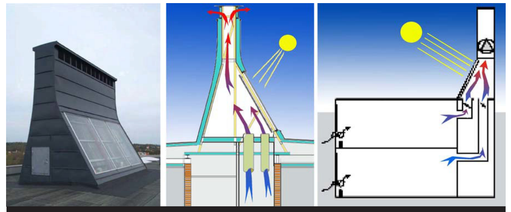
sunspace ventilated - no hot air accumulation

thermal stability - ventilated gap facade and ventilated green roof

blinds used for blocking excessive heat gain

Dwelligs - climate design

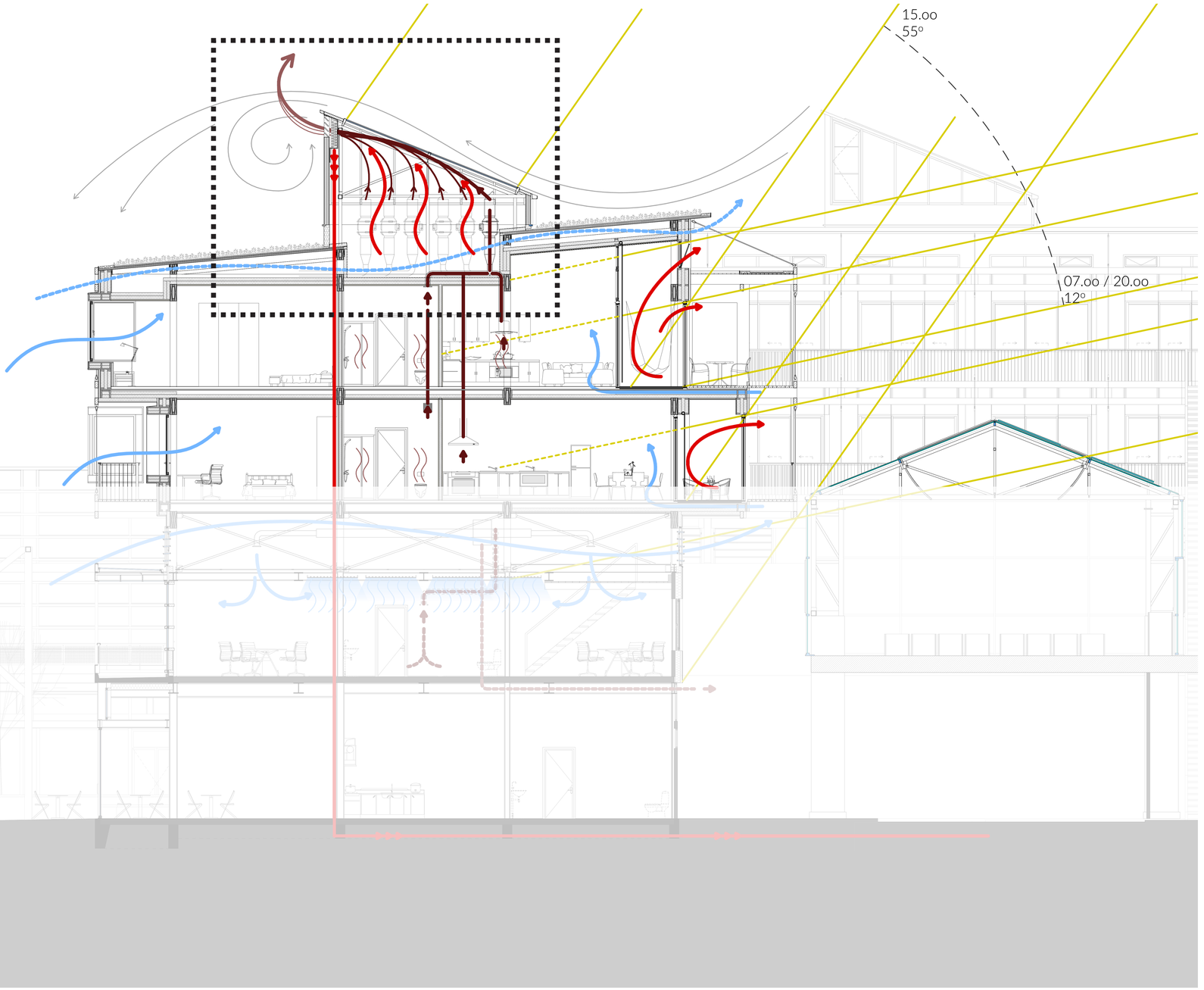
Hybrid ventilation



buoyancy - solar siphon principle



solar towers as architectural detail

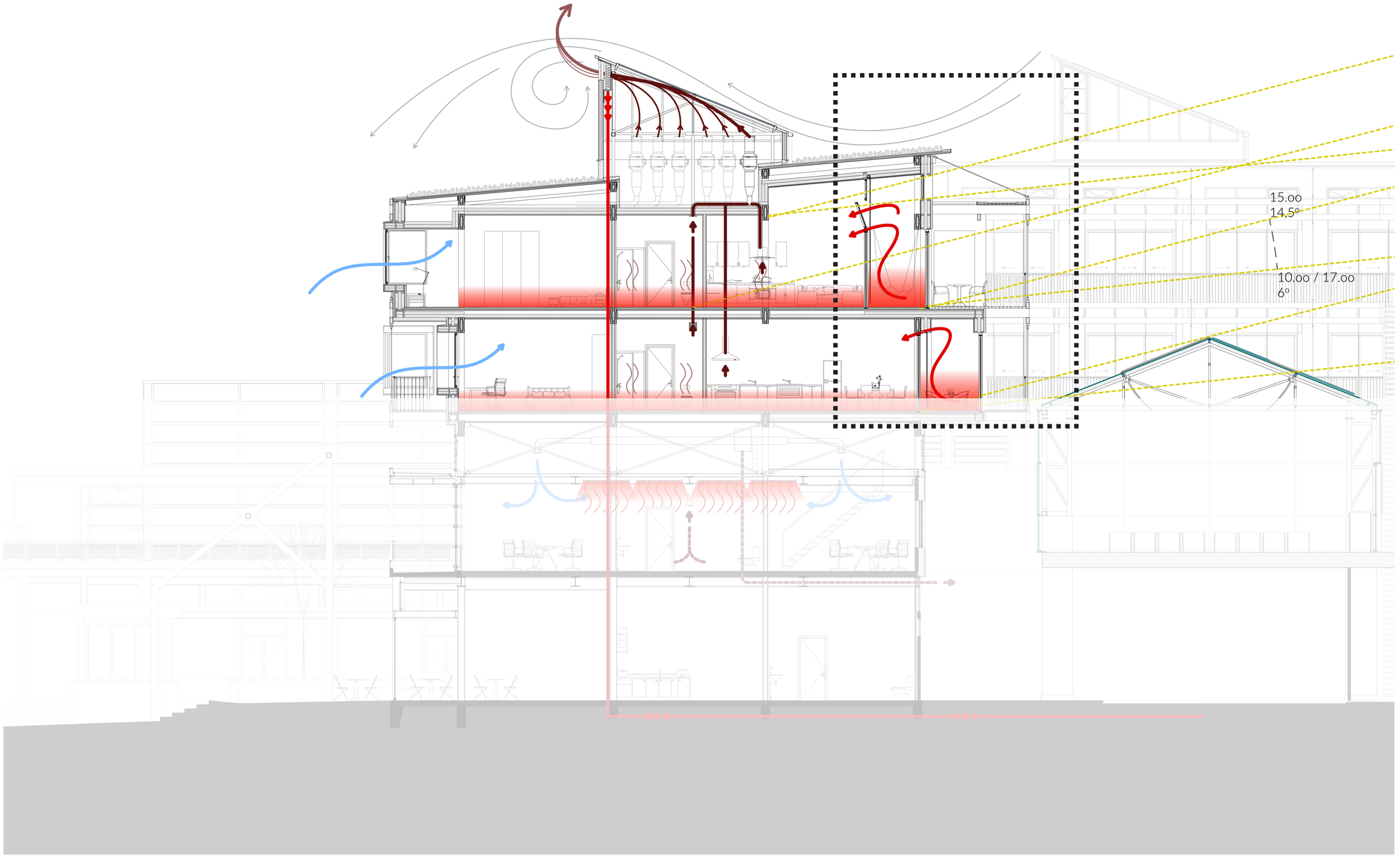


exhaust through bathrooms and kitchens- extraction of excessive moisture and pollutants

hot volume of air and wind underpressure zone assist extraction and reduce energy expenses for ventilation

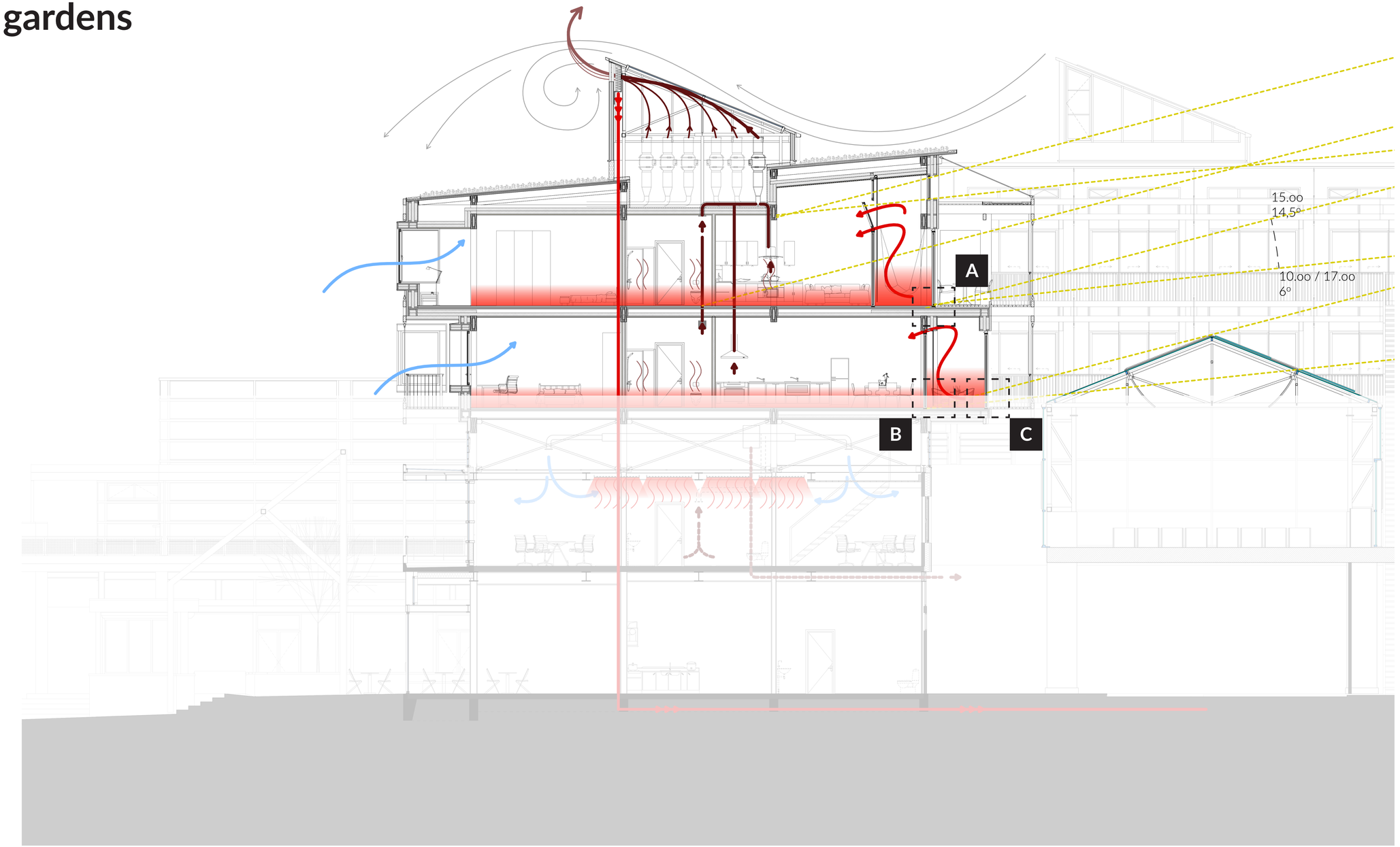
Dwelligs - climate design

Winter



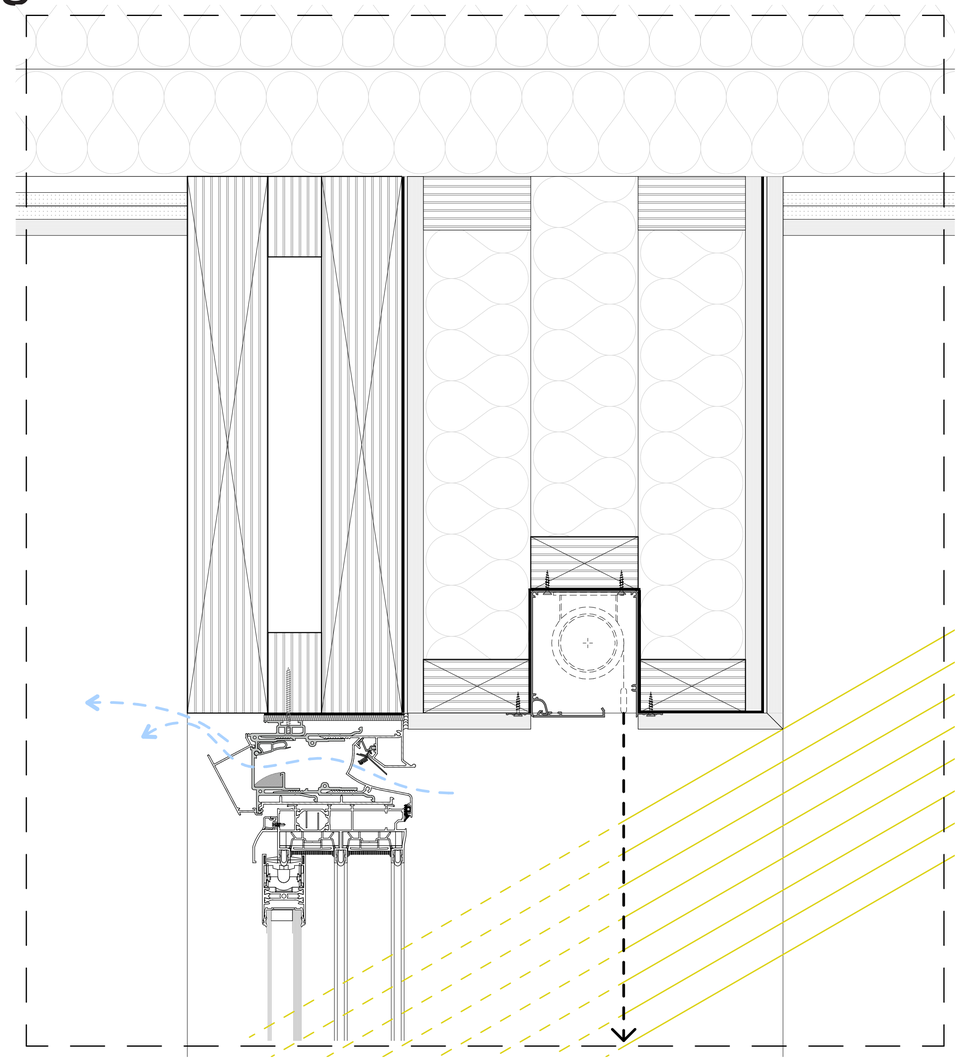
Dwelligs - detailing

Detailing:
winter gardens



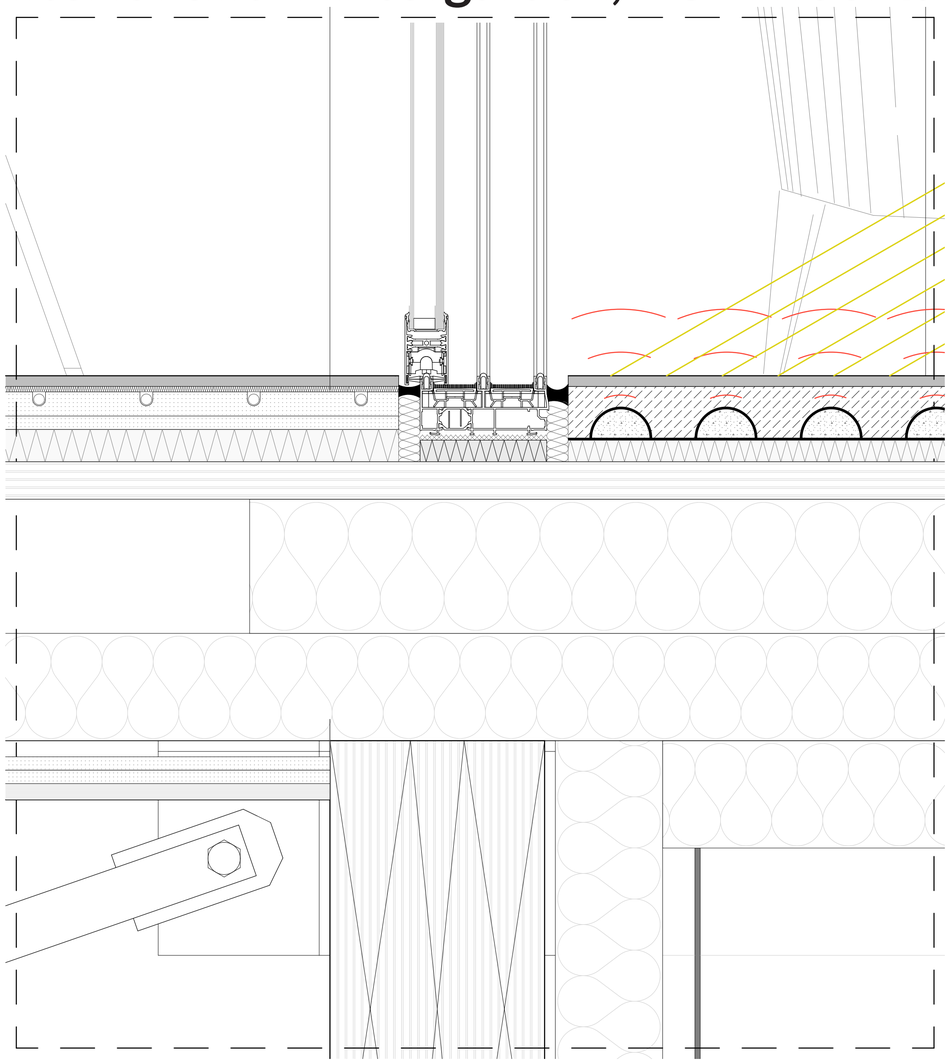
Dwelligs - detailing

Detail A - 1:5 :
regulated trickle vent and integrated sunblinds



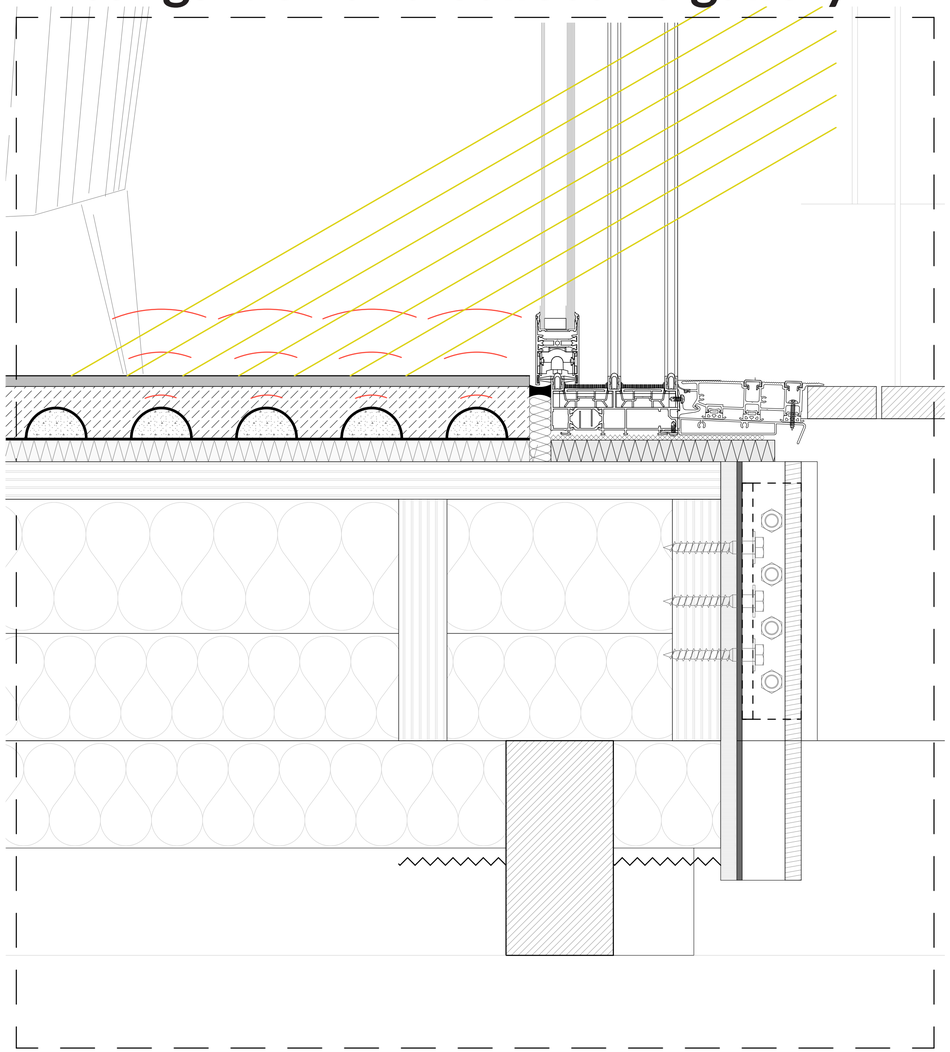
Dwelligs - detailing

Detail A - 1:5 :
accessible threshold between interior and wintergarden, PCM floor latent heat storage

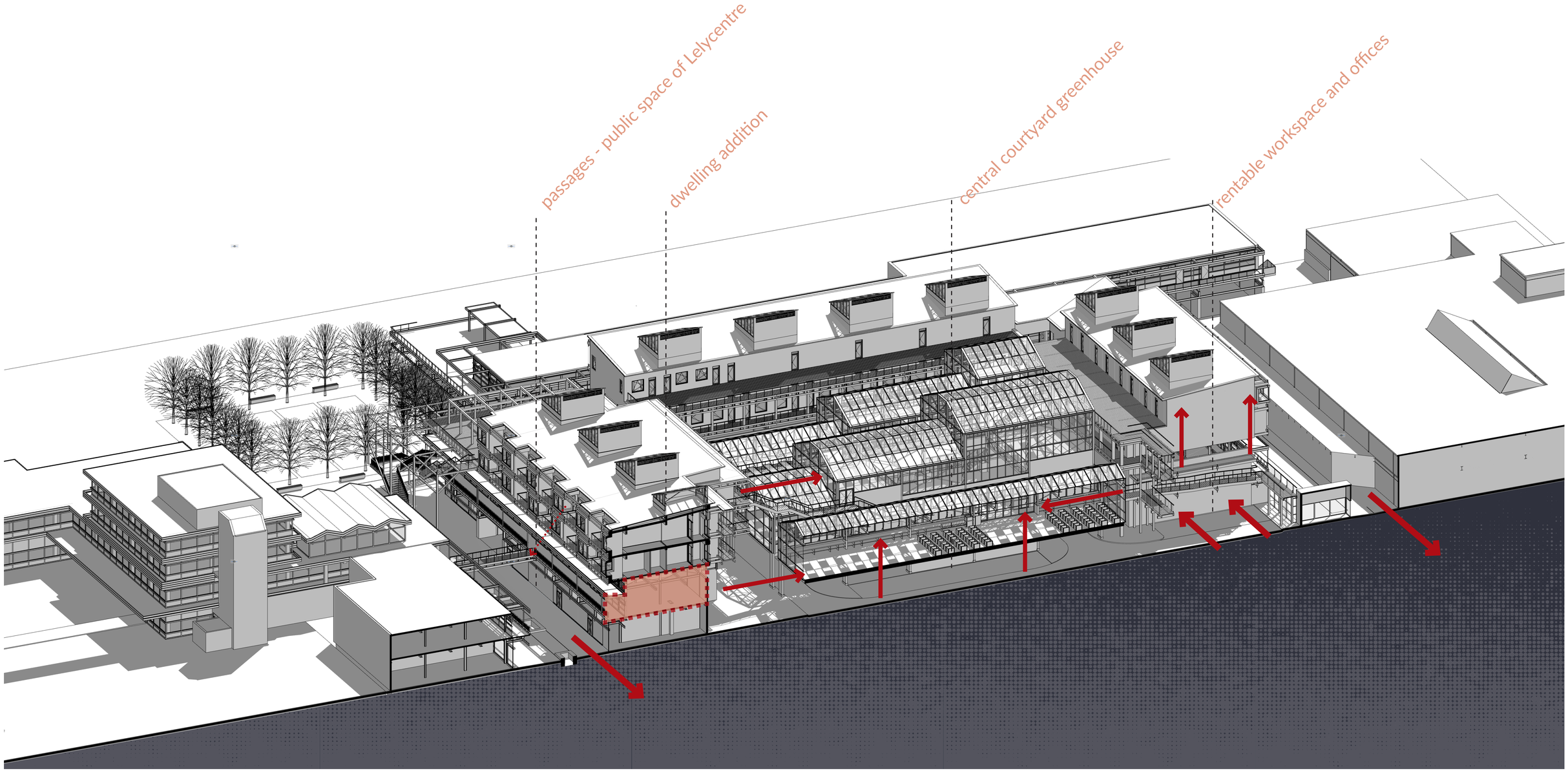


Dwelligs - detailing

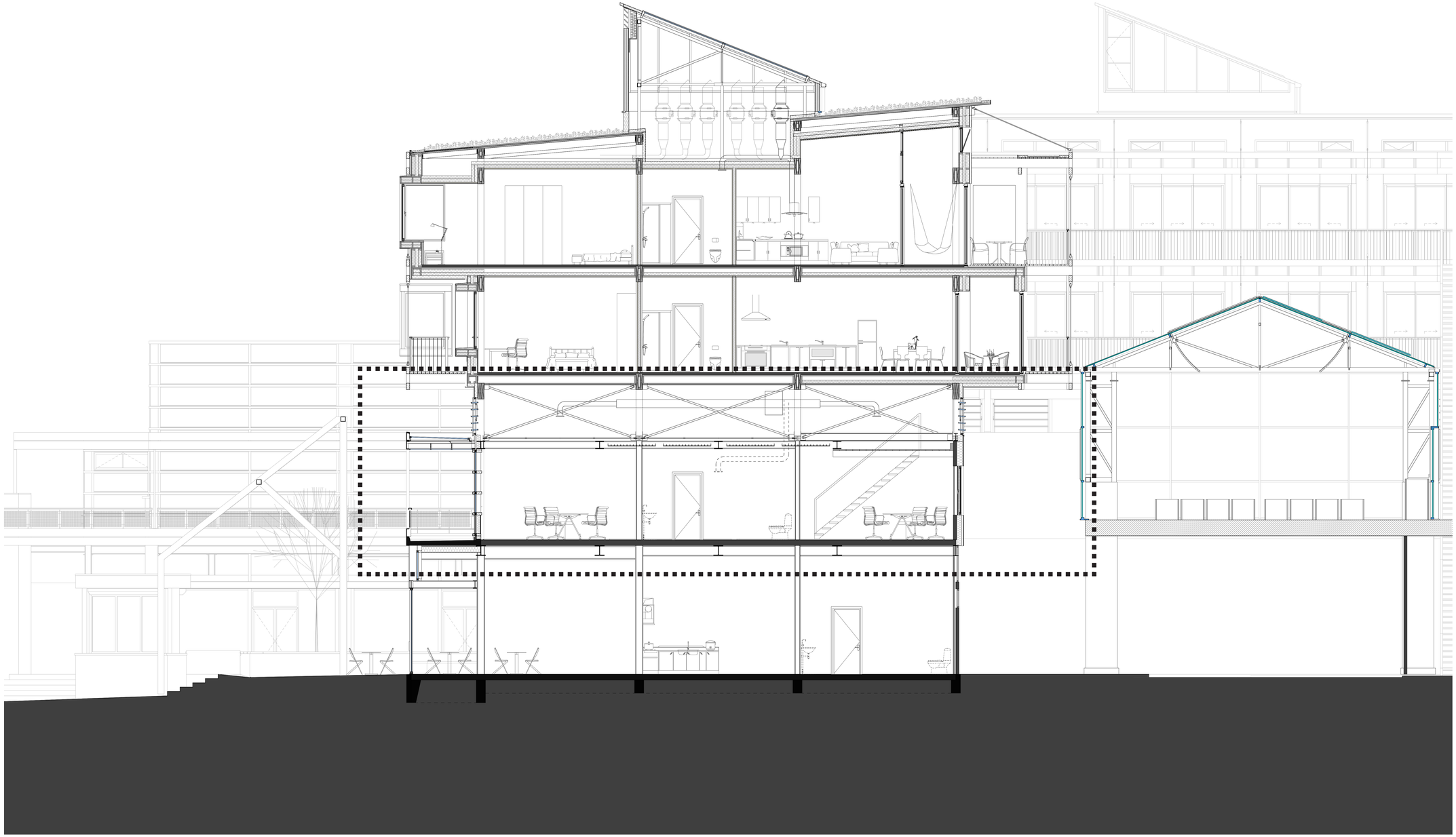
Detail A - 1:5 :
accessible threshold between winter garden and collective gallery



Sequence of spaces : rentable office workspace



Rentable workspace



Rentable workspace - climate design

Sommer



climate ceiling

Rentable workspace - climate design

Winter



climate ceiling

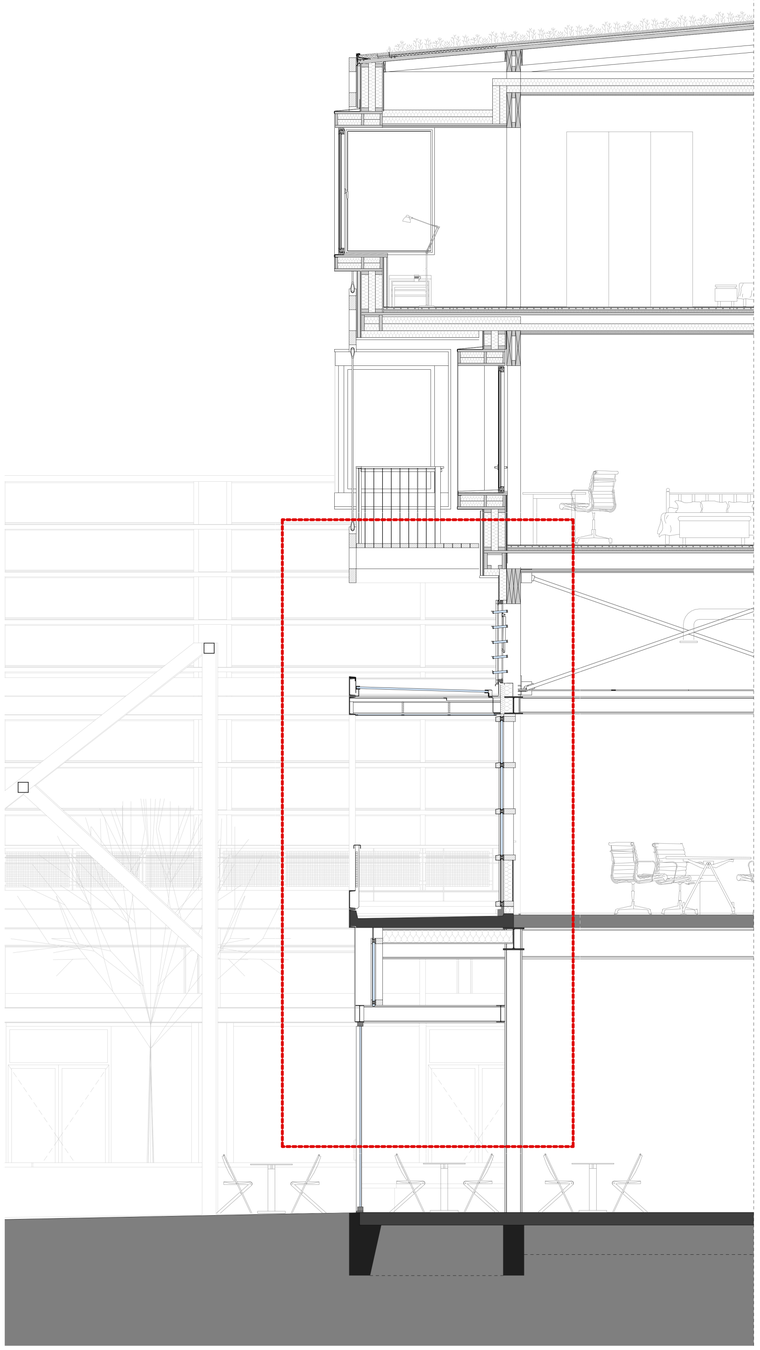
Rentable workspace - interior



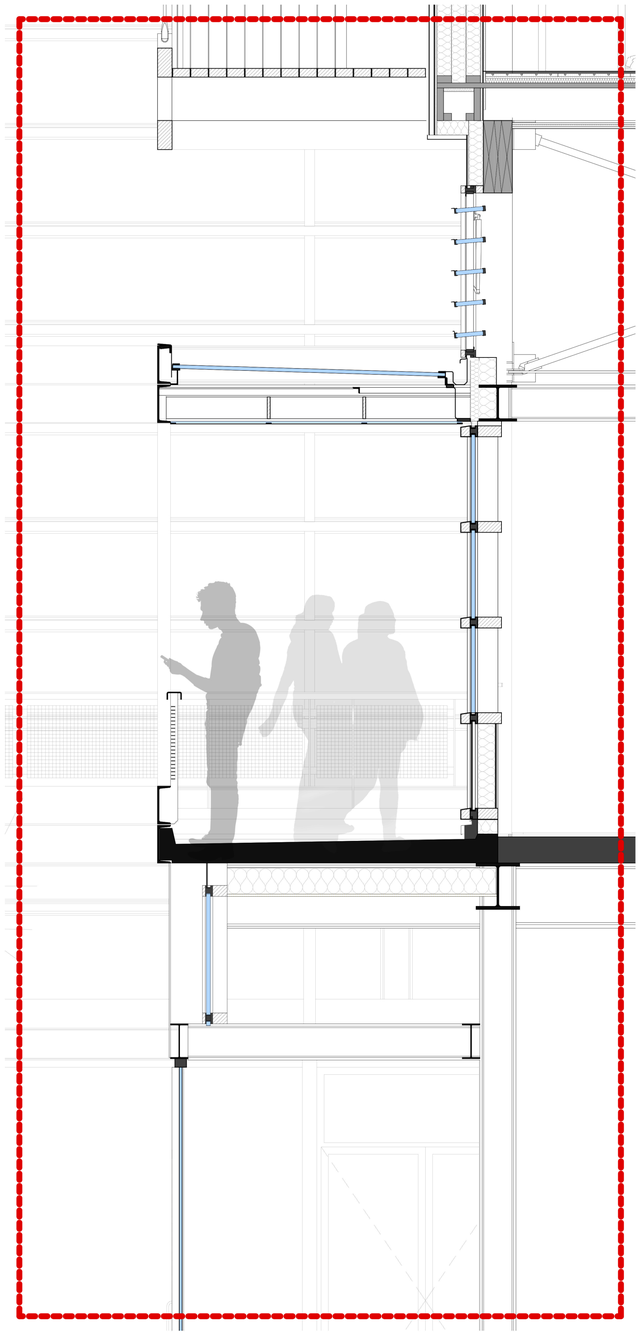
Rentable workspace - relationship to the courtyard



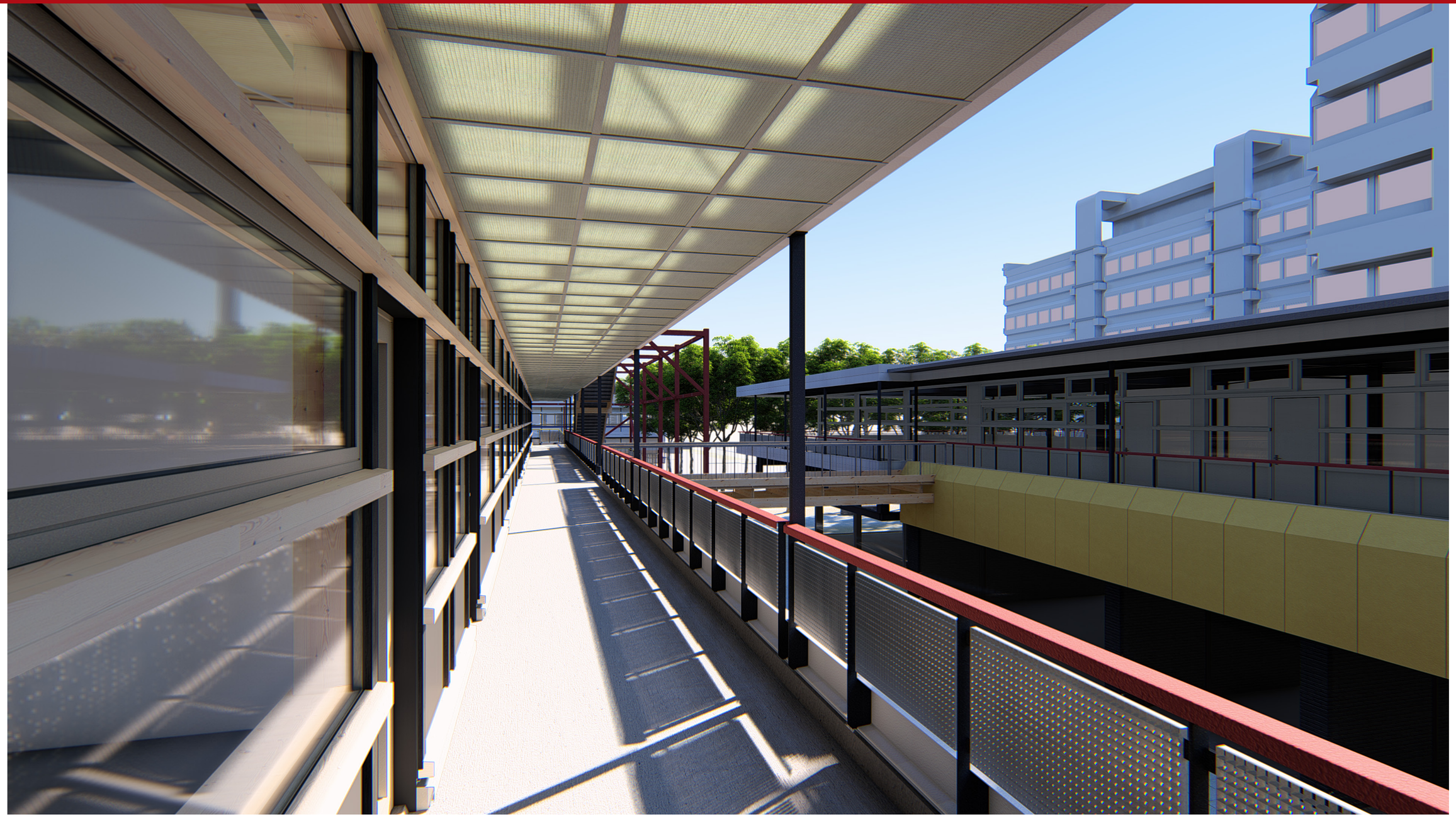
Offices - new facade



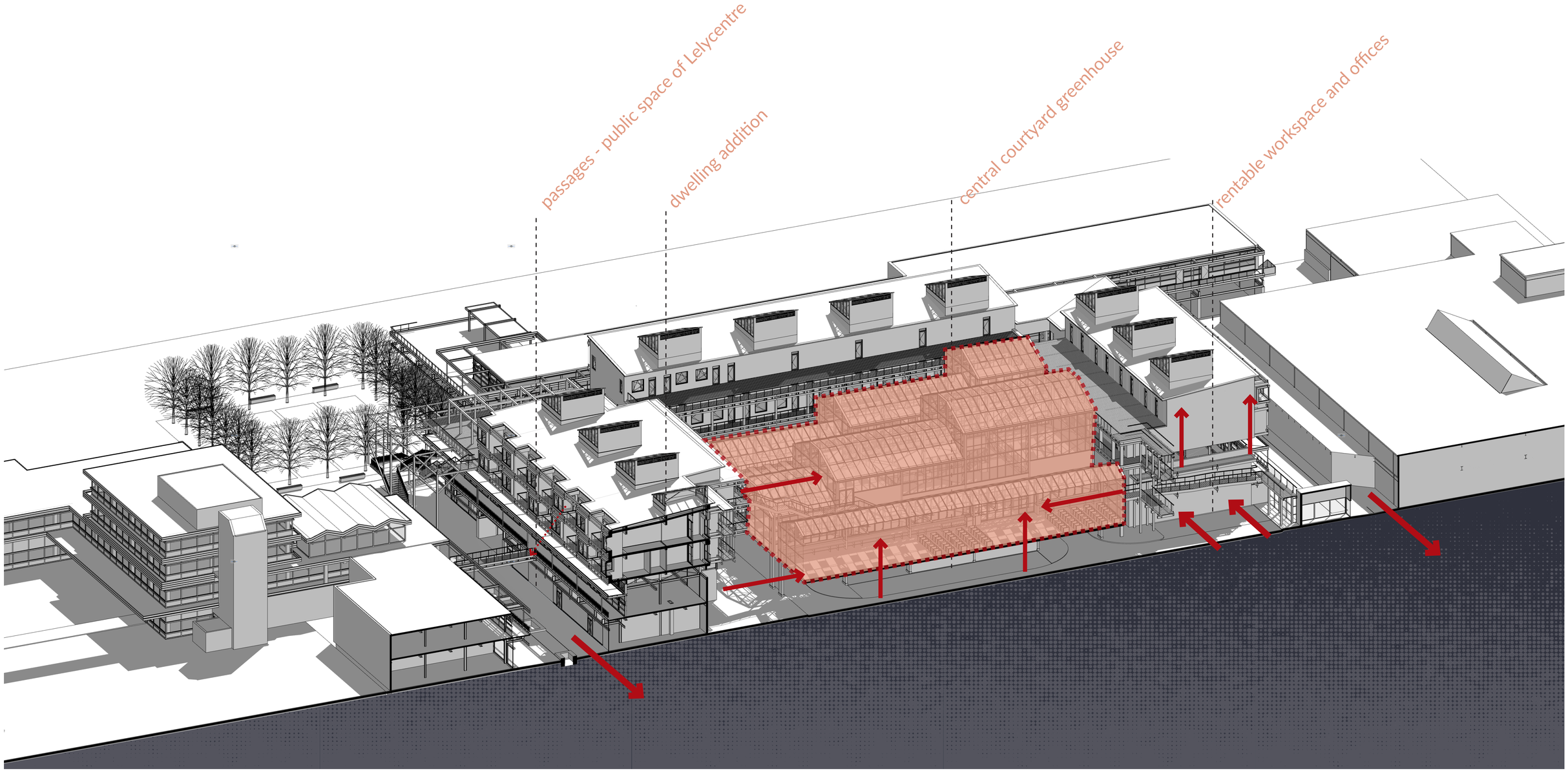
Offices - new facade



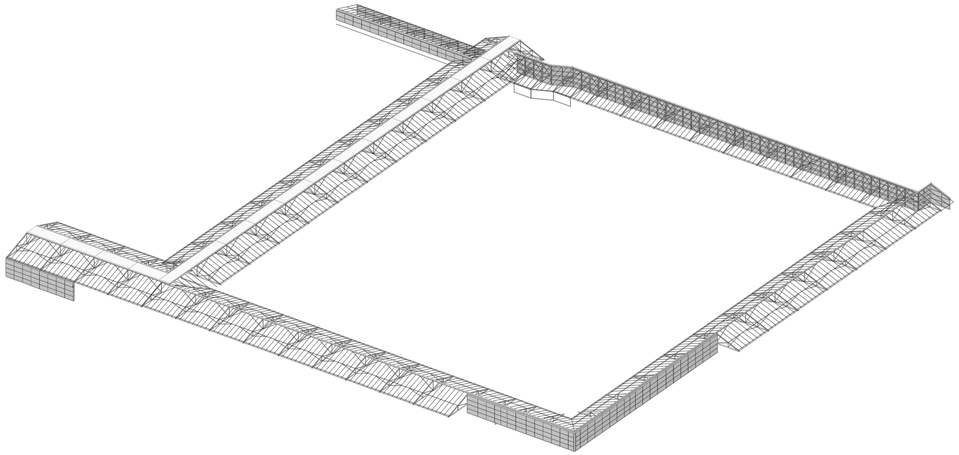
Offices - new facade

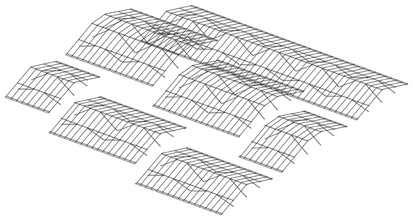


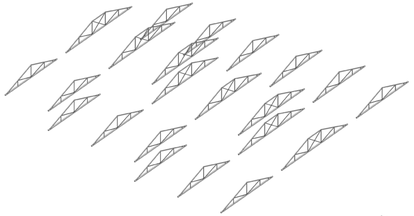
Sequence of spaces : central courtyard greenhouse

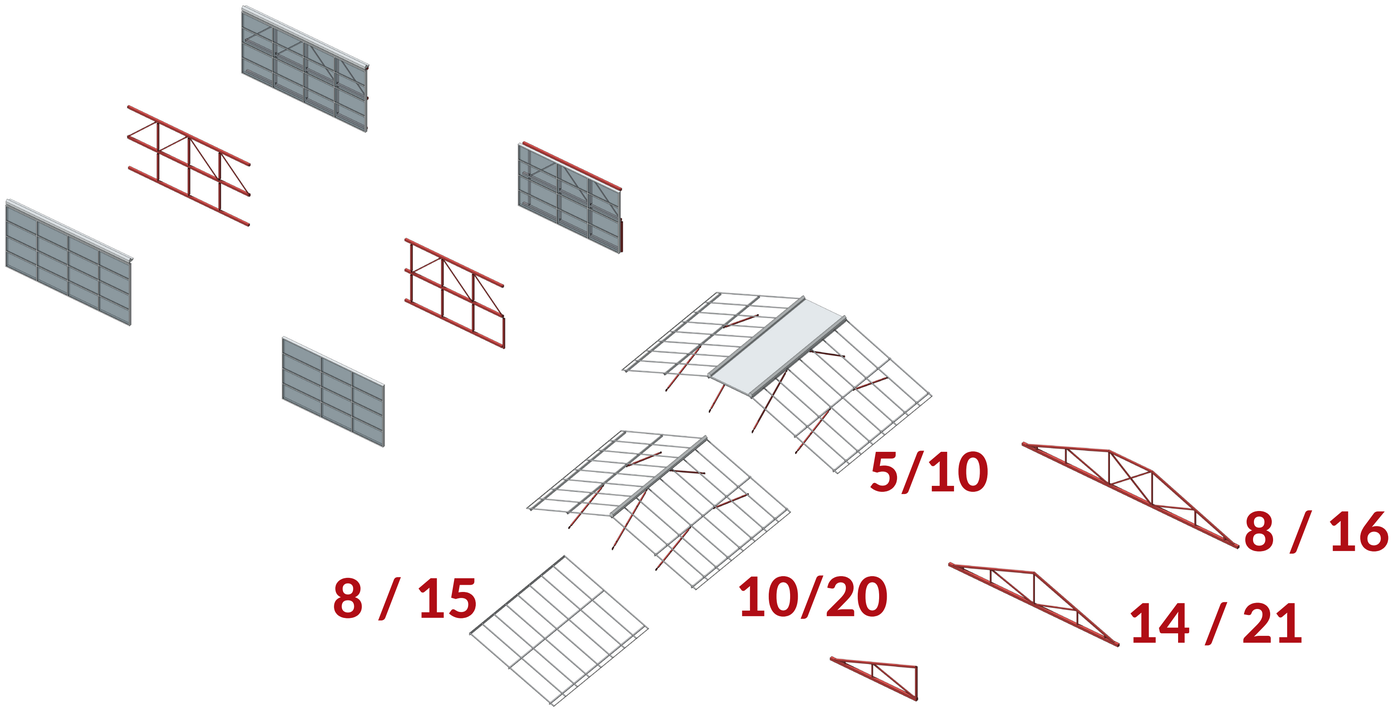


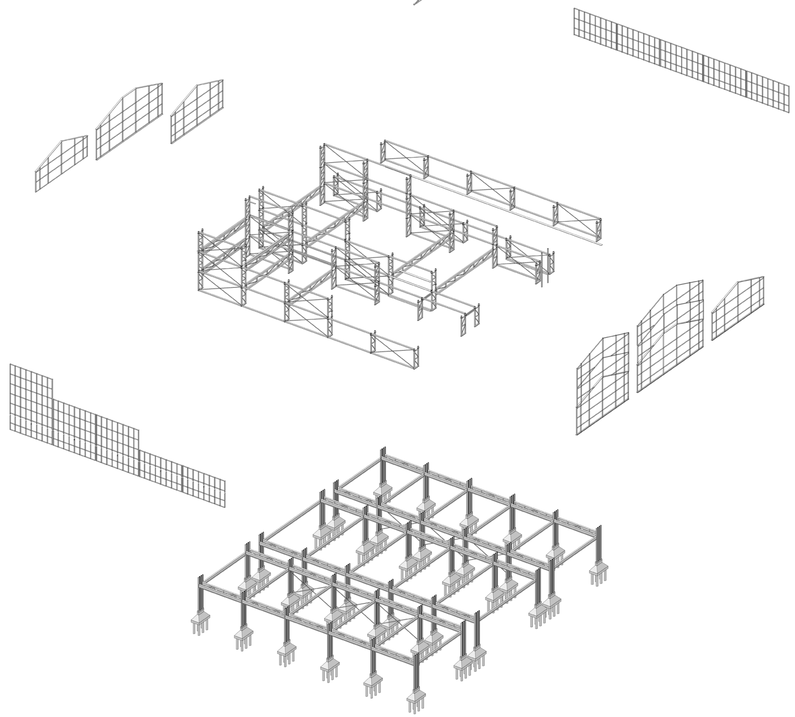
Greenhouse - structure









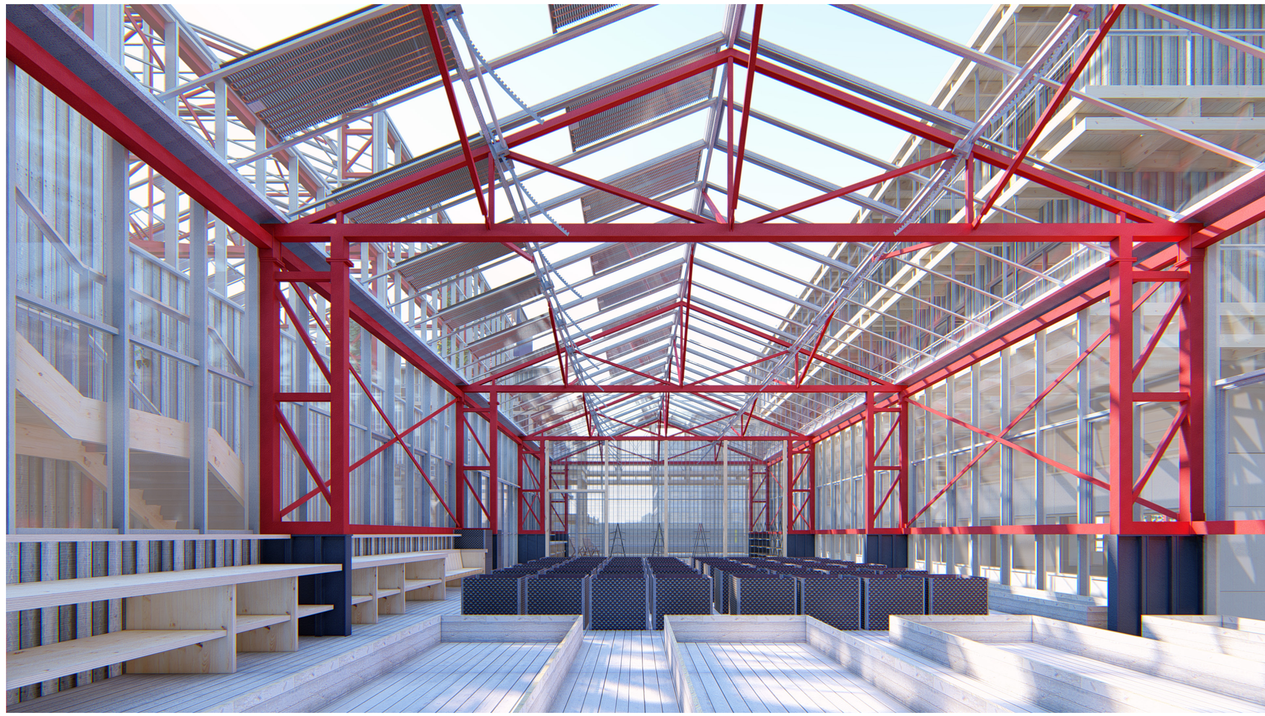


Greenhouse - use

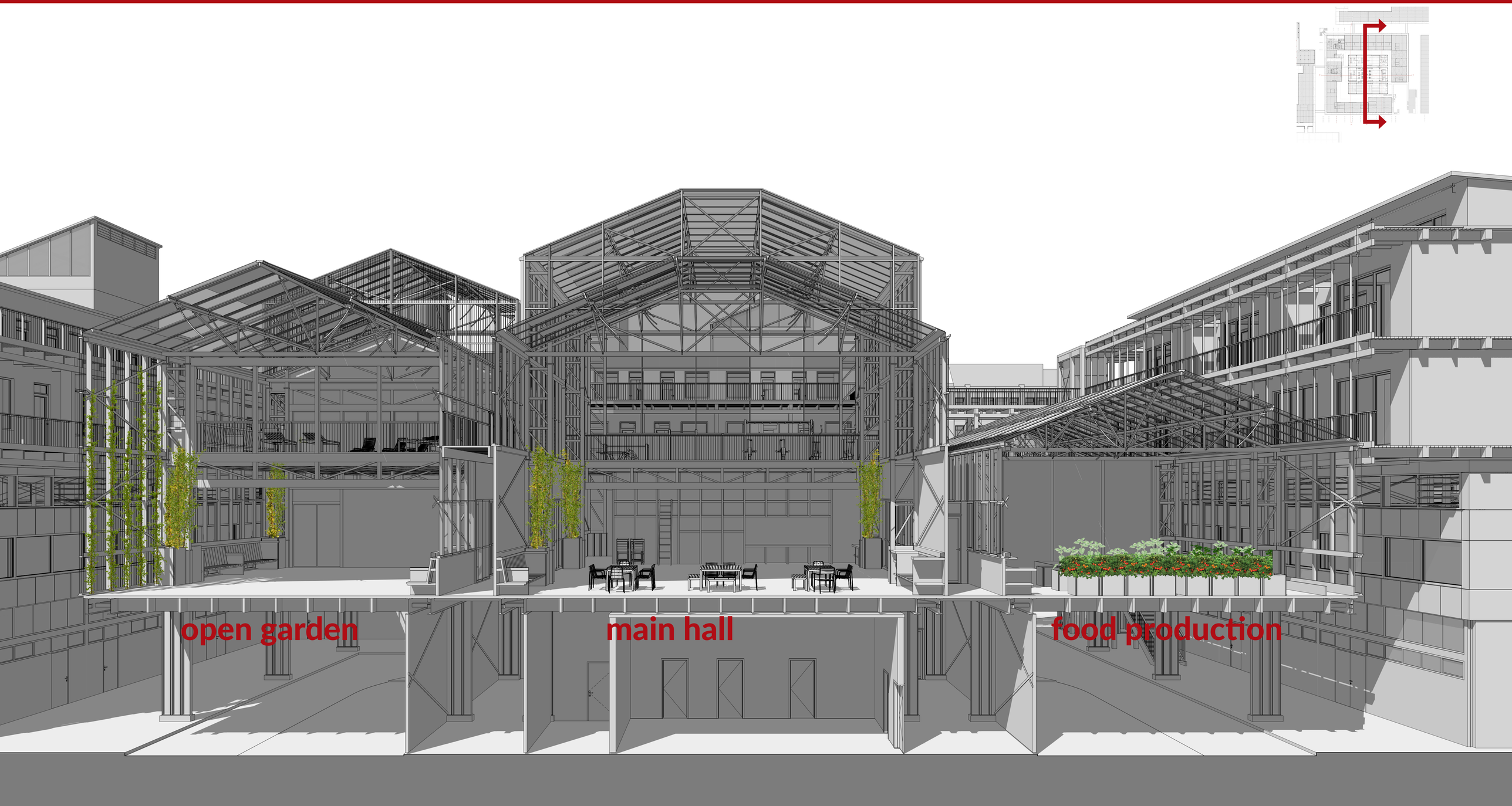


Greenhouse - use





Greenhouse - use



Greenhouse - use

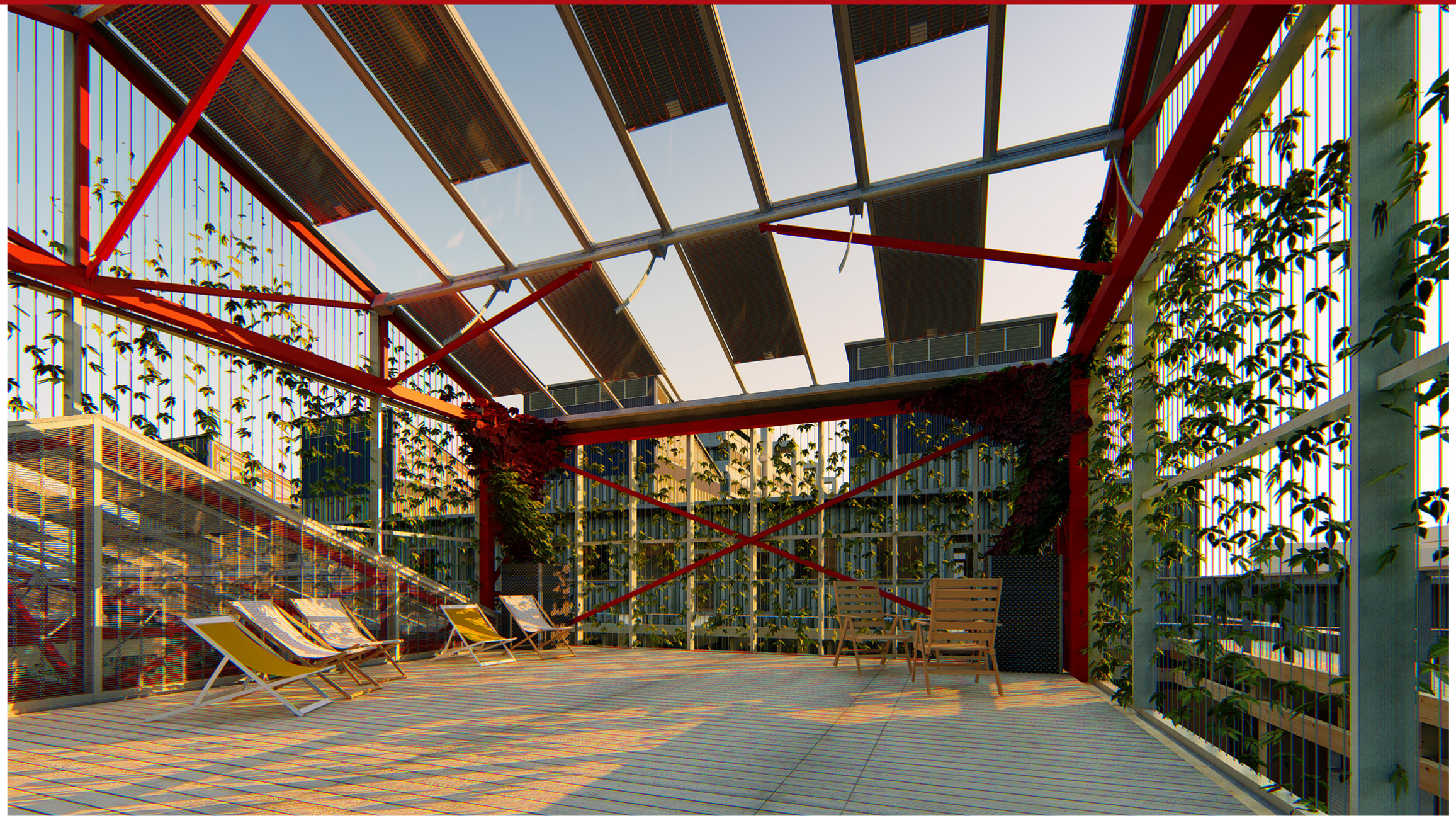


Greenhouse - use




open terrace
sauna
fitness
common laundry
workshop
garden shop

Greenhouse - use



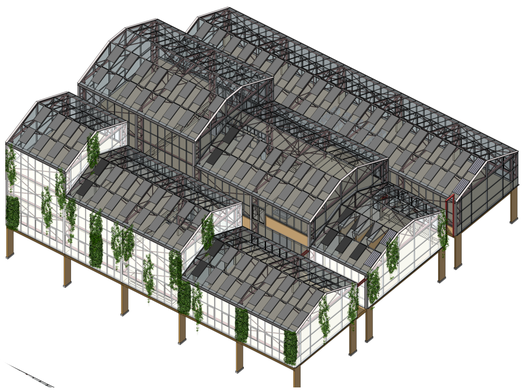
Greenhouse - use

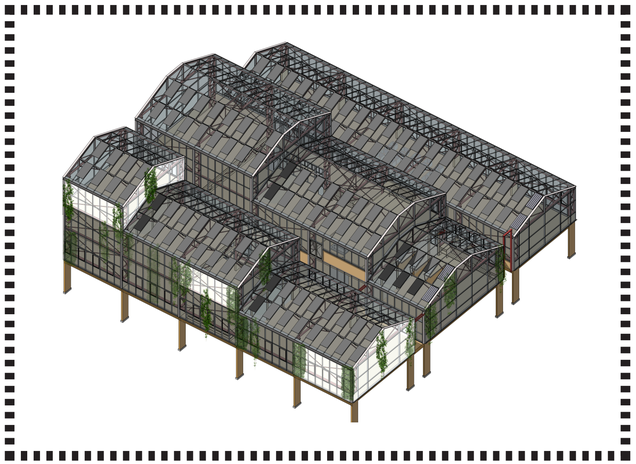


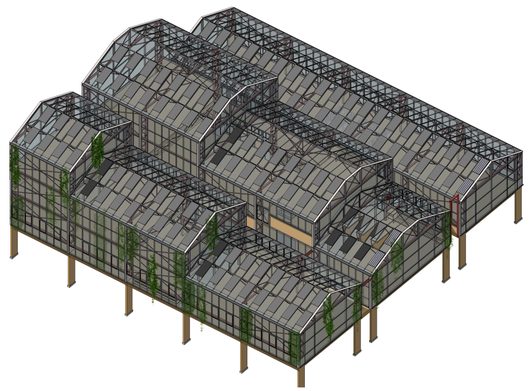
Greenhouse - use



Greenhouse - change in time





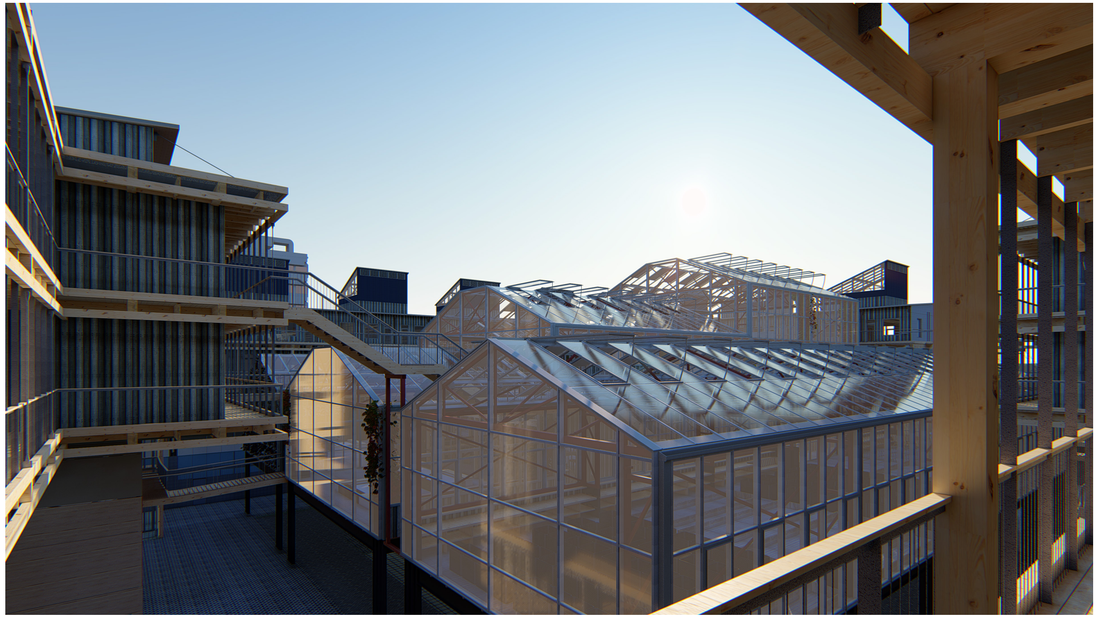


Greenhouse - relationship to the dwellings

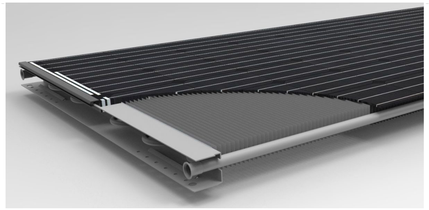




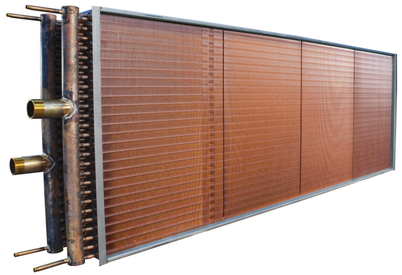




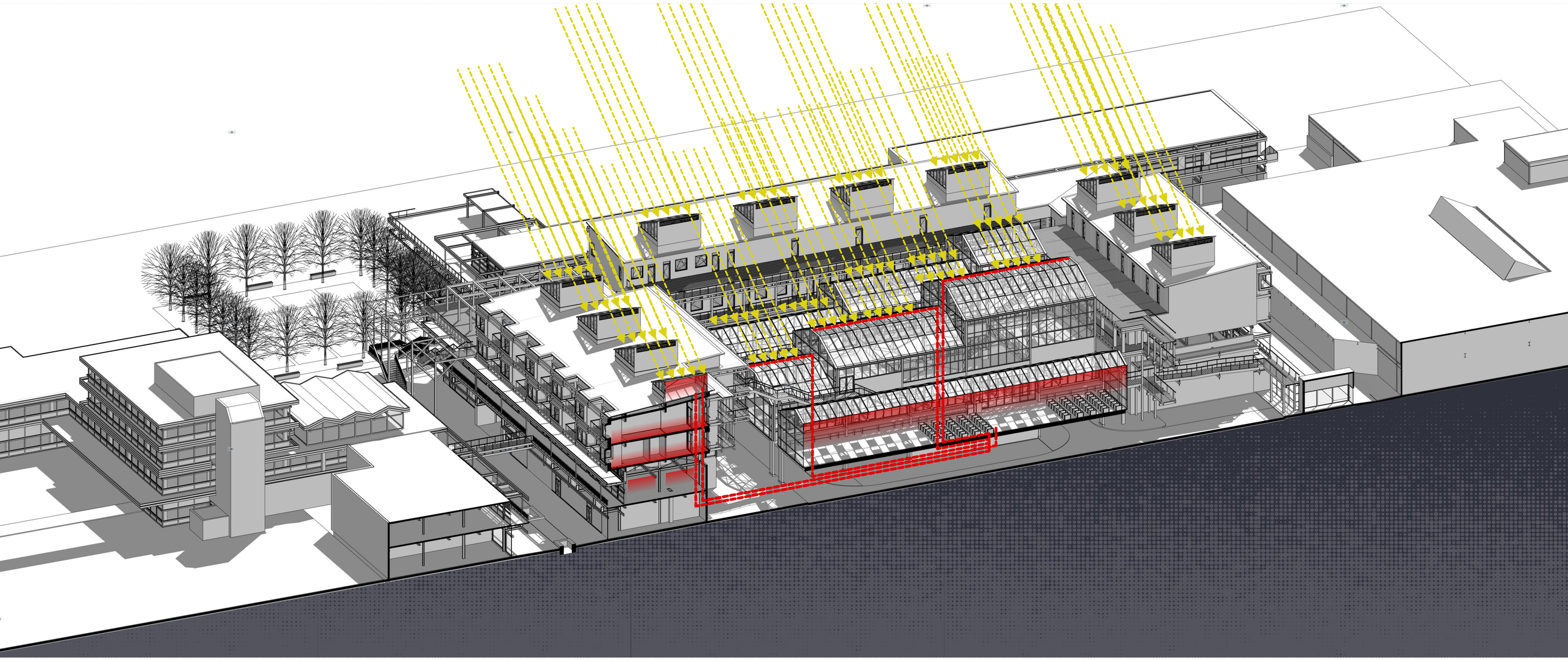
Greenhouse - role in climate design of the complex



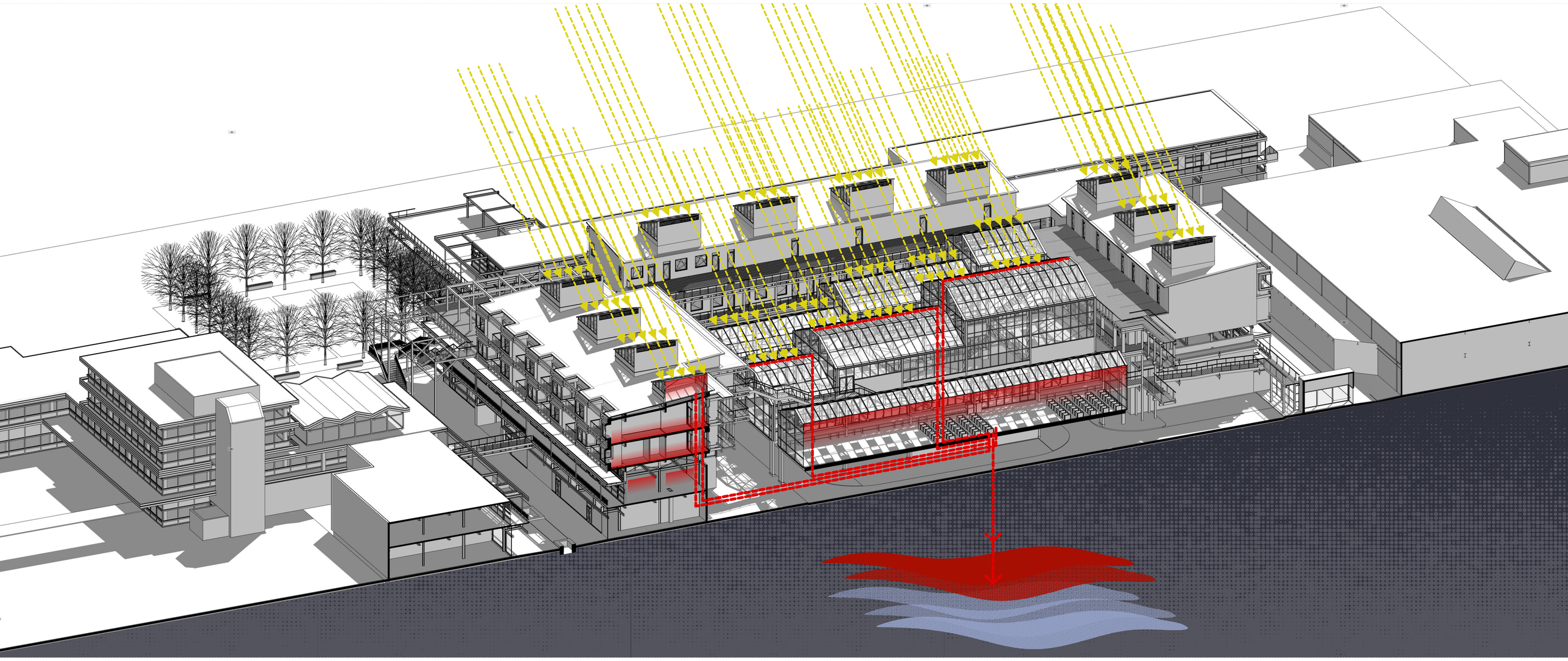
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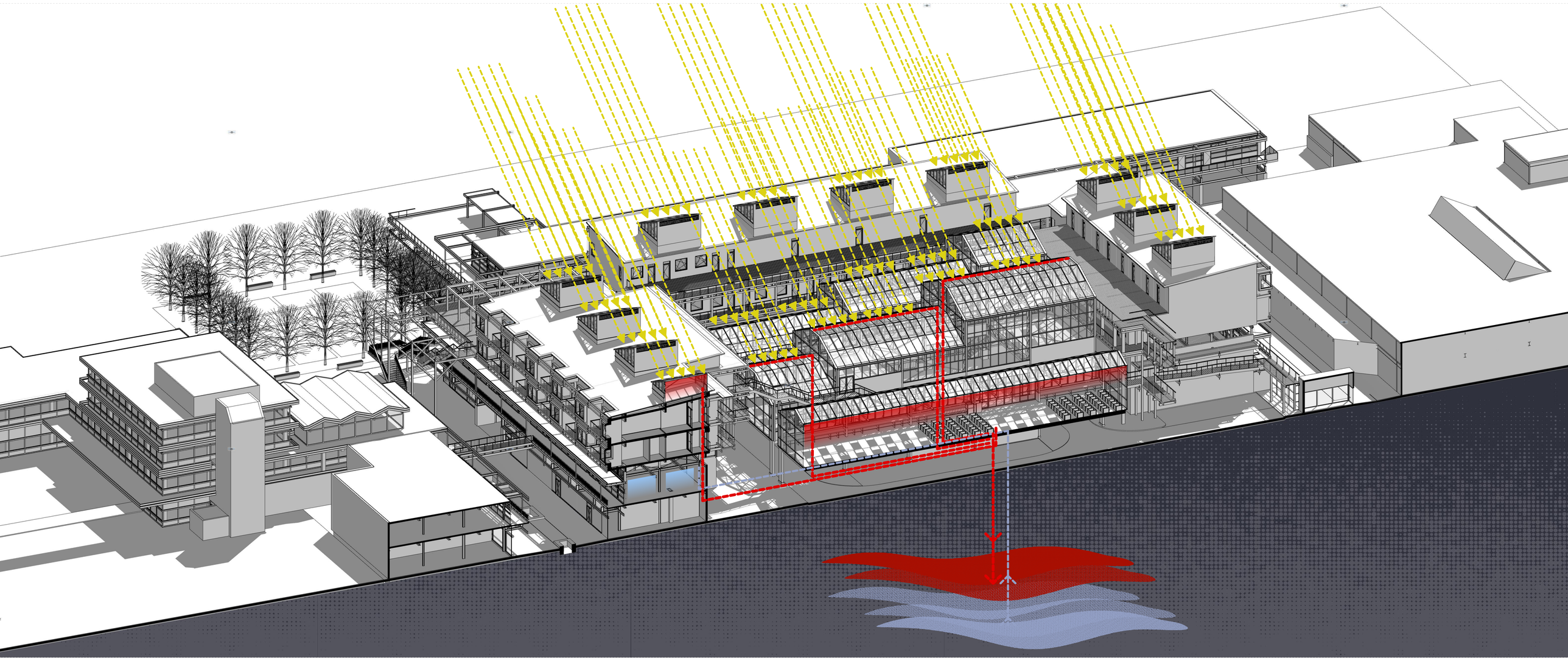
Greenhouse - role in climate design of the complex



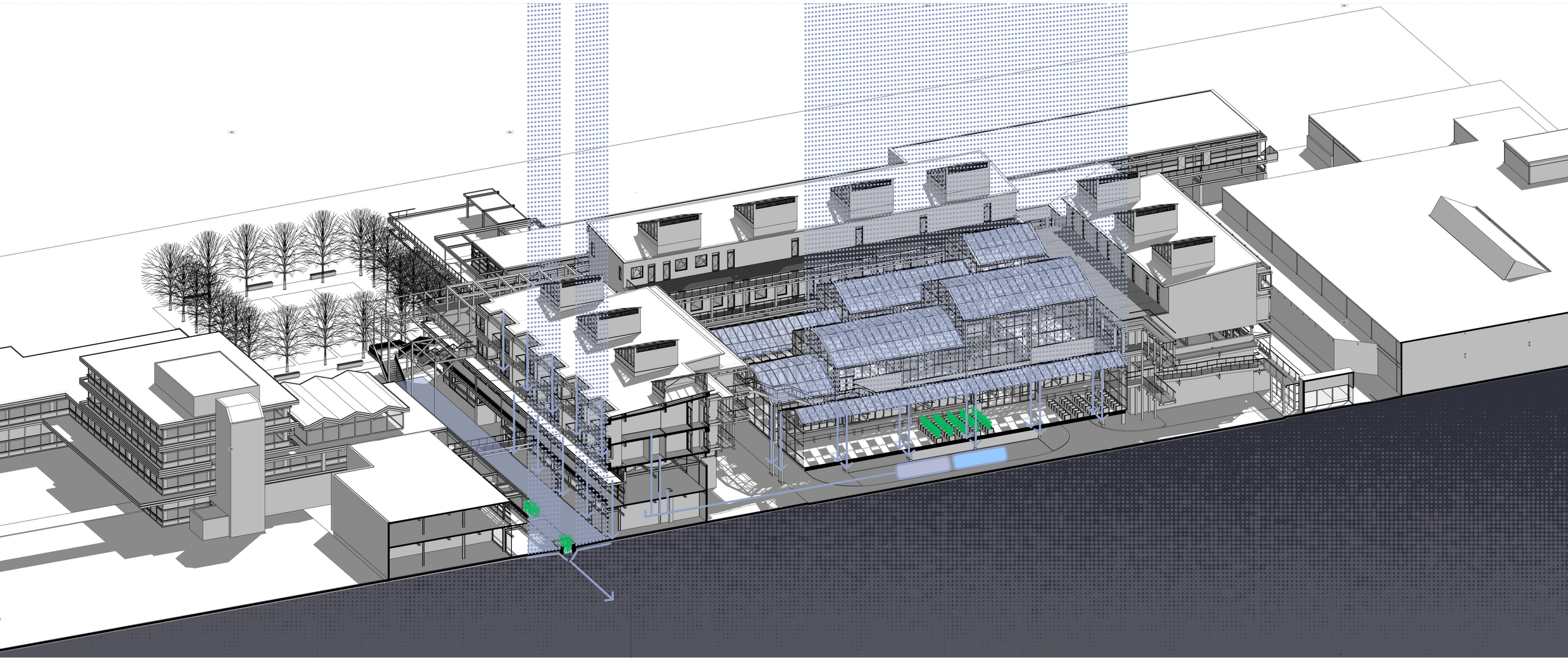
Greenhouse - role in climate design of the complex



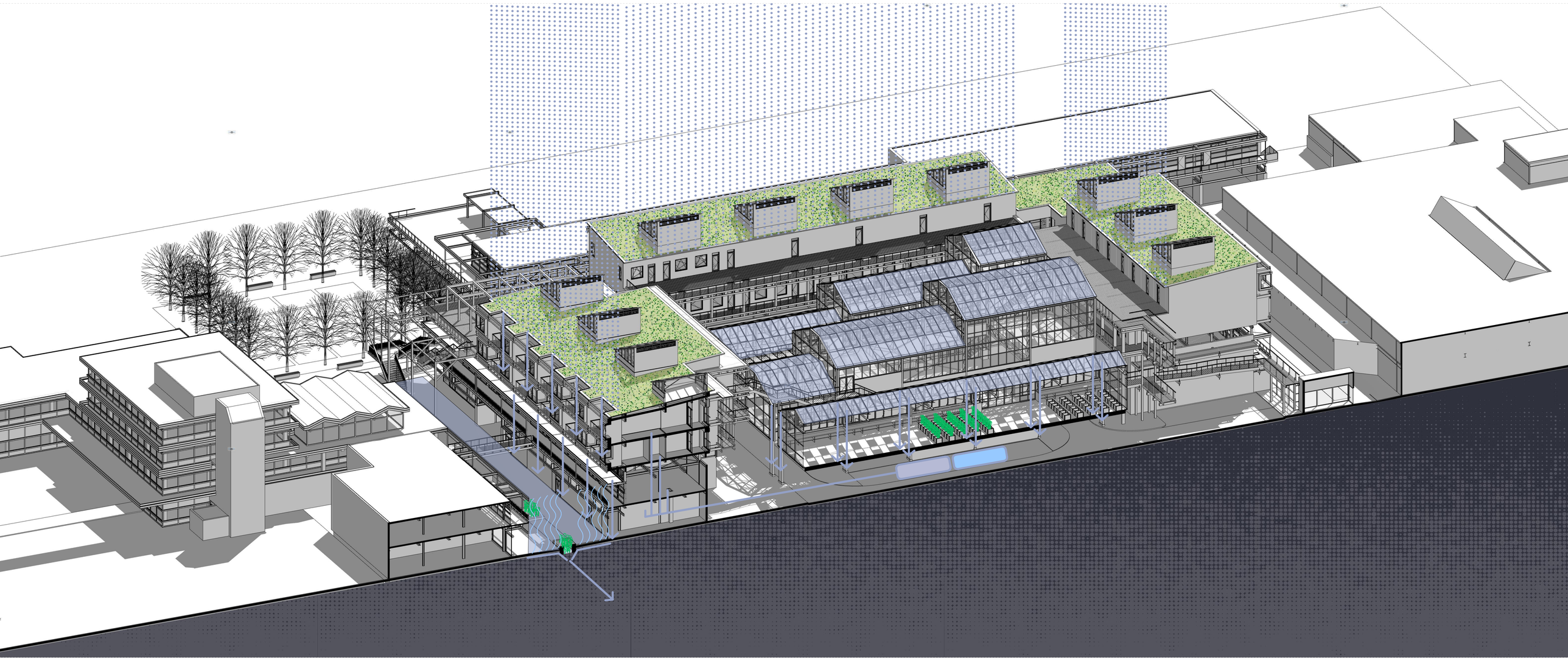
Greenhouse - role in climate design of the complex



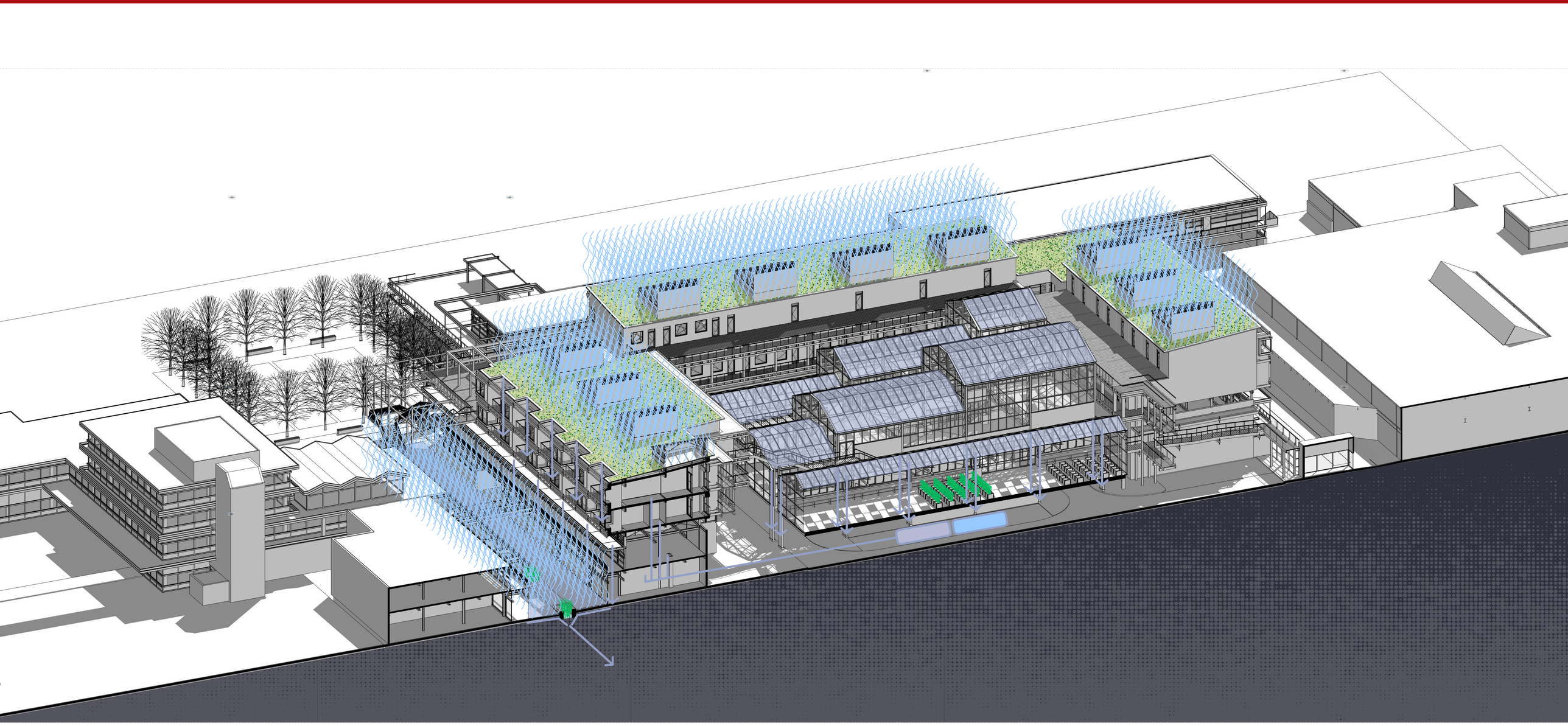
Greenhouse - role in climate design of the complex



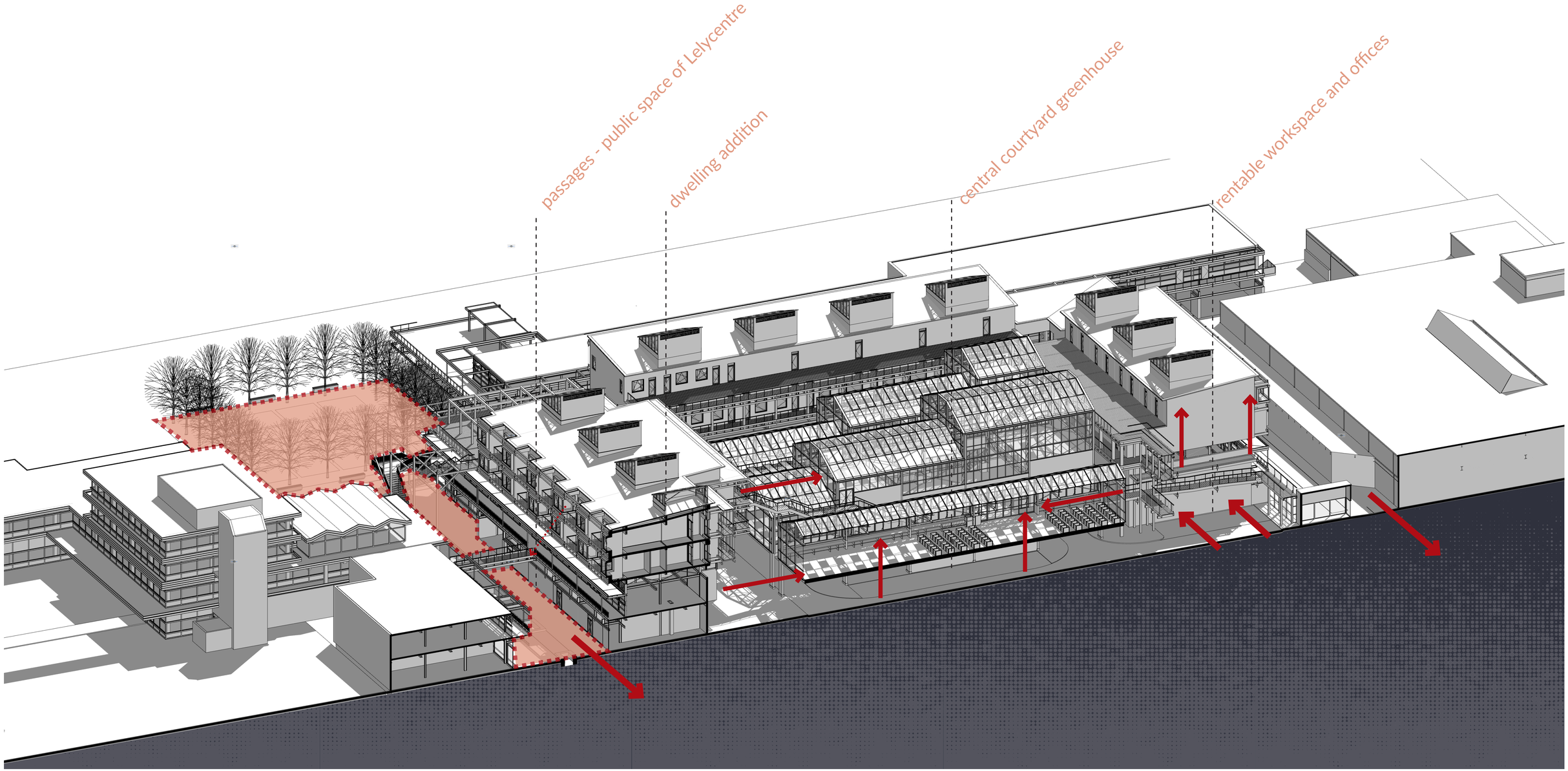
Greenhouse - role in climate design of the complex



Greenhouse - role in climate design of the complex



Sequence of spaces : open passages



Change in the public space





Change in the public space





Presence of addition in new urban situation

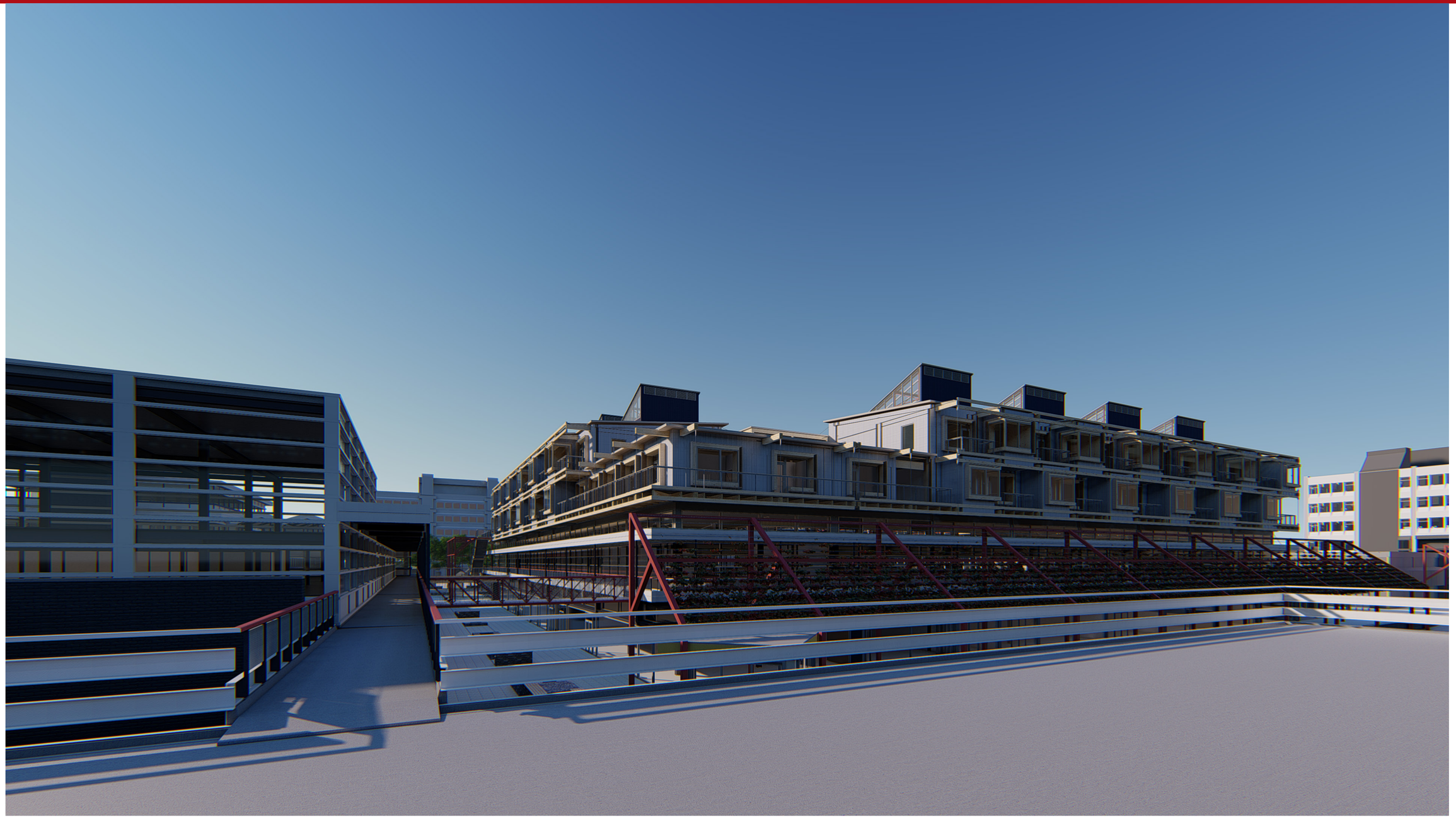
Eastern facade



Northern facade



Presence of addition in new urban situation



Presence of addition in new urban situation



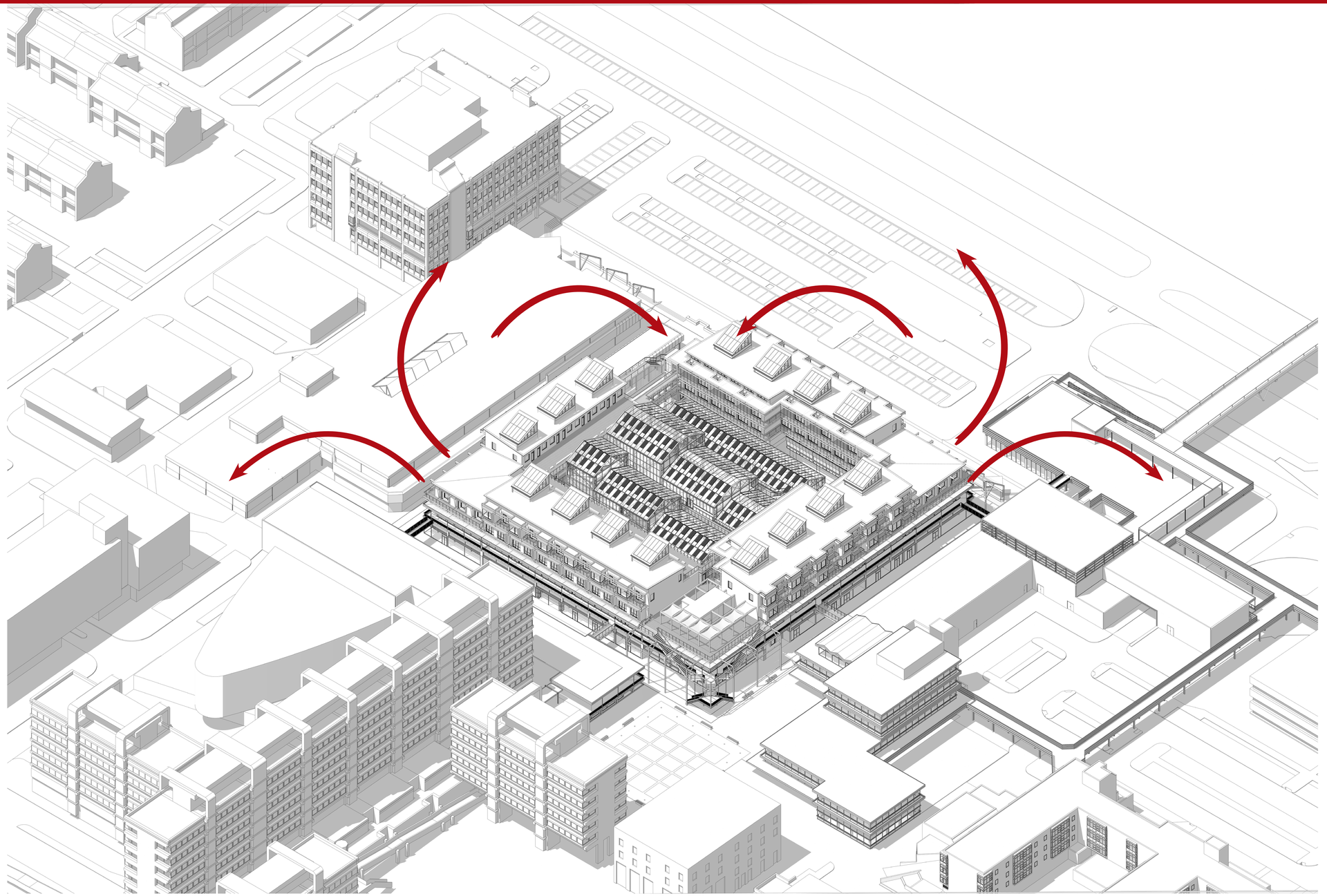
Presence of addition in new urban situation



Presence of addition in new urban situation



Symbiosis of mixed uses




Thank You!

