

An architectural rendering of a modern building complex in a winter setting. The main building is tall and has a unique, stepped design with many balconies. It is surrounded by snow-covered trees and a frozen pond. Two people are walking in the foreground on a path. The sky is overcast and blue.

Gullhaug Torg 2A

04.12.2019 — Pål Eide Hasselberg

Illustration: Snøhetta / MIR

Snøhetta 

Aktører

- **Avantor**
- **Skanska**
- **Snøhetta**
- **Brekke og Strand**
- **Erichsen og Horgen**
- **Fokus Rådgiving**
- **Sintef**
- **Futurebuilt**
- **Windowmaster**

Tripple zero ambisjon

- **Null tilført energi til oppvarming**
- **Null tilført energi til kjøling**
- **Null mekanisk ventilasjon til kontordelen (nesten null til bolig)**

Strategier for naturlig klimatisering :

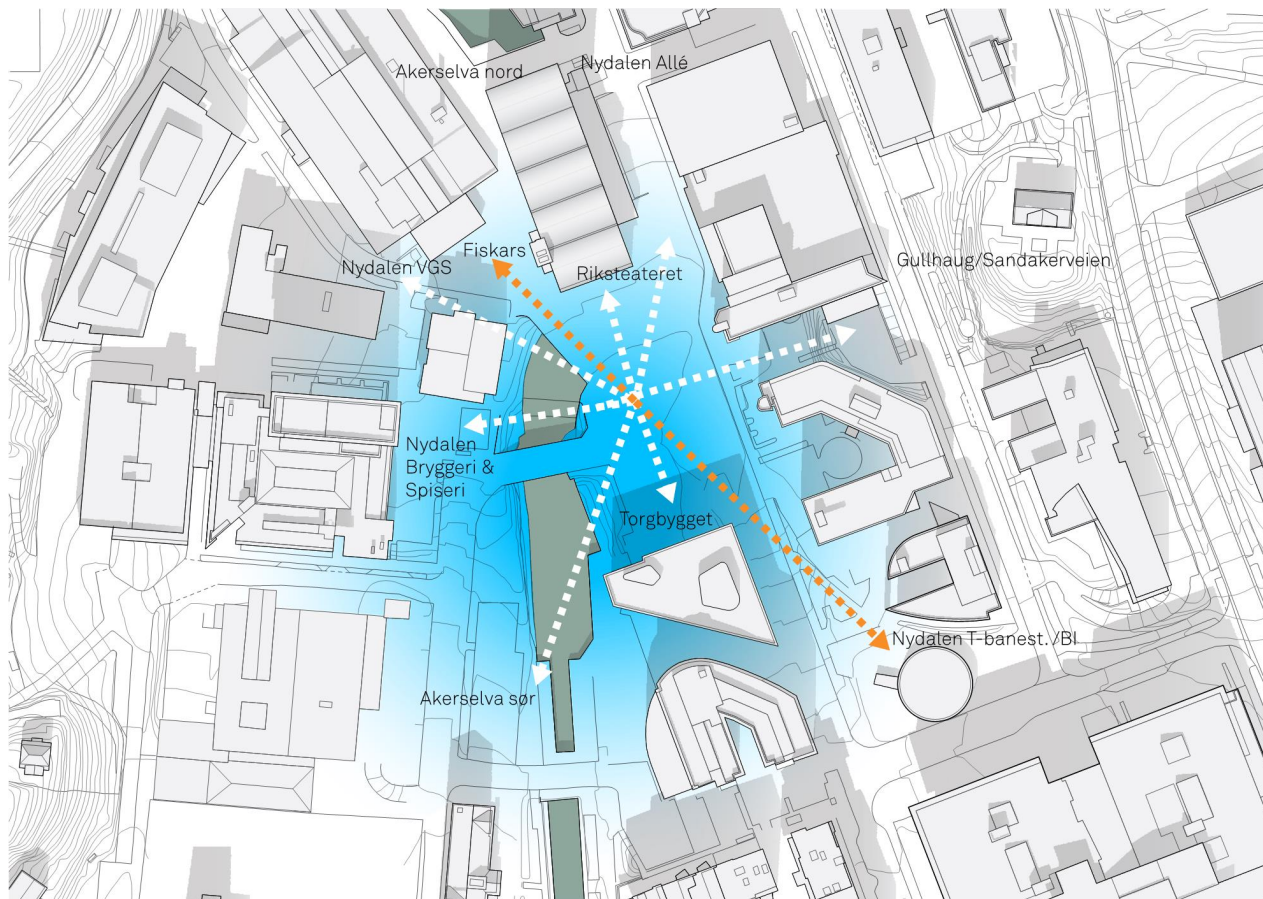
- Naturlig ventilasjon
- Naturlig oppvarming (lowex)
- Naturlig kjøling (lowex)
- Naturlig /passiv solavskjerming
- Dagslys

The background is a blue-toned map showing building footprints and street layouts. Overlaid on this map is a diagram consisting of a central white dot from which ten white dashed arrows radiate outwards in various directions, pointing towards different parts of the map.

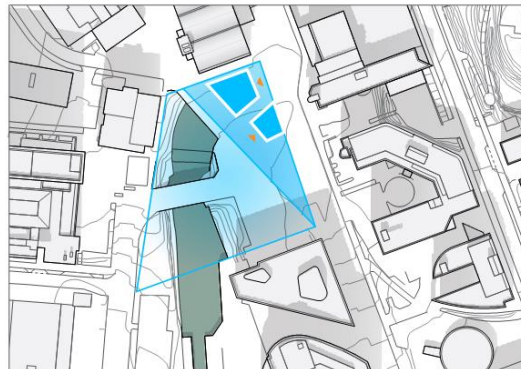
tomt- & volumstudier



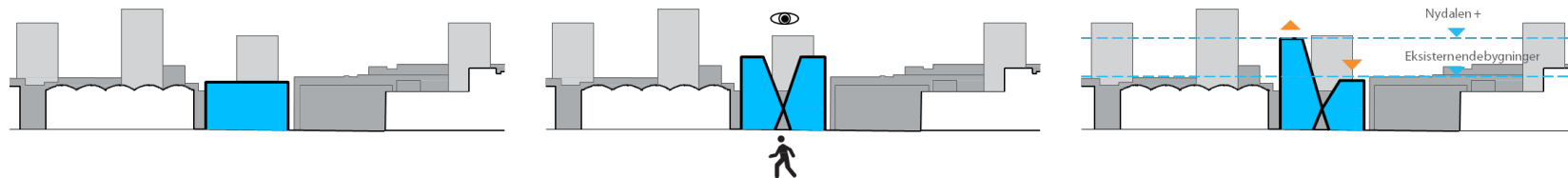




Gullhaug Torg | horisontal tilpasning



Gullhaug Torg 2A | vertikal tilpasning



Gullhaug Torg 2A| situasjonsplan



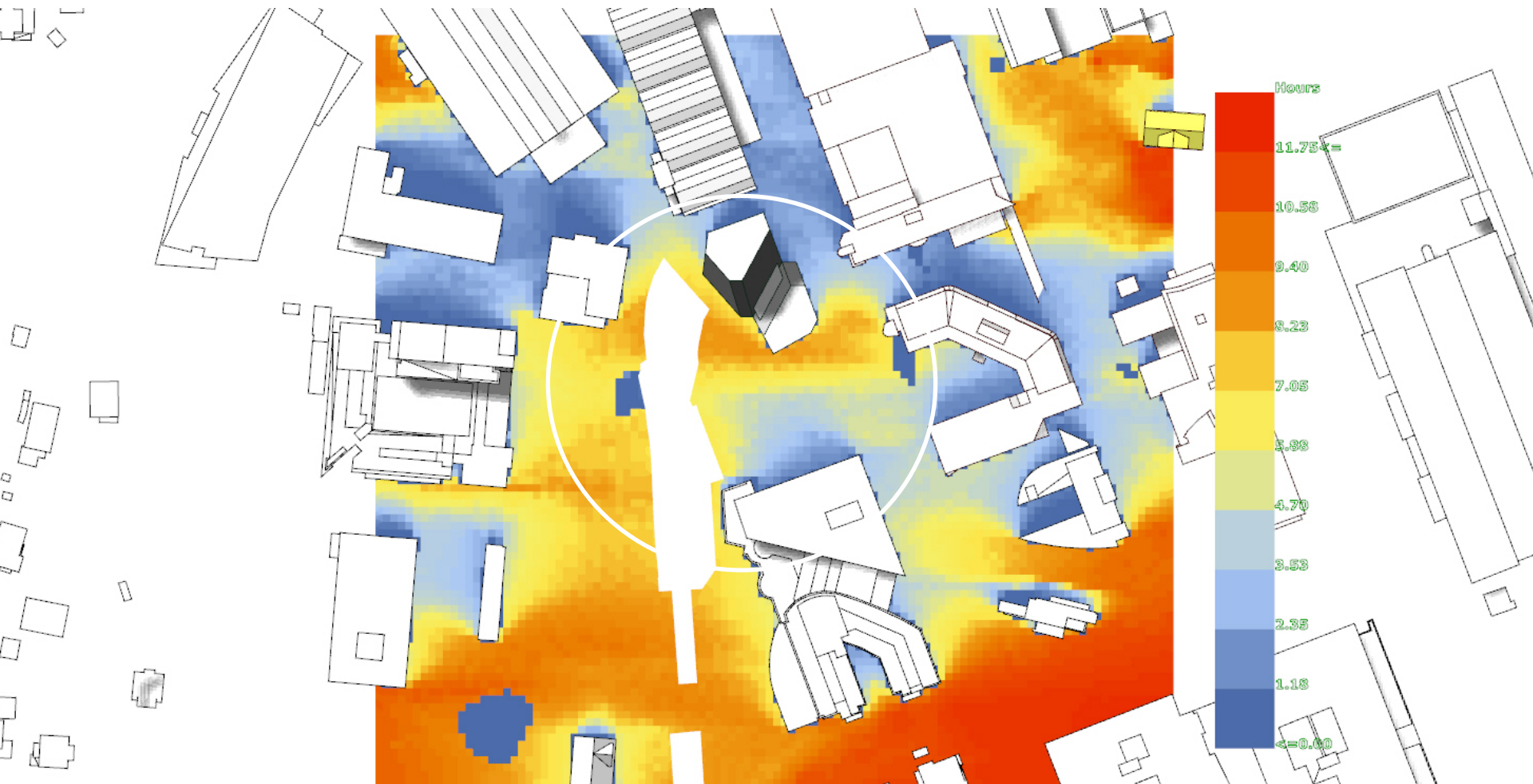
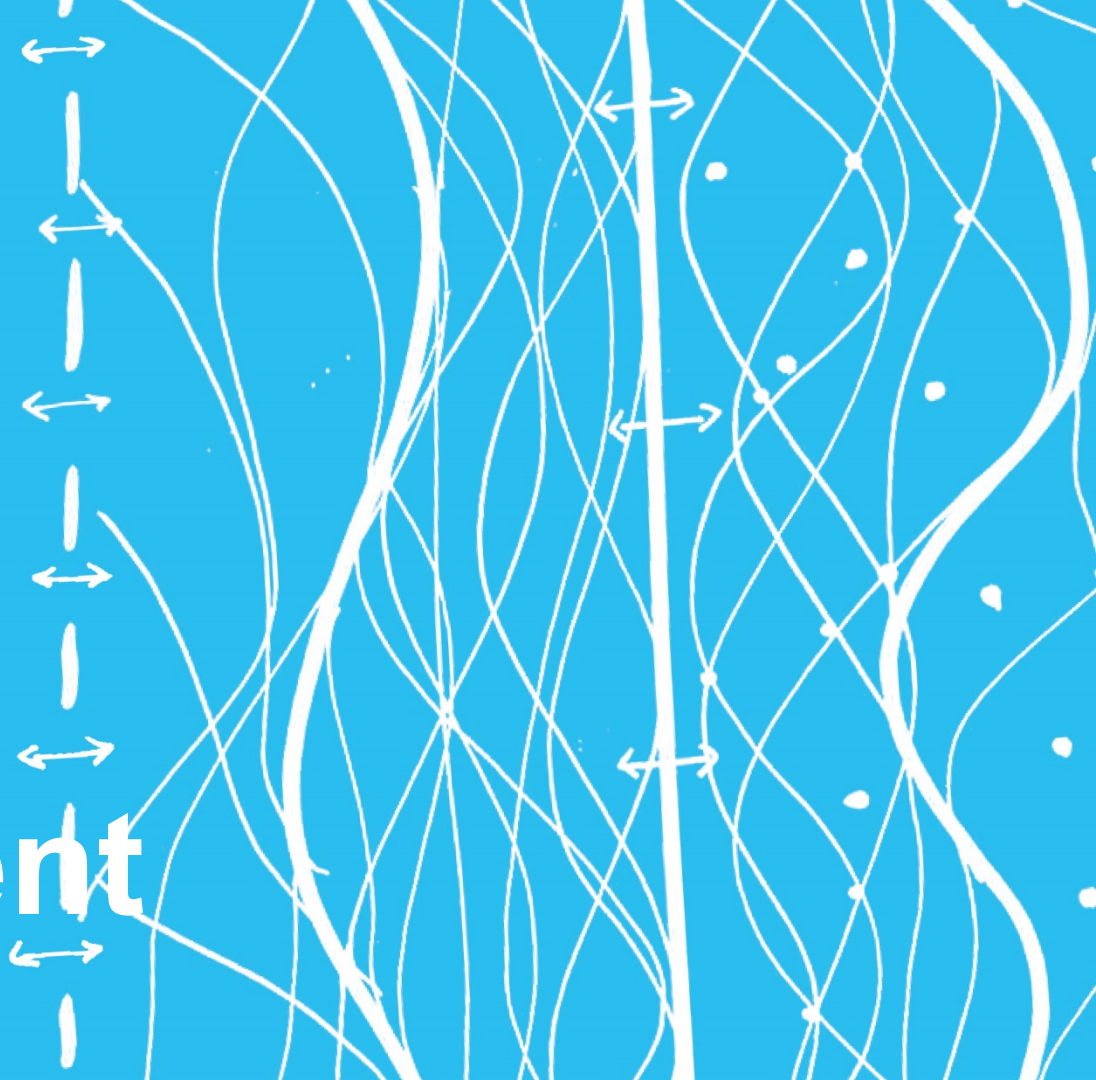






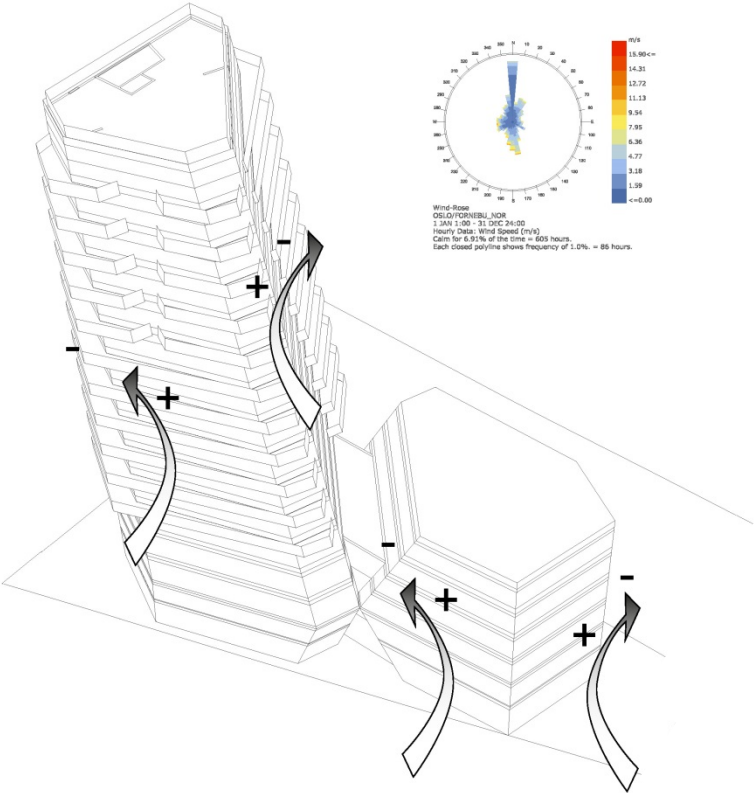
Illustration: Snøhetta / MIR

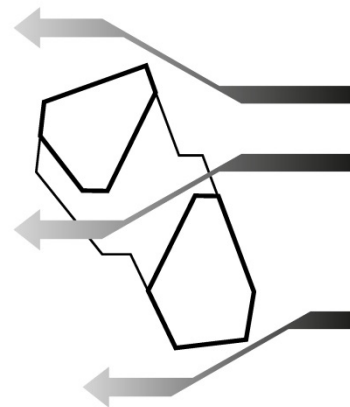
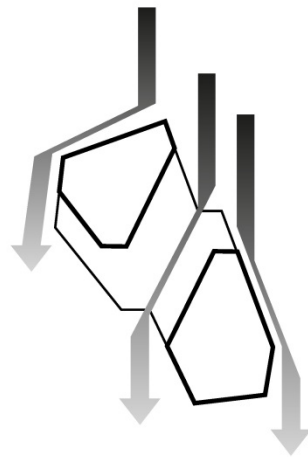
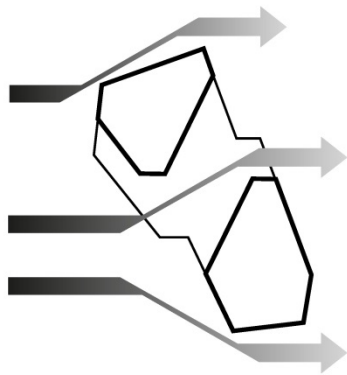
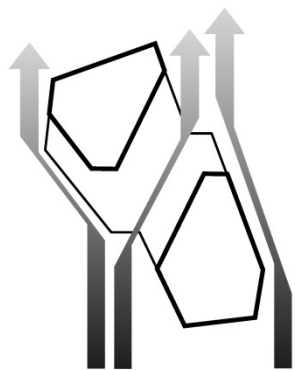
**Form
Follows
Environment**



Naturlig ventilasjon

- **Lokalt klima** (klimadata)
- **Omgivelser** (avhengighet av mikroklima og kontekst)
- **Volum** (støtte naturlig ventilasjon og funksjonsprogram)
- **Fasade** (håndtere ventilasjonsstrategi og funksjonskrav)
- **Materialer** (sundt innemiljø)

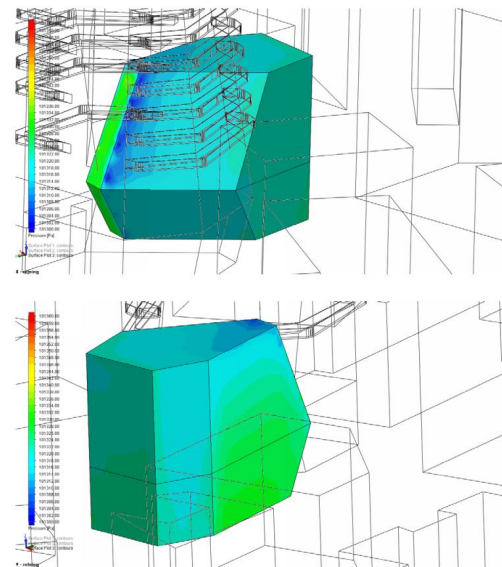
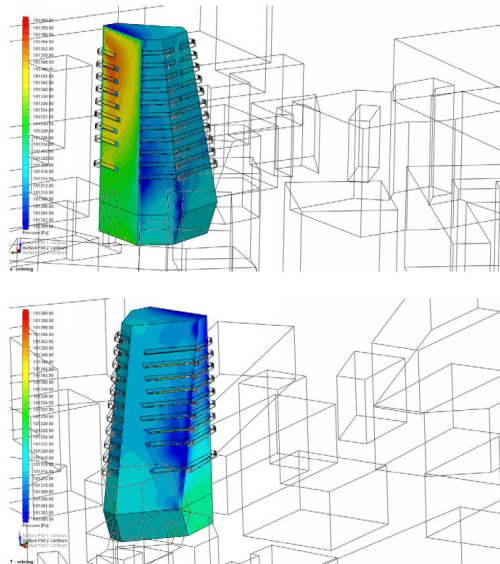


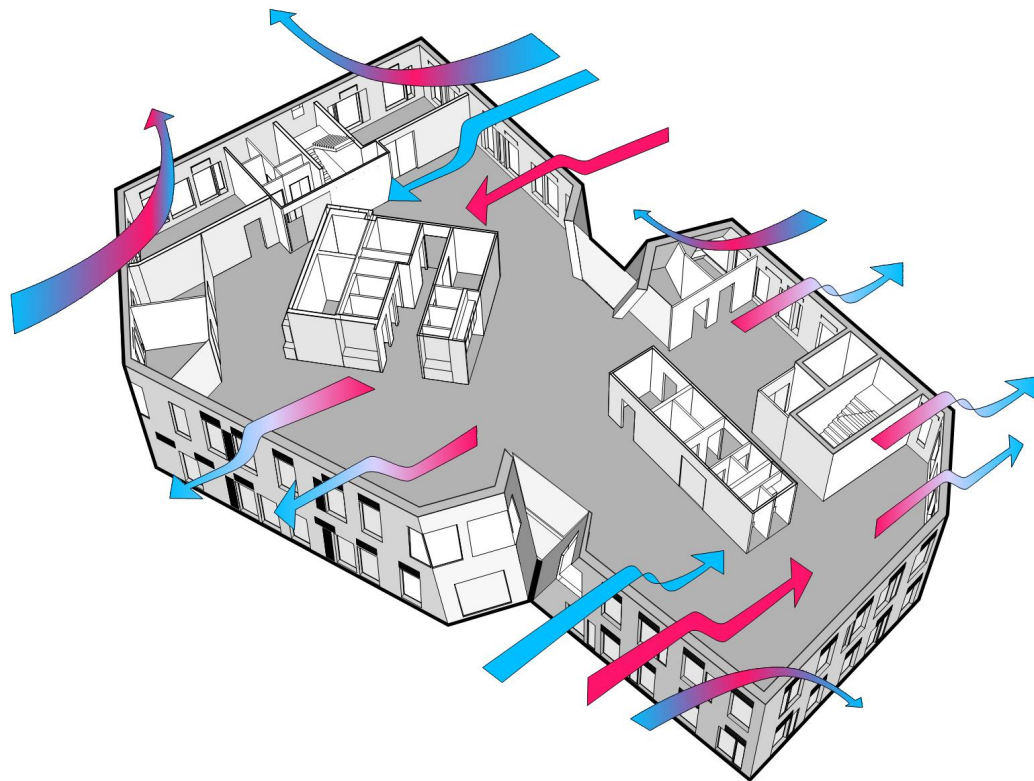


Resultater

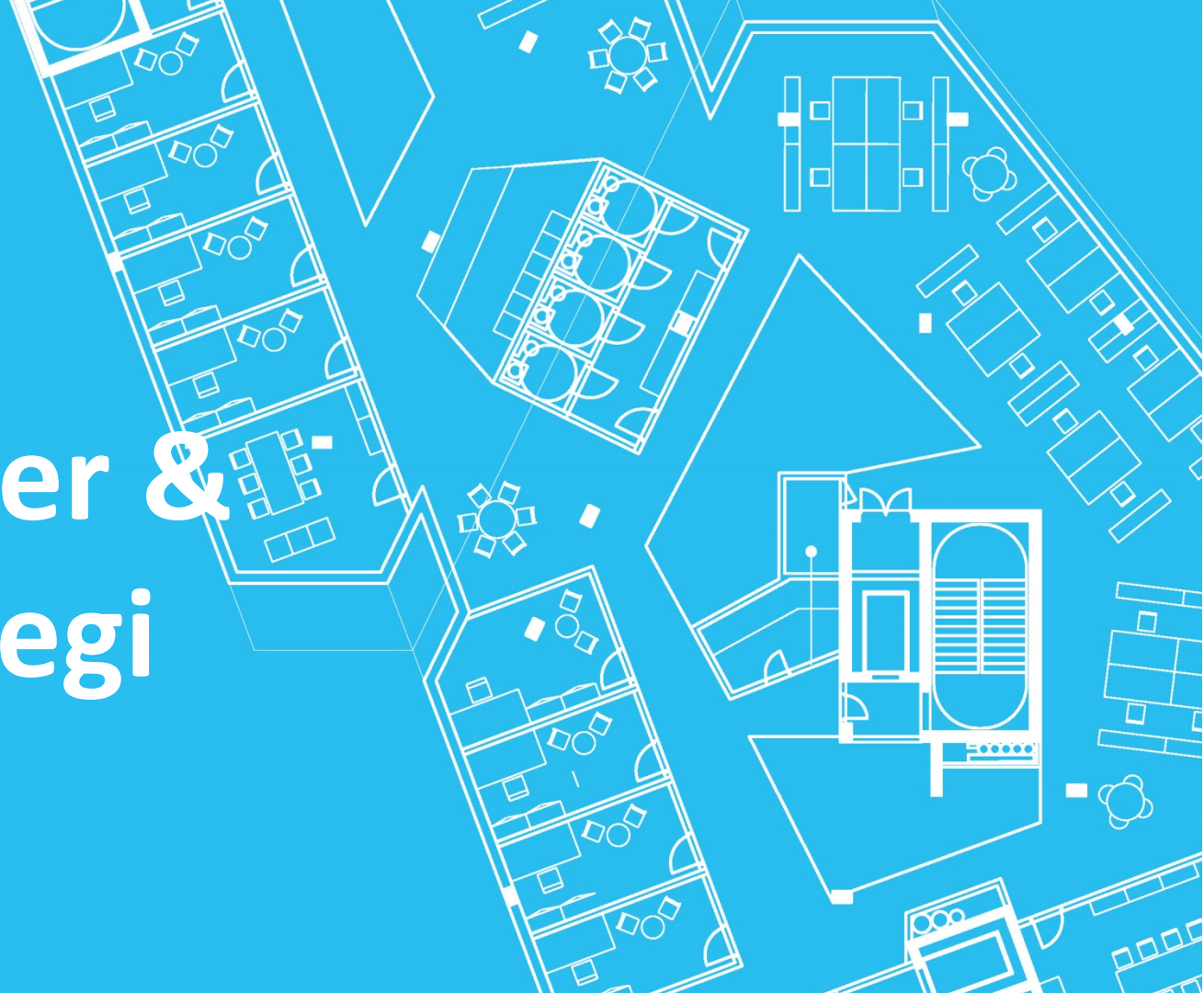
Resultatene er vist ved steady state kondisjoner, hvor der ikke længere er en yderligere forandring af resultaterne over tid.

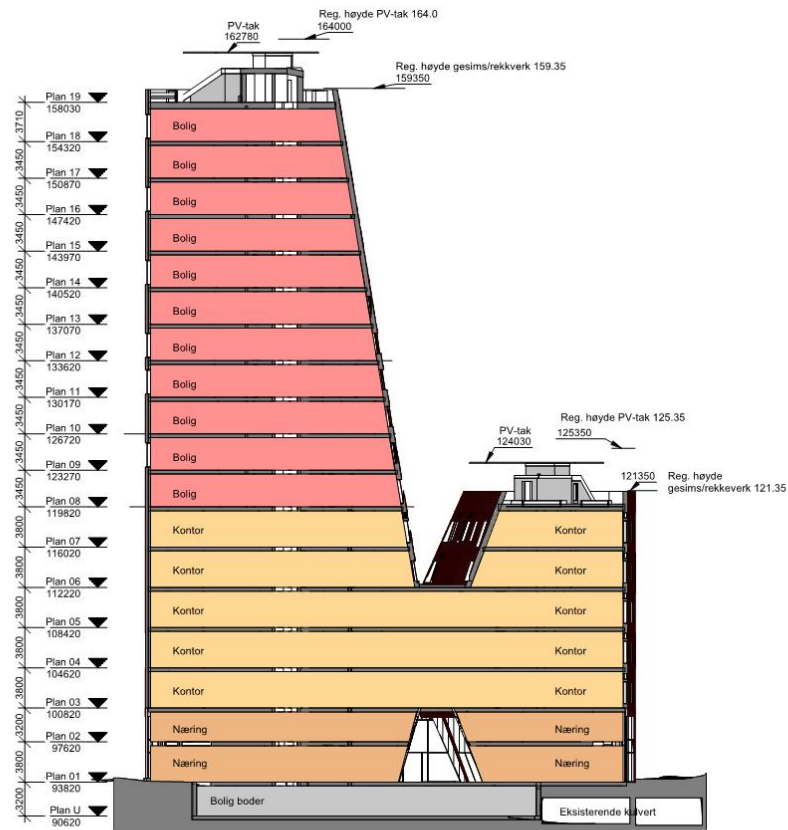
Vindretning nord – trykfordeling





funksjoner & romstrategi





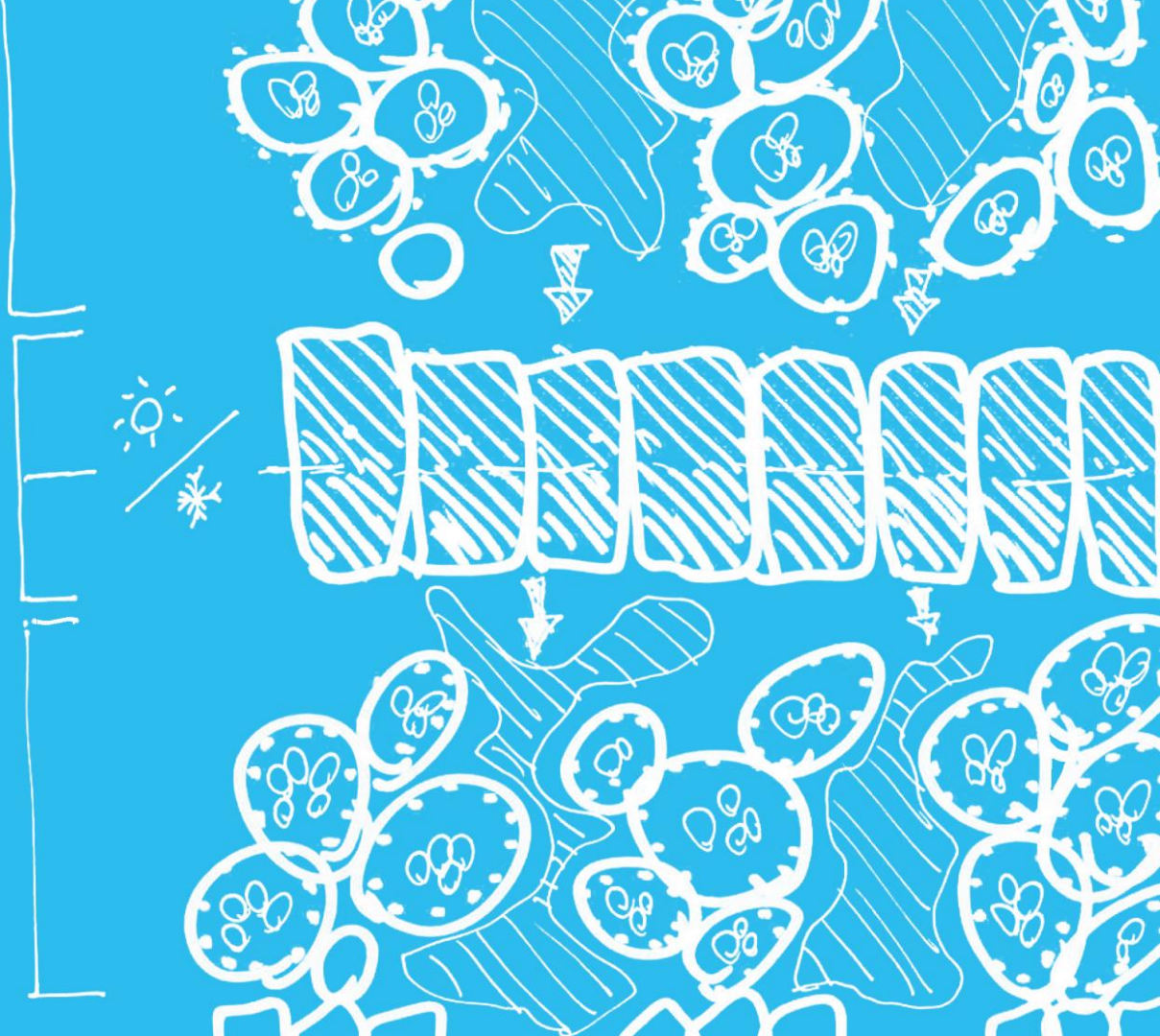
[illegible]



Illustration: Snøhetta / MIR

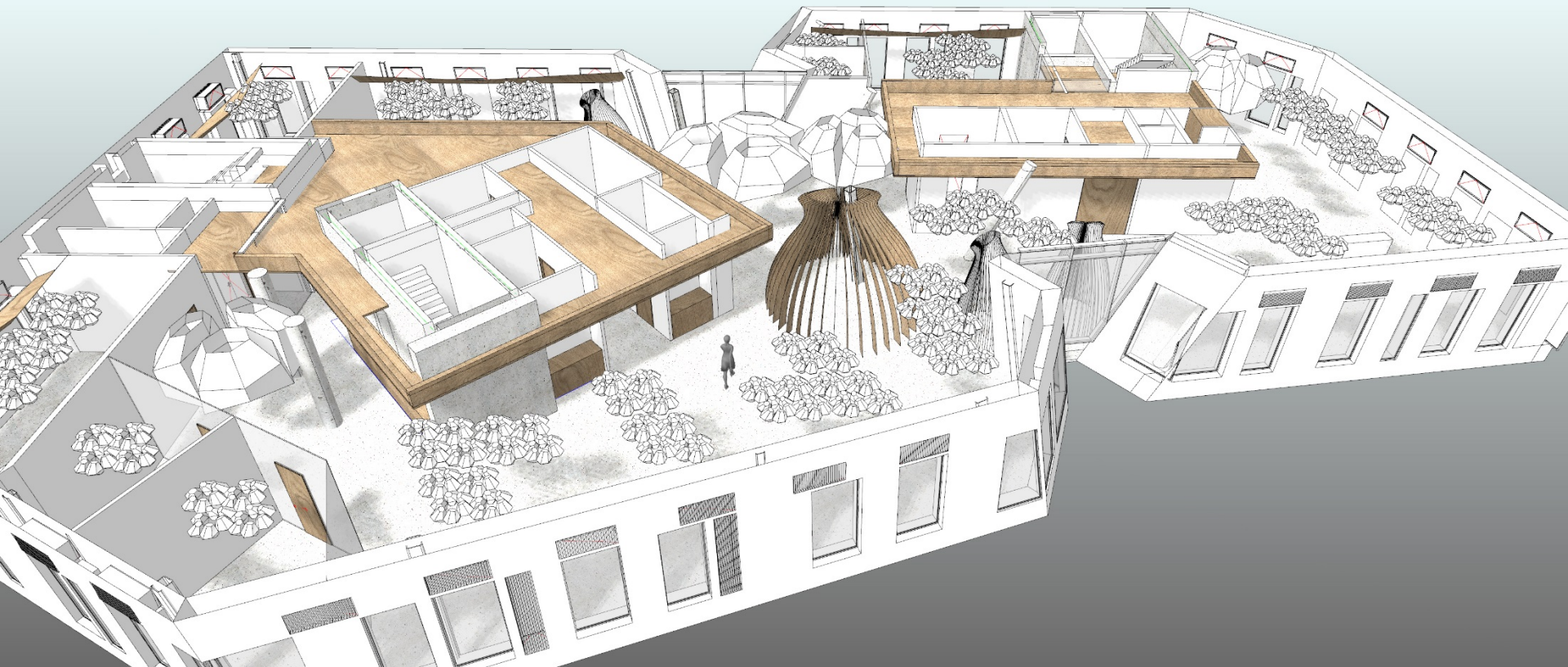
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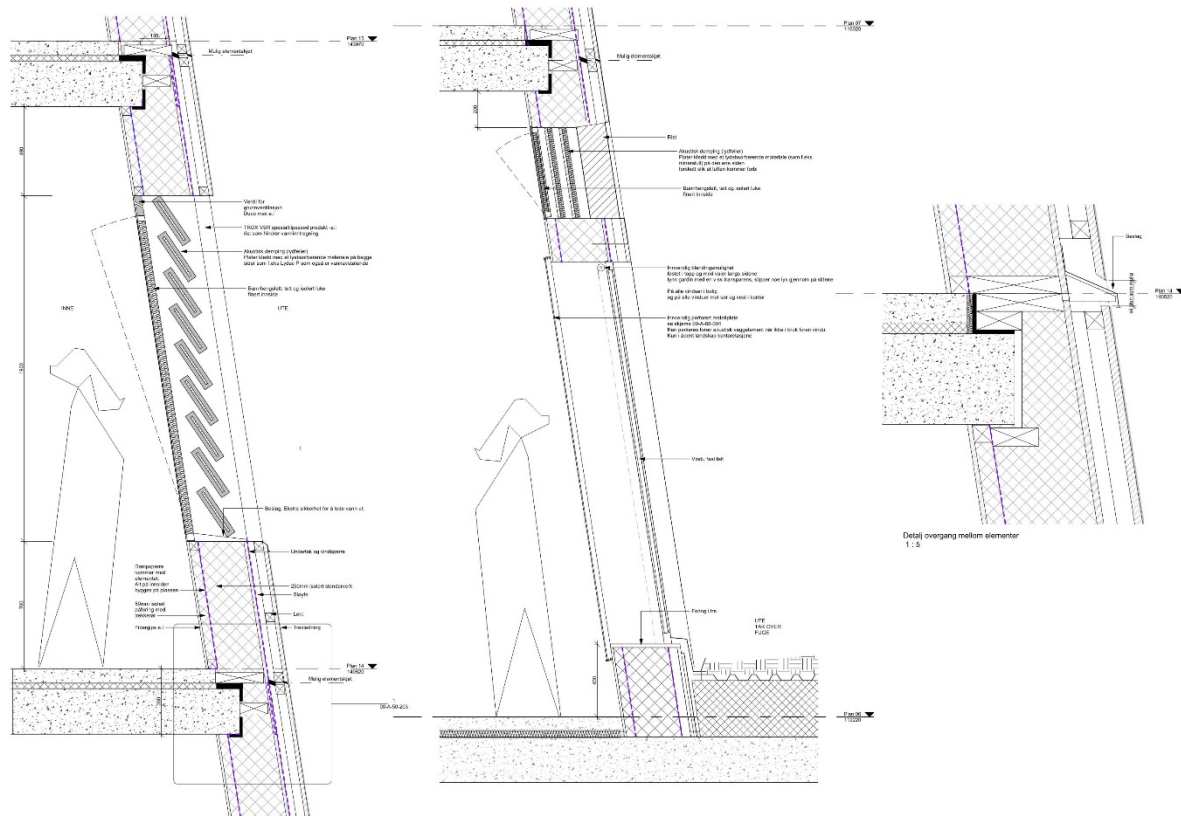
**design &
komfort**



Naturlig oppvarming og kjøling

- **Lokalt klima** (klimadata)
- **Lokal energikilde** (energibrønn og PV)
- **Volum** (sort luftvolum)
- **Fasade** (automatiske vinduer– passiv sol/ varmetap)
- **Materialer** (termisk masse)





Snitt veggtype B3 bolig med luke
1 : 10

Snitt veggtype B3 kontor m/ fast vindu og luke Trox og bunnhengslet
1 : 10



Target read



Eksemplet på intensivt endjærning i 1989

[illegible]



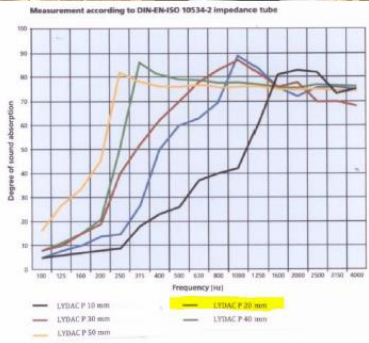
Technical Data	
Colour	foam: anthracite, surface: black, medical grey
Fire behaviour DIN 75200 FMVSS 302	B<100 mm/min SE/NBR (13 mm)
Temperature stability:	-40°C to +100°C, temporarily higher.
Environmental aspect:	contains no fibres, foamed without use of CFC, physiologically safe.
Storage	cool and dry, 6 months

Navn: Akustisk absorbent A
Produkt: LYDAC P og OSB
Materiale: Lydac P =Polyurethane skum (uten CFC) og plast membran. OSB =spon og PF (fenol formaldehyd), MUPF (mel-amin-urea fenol formaldehyd) og MDI (isocyanat)
Leverandør: hjemmelaget
Produseres: Lydac P = Danmark
Vekt: Ca 8kg totalt, 1,3kg pr lamell

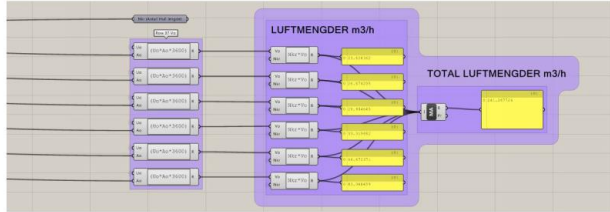
Lydac P produktdata

Tabell 33
Lydabsorpsjonskoeffisienten for OSB-plater iht. NS-EN 13986

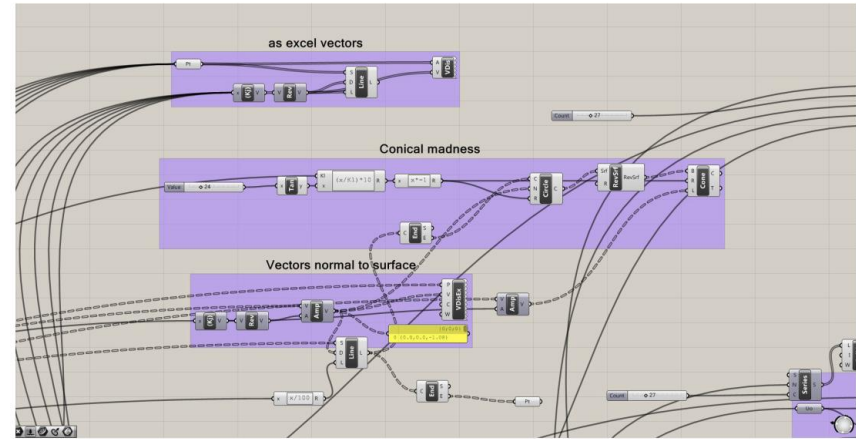
Lydabsorpsjonsfaktor	
Frekvensområde 250 og 500 Hz	Frekvensområde 1 000 og 2 000 Hz
0,10	0,25



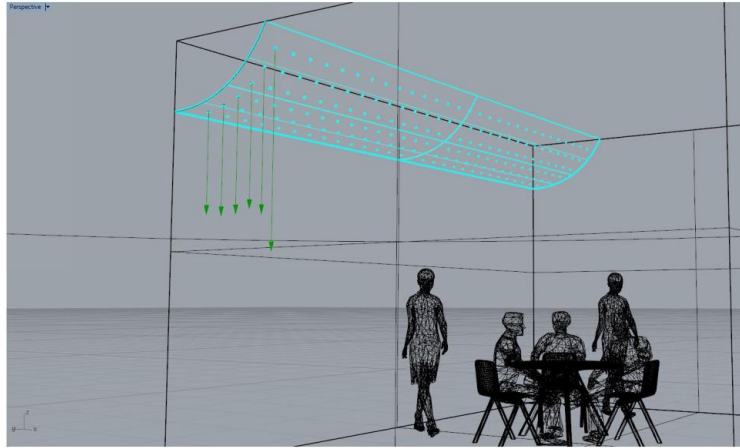
Lydac P frekvensmålinger



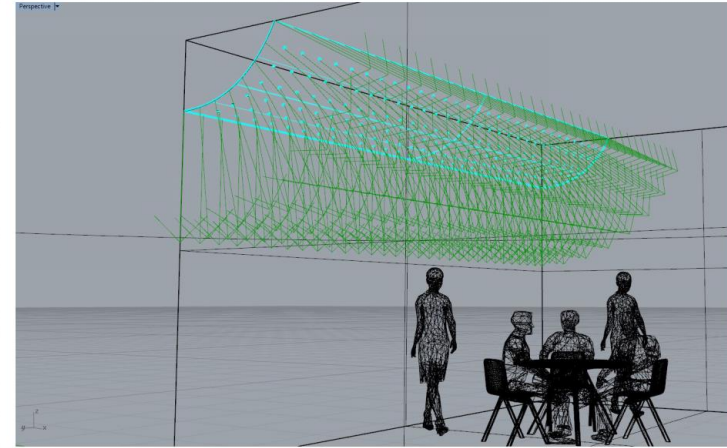
Air volume as result of calculations (version 1.0)



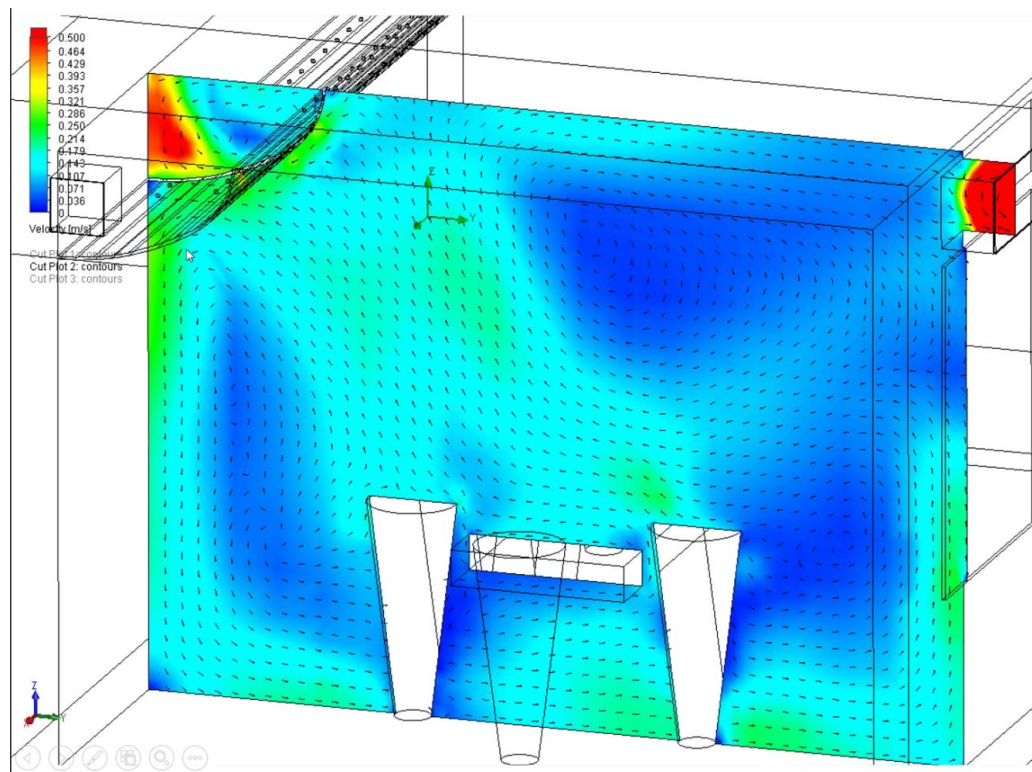
Physical generation interface in Rhino model (version 1.2)

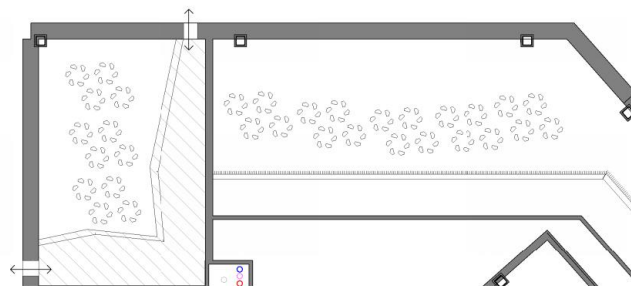
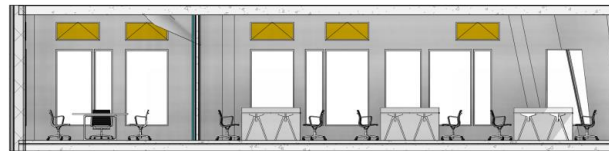


Vectors - as excel version (1.0)

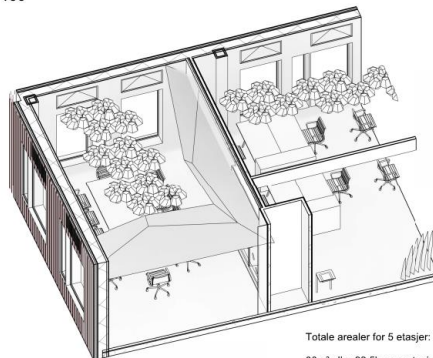


Vectors - normal to surface as version (1.1)





Utsnitt plan 5 himling
1 : 100



Totale arealer for 5 etasjer:

33m² eller 22.5m per etasje x 5 = 165m² eller 112.5 m

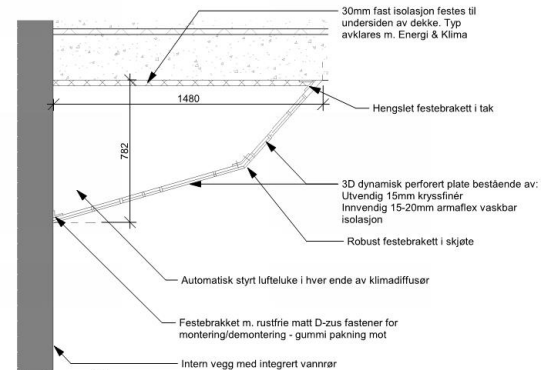


D-zus fastener



Illustrasjon

Plan 5 snitt climate diffusor
1 : 20



Klima-diffusør / trekkhylle beskrivelse:

Diffusørens hensikt er å spre luft fra ventilasjonslukene jevnt utover i rommet, og dermed forbedre blandingen av kald og varm luft og unngå trekk. Diffusøren finnes i meterom hvor persontetthet krever ventileringsteknikker/luft-mengder som kan skape trekk.

Hyllen består av 15mm perforerte plater i eik finert kryssfiner som er satt sammen til en fasettert form som spenner mellom vegg til tak. Perforeringsmønster og hull diameter er generert av en matematisk script basert på ønskede luftmengder. Kfr. ARK / Klima & Energi. Perforeringer har forskjellig hull diameter fra 10 - 30mm i 1mm inkrementer. Stabilisitet er sikret ved bruk av skjulte braketter med synlige rustfritt stål D-zus fasteners som tillater enkel demontering for vedlikehold o.l. Diffusøren er festet i vegg og tak med braketter. Brakett mot tak er hengslet for å tillate vask av innvendig isolasjonsmateriale (15-20mm Armaflex). Mot vegg danner hyllen en vannrett linje, mens den i møtet med taket danner en brukket linje - kanter har heltrukket pakningslist for tetning mot møtende overflate.

Se tegning: 03-A-31-000, 04-A-31-000, 05-A-31-000, 06-A-31-000, 07-A-31-000

MERKI REV 2 AV 09.03.2018 GJELDER HELE SKJEMA

2	09.03.18	Revidert forprosjekt			
1	19.06.17	Revidert iht referat fra møte 7/6 2017			
Rev	Dato	Beskrivelse		Tegn.	Kontr.

NYDALEN VY

GNR/BNR: 77/361 Adresse: Gullhaug torg 2A

Avantor
Nydaalsveien 28
0404 Oslo

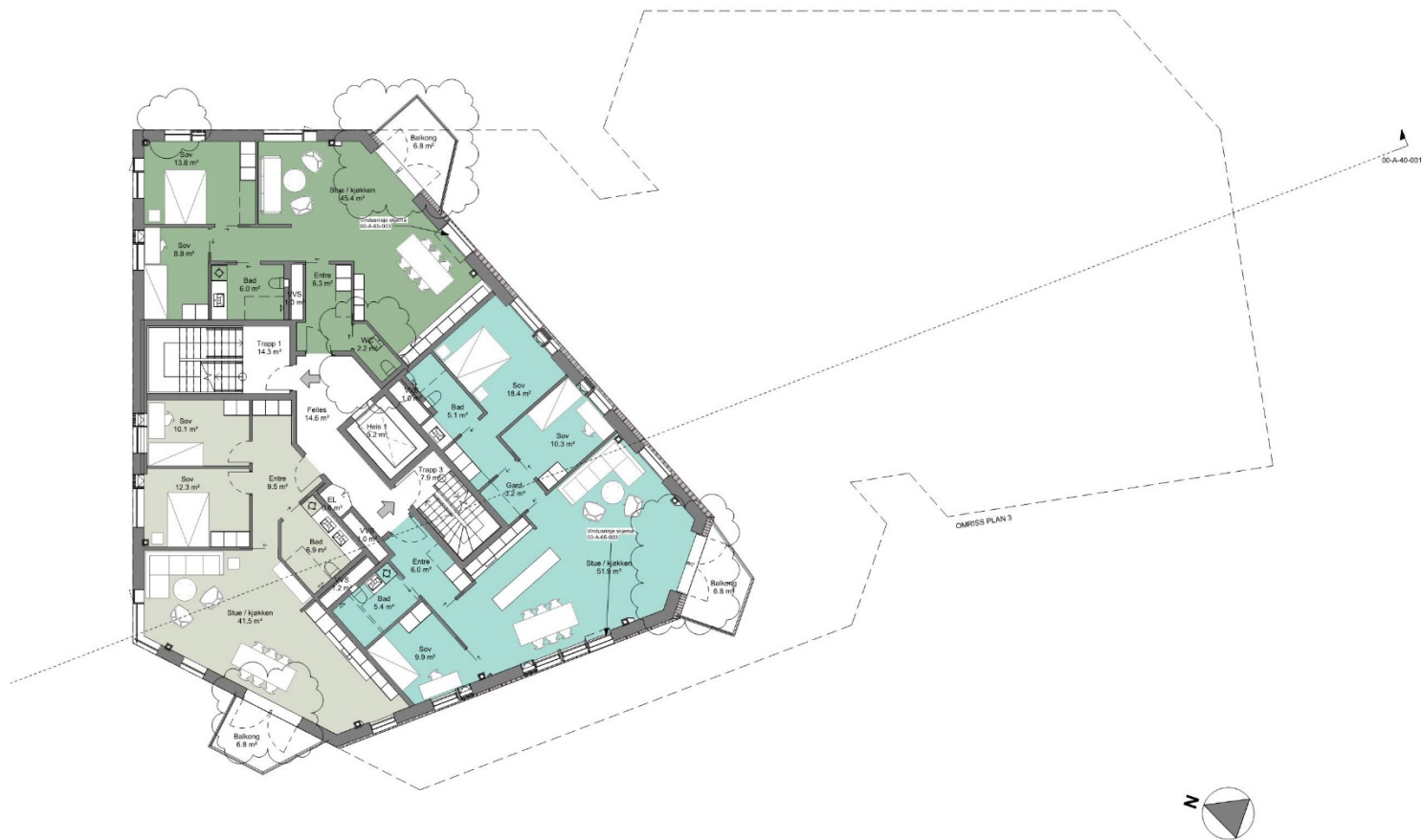
Snøhetta

Snøhetta Oslo AS
Akershusstranda 21, Skur 39
N-0150 Oslo, Norway

Status
REVIDERT FORPROSJEKT
Tittel
Trekkhylle H02

Opprettet dato	Målestokk	Format	Tegnet	Kontrollert	Revisjonsdato
02.06.2017	1:100 / 1:50	A3	KRE	KRE	09.03.18
Prosjektnummer	Tegningsnummer	Etasje - Flag - Type - Løpnummer			Revisjon
2016282		00-A-67-001			2



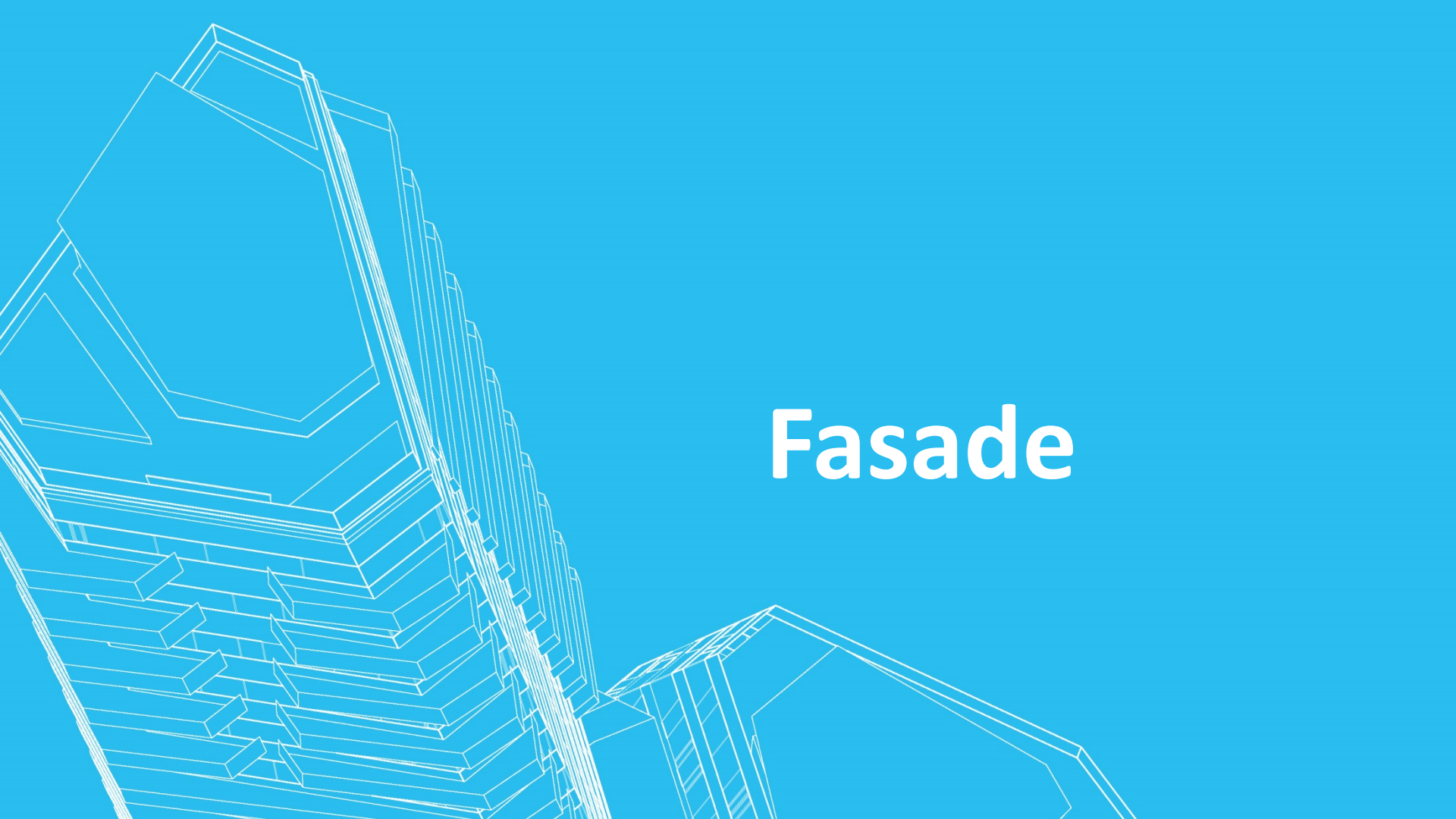




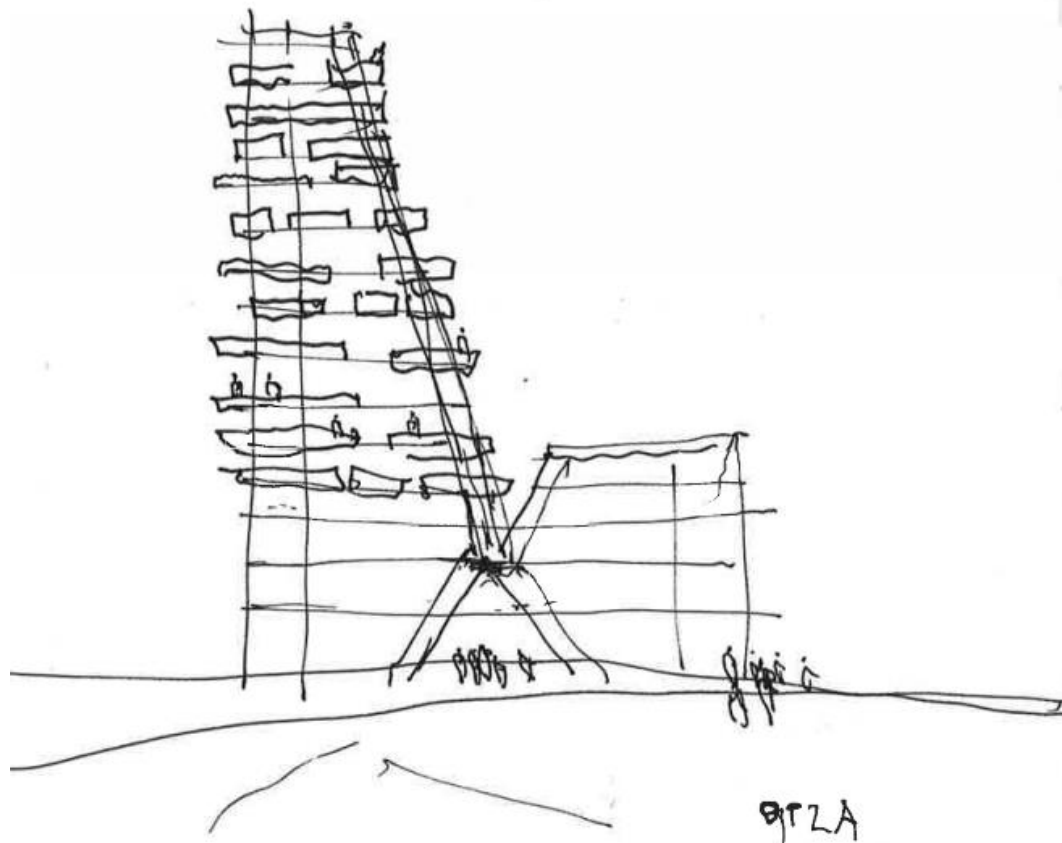
Leirgolv brukt i Kaspar Weyrer
Strasse, Innsbruck
Snøhetta & Werner Bartscher

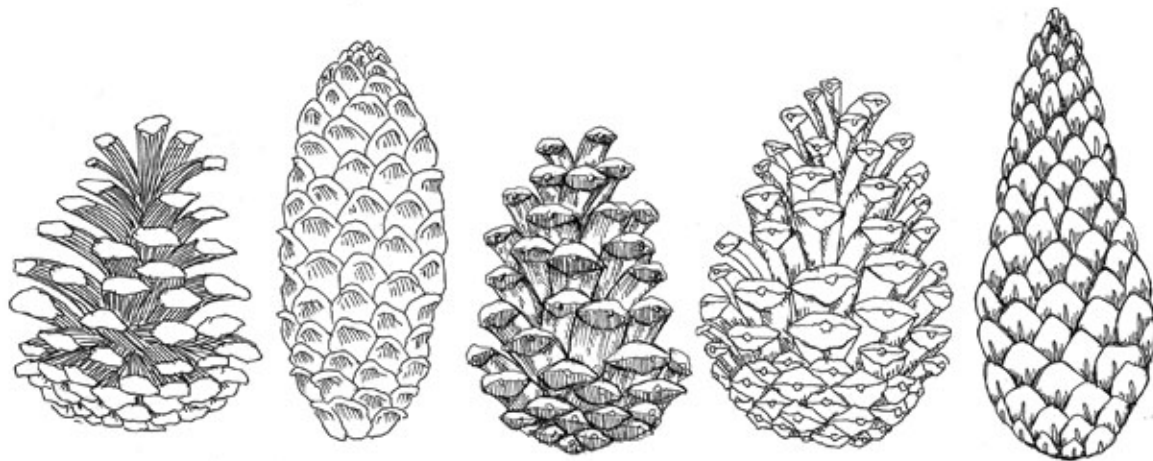


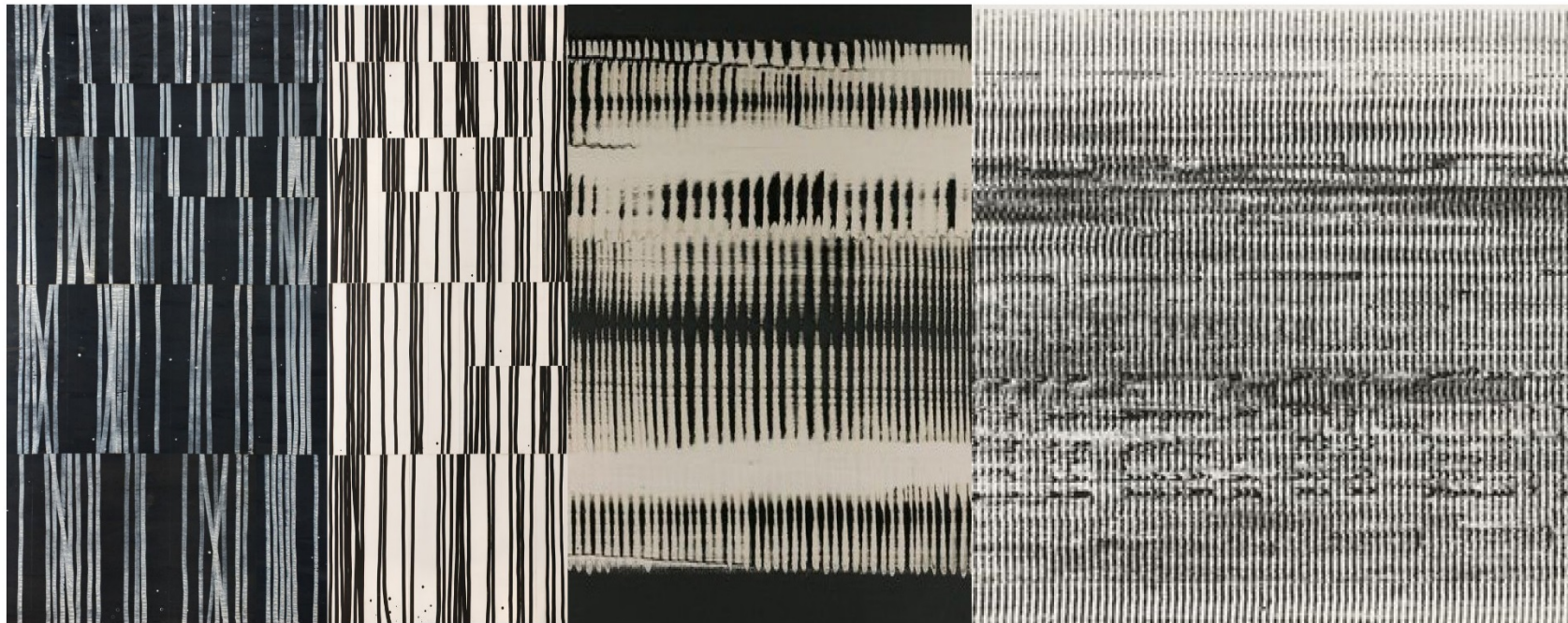
takk

A white line-art architectural drawing of a modern building facade is positioned on the left side of the image. The drawing shows a complex, multi-layered structure with various rectangular and angular forms, suggesting a facade with protruding balconies or a series of stacked volumes. The lines are clean and precise, creating a sense of depth and geometric complexity. The background is a solid, vibrant blue, which provides a high-contrast backdrop for the white lines of the building. The overall composition is minimalist and modern, focusing on the geometric forms and spatial relationships of the architecture.

Fasade









Veitvedt Skole, Link arkitektur

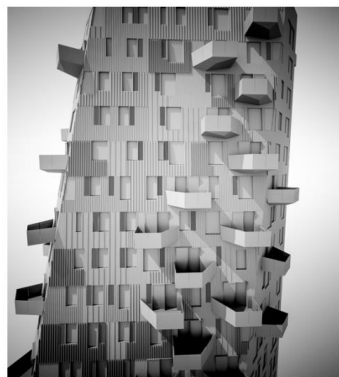


Christian Marin Community Center / Guillaume Ramillien Architecture

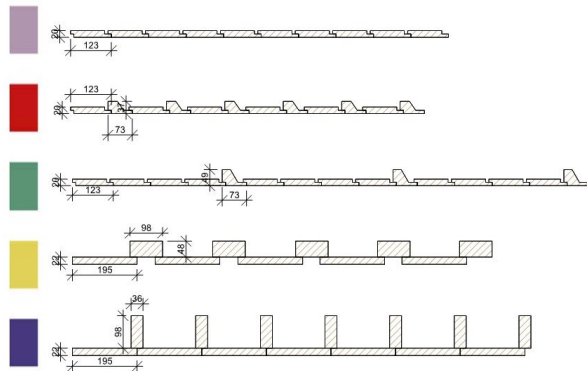


BYTR, Houseboat, Utrecht, The Netherlands 2012

Gullhaug Torg 2A| façade prefab elements in wood construction



Oppdeling kodet



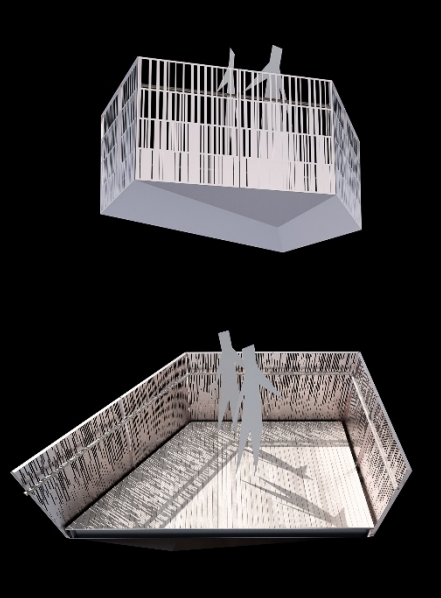
Panelt

-
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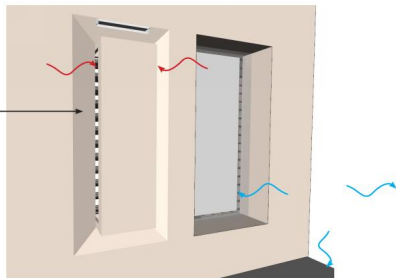
Merk:



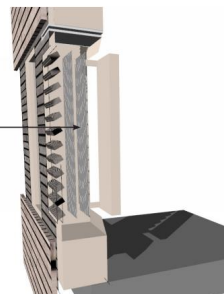
Gullhaug Torg 2A | prototype for fasadekledning



EFFEKTIV LUFTHING MED
FASETTERT VEGG
(her vist i overdrevet tilstand)



Akustiske "nett"
bidrar også til å holde regn og snø
ute



Gullhaug Torg 2A| balkonger

