TIMBER ARCHITECTURE
CHANCE AND CHALLENGE

HK ARCHITEKTEN

UNIV. PROF. HERMANN KAUFMANN

BAUERNHAUS BREGENZERWALD

BAUERNHAUS BREGENZERWALD

SOHM ALBERSCHWENDE

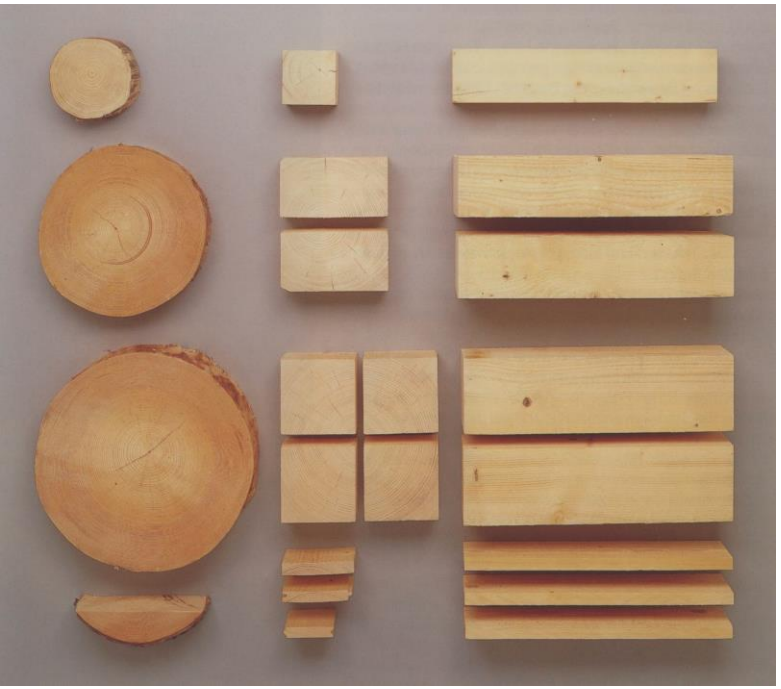
HK ARCHITEKTEN

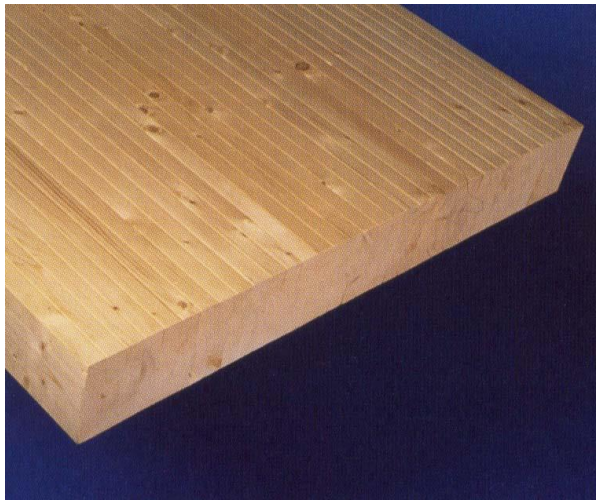
KAUFMANN ZIMMEREI UND TISCHLEREI REUTHE

JOHANNES KAUFMANN

KAUFMANN ZIMMEREI UND TISCHLEREI REUTHE

JOHANNES KAUFMANN





CLT

BEAM

STAPEL

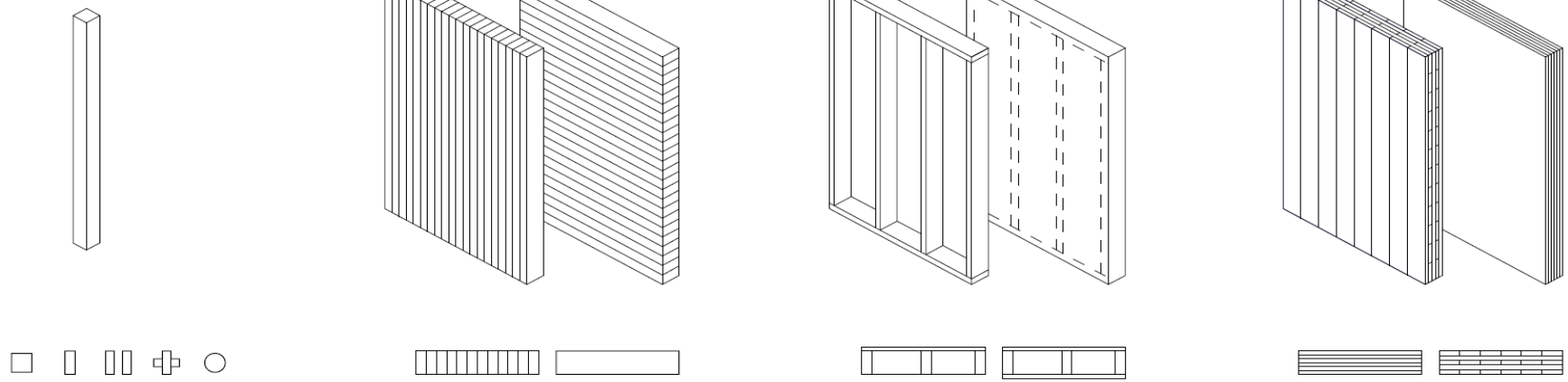
GLULAM

Pollmeier

LWL „BAUBUCHE“

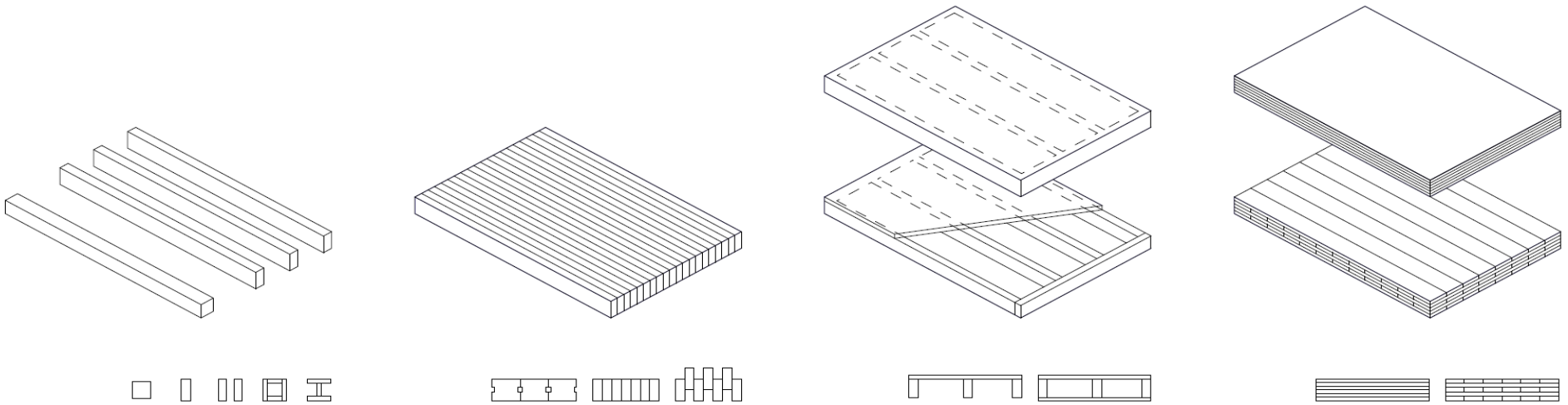
KONSTRUKTIONSELEMENTE
VERTIKAL

linear element → **surface element**

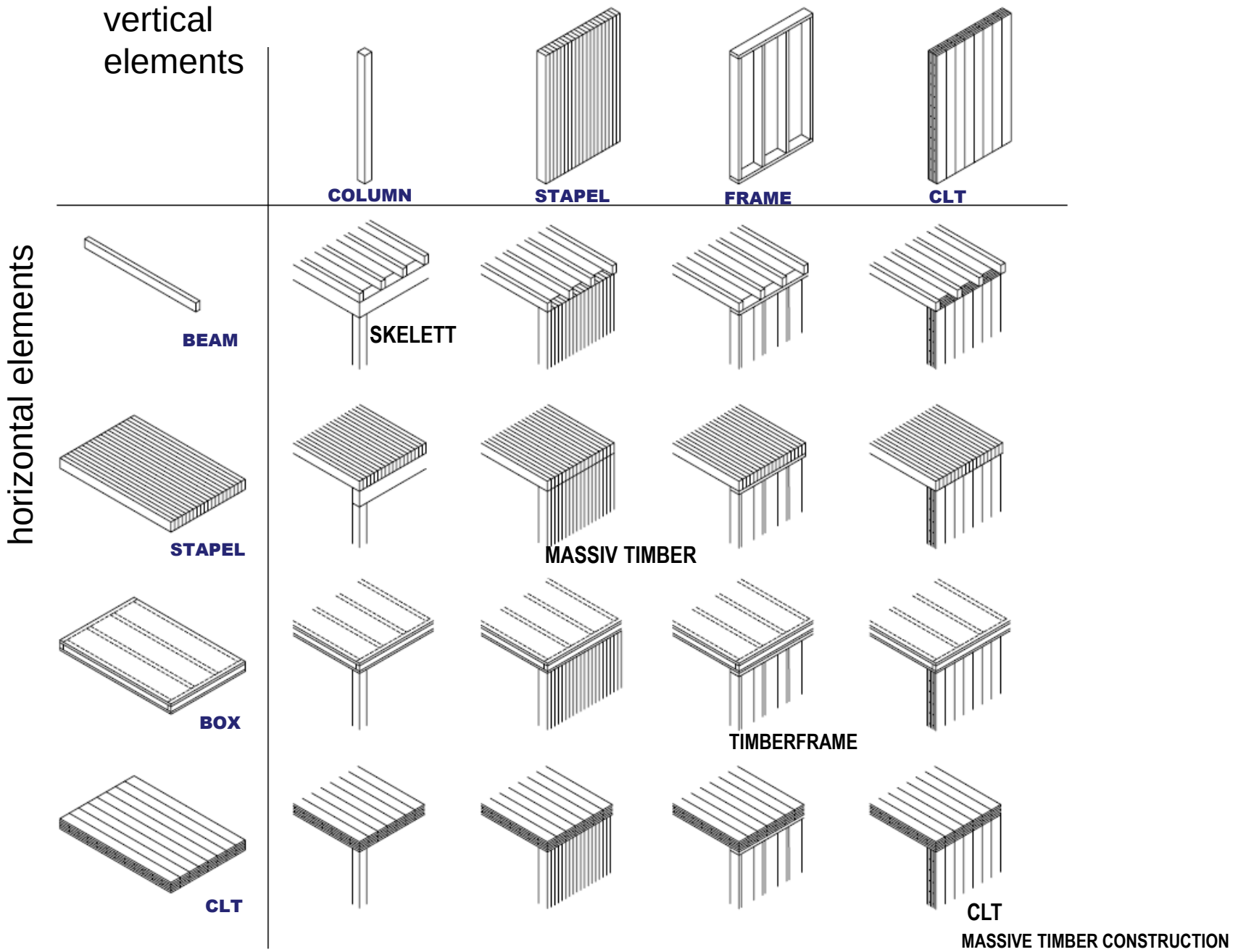


column | stapel | frame | CLT

KONSTRUKTIONSELEMENTE
HORIZONTAL



beam | stapel | box, ribelements


vertical elements
horizontal elements
COLUMN
STAPEL
FRAME
CLT
BEAM
STAPEL
BOX
CLT
SKELETT
MASSIV TIMBER
TIMBERFRAME
CLT
MASSIVE TIMBER CONSTRUCTION

HERMANN KAUFMANN
STEFAN KRÖTSCH
STEFAN WINTER

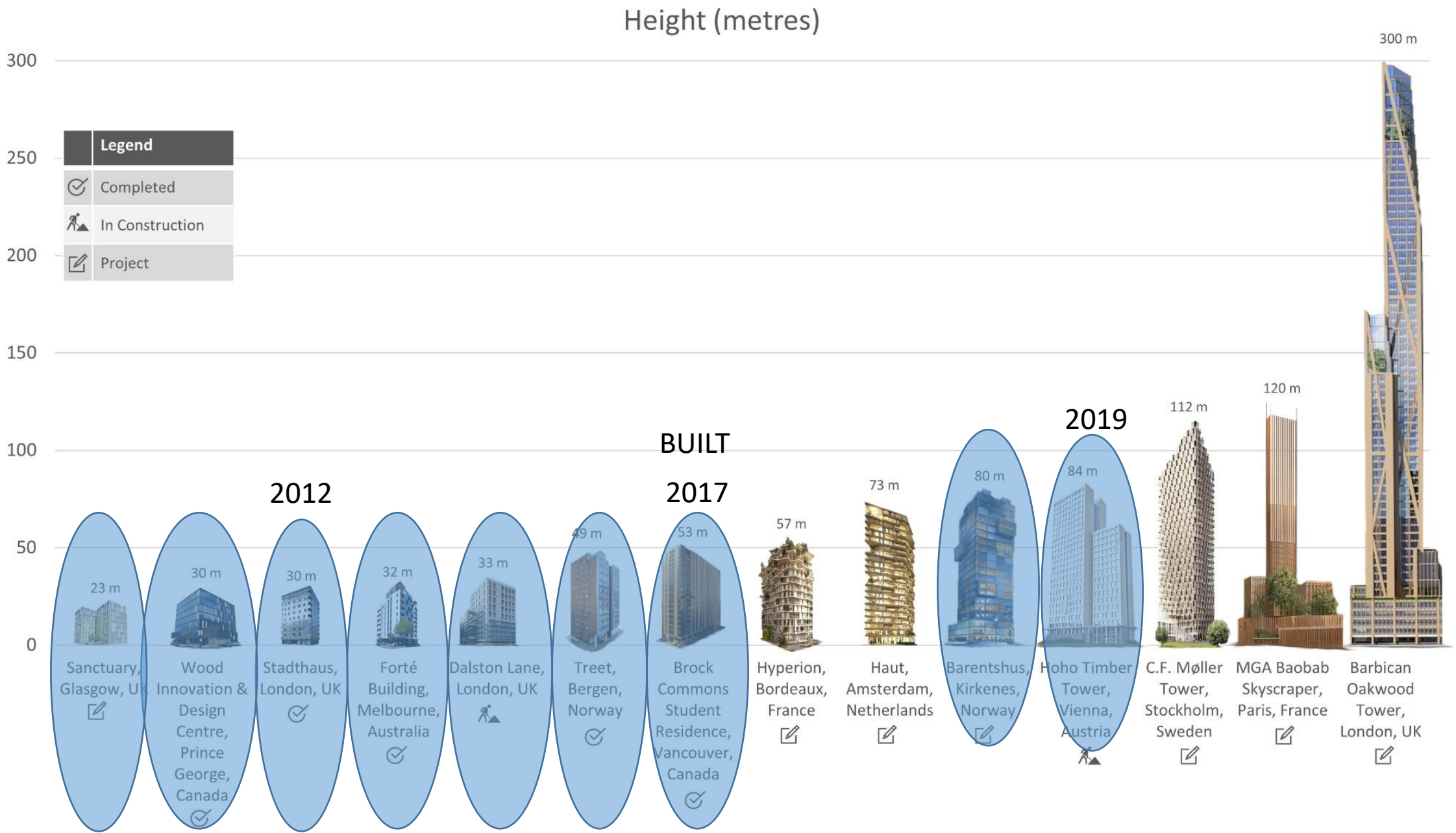
MANUAL

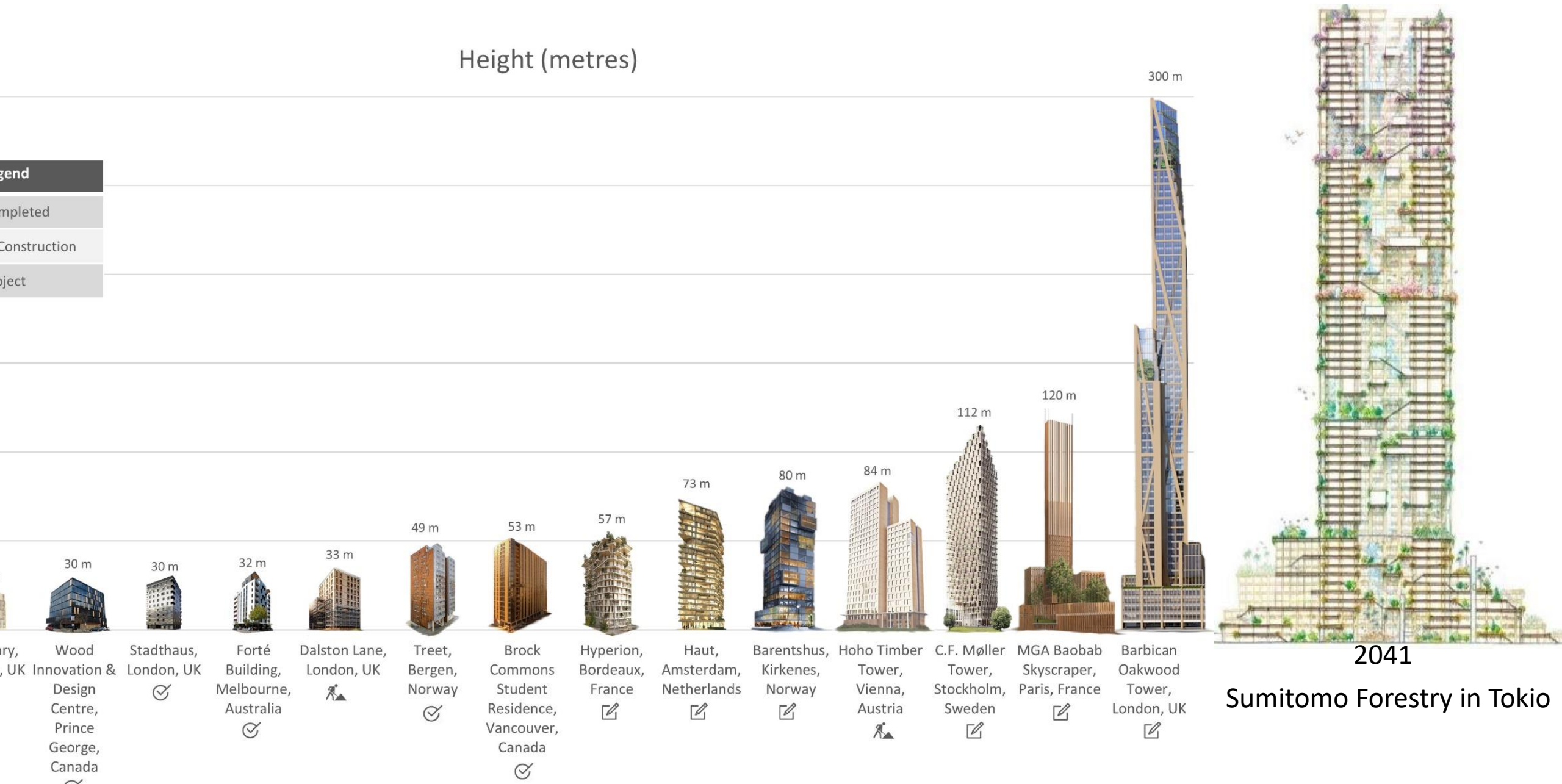
of Multi-Storey Timber Construction

Edition DETAIL

WILDSPITZE HAFENCITY HAMBURG/ STÖRMER MURPHY 18 GESCHOSSE. IN VORBEREITUNG


LANDLEASE TOWER Brisbane


Height (metres)
300
250
200
150
100
50
0
Legend
Completed
In Construction
Project
BUILT
2012
2017
2019
23 m
Sanctuary, Glasgow, UK
30 m
Wood Innovation & Design Centre, Prince George, Canada
30 m
Stadthaus, London, UK
32 m
Forté Building, Melbourne, Australia
33 m
Dalston Lane, London, UK
49 m
Treet, Bergen, Norway
53 m
Brock Commons Student Residence, Vancouver, Canada
57 m
Hyperion, Bordeaux, France
73 m
Haut, Amsterdam, Netherlands
80 m
Barentshus, Kirkenes, Norway
84 m
Hoho Timber Tower, Vienna, Austria
112 m
C.F. Møller Tower, Stockholm, Sweden
120 m
MGA Baobab Skyscraper, Paris, France
300 m
Barbican Oakwood Tower, London, UK



2041

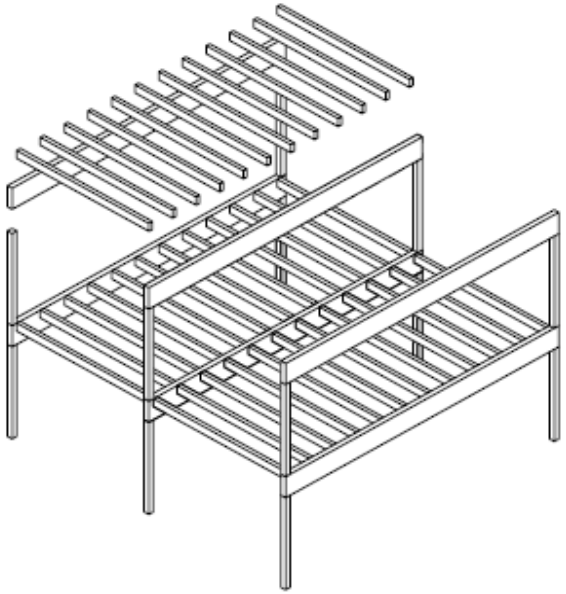
Sumitomo Forestry in Tokio

350 Meter, Firma Sumitomo Forestry in Tokio, 2041 soll es fertig sein.

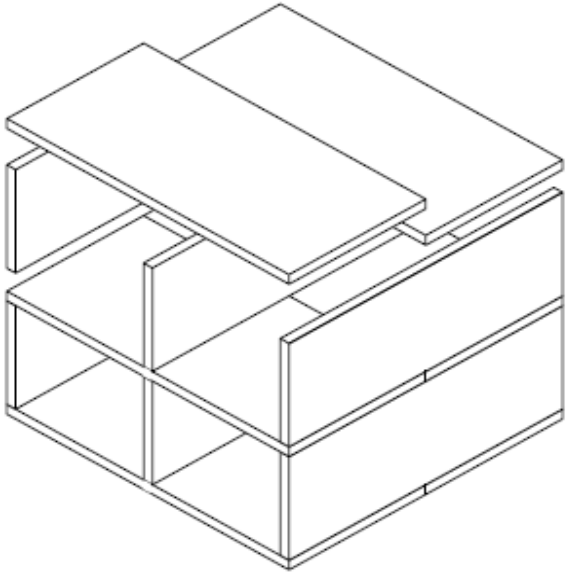
Das Haus wäre mit 350 Metern Höhe und siebzig Stockwerken aber nicht nur der höchste Holz-Wolkenkratzer der Welt, sondern auch fünfzig Meter höher als das derzeit höchste Hochhaus Japans.

WE ARE PENDA. WE ARE AN INTER-DISCIPLINARY TEAM OF CREATIVES. WE CREATE ARCHITECTURE, LANDSCAPE, INTERIOR AND BRANDING DESIGN AND WE HAVE STUDIOS IN BEIJING/CHINA AND ON THE COUNTRYSIDE OF SALZBURG/AUSTRIA.

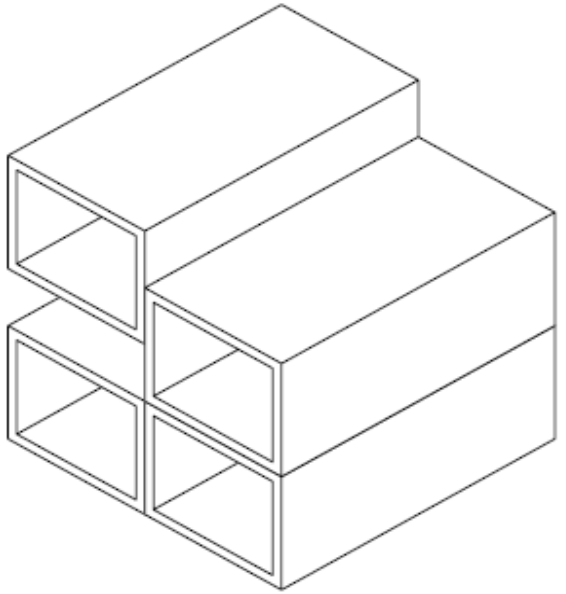
prefabrication



TRADITIOAL PREFABRICATION



2D ELEMENTS

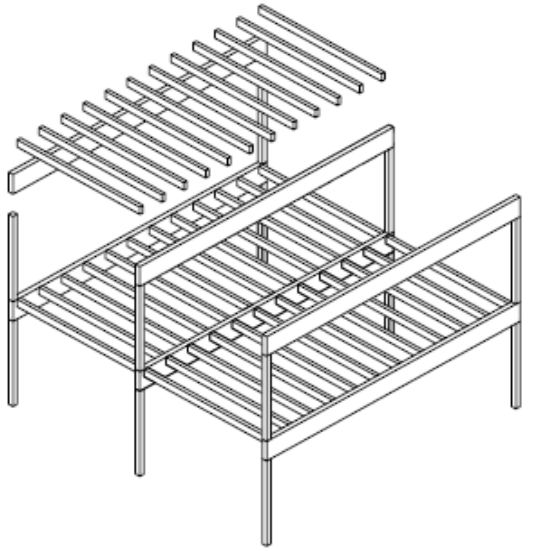


3D ELEMENTS

INCREASING PREABRICATION

Aus Katalog Atlas mehrgeschossiger Holzb

INCREASING PREABRICATION



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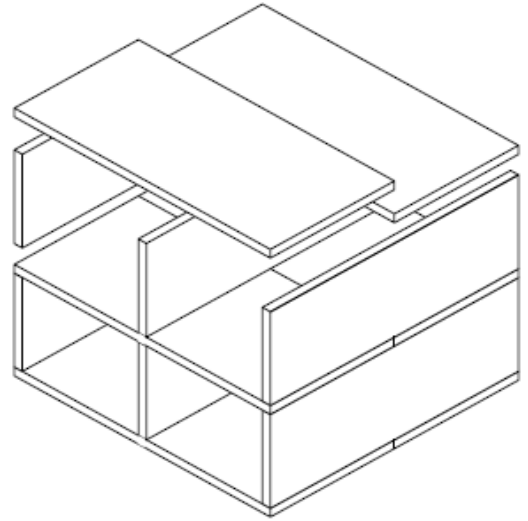
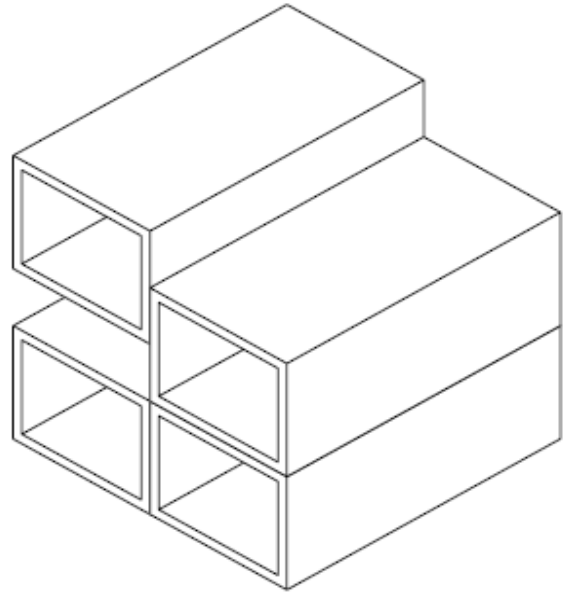
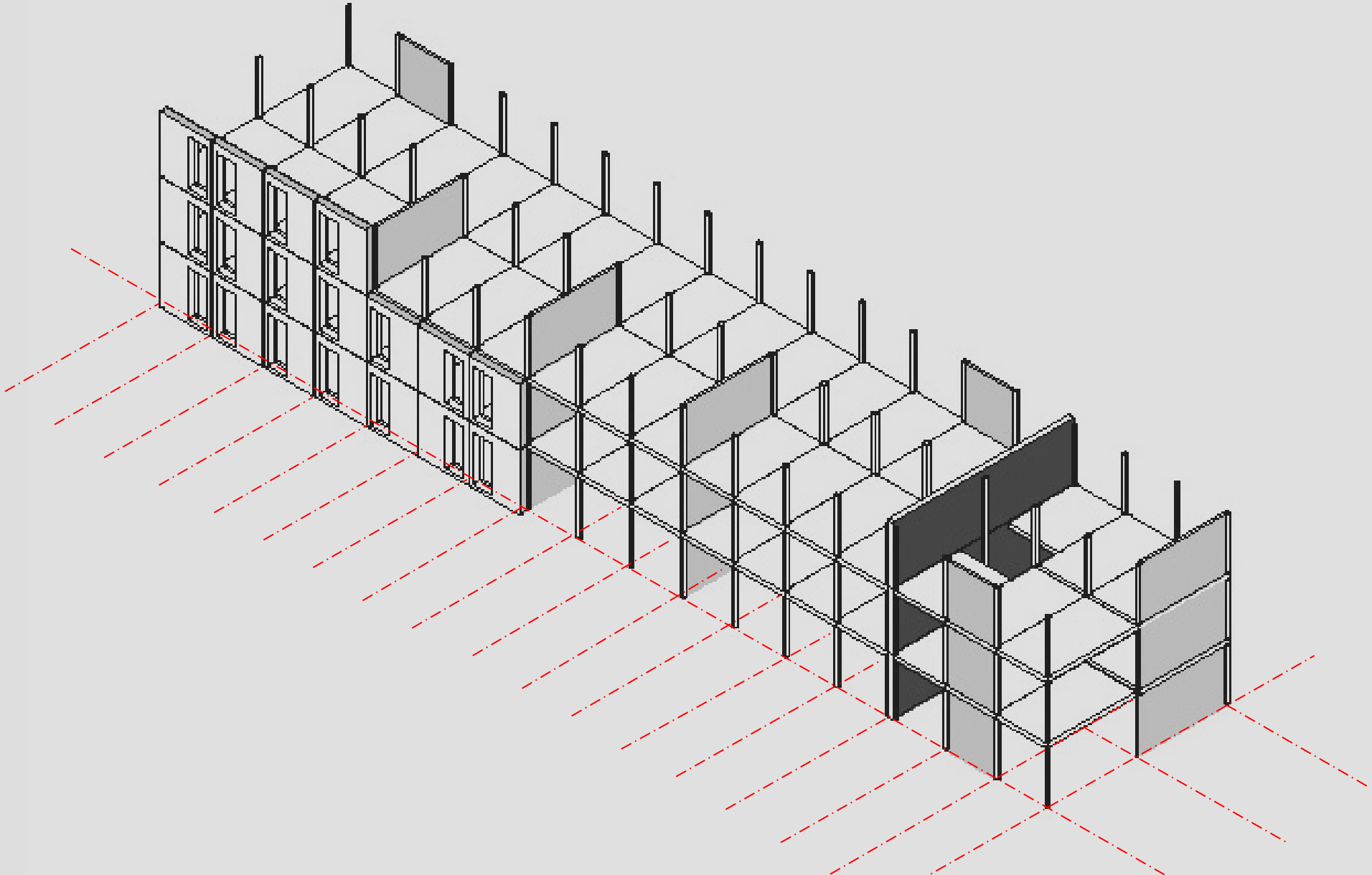


2D ELEMENTS



3D ELEMENTS

„Woodie“ student homes I Hamburg, Arch. Sauerbruch Hutton, Berlin



1996

1996

1996

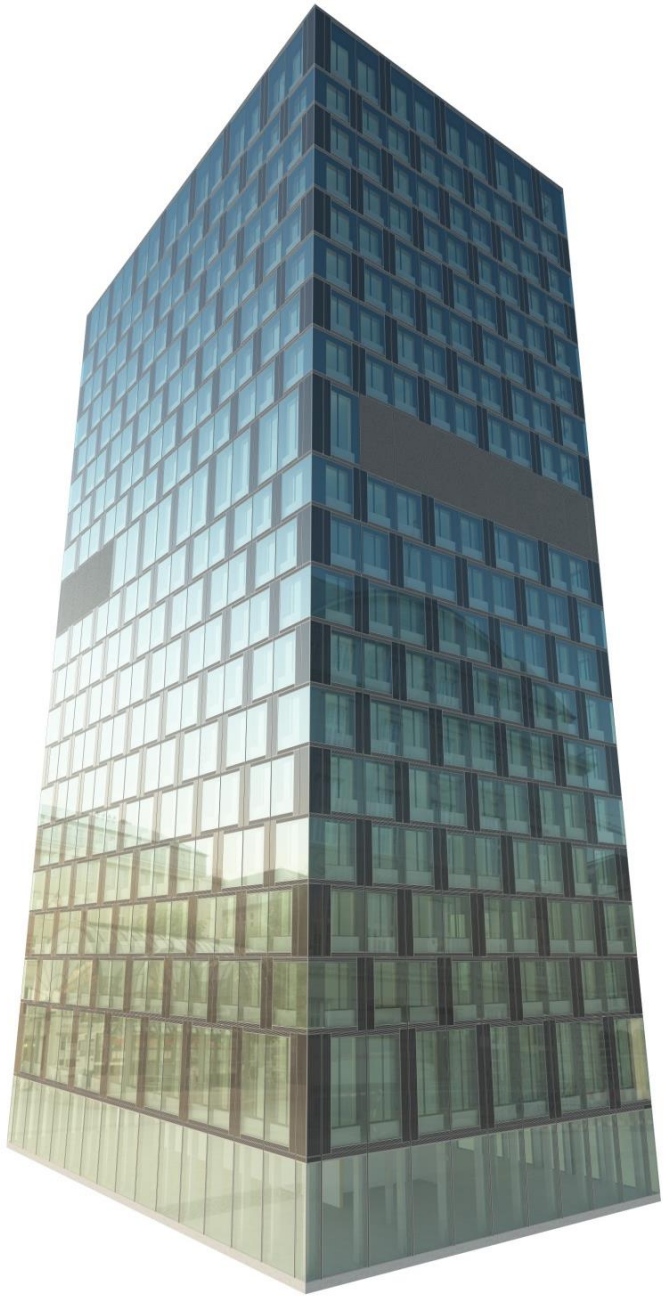
1996

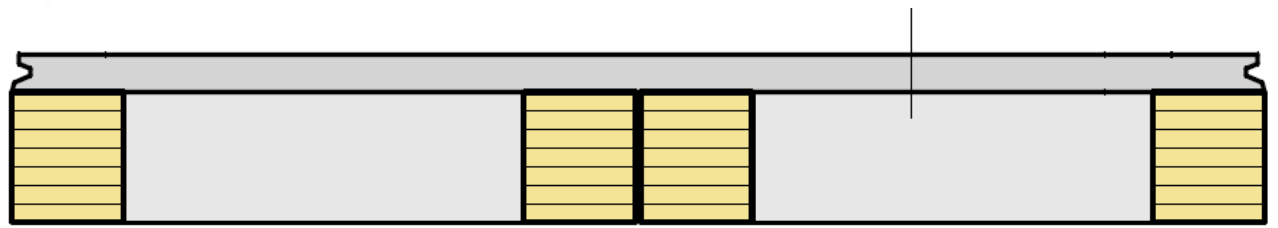
1996

1996

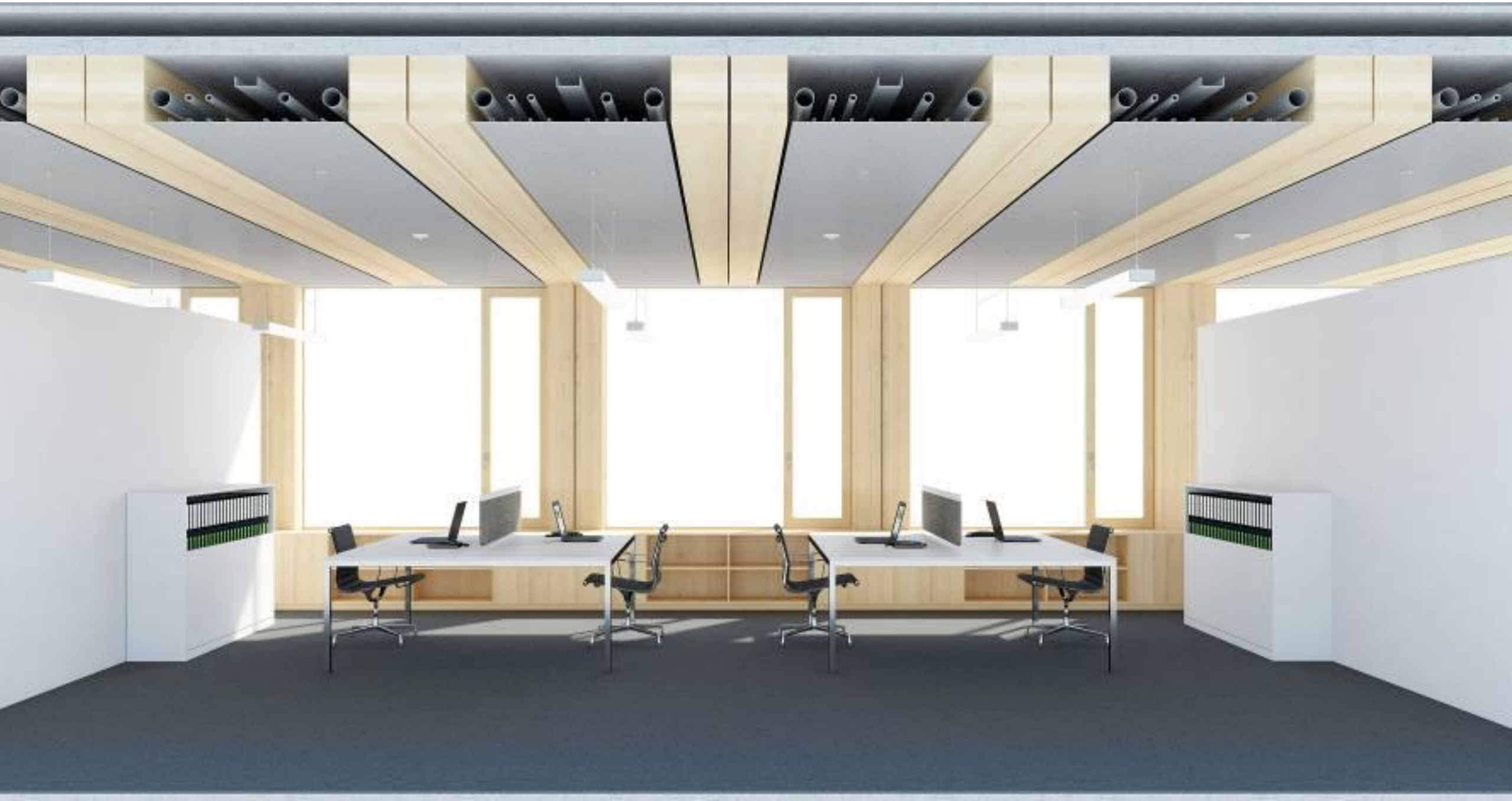
2020

Research project high rise building timber together with CREE, HK Architekten



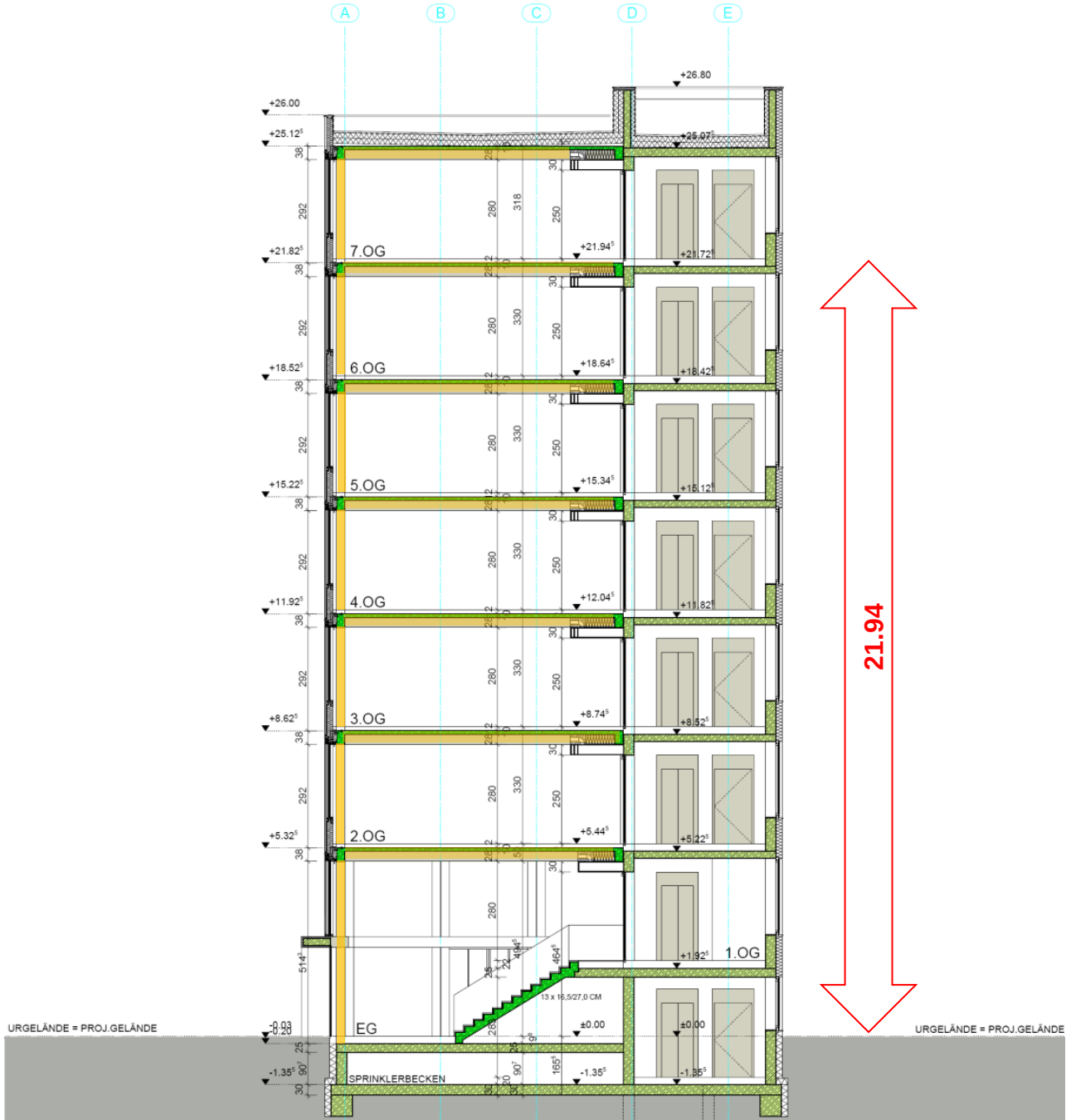


Research project high rise building timber together with CREE, HK Architekten

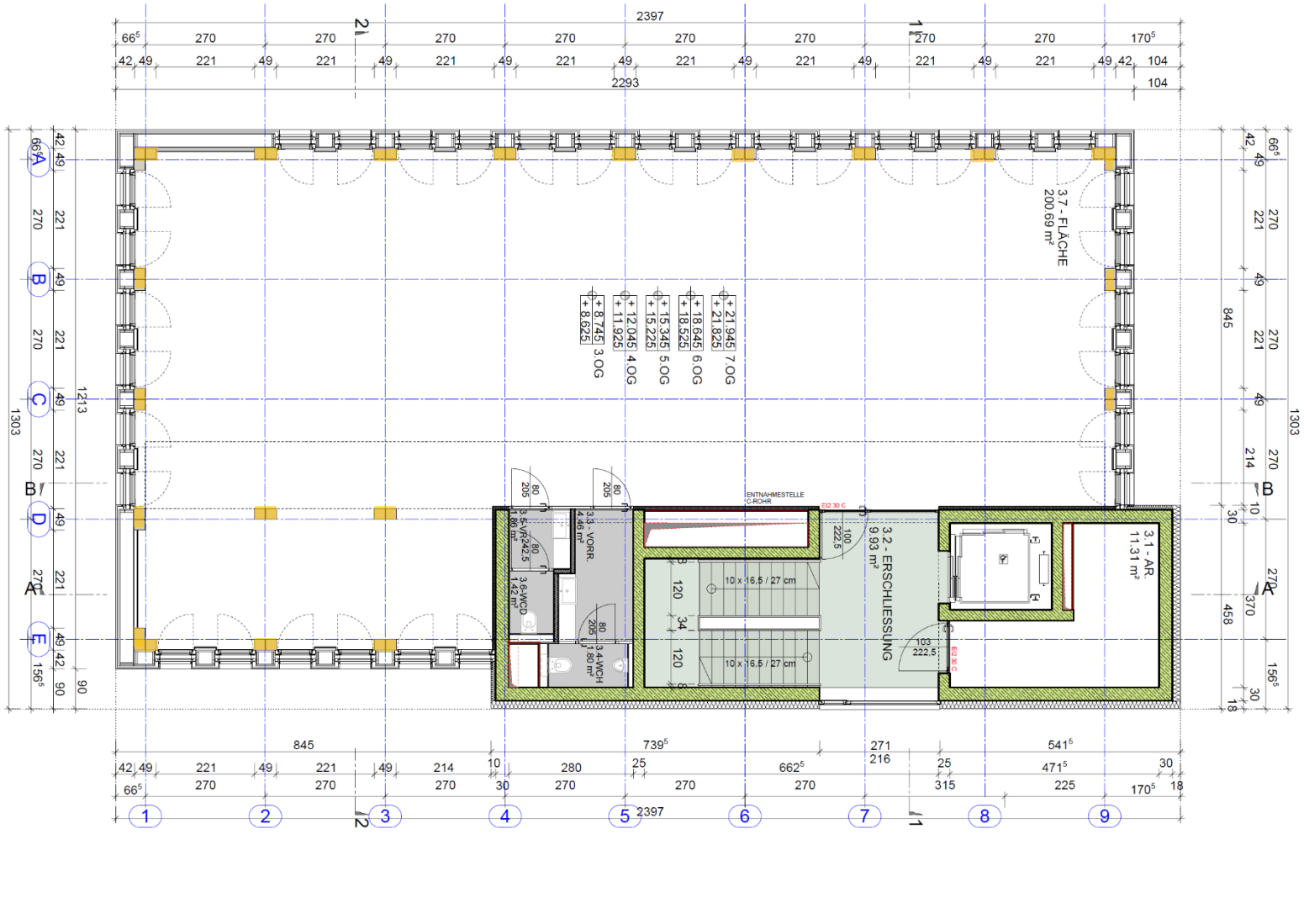


Research project high rise building timber together with CREE, HK Architekten

Research project: high rise building timber, prototype „Livecycletower“ (LCT), HK Architekten



Research project: high rise building timber, prototype „Livecycletower“ (LCT), HK Architekten

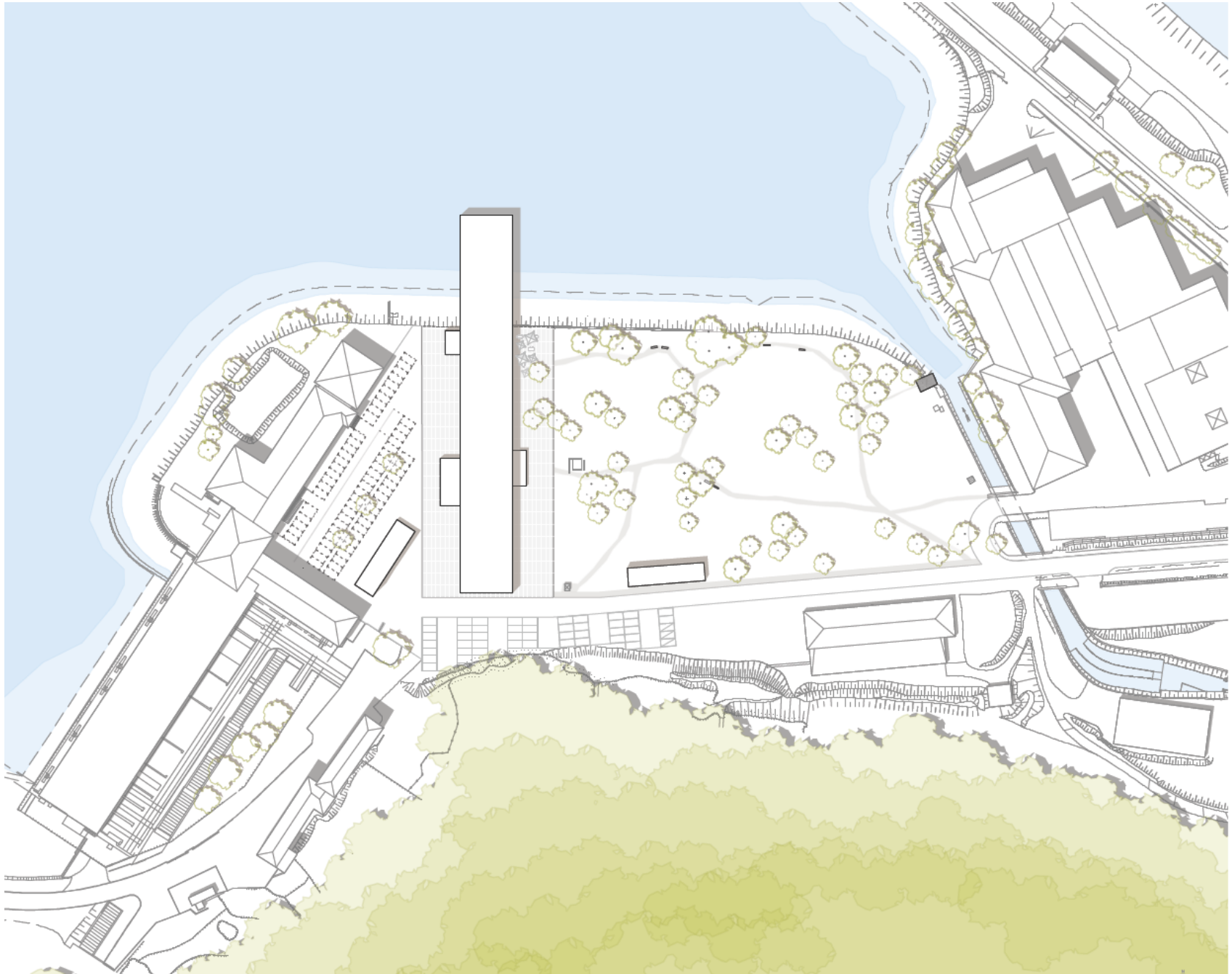


Research project: high rise building timber, prototype „Livecycletower“ (LCT), HK Architekten

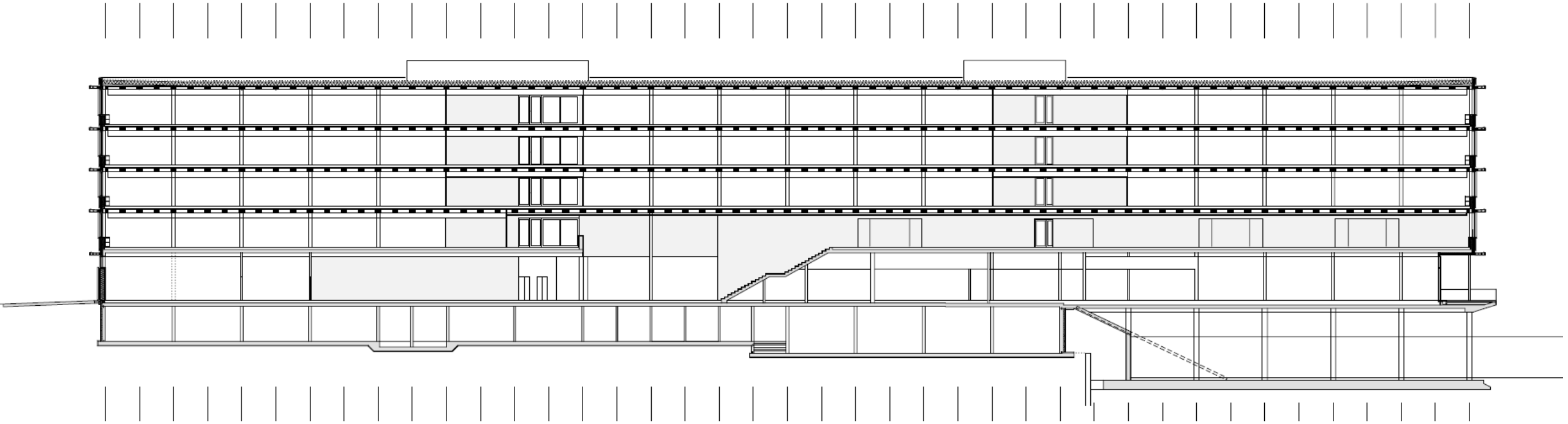
Research project: high rise building timber, prototype „Livecycletower“ (LCT), HK Architekten

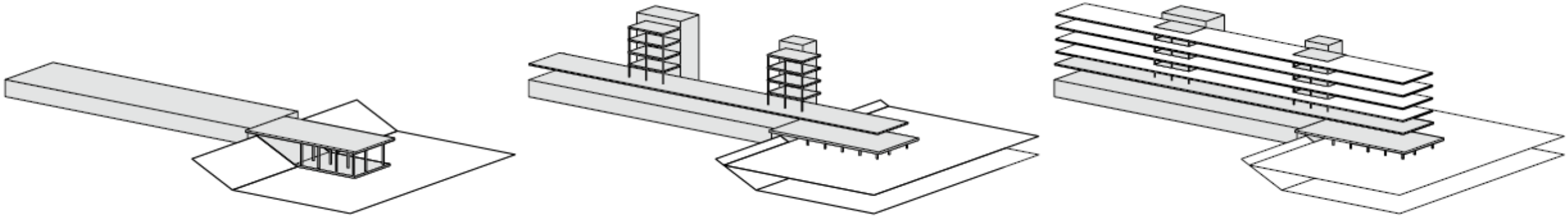
Illwerke center Montafon (IZM), HK Architekten

Illwerke center Montafon (IZM), HK Architekten



Illwerke center Montafon (IZM), HK Architekten





Illwerke center Montafon (IZM), HK Architekten

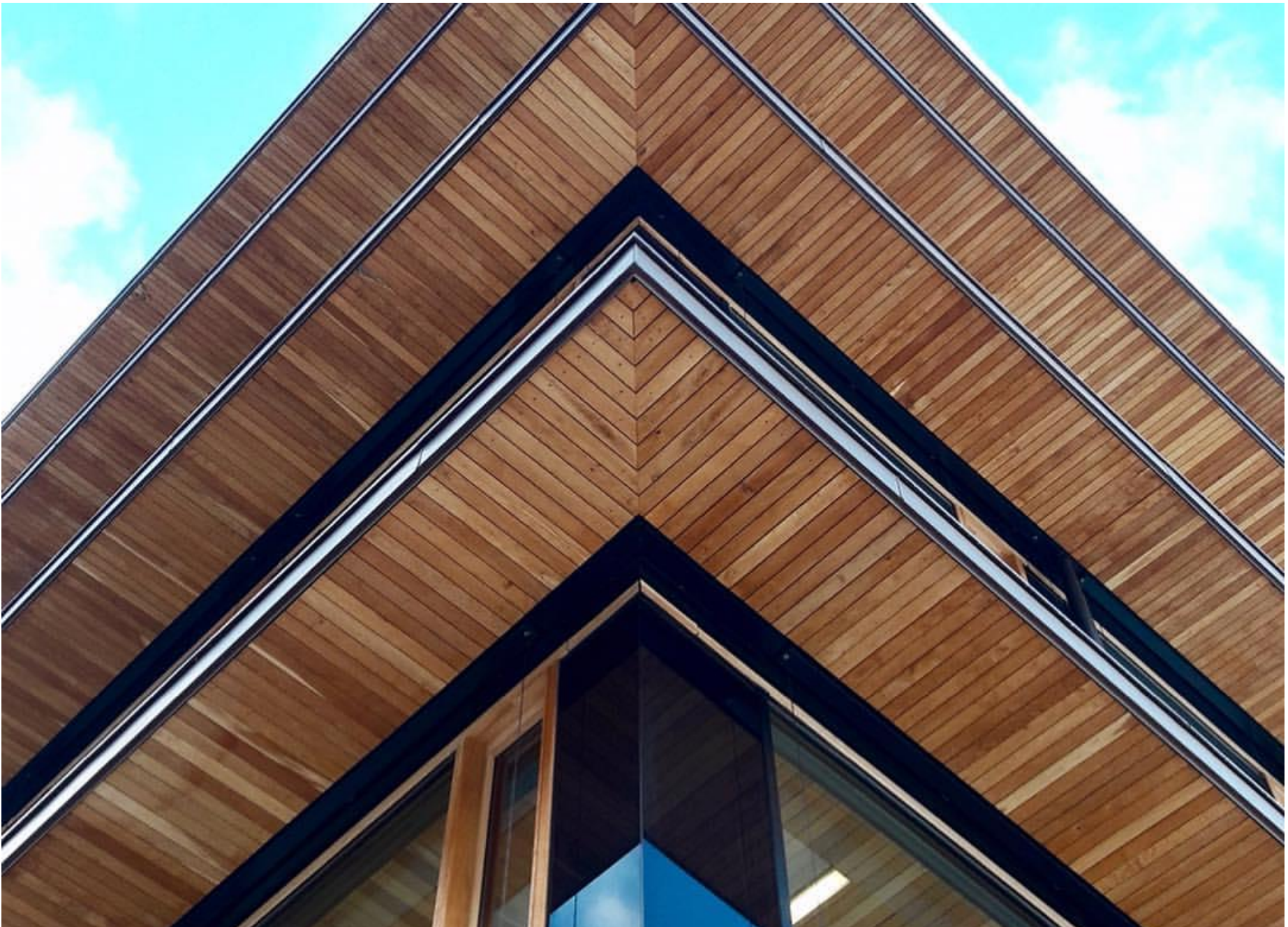
Illwerke center Montafon (IZM), HK Architekten

Illwerke center Montafon (IZM), HK Architekten

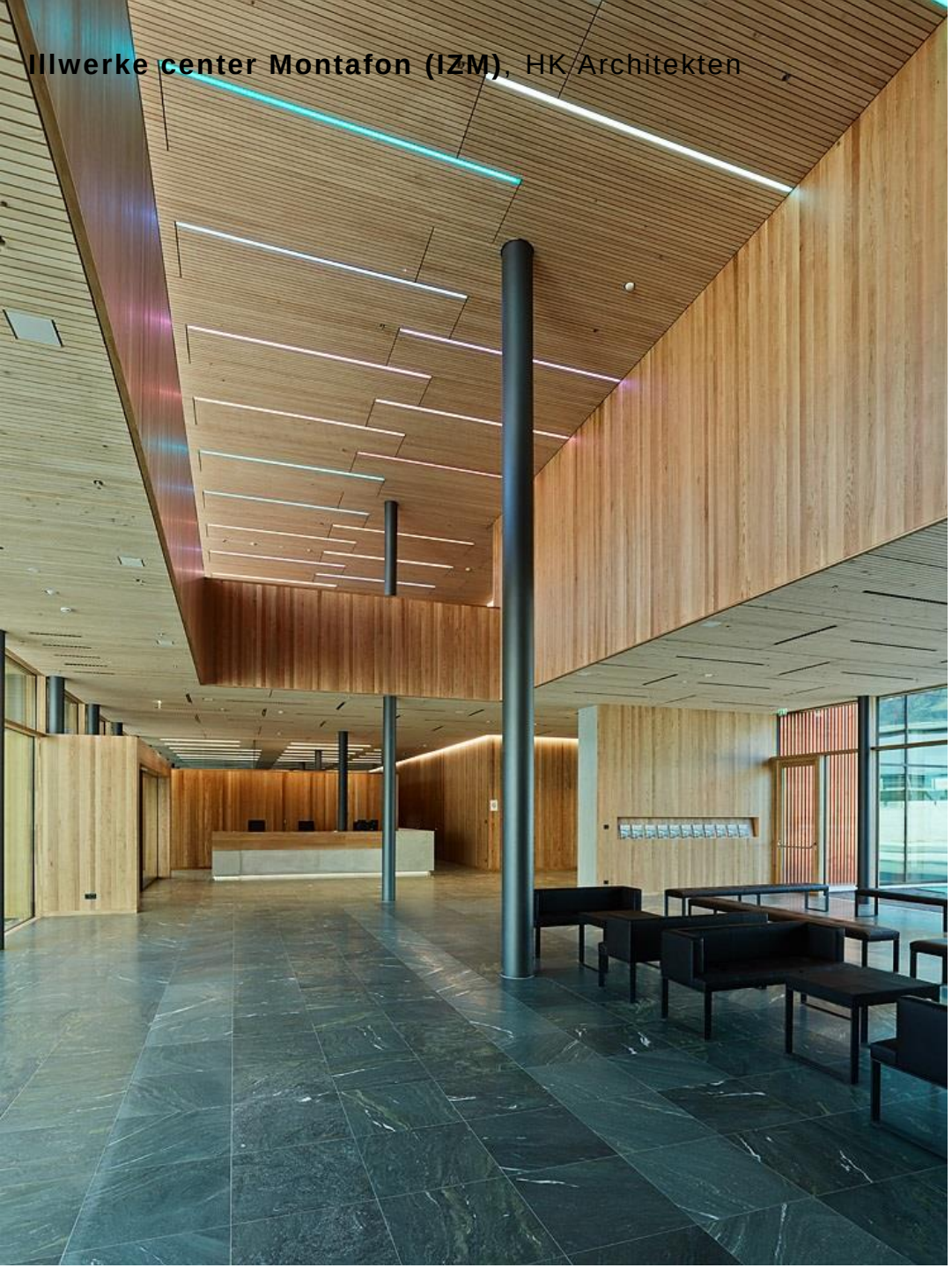
Illwerke center Montafon (IZM), HK Architekten

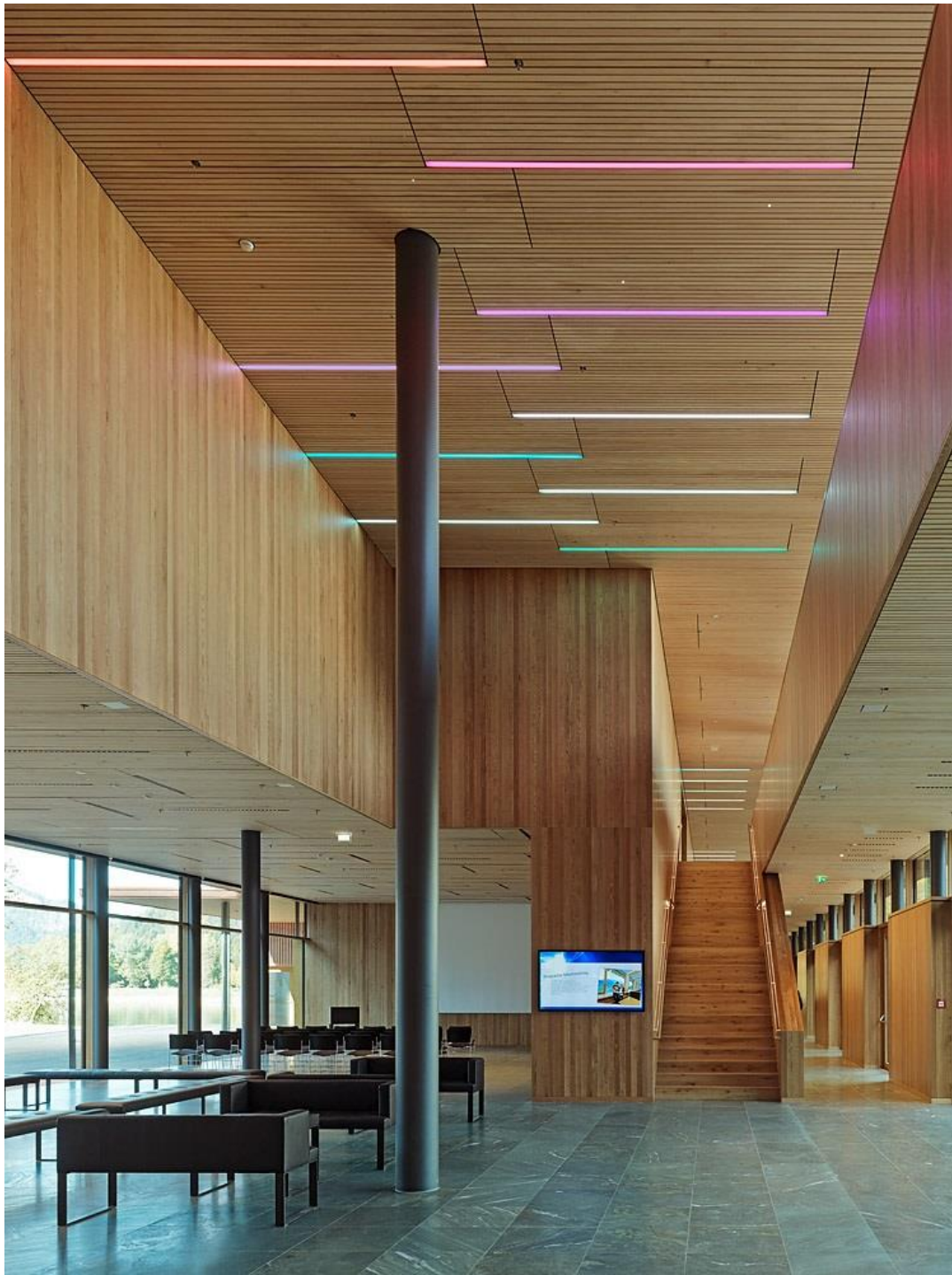
Illwerke center Montafon (IZM), HK Architekten

Illwerke center Montafon (IZM), HK Architekten



Illwerke center Montafon (IZM), HK Architekten



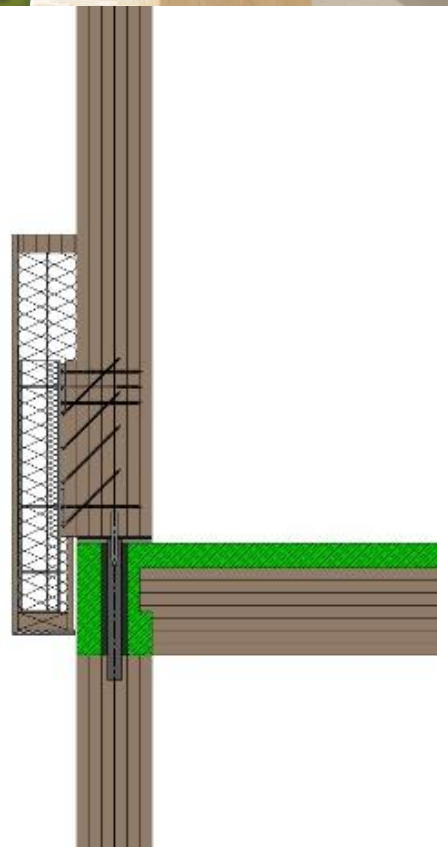


Illwerke center Montafon (IZM), HK Architekten

Illwerke center Montafon (IZM), HK Architekten

Illwerke center Montafon (IZM), HK Architekten

Illwerke center Montafon (IZM), HK Architekten

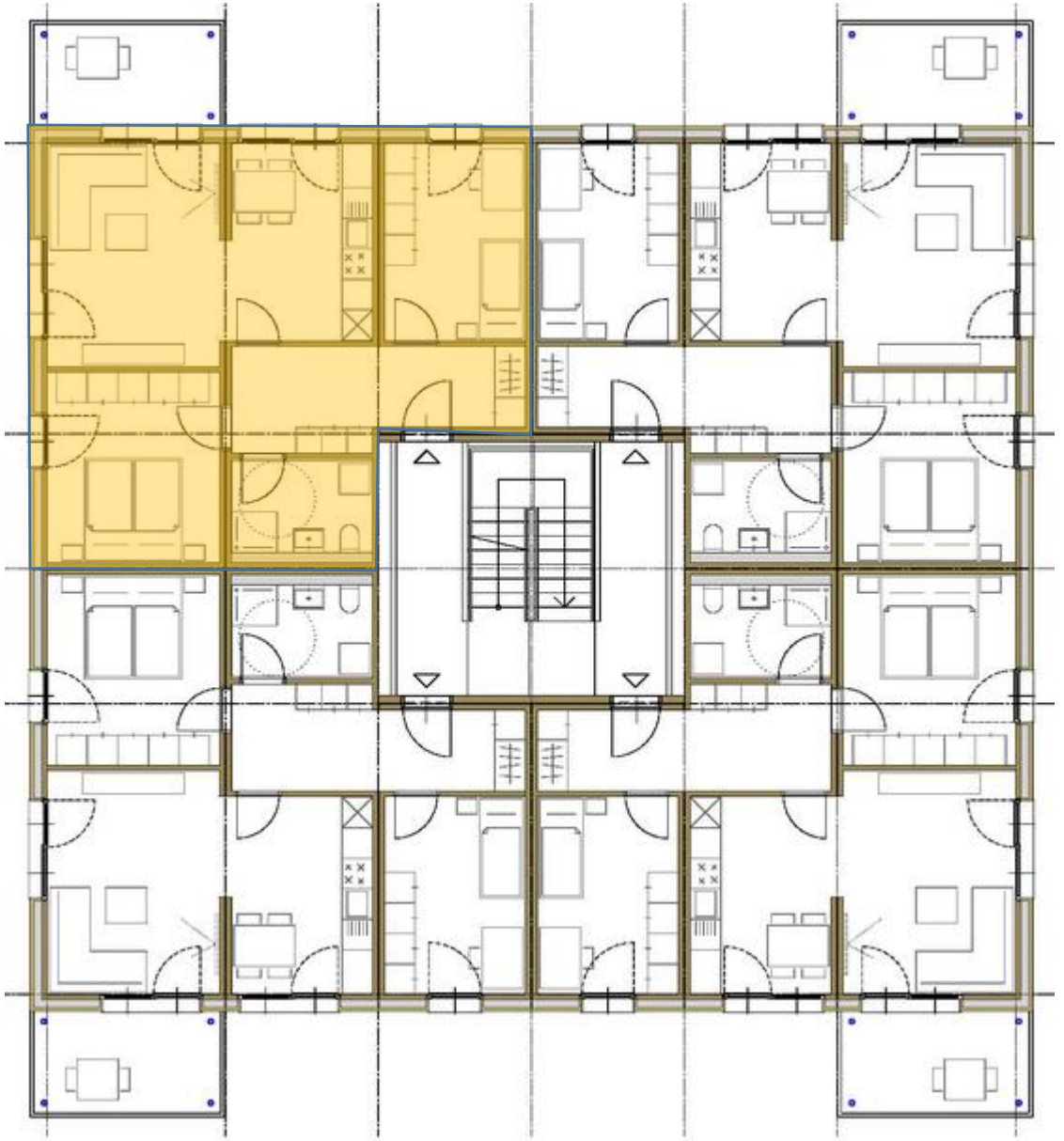


Transfer Wohnraum Vorarlberg I Blattur, Götzis, HK Architekten with Konrad Duelli and Andreas Postner

Transfer Wohnraum Vorarlberg I Blattur, Götzis

HK Architekten mit Andreas Postner und Konrad Duelli


6
3
2
1
4
5



Social rental housing

ohannes Kaufmann

Social rental housing

ohannes Kaufmann

Social rental housing
ohannes Kaufmann

Social rental housing

ohannes Kaufmann

Social rental housing

ohannes Kaufmann

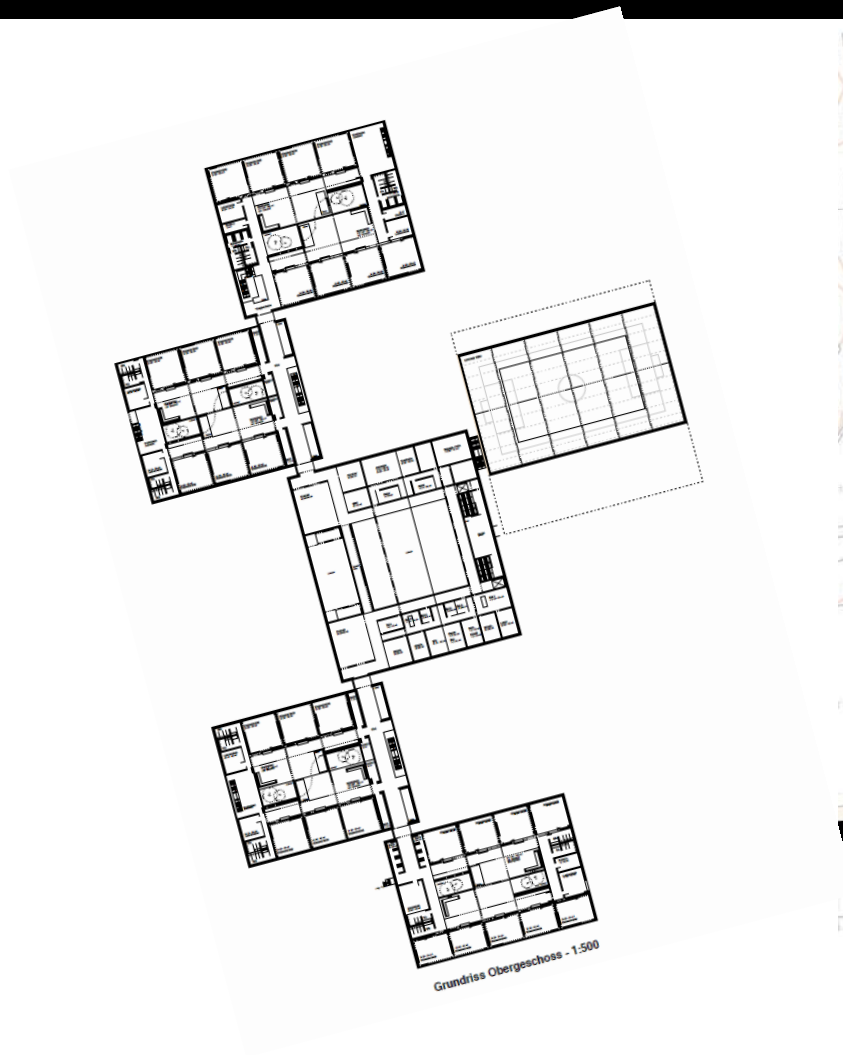
sustainibility


RAYLWAYSTATION

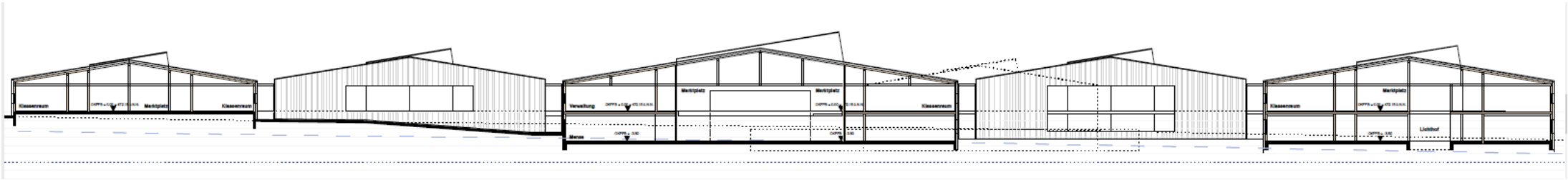
NEW PEDAGOGIC ARCHITECTURAL CONCEPT- OPEN LEARNING
PLUSENERGIESTANDARD
CO2 NEUTRAL
PREFABRICATED TIMBERCONSTRUCTION
LOW IN POLUTANTS
MONITORING
COMPARABLE COSTS WITH STANDARD

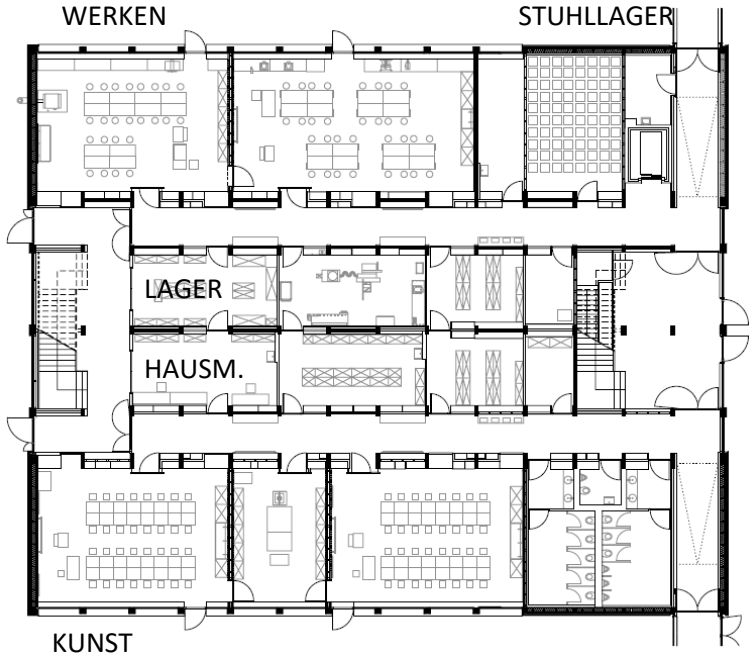
„Eierlegende Wollmilchsau“

DBU
Deutsche Bundesstiftung Umwelt

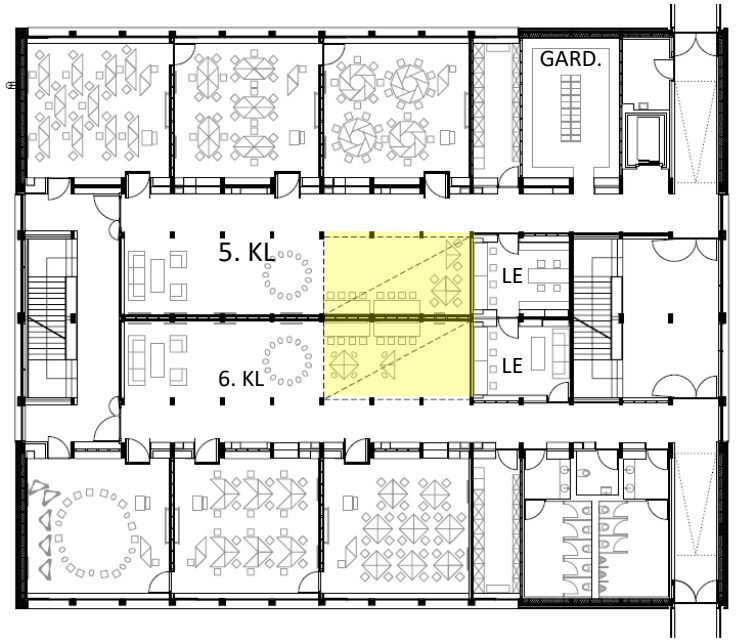

Grundriss Obergeschoss - 1:500


Freispielfeld 60/90
Allwetterplatz
5/6
7/8
Hof III
Sport
Aula
Eingang
Hof II
Hof I
9/10
11/12
Busvorfahrt

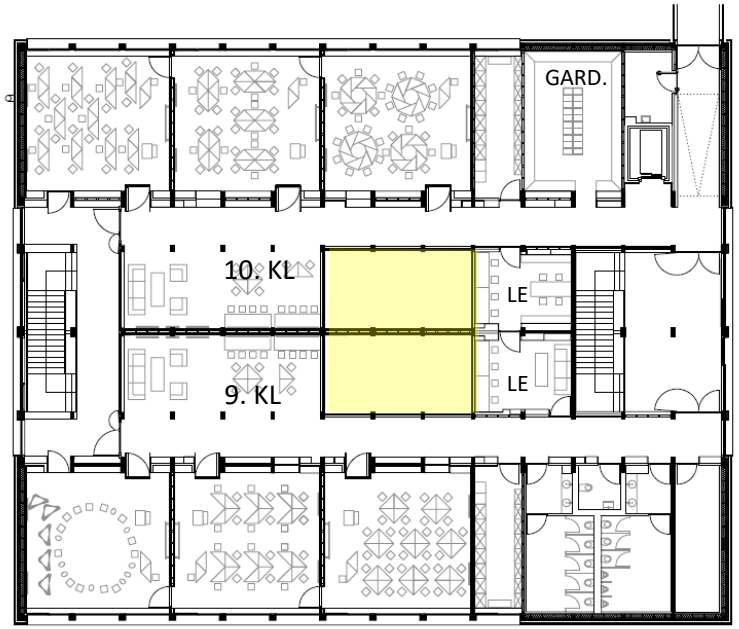




EG

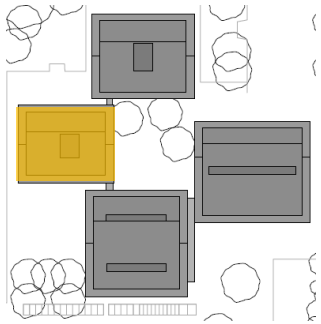


OG 1

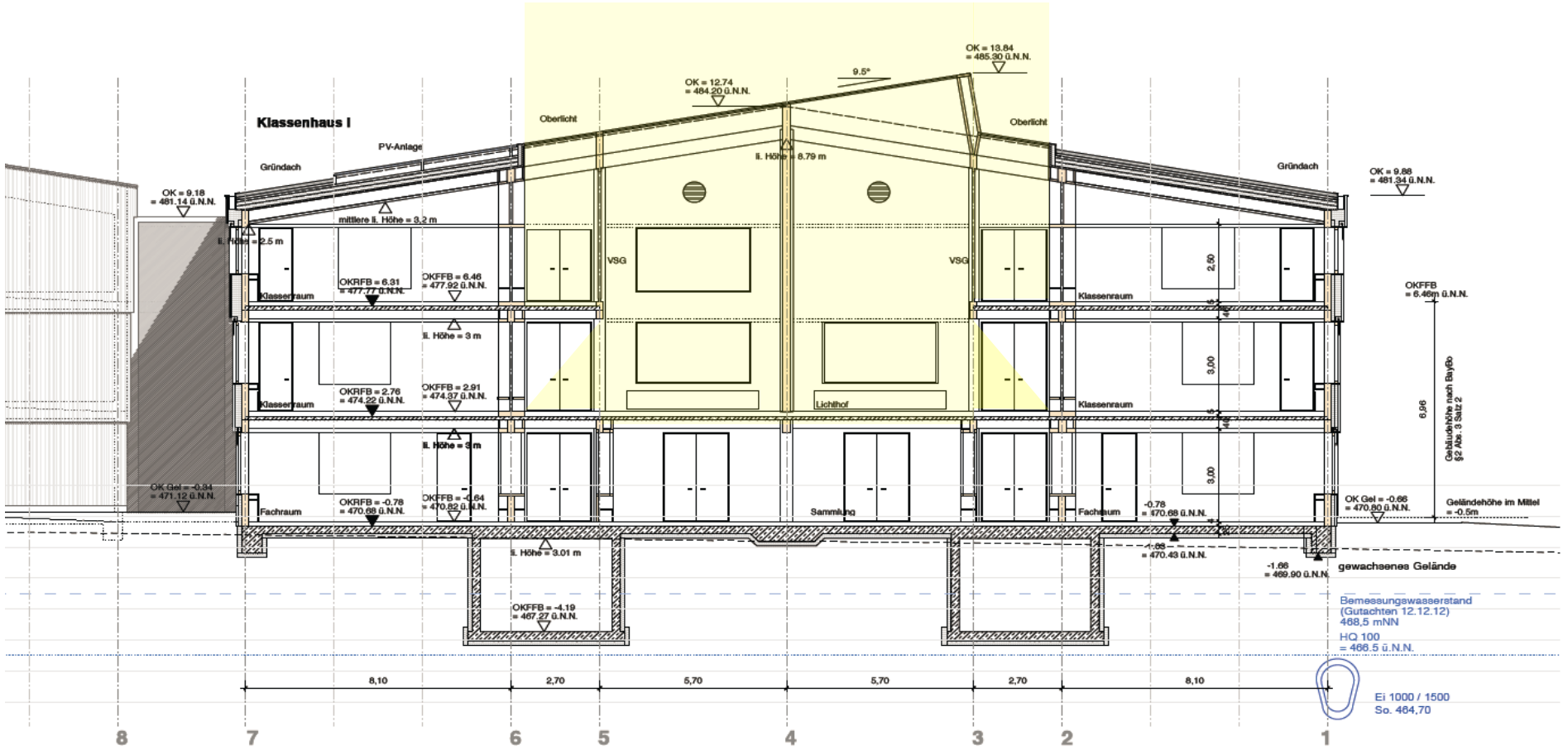


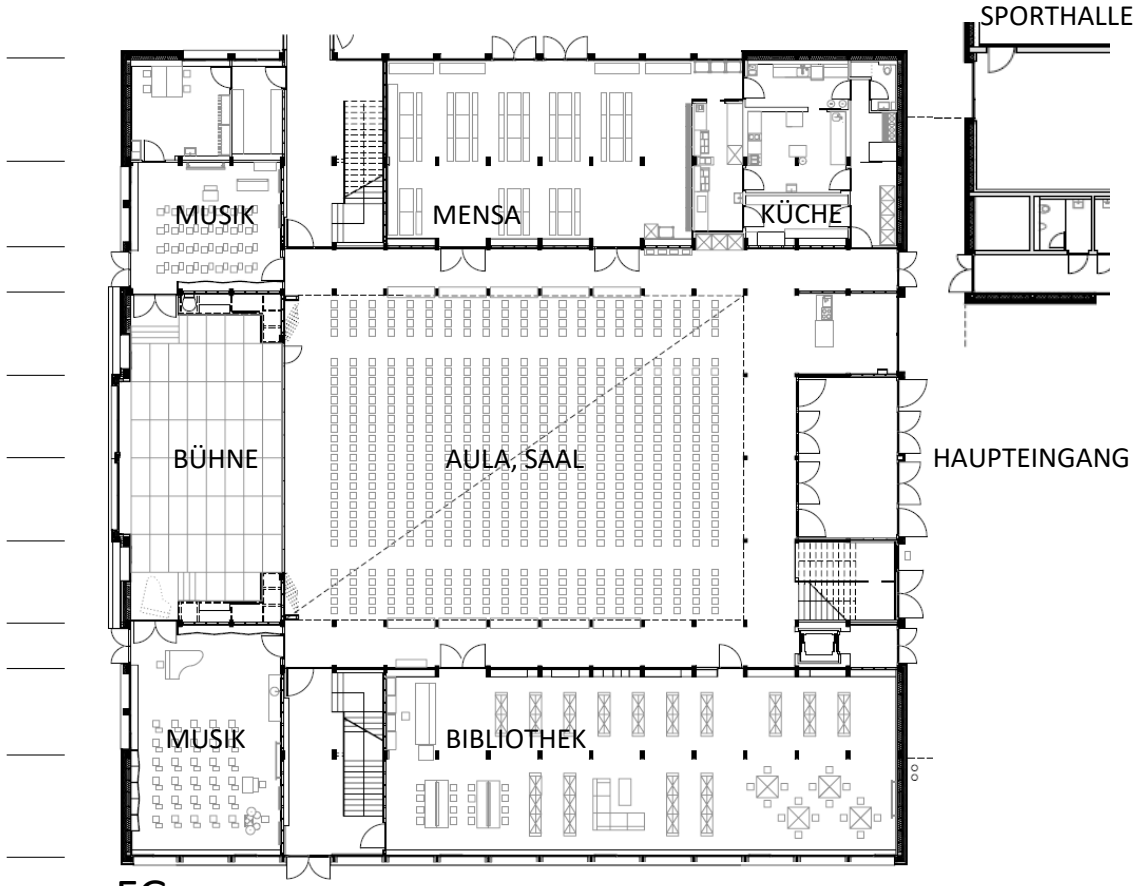
OG 2

KLASSENHAUS 2

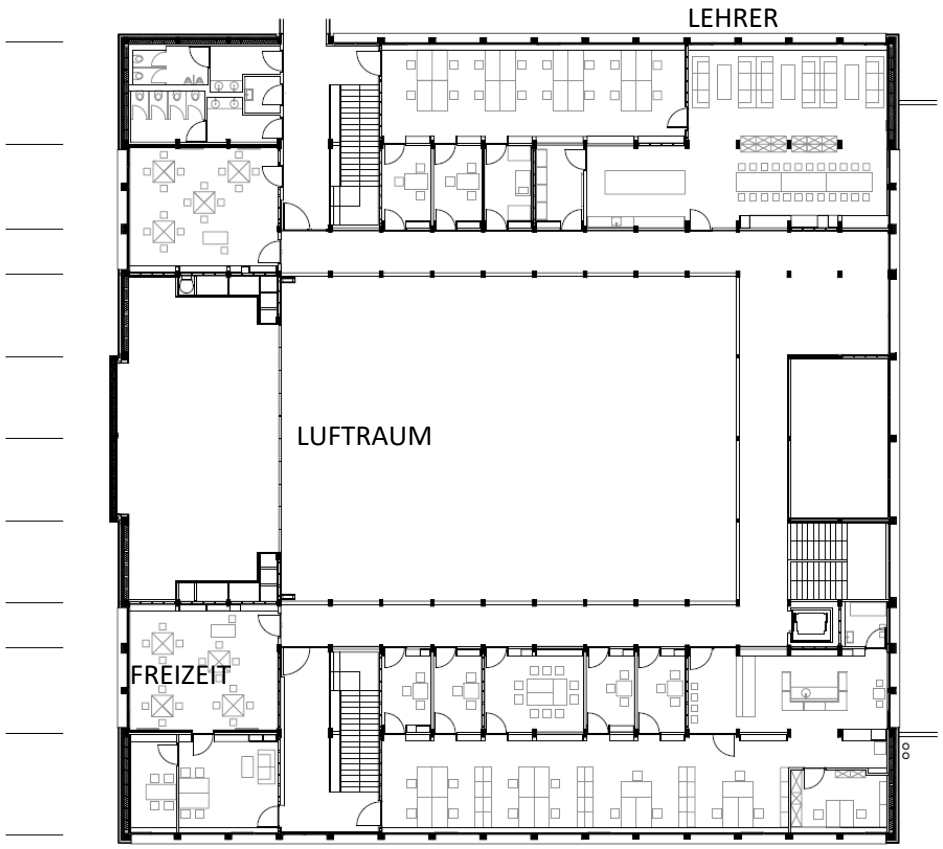


- Architekten **Hermann Kaufmann ZT GmbH**

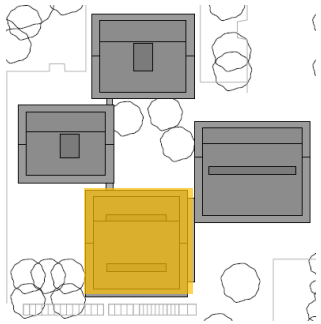



SPORTHALLE
MUSIK
MENSA
KÜCHE
BÜHNE
AULA, SAAL
HAUPTEINGANG
MUSIK
BIBLIOTHEK

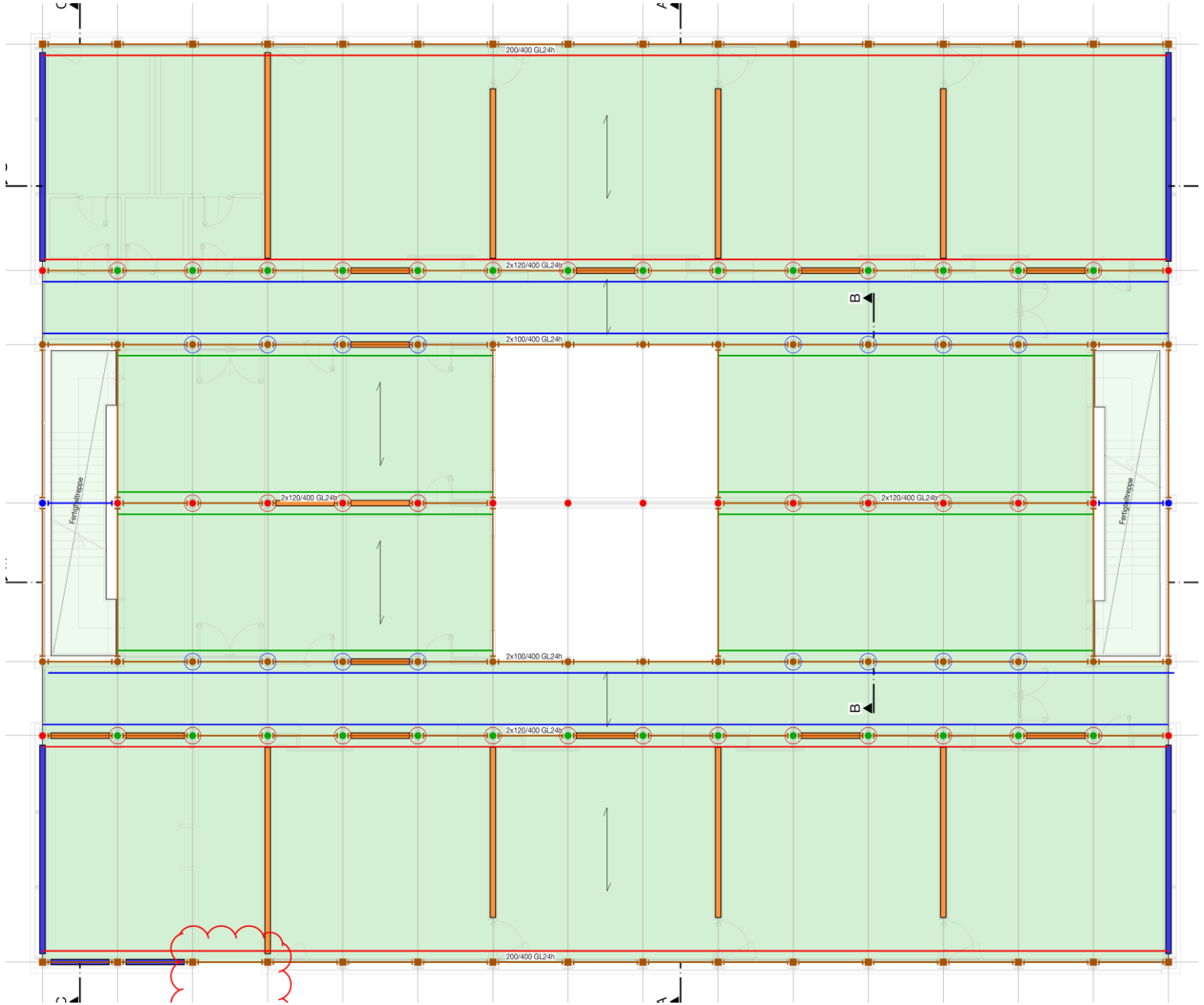
EG


LEHRER
LUFTRAUM
FREIZEIT
SCHULLEITUNG

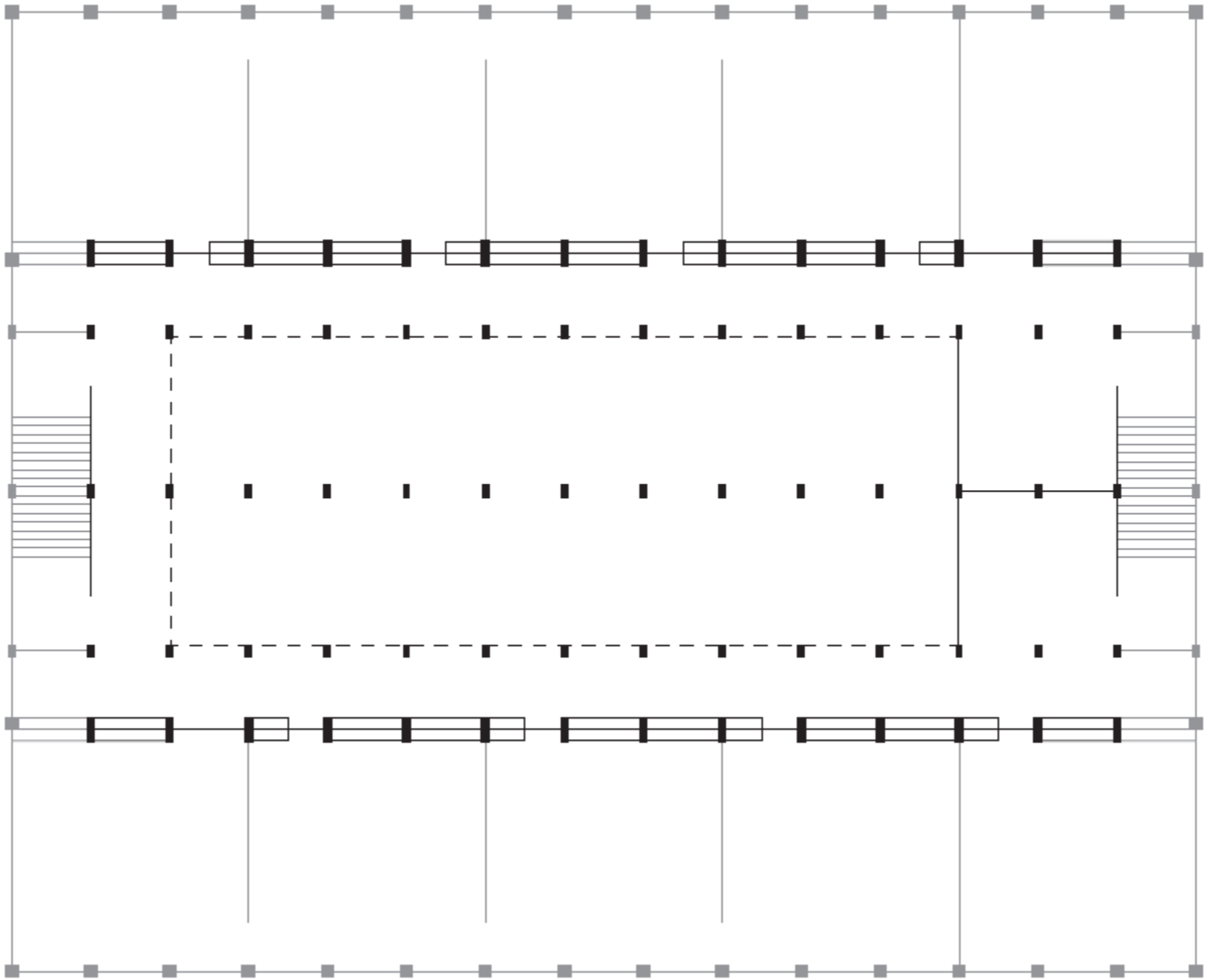
OG 1

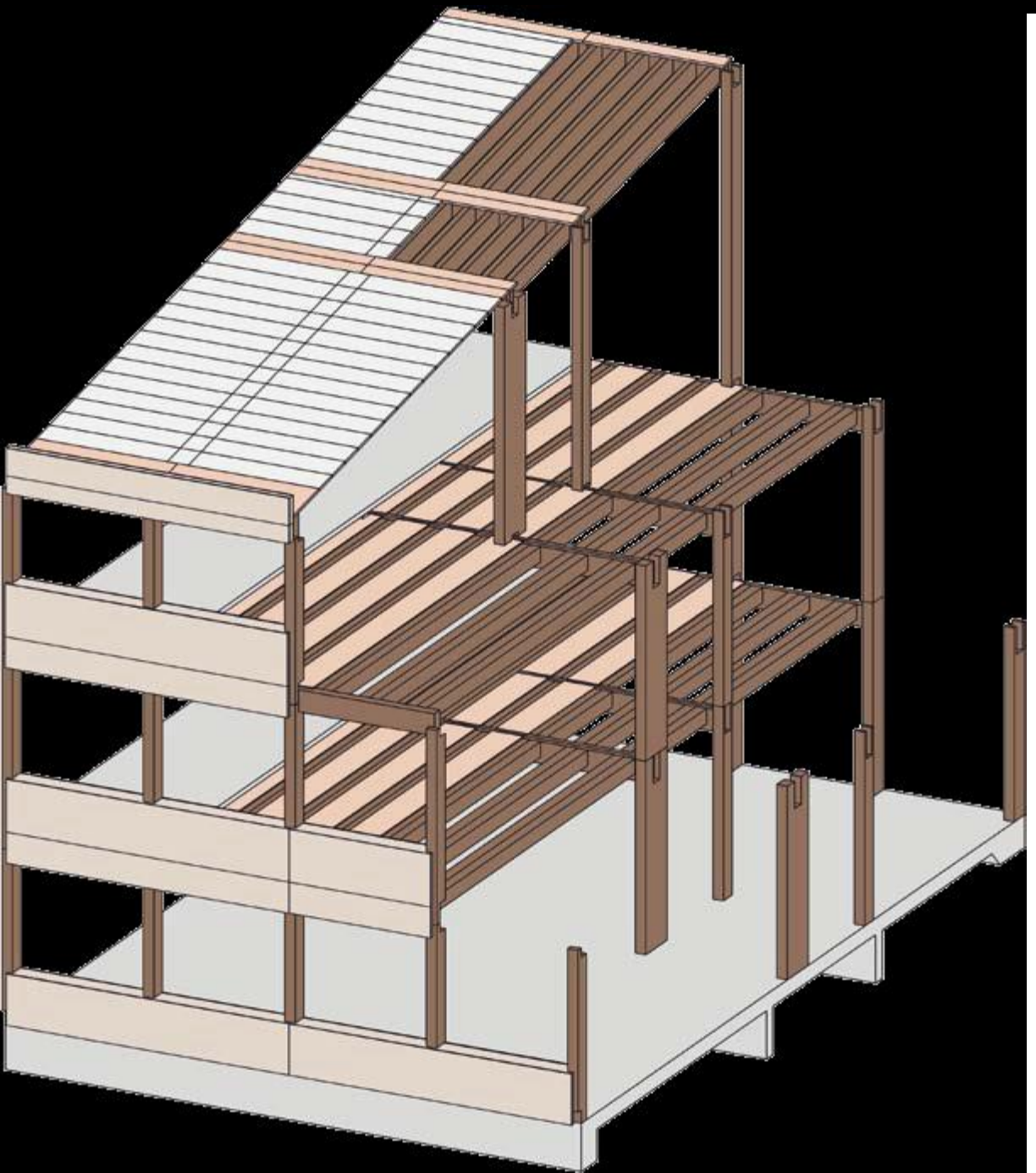


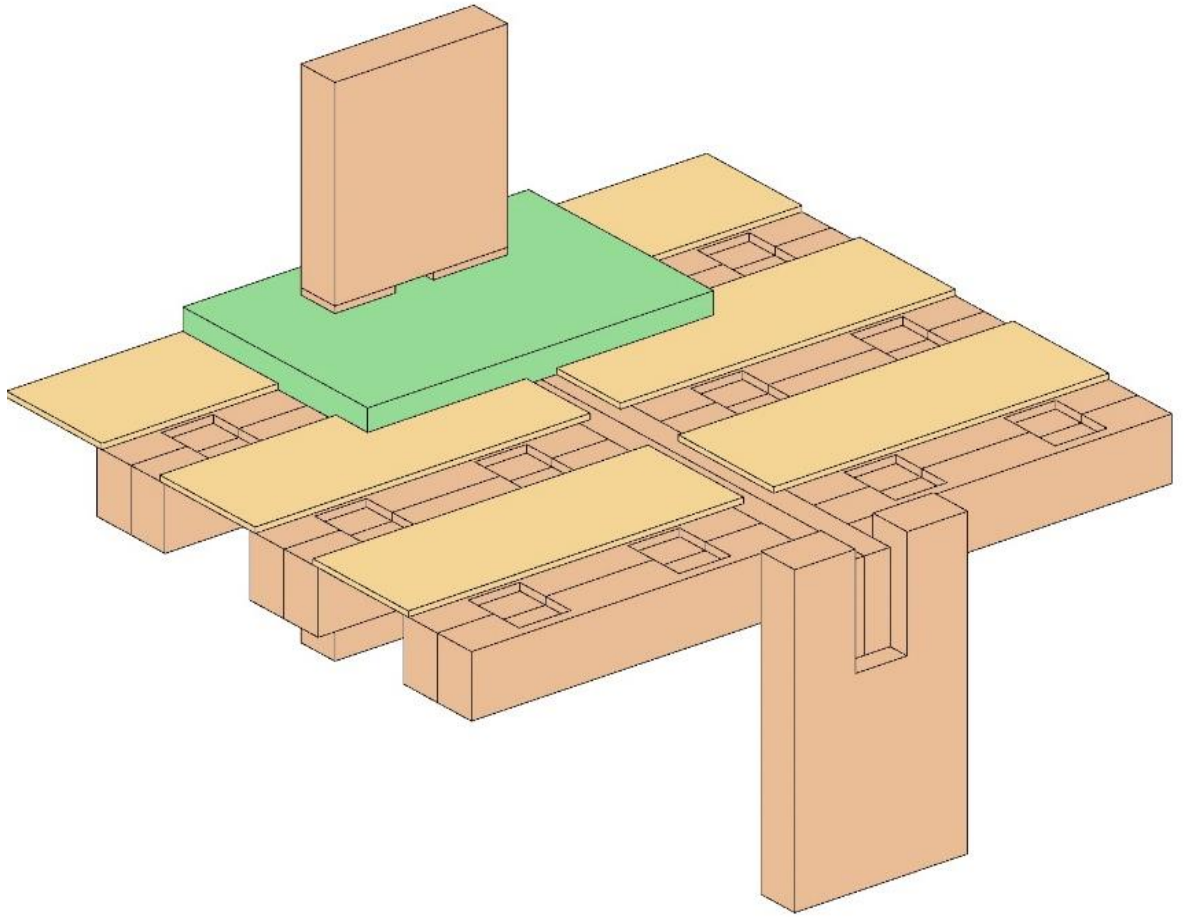
AULA



STRUCTURAL PLAN
MKP ENGENEERS
MERZ KLEY PARTNER



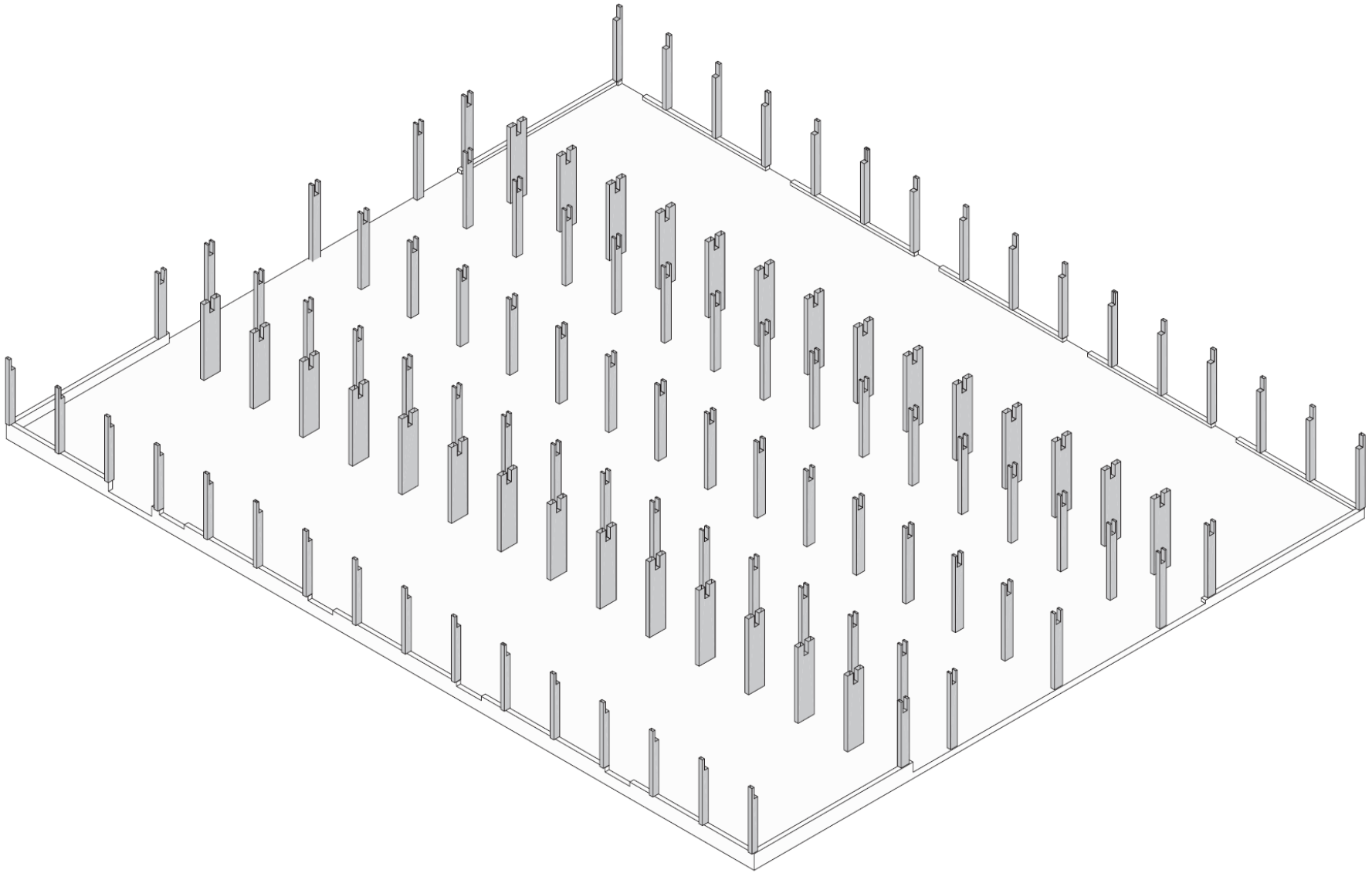


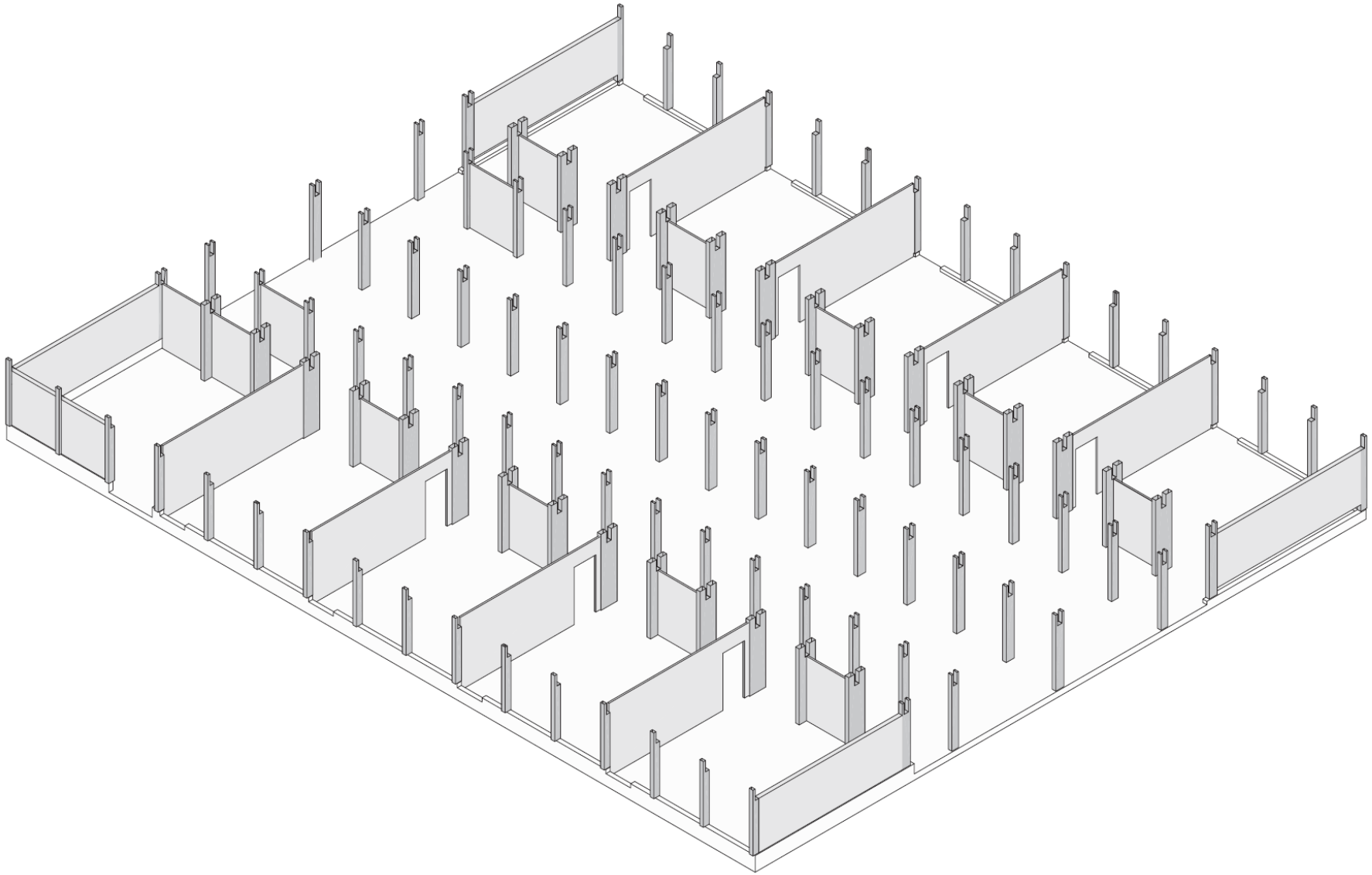


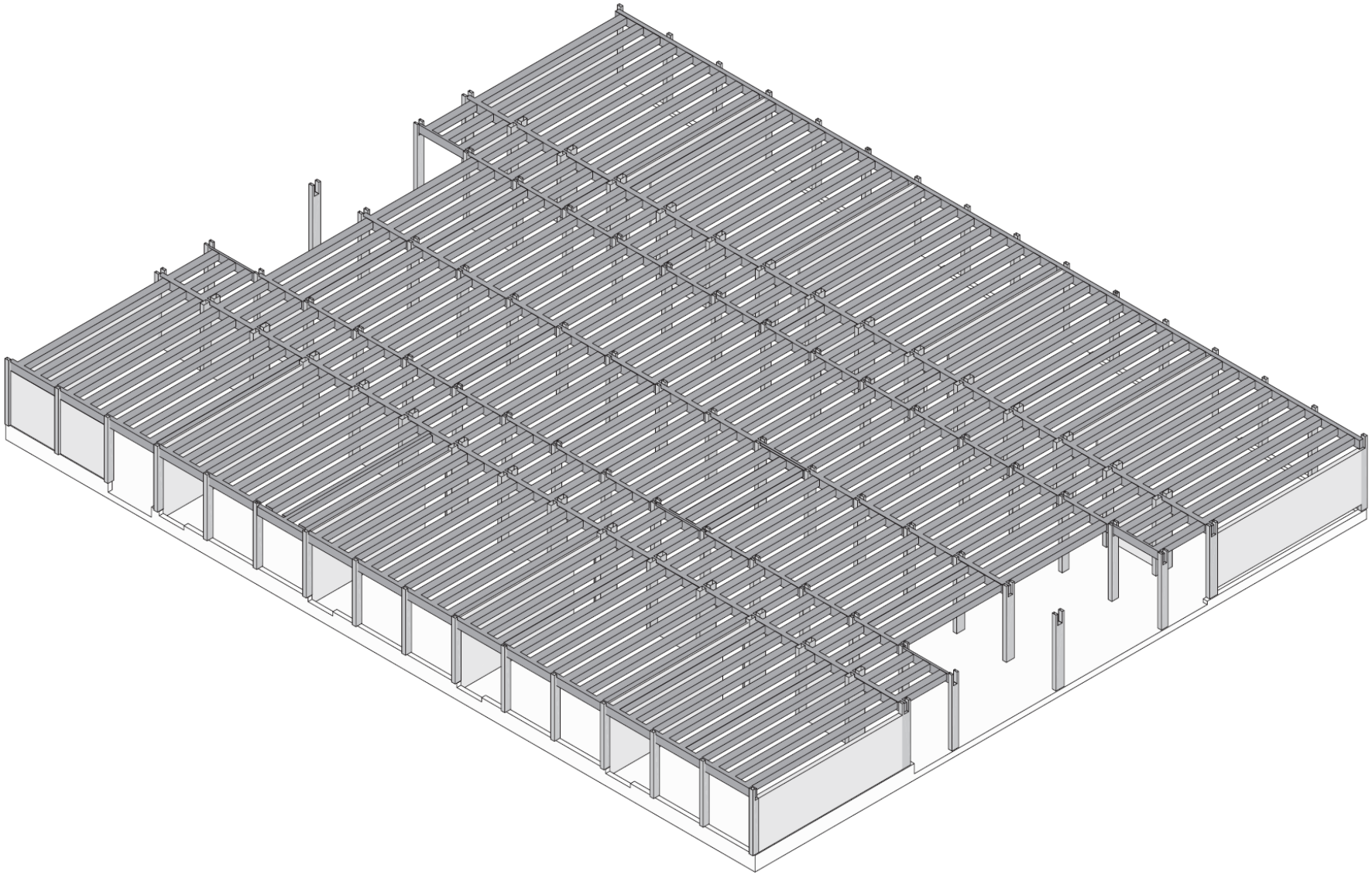
WOOD-CONCRET SLAB

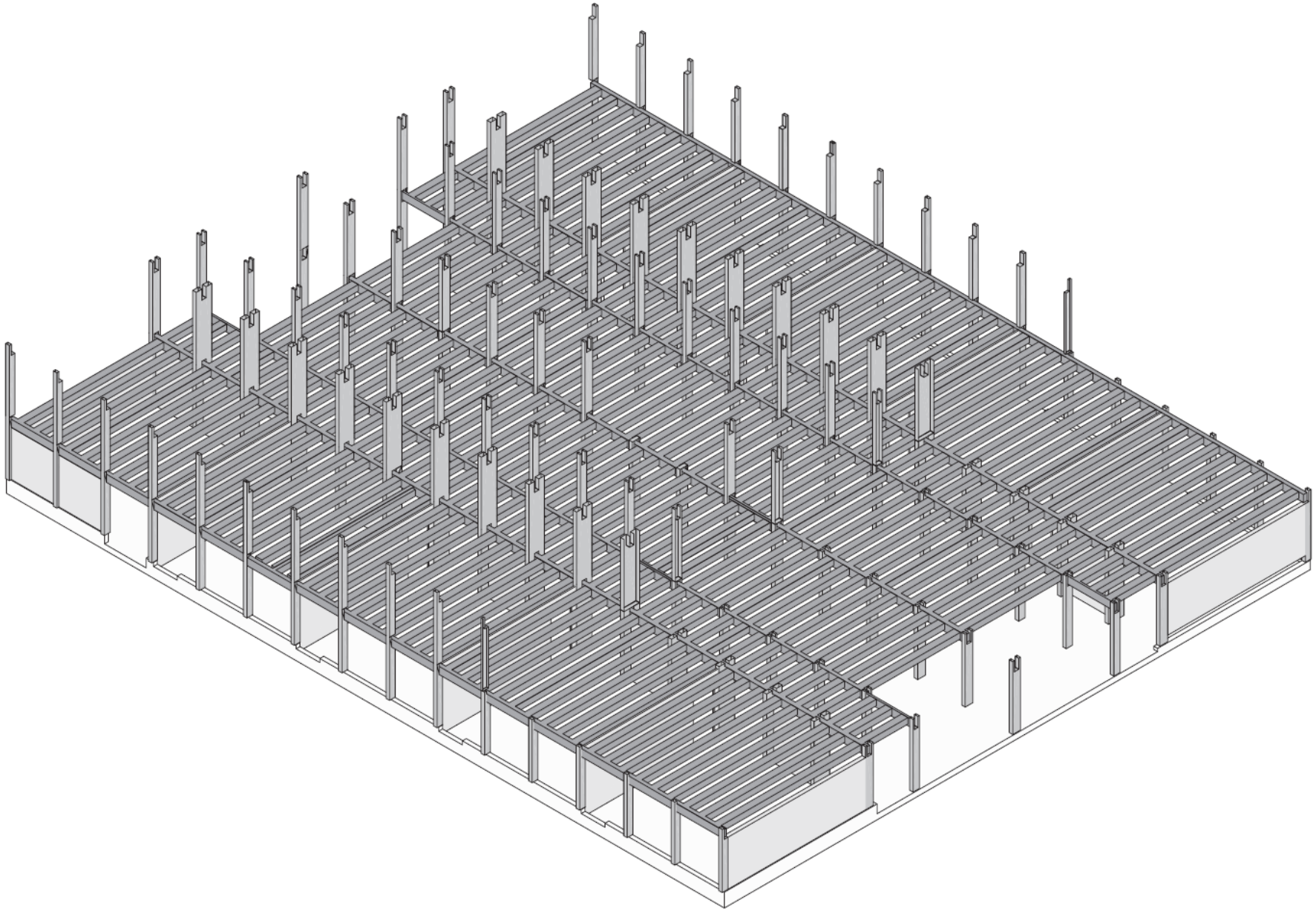
PREFABRICATION
CEILING ELEMENT

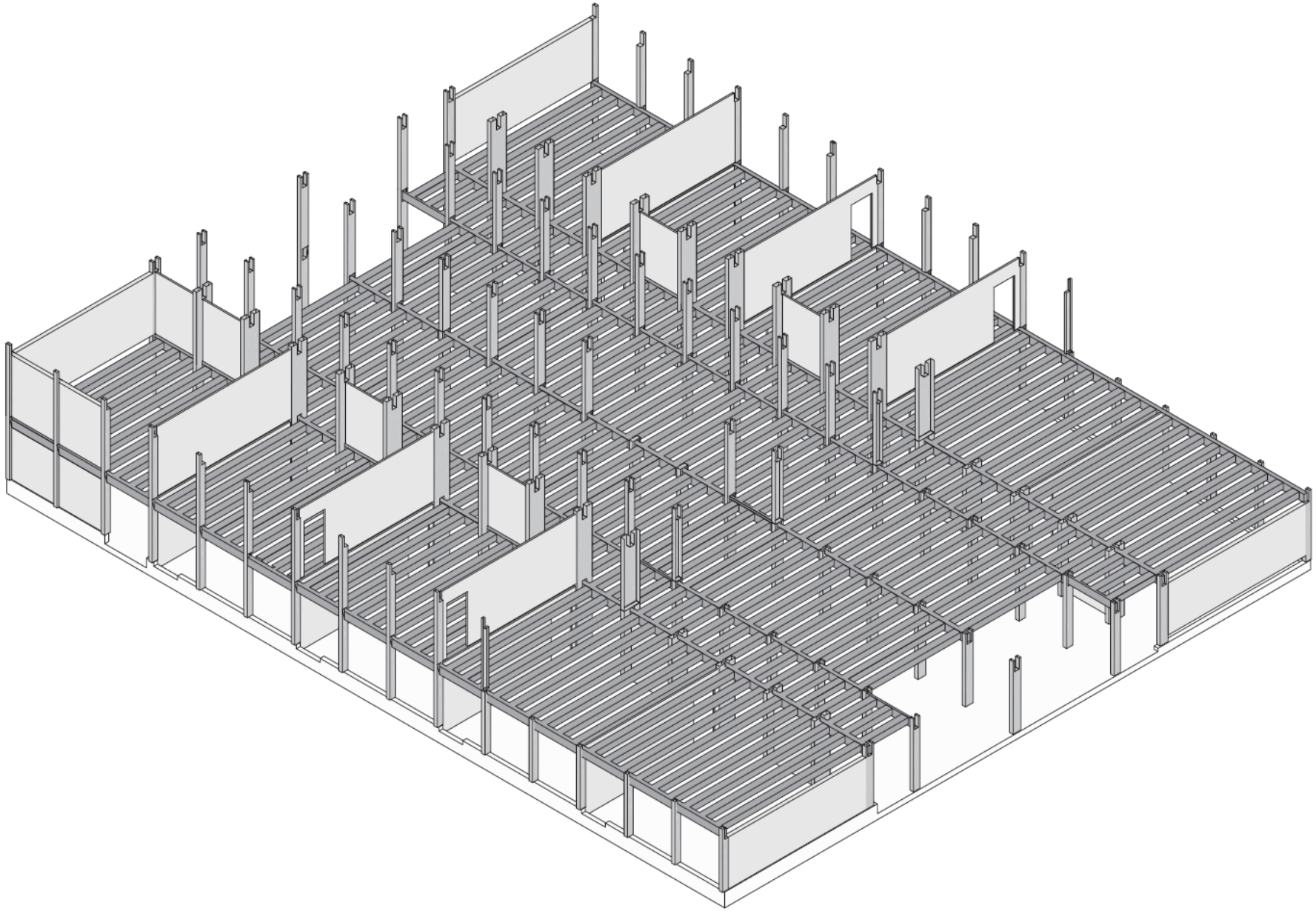
PREFABRICATION ROOF ELEMENT

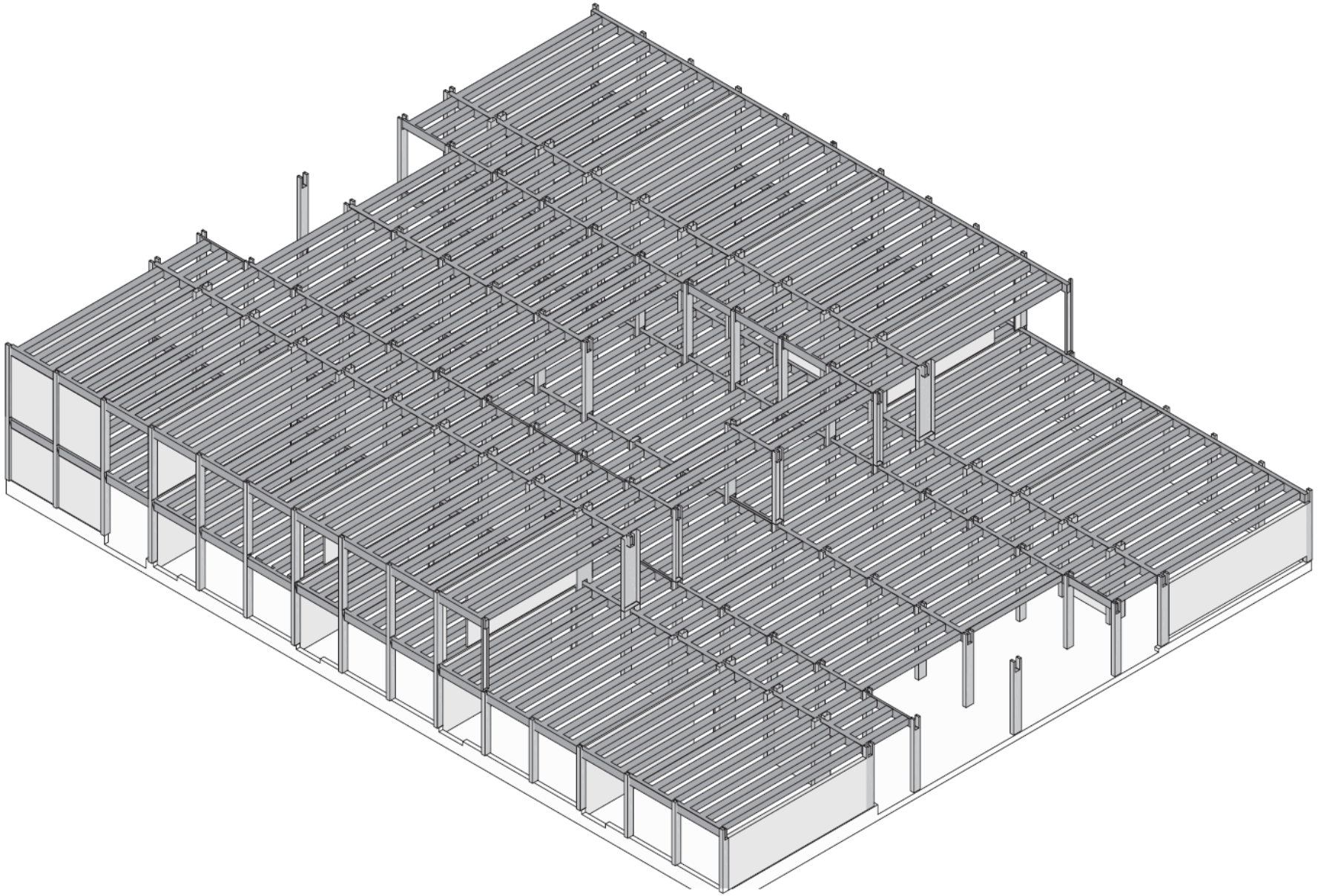


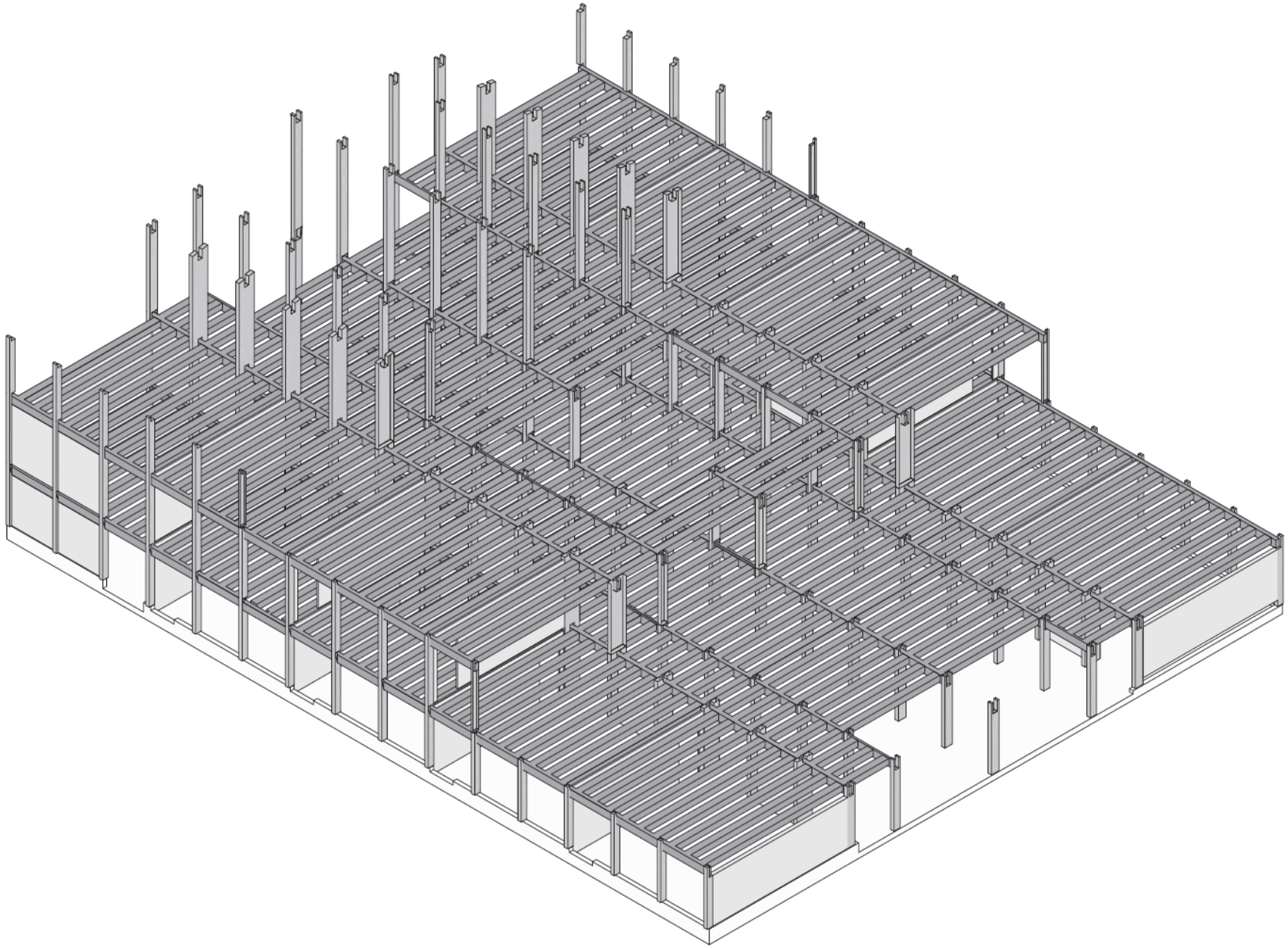


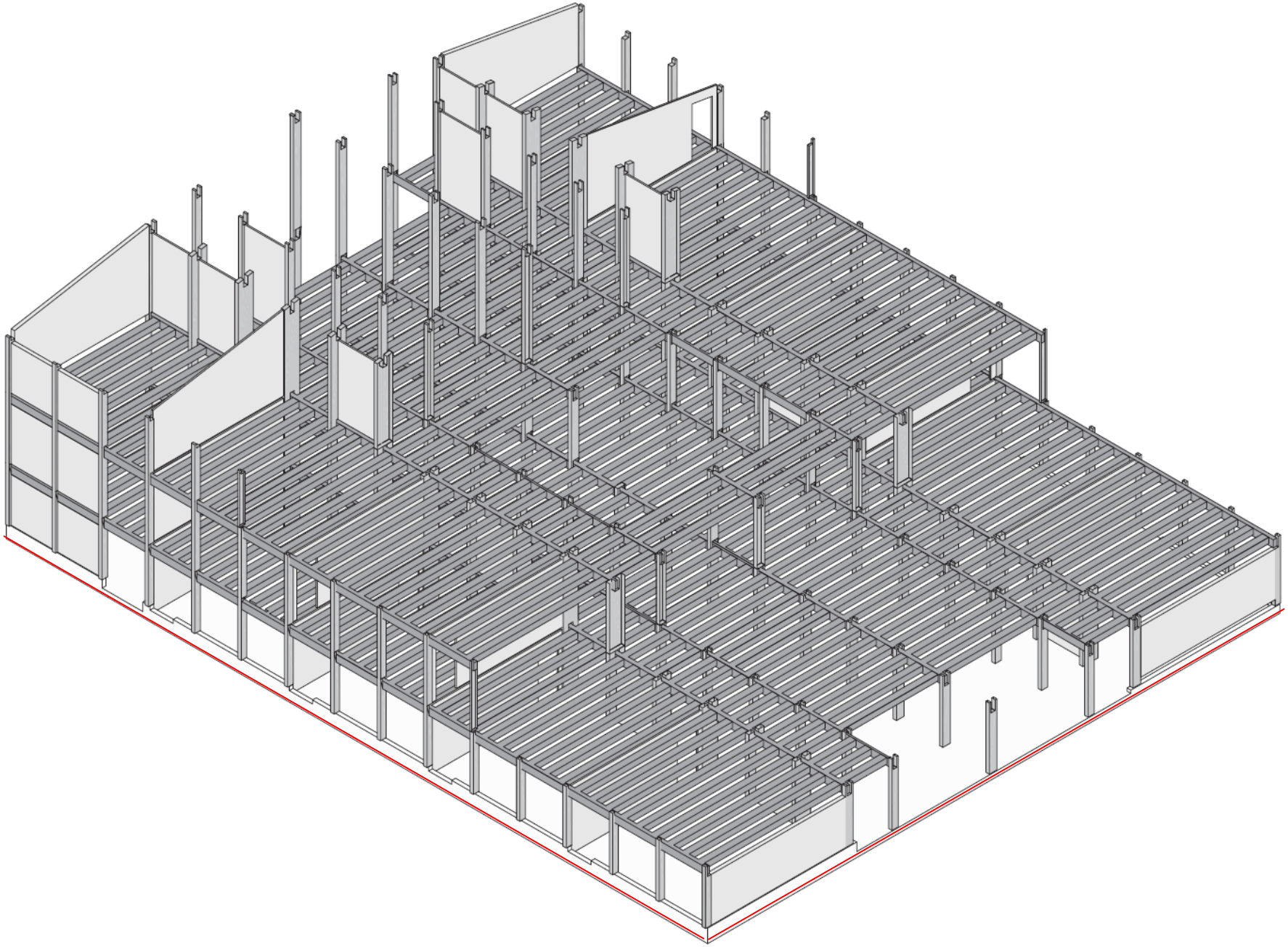


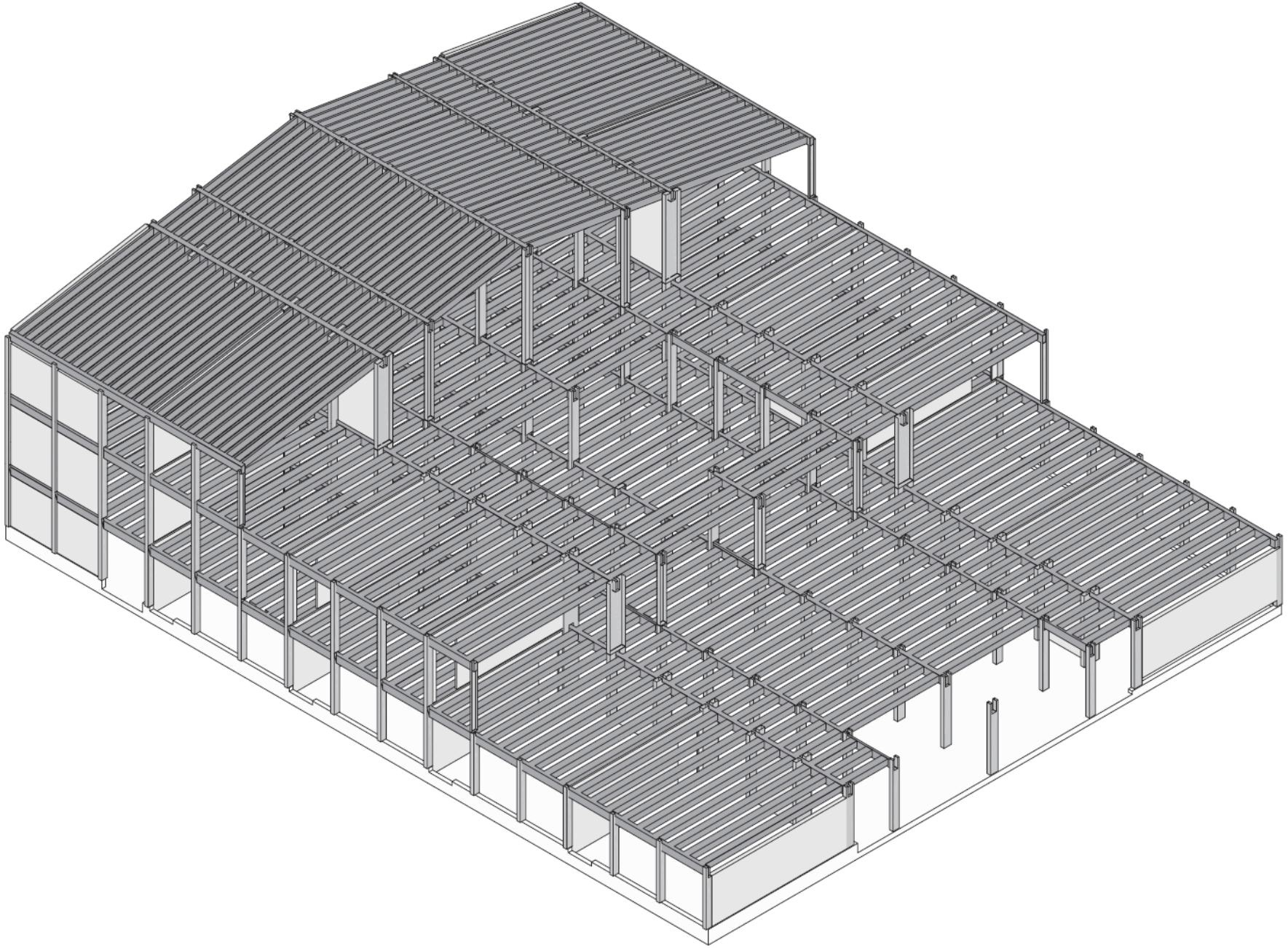












TRANSPORT PREFAB
FACADE ELEMENT

SITE ASSEMBLY PREFAB
FACADE ELEMENT

WOOD-CONCRET SLAB

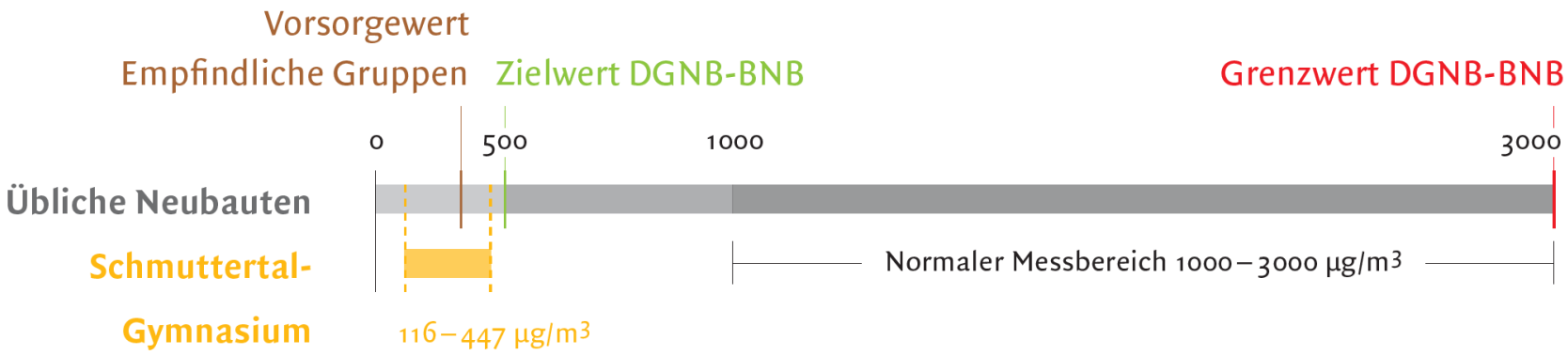


Abbildung 2: Ergebnis der TVOC-Messung in Diedorf

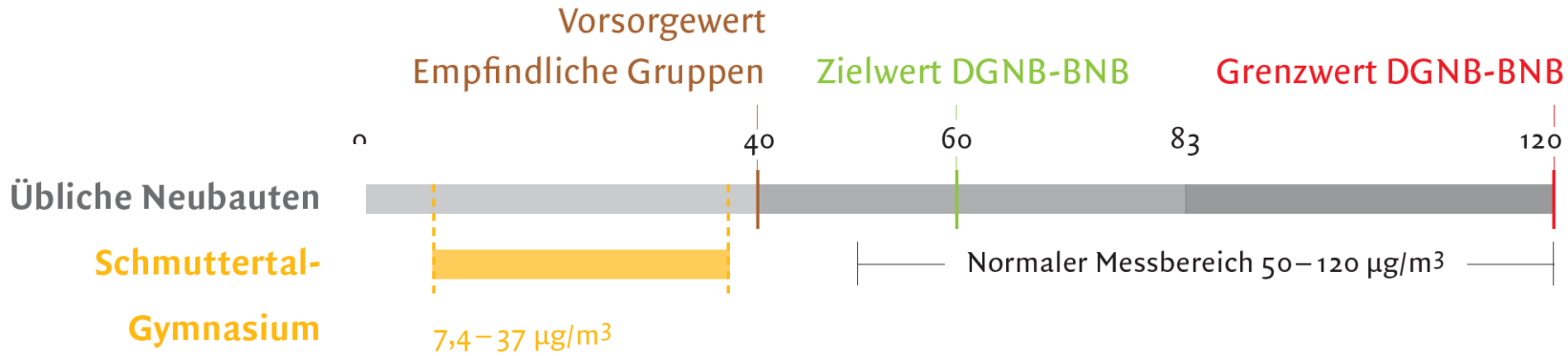
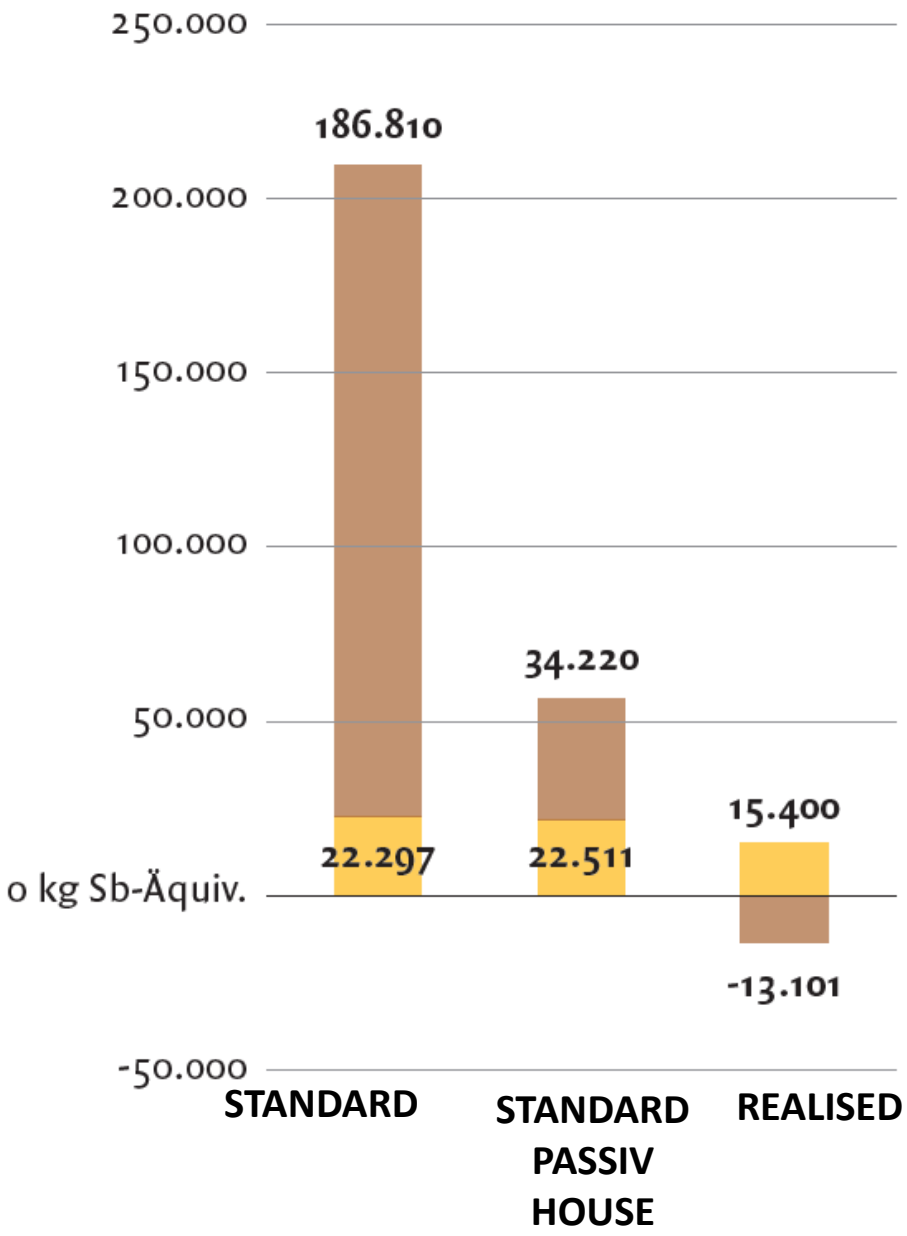


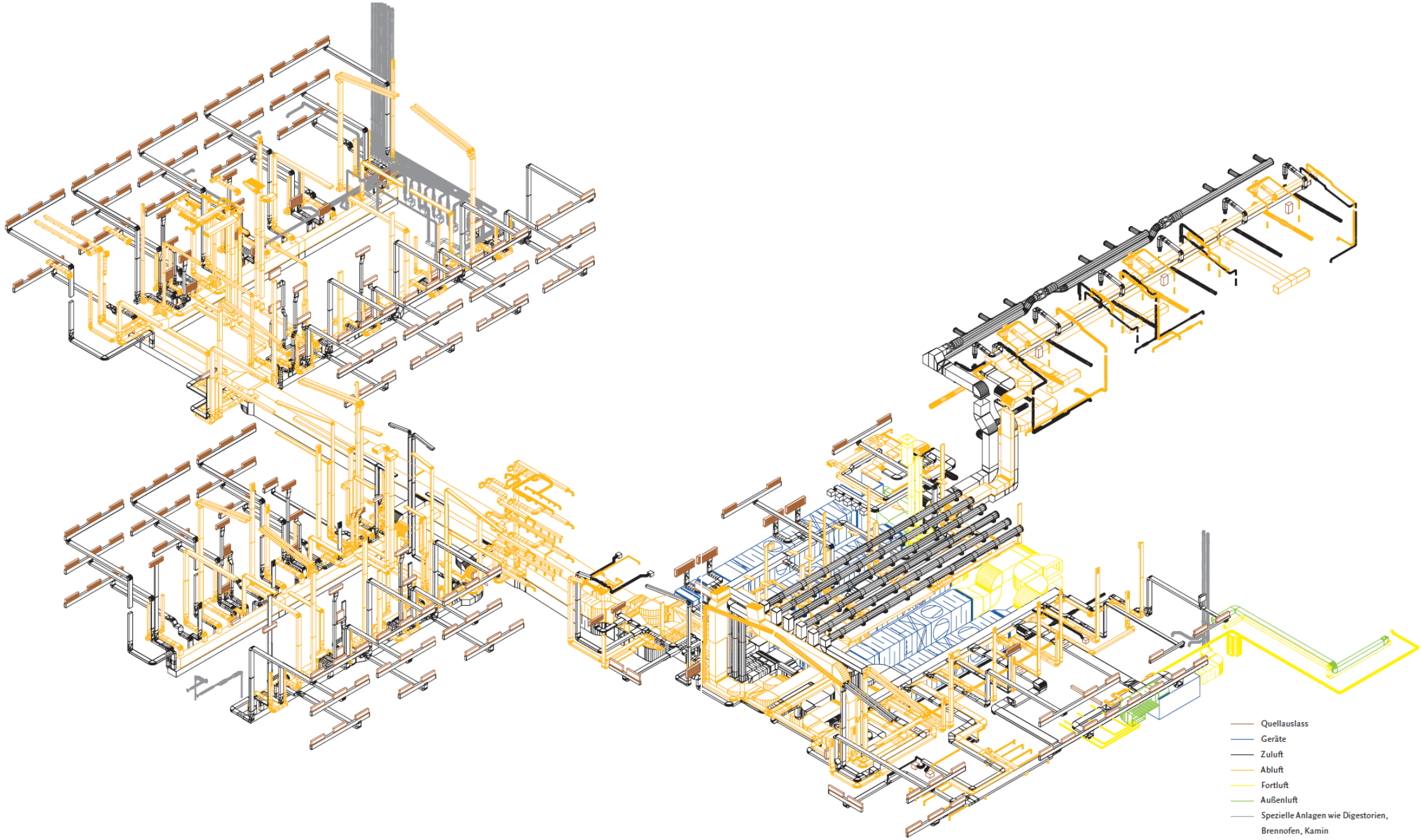
Abbildung 3: Ergebnis der Formaldehyd-Messung in Diedorf



POTENTIAL CLIMATE GAS IN KG/CO2 ABSOLUTE OVER 50 YEARS

CO2 POTENTIAL FOR HEATING, ELECTRICAL SUPLY……

CO2 POTENTIAL BUILDING

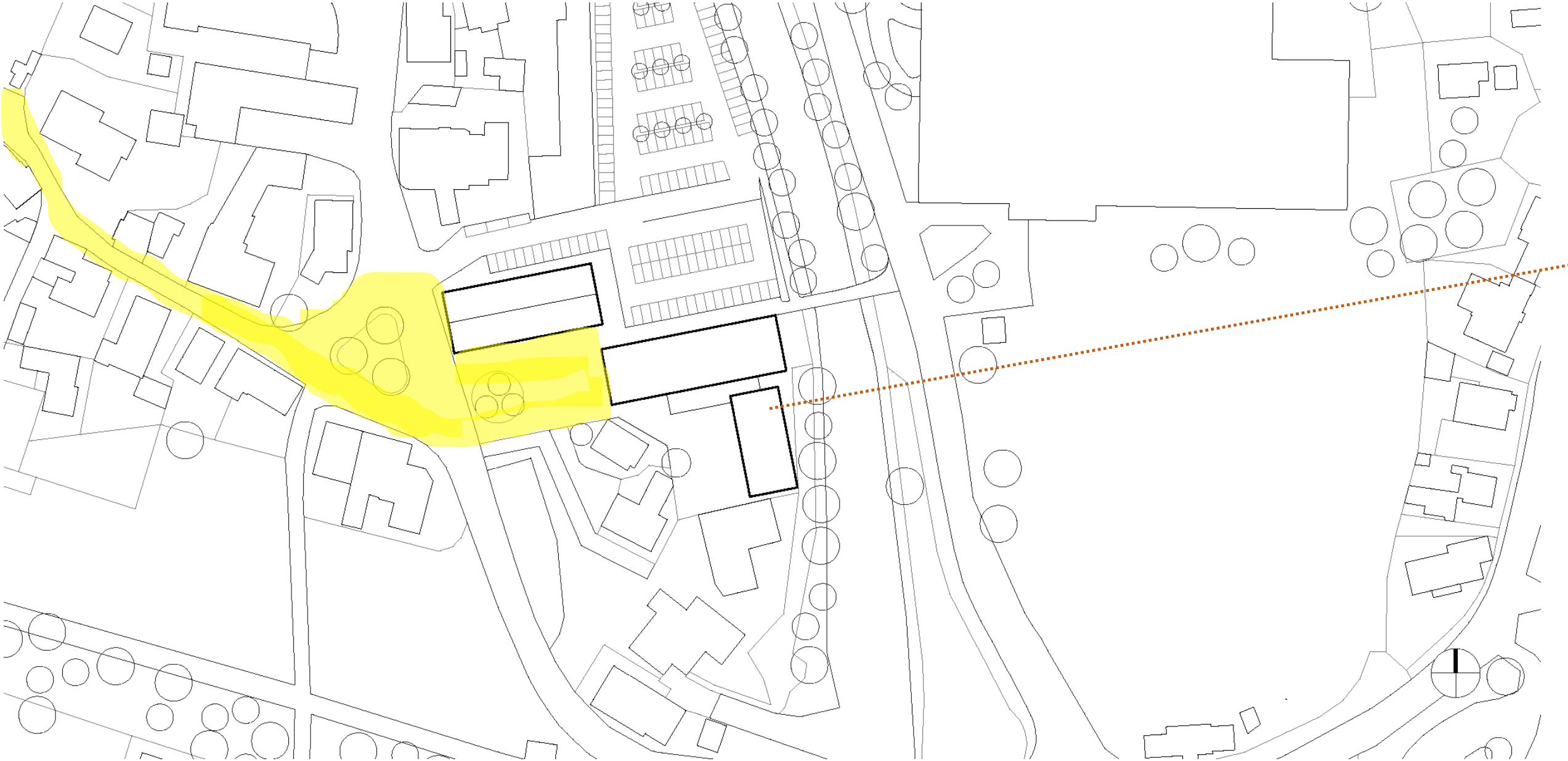

Quellauslass
Geräte
Zuluft
Abluft
Fortluft
Außenluft
Spezielle Anlagen wie Digestorien,
Brennofen, Kamin

NEXT STEP KEEP IT MORE SIMPEL

Nebelhorn ropeway station, Germany I Oberstdorf, HK Architekten

Nebelhorn ropeway station, Germany I Oberstdorf, HK Architekten

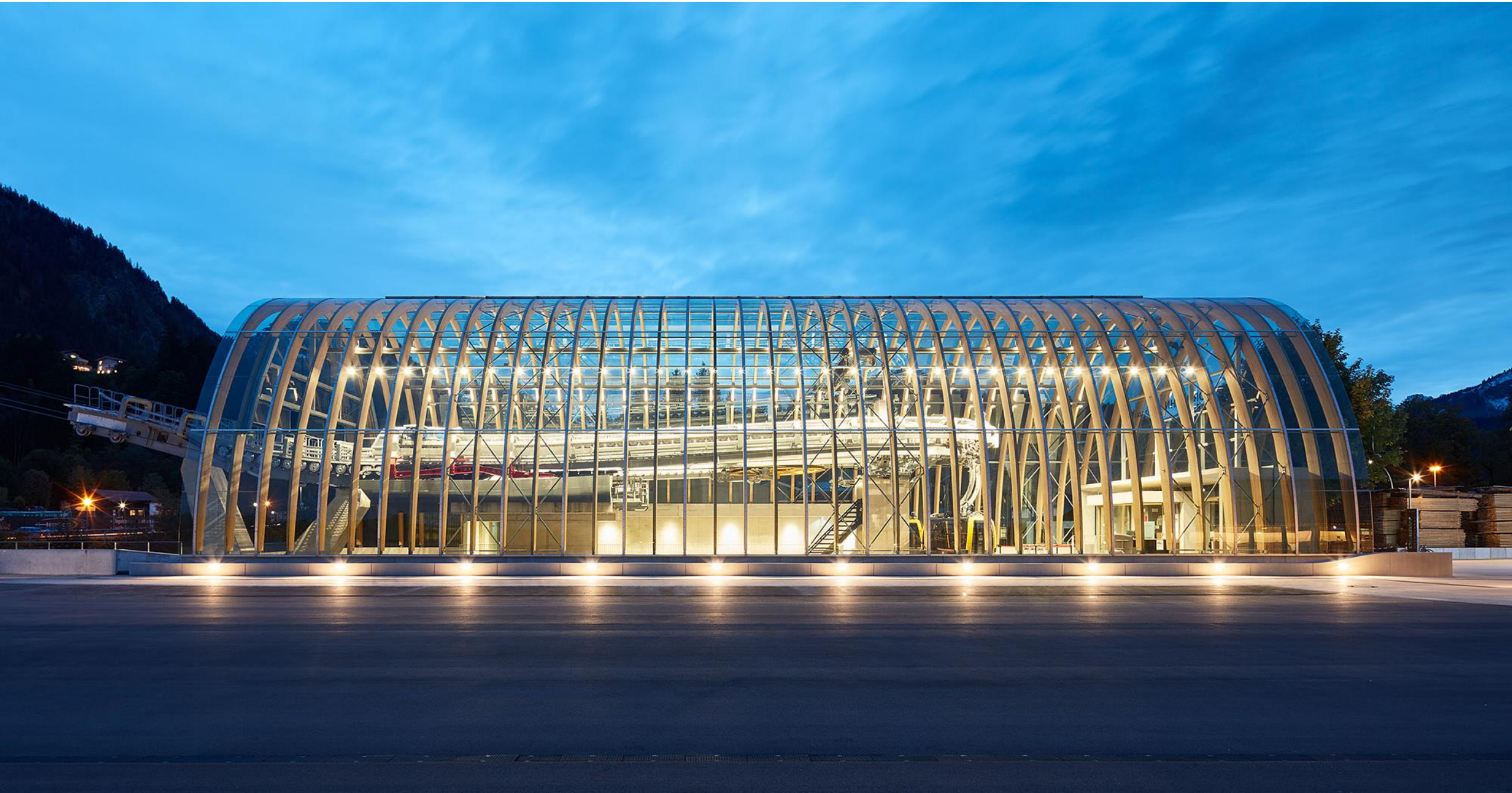
Lageplan



Nebelhorn ropeway station, Germany I Oberstdorf, HK Architekten

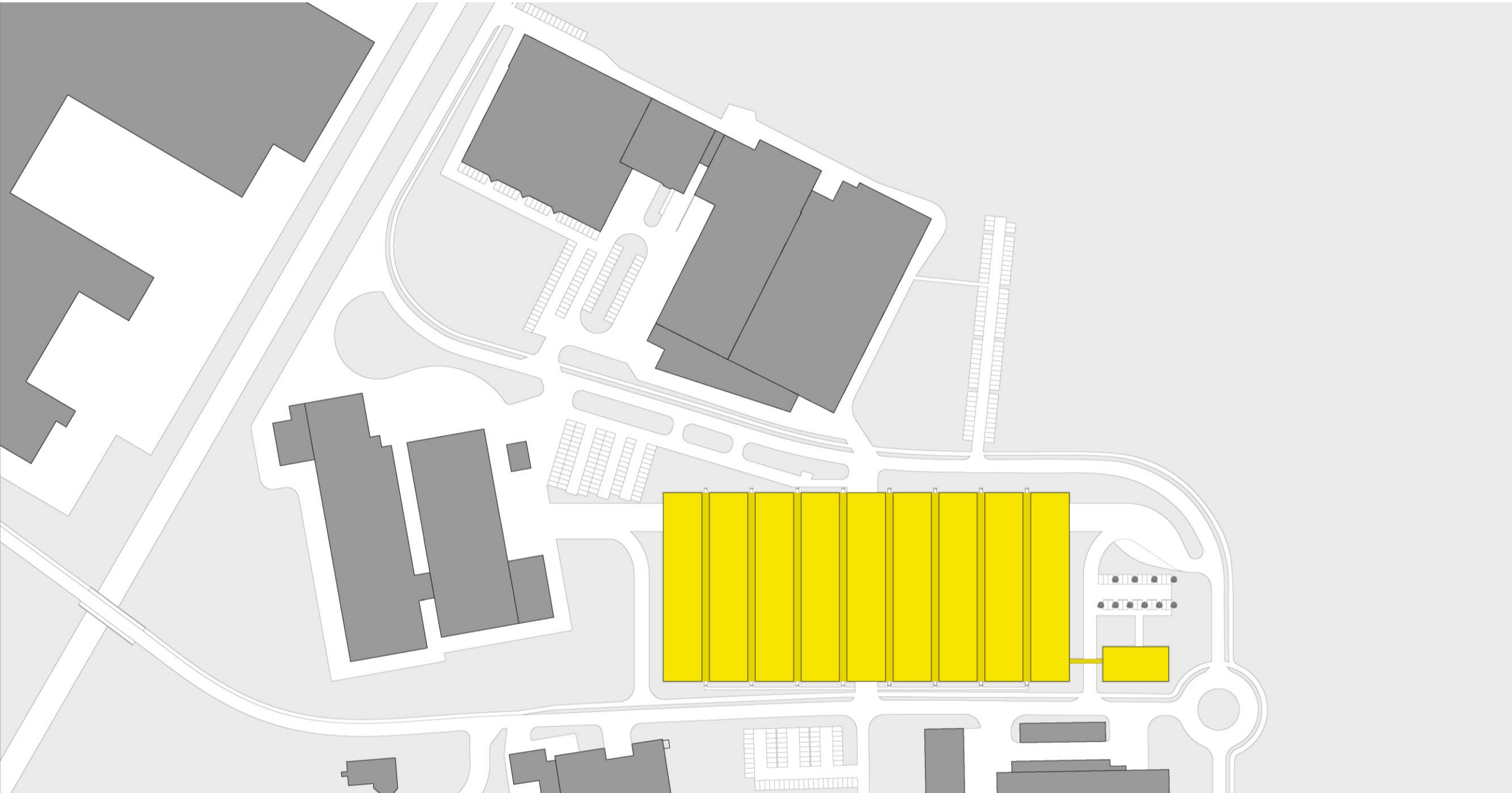
Nebelhorn ropeway station, Germany I Oberstdorf, HK Architekten

Nebelhorn ropeway station, Germany I Oberstdorf, HK Architekten

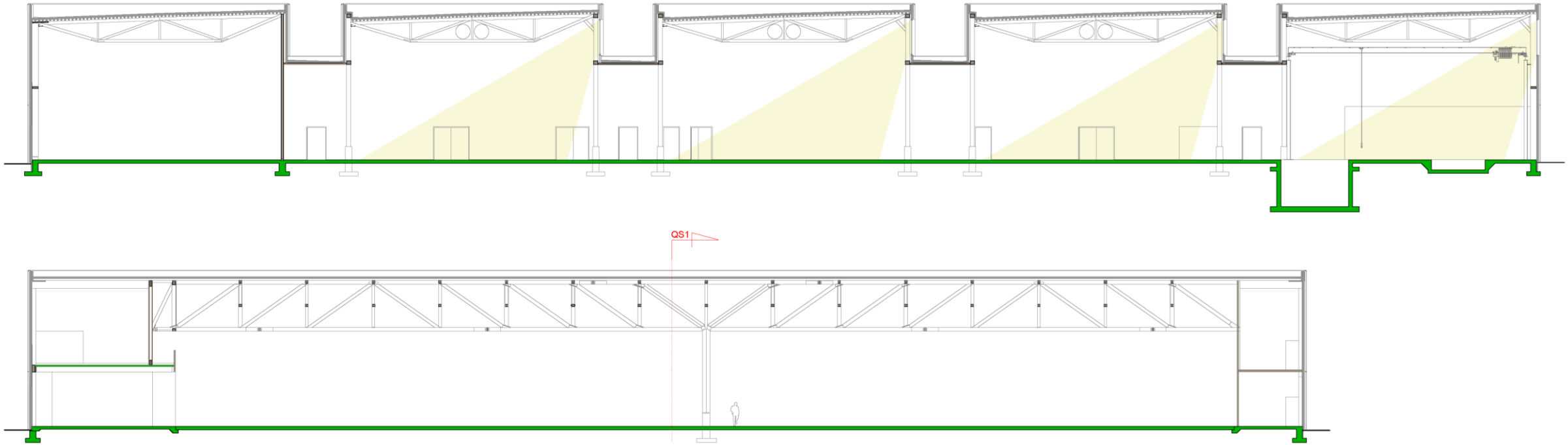


Nebelhorn ropeway station, Germany I Oberstdorf, HK Architekten

SWG screw factory , Germany I Waldenburg HK Architekten

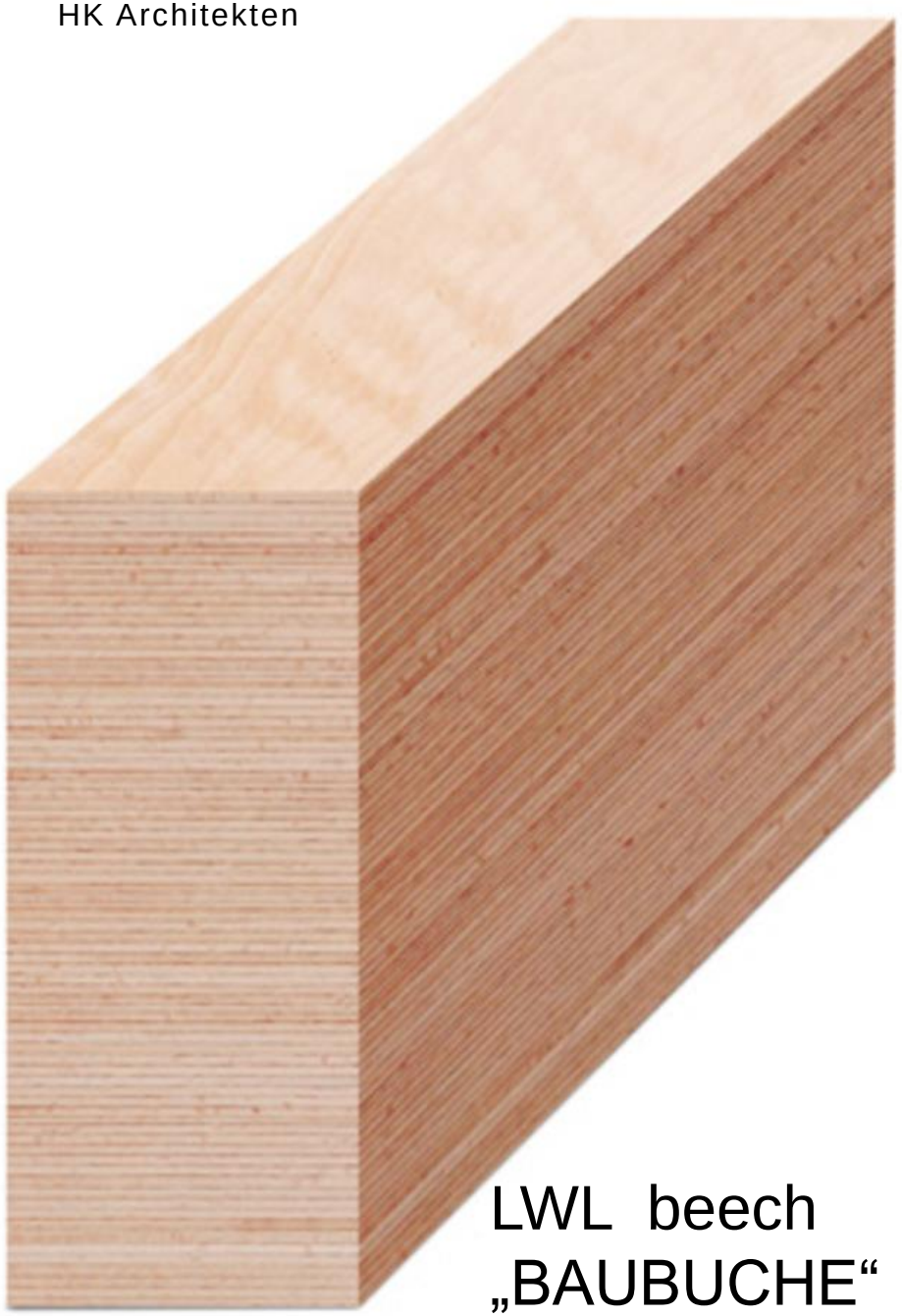


SWG screw factory , Germany I Waldenburg HK Architekten

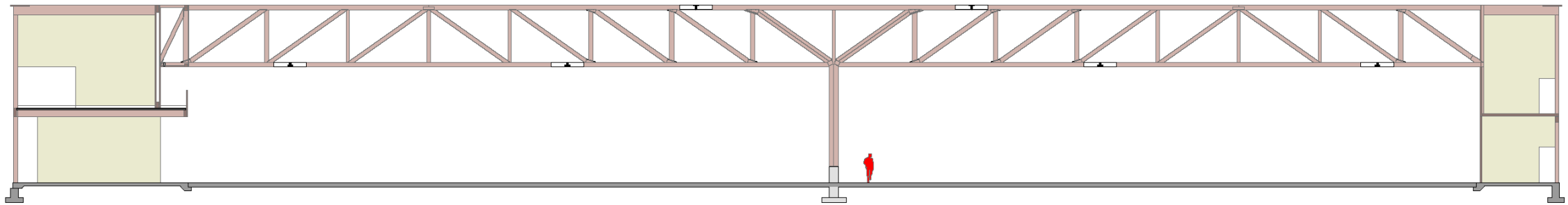


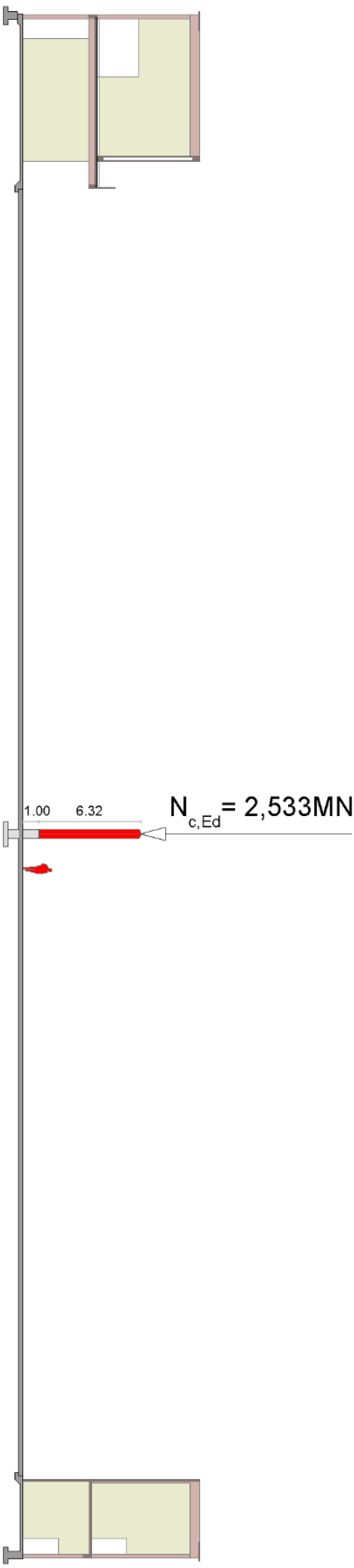
SWG Engineering Henning Ernst

SWG screw factory , Germany I Waldenburg HK Architekten



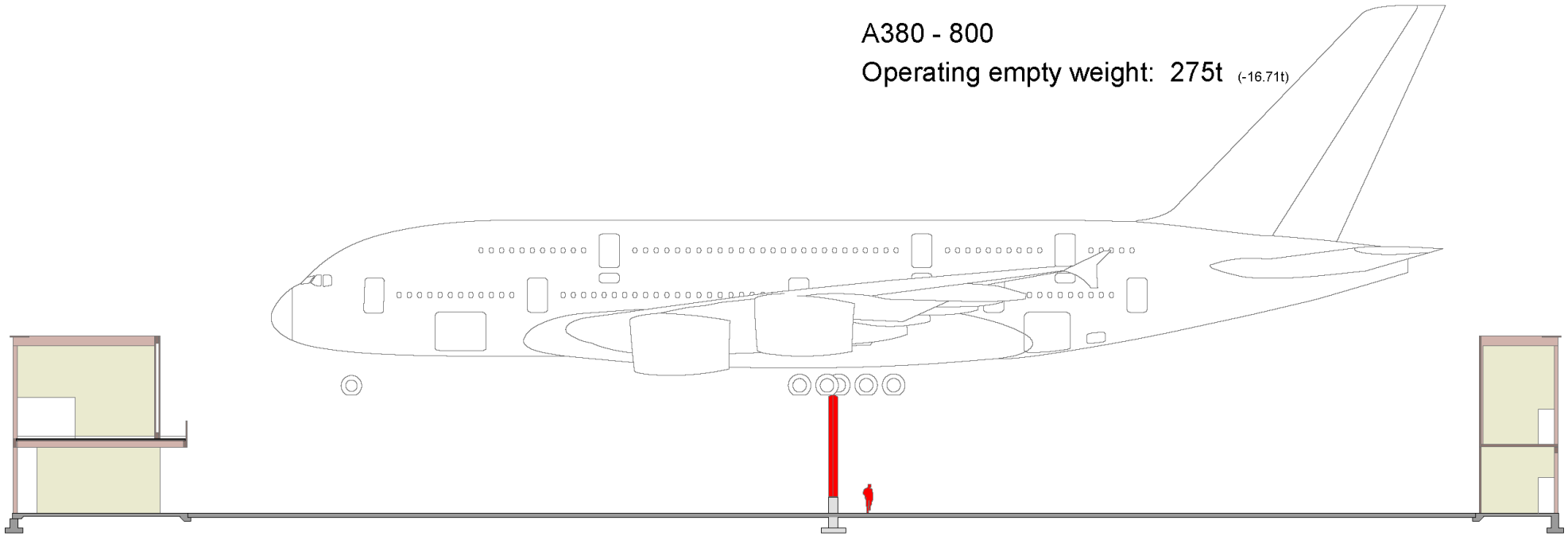
LWL beech
„BAUBUCHE“

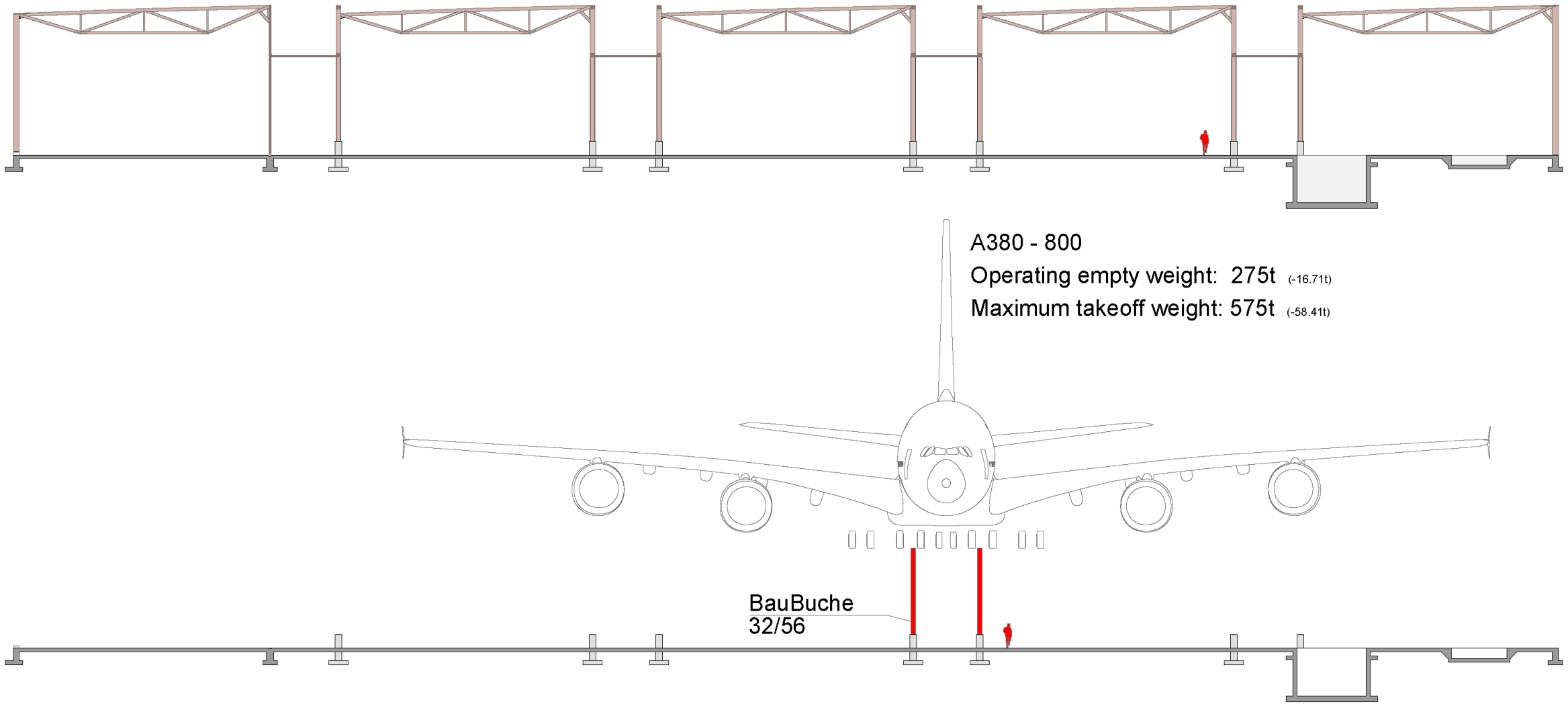


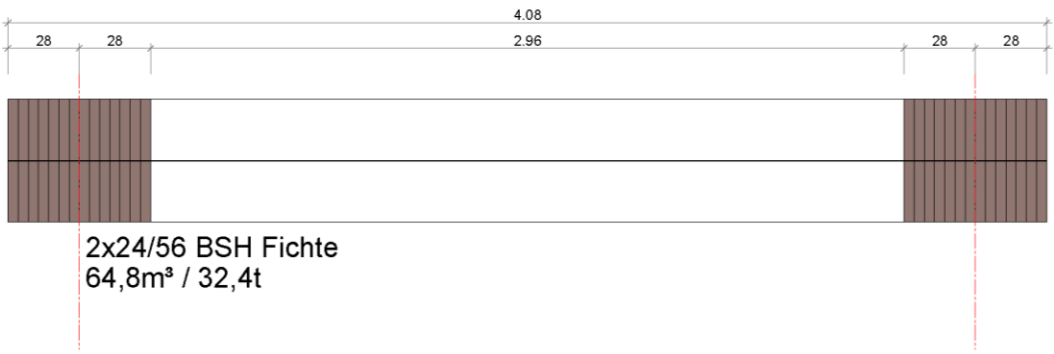

1.00
6.32
N c,Ed = 2,533MN

A380 - 800

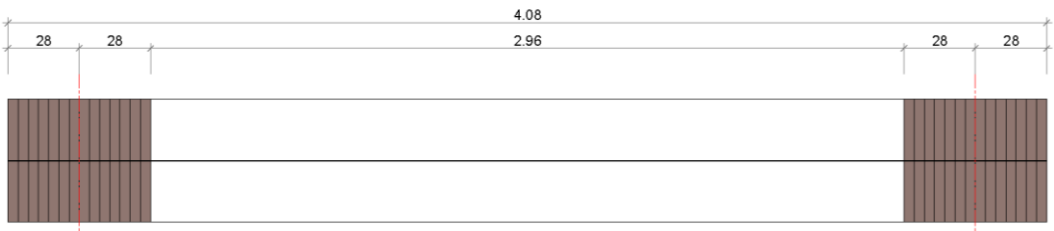
Operating empty weight: 275t (-16.71t)



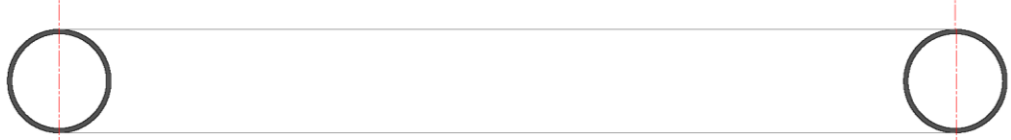

A380 - 800
Operating empty weight: 275t (-16.71t)
Maximum takeoff weight: 575t (-58.41t)
BauBuche
32/56



2x24/56 BSH Fichte
64,8m³ / 32,4t



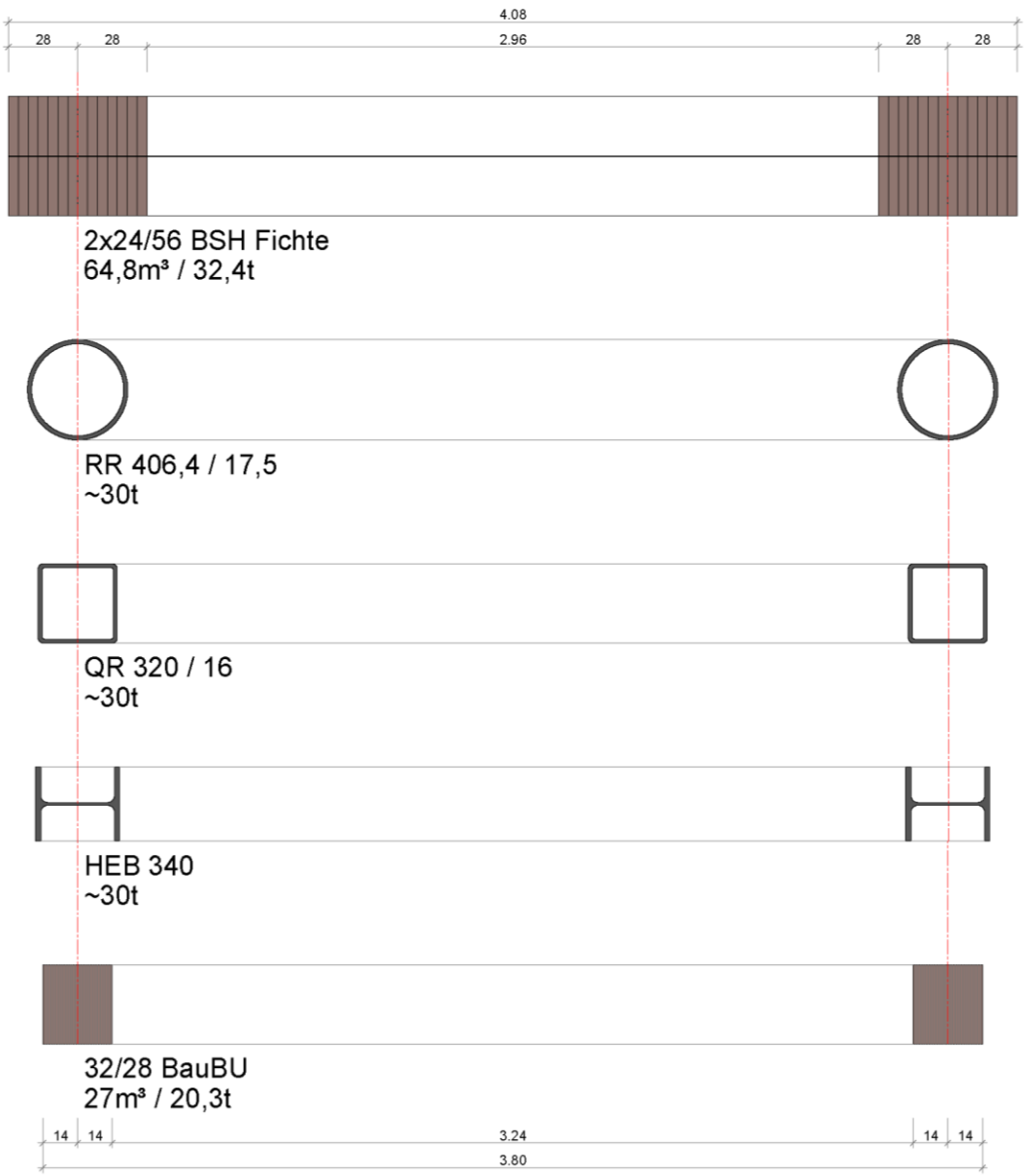
2x24/56 BSH Fichte
64,8m³ / 32,4t



RR 406,4 / 17,5
~30t

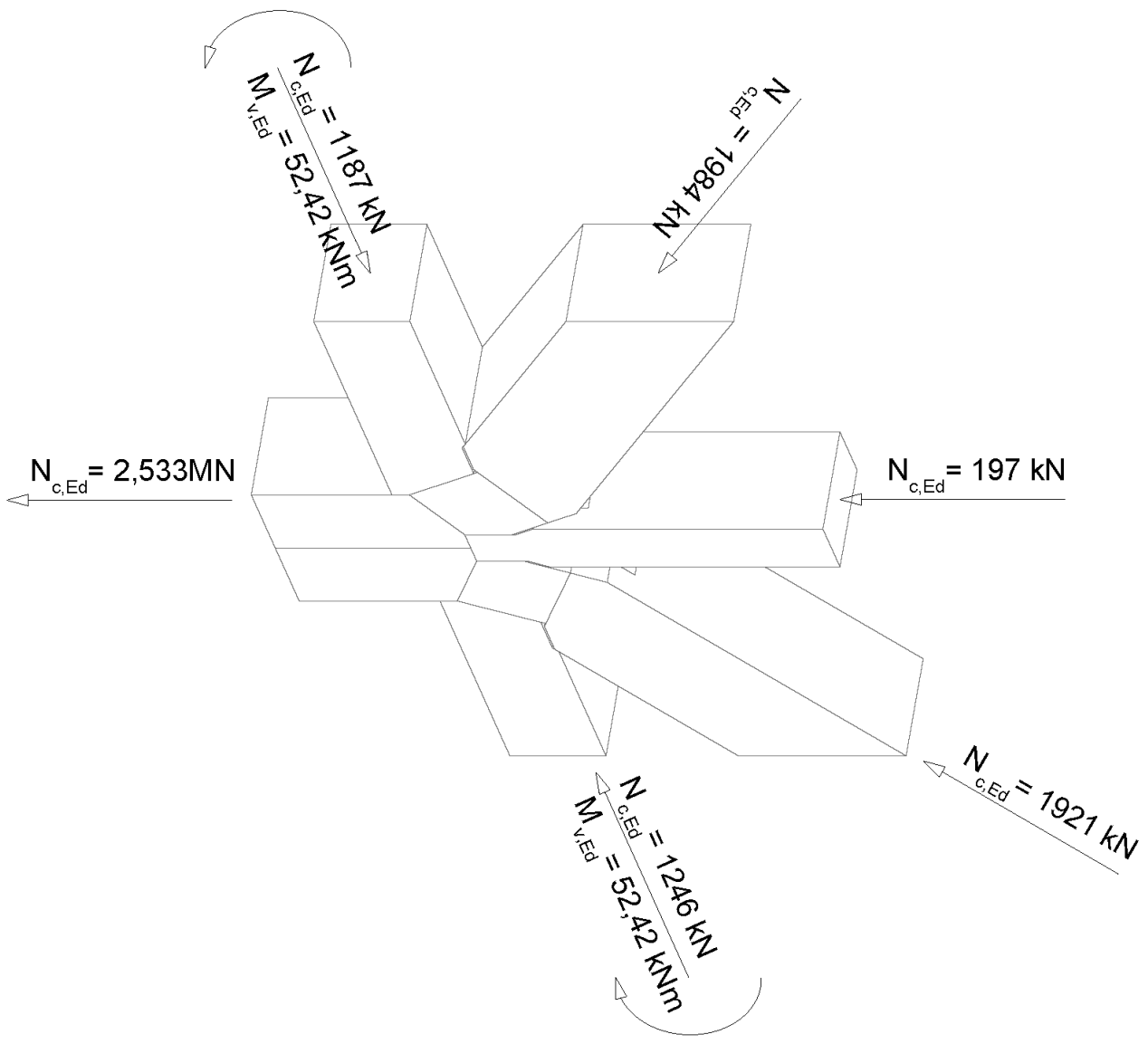
QR 320 / 16
~30t

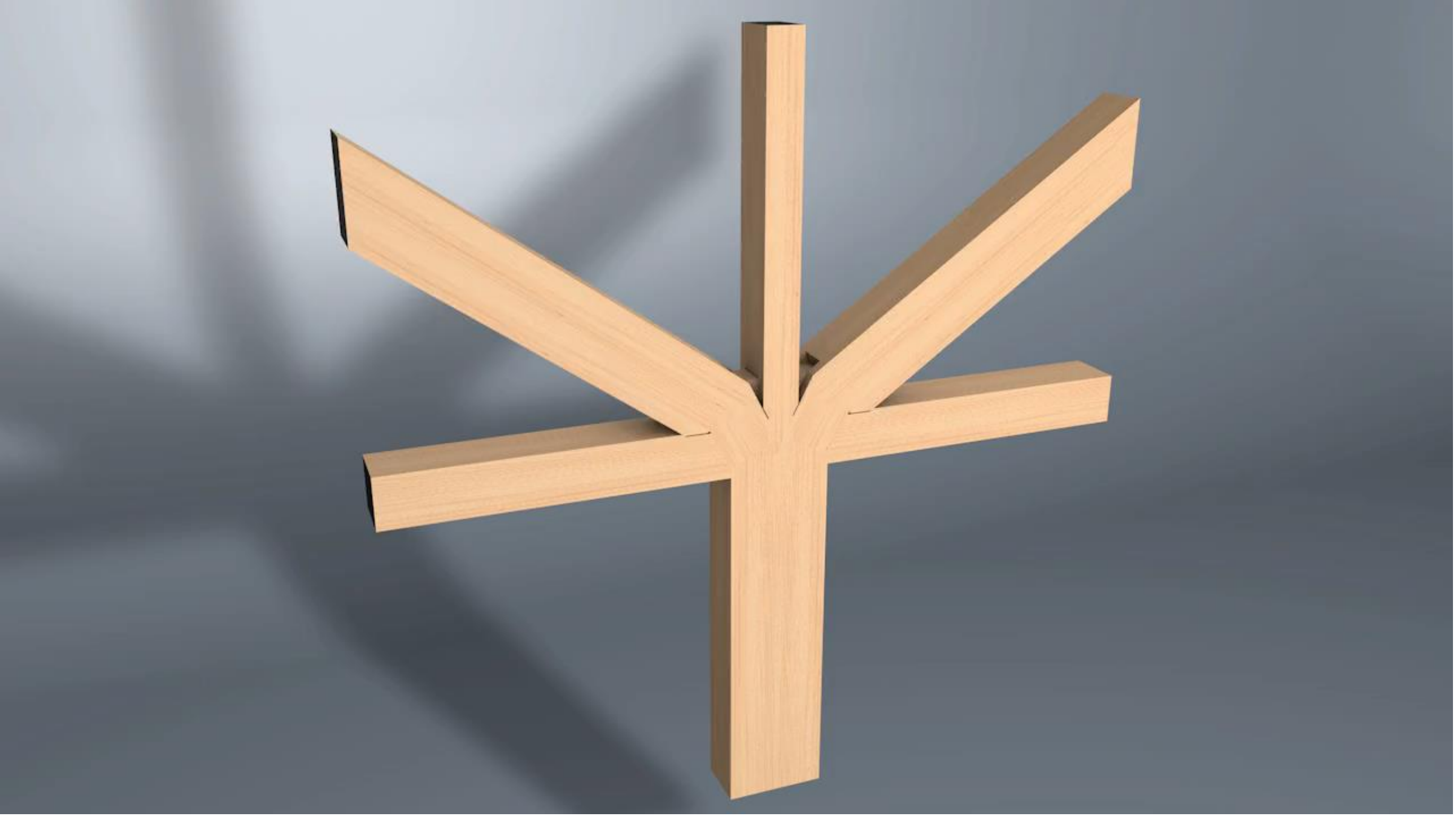
HEB 340
~30t


4.08
28
28
2.96
28
28
2x24/56 BSH Fichte
64,8m³ / 32,4t
RR 406,4 / 17,5
~30t
QR 320 / 16
~30t
HEB 340
~30t
32/28 BauBU
27m³ / 20,3t
14
14
3.24
14
14
3.80

SWG screw factory , Germany I Waldenburg HK Architekten

SWG screw factory , Germany I Waldenburg HK Architekten


N c,Ed = 1187 kN
M v,Ed = 52,42 kNm
N c,Ed = 1984 kN
N c,Ed = 2,533MN
N c,Ed = 197 kN
N c,Ed = 1921 kN
N c,Ed = 1246 kN
M v,Ed = 52,42 kNm



Quelle: SWG Engineering

HK ARCHITEKTEN

Hermann Kaufmann + Partner ZT GmbH

SWG screw factory , Germany I Waldenburg HK Architekten

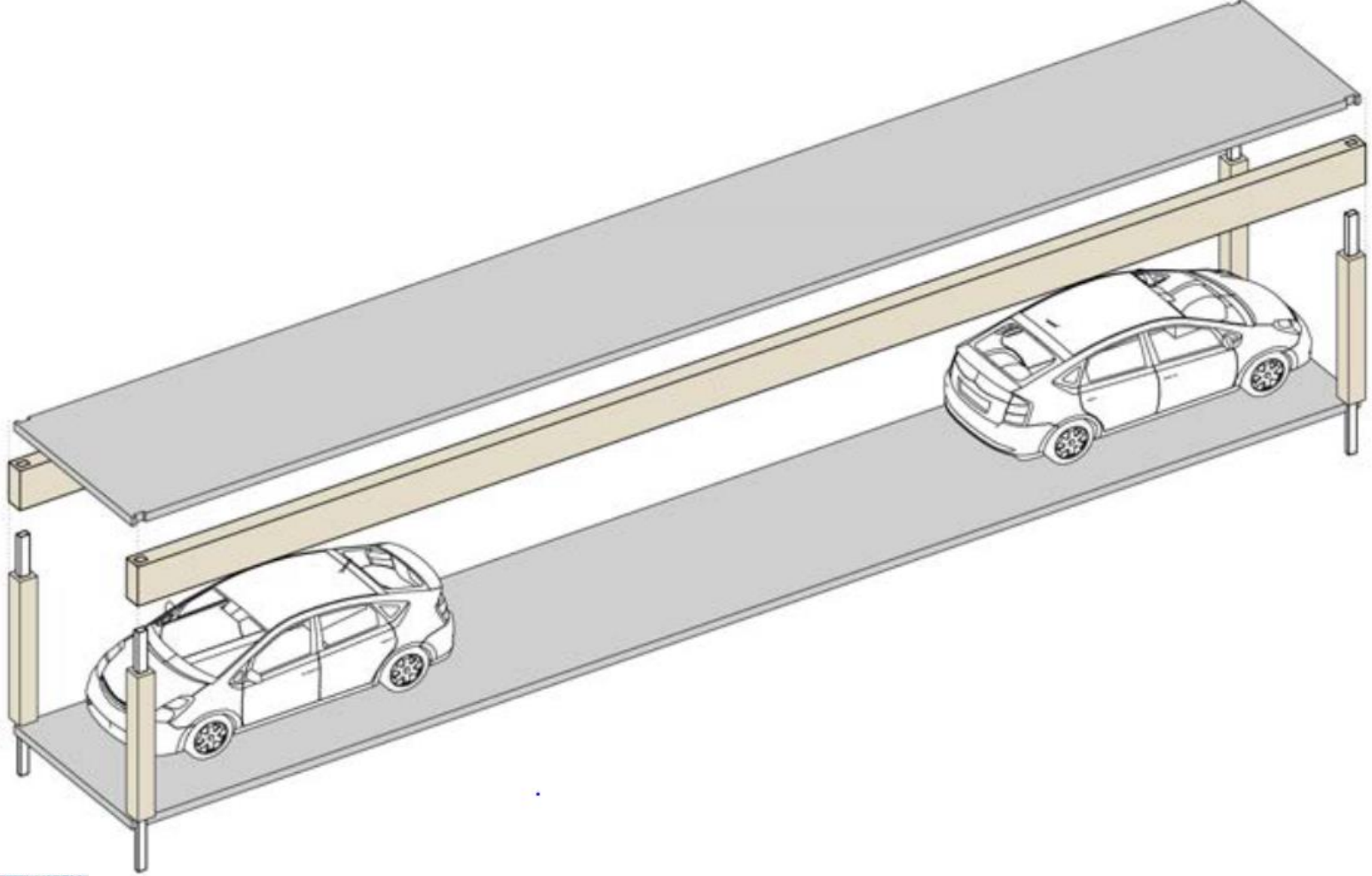
SWG screw factory , Germany I Waldenburg HK Architekten

HK ARCHITEKTEN

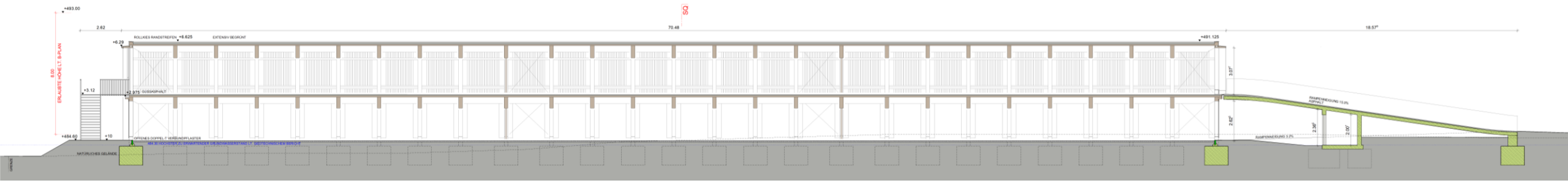
Hermann Kaufmann + Partner ZT GmbH

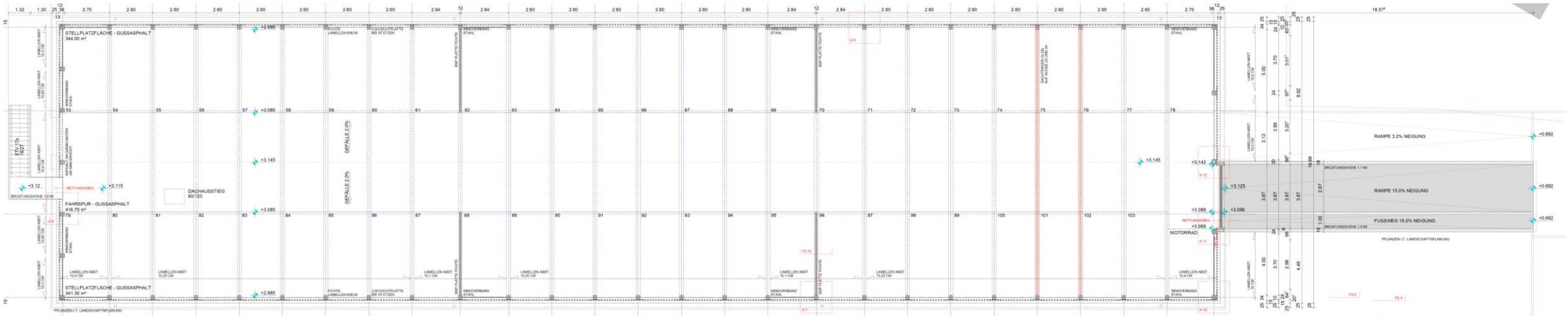
SWG Schraubenwerk Gaisbach

SWG Schraubenwerk Gaisbach



Parking house , Germany I Germany, Bad Aibling HK Architekten



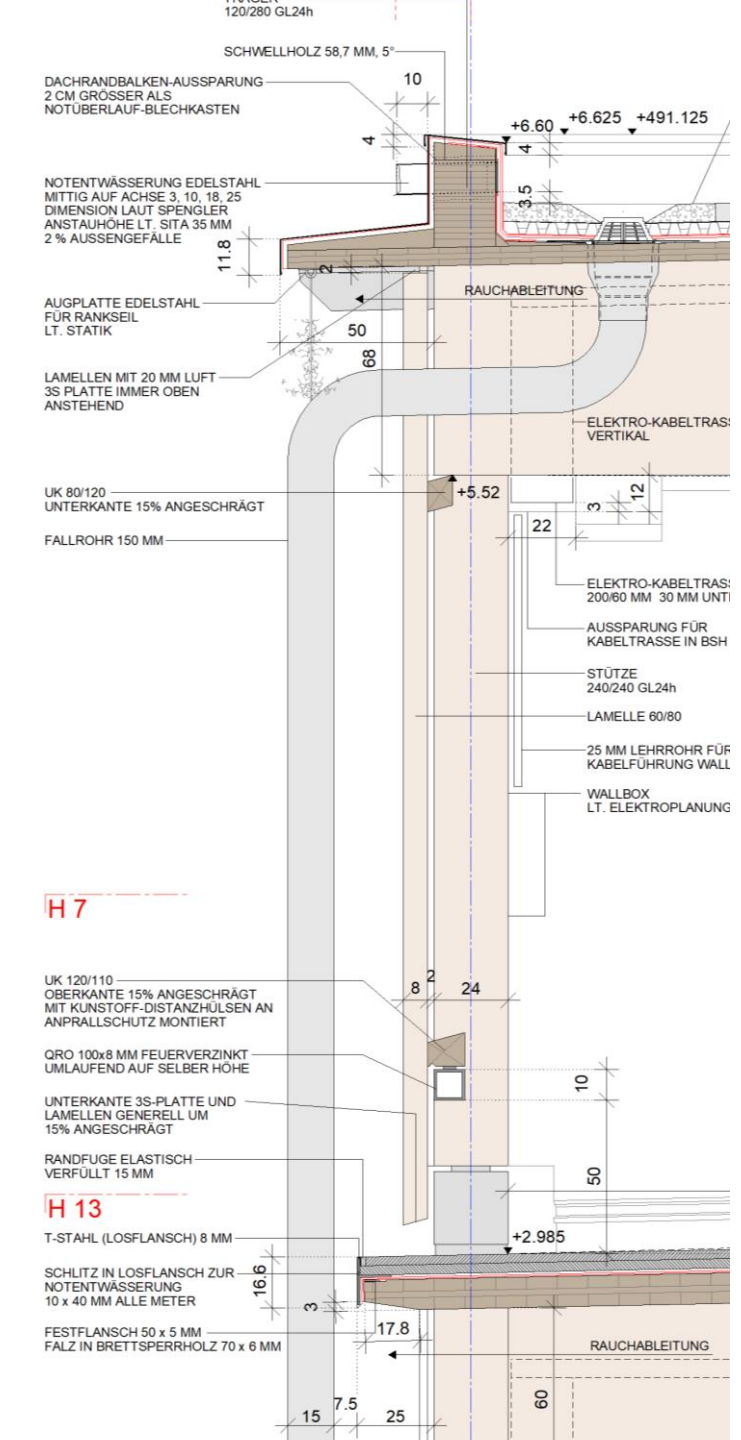


Parking house , Germany I Germany, Bad Aibling HK Architekten

Parking house , Germany I Germany, Bad Aibling, HK Architekten

Parking house, Germany I Germany, Bad Aibling HK Architekten

Parking house , Germany | Germany, Bad Aibling HK Architekten




19
18

Parking house , Germany I Germany, Bad Aibling HK Architekten

Parking house , Germany I Germany, Bad Aibling HK Architekten

Parking house , Germany I Germany, Bad Aibling HK Architekten

Vermietbare Fläche Büro	Stellplätze	Bruttogrundfläche
14.100 m²	227	17.600 m²

Website	Vermietbare Fläche Handel
www.timber-pioneer.de	1.500 m²

impressionen.

green. smart. and more.
UBM has set itself the goal of becoming the leading timber construction developer in Europe. In order to achieve this goal, UBM is already implementing pioneering projects. The UBM buildings are therefore part of the solution to achieve the goal of climate neutrality of the "EU Green Deal" by 2050.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finanzen.net

WKN/ISIN oder Name

29.04.2022 06:21

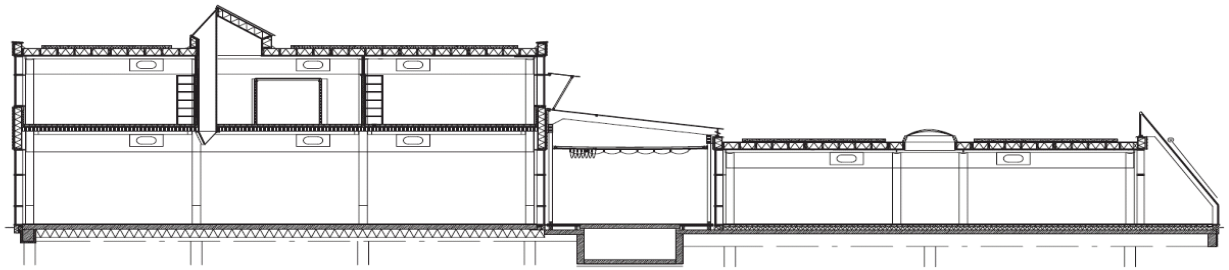
Ökologische Geldanlage: So investiert man in I

Google News Folgen FACEBOOK DRUCKEN

Kapitalanleger, die ihr Geld nachhaltig anlegen möchten, müssen nicht unbedingt nur auf Windkraft- und Photovoltaikanlagen setzten, sondern können sich auch auf Holz- und Waldinvestments fokussieren.

CAPITAL INVESTORS who want to invest their money sustainably do not necessarily only have to rely on wind power and photovoltaic systems, but can also focus on wood and forest investments

BEHINDERTENWERKSTÄTTE LINDENBERG

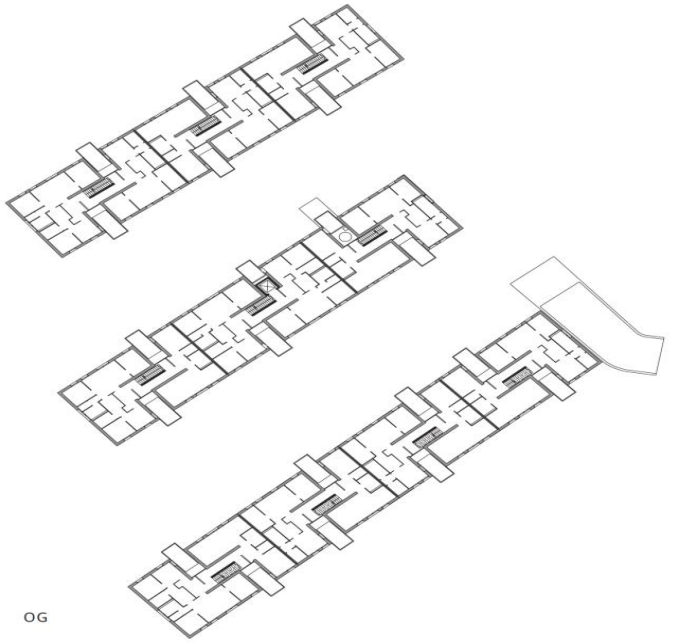


LICHTBLAU ARCHITEKTEN

FINANZAMT GARMISCH

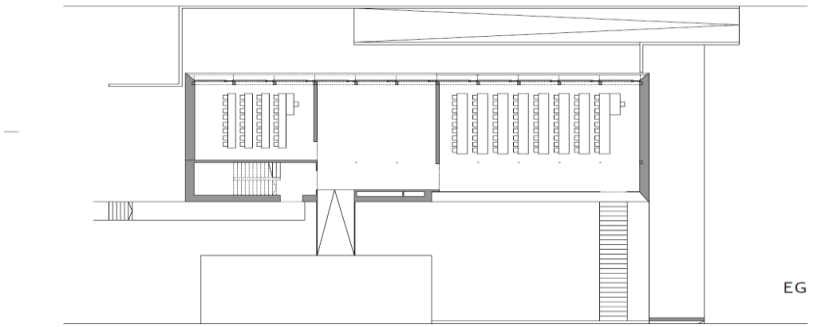
REINHARD BAUER ARCHITEKTEN

PASSIVHAUSWOHNANLAGE SAMER MÖSL



SPS ARCHITEKTEN ZT GMBH

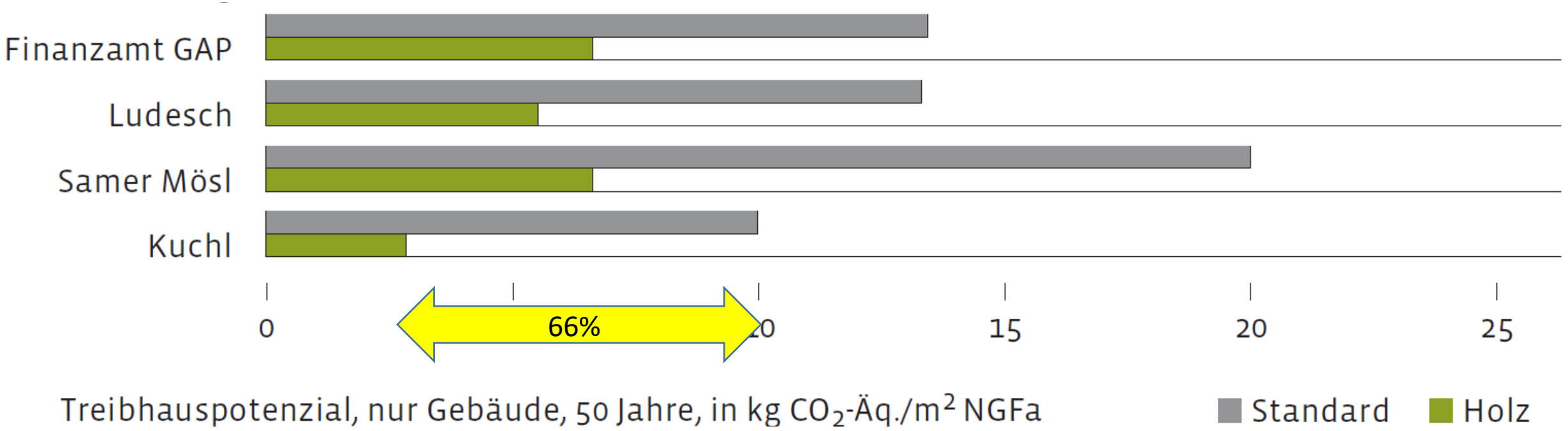
CAMPUS FH KUCHL



DIETRICH UNTERTRIFALLER

GEMEINDEZENTRUM LUDESCH

ARCHITEKTEN HERMANN KAUFMANN GES.M.B.H



Aus Katalog Bauen mit Holz-Wege in die Zukunft

DBZ

The forest is not a timber factory

A study by WWF Germany and the University of Kassel that we have here puts an end to the myth that, wood is the way out of the worsening crisis.

From: DBZ newsletter 08.08.2022

WWF

In construction, on the other hand, it makes sense to use wood, since the production of concrete and other materials is extremely energy- and resource-intensive. In comparison to burning, wood in construction binds carbon dioxide in the long term. Nevertheless, not all houses can be built of wood in the future if our forests are to be preserved for biological diversity and climate protection at the same time.

Promoting the use of wood that has long-term, sustainable supply capacities in mind; one that favors long-term uses, long-lasting products, and reuse-oriented design

Aus: „Beck-O'Brien, M., Egenolf, V., Winter, S., Zahnen, J., Griesshammer, N. (2022). Alles aus Holz – Rohstoff der Zukunft oder kommende Krise; Ansätze zu einer ausgewogenen Bioökonomie. **WWF Deutschland.“**

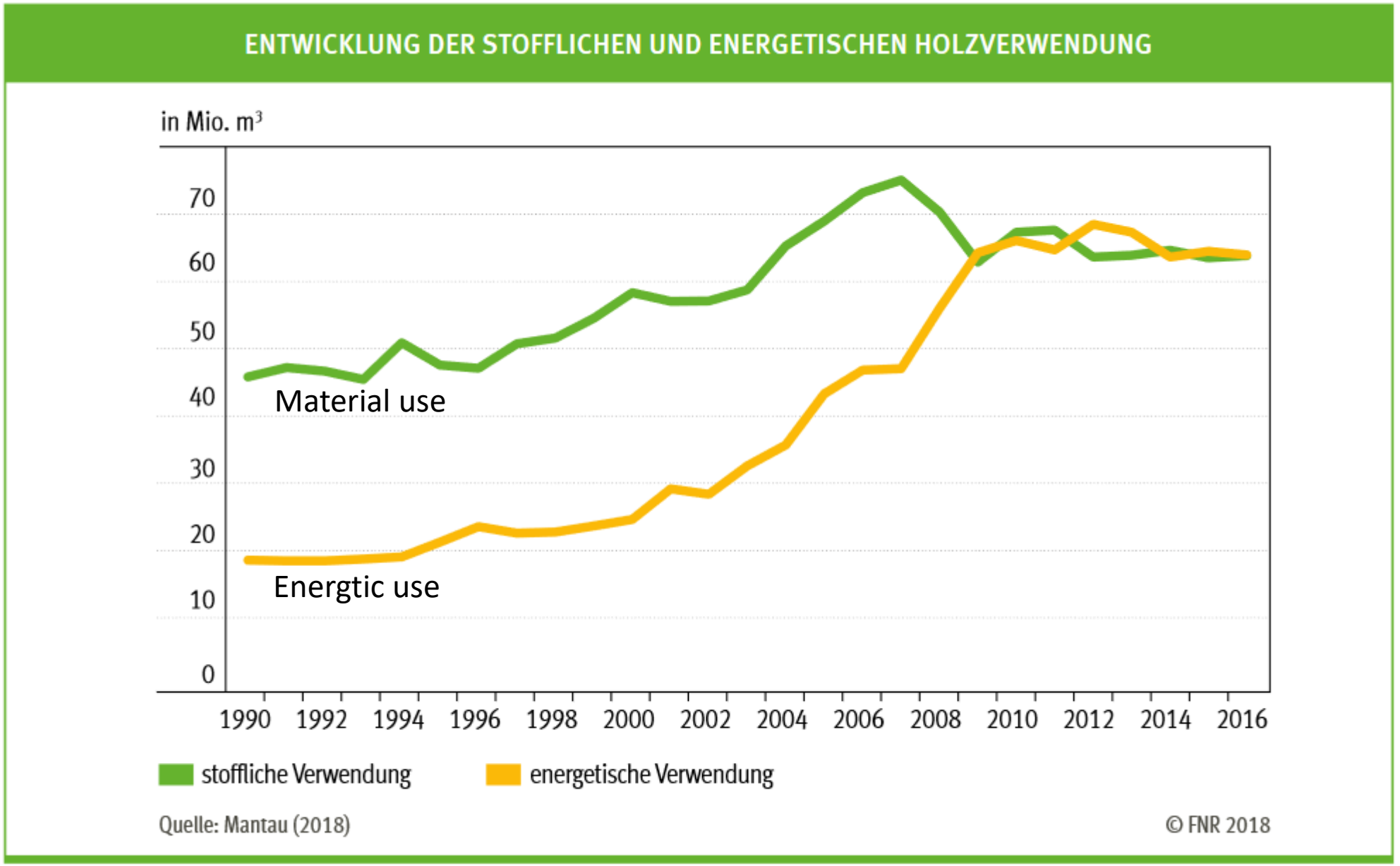


Abb. 5: Entwicklung der stofflichen und energetischen Holzverwendung

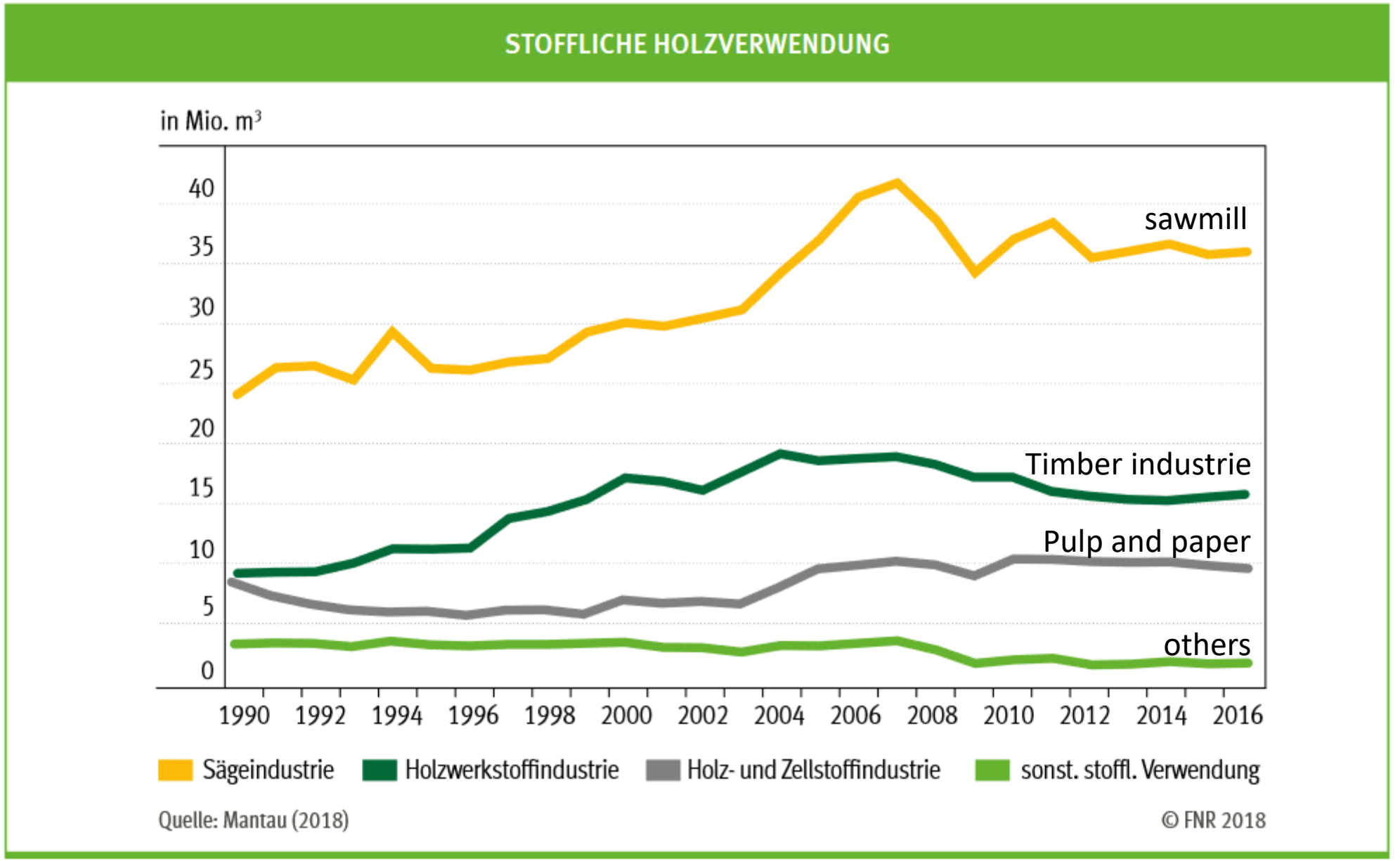


Abb. 6: Entwicklung der stofflichen Holzverwendung

3381 Mio. m^3 Holzvorrat in Deutschland

Jährlicher Zuwachs in Deutschland: ca. 80 Mio. m^3 – 10 Mio. m^3 bleiben im Wald, 70 Mio. m^3 werden geerntet.
Daraus können theoretisch jährlich 45 Mio. m^3 Holzbauprodukte hergestellt werden.

A little more than a third of the German and one quarter of Austrian annual wood harvest would theoretically be sufficient to build Germany’s respectively Austrian`s entire annual volume of new buildings from wood.

Aus Katalog Bauen mit Holz-Wege in die Zukunft