

BIM Sandbox

LE58



Lehrter Str. 58, 1 building office + hotel + gastro + supermarket + 1 underground level

2018-2021, LP4-5
For Hans Düttmann
Client Treehouse

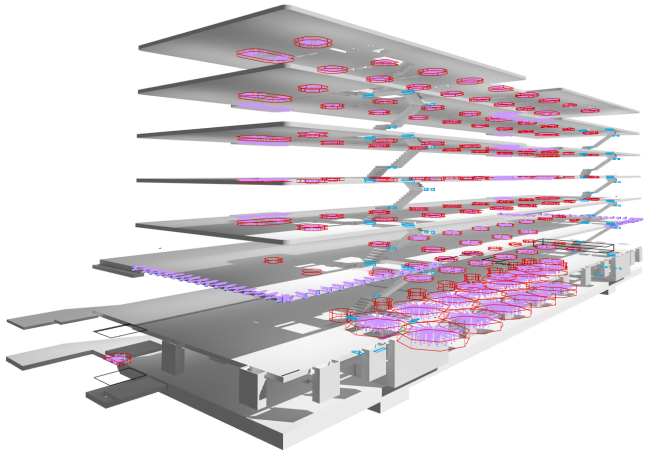
Planned Open BIM project
ARC: Vectorworks + Solibri
MEP: Revit + Navisworks

This project was used as sandbox for testing:
- best-practice worklows
- IFC <> databases connections
- Beta-testing Vectorworks
- Pascal, Python and visual scripting
- develop high-end UI tools



LE58

BGF	11.000
BRI	37.450



Team

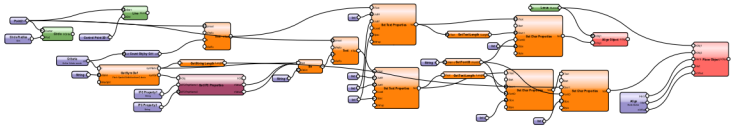
1 office owner
1 senior architect (BIM, planning, details)
1 external visualizer (Blender)

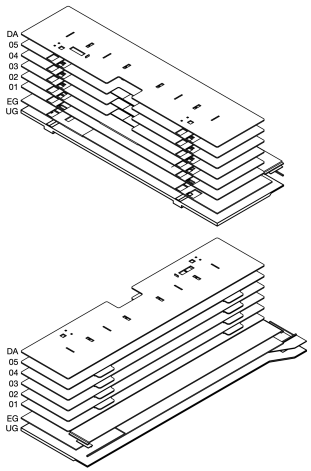
	Walls	Slabs	Stairs	Columns	Windows	Doors
H	1141	292	14	133	350	305
U	190	6	2	23	25	38
	1331	**298**	**16**	**156**	**375**	**343**

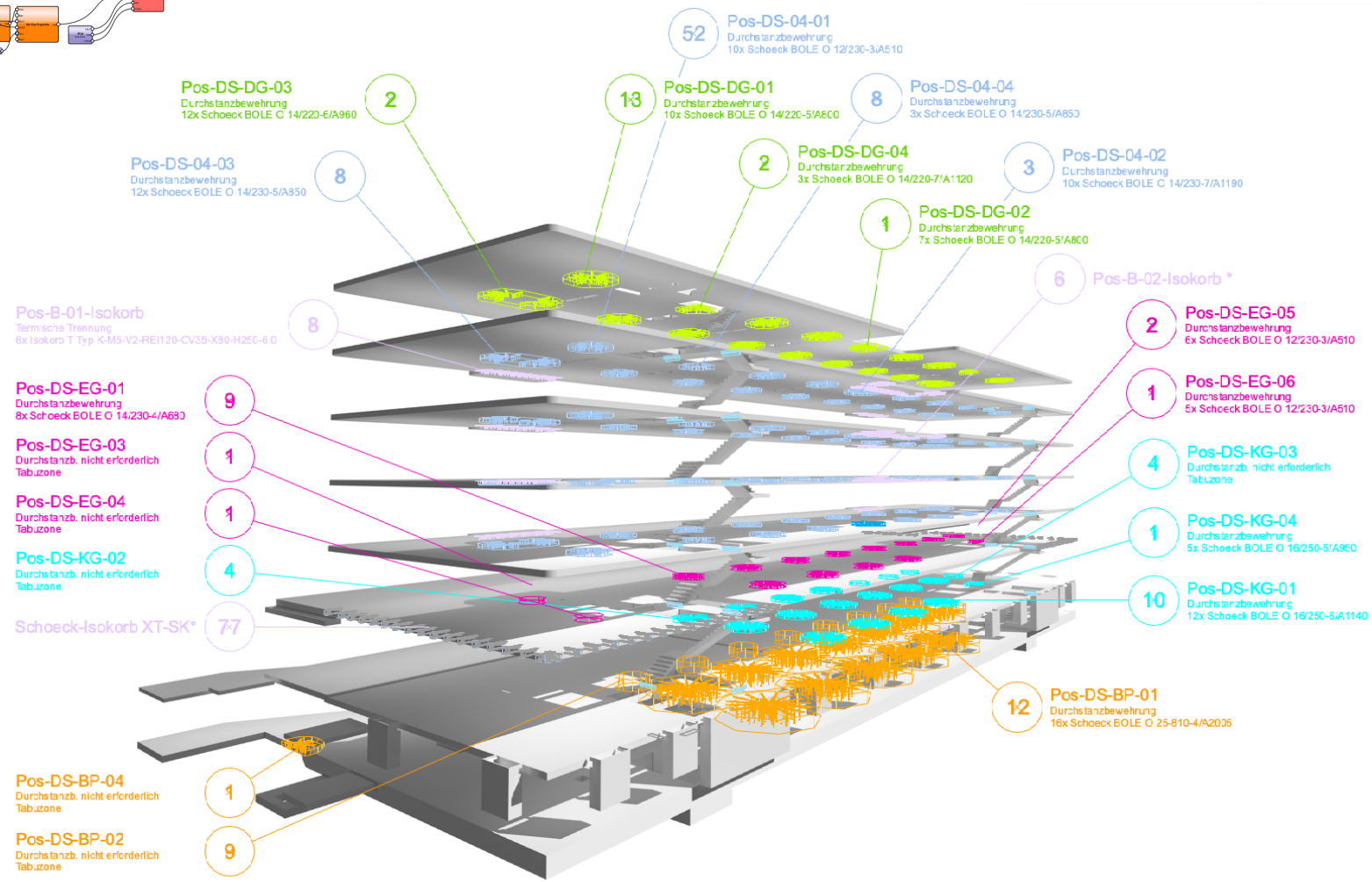
Visual scripting for every day's tasks

VIsual scripting with custom Python nodes as fast data visualization method, here:
Create IFC/database-driven labels for a scheme of the structural report as overall 3D visualisation.

Collect IfcElementProxies by criteria > count them > display chosen IFC properties





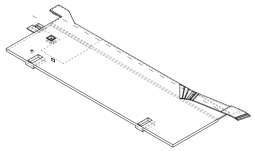


Advanced customisation (Pascal)

CBM-**Slab** Manager:

deep batch edits for slab, wall and roof components:

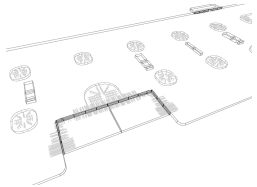
- graphical attributes
- phisical properties, data
- IFC



CBM-**Symbol** Manager:

deep batch edits for symbols:

- expandable commands
- generate 2D components by detail level
- classification DIN 276
- IFC



CBM-**Worksheet** Manager:

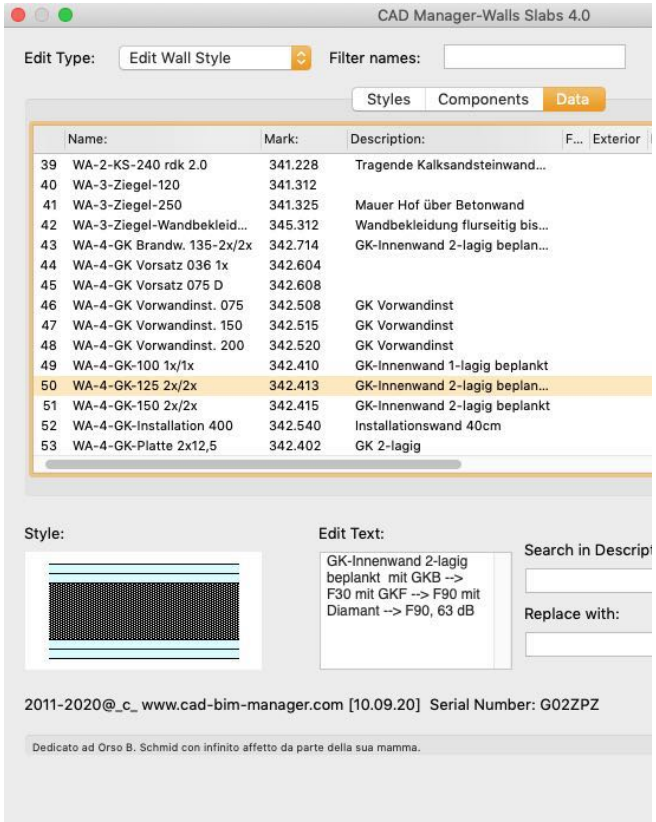
deep batch edits for databases and schedules:

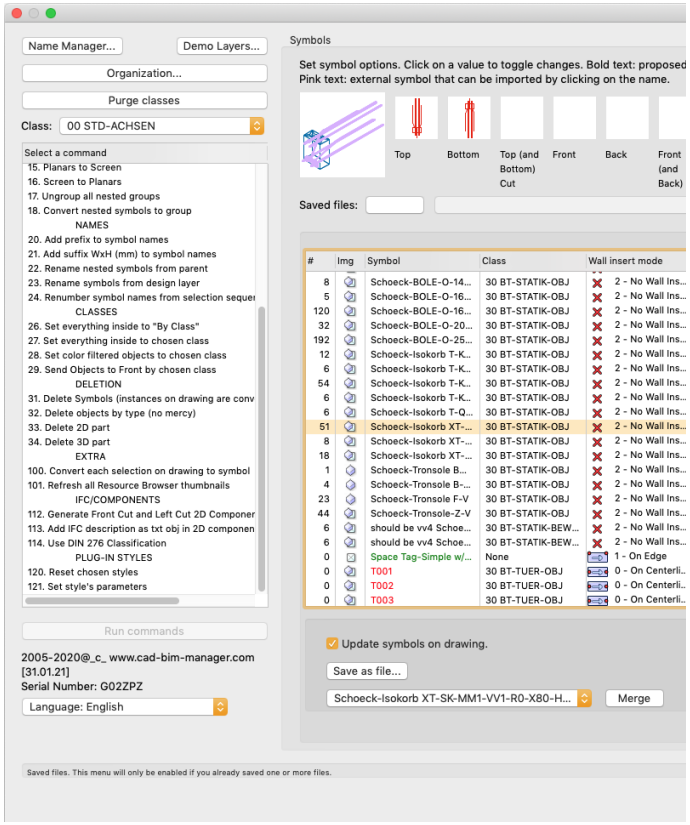
Treppen

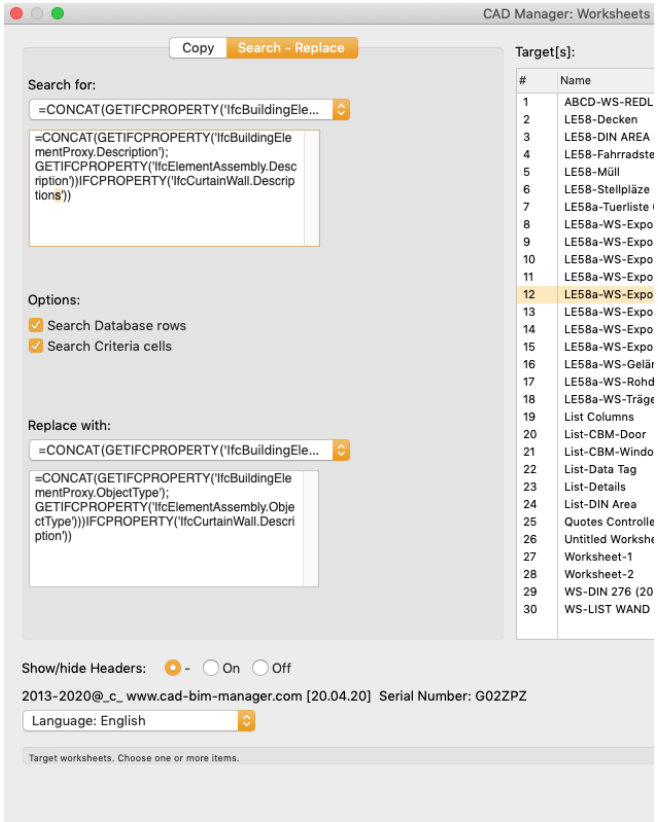
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002.351	1	Treppe 3230	18	17.95/25.75	13,89	2,35
005.351	2	Treppe 3230	18	17.95/26	40,73	3,72
006.351	6	Treppe 3400	19	17.9/26	122,31	11,77
008.351	1	Treppe 3899	21	18.58/26	17,98	1,99
007.351	1	Treppe 3960	21	18.86/26	16,38	2,67
004.351	1	Treppe 4420	25	17.68/26	23,45	2,45
003.351	1	Treppe 4520	26	17.39/26	23,50	2,68
	14				273,58	29,43

STB Träger

KAT	#	Name	Breite	Höhe	Länge	Ges. Fl.	Ges. Vol.
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196.351	1	UZ 50/83 (u. D.)	0,500	0,830	4,175	20,37	2,25
194.351	1	UZ 52,5/63 (u. D.)	0,525	0,630	49,680	115,42	16,43
195.351	1	UZ 60/83 (u. D.)	0,600	0,830	5,750	17,44	2,86
193.351	1	UZ 80/20 (u. D.)	0,800	0,280	15,330	33,56	3,43
192.351	1	UZ 48/63	0,480	0,630	6,550	15,15	1,98
	6					88,115	235,36	29,18

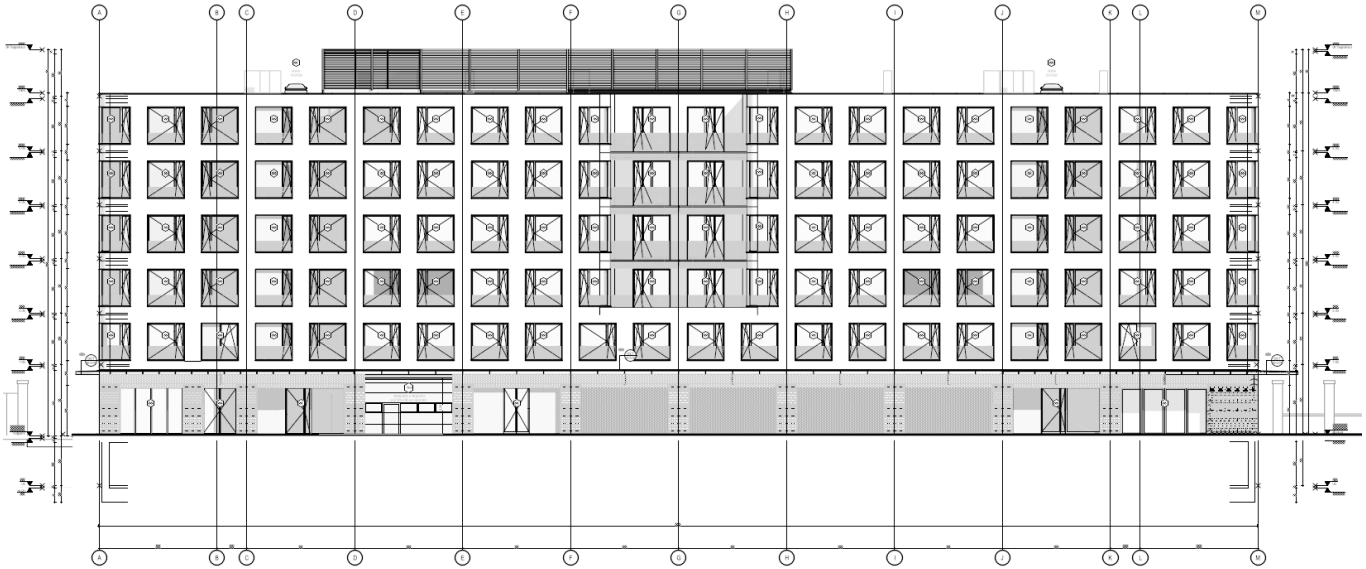


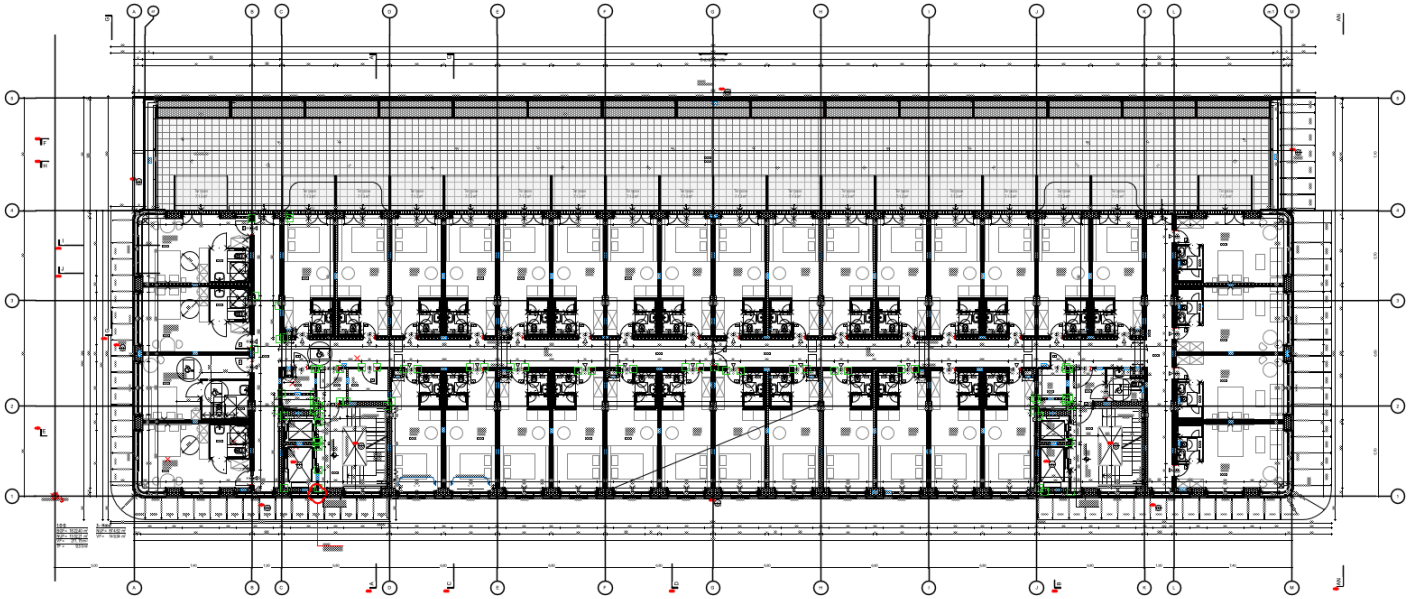


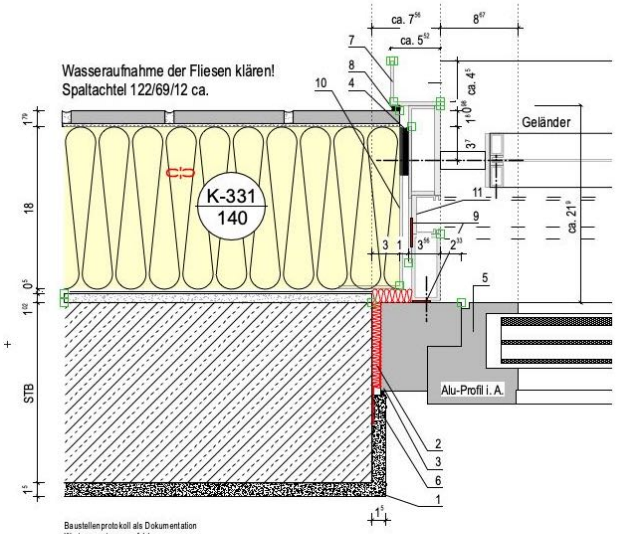


Project phase 5

Full model-based plans, database-driven details





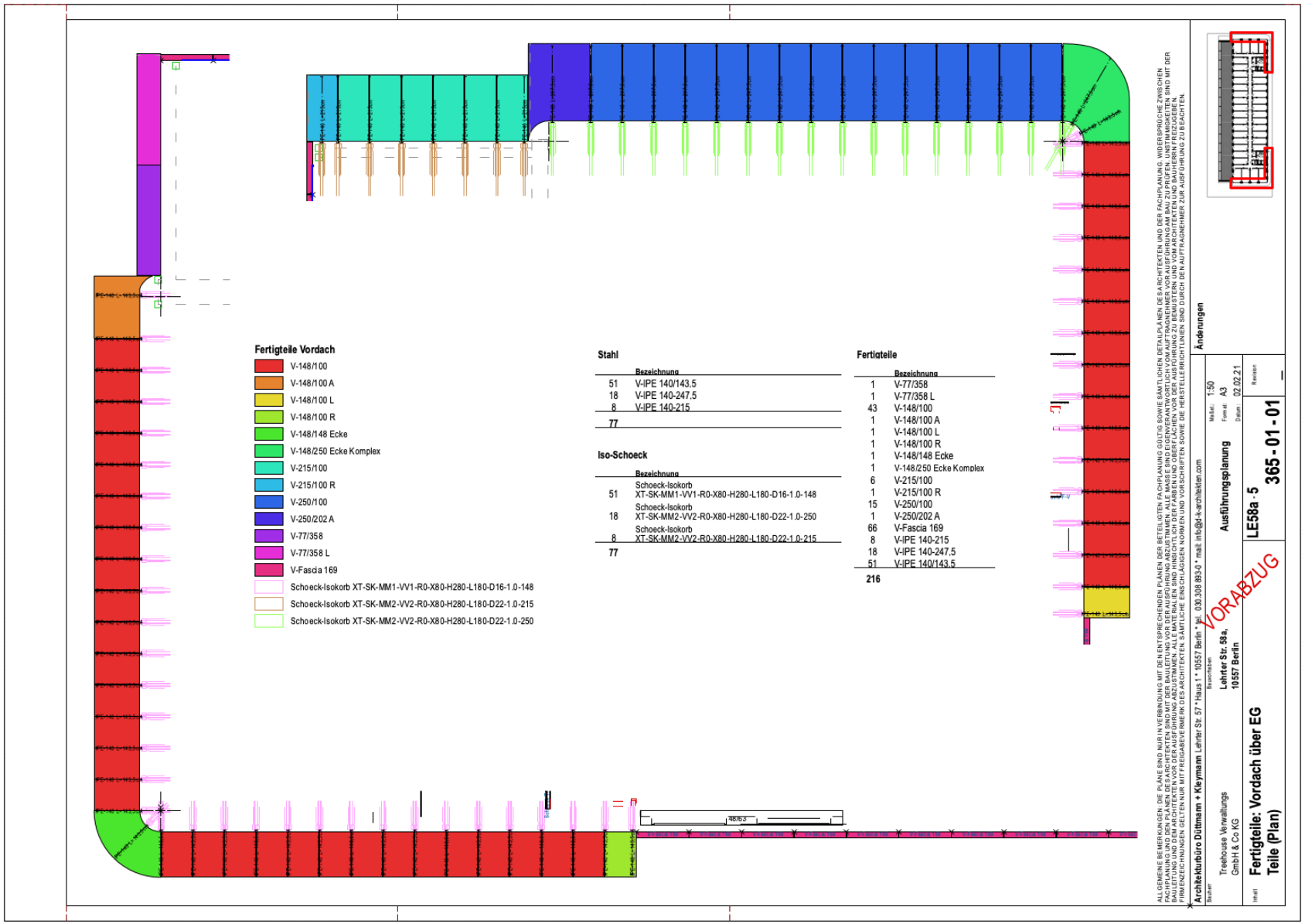


Fensteranschluss

1. Eckprofil
2. Fugendämmung: Mineralfaser als Stopfmaterial, ausreichend verdichtet
3. Fleiskaschiertes Klebeband, erforderliche Bandbreite ermitteln, Längs- und Eckstosse überlappend verkleben. Sd >= 1500 (diffusionsdicht)
4. Kompriband-Fuge umlaufend, schlagregenfeste Verbindung, Beanspruchungsgruppe BG 1
5. Fensterprofil i. A.
6. Glattstrich vor Fenstereinbau
7. Kantprofil angeschraubt
8. Fugendichtstoff
9. Metallteile: regendichte Verbindung
10. Stahlwinkel zur Befestigung vom Geländer
11. Führungsschiene (wo notwendig)
12. Senkrecht Markise, z. B. Warema 490 oder FSM
13. Sonnenschutz-Schacht
14. Einhausung für Sonnenschutz-Schacht in Fensterrahmen integriert
15. Entwässerungsschlitz
16. 50 mm PUR-Wärmedämmung WLS 025 WAA
17. T-Winkel mit Schlitze zur Entwässerung
18. Kleber
19. Aufnahmehulse nach DIN 795 für entfernbarer Sikurant, z. B. Pro Tech PTS-AP 01/02
20. Rahmenkonstruktion aus verzinkten Stahl
21. Metallgewebe i. A.
22. Platte zur Reduzierung der Wärmebrücke, z.B. Warema Thermoplatte
23. 012 mm Putzträgerplatte aus Blähglasgranulat mit Gewebearmierung auf beiden Seiten, z.B. Sto Panel Plus
24. Führungsschiene
25. Auflage

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Precast Concrete parts: model-generated schemas and part lists



Project phase 5

Precast Concrete parts: model-generated details

