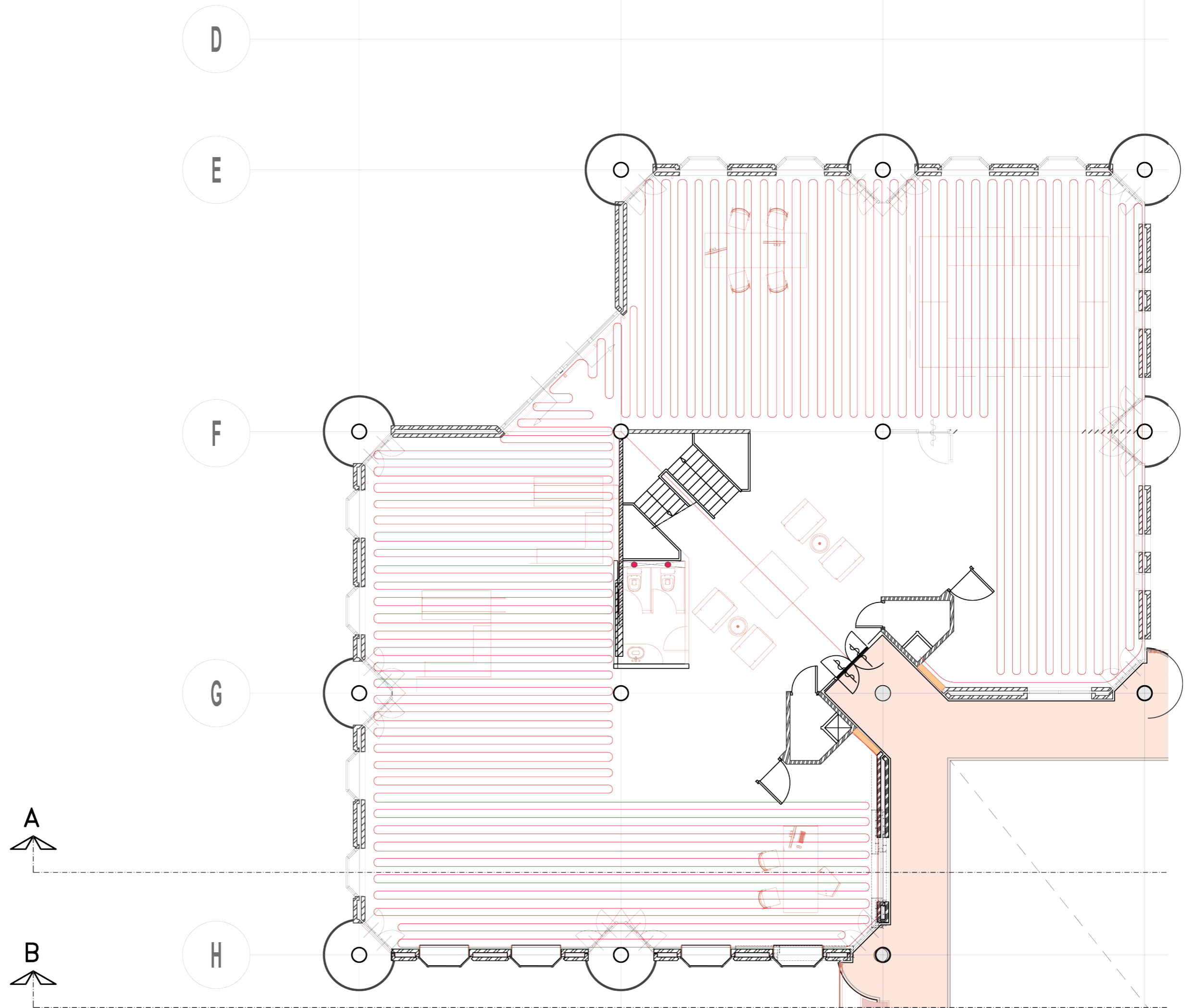


# CLIMATE

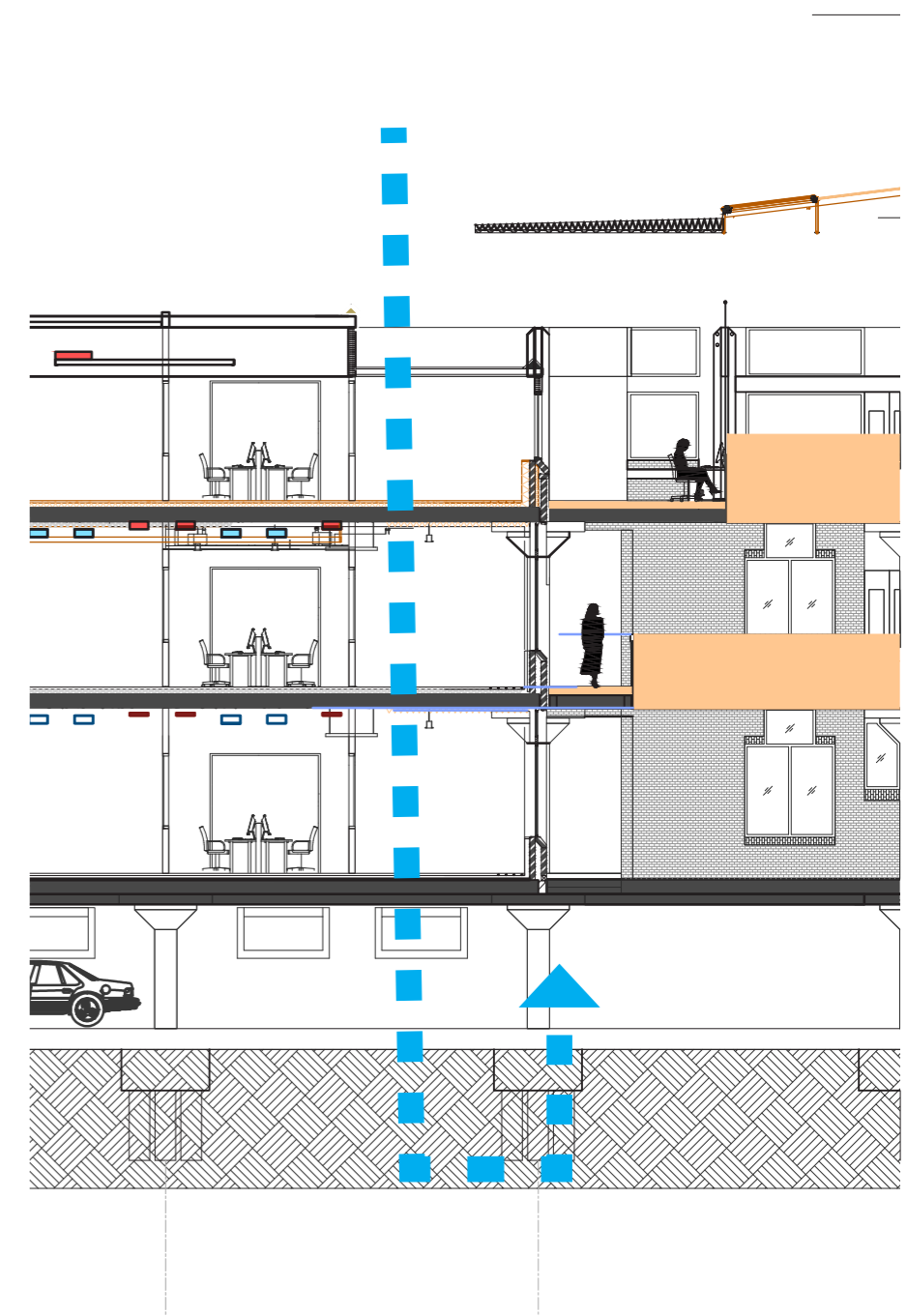
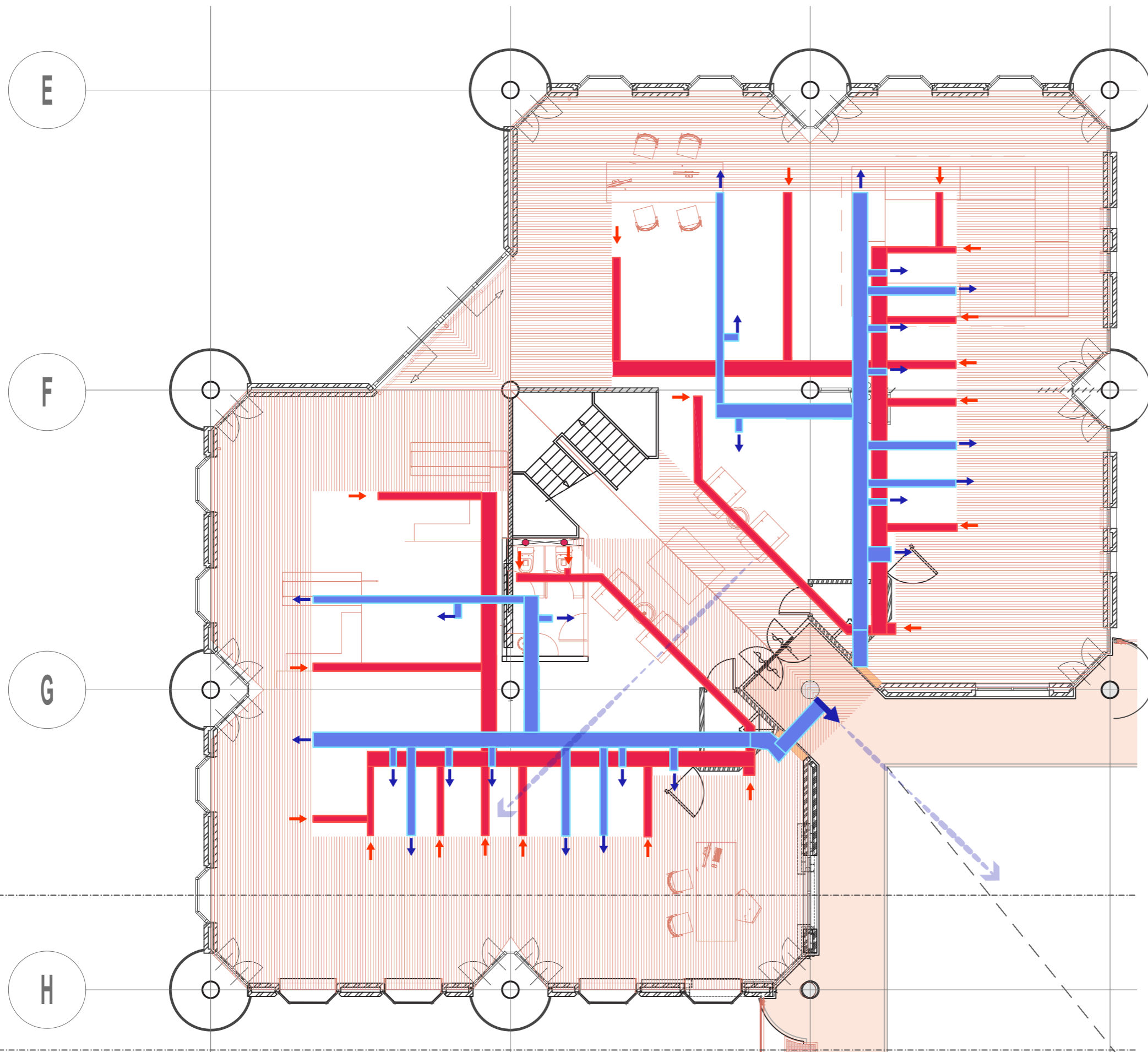
*TRANSFORMATION* STRUCTURALISM

VALERY A.S. ESHUIS  
HERITAGE & ARCHITECTURE  
FUTURE OF STRUCTURALISM  
TUDELFT  
WINTER 2020

floor heating



# CONSEQUENCES | VENTILATION SCHEME NORTH

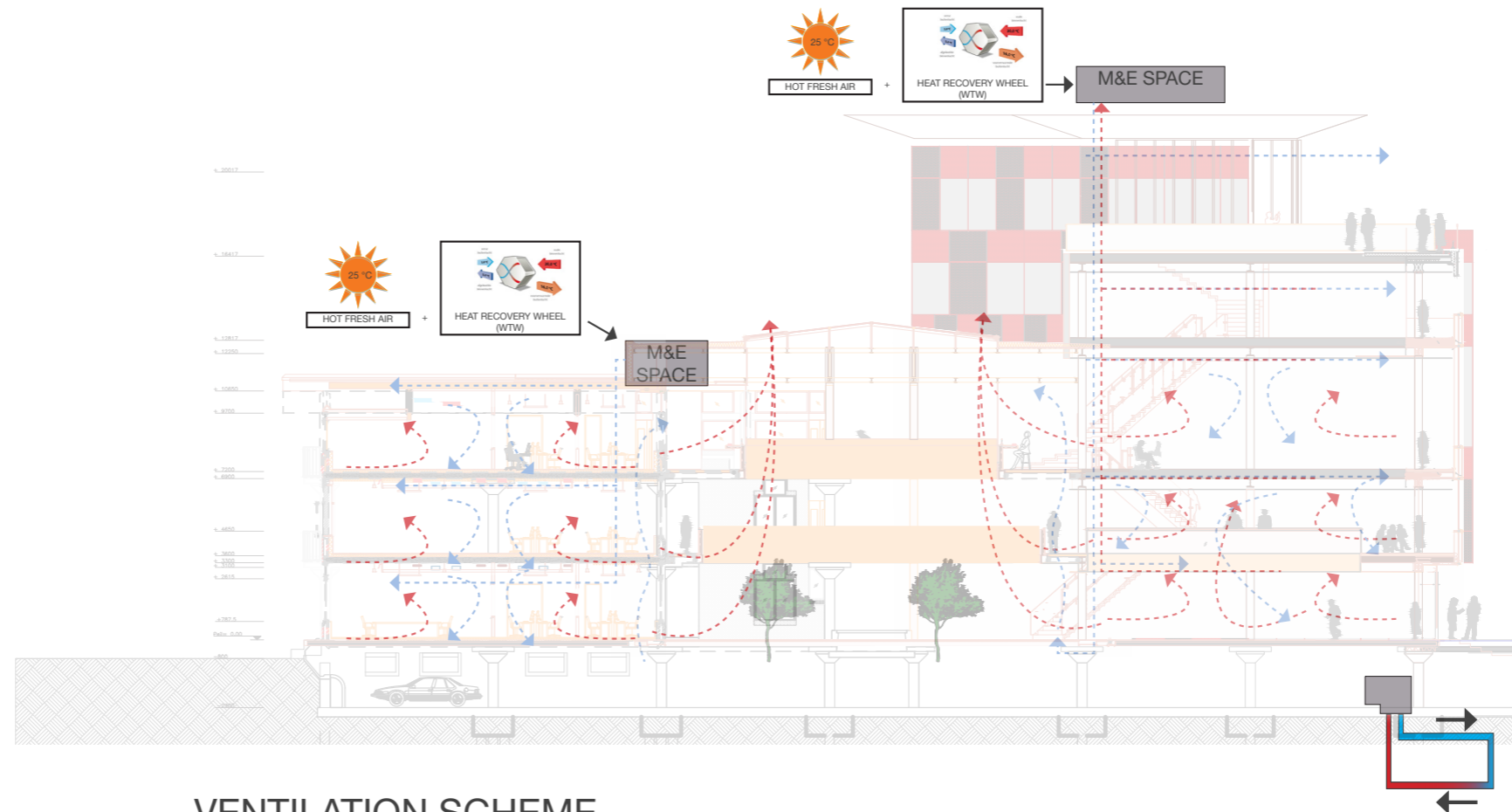


# BUILDING SUSTAINABILITY | CLIMATE CONTROL

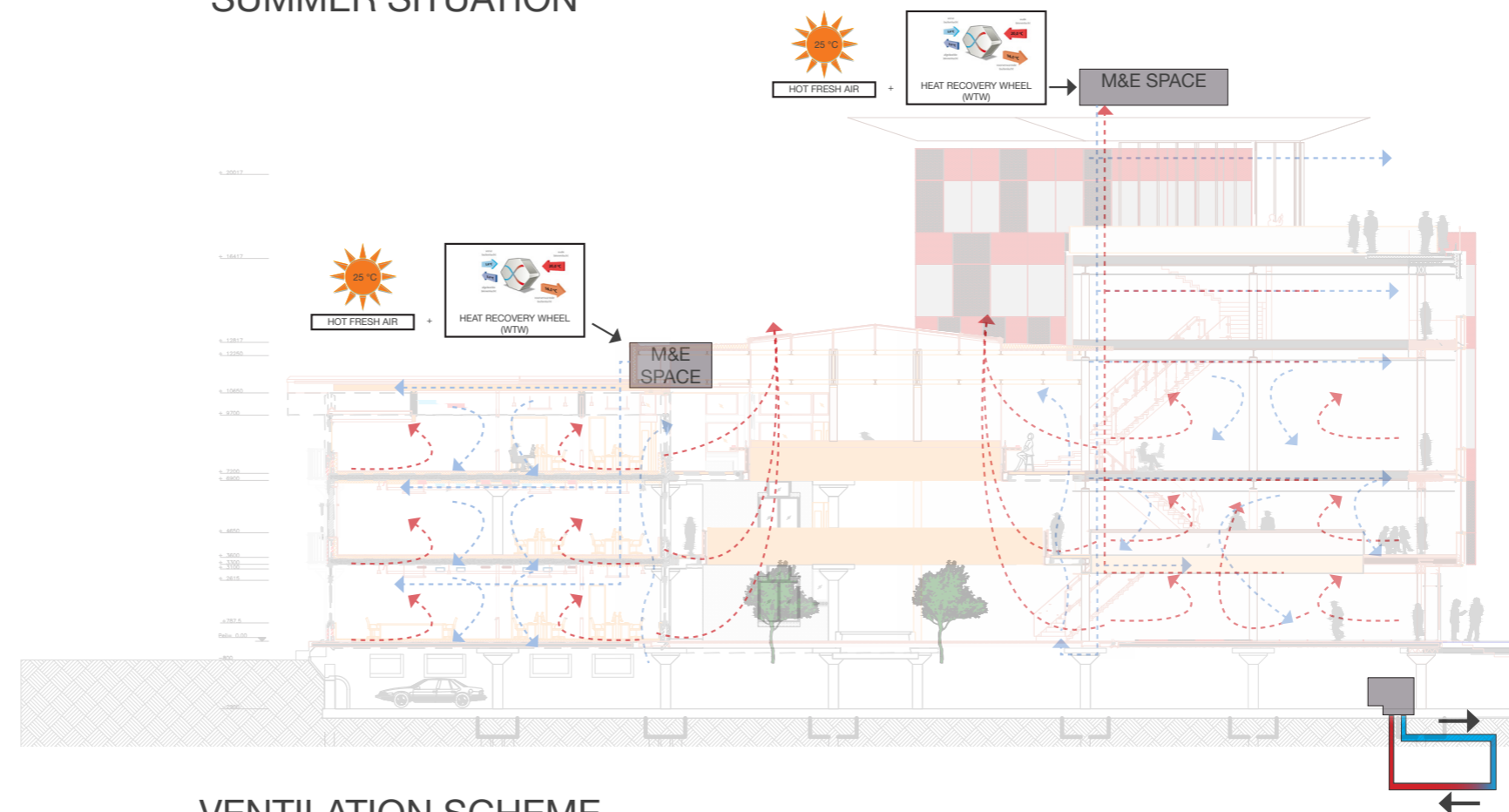
FLOOR HEATING THROUGH  
GEOTHERMAL ENERGY  
(GROUND SOURCE HEAT-  
ING AND COOLING)

HEAT RECOVERY SYSTEM  
(WTW) | AIR SUPPLY HEAT-  
ING AND COOLING

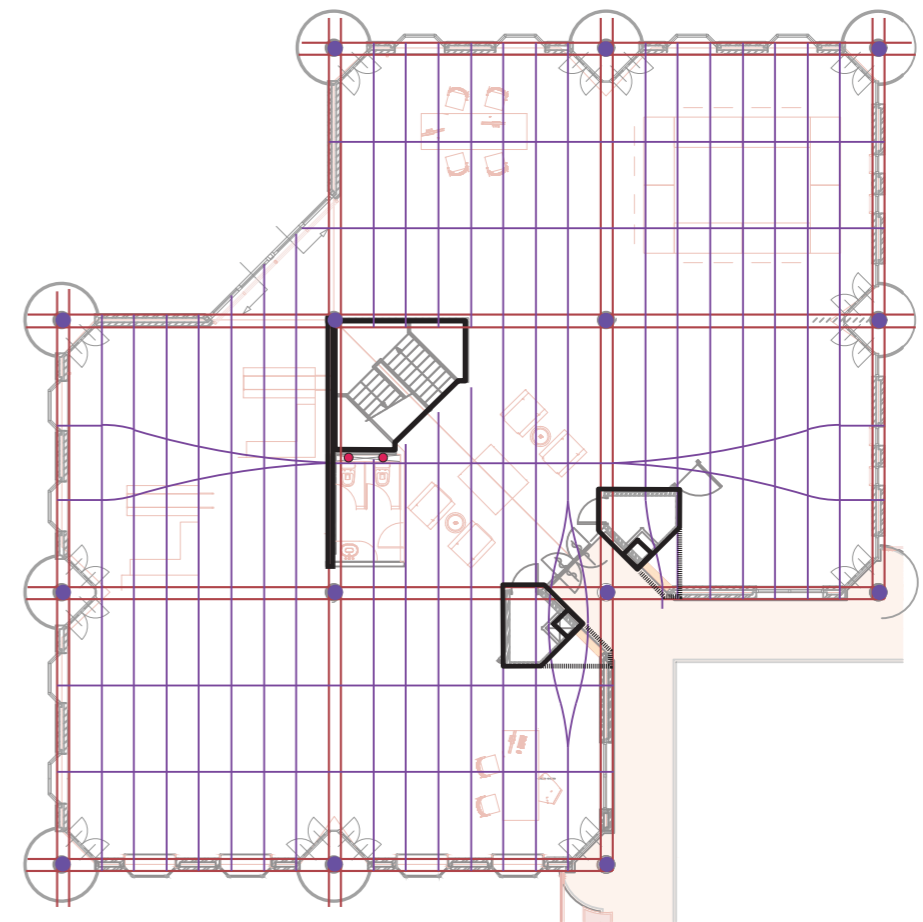
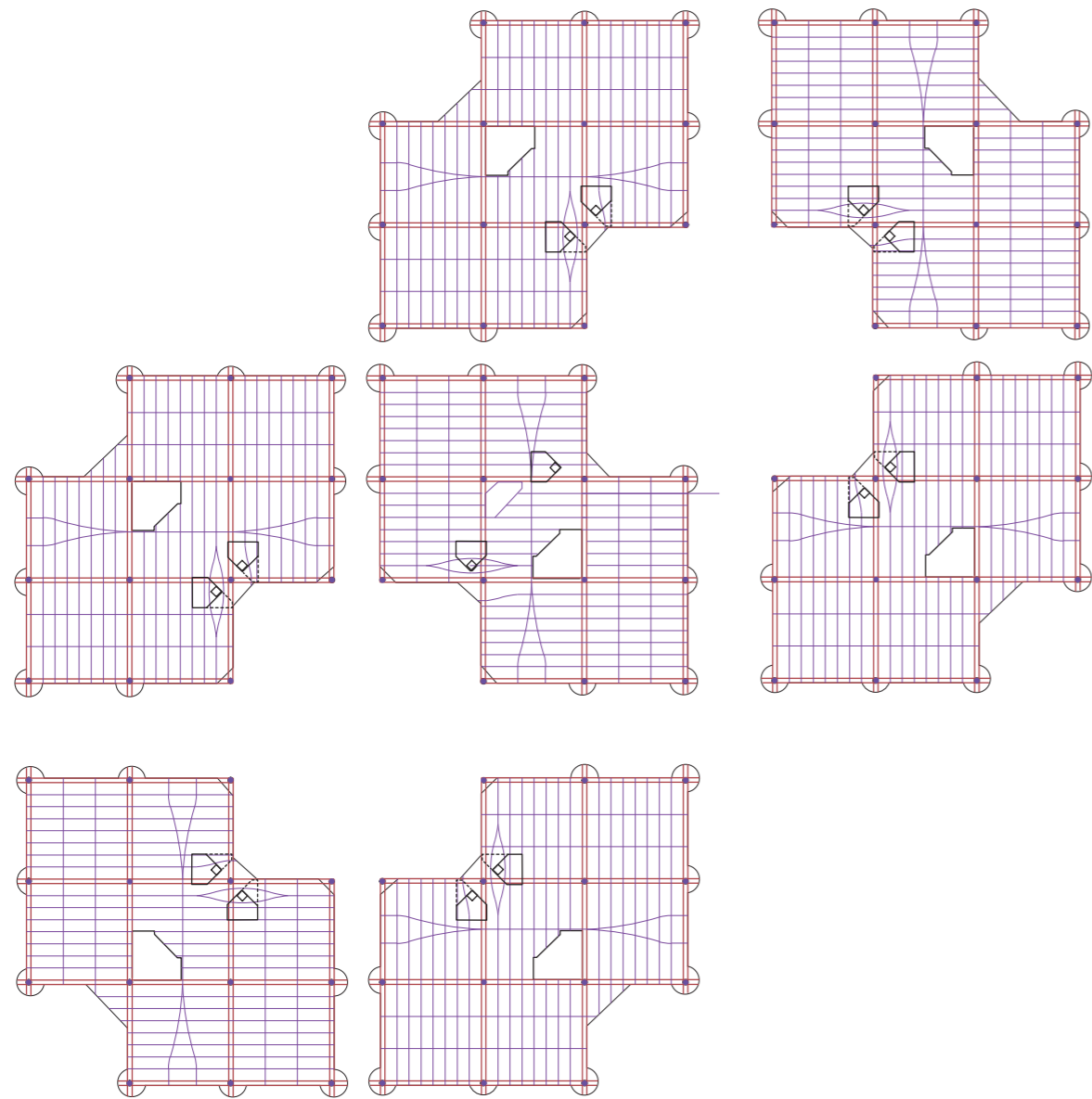
INSULATION



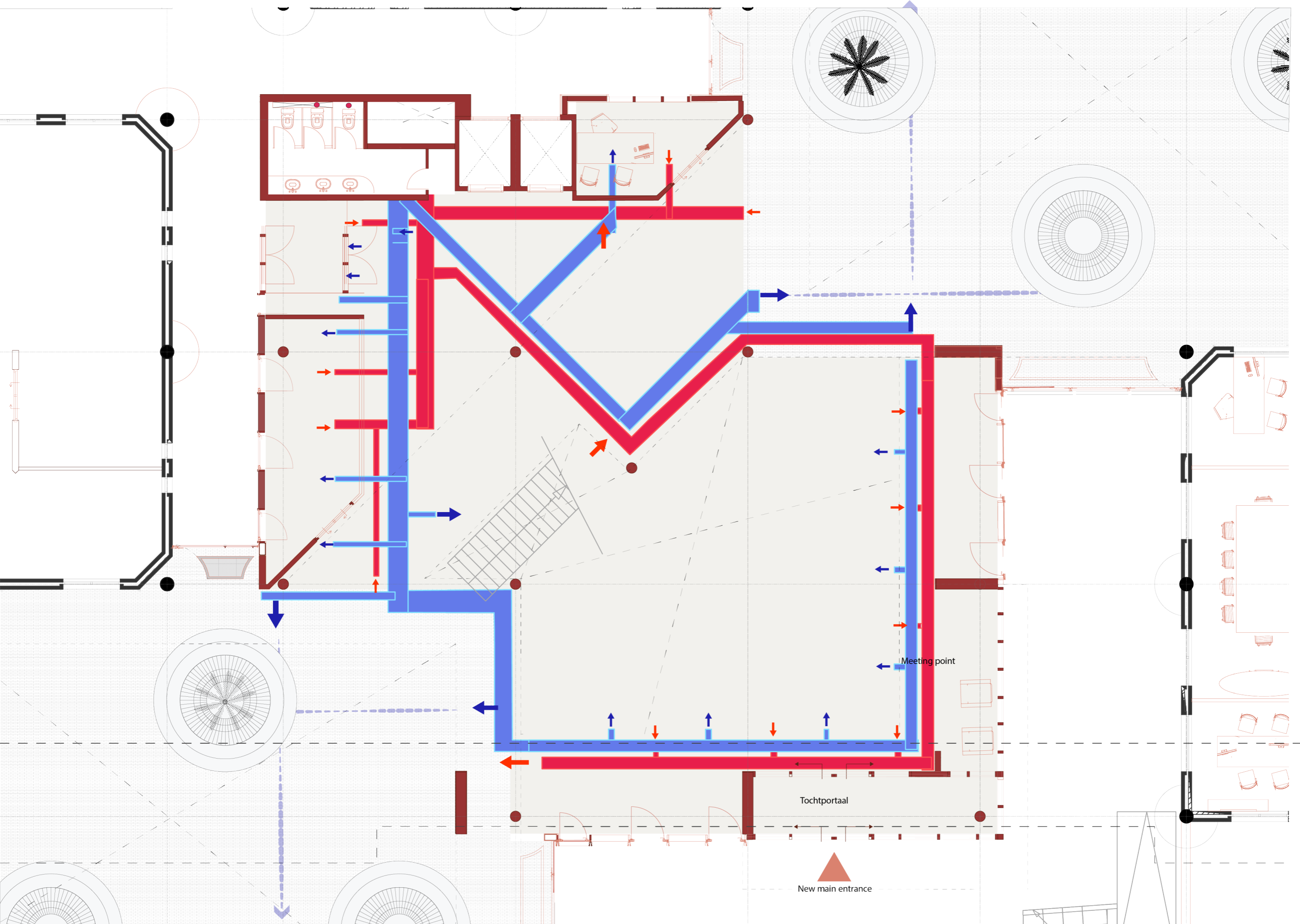
VENTILATION SCHEME  
SUMMER SITUATION



VENTILATION SCHEME  
WINTER SITUATION



- primary steel reinforcement
- secondary steel reinforcement
- mushroom columns
- make new installation rooms slightly larger
- new holes in between steel reinforcement for toilets

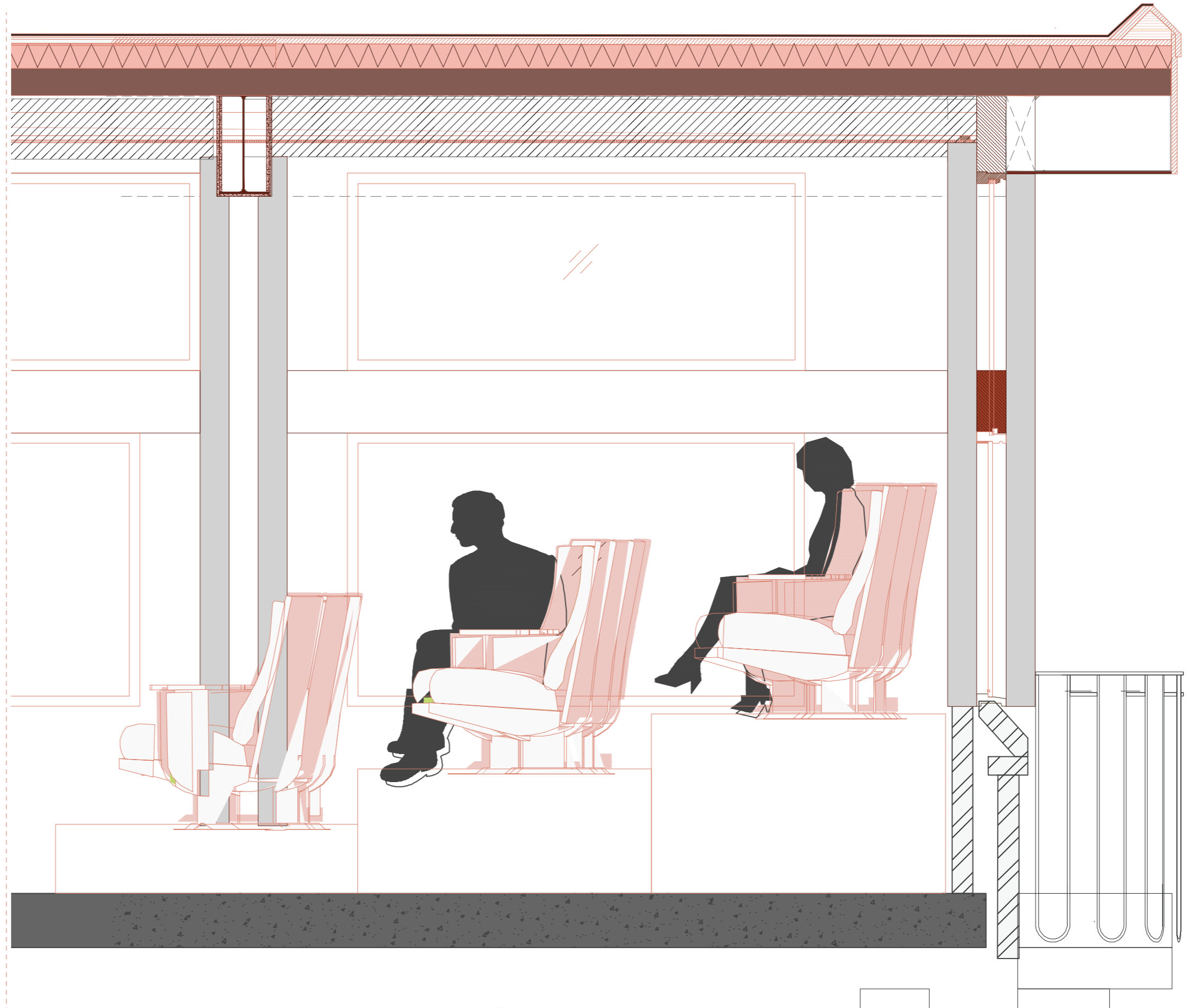


Tochtportaal

Meeting point

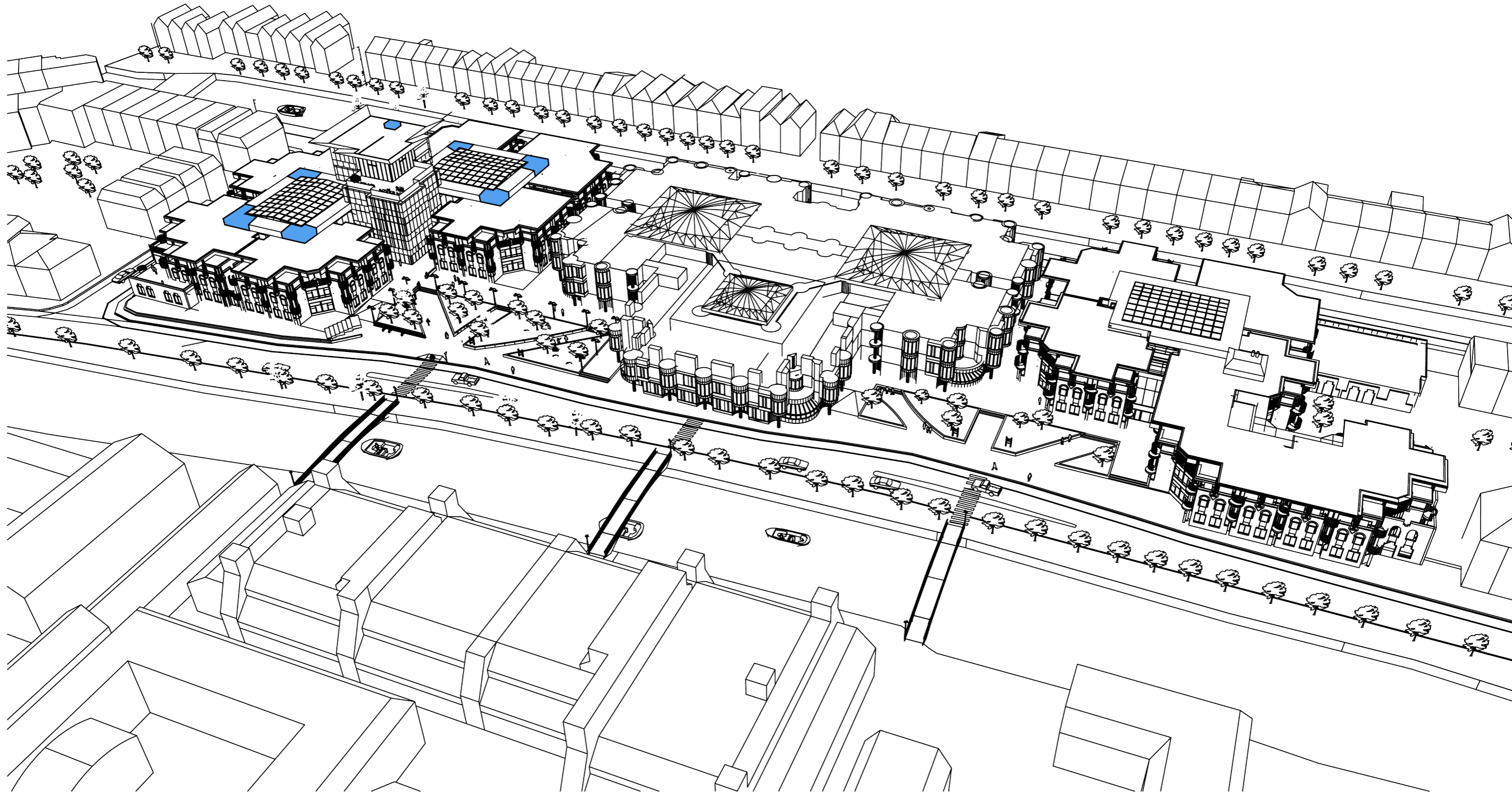
New main entrance

Detail 1:10 Gyploc sheets Beam coverage





roof installations

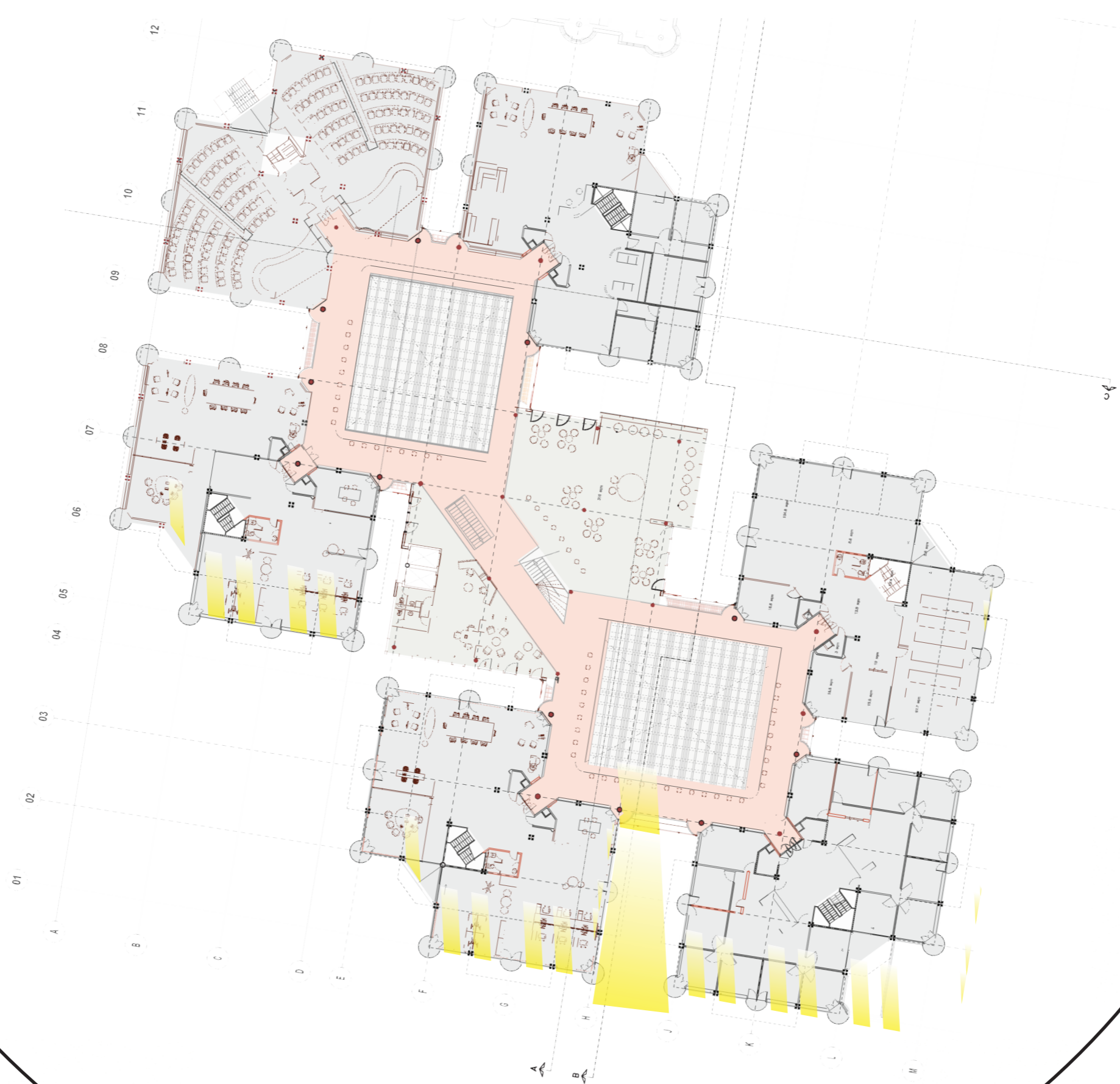


summer solstice  
(juni)

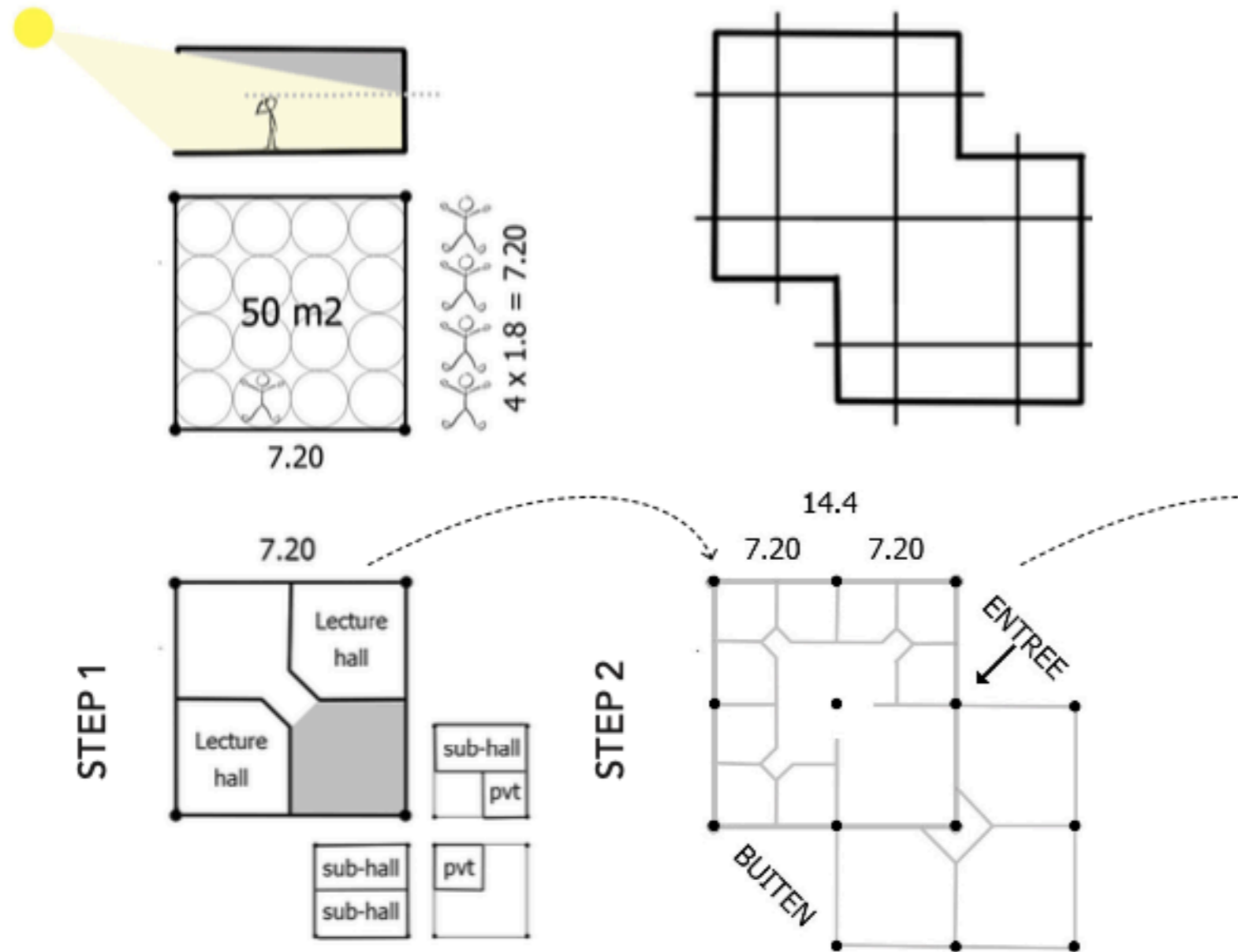
22:00u

4:00u

13:00u



Step 2 continued: Positioned in the overlap of the squares, is an internal space without daylight but surrounded by the possible programmatic infill. The benefit of 2 overlapping squares (instead of 4 squares next to each other) is that there is more daylight entering the rooms (perimeter is enlarged). The middle square is now used for circulation and not for people to work in.



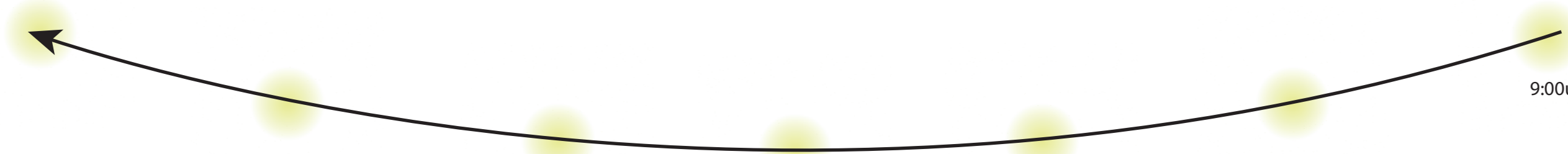


winter soltice  
(december)

17:00u

9:00u

13:00u



Summer solstice (June)  
60 degrees

- + 20017
- + 16417
- + 12817
- + 12250
- + 10650
- + 9700
- + 7200
- + 6900
- + 4650
- + 3600
- + 3300
- + 3100
- + 2615
- +787.5
- Peil= 0.00
- 800
- 2900



+ 20017

+ 16417

+ 12817

+ 12250

+ 10650

+ 9700

+ 7200

+ 6900

+ 4650

+ 3600

+ 3300

+ 3100

+ 2615

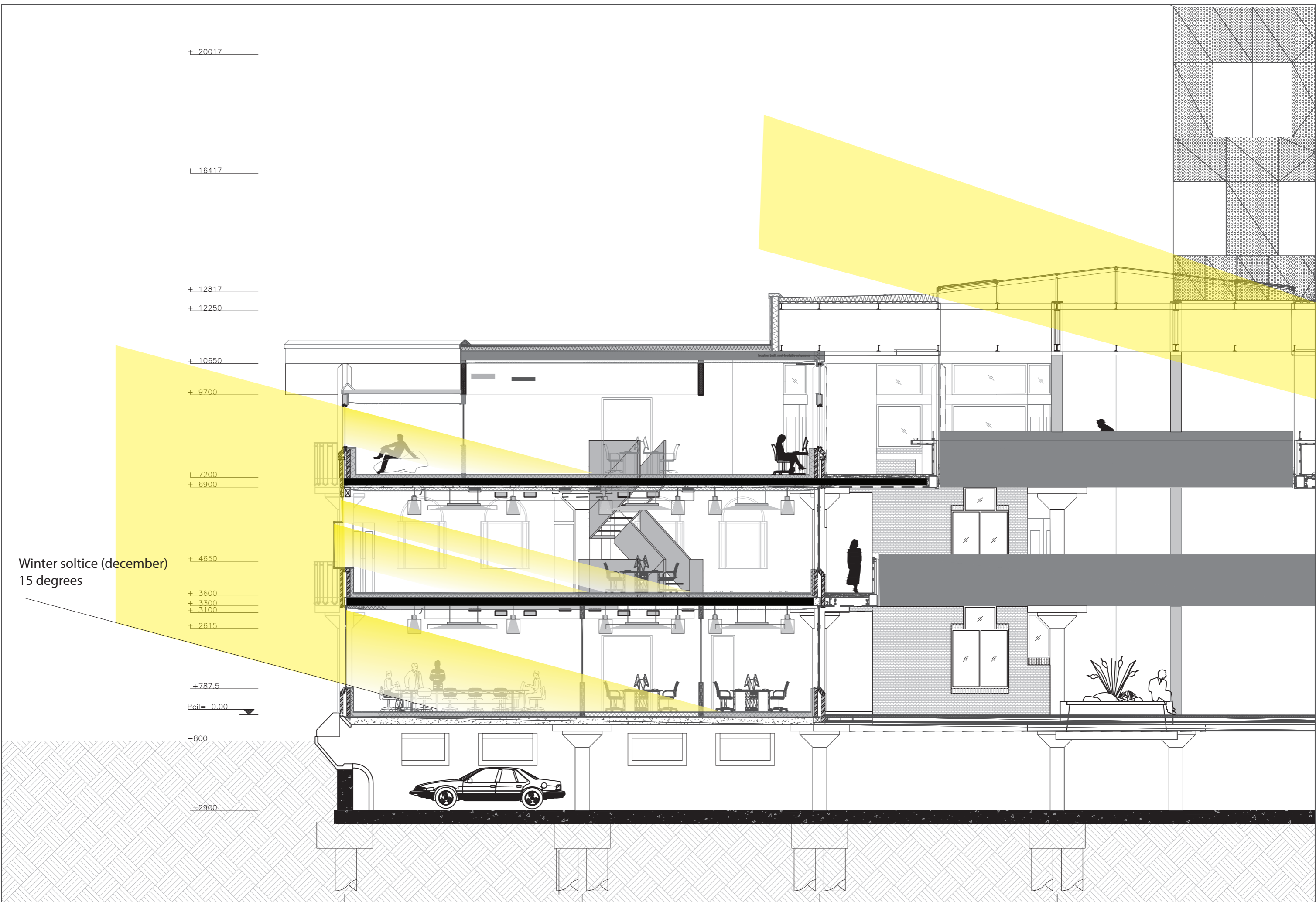
+787.5

Peil= 0.00

-800

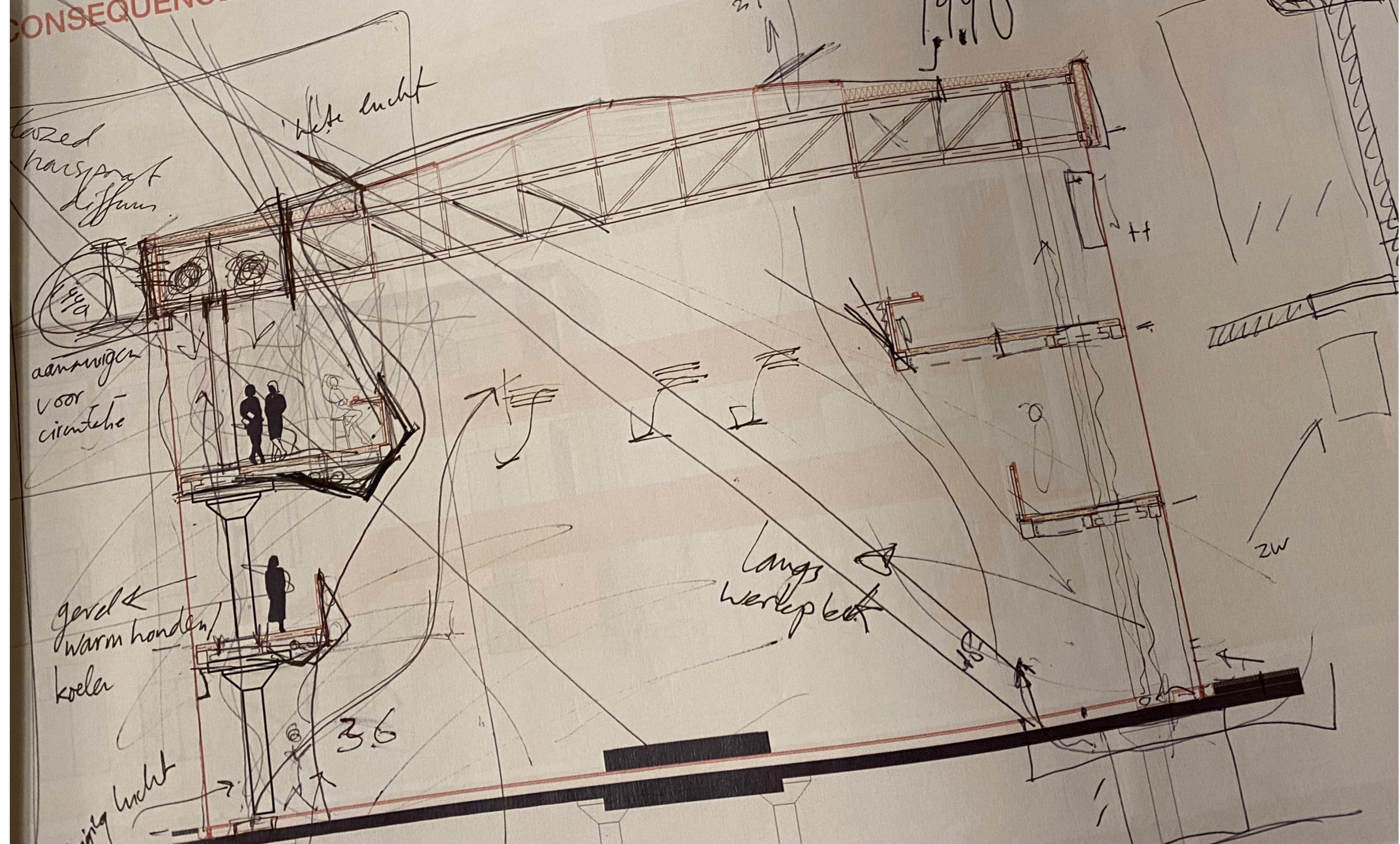
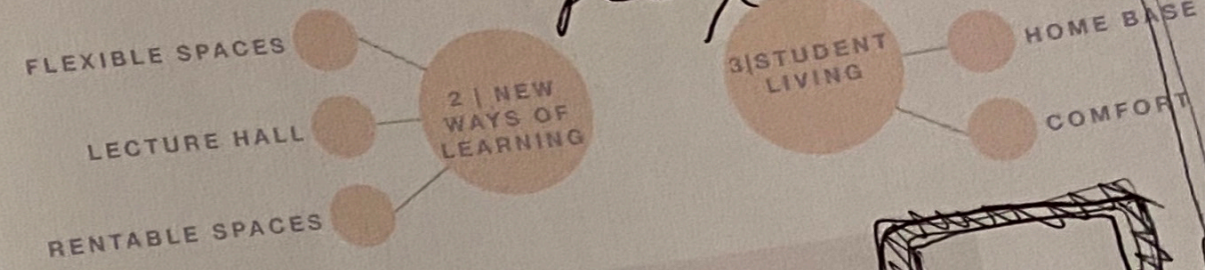
-2900

Winter solstice (december)  
15 degrees



art.  
Lustlicht  
leves lichtig  
CONSEQUENCES | NEW COLUMN CARRIES TRUSS

existing  
trusses!



tafel  
kapspruit  
diffuus

Wete lucht

1440

aanwijzen  
voor  
circuit

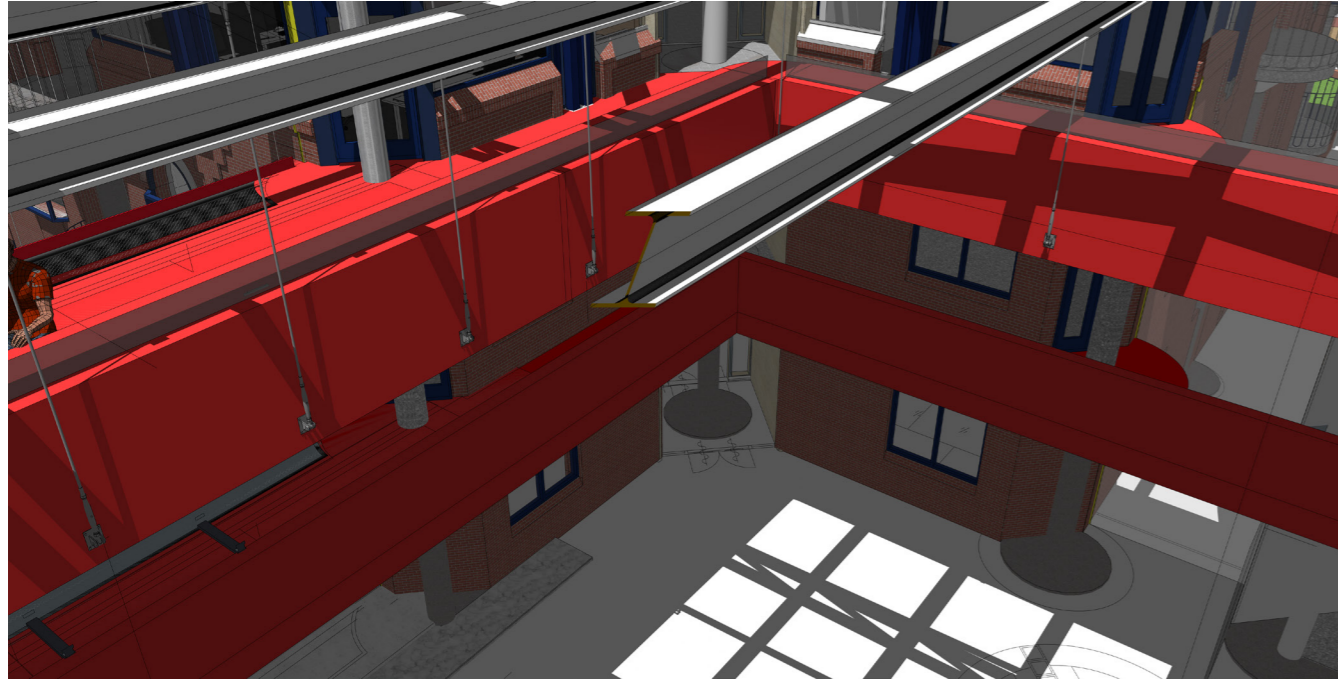
gevel  
warm honden  
koeler

36

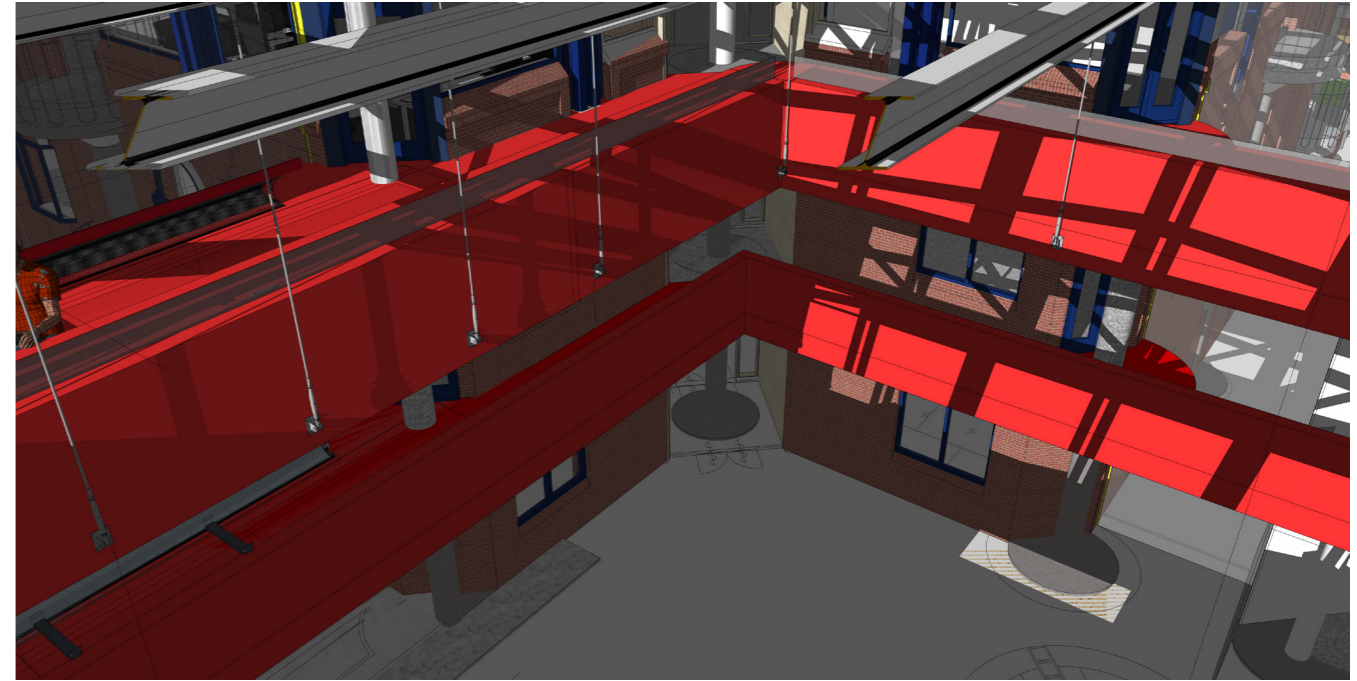
Lange  
werkpak

ZW

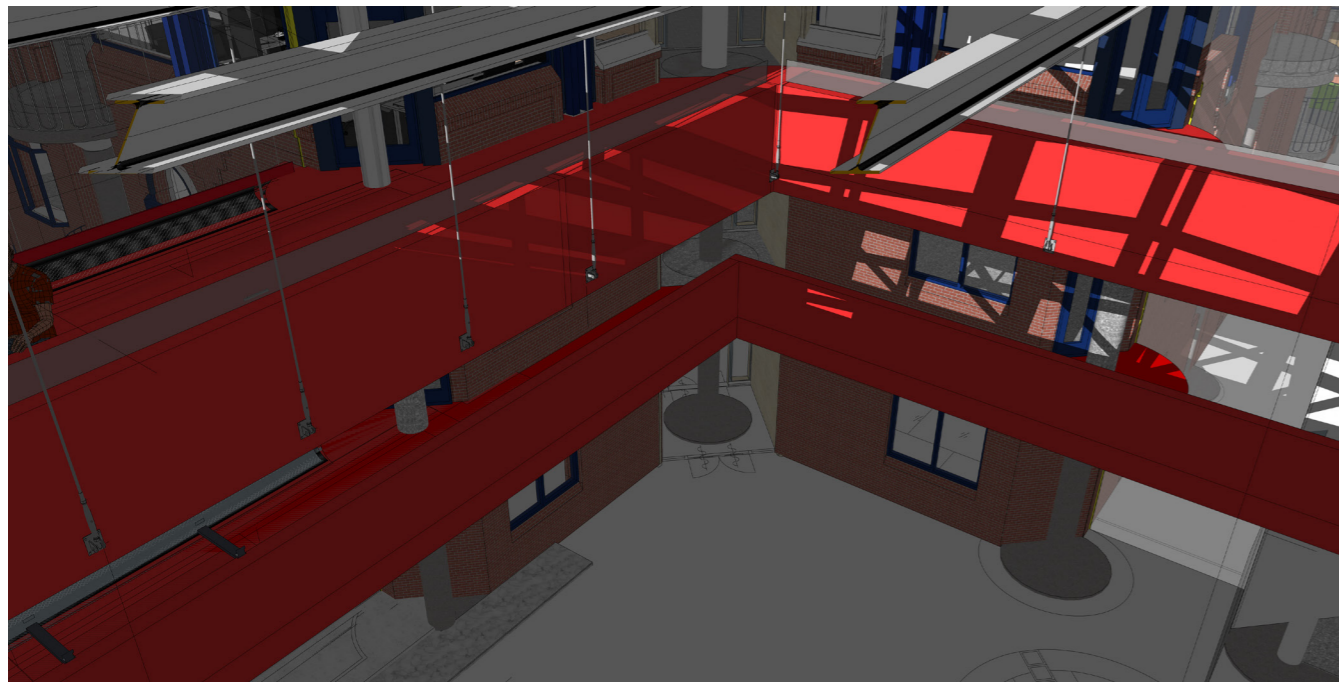
ingly lucht



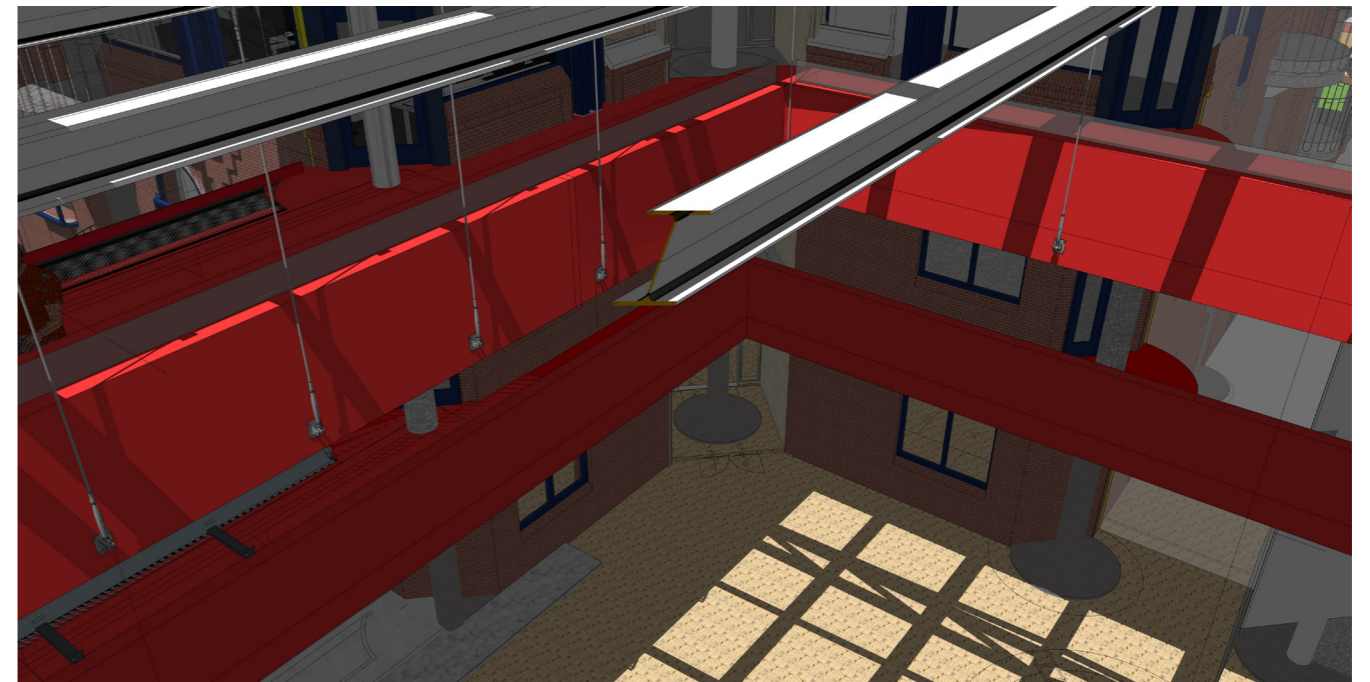
summer smaller roof opening



winter wider roof opening



winter smaller roof opening



summer wider roof opening